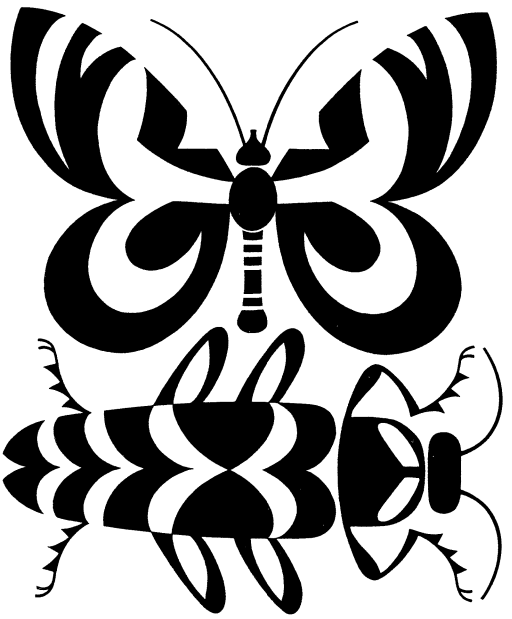
Entomologiske Meddelelser

BIND 52



KØBENHAVN 1984-1985

INDHOLD – *Contents* 52,1

Buhl, O. et al.: Fund af småsommerfugle fra Danmark i 1983 (Lepidoptera)
Records of Microlepidoptera from Denmark in 1983 (Lepidoptera) 1

Andersen, A.: Abundance and spatial distribution of house-dust mites in their natural environment (Acari: Sarcoptiformes & Trombidiformes).
Husstøvmidernes antal og fordeling i deres naturlige omgivelser 25

Clausen, I.H.S.: Notes on the impact of air pollution (SO_2 & Pb) on spider (Araneae) populations in North Zealand, Denmark.
Noter om påvirkningen af luftforurening (SO_2 & Pb) på edderkoppepopulationer i Nordsjælland, Danmark 33

Scousboe, C.: Om ledsagefaunaen i danske bistader.
On the attending fauna in Danish Beehives 40

Pape, T.: Grønlands møgfluer (Diptera: Scathophagidae).
The dung-flies of Greenland (Diptera Scathophagidae) 44

Böcher, J. & Enghoff, H.: A centipede in Greenland: *Lamyctes fulvicornis* Meinert, 1868 (Chilopoda, Lithobiomorpha, Henicopidae).
En grønlandsk skolopender: Lamyctes fulvicornis *Meinert, 1868* 49

Lomholdt, O.: *Pemphredon montanus* Dahlbom, 1845 – en ny dansk gravehveps (Hymeno ptera: Sphecoidea).
Pemphredon montanus *Dahlbom, 1845 – a new Danish sphecid wasp (Hymenoptera: Sphecoidea* 51

Mindre meddelelse: Tamarisk-cikaden, *Opsius stactogalus* Fieber, 1866 fundet i Danmark 50

Anmeldelser 22, 23, 43

INDHOLD – *Contents* 52,2-3

Katalog over de danske sommerfugle – *Catalogue of the Lepidoptera of Denmark*

Red. (*ed.*): Karsten Schnack
Forfattere (*authors*): Ole Karsholt, Niels Peder Kristensen, Svend Kaaber, Knud Larsen, Ebbe Schmidt Nielsen, Eivind Palm, Karsten Schnack, Peder Skou, Bjarne Skule.

Indledning, Karsten Schnack.
Introduction. 2
Sommerfuglenes storsystematik, Niels P. Kristensen.
The higher classification of Lepidoptera. 6
Nomenklatur, Ole Karsholt.
Nomenclature. 21
Katalog over de danske sommerfugle, Ole Karsholt, Svend Kaaber, Knud Larsen, Eivind Palm, Ebbe Schmidt Nielsen, Karsten Schnack, Peder Skou & Bjarne Skule.
Catalogue of the Lepidoptera of Denmark. 42
Faunistiske noter.
Notes om faunistics. 115
Indslæbte arter, Ole Karsholt.
Introduced species. 133
Litteratur.
References. 136
Navneregister.
Index. 143

Oversigt over Entomologisk Forenings møder og ekskursioner 1984

8. februar 1984. Cand. scient Peter Esbjerg: Insektferomoner – deres anvendelighed i land- og havebrug. – 25 deltagere.

25.-26. februar 1984. Entomologisk Årsmøde.

29. februar 1984. Cand. mag. Kristian Arevad: Nye Hus- og lagerskadedyr. – 11 deltagere.

14. marts 1984. Prof. Zoltan Varga: Zoogeografi vedrørende højnordiske og boreoalpine sommerfugle. – 20 deltagere.

28. marts 1984. Temamøde om zoogeografi: Europæisk zoogeografi som baggrund for forståelsen af udbredelsesmønstre i Danmark. Oplæg ved cand. scient. Peter Nielsen, stud. scient. Nikolaj Scharff og lektor, Lic. scient. Ole Lomholdt. – 28 deltagere.

10. april 1984. Auktion. – 25 deltagere.

11. april 1984. Auktion. – 26 deltagere.

25. april 1984. Ordinær generalforsamling samt museumsinspektør Peter Gjelstrup: Træk af den græske natur.
Dagsorden: 1. H. Friis-Jensen valgtes til dirigent. 2. Formanden aflagde beretning. 3. Kassereren fremlagde det reviderede regnskab, der godkendtes. 4. Kontingent for 1985 blev fastlagt til 120.- kr. 5. Valg af bestyrelsesmedlemmer. N. P. Kristensen indtræder i stedet for Ove Jensen, øvrige bestyrelsesmedlemmer genvalgtes. 6. Revisorer og revisorsuppleant genvalgtes. 7. Formanden for Entomologisk Fredningsudvalg aflagde beretning. 8. Eventuelt. – 13 deltagere.

9. maj 1984. Klubmøde: introduktion til specialekskursion om vårfluer. – 15 deltagere.

12. maj 1984. Specialekskursion: Vandbiller i Smørmosen. – 14 deltagere.

26. maj 1984. Specialekskursion: Vårfluer i vandhuller og skovbække i det sydlige Grib skov. – 6 deltagere.

26. september 1984. Cand. scient. Thomas Pape: En oversigt over de tachinoide fluers biologi. – 15 deltagere.

24. oktober 1984. Cand. scient. Gösta Kjellson: Insekter og blomsterbestøvning. – 12 deltagere.

7. november 1984. Cand. scient. Tom Møller og cand. scient. Christian Rørdam: Den ø-biogeografiske teori anvendt på danske vandhuller. – 11 deltagere.

21. november 1984. Klubmøde. Lektor, dr. scient. Niels Peder Kristensen: En demonstration af Zoologisk Museums samlinger. – 21 deltagere.

5. december 1984. Studielektor Ernst Torp: Hvordan gør vi svirrefluerne til en populær insektgruppe i Danmark? – 13 deltagere.

19. december 1984. Cand. polit., dr. scient. Torben B. Larsen: Sommerfugle i Arabien. – 50 deltagere.

Fund af småsommerfugle fra Danmark i 1983 (Lepidoptera)

OTTO BUHL, OLE KARSHOLT, KNUD LARSEN, EIVIND PALM & KARSTEN SCHNACK

Buhl, O., Karsholt, O., Larsen, K., Palm, E. and Schnack, K.: Records of Microlepidoptera from Denmark in 1983 (Lepidoptera).
Ent. Meddr 52: 1-21. Copenhagen, Denmark, 1984. ISSN 0013-8851.

The article reports interesting Danish Microlepidoptera collected in 1983 as well as interesting findings of specimens collected in previous years but not definitively identified until 1983. Five of the species are new to the Danish fauna. They are: 1) *Phyllonorycter anderidae* (W. Fletcher, 1885) (syn.: *nanella* (W. Petersen, 1927)) (Gracillariidae). Larvae of this species were found mining on very small *Betula pubescens* in a little raised bog. The main food-plant, *Betula nana,* does not grow in Denmark. The species was previously known from the UK, Norway, Sweden, Finland, the USSR, CSSR and southern Germany. In the last few years it has been reported from Belgium and the very southern part of Sweden. 2) *Phyllonorycter apparella* (Herrich-Schäffer, 1855) (Gracillariidae) – a single imago in a light-trap. The species is compared with *P. sagitella* (Bjerk.) and with *P. populifoliella* (Tr.); diagnostic features are described and figured. 3) *Sorhagenia rhamniella* (Zeller, 1839) (Momphidae). In Central Europe the species feeds on *Rhamnus cathartica,* in England on *Frangula alnus.* The Danish specimens were caught on *Rhamnus.* 4) *Crocidosema plebejana* (Zeller, 1847) (Tortricidae). One specimen in a light-trap at the west coast of Jutland. 5) *Eucosma metzneriana* (Treitschke, 1830) (Tortricidae). One specimen from southern Denmark (Falster).

Trifurcula maxima Klim. is reported from *Sarothamnus* sp., *T. pallidella* Zell. from *Genista pilosa, T. cryptella* (Stt.) from *Lotus uliginosus* and *T. griseella* Wolff from *Lotus corniculatus.*

Nemapogon falstriella (Haas): three specimens were collected in 1983. Altogether only 24 specimens of this rare species are known. All the localities are named in the text and shown on a distribution map. Further maps illustrate the Danish distribution of *Bryotropha galbanella* (Zell.), *Eudonia murana* (Curt.) and *Platyptilia isodactylus* (Zell.). All Danish records of *Phyllonorycter staintoniella* (Nicl.), *P. sagitella, P. populifoliella* and *Coleophora pappiferella* Hofm. are listed in the text.

The larva of *Syncopacma suecicella* (Wolff) has been found for the first time. As far as we know it has not been described previously. It is reddish brown with a light grey pattern consisting of a clear dorsal line, two lateral lines and indistinct mottles between the lines. The head is black with brown shadows in the middle. The prothoracic plate is black, divided in the middle and rounded posteriorly. The legs and the anal plate are also black. The trunk segments are set with many small warts, each with a relatively long white hair.

Three specimens of the taxon sometimes referred to as *Epinotia indecorana* (Zett.) are reported from Denmark for the first time. Following Wolff (1964) and Kyrki *(in litt.)* we regard *indecorana* as belonging to *Epinotia trigonella* (L.) (syn.: *stroemiana* (F.)).

Numerous larvae of *Cydia indivisa* (Danil.) have been found in Funen (F) and some observations on their biology are reported. The main host tree was *Picea abies* but also *Picea sithensis* was infected. The trees were 15-40 years old, those of 20-30 years of age apparently being preferred. It is easiest to find the species in plantings that have been thinned out. The larvae infect resin -exuding wounds on the sunny side of the trees, and infections are recognizable by frass piles coming out from the margins of the wounds from late March to early May. The larva is grey-white. The head is brown

with a darker V-shaped mark. The prothoracic plate, whick is divided in the middle, is brown. The whole larva is hairy. It is somewhat difficult to bring the larvae safely home as they easily become smeared with the resin when the galleries are disturbed. In addition the larvae are frequently parasitized. It is therefore most profitable to collect the pupae, which may be found from early May to early June and are located in a white web in the area of resin. Larvae of the muscid fly *Phaonia czerny* Hennig, 1963 is reported as predators on *C. indivisa* larvae.

The article deals with many other species of interest. Any of the authors may be consulted for further informations by foreign readers.

Correspondence to: Småsommerfuglelisten, Zoologisk Museum, Universitetsparken 15, DK-2100 København Ø, Denmark.

Denne oversigt over fund af nye, sjældne og biologisk eller faunistisk set interessante småsommerfugle er udarbejdet efter de samme principper som de fire foregående lister (Buhl et al., 1981, 1982, 1983a og 1983b).

Fund medtages i listen i den udstrækning, de rummer nye oplysninger om arternes biologi eller udbredelse. Fund af præimaginale stadier medtages normalt ikke, hvis der ikke foreligger klækket materiale. Nomenklatur og rækkefølge følger, hvor intet andet er nævnt, Karsholt & Nielsen (1976). Navne på planter følger Dansk Feltflora (Hansen, 1981), og opdelingen af Danmark i faunistiske distrikter følger Enghoff & Nielsen (1977). For at gøre lokalitetsangivelserne mere entydige standardiseres navngivningen af findestederne i overensstemmelse med Geodætisk Instituts nye topografiske atlas, Danmark 1:100.000, 1982. Desværre figurerer en hel del indarbejdede lokalitetsnavne ikke på dette nye kort, hvorfor vi i listen efter det opgivne findested (som forhåbentlig svarer til, hvad der står på etiketten) har måttet tilføje et stednavn, der kan findes på kortet. Vi anbefaler varmt, at alle i fremtiden skriver deres etiketter under hensyntagen til navngivningen på netop dette kort.

Forkortelsen ZMUC henviser til Zoologisk Museum, København, mens NHMÅ står for Naturhistorisk Museum, Århus. I en del tilfælde, hvor fældefangne dyr er indsamlet af tre eller fire personer i fællesskab, er der anvendt forkortelser: BPE = J. P. Baungård, FAP = P. Falck, JEG = G. Jeppesen, LRK = K. Larsen.

Oversigten er fortsat et kollektivt produkt, men i de tilfælde hvor enkeltpersoner har leveret grundige kommentarer til en art, anføres den ansvarliges navn i parentes efter kommentaren på samme måde, som finderne angives i parentes efter de enkelte fund. Ligeledes angives *i særlige tilfælde* navnet på den determinator, der står inde for bestemmelsen af vanskelige arter.

Listen rummer følgende fem arter, der ikke tidligere har været registreret for den danske fauna: *Phyllonorycter anderidae* (W. Fletcher, 1885) (syn.: *nanella* (W. Petersen, 1927)) (Gracillariidae), *Phyllonorycter apparella* (Herrich-Schäffer, 1855) (Gracillariidae), *Sorhagenia rhamniella* (Zeller, 1839) (Momphidae), *Crocidosema plebejana* (Zeller, 1847) (Tortricidae) og *Eucosma metzneriana* (Treitschke, 1830) (Tortricidae).

Næste årsliste vil blive udarbejdet efter samme retningslinjer. Sidste frist for aflevering af oplysninger til denne er det entomologiske årsmøde, der afholdes den sidste week-end i februar. Det er nødvendigt for os at få oplysningerne skriftligt på de dertil udarbejdede meldeskemaer, som sendes til alle, der tidligere har indberettet fund. Skemaerne kan naturligvis også rekvireres hos listens forfattere, som også står til rådighed, hvis man er i tvivl om, hvad man skal melde – eller om bestemmelsers holdbarhed. Alle, der afleverer meldeskemaer, får tilsendt et særtryk af fundlisten.

MICROPTERIGIDAE

Micropterix mansuetella (Zell.). NWJ: Sevel, 1 stk. 12.vi.1983 (P. Falck, K. Larsen). Ny for distriktet. Fundet fra SJ: Draved, 1978 (Pallesen & Palm, 1980) udgår grundet fejlbestemmelse.

Micropterix schaefferi Heath. EJ: Gjern Bakker, 1 stk. 4.vi.1983 (P. Falck, G. Jeppesen).

NEPTICULIDAE

Stigmella basiguttella (Hein.). SZ: Jungs-

hoved, 1 stk. 1.vii.1961 (N. L. Wolff, coll. ZMUC);B: Salne, 2 stk. 5. og 12.vii.1983 (K. Larsen). Ny for SZ.

Stigmella tiliae (Frey). B: Salne, i antal 6.vii.1983 (K. Larsen). Ny for distriktet.

Stigmella acetosae (Stt.). WJ. Risbæk i Kronhede Plantage, 7 stk. og 5 pup. 13.viii.1983 (O. Karsholt, K. Schnack). Der fandtes samtidigt mange tomme miner, hvorimod eftersøgning af minen i oktober (K. Gregersen) ikke gav resultat. Tidligere kun imagines fra F: Fåborg i årene 1914-1915. Den letkendelige mine (fig. 1) er desuden fundet flere steder i Jylland.

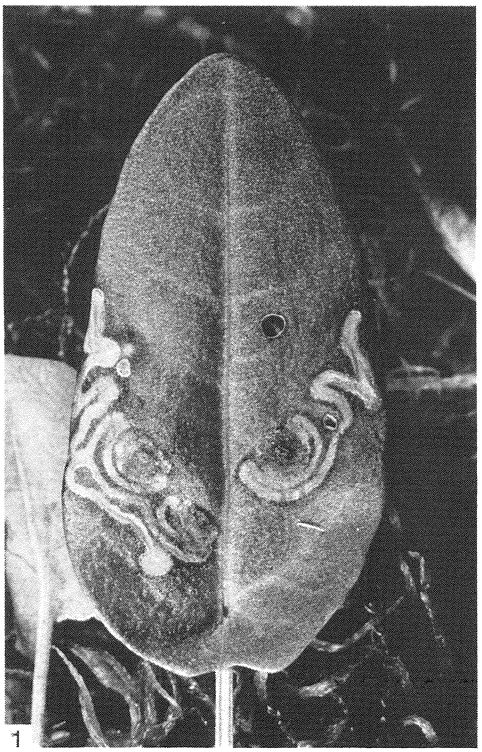


Fig. 1. Blad af *Rumex acetosa* med miner af *Stigmella acetosae* (Stt.), WJ: Kronhede Plantage, Risbæk, 13.viii.1983.

Fig. 1. *Leaf of* Rumex acetosae *with mines of* Stigmella acetosae *(Stt.), Denmark.*

Trifurcula mediofasciella (Hw.). NEZ: Kattehale, flere la. 29.viii.1982, Gammelmosen i Vangede, flere la. 5.ix.1982, Stenholts Vang, flere la. 14.ix.1982 og Lyngby Mose, antal la. 25.ix.1982, *Betula* (K. Gregersen). Ny for distriktet.

Trifurcula maxima Klim. WJ: Ulfborg, 2 stk. 2.viii.1983 (K. Gregersen) og flere stk. 9.-12.viii.1983 (O. Karsholt, K. Schnack). Arten findes ved *Sarothamnus.*

Trifurcula pallidella Zell. WJ: Vind, 1 stk. 13.viii.1980 (P. L. Holst, coll. NHMÅ), Ulfborg, 3 stk. 4.viii.1983 (K. Gregersen) og flere stk. 9.-12.viii.1983 (O. Karsholt, K. Schnack). Arten findes ved *Genista pilosa.*

Trifurcula cryptella (Stt.). WJ: Risbæk i Kronhede Plantage, antal la. 14.vii.1982, *Lotus Uliginosus,* klækket v.1983 (K. Gregersen).

Trifurcula griseella Wolff. NEJ: Læsø, Bovet Bugt, 3 stk. 30.vi.-8.vii.1983, Læsø, Højsande, i antal 1.-6.vii.1983 og Læsø, Nordmarken, 4 stk. 5.-9.vii.1983 (O. Karsholt, K. Schnack); NWZ: Korevle, i antal 12.-13.vii.1983 (K. Gregersen). Ny for NWZ. Arten findes ved *Lotus corniculatus.*

Trifurcula sphendamni (M. Her.). F: Stige, 1 stk. 24.vii.1983 (O. Buhl). Tidligere kendt fra LFM, SZ og NEZ.

Trifurcula decentella (HS.). NEZ: Hellebæk, 1 stk. 2.-19.vii.1983 (FAP, JEG, LRK).

TISCHERIIDAE

Tischeria dodonaea Stt. LFM: Skifterne ved Blans, flere la. 2.x.1982, *Quercus* (K. Gregersen).

INCURVARIIDAE

Nemophora congruella (FR.). WJ: Vind, 1 stk. 12.vi.1983 (P. Falck, K. Larsen). Tidligere kendt i to eksemplarer fra samme lokalitet under betegnelsen Ulfborg samt i et eksemplar fra NEZ: Gribskov.

Adela rufifrontella Tr. NEJ: Jerup, 1 stk. 6.vi.1983 (P. Falck, G. Jeppesen). Ny for distriktet.

Nematopogon pilella (Den. & Schiff.). EJ: Glatved Strand, 1 stk. 13.vi.1980 (B. Jørgensen) og Gjern Bakker, i antal 4.vi.1983 (P. Falck, G. Jeppesen).

Lampronia morosa Zell. F: Hverringe, 4 stk. 18.vi.1983 (B. Jørgensen), Indhegningen, 1 stk. 18.vi.1983 og Tavlund, 1 stk. 19.vi.1983 (O. Buhl). Ny for distriktet.

TINEIDAE

Infurcitinea marianii (Rbl.). LFM: Tømmerholt ved Hydesby, 1 stk. 9.vii.1983 (J. Lundqvist). Sidst fundet NEZ: Hillerød, 1 stk. 4.vii.1976 (J. Lundqvist).

Nemapogon granella (L.). WJ: Holstebro, 1 stk. 22.vi.1983 (P. Falck). Ny for distriktet.

Nemapogon wolffiella Kars. & Niels. LFM: Lungholm, 2 la. 16.iv.1983, i døde *Fagus*-grene på skovbunden (G. Jeppesen, K. Larsen).

Nemapogon falstriella (Haas). F: Stengade Skov, 1 stk. 12.viii.1983 (B. Jørgensen, K. Larsen); LFM: Lungholm, 2 stk. 25.vii.-6.viii.1983 (FAP, JEG, LRK). Hermed kendes arten i alt i 24 eksemplarer fra følgende lokaliteter (fig. 2): F: Agernæs (7 stk.), Stengade Skov (1 stk.); LFM: Nykøbing (2 stk.), Lungholm (3 stk.), Vindeholme Strand (4 stk.); SZ: Glænø (7 stk.).

Archinemapogon nigralbella (Zell.). NEJ: Læsø, Højsande, 1 stk. 26.vii.1983 (B. Jørgensen); LFM: Gedesby, 1 stk. 21.-28.vii.1983 (K. Schnack), Mellemskov, 1 stk. 2.viii.1982 (J. Trepax) og 3 stk. 6.-18.viii.1983 (FAP, JEG, LRK); NEZ: Asserbo, 5 stk. 10.-31.vii.1983 (J. P. Baungård, J. P. Pedersen). Ny for NEJ.

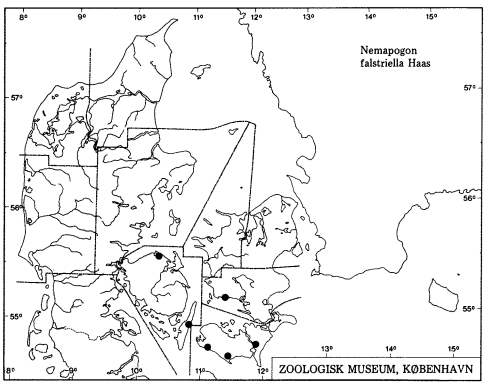


Fig. 2. *Nemapogon falstriella* (Haas). Kort over danske findesteder. Arten er ikke fundet uden for Danmark.

Fig. 2. Nemapogon falstriella *(Haas). Map of Danish records. This species is not recorded outside Denmark.*

LYONETIIDAE

Bedellia somnulentella (Zell.). LFM: Radsted Mose, antal la. 20.ix.1983, *Calystegia sepium* og Skifterne ved Blans, antal la. 9.x.1983, *Calystegia sepium* (K. Gregersen); SZ: Skibinge, 1 stk. 10.-14.vii.1983 og 2 stk. 23.viii.-3.ix.1983 (O. Karsholt); NWZ: Ordrup Næs, 1 stk. 1.ix.1983 (H. Hendriksen); B: Svaneke, 1 stk. 22.-28.vii.1983 (FAP, JEG, LRK). Ny for NWZ.

Bucculatrix thoracella (Thnbg.). B: Salne, i antal 6.-12.vii.1983 (K. Larsen, U. Seneca).

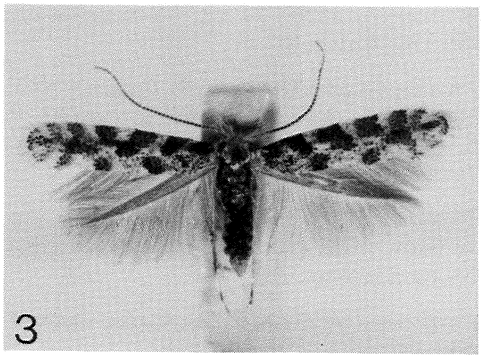
GRACILLARIIDAE

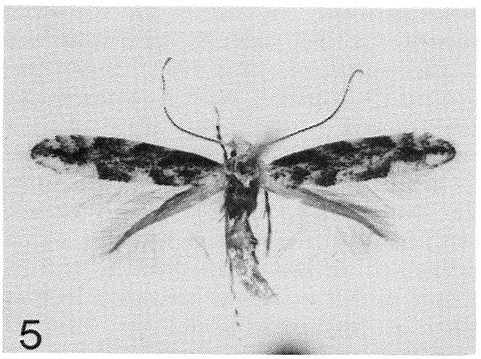
Caloptilia suberinella (Tgstr.). WJ: Husby; NWJ: Lodbjerg og Hvidbjerg Plantage; NEJ: Tversted Plantage; LFM: Mellemskov; SZ: Glænø og Skibinge; NWZ: Føllenslev, Høve Skov og Ordrup; NEZ: Asserbo, Hellebæk, Tårnby, Udsholt Strand, Vejby Strand og Ålsgårde; B: Boderne og Randkløve. Alle fund fra 1983 af flere samlere. Arten havde sidst hyppighedsår i 1972. Den er kendt fra alle distrikter undtagen SJ.

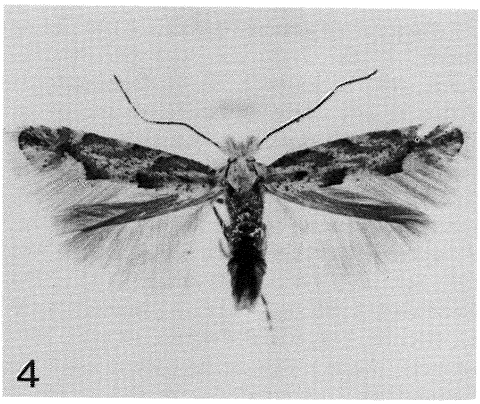
Parectopa ononidis (Zell.). SZ: Glænø, 1 stk. 14.viii.1974 (G. Jørgensen). Ny for distriktet.

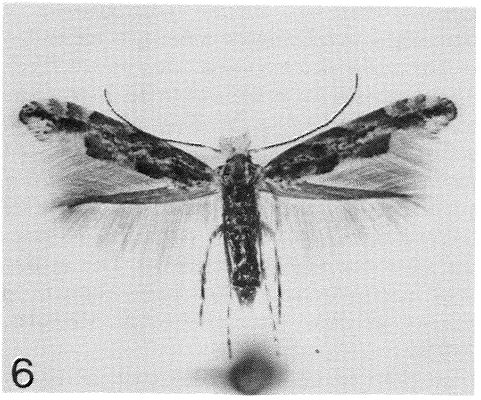
Acrocercops brongniardella (F.). LFM: Ødegård, x.1948 (K. Pedersen, coll. ZMUC); NEZ: Store Dyrehave, 1 stk. 25.iii.1948 (J. Lundqvist). Det har vist sig, at disse eksemplarer er de sidste, der er fundet i Danmark. Arten findes fortsat i Skåne.

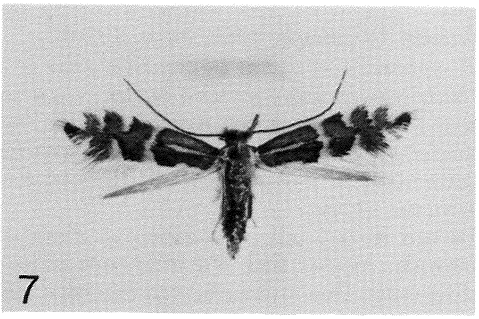
Leucospilaptyeryx omissella (Stt.). LFM: Lungholm, 2 stk. 7.-26.viii.1983 (FAP, JEG, LRK), Rodemark, 1 stk. 6.viii.1983 (A. Madsen); SZ: Skibinge, flere stk. 15.vii.-5.viii.1983 og 1 stk. 17.-24.ix.1983 (O. Karsholt).











Figs 3-7. *Phyllonorycter*-arter. Fig. 3. *P. populifoliella* (Tr.), ♂, Tjekkoslovakiet. Fig. 4. *P. apparella* (HS.), ♀, Finland. Figs. 5-6. *P. sagitella (Bjerk.). Fig. 5.* ♀, Dania, B: Boderne, la. 5.ix.1963, *Populus tremula (G. Jørgensen). Fig. 6.* ♀, Sverige. Fig. 7. *P. anderidae* (W. Fletch.), ♂, Norge. (X 7).

Figs 3-7. Phyllonorycter species. *Fig.* 3. P. populifoliella *(Tr.),* ♂, *Czechoslovakia. Fig.* 4. P. apparella *(HS.),* ♀, *Finland. Figs. 5-6. P. sagitella (Bjerk.). Fig.* 5. ♀, *Denmark. Fig.* 6. ♀, *Sweden. Fig.* 7. P. anderidae *(W. Fletch.),* ♂, *Norway.* (X 7).

Phyllonorycter corylifoliella (Hb.). SZ: Kobæk Strand, 1 stk. 9.v.1983 (H. K. Jensen). Ny for distriktet.

Phyllonorycter staintoniella (Nicl.). WJ: Risbæk i Kronhede Plantage, 2 pup. 7.viii.1947 (H. P. S. Sønderup, coll. ZMUC), Vind, 1 stk. 13.viii.1980 (P. L. Holst, coll. NHMÅ), og Ulfsborg, 4 stk. 9.-12.viii.1983 (O. Karsholt, K. Schnack). Tidligere kun kendt fra NWJ: Hegndal ved Rom Hede syd for Lemvig, 3 la. 22.vii.1943, *Genista tinctoria* (H. P. S. Sønderup, coll. NHMÅ og ZMUC), meldt som *P. fraxinella* (Zell.) af Sønderup (1944) og fra NEJ: Lundby Hede (Borup Hede) i antal. Ny for WJ.

Phyllonorycter quinqueguttella (Stt.). F: Snarup Mose, antal la. 22.ix.1982, *Salix repens* (B. Jørgensen). Ny for distriktet.

Phyllonorycter anderidae (W. Fletch.) (*nanella* (W. Pet.)). NEZ: Sortemosen ved Allerød, flere la. 28.ix.1983, *Betula pubescens* (O. Karsholt, N. P. Kristensen). Ny for Danmark.

Arten er med et vingefang på kun 5-7 mm en af vore mindste *Phyllonorycter*-arter. (fig. 7). Den minder mest om *quinqueguttella* (Stt.) fra *Salix repens,* men adskiller sig fra denne ved, at kant-og randpletten midt på vingen danner et sammenhængende, let buet bånd. *P. insignitella* (Zell.), der lever på planter af ærteblomstfamilien, er også meget lig *anderidae,* men den har lysere grundfarve og lysegrå, svagt ringede antenner, mens disse hos *anderidae* er brune. Den anden *Phyllonorycter*-art fra ærteblomstrede, *nigrescentella* (Logan) kendes fra disse på sine mere sølvskinnende tegninger samt på, at den mørke linie i frynserne ikke er afbrudt af den yderste randplet. Disse forskelle kan kun ses på friske eksemplarer, og ofte vil foderplanten være den vigtigste rettesnor. Der er dog også genitalforskelle hos både hanner og hunner af disse arter (Pierce & Metcalfe, 1935).

Biologien er udførligt beskrevet af Bachmaier (1965). Larven laver en undersidig rynkemine i bladene af *Betula nana* (Dværg-Birk). Hvor denne plante ikke forekommer – som det er tilfældet i Danmark – kan små individer af *Betula pubescens* anvendes som foderplante. Den forpupper sig uden først at spinde en kokon – i modsætning til den almindelige *P. ulmifoliella* (Hb.), som kan forekomme på de samme planter. Den foretrukne biotop sydpå synes at være tørvemoser med opvækst af små birke. I Mellemeuropa har arten to generationer om året, mens der nordpå i Skandinavien kun er én. Hvordan det forholder sig i Danmark vides endnu ikke.

P. anderidae er kendt fra Storbritannien, Norge, Sverige, Finland, det nord-vestlige USSR, Tjekkoslovakiet og Sydtyskland (Karsholt, 1977), og den har siden vist sig også at forekomme i Belgien (Henderickx, 1982). Det er påfaldende, at den ikke er fundet i Alperne. I Sverige er den for nylig fundet i Skåne, og det var oplysninger om dette (Svensson, *in litt.*), der gav anstød til en fornyet eftersøgning af arten i Danmark. Arten placeres i den danske fortegnelse (Karsholt & Nielsen, 1976: 24 efter *quinqueguttella* (Stt.) (O. Karsholt).

Phyllonorycter nigrescentella (Logan). NEJ: Hobro, 1 la. 8.vii.1935, *Vicia sepium* (H. P. S. Sønderup, coll. ZMUC). Eneste fund fra Jylland.

Phyllonorycter trifasciella (Hw.). NWZ: Høve Skov, 1 stk. 1.ix.1983 (H. Hendriksen). Ny for distriktet.

Phyllonorycter sagitella (Bjerk.). Se under *P. apparella.*

Phyllonorycter apparella (HS.). LFM: Lungholm, 1 stk. 7.-26.viii.1983 (FAP, JEG, LRK, coll. K. Larsen). Ny for Danmark.

Arten er lidt større og kraftigere end de andre *Phyllonorycter*-arter, der lever på *Populus.* Mærkerne langs kant og rand er ret kraftige og skrå. Grundfarven er hvidlig, og tegningerne er brune med et rødligt anstrøg.

P. apparella er kendt fra Sverige: SK, SM, ÖL, SÖ, UP, VR og DA (Gustafsson, 1979, Svensson, 1980 og 1981) og Finland: A, V, U, EK, St, EH, ES, PH og PK (Kyrki, 1978 og pers. medd.). Den er derudover kendt fra Estland og Letland (Sulcs & Sulcs, 1983), Øst- og Vesttyskland, Østrig, Frankrig og Belgien. (Klimesch, 1961, Rapp, 1936).

P. apparella optræder ofte enkeltvis og er i Skandinavien kun i Finland fundet i antal og kun i enkelte år. Arten flyver i maj-juni og august-september i to kuld. Imago findes på stammerne af *Populus tremula,* ligesom den kommer til lys.

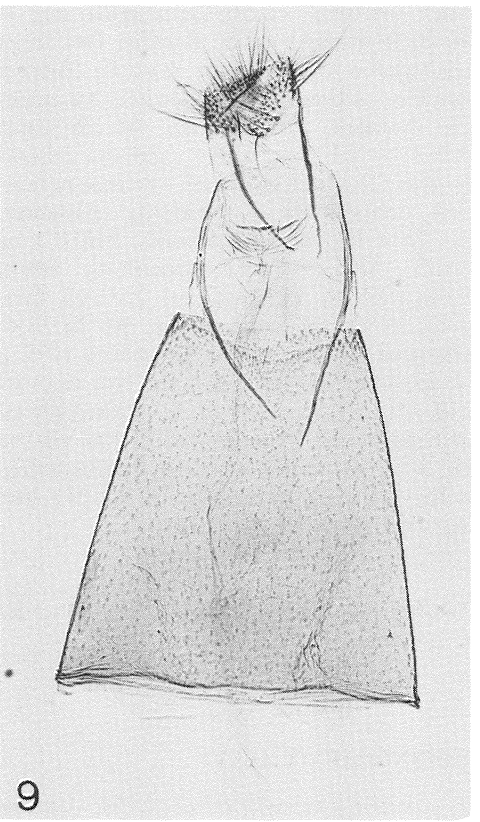
Larven lever i juli og oktober på *Populus tremula* i en stor, flad, ofte rødmende undersidig mine. Den minder herved om minen af *sagitella,* der dog er mindre og knap så flad. Desuden angives *Salix* og *Populus nigra* som foderplanter (Klimesch, 1961).

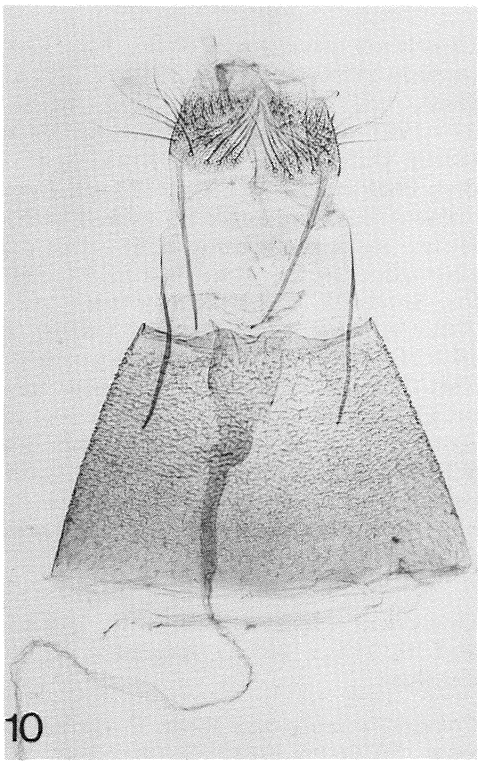
De fleste danske *Phyllonorycter*-arter er enten meget almindelige, eller de optræder i

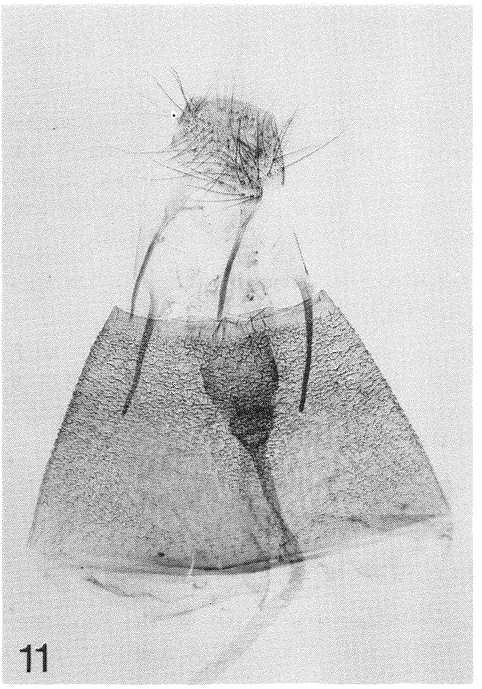
Figs 8-11. Dele af hun-genitalier hos *Phyllonorycter*-arter. Fig. 8. *P. populifoliella* (Tr.), præparat OK 4211. Fig. 9. *P. apparella* (HS.), præparat OK 4103. Figs 10-11. *P. sagitella* (Bjerk.), præparat OK 4210 og 4113.

Figs 8-11. *Parts of female genitalia of* Phyllonorycter *species. Fig.* 8. P. populifoliella *(Tr.). Fig.* 9. P. apparella *(HS.). Figs.* 10-11. P. sagitella *(Bjerk.).*


8


9


10


11

hvert fald lokalt i antal. Dette gælder dog ikke de arter, der lever på *Populus*. Det drejer sig foruden *apparella* om *sagitella* (Bjerk.), der kun er kendt i 3 stk. klækket fra miner på *Populus tremula* ved B: Boderne, 5.ix.1963 (G. Jørgensen), samt om *populifoliella* (Tr.), der er fundet i to eksemplarer ved henholdsvis F: Fåborg, Rislebæk, 3.v.1938 (C. S. Larsen, coll. ZMUC) og NEZ: Bøllemosen i Jægersborg Hegn, 9.viii.1868 (A. B. Haas, coll. ZMUC). Imagines af de tre arter er vist på fig. 3-6. Hangenitalierne vises af Kuznetsov (1981). *A. apparella* kendes på, at valverne er overordentlig lange, og på, at de ofte stikker ud af bagkroppen. Hun-genitalierne er vist på fig. 8-11. Arten placeres i den danske fortegnelse (Karsholt & Nielsen, 1976: 24) efter *sagitella*. (P. Falck, K. Larsen).

Phyllonorycter populifoliella (Tr.). Se under *P. apparella*.

YPONOMEUTIDAE

Yponomeuta rorrella (Hb.). LFM: Hannenov Skov, 1 stk. 17.vii.1953 (J. Lundqvist, O. Karsholt det.); B: Boderne, 1 stk. 29.vii.-5.viii.1983 (FAP, JEG, LRK, O. Karsholt det.).

Yponomeuta irrorella (Hb.). LFM: Faursted Skov, 1 stk. 5.-24.vii.1983, Bøtø, 1 stk. 18.-24.vii.1983, Lungholm, 1 stk. 25.vii.-6.viii.1983 (FAP, JEG, LRK) og Mellemskov, 1 stk. 3.viii.1983 (A. Madsen).

Ypsolopha scabrella (L.). EJ: Randers, i antal hvert år (E. Hansen).

Rhigognostis incarnatella (Steud.). NEZ: Vejby Strand, 1 stk. 19.vi.-10.vii.1983 (J. P. Baungård, J. P. Pedersen). Tidligere kendt i et eksemplar fra B.

COLEOPHORIDAE

Coleophora siccifolia Stt. LFM: Hannenov Skov, 1 stk. 30.v.1970 (J. Lundqvist). Ny for distriktet.

Coleophora vacciniella HS. NEJ: Hals Nørreskov, i antal 30.v.1983 (P. Falck). Udover NWZ og NEZ er arten kun kendt fra NEJ: Sæby.

Coleophora plumbella Kan. NEJ: Læsø, Nordmarken, 3 stk. 28.vi.1983 (O. Karsholt). Ny for distriktet.

Coleophora adjectella HS. B: Boderne, 1 stk. 3.-13.vii.1983 (FAP, JEG, LRK).

Coleophora frischella (L.). WJ: Skallingen, 1 stk. 11.vi.1983 (P. Falck, K. Larsen); NEZ: Dyrehaven ved Skodsborg, 1 stk. 1.vi.1968 (A. B. Haas, coll. ZMUC); B: Årsdale, 2 stk. 28.v.1906 (Skarvig, coll. NHMÅ og ZMUC). Ny for alle tre distrikter.

Coleophora alcyonipennella (Kollar). B: Vang, 1 stk. 10.vi.1956 (N. L. Wolff, coll. ZMUC). Ny for distriktet.

Coleophora conspicuella Zell. LFM: Bøtø, 1 stk. 19.vii.1959 (G. Jørgensen). Hidtil kun kendt fra EJ: Glatved; F: flere steder og NWZ: Røsnæs.

Coleophora sylvaticella Wood. EJ: Velling Skov, 2 stk. 13.vi.1983 (K. Larsen).

Coleophora pappiferella Hofm. WJ: Klosterhede Plantage, 1 stk. 17.vi.1973 (P. L. Holst, coll. NHMÅ) og Vind, 1 stk. 31.v.1983 (P. Falck); NEJ: Lundby Hede (Borup Hede), 7 stk. 29.-31.v.1983 og Ovdrup Østerhede, 2 stk. 30.v.1983 (H. Hendriksen). Tidligere kendt fra NEJ: Lundby Hede – meldt som Outrup Hede – i en del eksemplarer og i to ældre fund fra EJ: Bølling Sø, 1 stk. 3.vi.1908 (Christiani, coll. ZMUC); NWJ: Korsvejhus ved Lemvig, 1 stk. 24.v.1907 (H. P. S. Sønderup, coll. ZMUC) meldt af Larsen (1916) under navnet *C. linearíella* Zell. og fejlagtigt citeret af Bjørn & Pallesen (1972) som værende fra WJ: Klosterhede. Ny for WJ, idet fundet ved Dajbjerg Hede (Rajbjerg Hede, fejlstavning) (Pallesen & Palm, 1974) udgår grundet fejlbestemmelse.

Coleophora separatella Ben. LFM: Ulvshale, 1 stk. 18.viii.1965 (G. Jørgensen). Ny for distriktet.

Coleophora salicorniae Wcke. F: Gulstav, i antal 20.-26.viii.1983 (O. Karsholt, P.

Skou); SZ: Glænø, 1 stk. 8.viii.1983 (H. K. Jensen).

ELACHISTIDAE

Perittia herrichiella (HS.). B: Salne, 1 stk. 6.vii.1983 (K. Larsen).

Elachista diederichsiella E. Her. F: Pipstorn, antal la. 18.v.1983 (B. Jørgensen). Ny for distriktet.

Elachista compsa TrO. F: Damsbo Skov, 1 stk. 17.v.1983 (B. Jørgensen) og Ørsbjerg Skov, 1 stk. 11.v.1982 (O. Buhl). Ny for distriktet.

Elachista bifasciella Tr. NEZ: Ganløse Orned, i antal 13.vi.1983 (K. Schnack) og Grib Skov, 1 stk. 15.vi.1983 (J. P. Baungård). Arten har nu bredt sig til alle distrikter undtagen SZ.

Elachista bisulcella (Dup.). SJ: Frøslev, 1 stk. 1.viii.1983 (E. Palm); B: Vallensgård Mose, 1 stk. 6.-18.viii.1983 (FAP, JEG, LRK). Ny for begge distrikter.

Elachista pullicomella Zell. F: Svanninge, flere la. 4.v.1983 (B. Jørgensen). Ny for distriktet.

Biselachista eleochariella (Stt.). WJ: Risbæk i Kronhede Plantage, 3 stk. 13.viii.1983 (O. Karsholt, K. Schnack). Ny for distriktet.

OECOPHORIDAE

Schiffermuelleria stroemella (F.). NEZ: Jægerspris Nordskov, 9 stk. 22.-25.vi.1983 (H. Hendriksen m. fl.). Dyrene sad på stammerne af gamle ege.

Batia internella Jäckh. EJ: Tirstrup, 2 stk. 5.viii.1977 (E. Hansen).

Depressaria ultimella Stt. EJ: Randers, 1 stk. 16.viii.1976 (E. Hansen); SZ: Skibinge, 1 stk. 3.-8.vi.1983 (O. Karsholt). Ny for begge distrikter.

Depressaria artemisiae Nick. SZ: Glænø, 1 stk. 15.viii.1983 (H. K. Jensen).

Agonopterix alstroemeriana (Cl.). NWJ: Harboør, 1 stk. 29.iii.1967 (P. L. Holst, coll. NHMÅ) og Hvidbjerg Plantage, 1 stk. 10.-24.ix.1983 (FAP, JEG, LRK). Ny for distriktet.

GELECHIIDAE

Metzneria neuropterella (Zell.). B: Frenne Odde, 1 stk. 3.viii.1977 (K. Gregersen) og Svaneke, 1 stk. 6.-18.viii.1983 (FAP, JEG, LRK). Tidligere kun kendt fra NEJ: Læsø, Østerby.

Monochroa palustrella (Dougl.). SJ: Tinglev Mose, 3 stk. 4.viii.1983 (E. Palm). Ny for distriktet.

Monochroa arundinetella (Stt.). NWJ: Hvidbjerg Plantage, 1 stk. 21.vii.-1.viii.1983 (FAP, JEG, LRK); B: Svaneke, 1 stk. 22.-28.vii.1983 (FAP, JEG, LRK). Fundet fra NWJ: Nr. Nissum (Pallesen & Palm, 1977) udgår på grund af fejlbestemmelse.

Monochroa niphognatha (Gozm.). LFM: Bøtø, 1 stk. 18.-24.vii.1983 (FAP, JEG, LRK); SZ: Skibinge, 1 stk. 30.vii.-5.viii.1983 (O. Karsholt); B: Salne 1 stk. 12.vii.1983 (K. Larsen). Ny for B.

Aristotelia subdecurtella (Stt.). F: Gulstav, antal la. 26.v.1983, *Lythrum salicaria* (B. Jørgensen); B: Svaneke, 1 stk. 22. - 28.vii.1983 (FAP, JEG, LRK). Ny for F, idet fundet fra Korsebjerg ved Skallebølle (Pallesen & Palm, 1980) udgår grundet fejlbestemmelse.

Teleiodes flavimaculella (HS.). NWZ: Asnæs Vesterskov, 1 stk. 7.vi.1978 (U. Seneca). Ny for distriktet.

Bryotropha galbanella (Zell.). NWJ: Lodbjerg, 3 stk. 20.vii.-1.viii.1983 (FAP, JEG, LRK). En samlet oversigt over udbredelsen i Danmark er vist på fig. 12.

Chionodes ignorantella (HS.). WJ: Husby, 1 stk. 21.vi.-8.vii.1983 (FAP, JEG, LRK).

Chionodes continuella (Zell.). NEZ: København, Svanemølleværket, 2 stk. 5.viii.1969 (N. L. Wolff, coll. ZMUC) og Ålsgårde, 1 stk. 20.vii.-3.viii.1983 (FAP, JEG, LRK). Eneste fund fra Sjælland. Derudover udbredt i tørre områder i Jylland samt fundet i et stk. fra B: Boderne.

Sophronia sicariella (Zell.) NEZ: Nærum, flere la. 11.vi.1983, *Achillea millefolium* og i antal 15.vii.-9.viii.1983 (H. Hendriksen, B. Jørgensen, m. fl.).

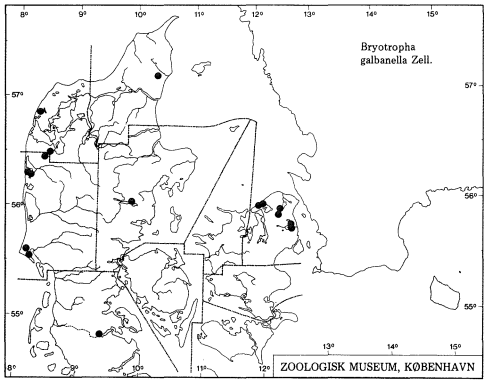


Fig. 12. *Bryotropha galbanella* (Zell.). Kort over findesteder i Danmark.

Fig. 12. Bryotropha galbanella *(Zell.). Map of Danish records.*

Syncopacma suecicella (Wolff). WJ: Vind, antal la. 12.vi.1983, *Genista pilosa* (P. Falck, K. Larsen), Kronhede Plantage (Klosterhede), i antal 3.viii.1983 (K. Gregersen) og Ulfborg, i antal 9.-12.viii.1983 (O. Karsholt, K. Schnack).
Larven, der os bekendt ikke tidligere er beskrevet, spinder skudspidserne af foderplanten *Genista pilosa* sammen. Der er ofte mange larver på samme plante. Den har sort hoved med brune skygger i midten. Nakkeskjoldet er sort, delt i midten og bagtil afrundet. Forbenene er sorte. Kroppen er uklart rødbrun med et lysegråt tegningsmønster, der fordeler sig som en tydelig ryglinie, to lyse sidelinier og imellem linierne et uroligt tegningsmønster. Der er mange meget små sorte vorter med et relativt langt hvidt hår på hver. Analpladen er sort. (P. Falck, K. Larsen).

Anarsia lineatella Zell. F: Stige, 1 stk. 14.vii.1983 (O. Buhl); SZ: Glænø, 1 stk. 18.vii.1983 (H. K. Jensen).

Dichomeris marginella (F.). WJ: Brande, 1 stk. 16.vii.1982 (A. Madsen). Ny for distriktet.

MOMPHIDAE

Cosmopterix scribaiella (Zell.). SZ: Glænø, 1 stk. 11.vii.1983 (H. K. Jensen). Tidligere kun kendt fra LFM: Lolland.

Sorhagenia rhamniella (Zell.). EJ: Vester Lovnkær, 16.vii.1976 (K. Larsen, P. Falck, K. Schnack det.); NWZ: Vesterlyng, 8 stk. 23.vii.1977, Nekselø, 1 stk. 31.vii.1977 (E. Palm, K. Schnack det.). Ny for Danmark.
Hermed er alle de tre europæiske *Sorhagenia*-arter registreret i Danmark. Udvendigt ligner arterne hinanden så meget (fig. 13-15), at det er nødvendigt at undersøge genitalierne for en sikker bestemmelse. Både han- og hungenitalier giver gode skelnemærker, som vist ved pilene på fig. 16-21.
Alle tre arter synes udbredt over det meste af Europa, dog er *janiszewskae* Riedl ikke fundet i Norge, mens *rhamniella* Zell. mangler i Finland. I Danmark synes *lophyrella* (Dougl.) at være den almindeligste af arterne, men der findes endnu meget få eksemplarer i samlingerne af denne slægt, og eftersøgning af larverne vil sikkert kunne afsløre mange nye lokaliteter.
Efter at Riedl (1962) havde erkendt, at navnet *S. rhamniella* var blevet brugt til at betegne et kompleks af tre arter, er der blevet publiceret flere undersøgelser af deres udbredelse og biologi (Hackman (1963), Wakely (1966), Emmet (1969), Riedl (1969), Malicky & Sobhian (1971)). Det er entydigt, at alle arterne lever på planter tilhørende Vrietornfamilien, Rhamnaceae. Desuden synes det sikkert, at *lophyrella* hovedsageligt er knyttet til vrietorn, *Rhamnus cathartica,* mens *janiszewskae* foretrækker tørst, *Frangula alnus.* Der er undtagelser fra denne regel, og der kan sikkert være geogratisk variation, hvilket der synes at være for *rhamniella's* vedkommende. Den findes i Mellemeuropa på vrietorn, men i England på tørst. Eksemplarerne fra Vesterlyng blev fanget på vrietorn.
S. lophyrella lever mellem sammenspundne unge blade, mens *janiszewskae* minerer i de unge skud. Sidstnævnte opdages lettest som ung, da den her får de yderste blade til at hænge slapt ned. Senere falder de af eller retter sig op, og man må da lede efter de forkortede skud. *S. rhamniella* lever i Mellemeuropa selskabeligt i spind mellem blomsterne, mens den i England findes i sammenspundne blade. Larverne forpupper sig på jorden og bruger ca. tre uger til forvandlingen.
Malicky & Sobhian (1971) anfører (på et spinkelt grundlag), at *janiszewskae* i mod-

sætning til de to andre arter overvintrer som imago. Desuden angiver de (med mere evidens), at *lophyrella* gennemgående er tre uger tidligere fremme både som larve og imago end de to andre arter. Hvordan det forholder sig i Danmark må senere undersøgelser vise. Arten placeres i den danske fortegnelse (Karsholt & Nielsen, 1976:36) efter *janiszewskae.* (K. Schnack).

TORTRICIDAE

Choristoneura diversana (Hb.). B: Vallensgård Mose, 1 stk. 12.vii.1983 (K. Larsen). Første fund fra den sydlige del af Bornholm.

Ptycholomoides aeriferanus (HS.). WJ: Gerndrup ved Brørup, 1 stk. 26.vii.1983, Kragelund Mose, 2 stk. 28.vii.-23.viii.1983, Hedebo ved Bække, 5 stk. 1.-23.viii.1983 (K. E. Stovgård) og Skallingen, 1 stk. 8.viii.1983 (O. Karsholt); NEJ: Åsted Ådal, 1 stk. 15.viii.1983 (E. Palm). Arten kan nu betragtes som udbredt over hele landet.

Clepsis consimilana (Hb.). WJ: Gerndrup ved Brørup, 1 stk. 5.vii.1983 (K. E. Stovgård), Grærup Strand, 1 stk. 8.vii.1983 (S. Kaaber), Brande, 1 stk. 29.vii.1983 (A. Madsen) og Skallingen, 1 stk. 8.viii.1983 (O. Karsholt). Ny for distriktet.

Olindia schumacherana (F.). EJ: Skærsø Plantage (Dråby Skov), 5 stk. 14.vii.1983 (S. Kaaber).

Eana penziana (Thnbg.). NEJ: Læsø, Østerby, 1 stk. 13.viii.1983 (E. Christensen) og Tversted Plantage, 1 stk. 19.viii.1983 (E. Palm).

Acleris abietana (Hb.). WJ: Hedebo ved Bække, 3 stk. 15.-25.v.1983 (K. E. Stovgård).

Olethreutes siderana (Tr.). LFM: Rodemark, 2 stk. 9.vii.1983 (A. Madsen).

Olethreutes tiedemanniana (Zell.). NEZ: Rye Skovmose ved Holbæk, 1 stk. 27.vi.1983 (E. Palm).

Pristerognatha fuligana (Den. & Schiff.). EJ: Fussingø, 7 la. forår 1967 (E. Hansen) og Vosnæsgård Skov, 1 la. 15.x.1982, *Impatiens* (S. Kaaber). Ny for Jylland.

Hedya ochroleucana (Fröl.). WJ: Gerndrup ved Brørup, 3 stk. 11.vii.-6.viii.1983 og Kragelund Mose, 28.-31.vii.1983 (K. E. Stovgård). Ny for distriktet.

Pseudosciaphila branderiana (L.). WJ: Gerndrup ved Brørup, 1 stk. 8.vii.1983 (K. E. Stovgård).

Apotomis infida (Heinrich). WJ: Kragelund Mose, i antal 16.-27.vi.1983 og Hedebo ved Bække, 1 stk. 18.-21.vi.1983 (K. E. Stovgård); EJ: Randers, 1 stk. 25.vi.1971 (E. Hansen); LFM: Bøtø, 1 stk. 9.vi-2.vii.1983 (FAP, JEG, LRK) og Søholt, 1 stk. 5.vii.1983 (G. Jeppesen). Ny for WJ.

Lobesia bicinctana (Dup.). NEZ: Hellebæk, 1 stk. 4.-16.viii.1983 (FAP, JEG, LRK).

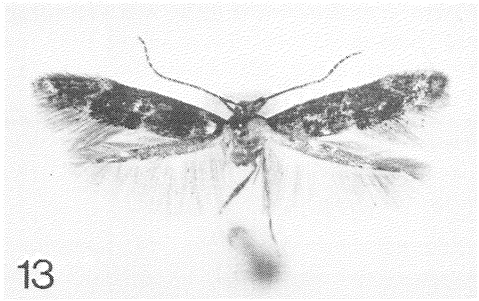
Lobesia abscisana (Dbld.). EJ: Århus, flere stk. 1.-15.viii.1983 og Horsens Nørrestrand, 1 stk. 7.viii.1983 (S. Kaaber); NEJ: Hulsig, 1 stk. 18.viii.1983 (E. Palm); Olsker, 1 stk. 2.viii.1983 (K. Larsen). Arten har nu bredt sig ud over hele landet.

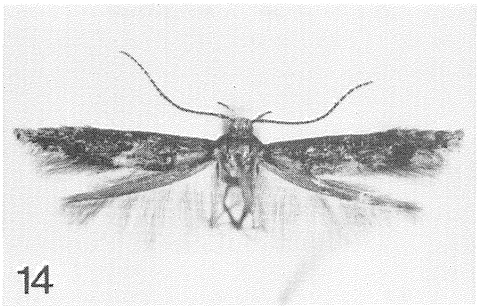
Ancylis geminana (Donov). En nøjere sammenligning af fund af arterne *geminana, diminutana* og *subarcuana* viser, at *diminutana* i udseende er konstant i hele sit udbredelsesområde, ligesom den flyver i samme områder, som de to andre arter, hvorfor den betragtes som en selvstændig art. For *geminana* og *subarcuana* er forholdet det, at man i et større område ikke kan kende formerne fra hinanden. Desuden er der afhængig af området forskel på flyvetiden og på, om arten er en- eller tokuldet. Der er således en rimelig grund til at antage, at *geminana* og *subarcuana* er to af en række geografiske eller økologiske racer, hvorfor kun navnet *geminana* opretholdes i det danske katalog, indtil andet er fyldigt dokumenteret. (K. Larsen).

Ancylis diminutana (Hw.). Se under *A. geminana.*

Ancylis subarcuana (Dougl.). Se under *A. geminana.*

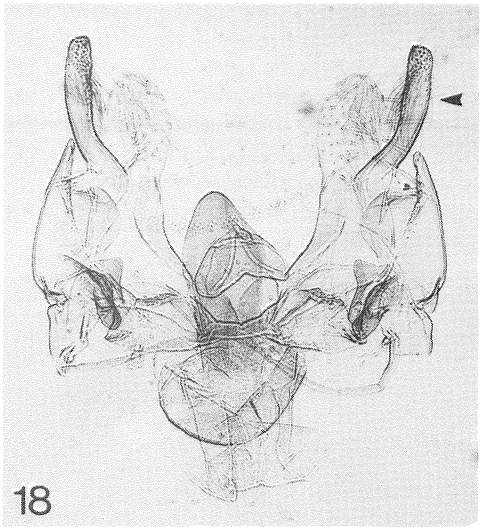
Epinotia trigonella (L.) (*stroemiana* (F.)). NEJ: Hulsig, 1 stk. 14.viii.1981 (P. Falck) og Tversted Plantage, 2 stk. 27.viii.1983 (G. Jørgensen). Disse eksemplarer tilhører formen *indecorana* Zett. (fig. 22), som ikke

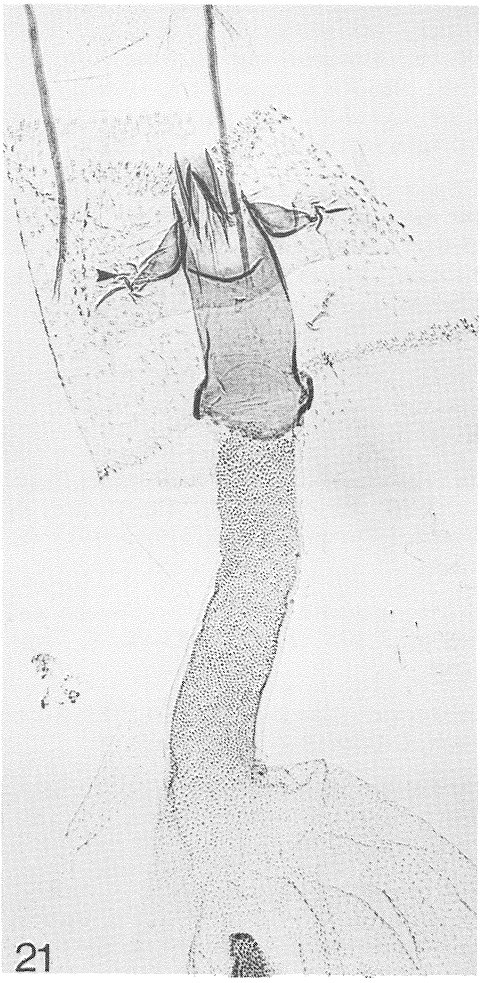




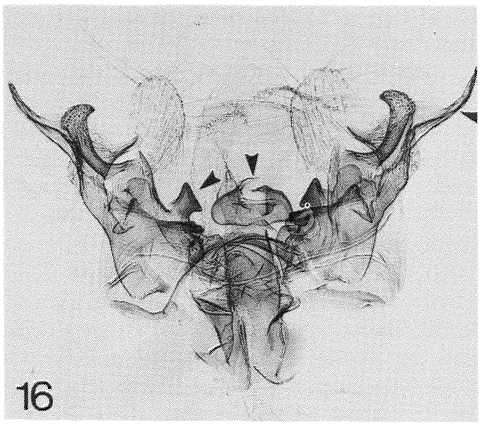


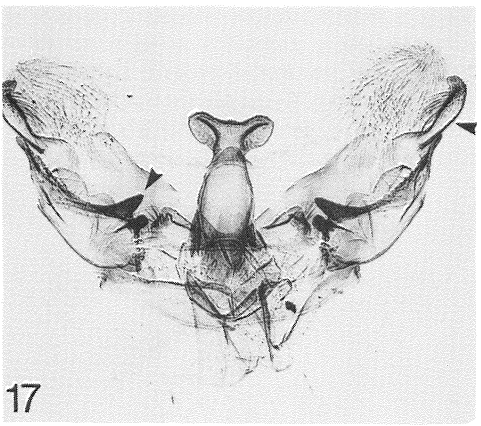
Figs 13-15. *Sorhagenia*-arter. Fig. 13. *S. rhamniella* (Zell.), ♂, Dania: NWZ, Vesterlyng, 23.vii.1977 (E. Palm). Fig. 14. *S. lophyrella* (Dougl.), ♂, Dania: NEZ, Liseleje, 11.vii.1977 (K. Schnack). Fig. 15. *S. janiszewskae* Riedl, ♀, Dania: LFM, Ulfshale, 29.vii.1975 (K. Schnack). (X 4,5).

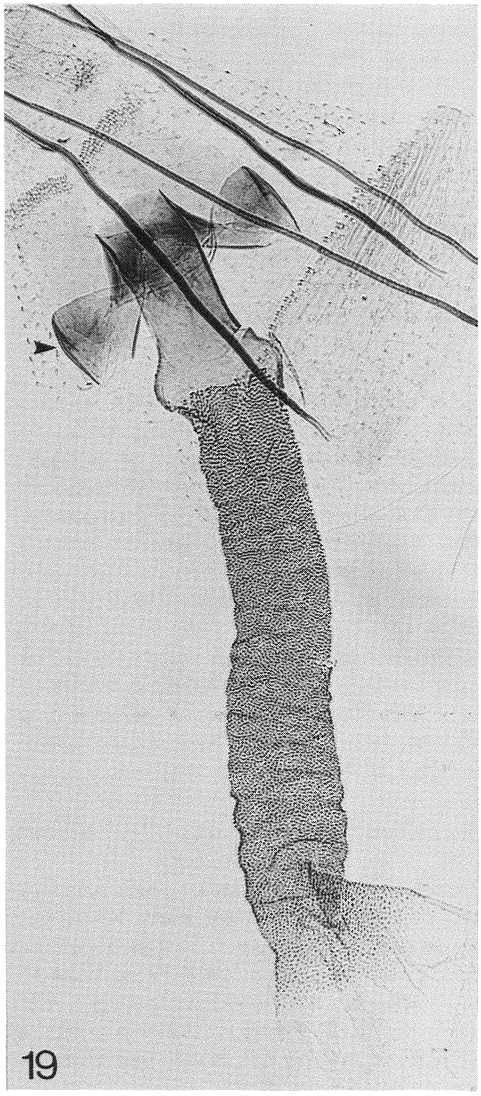


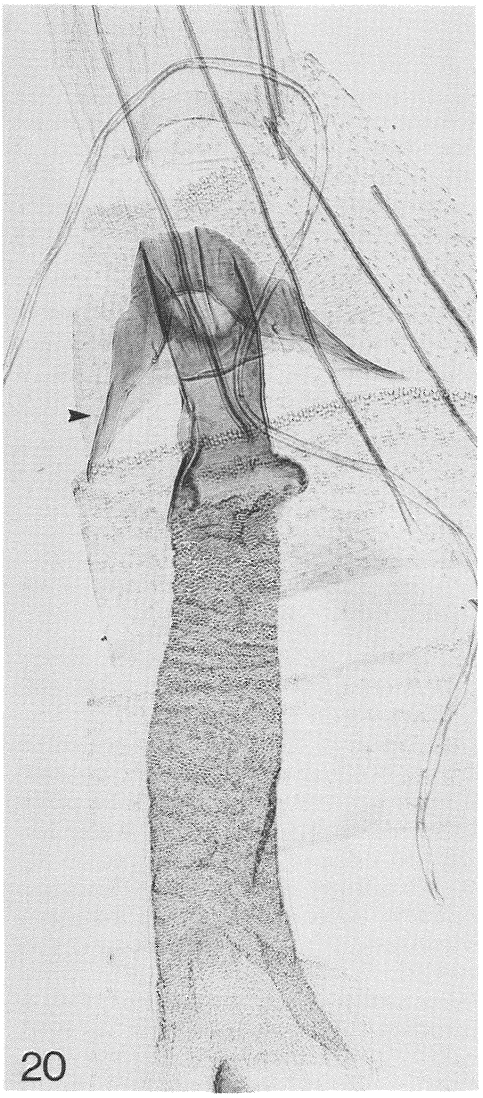


Figs 16-21. Genitalier af *Sorhagenia*-arter. Figs 16-18. Han-genitalier. Fig. 16. *S. rhamniella* (Zell.), præparat KS 1705. Fig. 17. *S. lophyrella* (Dougl.), præparat KS 1716. Fig. 18. *S. janiszewskae* Riedl, præparat KS 1719. Figs 19-21. Dele af hun-genitalier. Fig. 19. *S. rhamniella* (Zell.), præparat OK 2125. Fig. 20. *S. lophyrella* (Dougl.), præparat OK 2122 Fig. 21. *S. janiszewskae* Riedl, præparat OK 2209.


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tidligere er konstateret i Danmark, og som af nogle forfattere anses for at være en selvstændig art. Imidlertid er vi i lighed med Wolff (1964) og Kyrki (*in litt.*) af den opfattelse at *indecorana* bør opfattes som en underart af *trigonella.*

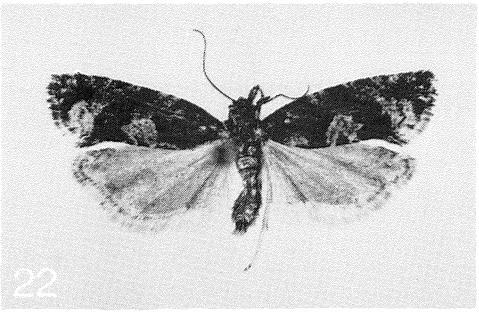


Fig. 22. *Epinotia trigonella* (L.), ♀, Dania: NEJ, Tversted Plantage, 27.viii.1983 (G. Jørgensen). Eksemplaret tilhører ssp. *indecorana* (Zett.). (X 3,8).

Fig. 22. Epinotia trigonella *(L.),* ♀, *Denmark. The specimen belong to spp.* indecorana *(Zett.).* (X 3,8).

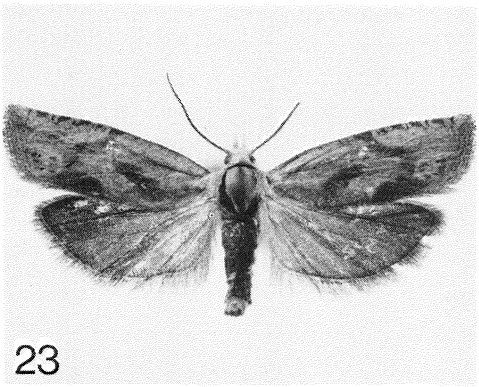
Epinotia immundana (FR.). WJ: Hedebo ved Bække, 1 stk. 18.-21.v.1983 og Gerndrup ved Brørup, 1 stk. 25.v.1983 (K. E. Stovgård). Ny for distriktet.

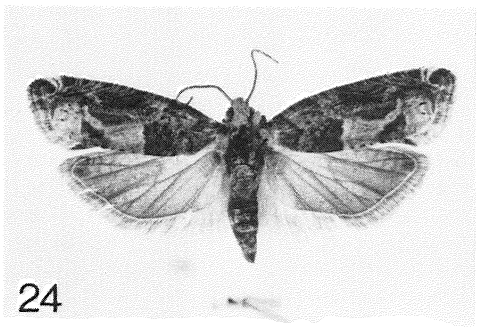
Epinotia tenerana (Den. & Schiff.). SJ: Als, Sønderskov, 1 stk. 2.viii.1983 (E. Palm). Ny for distriktet.

Epinotia cruciana (L.). B: Ølene, 2 stk. 7. og 21.vii.1983 og Vallensgård Mose, 1 stk. 12.vii.1983 (K. Larsen).

Crocidosema plebejana (Zell.). WJ: Husby, 1 stk. 8.-21.x.1983 (FAP, JEG, LRK, coll. P. Falck). Ny for Danmark.
Arten kendes på den blege, okkergule grundfarve og den kraftige mørkebrune, trekantede randplet yderst på forvingen samt på det mørke rodfelt. Hannen har en kraftig hårdusk ved roden af bagvingens overside (fig. 24). Vingefanget er 11-16 mm. (Bradley *et al.*, 1979). Arten kan minde om *Rhopobota unipunctana* (Hw.), der dog er mindre og mere grå i bundfarven.
Han-genitalier er vist hos Bradley (1959) og Kuznetsov (1978). Hun-genitalier hos Bradley (1959). I Hannemann (1961) vises hangenitalier (fig. 315 b) og imago (pl. 20, fig. 15) af formentlig *Acroclita subsequana* (HS.) under navnet *plebejana.*
C. plebejana er vidt udbredt i subtroperne og i de varmeste dele af de tempererede egne. I Europa går nordgrænsen fra Tjekkoslovakiet (Reiprich, *in litt.*), over Sydtyskland, Østrig og til Sydfrankrig (Kennel, 1910, 1921). Derudover var den gammelkendt fra Sydvestengland i nogle få fund, indtil den blev fundet som larve på Scillyøerne i 1957, hvor den nu er talrig. Den er senere fundet som larve i det vestlige Cornwall og kendes derudover fra enkeltfund langs hele Englands sydkyst. Fra Irland er der kun kendt et enkelt eksemplar fra det vestlige: Co. Kerry. (Bradley *et al.*, 1979, Goater, *in litt.*). Det danske fund passer således meget fint ind i artens europæiske udbredelsesmønster, ligesom det kan parallelliseres med fundene langs vestkysten af noctuiden *Eumichtis lichenea* (Hb.). Udenfor Europa er arten kendt fra Mellemøsten, Pakistan, Japan, Nord- og Sydamerika, på mange Stillehavsøer samt Australien og New Zealand. (Bradley *et al.*, 1979).
C. plebejana er i Vesteuropa en kystart, der findes på varme klippefyldte steder og i haver. Den flyver i juli og igen i oktober og november formentlig i to kuld. I Nordafrika flyver den også i marts-april. Den kommer villigt til lys. Larven findes i England fra juli til oktober i frøkapslerne og af og til også i skuddene af *Lavatera arborea* (Mamelukærme). Den røber sig ved huller i frøkapslerne. Som foderplanter nævnes desuden *Althaea, Abutilon* (Kinahamp), *Hibiscus, Gossypium* (Bomuld) og *Malva* (Katost) (Bradley *et al.*, 1979). Den bør således kunne findes i frøene på Stokrose og Katost, der vokser op ad husmure i varme, sydvendte haver. Arten placeres i den danske fortegnelse (Karsholt & Nielsen, 1976: 41) efter *Epinotia subsequana* (Hb.). (P. Falck, K. Larsen).

Zeiraphera rufimitrana (HS.). WJ: Brande, 1 stk. 28.vii.1983 (A. Madsen).
Broder Bejer (1979) omtaler arten som skadedyr. Angrebene rammer ældre bevoksninger og særlig trætoppene. Der er registreret kraftig afnåling i årene 1928-29 og 1954-55. N. J. Mills (*in litt.*) meddeler, at han i 1983 fandt ca. 3000 larver i skovene omkring NEJ: Skørping og EJ: Boller ved Horsens. Broder Bejer, pers. medd.





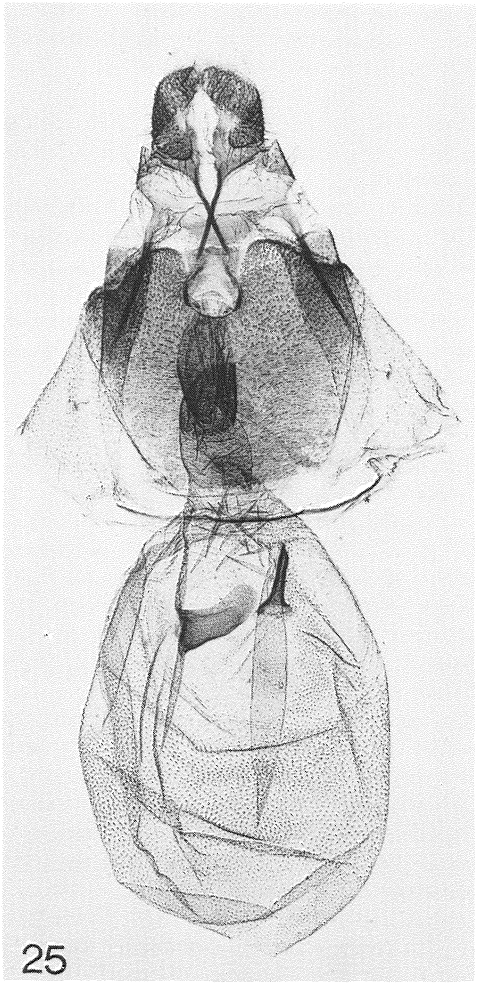


Fig. 23. *Eucosma metzneriana* (Tr.), ♂, Dania: LFM, Rodemark, 26.vi.1983 (A. Madsen). (X 3,3).

Fig. 23. Eucosma metzneriana *(Tr.), ♂, Denmark.* (X 3,3).

Fig. 24. *Crocidosema plebejana* (Zell.), ♂, Madeira. (X 3,8).

Fig. 24. Crocidosema plebejana *(Zell.), ♂, Madeira.* (X 3,8).

Fig. 25. Hun-genitalier af *Eucosma metzneriana* (Tr.), præparat OK 4114.

Fig. 25. *Female genitalia of* Eucosma metzneriana *(Tr.).*

Gypsonoma minutana (Hb.). SZ: Skibinge, 1 stk. 15.-29.vii.1983 (O. Karsholt).

Gibberifera simplana (FR.). NWZ: Sonnerup Skov, 1 stk. 18.vi.1983 (E. Palm).

Epiblema junctana (HS.). SZ: Glænø, 1 stk. 11.vii.1983 (H. K. Jensen).

Epiblema grandaevana (Lien. & Zell.). SJ: Kobbelskov, 3 stk. 2. og 4.viii.1983 (E. Palm); WJ: Grærup Strand, 1 stk. 8.vii.1983 (S. Kaaber). Ny for SJ.

Epiblema foenella (L.). WJ: Brande, 1 stk. 19.vii.1982 (A. Madsen), Gerndrup ved Brørup, 6 stk. 8.vii. og 6.viii.1983 (K. E. Stovgård). Ny for distriktet.

Epiblema obscurana (HS.). B: Ølene, i antal 7.vii.1983 (K. Larsen, U. Seneca). Tidligere kun to danske eksemplarer.

Eucosma hohenwartiana (Den. & Schiff.). SJ: Kobbelskov, 1 stk. 8.viii.1983 (E. Palm). Ny for distriktet.

Eucosma metzneriana (Tr.). LFM: Rodemark, 1 stk. 26.vi.1983 (A. Madsen). Ny for Danmark.
Arten er med sine 18-23 mm i vingefang (fig. 23) betydelig større end både *pupillana* (Cl.) og *maritima* (Humphr. & Westw.), som den har en overfladisk lighed med. Se i øvrigt Bradley *et al.* (1979). Han-genitalier er vist hos Hannemann (1961) og hos Kasy (1979). Hun-genitalierne er vist på fig. 25.
E. metzneriana er en østlig art, der forekommer fra Japan, det østlige USSR og Mongoliet til Østeuropa, hvor den er udbredt i Ungarn, Østrig, Tjekkoslovakiet, Polen og det nordøstlige Tyskland. (Bradley *et al.*, 1979, Hannemann, 1961, Obratzov, 1968 og Reiprich *in litt.).* Den er fra Baltikum, Finland, England og Holland kun kendt i få eksemplarer. (Bentinck & Diakonoff, 1968, Goater, 1983, Ivinskis, 1983, Sulcs, 1973, og Kyrki, 1978).
Larven er gullighvid med mange vorter. Hovedet og nakkeskjoldet er brunt. Den lever fra august til maj på *Artemisia vulgaris* og *A. absinthium* i skudspidsen, som svulmer op og bliver sat tilbage i vækst, evt. falder selve skudspidsen af. Larven forpupper sig i den nederste del af stængelen. Imago flyver i juni-juli. (Bradley *et al.*, 1979, Swatchek, 1958). Arten placeres i den danske fortegnelse (Karsholt & Nielsen, 1976: 42) efter *E. maritima.* (A. Madsen, E. Palm).

Eucosma conterminana (HS.). F: Stige, 5 stk. 23.vii. og 8.viii.1983 (O. Buhl).

Eucosma messingiana (FR.). EJ: Rostved, flere stk. 1.ix.1983 (S. Kaaber); SZ: Fakse Ladeplads, 2 stk. 29.viii.-3.ix.1983 (O. Karsholt).

Blastesthia turionella (L.). SZ: Skibinge, 1 stk. 25.v.-2.vi.1983 (O. Karsholt); LFM: Vindeholme Strand, 1 stk. 10.vi.1983 (E. Palm).

Rhyacionia duplana (Hb.). NWZ: Veddinge Bakker, i antal 26.iv.-9.v.1983 (K. Jensen, E. Palm); SZ: Benløse, 1 stk. 29.iv.1982 (J. Trepax). Ny for SZ.

Enarmonia formosana (Scop.). SJ: Als, Nørreskov, 1 stk. 11.viii.1983 (E. Palm). Ny for distriktet.

Pammene luedersiana (Sorh.). EJ: Als Odde, 1 stk. 18.v.1957 (N. U. Møller).

Pammene populana (F.). SJ: Tinglev Mose, 1 stk. 4.viii.1983 (E. Palm); EJ: Paderup, 1 stk. 16.viii.1969 (E. Hansen); NWZ: Avdebo, 2 stk. 24.-25.viii.1983 (B. H. Thomsen); SZ: Skibinge, 2 stk. 15.-28.viii.1983 (O. Karsholt). Ny for SJ.

Pammene aurantiana (Stgr.). SJ: Kobbelskov, 3 stk. 31.vii.-7.viii.1983 (E. Palm). Ny for distriktet.

Cydia gallicana (Gn.). SJ: Hostrup Sø, 1 stk. 2.viii.1983 og Tinglev Mose, 1 stk. 4.viii.1983 (E. Palm). Ny for distriktet.

Cydia cognatana (Barr.). WJ: Holstebro, 1 stk. 20.vi.1983 (P. Falck); NEJ: Læsø, Bangsbo, 1 stk. 6.-8.vii.1983 (O. Karsholt).

Cydia indivisa (Danil.). WJ: Trehøje ved Timring Plantage, la. 1.iv.1983 (P. Falck).
Som omtalt i sidste årsliste (Buhl *et al.,* 1983 b) har arten vist sig at være udbredt på Nordøstfyn, og på baggrund af disse fund kan der her gives nyttige oplysninger om artens biologi.
De foretrukne værtstræer har især været *Picea abies,* men også *Picea sitchensis.* Plantninger med angrebne træer har fortrinsvis været på en alder af 15-40 år, og træer på 20-30 år må betragtes som de bedste. En typisk lokalitet for *indivisa* er en åben og udtyndet plantning, hvor træerne har harpikssår (fig. 26).
Det er bedst at søge arten på solsiden af stammerne ud mod en lysning eller en skovvej, og der er god larveaktivitet allerede fra sidst i marts og frem til først i maj. Fra angrebne harpikssår skyder tydelige ekskrementhobe frem, især langs kanterne af såret (fig. 27 og 28).
Larven kan bedst lokaliseres ved at skrabe ekskrementhoben bort med en kniv og derefter følge gangen eller gangene helt ind til veddet, hvor larven oftest befinder sig, da den lever af barkens nydannede kallusvæv langs sårranden. Larvegangen er beklædt med et hvidt spind, der beskytter larven mod harpiks. Harpiksudflåddet er netop





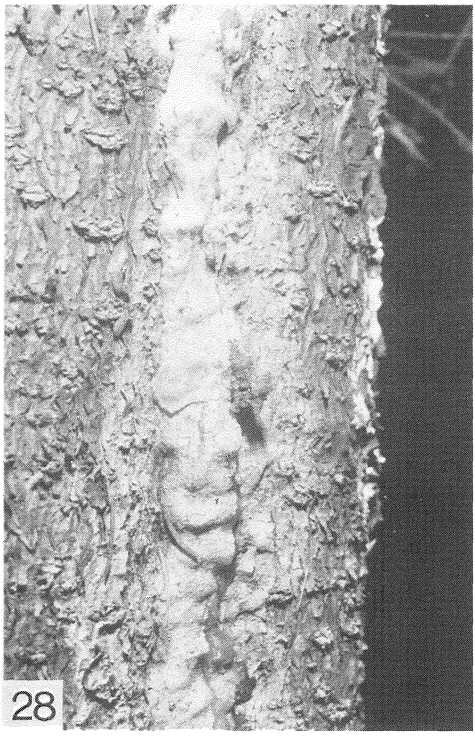


Fig. 26. Lokalitet for *Cydia indivisa* (Danil.) ved F: Hverringe.

Fig. 26. *Locality for* Cydia indivisa *(Danil.) at F: Hverringe.*

Figs 27-28. Del af Rød-Gran stamme med harpikssår og smuld fra *Cydia indivisa* (Danil.).

Figs 27-28. *Part of trunk of* Picea abies *with resinous exudation and fras of larva of* Cydia indivisa *(Danil.).*

fremkommet ved, at barken er revnet ind til veddet af en eller anden årsag, måske sygdom; i hvert fald er det mest graner på fed lerjord, der lider af denne skavank. På de pæne granstammer på sandede arealer er der meget få harpikssår. Arten benytter sig også gerne af de dybe ridser fra udvisning af træer til fældning.

Larvens krop er ensfarvet gråhvid. Hovedet er brunt med en mørkere v-tegning midt

oven på hovedet. V-tegnet peger med spidsen bagud mod nakkeskjoldet. Dette består af to mørkere, brune halvdele til hver side, der er afbrudt af et lyst strøg i midten. Forneden på hovedets sider findes der en meget mørk nærmest sort plet. Analklappen er svagt brunfarvet. Hoved, nakkeskjold og analklap er beklædt med spredte hår. Ned ad larvens ryg og sider er der fire rækker spredte hår, og der sidder desuden en del hår på folderne over gangvorter og ben.
Det bedste tidspunkt at hjemtage larver på er sidste uge af april og den første uge af maj, da larverne i dette tidsrum er ved at være udvokset. De bliver dog let indsmurt i harpiks, fordi deres gangsystem under eftersøgningen bliver ødelagt. Larverne er kraftigt parasiterede af flere hvepse, og desuden angribes de af larverne af en flueart *Phaonia czernyi* Hennig, 1963 (Muscidae), der har vist sig at være ny for Danmark (V. Michelsen det.). Det sikreste er derfor at vente og så finde puppen fra omkring 6. maj til ind i juni. Måske finder man ikke mange, men til gengæld plejer de at klække uden at være parasiterede.
Puppen findes på samme måde som larven, og den kan findes alle steder i harpiksområdet samt i kanten af barken. Man kan høre spindet ligesom pergamentpapir, når der stryges forsigtigt hen over gangen med kniven. Følger man larvegangen, kan man se, at larven før forpupningen har lukket gangen med en skrå klap af hvidt spind og bagved denne spundet gangen til med spind, hvori den mørkebrune puppe ligger godt beskyttet mod harpiks. (O. Buhl).

Cydia corollana (Hb.). EJ: Gjern Bakker, la. 2.iv.1983 og Hvidding Krat, la. 2.iv.1983 (P. Falck).

Cydia andabatana (Wolff). B: Salne 4 stk. 5.-12.vii.1983 og Randkløve, 1 stk. 9.vii.1983 (K. Larsen, U. Seneca).

Cydia funebrana (Tr.). WJ: Hedebo ved Bække, 2 stk. 10-18.vii.1983 (K. E. Stovgård). Ny for distriktet.

Cydia jungiella (Cl.). WJ: Skallingen, 1 stk. 16.-23.v.1983 (O. Karsholt). Ny for distriktet.

Dichrorampha alpinana (Tr.). NWZ: Delhoved Skov, 1 stk. 27.vi.1982 og Store Møsten Skov, 1 stk. 24.vi.1983 (K. Jensen).

Dichrorampha incognitana (Kremky & Maslow.). WJ: Blåvand, 1 stk. 23.vii.1982 (S. Kaaber). I Jylland ellers kun EJ: Øer, 1 stk. 1978 og WJ: Fanø, i antal i 1940'erne.

COCHYLIDAE

Hysterosia sodaliana (Hw.). NWZ: Nakke, la. 5.iii.1983 (K. Gregersen).

Phalonidia alismana (Rag.). NWJ: Lodbjerg, 1 stk. 2.-6.viii.1983 (FAP, JEG, LRK). Ny for distriktet.

Agapeta zoegana (L.). SJ: Ketting Nor, 1 stk. 5.viii.1983 (E. Palm). Ny for distriktet.

Aethes dilucidana (Stph.). NEJ: Hulsig, 1 stk. 13.vii.1983 (P. Falck). Fjerde danske eksemplar. Alle fund er fra Hulsig.

Cochylidia heydeniana (HS.). EJ: Bygholm, i antal 29.vii.1982 (S. Kaaber).

Cochylidia implicitana (Wcke.). SJ: Hostrup Sø, 1 stk. 2.viii.1983 (E. Palm). Vestligste fund i Danmark.

PYRALIDAE

Euchromius ocellea (Hw.). B: Boderne, 1 stk. 19.viii.-16.ix.1983 og Svenskehavn ved Neksø, 1 stk. 17.ix.-17.x.1983 (FAP, JEG, LRK). Tidligere kun fundet i ti eksemplarer i årene 1958, 1967 og 1968.

Crambus silvella (Hb.). NWJ: Lodbjerg, 1 stk. 21.vii.-1.viii.1983 (FAP, JEG, LRK).

Crambus heringiella (HS.). EJ: Glatved, 1 stk. 18.vii.1983 (P. E. Jørgensen); NWZ: Dybesø, 1 stk. 23.vii.1983 (K. Jensen).

Crambus hamella (Thnbg.). SZ: Skibinge, 1 stk. 29.viii.-3.ix.1983 (O. Karsholt). Ny for distriktet.

Agriphila latistria (Hw.). SJ: Kobbelskov, 1 stk. 11.viii.1983 (E. Palm); WJ: Skallingen, 4 stk. 8.viii.1983 (O. Karsholt), Vind 1 stk. 15.-25.viii.1983 (FAP, JEG, LRK) og Kallesmærsk Hede, 1 stk. 28.viii.-3.ix.1983 (E. M. Andersen); NWJ: Lodbjerg, 1 stk. 22.-26.viii.1983 og Hvidbjerg Plantage, 1 stk. 27.viii.-9.ix.1983 (FAP, JEG, LRK); F: Dinestrup Strand, 1 stk. 14.-17.viii.1983 (O. Buhl). Ny for SJ og NWJ.

Agriphila poliellus (Tr.). LFM: Bøtø, 1 stk. 26.viii.-22.ix.1983 og Mellemskov, 1 stk. 27.viii.-23.ix.1983 (FAP, JEG, LRK); SZ: Skibinge, 2 stk. 21.-22.viii.1983 (O. Karsholt). Ny for SZ. På Sjælland sidst fundet i 1965.

Catoptria osthelderi (Latt.). NEZ: Asserbo, 1 stk. 2.vii.1978, 3 stk. 14.-23.vii.1979 og Liseleje, 1 stk. 29.vi.1979 (K. Schnack).

Catoptria fulgidella (Hb.). F: Gulstav, 1 stk. 20.-26.viii.1983 (O. Karsholt, P. Skou). På Fyn tidligere kun kendt i to stk. fra Agernæs i 1942.

Catoptria verellus (Zinck.). LFM: Mellemskov, 1 stk. 27.vii.1983 (A. Madsen).

Catoptria lythargyrella (Hb.). SZ: Fakse Ladeplads, 1 stk. 29.viii.-3.ix.1983 (O. Karsholt).

Eudonia murana (Curt.). NEZ: Melby Overdrev, 1 stk. 3.vii.1983 (P. S. Nielsen, coll. ZMUC). På Sjælland sidst fundet NEZ: Gadevang, 1871. En samlet oversigt over udbredelsen i Danmark er vist på fig. 29.

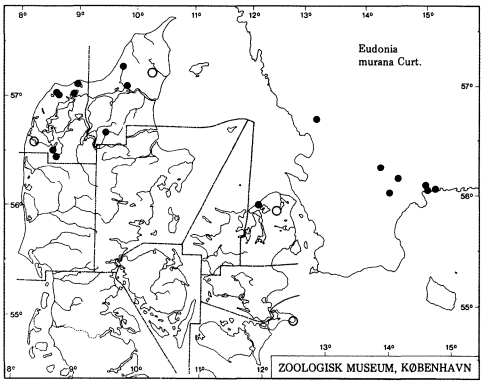


Fig. 29. *Eudonia murana* (Curt.). Kort over findesteder i Danmark. Åbne cirkler markerer fund før 1964.

Fig. 29. Eudonia murana *(Curt.). Map of Danish records. Open cirkels shows records before 1964.*

Evergestis limbata (L.). LFM: Fanefjord Skov, 1 stk. 17.vii.-23.vii.1983 (J. P. Baungård, J. P. Pedersen) og Vindeholme Strand, 1 stk. 22.vii.1983 (H. K. Jensen); NEZ: Ålsgårde, 1 stk. 14.vii.-2.viii.1983 (FAP, JEG, LRK).

Evergestis extimalis (Scop.). LFM: Rodemark, 1 stk. 8.viii.1983 (A. Madsen).

Uresiphita limbalis (Den. & Schiff.). LFM: Fanefjord Skov, 1 stk. 17.ix.-8.x.1983 (J. P. Baungård, J. P. Pedersen).

Sitochroa palealis (Den. & Schiff.). Arten er i 1983 meldt fra mange distrikter i mange eksemplarer. Jævnfør Buhl *et al.* (1983b).

Microstega pandalis (Hb.). NWJ: Lyngby, 1 stk. 9.-26.vi.1983 (FAP, JEG, LRK). Ny for distriktet.

Sclerocona acutellus (Ev.). LFM: Bøtø, 1 stk. 15.vii.1977 (P. Svendsen).

Nascia cilialis (Hb.).F: Urup Mose, 1 stk. 24.-30.vi.1983 (E. M. Andersen); SZ: Magleby, 1 stk. 26.vi.-3.vii.1983 (P. Svendsen).

Udea fulvalis (Hb.). B: Svaneke, 2 stk. 29.vii.-18.viii.1983 (FAP, JEG, LRK).

Palpita unionalis (Hb.). NWJ: Hvidbjerg Plantage, 1 stk. 1983 (FAP, JEG, LRK); F: Dinestrup Strand, 1 stk. 20.-26.ix.1983 (O. Buhl); LFM: Fanefjord Skov og Busene, 2 stk. 17.ix.-8.x.1983 (J. P. Baungård, J. P. Pedersen), Gedesby, 1 stk. 22.-29.ix.1983 (P. Svendsen), Næs, 2 stk. 23.ix.-1.x.1983 (E. Hauritz), Bøtø og Mellemskov, 6 stk. 1983 (FAP, JEG, LRK); B: Randkløve, 1 stk. 1983 (FAP, JEG, LRK). I alt 16 eksemplarer.

Melissoblaptes zelleri (Joan.). NEJ: Læsø, Byrum, 1 stk. 17.vii.1973 (E. Hansen). I det nordlige Danmark er arten kun meldt en gang tidligere, også på Læsø i 1980.

Oncocera semirubella (Scop.). LFM: Fanefjord Skov, 1 stk. 26.vi.-17.vii.1983 (J. P. Baungård, J. P. Pedersen). Ny for distriktet.

Pima boisduvaliella (Gn.). LFM: Mellemskov, 1 stk. 23.v.-21.vi.1983 (FAP, JEG, LRK). Hidtil i LFM kun Mellemskov, 1 stk. i 1953.

Ancylosis oblitella (Zell.). LFM: Kramnitse, 1 stk. 10.-16.ix.1983 (F. Vilhelmsen). Fjerde danske fund. Ny for distriktet.

PTEROPHORIDAE

Cnaemidophorus rhododactyla (Den. & Schiff.). LFM: Bøtø, 1 stk. 25.vii.-7.viii.

1983 og Møns Klint, 1 stk. 8.ix.-14.ix.1983 (P. Svendsen); NEZ: Hundige, 1 stk. 5.-15.viii.1983 (M. Andersen).

Platyptilia isodactylus (Zell.). NWJ: Lodbjerg, 1 stk. 27.viii.-9.ix.1983 (FAP, JEG, LRK). En samlet oversigt over udbredelsen i Danmark er vist på fig. 30.

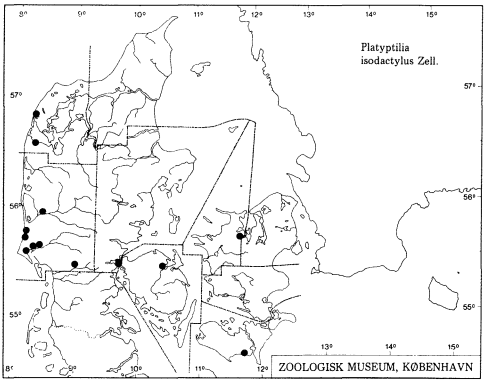


Fig. 30. *Platyptilia isodactylus* (Zell.). Kort over findesteder i Danmark.

Fig. 30. Platytilia isodactylus *(Zell.). Map of Danish records.*

Stenoptilia zophodactylus (Dup.). SZ: Skibinge, 1 stk. 15.-18.viii.1982 (O. Karsholt). Fundet fra LFM: Elkenøre Strand (Buhl *et al.*, 1983 a) udgår grundet fejlbestemmelse.

Leioptilus distinctus (HS.). NWZ: Ordrup, 1 stk. 7.viii.1982 (E. Palm).

Leioptilus osteodactylus (Zell.). NWJ: Lodbjerg, 1 stk. 21.vii.-1.viii.1983 (FAP, JEG, LRK). Ny for distriktet.

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Anmeldelse

Foelix, R.F.: Biology of Spiders. Harvard University Press. London. England. 1982. 306 sider. Pris ca. 500 kr.

Så kom den langt om længe, bogen der giver en moderne oversigt over edderkoppernes liv og levned. Den foreliggende engelske udgave er egentlig en oversættelse af forfatterens tyske udgave fra 1979. Den nye engelske udgave er ajourført samt en smule udvidet. Skulle man have mere lyst til at tilegne sig stoffet på tysk, skal man anskaffe sig Biologie der Spinnen, Stuttgart, Georg Thieme Verlag, 1979.

Det er egentlig utroligt, at der skulle gå 50 år, før der kom en afløser for klassikeren The Biology of Spiders, der blev udgivet af Emil Nielsen i 1932. Det skorter ellers ikke på ny viden om denne gruppe, hvilket klart fremgår af de hundredevis af artikler, der årligt publiceres.

Bogens 306 sider er inddelt i 10 kapitler og illustreret med stregtegninger af varierende kvalitet og 169 sort/hvide billeder af høj kvalitet. Mange af disse er forfatterens egne originalillustrationer udført med scanning electron mikroskop. Det skal siges til forfatterens ros, at disse billeder på bedste vis illustrerer teksten og samtidig åbner en hel ny og spændende verden af strukturelle detaljer for læseren.

Det er klart, at en bog på 306 sider ikke på nogen måder kan gennemgå edderkoppernes biologi i alle detaljer, men vil man vide mere, er man ganske godt hjulpet med bogens 562 referencer. Her finder man indgang til alle tænkelige aspekter af edderkoppernes biologi. Personligt savner jeg to vigtige værker blandt bogens mange referencer. Det drejer sig om Bonnet P., Bibliographia Araneorum (1945-1959) samt Roewer C.Fr., Katalog der Araneae, (1942, 1954). Begge disse er uomgængelige, hvis man interesserer sig for systematik, faunistik og biogeografi.

Stoffet i de 10 kapitler er fordelt som følger: I første kapitel gives der en ultrakort introduktion til edderkopper. Her får man blandt andet oplyst, at der i dag kendes mere end 30.000 edderkoppearter, der fordeles på ca. 60 familier. Dette *ca.* gør forfatteren ikke nærmere rede for, men ved konsultation af nyere systematiske oversigter kan man konstatere en vis uenighed om, hvor mange forskellige familier man vil acceptere. I en oversigt fra 1982 (H. W. Levi; Araneae: *In* Parker, Sybil B. (ed). Synopsis and Classification of living organisms.) angives antallet at være 83, mens et helt nyt katalog fra 1983 (P.M. Brignoli., A catalogue of the Araeae) medtager 96 familier. Foelix har tilsyneladende ikke villet tage stilling til de mange nyoprettede edderkoppefamilier, der har set dagens lys indenfor de sidste 30 år, men holder sig til de »go'e« gamle. Ifølge Foelix er de to artsrigeste familier *Linyphiidae* (baldakinspindere) samt *Salticidae* (springedderkopper) med henholdsvis 3500 og 4000 arter.

Kapitlerne 3, 4 og 5 drejer sig om anatomi, metabolisme og neurobiologi, og her er forfatteren på hjemmebane. Disse kapitler, der udgør 1/3 af bogens stof, bærer præg af, at dette er forfatterens eget forskningsfelt. Det er godt her af få en samlet oversigt over den nyeste viden indenfor dette felt samtidigt med, at dette lidt vanskeligt tilgængelige stof er gjort underholdende med mange interessante eksempler. Hvem kunne således i sin vildeste fantasi forestille sig, at en krabbeedderkop, der vandrer rundt på en lodret flade, er solidt forankret til underlaget med ikke mindre end 160.000 kontaktpunkter. Eller at nogle af verdens giftigste edderkopper forekommer i Sydamerika og tilhører en familie *Ctenidae,* der ligner jagtedderkopper. En repræsentant, *Phoneutria fera,* leverer et bid, der rummer gift nok til – teoretisk set – at slå 300 mus ihjel. Livsfarlige for mennesker er dog kun 20-30 af de 30.000 kendte edderkoppearter. 5 og 6 kapitel drejer sig om edderkoppenet og byttefangst. Disse afsnit er velskrevne og oplysende. I kapitlet om byttefangst er der et afsnit om fangstspecialisterne. Her nævnes bl.a. den tropiske Bola-edderkop. Denne edderkop bygger ikke noget egentlig fangstnet, men nøjes med een lang tråd, der holdes mellem forbenene. For enden af tråden sidder en lille limdråbe. Tråd samt limdråbe slynges rundt i luften som en bola, og insekter, der bliver ramt af limdråben, bliver hængende og kan hales ind. Edderkoppen jager om natten, og man undrede sig meget over, hvordan den var i stand til at ramme forbipasserende insekter i mørke. Denne gåde blev løst, da man opdagede, at edderkoppen udsender duftstoffer (feromoner), der er en kopi af de duftstoffer, som en bestemt hunlig natsværmer *(Spodoptera)* udsender. Edderkoppen kan således tillokke hanlige natsværmere, der flyver rundt om edderkoppen i den tro, at det drejer sig om en hunnatsværmer. Edderkoppen får derved god mulighed for at få »bid« og kan nemt fange 2-3 natsværmere i løbet af en nat.

På side 139 oplyser forfatteren, at hjulspindere næsten altid sidder på undersiden af det svagt hældende hjulspind med hovedet nedad. Det kan derfor undre at korsedderkoppen, der pryder bogens omslag, sidder med hovedet opad. Enten er dette undtagelsen, der bekræfter reglen, eller også er billedet vendt på hovedet.

Kapitel 7 drejer sig om formering og i den forbindelse også parringsadfærd. Her aflives bl.a. myten om, at edderkoppehannen normalt bliver ædt af hunnen under eller efter parringen. Dette er snarere undtagelsen end reglen blandt edderkopper.

Kapitel 8 drejer sig om udvikling fra æg til voksen, og kapitel 9 tager fat på edderkoppeøkolo-

gien. Forfatteren gør opmærksom på, at dette sidstnævnte felt bugner af ny viden, men at han kun kan fremhæve nogle få eksemplarer. Det samme kunne man have sagt om flere af de foregående kapitler især de fysiologiske afsnit, der immervæk er blevet betydeligt bedre dækket.

Bogens 10'ende og sidste kapitel indledes med et citat af den engelske arachnolog W.S. Bristowe: »Now a book on biology is hardly a place to insert a chapter on classification« og efter at have læst Foelix' kapitel om fylogeni og systematik, er jeg tilbøjelig til at give Bristowe ret. Dette kapitel er så absolut det svageste. Man savner bl.a. nogle oplysninger om edderkoppernes slægtsskabsforhold til andre arachnider og får nærmest det indtryk, at der ikke er sket meget på den systematiske front indenfor de sidste mange år, hvilket bestemt ikke er rigtigt.

Dette skyldes måske, at Foelix springer let hen over mange af de systematiske arbejder, der er lavet i de seneste år. Dette afspejler sig tydeligt i hans klassifikation (kap.1.), hvor han bibeholder Simon's system fra århundredeskiftet (E. Simon., Histoire Naturelle des Araignèes, 1892-1903) uden at tage hensyn til, at flere af de overordnede grupper idag betragtes som unaturlige og udelukkende anvendes på grund af traditioner.

Det er i øvrigt synd, at man ikke har haft »råd« til at illustrere bogen med lidt farvebilleder. Mange, især tropiske edderkopper, udviser en farvepragt, der kan konkurrere med mange af de insekter, der er populære blandt både samlere og edderkopper. Når man tager bogens pris og omfang i betragtning, kan man kun forundres.

På trods af ovenstående bemærkninger fremstår bogen som en meget velskreven og informativ bog, der er vanskelig at slippe, når man først får begyndt. Forhåbentlig vil denne bog kunne medvirke til at skabe interesse om en dyregruppe, der ikke umiddelbart er så iøjenfaldende, men utroligt fascinerende.

Nikolaj Scharff

Anmeldelse

Eigil Holm, 1983: Lærebog i Biavl.

Eigil Holms Forlag, Byskovvej 4, 8751 Gedved. 184 sider, 227 figurer, kr. 167,00.

Bogen er udgivet i samarbejde med Danmarks Biavlerforening. Denne lærebog har længe været ventet af biavlere, idet det er 39 år siden, at den sidste Håndbog i Biavl blev udgivet. Der er selvsagt sket en kolossal udvikling siden, hvilket også let erkendes ved sammenligning af de to bøger.

Forfatteren angiver i forordet, at bogen tjener to formål. Dels er den tænkt som lærebog for begyndere, og dels er den tænkt som håndbog i det daglige arbejde, hvorfor alt stof af betydning for den almindelige biavl er medtaget.

Bogen starter med at omtale biavleren og biavlens nytte. Om biavlere fremfører forfatteren, at de næsten altid er rolige mennesker, da nervøse personer dårligt kan omgås bier, fordi biavlerens bevægelser under arbejdet med bierne *skal* være rolige. Efter at have stillet flere krav med hensyn til biavlerens person, fortsætter forfatteren med at forklare, hvordan man bliver biavler i Danmark. Derefter tvinger han den arme nybegynder igennem alt om bier indtil side 168, hvor han får at vide, at der kan regnes med et overskud af den investerede kapital allerede efter to år.

Bogen er opdelt i 19 hovedafsnit og et tillæg omhandlende nyttige adresser, opskrifter, kurser, love og en kort litteraturfortegnelse. Desuden er der et stikordsregister, der gør bogen velegnet som opslagsværk, hvorved biavleren hurtigt kan finde svar på et opstået problem.

Hvert enkelt hovedafsnit er opdelt i mange småafsnit omhandlende bestemte emner inden for det pågældende hovedafsnit. Bogen er rigt illustreret med i de fleste tilfælde gode billeder og tegninger, der henvises til i den omhandlede tekst.

Biernes bygning og funktion er behandlet i 55 underafsnit. Under omtalen af honningbiens anatomi er der benyttet farvetegninger, der for en ukyndig nybegynder er særdeles let fattelige. Afsnittet dækker – inden for rimelighedens grænser – alt om biernes bygning og funktion, som en biavler nødvendigvis må vide for at forstå, hvordan hans bier fungerer. Dette afsnit er særdeles nyttigt for alle danske biavlere, der for første gang er i stand til ved selvstudium på dansk at lære, hvordan bierne fungerer.

Samfundet er behandlet i 25 underafsnit, hvor hovedvægten er lagt på at anskueliggøre, hvordan bisamfundet fungerer i stadet, ved indsamling af føde, og når bifolket formerer sig ved sværmning. Under omtalen af biernes sprog angiver forfatteren, at spejderbien, foruden retning og afstand til blomsten, kan angive blomstens art. En oplysning, der må forstås med modifikation. Biernes liv er inddelt efter et tidsskema. De er »programmeret« til at udføre et bestemt arbejde, fra de kryber ud af cellen, til de dør efter at have fungeret som trækbier 1-3 uger. Levealderen er afgørende for, hvilket arbejde arbejdsbien udfører. Derved får bisamfundet udført alle slags arbejder, som er nødvendige for, at samfundet fungerer. Forfatteren afslutter hele afsnittet med at sammenligne bisamfundet med et menneskelegeme, hvorved læseren kan se nødvendigheden af de reguleringsmekanismer, der får bistaten til at fungere som en enhed.

Derefter behandles de to stadetyper, som benyttes i Danmark: trugstade og opstablingsstade. Beg-

ge stadetyper findes i mange forskellige udformninger, og nybegynderen overlades selv til at finde ud af, hvilke rammemål og stadetyper der er bedst egnet for hans biavl, eller henvises til at få råd fra en erfaren biavler. I sidste tilfælde fortsætter forvirringen m.h.t. at standardisere en dansk stadetype. Honning omtales fra sød saft til honning. Forfatteren starter med at definere, hvad honning er, og at bierne laver honning ud fra tre slags søde plantesafter: 1) nektar fra blomster, 2) udsvedning fra andre levende plantedele og 3) honningdug. Læseren får at vide, hvordan bierne producerer honningen ud fra disse søde safter, hvordan honningen høstes og opbevares. Desuden findes et afsnit om lovgivning om honningfremstilling med angivelse af forudsætninger for at få dispensation fra gældende regler.

Nu, da honningen er høstet og opbevaret, fortsætter forfatteren med at omtale bigårdens indretning, vandrebiavl, foderlære og om voks, propolis og andre biavlsprodukter. Det er vigtige oplysninger for nybegynderen i biavlens mysterium. Alle forhold er søgt belyst. Også forholdet til naboerne, der kan klage til kommunen over biholdet. Det anbefales at betænke naboerne med lidt honning hvert år.

Afsnittet om sygdomme, skadedyr og forgiftninger er behandlet ret udførligt. Forfatteren begynder med at konstatere, at bierne kan blive syge, men biavleren kan selv gøre meget for at forhindre udbrud af sygdom hos bierne. Der omtales tre grupper af sygdomsårsager: 1) dårligt miljø, 2) smitsomme sygdomme, 3) dårlige arveanlæg. Desværre omtales kun de to første grupper direkte, medens arvelige anlæg kun berøres kort under omtalen af biernes forsvar mod sygdomme og europæisk bipest. Den bedste måde at bekæmpe yngelsygdomme på vil være en rationel avl med henblik på forbedring af biernes evne til at udrense den syge yngel. Den enkelte biavler kan fremme denne udvikling ved at købe nye dronninger fra en anerkendt dansk dronningavler og indføre dem i de bifamilier, der viser angreb af yngelsygdomme. At det har sin betydning, er vist i det såkaldte dronningavlsprojekt, hvor 71,4% af bifamilierne med biavlernes egne dronninger var stærkt angrebet af yngelsygdomme mod kun 9,1% i familier med dronninger fra dronningavlsprojektet (se Tidsskrift for Biavl 1983 hefte 3). En kort omtale af dette forhold ville have medvirket til en bedre forståelse af den arveligt betingede modstandsdygtighed mod yngelsygdomme.

Arbejdet året rundt i bigården er udførligt beskrevet, og det er et særdeles værdifuldt afsnit for nybegynderen i biavl. Forskellige driftsformer er omtalt. Seks driftsformer med opstablingsstader er beskrevet, men nybegynderen overlades til egen vurdering af fordele og mangler. Dronningavl, arvelighed og forædling er kort beskrevet. Læseren indføres i dronningavlens mysterium, og han får en introduktion i forædling og kunstig befrugtning af dronninger.

Biernes vigtigste arbejde er bestøvningen af blomster. Værdien af dette bestøvningsarbejde er flere gange større end værdien af den honning, der høstes. Mange biavlere udlejer bier til bestøvning; derfor er det værdifuldt, at bestøvningsbiologi er behandlet i en lærebog i biavl.

Bogen slutter med en kort omtale af biavlens historie og angiver til slut nogle få opskrifter på udnyttelsen af honningbiernes søde produkt: honningen. »Lærebog i Biavl« er tænkt som lærebog for begynderen, men den kan også med stor fordel læses af ældre biavlere og benyttes som håndbog.

Bogen er velskrevet, med korte og informative afsnit om de enkelte emner og formuleret i et kontant sprog, der i visse tilfælde kan nærme sig telegramstil, f.eks. side 37: »Dronens udviklingstid er langsommere end de andres«. Forfatteren tillægger også i visse tilfælde bierne en menneskelig tænkemåde, f.eks. side 45: »Når bien er i aktivitet inde i stadet, strejfer den rundt. Den er på udkig efter det arbejde, dens alder gør den mest tilbøjelig til at udføre«, eller side 50: »Når bierne går ud som sværm, går der en klap ned for deres hukommelse«. Sådanne sammenligninger gør bogen let læselig og forståelig for både unge og ældre biavlere og medvirker forhåbentlig til, at den brømte klap ikke så let går ned for biavleren, når han efter studiet af bogen går ud til arbejdet med bierne.

Sv. Nørgaard Holm

Abundance and spatial distribution of house-dust mites in their natural environment (Acari: Sarcoptiformes & Trombidiformes)

ANNETTE ANDERSEN

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Concentration and spatial distribution of house-dust mites (*Dermatophagoides* spp.) on the surface of plain mattresses have been investigated. The concentration of mites in different regions of the mattresses did not show any general tendency. The spatial distribution of the adult individuals of *D. pteronyssinus* and *D. farinae* differed significantly on the only mattress where both species coexisted. *D. farinae* showed the highest frequency in the edge region at the wall side of the mattress, while *D. pteronyssinus* showed the highest frequency towards the room side of the mattress.

The density of mites, both living and dead, showed a significant positive correlation with the quantity of mattress dust. When humidity is sufficiently high the quantity of dust is the most important factor for growth of mites.

A cheap and easy avoidance program for elimination of house-dust with its content of mites must therefore be recommended to protect allergic patients.

Annette Andersen, Christiansmindevej 12, 2100 Copenhagen, Denmark.

Introduction

House-dust mites, *Dermatophagoides* spp., are sources of one of the most potent allergens present in house-dust. This allergen is mainly responsible for house-dust allergy and asthma in persons sensitive to house-dust (Voorhost et al., 1964; Voorhost et al., 1967; Spieksma & Spieksma-Boezeman, 1967; Tovey et al., 1981).

The greatest concentrations of house-dust mites are found in dust from the bed environment: mattresses, eiderdowns, pillows, etc. (Maunsell et al., 1968; Sesay & Dobson, 1972; Wraith & Connington, 1975). Investigations of the distribution of *Dermatophagoides* spp. on mattress surfaces have shown that the mites are located especially around and beneath buttons, hems and welt cordings (Blythe, 1976; Mumcuoglu, 1976; Lang & Mulla, 1977 and Lang & Mulla, 1978) found the greatest number of mites in the head region.

Mite-sensitive persons are often recommended to take antidust measures to reduce exposure to the house-dust mite allergen. Avoidance measures could be replacing the mattress with one of foam rubber (Mumcuoglu, 1976; Abbott et al., 1981), vacuuming the bed and bedroom carpet or replacing the carpet with smooth floor coverings (Sarfield et al., 1974). However, the effect of such procedures has been doubted (Burr et al., 1980; Korsgaard, 1982).

The aim of this investigation was to analyse the distribution of species, numbers and stages of *Dermatophagoides* spp. on the surface of mattresses (without welt cordings or buttons, especially foam rubber mattresses). The knowledge of the distribution of mites will improve the understanding of their ecology and create a basis for more effective control.

Materials and methods

Five beds (I, II, III, IV and V) from different houses in Copenhagen, Denmark, were examined for house-dust mites once during the period of 13. August – 5. october 1982. The population of house-dust mites in Western Europe has a maximum in this period

(Spieksma-Boezeman, 1967; Korsgaard, 1983). A pilot study showed that the beds contained house-dust mites.

Before the collections were made the relative humidity and temperature in the bedroom were measured with a psychrometer (Table 1). Each mattress was sectioned with masking tape (1.5 cm wide) into 4 x 7 = 28 areas. The size of each sampling area varied from bed to bed depending on the size of the person using the bed. A vacuum cleaner (Vorwerk Kobold; mod. VK 116, Type 1H) with a removable nozzle in which a filter (Cilia teafilter) could be placed was used for the collections. Each sampling area was vacuumed for one minute and the filter was placed in a numbered plastic jar. Table 2 shows the age, sex and height of the test person, the type of mattress (material), whether the mattress was covered with blankets, sheets etc., the total sampling area and the total amounts of dust collected.

Less than 5 hours after collection the dust from the filters was weighed and transferred to dram glasses with a few ml of lactic acid (90%) with lignin pink (Haarløv & Alani, 1970; Sesay & Dobson, 1972). The samples were incubated at 45-55°C for two days. Samples from beds I to IV were diluted with 70% ethanol to 10 ml. Each sample was then shaken for one minute (Whirlimixer) and 2 ml transferred from the suspension to

Date of collection *Indsamlingsdato*	August 13	August 25	September 10	September 23	October 5
Bedroom no. *Soveværelsets nr.*	I	II	III	IV	V
Air temperature *Lufttemperatur*	21.8 °C	20.5 °C	18.4 °C	18.6 °C	18.8 °C
Relative air humidity *Relativ luftfugtighed*	62%	68%	70%	69%	64%
Absolute air humidity *Absolut luftfugtighed*	11.8 g/m^3	12.0 g/m^3	10.9 g/m^3	10.9 g/m^3	10.2 g/m^3

Table 1. Air temperature, relative and absolute humidity in each bedroom on the day of collection.

Tabel 1. Lufttemperatur, relativ og absolut luftfugtighed i hvert soverum på indsamlingsdagen.

	Test person *Forsøgsperson*				Test mattress *Forsøgsmadras*	
No *Nr.*	Age *Alder*	Sex *Køn*	Height *Højde*	Covering and bed type *Senge- madras- og belægningstype*	Total sampling area (cm^2) *Totalt indsamlingsareal (cm^2)*	Total amount of dust collected (mg) Totalmængden af indsamlet støv (mg)
I	10	♂	136	A	12737	1595
II	31	♂	172	A	17057	1162
III	28	♀	166	B	13279	540
IV	37	♂	175	C	14014	501
V	2	♂	90	D	14427	5031

Table 2. Test persons and mattresses. A: Sheet on a single; foam rubber; cotton cover. B. Sheet on a half double; foam rubber; cotton cover. C: Sheet on a single; cotton quilt (thickness 2 cm) covering an innerspring. D. Blanket (wool) on a single; foam rubber.

Tabel 2. Forsøgspersoner og madrasser. A: Enkeltseng; skumgummi; bomuldsbetræk og -lagen. B: Halv dobbeltseng; skumgummi; bomuldsbetræk og -lagen. C: Enkeltseng; rullemadras (tykkelse ca. 2 cm) på en springmadras; lagen D: Enkeltseng; skumgummi; uldtæppe.

petri dishes (Ø 5 cm) with counting grids. Bed V contained so much dust that the samples had to be diluted to 20 ml. After two minutes shaking 2 ml was transferred to petri dishes. A X^2- test (chi-square) for each bed showed that the 2 ml subsample was representative for each sample.

Twenty-five mites chosen by chance from each subsample were mounted on slides in Hoyer's medium for identification, stage-distribution and mortality. Mites were registered as dead if they lacked mouth parts and/or limbs or part of a limb. Ova were registered as live. Protonymphs and tretinymphs were registered as nymphs as it was not always possible to see the genital-ponts. The remaining mites in the subsample were counted non-specific under a stereomicroscope (30 x magnification).

Bed V contained both *Dermatophagoides pteronyssinus* Trouessart, 1897 and *D. farinae* Hughes, 1961 and a total of 20 mature mites were picked op by chance from each of the 28 samples for estimation of the proportion between the two species.

The results were analysed statistically according to Siegel (1956).

Results

Table 3 lists all the genera and/or species of mites and the number and the percentage of

	Mattress no. *Madras nr.* I		II		III		IV		V	
Family, genus or mite species *Midefamilie, slægt eller art*	No of mites *Antal mider*	alive *levende*	No of mites *Antal mider*	alive *levende*	No of mites *Antal mider*	alive *levende*	No of mites *Antal mider*	alive *levende*	No of mites *Antal mider*	alive *levende*
Dermatophagoides farinae	19660	389%	1405	14.6%	0		0		0	
Dermatophagoides pteronyssinus	0		0		4599	34.7%	2106	35.8%	0	
Dermatophagoides farinae & pteronyssinus	0		0		0		0		19808	70.4%
Tarsonemus rakowiensis	322	13.2%	35	0 %	159	0 %	177	2.8%	463	11.1%
Cheyletus spp.	196	0 %	0		10	0 %	5	100%	422	58.3%
Lepidoglyphus spp.	61	0 %	0		10	0 %	0		130	14.5%
Glycyphagus spp.	376	22 %	0		30	0 %	0		0	
Demodex spp.	0		10	50 %	10	100 %	22	77.3%	27	100 %
Acaridae	434	22.4%	10	0 %	0		5	0 %	0	
Eriophyidae	98	0 %	10	50 %	5	100 %	5	0 %	80	19.4%
Tydeus sp.	0		5	0 %	0		0		0	
Bryobia sp.	0		5	0 %	0		0		0	

Table 3. List of species, genera and/or families of mites, the total number and the percentage of alive specimens on each mattress.

Tabel 3. Oversigt over midefund (art, slægt og/eller familie), det totale antal mider og den procentvise andel af levende dyr på hver madras.

living animals from each mattress. House-dust mites belonging to the genus *Dermatophagoides* comprise more than 90% of the total mite fauna and the results below only refer to this genus. Immature stages and ova make up the main part of the living populations in all mattresses.

Table 4 shows the mean concentration of living and dead house-dust mites per 100 cm² in different regions (head-, leg-, centre-,

Bed no. *Seng nr.*	Species *Art*	Regions of mattress surface *Madrasoverfladens regioner*			
		Head *Hovedende*	Foot *Fodende*	Centre *Midten*	Long-edges *Langsider*
I	*Dermatophagoides farinae*				
	alive/*levende*	n = 12	n = 12	n = 14	n = 14
		$\bar{x}$ = 51.2	$\bar{x}$ = 55.5	$\bar{x}$ = 82.5	x = 37.5**
		s.d. = 33.6	s.d. = 29.1	s.d. = 45.8	s.d. = 14.3
	dead/*døde*	$\bar{x}$ = 82.3	$\bar{x}$ = 88.2	$\bar{x}$ = 133.2	x = 55.8*
		s.d. = 64.3	s.d. = 51.0	s.d. = 80.3	s.d. = 30.2
II	*Dermatophagoides farinae*				
	alive/*levende*	n = 12	n = 12	n = 14	n = 14
		$\bar{x}$ = 1.5	$\bar{x}$ = 1.2	$\bar{x}$ = 1.2	$\bar{x}$ = 1.2
		s.d. = 0.8	s.d. = 0.9	s.d. = 1.0	s.d. = 0.9
	dead/*døde*	$\bar{x}$ = 7.9	$\bar{x}$ = 7.3	$\bar{x}$ = 7.9	$\bar{x}$ = 6.1
		s.d. = 3.5	s.d. = 4.6	s.d. = 4.5	s.d. = 3.3
III	*Dermatophagoides pteronyssinus*				
	alive/*levende*	n = 12	n = 12	n = 14	n = 14
		$\bar{x}$ = 15.7	$\bar{x}$ = 6.9**	$\bar{x}$ = 10.7	$\bar{x}$ = 13.1
		s.d. = 6.7	s.d. = 4.4	s.d. = 6.6	s.d. = 7.3
	dead/*døde*	$\bar{x}$ = 16.3	$\bar{x}$ = 25.8	$\bar{x}$ = 22.1	$\bar{x}$ = 23.3
		s.d. = 10.0	s.d. = 21.1	s.d. = 14.6	s.d. = 20.3
IV	*Dermatophagoides pteronyssinus*				
	alive/*levende*	n = 12	n = 12	n = 14	n = 14
		$\bar{x}$ = 4.0	$\bar{x}$ = 6.1	$\bar{x}$ = 5.6	$\bar{x}$ = 5.1
		s.d. = 2.6	s.d. = 4.0	s.d. = 3.5	s.d. = 3.8
	dead/*døde*	$\bar{x}$ = 7.3	$\bar{x}$ = 10.7	$\bar{x}$ = 11.6	$\bar{x}$ = 7.7
		s.d. = 4.6	s.d. = 8.6	s.d. = 7.3	s.d. = 6.7
V	*Dermatophagoides farinae* and *pteronyssinus*				
	alive/*levende*	n = 12	n = 12	n = 14	n = 14
		$\bar{x}$ = 100.8	$\bar{x}$ = 80.1	$\bar{x}$ = 91.4	$\bar{x}$ = 95.4
		s.d. = 43.7	s.d. = 21.6	s.d. = 34.1	s.d. = 50.0
	dead/*døde*	$\bar{x}$ = 45.1	$\bar{x}$ = 37.7	$\bar{x}$ = 42.5	$\bar{x}$ = 39.4
		s.d. = 17.5	s.d. = 14.7	s.d. = 15.3	s.d. = 17.9

Table 4. Mean concentration of living and dead house-dust mites, *Dermatophagoides* spp., per 100 cm² in different regions of the surface of each mattress. Means without *: within each frame are not significantly different ($P > 0.05$). Means followed by * ($P < 0.001$) or ** ($P < 0.001$) within each frame differ significantly from each other according to a Mann-Whitney's U-test. n = number of samples. $\bar{x}$ = mean number of specimens per 100 cm². s.d. = standard deviation.

Tabel 4. Den gennemsnitlige koncentration af levende og døde husstøvmider, Dermatophagoides *spp., pr. 100 cm² i forskellige regioner af hver madrasoverflade. Gennemsnit i hver ramme uden * afviger ikke signifikant fra hinanden ($P > 0.05$). Gennemsnit i hver ramme efterfulgt af * ($P < 0.01$) eller * ($P < 0.001$) afviger signifikant fra hinanden (Mann-Whitney's U-test). n = antal prøver. $\bar{x}$ = gennemsnitligt antal individer pr. 100 cm². s.d. = standardafvigelse.*

and long-edge-region) of the surface of each mattress. For each bed the numbers of house-dust mites per 100 cm² in the different regions of the bed were compared to see if there were significant differences from region to region. The head-region was compared to the foot-region ($n_1 = 12$, $n_2 = 12$), and the centre was compared to the long-edges ($n_1 = 14$, $n_2 = 14$) (Mann-Whitney's U-test). A significant deviation was observed in the number of mites between the regions in two of the beds – bed I with the densest concentration of both living ($P < 0.001$) and dead mites ($P < 0.01$) in the centre of the mattress, and bed III with the largest number of living mites ($P < 0.001$) in the head-region. A general tendency for the concentration of mites in the different regions of the mattresses cannot be shown.

Fig. 1 shows the distribution of mature individuals of *D. farinae* and *D. pteronyssinus* on the surface of mattress V. The distribution of the two species differed significantly. (Total number of mites: $X^2 = 44.9$, df = 1, n = 558 ($P < 0.001$), and number of live mites: $X^2 = 36.2$, df = 1, n = 297 ($P < 0.001$)). The frequency of *D. farinae* was highest at the wall side of the mattress and decreased gradually towards the room, while *D. pteronyssinus* showed the highest frequency towards the room and the lowest at the wall.

A significant positive correlation was found between the number of house-dust mites per 100 cm² and the amount of mattress dust per 100 cm² (Fig. 2). The correlation for the living house-dust mites: Spearman rank correlation coefficient corrected for ties (rs): rs = 0.7009, n = 140 ($P <$ 0.001 two-tailed test for rs = 0), and the correlation for the dead house-dust mites: rs = 0.6893, n = 140 (P : 0.001 two-tailed test for rs = 0).

No significant correlation was found (Spearman rank correlation coefficient (rs), n = 5 ($P > 0.05$ two-tailed test for rs = 0)) between the mean concentrations of living mites per 100 cm² and relative air humidity (rs = -0.50), absolute humidity (rs = -0.60), temperature (rs = -0.20), age of the mattress (rs = -0.30), age of the material of the mattress (excluding the sheet) (rs = 0.80), and the age of the test person (rs = -0.90).

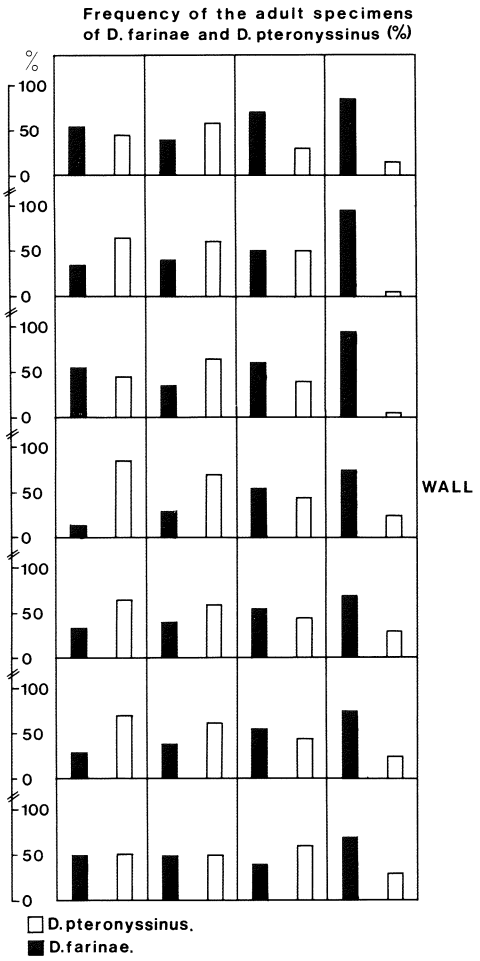


Fig. 1. Frequency of adults of the house-dust mites *Dermatophagoides farinae* and *D. pteronyssinus* in each sampling area on the surface of the same mattress (V).
Fig. 1. Frekvensen af de voksne husstøvmider Dermatophagiodes farinae *og* D. pteronyssinus *i hvert indsamlingsareal på samme madras (V).*

Discussion

Among many as well biological as physical factors contributing to the growth of the mite population, humidity is one of the most important. The largest mite concentrations are found in damp houses (Spieksma & Spieksma-Boezeman, 1967; Maunsell et al., 1970; Cunnington, 1980), and seasonal variation of house-dust mites corresponds to fluctuation in the humidity of the indoor air (Spieksma & Spieksma-Boezeman, 1967; Korsgaard, 1983).

In the present analysis the mattresses contained large populations of mites and both the relative and the absolute indoor air humidity were high on the day of collection (Table 1). Nevertheless, a great variation in the density of mites on each mattress and from mattress to mattress was seen (Table 4). The position of the test person on the mattress was apparently unimportant for the distribution of the mites and the mites showed no general preference for special parts of the surface of the mattress. An exception is mature specimens of *D. farinae* and *D. pteronyssinus,* whose spatial distribution differed significantly from one another (Fig. 1). *D. farinae* showed the highest frequency in the edge-region at the wall side of the mattress, while *D. pteronyssinus* showed the highest frequency towards the room side of the mattress. Various investigations have shown that the two species coexist (Spieksma & Spieksma-Boezeman, 1967; Haarløv & Alani, 1970; Mulla et al., 1975) but their mutual distribution in natural environments has not been thoroughly examined before. In the laboratory Wharton (1971) found that the behaviour of the two species differ slightly: *D. farinae* tends to crawl on the substrate, while *D. pteronyssinus* tends to stay under it. He concludes that the ecological niches of the two species are different and further he states that they show a tendency to exploit different environments. The present study confirms this conclusion.

The density of mites showed a positive correlation with the quantity of dust (Fig. 2). Thus, when humidity is sufficiently high, the quantity of dust is the most important factor for the growth of mites. This is in accordance with the results of Lang & Mulla (1977) and with investigations (Blythe, 1976; Lang & Mulla, 1978) of the distribution of mites on the surface of mattresses provided with buttons, hems and welt cordings, which form depressions and sheltered areas. The dust is mainly deposited beneath such depressions and the density of mites is highest here. A reduction of the quantity of dust is therefore necessary to obtain a decrease in the mite population.

The effect of vacuuming in reducing the mite population on mattresses has been studied. Blythe (1976) examined the density of house-dust mites (numbers per unit

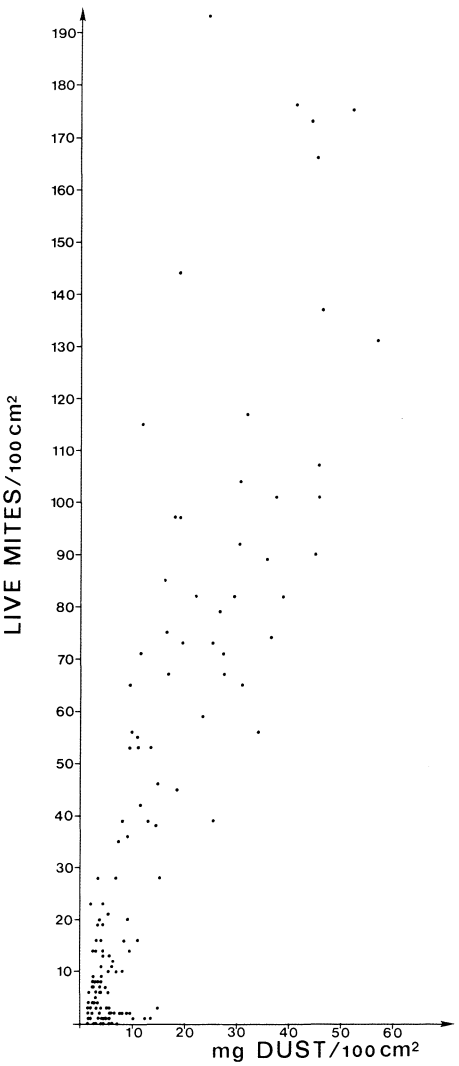


Fig. 2. Relationship between the quantity of mattress dust and the number of live house-dust mites, *Dermatophagoides* spp.
Fig. 2. Forholdet mellem mængden af madrasstøv og antallet af levende husstøvmider (Dermatophagoides spp.).

weight of dust) on mattresses from nine houses, where one mattress from each place was vacuumed regularly. The concentration of house-dust mites on the vacuumed mattress was in all but one case lower than on the corresponding non-vacuumed mattresses from the same place. Blythe (1976) also indicates a complication when expressing mites as numbers per unit weight of dust. The

method is suitable when the allergenicity of dust samples is investigated, but in ecological studies and when following the progress of control technique it has a drawback: an extra variable – the quantity of dust on the substrate – is introduced. Therefore the density of mites in a sample will be »diluted« when the dust weight is high and »concentrated« when the dust weight is low. This effect can be seen from Tables 2 and 3. If the density of mites is expressed as numbers of individuals per 100 mg dust, bed V (with the highest absolute number of mites) would have nearly the lowest density of mites.

Korsgaard (1982) compared the density of mites on mattresses in a group of patients involved in an anti-dust program with the density of mites on mattresses in a control group. In contrast to Blythe (1976), Korsgaard found that in spite of most frequent cleaning, patients with the antidust program had more house-dust mites per unit weight of dust than the control group. Patients, however, were compared with a control group with lower relative indoor air humidity (median values: 50% RH in the group of patients and 43% RH in the control group). An extra variable which may hide the effect of cleaning has been introduced into the comparison. Furthermore, significantly less dust was collected from the patients' mattresses, and as the density of mites is expressed in numbers per unit weight of dust, the data may be too »concentrated«.

Rao et al. (1975) found that strict hygienic measures may prevent the growth of mites on mattresses. Carefully cleaned hospital mattresses were compared with mattresses from private homes. The relative humidity: 53-64%, and the temperature: 20,5-23.5°C, were measured only in the hospitals. In dust samples from 100 hospital mattresses, only 6 contained mites, a total of 7 specimens of *D. pteronyssinus,* whereas dust samples from 50 private mattresses all contained large concentrations of mites. As the brushing method was used for collection, direct comparison with results obtained with vacuum-cleaning is not possible. However, if, as claimed by Korsgaard (1982), only humidity is decisive for beds being infested with mites, and if cleaning of beds only plays a minor role, far more hospital beds should have contained mites.

Sarsfield et al. (1974) have also found that avoidance measures in bedrooms of allergic patients, are highly effective. Symptom scores and counts of house-dust mites before and after the avoidance program showed that the mites nearly disappeared and the symptoms decreased considerably.

To protect allergic patients such a cheap and easy avoidance program for elimination of house-dust mites must be recommended – even more so, if humidity can be reduced.

Acknowledgements

I wish to thank Annelise Kjøller, University of Copenhagen for her critical review of the manuscript. I also wish to thank the staff, especially Thorkil E. Hallas, of the Danish Pest Infestation Laboratory for valuable help during the course of this work.

Sammendrag

Husstøvmiders antal og fordeling i deres naturlige omgivelser.

Koncentrationen og fordelingen af husstøvmiderne, *Dermatophagoides* spp., på overfladen af madrasser uden fremspringende kanter eller knapper (fortrinsvis skumgummimadrasser) er blevet undersøgt.

For madrasserne som helhed viste midekoncentrationerne i de forskellige regioner (hoved-, ben-, center- og kantregion) ingen generel tendens. På den ene madras, hvor de to arter af husstøvmider, *D. pteronyssinus* Trouessart, 1897 og *D. farinae* Hughes, 1961, blev indsamlet, var der en signifikant forskel i fordelingen af de voksne individer. Frekvensen af *D. farinae* var højest i den del af madrassen, der stødte op mod en væg, hvorefter den gradvis aftog. Det modsatte var tilfældet for *D. pteronyssinus* – med størst frekvens mod rummet og mindst mod væggen.

Forholdet mellem mængden af madrasstøv og antallet af både levende og døde mider viste en signifikant positiv korrelation. Når kravet om tilstrækkelig fugtighed derfor er opfyldt for miderne, bliver støvmængden den væsentligste faktor for midernes vækst.

Et billigt og nemt saneringsprogram til elimination af husstøv med dets indhold af mider må derfor anbefales til allergiske patienter.

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Notes on the impact of air pollution (SO_2 & Pb) on spider (Araneae) populations in North Zealand, Denmark

I.H.S.CLAUSEN

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Spiders were collected from linden tree *(Tilia)* trunks in North Zealand, Denmark, and the relationships between density, relative frequency, and number of systematic groups and pollution levels were investigated. Significant correlations were found between the number of systematic groups and SO_2 (negative), and between the relative frequency of *Clubiona* spp. and Pb (positive).

I. H. S. Clausen, Institut for Populationsbiologi, Universitetsparken 15, DK-2100 København Ø, Danmark.

Introduction

As spiders are predatory they may, theoretically, be potential accumulators of toxic materials such as heavy metal compounds. Spiders doubtless play a significant role in terrestrial ecosystems and often are the dominating predatory invertebrates. It is thus of interest to know the influence of the activities of man on spider populations. The aim of this investigation was to study spider populations in relation to two of the most important air pollutants, sulphur dioxide (SO_2) and lead (Pb). The realtively simple tree-trunk ecosystem was chosen, and in order to standardize, only linden trees *(Tilia)* along boulevards were analysed.

Materials and methods

In October 1977, pieces of waste cork (ca. 400 cm^2 per piece), with corrugated cardboard on one side, were tied to the linden trunks (the cardboard on the side facing the tree) 3-7 m above the ground. Thirty pieces were placed at each of the following five localities in North Zealand in Denmark:
Ledreborg Allé at Lejre, UTM: 32U PG87.
Kongelundsvej in the small forest Kongelunden, UTM: 33U UB46.
Vestvolden near Glostrup, 314 m - 580 m north of the major road Roskildevej and about 500 m east of a secondary metal smelter belonging to the firm P. Bergsøe & Søn, UTM: 33U UB37.
Allégade in Frederiksværk, UTM: 33U UC10.
Nørre Allé in Copenhagen, UTM: 33U UB47.
Prior to use the cork pieces were heated to 100°C for one hour to kill all spiders.

The cork paper pieces were taken down in February 1978, and hibernating spiders were extracted in large Tullgren funnels and sorted by hand.

During spring, summer and autumn in 1978 and 1979, spiders were collected from the trunks by brushing and hand-sorting (summer samples).

Atmospheric SO_2 levels were estimated according to Johnsen & Søchting (1973) (Table 1), and the lead burden was expressed as lead concentrations in the spider *Araneus umbraticus* Clerck, 1757 and in the lichen *Lecanora conizaeoides* Nylander ex Crombie (Clausen, 1984) (Table 1). The actual SO_2 levels in 1977 – 1978 are somewhat lower than estimated because of antipollution campaignes, but according to data from »Storkøbenhavns Luftforureningsudvalg«, Stormgade 20, DK-1555 København V, the pollution gradients are the same in 1977 - 1978 as in the early 1970's.

Systematics and nomenclature of spiders follow Locket & Millidge (1951 and 1953) and Locket, Millidge & Merret (1974).

Results

A list of species is given in Table 2. The distribution of spider individuals was not normal, but rather contagious as illustrated by the great variances (Table 2).

The distribution of species was very skewed, with a few dominating species. At all localities the dominant group was juvenile *Philodromus* sp. No adult *Philodromus* were found; the juveniles disappeared from the tree trunks ind early summer, and not until early autumn the genus was seen again, still only represented by juveniles. Most of the *Philodromus* individuals were probably *P. aureolus* (Clerck, 1757), as 15 of 16 specimens reared to adults were *P. aureolus* and one was *P. cespitum* (Walckenaer, 1802).

Neither density nor size of the spiders showed a clear trend in their relations to SO_2 or Pb, but the number of systematic groups clearly decreased with increasing SO_2 levels (Fig. 1, Table 3). The results in Fig. 1 and Table 3 are based on the combined data from cork samples and summer samples, but the same trend is found when data are not combined.

There was a weak, though significant, correlation between the relative frequency of *Clubiona* spp. and the atmospheric lead burden (Fig. 2); Spearman's rank correlation coefficient (r_S) for percentage of *Clubiona* spp. on ppm Pb in *Araneus umbraticus* being 0.456 ($P<0.025$ and N=24). The number of samples (N) is larger than 5 because of subdivision of localities.

	SO_2 ug per m^3	Pb ppm of dry-weight in	
		A.um.	L.con.
Ledreborg Allé	10	5.0	15
Kongelunden	10	3.1	21
Frederiksværk	100	6.8	234
Nørre Allé	120	48	422
Vestvolden	90	96	6838

Table 1. SO_2 and Pb levels at the five localities. SO_2 figures have been estimated from Johnsen & Søchting (1973). Pb figures are from Clausen (1984). SO_2 levels are probably a little lower at Ledreborg Allé as compared to Kongelunden. A.um. = *Araneus umbraticus*, L.con. = *Lecanora conizaeoides*. Ppm = parts per million = ug/g.

Tabel 1. SO_2 og Pb niveauer på de fem lokaliteter. SO_2 værdierne er skønnet udfra Johnsen & Søchting (1973). Pb værdierne er fra Clausen (1984). SO_2 belastningen i Ledreborg Allé er formentlig noget lavere end i Kongelunden. A.um. = Araneus umbraticus, *lL.con.* = Lecanora conizaeoides. *Ppm = milliontedele = ug/g.*

Discussion

A sample size (number of localities) of only five obviously makes a correlation analysis very weak, as the critical value of r_S for N = 5 and a = 0.05 is 0.900. Though the correlation between density of spiders and SO_2 levels is insignificant (Table 3) there *are* significant differences between localities with respect to density (Kruskal-Wallis analysis, $P<<0.001$), with a general decline in numbers towards areas with higher SO_2 levels. The greatest numbers of spiders were obtained at the moderately SO_2 polluted site Vestvolden. It thus seems that there is at first a slight increase in density with increasing SO_2 levels, followed by a distinct decline. It is remarkable that this picture is seen in other studies as well (André, 1977; Charles & Villement, 1977; Freitag & Hastings, 1973; Gilbert, 1971). These studies (including spiders and several other arthropod groups) all note a significant effect of air pollution on the density of the fauna. Also Lebrun (1976) noted an effect of SO_2 pollution. In the present paper it is proposed that as the more brached and foliaceous lichens are replaced by the crustose lichens *Lecanora conizaeoides* and *Lepraria incana* (Linnaeus) Ach. and the algae *Desmococcus* spp., the primary production increases. At higher pollution levels even these relatively tolerant species are injured, and primary production decreases. The production of primary-, and thus of secondary-, consumers most certainly follows the primary production, resulting in a semi-bell-shaped curve of density on SO_2 burden. As can be seen especially in André (1977) and in the present paper, density varies greatly within pollution zones. It seems likely that part of this varia-

	Ledreborg Allé N = 30		Kongelunden N = 30		Vestvolden N = 28		Frederiksværk N = 30		Nørre Allé N = 30	
Segestria senoculata (Linnaeus, 1758)	50 ± 10	x					13 ± 6			
Amaurobius fenestralis (Stroem, 1768)		x								
Amaurobius sp.		x	1 ± 1	x						
Lathys humilis (Blackwall, 1855)	3 ± 3		60 ± 10	x	2 ± 1		8 ± 4	x		
§ *Clubiona brevipes* Blackwall, 1841	50 ± 10		50 ± 9		160 ± 30	x	2 ± 1		40 ± 6	x
C. corticalis (Walckenaer, 1802)					4 ± 3		101 ± 21	x	10 ± 5	
§ *C. pallidula* (Clerck, 1757)	20 ± 4		20 ± 6		90 ± 10				1 ± 1	
Scotophaeus sp.			1 ± 1							
Micaria subopaca Westring, 1861				x					1 ± 1	
§ *Anyphaena accentuata* (Walckenaer, 1802)		x	± 1							
Diaea dorsata (Fabricius, 1777)	3 ± 2		2 ± 2							
Oxyptila praticola (C.L. Koch, 1837)			2 ± 2							
Philodromus sp.	290 ± 30	x	330 ± 30	x	370 ± 40	x	128 ± 16	x	140 ± 16	x
Xysticus sp.			1 ± 1							
Salticus cingulatus (Panzer, 1797)		x		x		x				
Tegenaria sp.	4 ± 2									
Textrix denticulata (Olivier, 1789)							4 ± 2			
Cryphoeca silvicola (C.L. Koch, 1834)				x						
Pardosa sp.						x				
Anelosimus sp.			120 ± 20		30 ± 8		20 ± 6			
Dipoena sp.									1 ± 1	
Steatoda bipunctata (Linnaeus, 1758)	1 ± 1	x			40 ± 10	x	4 ± 3	x	3 ± 2	x
Theridion familiare O.Pickard-Cambridge, 1871	2 ± 1		20 ± 6	x		x	6 ± 2	x	10 ± 4	x
Th. mystaceum L. Koch, 1870		x		x				x	1 ± 1	x
Th. tinctum (Walckenaer, 1802)	1 ± 1		20 ± 5	x	20 ± 4	x	2 ± 1	x	3 ± 2	x
Th. pallens Blacvkall, 1834	5 ± 3		10 ± 4		3 ± 2		16 ± 4			
Theridion sp.				x						x
Meta merianae (Scopoli, 1763)		x								
M. segmentata (Clerck, 1757)		x	1 ± 1							
Tetragnatha sp.				x						
Araneus diadematus Clerck, 1757	1 ± 1	x	4 ± 2		20 ± 3	x			1 ± 1	
A. gibbosus (Walckenaer, 1802)	1 ± 1		6 ± 3							
A. group IX (sensu Locket & Millidge, 1953)					1 ± 1					
A. umbraticus Clerck, 1757	2 ± 1	x	20 ± 4	x	7 ± 2	x	4 ± 2	x		x

	Ledreborg Allé	Kongelunden	Vestvolden	Frederiksværk	Nørre Allé
	N = 30	N = 30	N = 28	N = 30	N = 30
Araneus sp.		x			
Zygiella atrica (C.L. Koch, 1845)	x		2 ± 1	x	
Z. x-notata (Clerck, 1757)				x	
Zygiella sp.			x		
Drapetisca socialis (Sundevall, 1832)	x	x			
Lepthyphantes minutus (Blackwall, 1833)		x		x	
L. group I (sensu Locket & Millidge, 1953)	x	x		x	
Moebelia penicillata (Westring, 1851)	80 ± 20	x 40 ± 7	x 10 ± 4	x	60 ± 20 x
Syedrula innotabilis (O.Pickard-Cambridge, 1863)	x	x			
Tapinocyba sp.	1 ± 1				
Walckenaera sp.		1 ± 1			
Linyphiinae sp.	x	x			x
Total	530 ± 50	730 ± 60	750 ± 70	310 ± 40	280 ± 30

Table 2. Number of spiders per m^2 of cork ± standard error. x: present in »summer samples«. N =number of samples. §: Individuals of *Clubiona brevipes* and *C. pallidula* younger than subadult (genitalia not discernible) could not be separated.

Tabel 2. Antal edderkopper pr. m^2 kork ± standardfejl. x: Tilstede i »sommerfangster«. N = antal korkstykker. §: Små individer (kønsorganerne ikke erkendbare) af Clubiona brevipes *og* C. pallidula *kunne ikke adskilles.*

tion is caused by the operation of factors like other pollutants and urbanization. Also it is certain that »tourists« play a significant role in tree ecosystems (Gilbert, 1971; Southwood et al., 1982; Toft 1976).

Most probably, the decline in numbers of systematic groups as SO_2 levels increase is due largely to the decline in structural diversity associated with the epiphytic flora, though direct toxic effects and the degree of urbanization cannot be ruled out as important factors. Several authors have noted that the number of spider species is dependant on the spacial structure of the habitat (Duffey, 1966 & 1978; Elbourn, 1970; Huhta, 1971; Kajak, 1978; Lowrie, 1963; Robinson, 1981; Turnbull, 1973; Williamson & Evans, 1972), and it thus seems sound to emphasize that factor. A significant decline in numbers of species is also seen in André (1977) and in Gilbert (1971). If the correlation between number of species and SO_2

	no. of species	no. of genera	no. of families	no. of individuals per m^2
SO_2	-0.975+	-0.975+	-1.000+	-0.600
Pb	-0.600	-0.600	-0.700	0.100

Table 3. Spearman's rank correlation (r_S) between pollution levels and number of systematic groups and density. N (number of samples) in all cases 5. +: $P \leqslant 0.05$.

Tabel 3. Spearman's rank korrelation (r_S) mellem forureningsniveauer og antallet af systematiske grupper og tætheden. N (antal »prøver«) i alle tilfælde 5. +: $P \leqslant 0{,}05$.

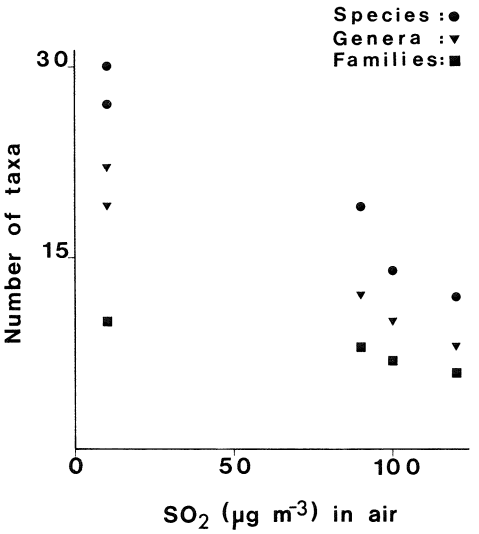


Fig. 1. Number of species, genera and families as a function of the SO_2 burden. Filled circles: species, triangles: genera, squares: families.

Fig. 1. Antal arter, slægter og familier som funktion af SO_2 belastningen. Boller: arter, trekanter: slægter, firkanter: familier.

burden is calculated the following figures result:

André (1977): $r_S = -0.708$, $P < 0.01$, $N = 12$
Gilbert (1971): Total: $r_S = -0.650$, $P < 0.05$, $N = 8$
Predators: $r_S = -0.892$, $P < 0.005$, $N = 8$

It is noteworthy that, contrary to what is noted by Gilbert (1971), the predators seem to be more affected than non-predators.

Reports on effects of Pb on populations of spiders and other arthropod groups are contradictory and not convincing (Maurer, 1974; Musket & Jones, 1980; Przybylski, 1979; Williamson & Evans, 1972 & 1973). Strojan (1978) found a significant decline in numbers of litter arthropods with increasing Pb burden. But the effect may equally well be a result of high concentrations of serveral other heavy metals. The present paper confirms the impression that the effect of Pb on arthropods is generally weak or obscure. An exception seems to be a positive influence of Pb on the relative frequency of *Clubiona* spp.. Clausen (1984, Table 2) measured Pb in *Araneus umbraticus, A. diadematus* Clerck, 1757, the three *Clubiona* species, *Philodromus* sp., *Steatoda bipunctata* (Linnaeus, 1758), and *Moebelia penicillata* (Westring, 1851). Compared to the other species with a two-year cycle (all but *M. penicillata) Clubiona* spp. generally exhibit lower lead concentrations, this being especially true at the more polluted sites Nørre Allé and Vestvolden (Mann-Whitney U-test: $U = 324$, $P < 0.0005$, $n_1 = 11$, $n_2 = 24$, and $Z = 17.216$, $P << 0.01$, $n_1 = 74$, $n_2 = 87$ respectively). It may thus be, that *Clubiona* spp. are favoured somewhat in competition with other spiders at lead polluted sites because of a lower lead uptake.

Conclusions

The relation between spider density and SO_2 levels is not simple, bus probably forms a more or less bell-shaped curve.

There is a significant decline in number of spider species with increasing SO_2 levels.

The relative frequency of *Clubiona* spp. is positively correlated with Pb pollution, possibly because of their lower lead burden as compared to other 2-year cycle species.

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The repro-photo work was done by Eva Bonde.

Sammendrag

Edderkopper blev indsamlet på lindestammer *(Tilia)* i Nordsjælland på følgende lokaliteter:
Ledreborg Allé ved Lejre, UTM: 32U PG87.
Kongelundsvej i Kongelunden, UTM: 33U UB46.
Vestvolden ved Glostrup, 314 m -580 m nord for Roskildevej og ca. 500 m øst for den sekundære metalsmelter P. Bergsøe & Søn, UTM: 33U UB37.
Allégade i Frederiksværk, UTM: 33U UC10.
Nørre Allé i København, UTM: 33U UB47.

Indsamlingen foregik ved hjælp af pyntekorkstykker forsynet med bølgepap på bagsiden. Disse korkstykker blev sat op på stam-

merne efteråret 1977 og nedtaget i februar 1978. Dyrene blev herefter uddrevet i Tullgren-tragte. Supplerende indsamlinger blev foretaget i sommerhalvårene 1978 og 1979 ved børstning af stammerne og »håndindsamling«.

Tætheden af edderkopper viste ikke en statistik sikker sammenhæng med forureningen, skønt der var statistisk sikre forskelle mellem lokaliteterne med hensyn til tætheden af edderkopper. Det foreslås, at primærproduktionen øges ved moderat SO_2

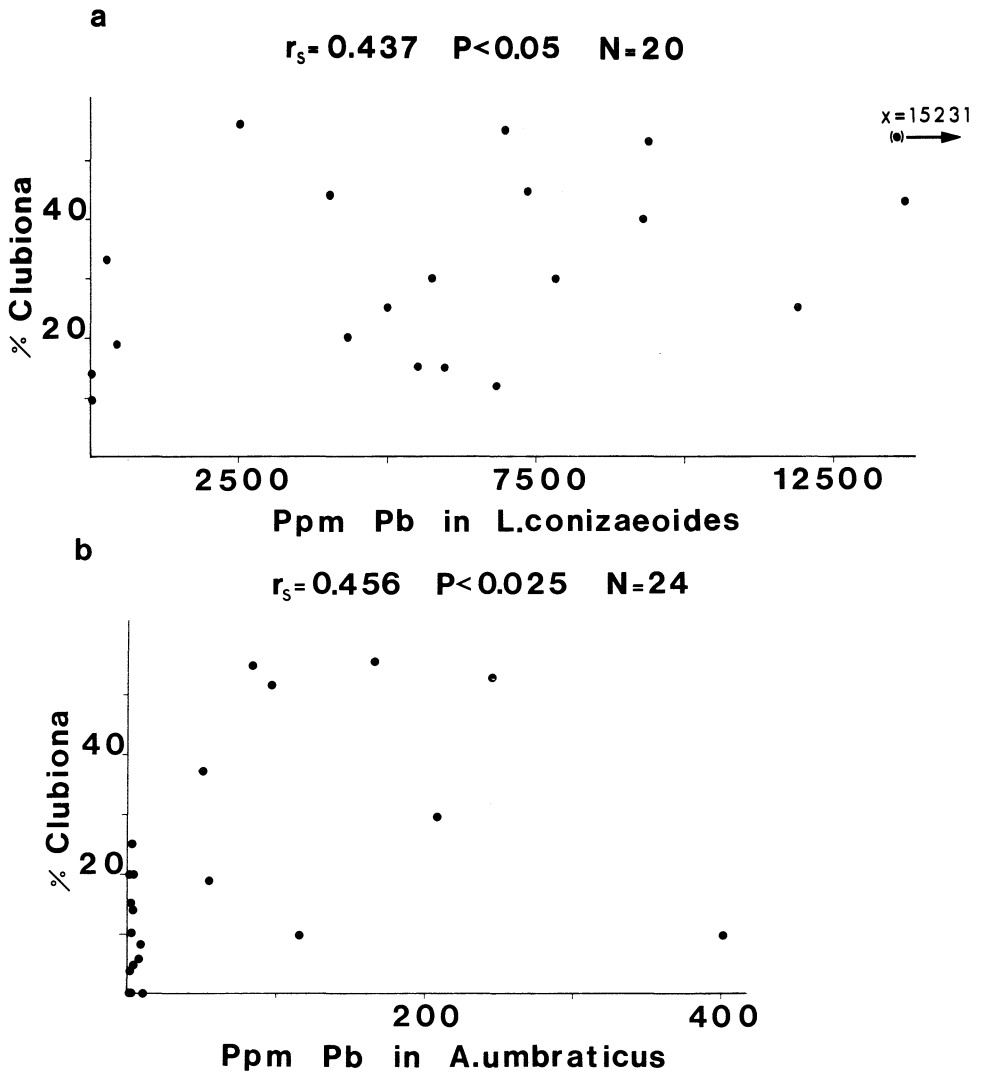


Fig. 2. Relative frequency of *Clubiona* spp. as a function of lead concentrations in:
a) the lichen *Lecanora conizaeoides* and
b) the spider *Araneus umbraticus,*
r_S = Spearman's rank correlation coefficient. N = number of observations. P = level of significance. Ppm = parts per million = ug/g (dry-weight).

Fig. 2. Relative hyppighed af Clubiona *spp. som funktion af blykoncentrationer i:*
a) laven Lecanora conizaeoides *og*
b) edderkoppen Araneus umbraticus.
r_S = Spearman's rank korrelations koefficient. N = antal observationer. P = signifikansniveau. Ppm = milliontedele = ug/g (tørvægt).

forurening på grund af, at de grenede og buskede laver erstattes af de skorpeformede laver *Lecanora conizaeoides* Nyl. ex. Chromb. og *Lepraria incana* (Linnaeus) Ach. og af algerne *Desmococcus* spp., der antages at være mere produktive end de to førstnævnte grupper. På stærkt forurenede lokaliteter skades også disse organismer og primærproduktionen falder. Det synes rimeligt at antage, at edderkoppetætheden vil følge primær- og sekundærproduktionen.

Antallet af edderkoppegrupper (arter, slægter eller familier) faldt med stigende SO_2 forurening (Fig. 1, Tabel 3), rimeligvis på grund af den formindskede rumlige variation som følge af de grenede og buskede lavers forsvinden.

Den relative hyppighed af *Clubiona* spp. var positivt korreleret med blyforureningen (Fig. 2). En forklaring kan være, at *Clubiona* spp. optager mindre Pb end de øvrige toårige edderkopper på de stærkest forurenede lokaliteter Nørre Allé og Vestvolden (Mann-Whitney U-test: $P < 0{,}0005$ og $P << 0.01$ henholdsvis).

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Om ledsagefaunaen i danske bistader

CHRISTIAN SCHOUSBOE

Schousboe, C.: On the attending fauna in Danish beehives.
Ent. Meddr 52: 40-43. Copenhagen, Denmark, 1984, ISSN 0013-8851.

Specimens of the attending fauna were picked from debris accumulated during winter in 432 Danish hives inhabited by European honeybees (*Apis mellifera* L.). Ninetyone arthropod species are listed. Species are grouped as parasites of the bees, as comb eaters, mould eaters, debris eaters, species eating debris decomposed by moulds or as predators. Fifteen species are considered brought into hives either by the bess, by bumble bee queens, ants or by mice.

Christian Schousboe, Njalsgade 34, lej. 46, DK – 2300 København S.

Den fauna der findes i beboede bistader, ledsagefaunaen, er mangelfuldt kendt. En del af faunaens arter, hovedsageligt dem der kan være til skade for biavlen, har været genstand for nærmere undersøgelser. Et mindre antal faunistiske undersøgelser har været foretaget i udlandet, oftest med midefaunaen som emne.

En del iagttagelser over ledsagefaunaen i danske bistader er beskrevet af Johnsen, 1955.

I det sene efterår indstiller bierne bevogtningen af stadeindgangen og holder op med at slæbe affald ud af stadet. Det affald, der i løbet af vinteren samler sig på stadebunden, består hovedsageligt af døde bier og voksmuld, men indeholder også sukkerkrystaller, pollenklumper og stumper af bilarvers kokoner. I det tidlige forår kaster bierne en del af affaldet ud af stadet, og ved et forårseftersyn af bifamilierne, renser biavleren hele stadebunden.

Samling af døde og levende dyr fra affaldet, kan give indblik i, hvilke dyr der forekommer i bistaderne.

Materiale og metode

Materiale bestående af affald, samlet af biavlerne under forårseftersynet, undersøgtes for indhold af andre dyr end honningbier. Ialt undersøgtes 230 prøver indeholdende materiale fra 432 stader, næsten alle sønderjyske. Da gennemgangen af affaldet ikke havde undersøgelse af ledsagefaunaen som sådan som primært mål, toges der ved behandling af prøverne ikke særlige hensyn til bevarelse af små og skrøbelige dyreformer; undersøgelsens resultat bør ikke for nogen dyregruppe betragtes som udtømmende. Enkelte dyr blev samlet på anden måde end ved undersøgelse af affald.

Resultat

Resultatet af bestemmelserne af de fundne dyr ses af nedenstående liste. Efter listenummeret er der med romertal angivet et groft mål for hyppigheden: I angiver at arten fandtes i 1-5 prøver, II at arten fandtes i 6-20 prøver og III at arten fandtes i mere end 20 prøver. Hvor ikke andet er anført i listen, er det imago (adult) der blev fundet og bestemt, og fundet er gjort i affaldsmateriale modtaget til undersøgelse i tiden fra midt i marts til begyndelsen af juni.

Arthropoder fundet i danske bistader

PSEUDOSCORPIONES

1 II *Chelifer cancroides* L.

ACARINA, ACARIDAE

2 *Tyrophagus* sp.

3 *Glycyphagus* sp.

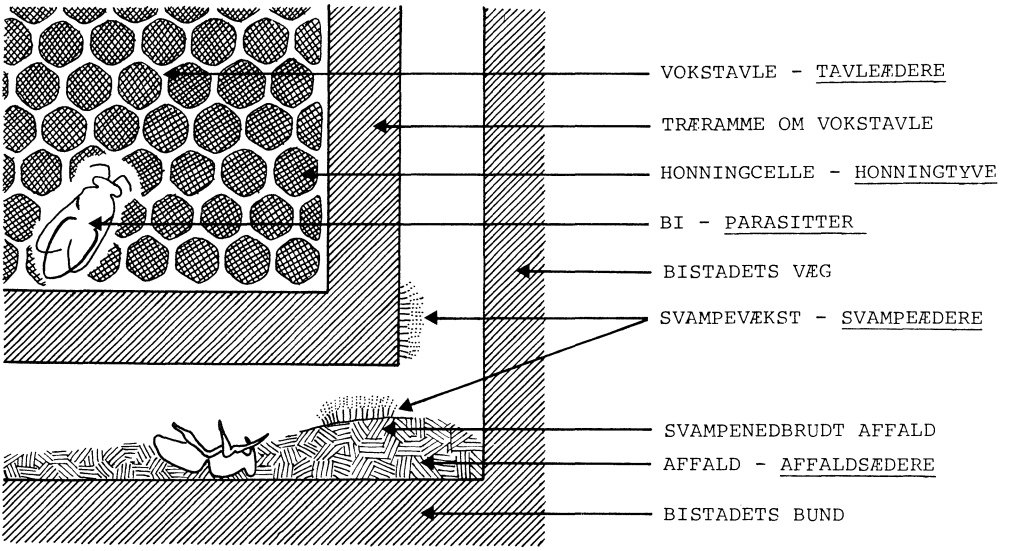
4 I *Histiostoma myrmicarum* Scheucher; deutonymfer

ACARINA, ORIBATEI

5 I *Platynothrus peltifer* (C.L. Koch)

6 I *Ceratoppia bipillis* (Herm.)

7 I *Scheloribates latipes* (C.L. Koch)



Skematisk fremstilling af ledsagefaunaens levesteder (fourageringssteder) i et bistade.

8 I *Trichoribates trimaculatus* (C.L. Koch)
9 I *Trichoribates numerosus* (Sellnick)
10 I *Oribatella calcarata* (C.L. Koch)

ACARINA, TROMBIDIFORMES

11 I *Acarapis externus* Morgenthaler
12 III *Acarapis dorsalis* Morgenthaler
13 I *Scutacarus acarorum* Goeze

ACARINA, MESOSTIGMATA

14 I *Haemogamasus nidi* Michael
15 I *Haemogamasus arvicolarum* Berlese
16 I *Haemogamasus* sp.
17 I *Zerconopsis remiger* (Kramer)
18 II *Pergamasus* sp.
19 I *Parasitus* sp.
20 III *Parasitus fucorum* (De Geer); deutonymfer
21 II *Parasitus anglicus* Vitzthum; deutonymfer
22 II *Macrocheles glaber* (Müller)

ISOPODA

23 I *Oniscus asellus* L.
24 I *Porcellio scaber* Latr.

THYSANURA

25 II *Lepisma saccharina* L.

DERMAPTERA

26 I *Chelidurella acanthopygia* Gene
27 II *Forficula auricularia* L.

PSOCOPTERA

28 II *Lepinotus patruelis* Pearman
29 II *Liposcelis corrodens* Heymons
30 I *Liposcelis* sp.

HEMIPTERA

31 I *Anthocoris nemoreum* L.
32 I *Scolopstethus* sp.
33 I *Delphacodes venosus* Germ.

COLEOPTERA, STAPHYLINOIDEA

34 I *Orthoperus atomus* (Gyll.)
35 I *Omalium rivulare* (Payk.)
36 I *Xylodromus concinnus* (Marsh.)
37 I *Tachyporus obtusus* (L.)
38 I *Tachyporus solutus* Er.
39 I *Atheta trinotata* (Kr.)

COLEOPTERA, HETEROMERA

40 I *Anthicus floralis* (L.)
41 I *Meloe violaceus* Marsh.; triungulin-larver

COLEOPTERA, PHYTOPHAGA

42 I *Lema melanopa* (L.)

COLEOPTERA, RHYNCOPHORA

43 I *Neosirocalus floralis* (Payk.)
44 I *Stereonychus fraxini* (De Geer)

COLEOPTERA, BRACHYMERA

45 I *Dermestes lardarius* L.; august
46 I *Anthrenus museorum* (L.); larve

COLEOPTERA, CLAVICORNIA

47 II *Epuraea unicolor* (Oliv.)
48 I *Epuraea abietina* J. Sahlb.
49 I *Epuraea pygmaea* (Gyll.)
50 I *Meligethes aeneus* (Fabr.)
51 I *Glischrochilus hortensis* (Fourcr.)
52 I *Rhizophagus dispar* (Payk.)
53 I *Rhizophagus bipustulatus* (Fabr.)
54 I *Oryzaephilus surinamensis* (L.)

55 II *Cryptolestes ferrugineus* (Steph.)
56 I *Cryptophagus badius* Sturm.
57 I *Cryptophagus saginatus* Sturm.
58 I *Cryptophagus pilosus* Gyll.
59 I *Atomaria lewisi* Reitt.
60 III *Aridius nodifer* (Westw.)
61 III *Lathridius minutus* (L.)
62 II *Cartodere elongata* (Curt.)
63 I *Cartodere filiformis* (Gyll.)
64 I *Aphidecta oblitterata* (L.)

COLEOPTERA, BOSTRYCHOIDEA

65 II *Ptinus fur* (L.)

HYMENOPTERA, FORMICOIDEA

66 I *Hypoponera punctatissima* (Roger)
67 I *Myrmica rubra* (L.)
68 I *Myrmica* sp.
69 II *Lasius niger* (L.)
70 I *Formica rufa* L.
71 I *Formica fusca* L.

HYMENOPTERA, VESPOIDEA

72 I *Paravespula vulgaris* (L.)
73 I *Paravespula germanica* (Fabr.)

HYMENOPTERA, APIDAE

74 I *Bombus terrestris* L.; juli

DIPTERA, NEMATOCERA

75 I *Dilophus febrilis* (L.)
76 I *Phytosciara flavipes* (Meig.)
77 I *Psychoda severini* Tonn.

DIPTERA, BRACHYCERA

78 II *Megaselia rufipes* (Meig.); klækket fra pupper
79 I *Eccoptomera microps* (Meig.); klækket fra pupper
80 I *Limosina* sp.; dyrket fra larver
81 I *Copromyza* sp.
82 I *Meoneura* sp.; honningtavle, september
83 III *Braula coeca* Nitzsch

SIPHONAPTERA

84 I *Ctenophtalmus agyrtes agyrtes* Heller
85 I *Ceratophyllus gallinae gallinae* Schrank (?)

LEPIDOPTERA, PYRALIDAE

86 III *Galleria mellonella* (L.); larver
87 III *Achroia grisella* (Fabr.); larver
88 I *Ephestia kuehniella* Zeller; dyrket fra larve

MYRIAPODA

89 I *Lithobius* sp.
90 I *Polydesmus* sp.
90 I *Proteroiulus fuscus* Am Stein

Diskussion

Kun få af de fundne arter er direkte knyttet til honningbien, enten som parasitter (listenummer 11, 12, 83) eller som vokstavleædere (83, 86). Selv om larver af Lille voksmøl, *Achroia grisella* (87), primært lever i affaldet, må arten betragtes som direkte knyttet til honningbien, da larverne – ligesom larverne af Stort voksmøl, *Galleria mellonella* (86) og af Bilus, *Braula coeca* (83) – er i stand til at fordøje bivoks. Ved undersøgelse af døde bier i affaldet blev de to parasitiske mider *Acarapis externus* og *Acarapis dorsalis* for første gang fundet i Danmark (Schousboe, 1983).

En del arter kan betragtes som indirekte knyttet til bierne: affaldsædere (25, 45, 46, 55, 65, 78, 79, 88), svampeædere (3, 28, 29, 47, 56-58, 60-62) ædere af svampenedbrudt materiale (2) og rovdyr (1, 18, 66, 69). Myrer af slægterne *Myrmica, Lasius* og *Formica* antages i bistaderne at optræde som honningtyve; små kolonier af *Lasius niger* er dog fundet inde i stader, og i sådanne tilfælde skaffer myrerne sig sikkert protein ved at gå på rov blandt den øvrige ledsagefauna. Den lille, termofile myre *Hypoponera punctatissima* (66) synes at kunne leve i bistaders varme klima.

En del af de arter, der ikke synes at kunne have tilknytning til honningbier, betragtes som tilfældige gæster (23, 24, 31-33, 42-44, 50, 51, 64), mens andre, der vides at optræde phoretisk, er bragt ind i staderne siddende enten på honningbierne selv (1, 22, 41), på myrer (4) eller siddende på humlebidronninger, der om foråret kan trænge ind i staderne, men hurtigt dræbes og kastes ud (13, 20, 21). De fundne *Scutacarus*-mider (13) sad på *Parasitus*-deutonymfer (20). Enkelte arter (14, 15,84) kan være bragt ind med spidsmus eller smågnavere, der hyppigt besøger bistader i vinterhalvåret.

Arter, der lever på bierne (11, 12, 83) eller meget almindeligt findes siddende på dem (2, 3), spredes enten med arbejderbier, der kan slå sig ned i fremmede familier eller røve honning fra dem, eller med droner der om sommeren har fri adgang til fremmede bifamilier.

Tak

Henrik Hansen (Statens Bisygdomsnævn) takkes for overdragelse af materialet. Frits Bangsholt, Henrik Enghoff, Ole Lomholdt (alle Zoologisk Museum), Thorkil E. Hallas (Statens Skadedyrlaboratorium), Lars Trolle samt Mercedes Delfinado-Baker (Bioenvironmental Dee Laboratory, Beltville, USA) takkes for hjælp med bestemmelse af dyrene.

Litteratur

Johnsen, P. 1955: Honningbiens fjender. Dansk Videnskabs Forlag.

Schousboe, C. 1983: Acarapis-miderne. Tidskr. f.Biavl 117,260.

Anmeldelse

Vane-Wright, R. I. & P. R. Ackery (red.) 1984. The biology of butterflies. Symposium of the Royal entomological Society, London. R. E. S., 41 Queens Gate, London SW 7. Pris: £ 39.50.

Denne bog er resultatet af et symposium, der fandt sted i London i september 1981, hvori anmelderen var heldig nok til at deltage. Det blev for alle deltagere en både stimulerende og morsom oplevelse. Det var dog nok kun få af os, der havde ventet, at symposiet i trykt form ville blive så udmærket som det foreliggende værk, der bør komme i hænderne på alle, der prætenderer mere end at *samle* dagsommerfugle.

Bogen er smukt udført i A4 størrelse i fornemste udstyr, endog med fire farveplancher. Der er 429 sider, med 33 afsnit skrevet af førende autoriteter inden for dagsommerfuglenes biologi under otte hovedafsnit: »Systematik«, »Populationsøkologi«, »Foderplanter og interation mellem dagsommerfugle og planter«, »Fjender, parasitter og forsvar«, »Genetisk variation og artsdannelse«, »Køn og kommunikation«, »Vandringer og sæsonvariation«, og endeligt »Beskyttelse af dagsommerfugle«.

Blandt deltagerne har der været nogen kritik af den lange redaktionstid, og anmelderen har selv været med til at drille redaktørerne over forsinkelsen. Der er imidlertid sket det, at bogen ikke blot er referatet af et symposium. De fleste af artiklerne har forfatterne udbygget til egentlige oversigtsartikler over vor nuværende viden inden for deres delområde. Og det er jo noget ganske andet end stimulerende indlæg til et symposium.

Bogen er sprængfyldt med oplysninger og den bobler over med ideer, der kan forfølges af professionelle såvel som amatører. Den er fra frontlinien i entomologisk forskning og opsummerer en spredt litteratur, ikke mindst fra biologiske, kemiske og økologiske tidsskrifter, der ikke nemt kommer den almindelige sommerfugleentusiast i hænde. Indekset, der omfatter ca. 2500 litteraturhenvisninger, er derfor af særlig interesse; de to trediedele er fra efter 1960.

Efter denne anmelders mening kan bogen ikke anbefales varmt nok. Den vil stimulere til yderligere forskning og være med til at cementere dagsommerfuglene som forposten i forskningen af de »lavere« dyr (det er ikke lige udtrykket »lavere« der ligger nærmest, når man har læst denne bog). For ca. 120 år siden sagde opdageren af mimicryprincippet *»Da naturens love må være ens for alle skabninger, så må konklusioner draget på basis af sommerfugle have mere generel værdi for hele den organiske verden. Derfor vil studiet af sommerfugle – symbolet på flygtighed og letsind – en dag ikke være foragtet, men tværtom skattet som en af de vigtigste grene af biologisk forskning.«* Vi er Vane-Wright og Ackery tak skyldig for at demonstrere sandheden bag denne profetiske udtalelse.

Torben B. Larsen

Grønlands møgfluer (Diptera: Scathophagidae)

THOMAS PAPE

Pape, T.: The dung-flies of Greenland (Diptera: Scathophagidae). Ent. Meddr: 44-48. Copenhagen, Denmark 1984. ISSN 0013-8851.

Six species of dung-flies are known from Greenland, viz. *Gonarcticus arcticus* (Becker, 1907), *Microprosopa haemorrhoidalis* (Meigen, 1826), *Scathophaga nigripalpis* Becker, 1907, *S. apicalis* Curtis, 1835, *S. furcata* (Say, 1823), and *S. litorea* (Fallén, 1819). Distribution maps are given based on the material at the Zoological Museum, Copenhagen.

Thomas Pape, Zoologisk Museum, Universitetsparken 15, DK 2100 København Ø, Denmark.

Otto Fabricius (1780) nævner to arter af møgfluer i »Fauna groenlandica«, *Musca scybalaria* Linnaeus og *Musca stercoraria* Linnaeus, hvor førstnævnte er *Scathophaga furcata* (Say), mens sidstnævnte ikke umiddelbart lader sig bestemme ud fra beskrivelsen. Der er sandsynligvis tale om mørke individer af *S. furcata.* Zetterstedt (1840) angiver *Scatomyza squalida* (Meigen) *(Scathophaga furcata)* på baggrund af et eksemplar fra Westerman. Med fortegnelserne i Stæger (1844), Lundbeck (1901), Henriksen & Lundbeck (1917) og Henriksen (1939) stiger artsantallet til otte, hvilket siden er faldet til seks (Vockeroth, 1958; 1965), idet angivelsen af *Scathophaga stercoraria* (Linnaeus) (incl. synonymet *S. merdaria* L. [sic.]) i Henriksen (1939) – baseret på Remy (1928:51) og årsag til senere angivelser af *S. stercoraria* i Grønland (Nielsen et al., 1954; Lyneborg, 1968) – ikke har kunnet bekræftes og må anses for en fejlbestemmelse.

I det følgende bringes en bestemmelsesnøgle samt udbredelseskort over alle seks arter af grønlandske møgfluer udarbejdet på grundlag af Zoologisk Museums samlinger, således at hver lokalitet, hvorfra en art er kendt, er registreret med en prik. Alle litteraturangivelser af grønlandske fund er undersøgt, men kun i ganske få tilfælde supplerer de det foreliggende materiale.

Oplysninger om arternes forekomst uden for Grønland er taget fra Vockeroth (1958, 1965) og Hackman (1956).

Bestemmelsesnøgle til grønlandske arter af Scathophagidae

1. To eller tre kraftige sternopleuralbørster, aristas 2. segment forlænget .... *Gonarcticus arcticus* (Becker)
   Kun en kraftig sternopleuralbørste (den bageste), aristas 2. segment kort 2
2. Forskinneben med ganske korte, mørktfarvede ventrale børster, palper uden sorte børster i spidsen ..... *Microprosopa haemorrhoidalis* (Meigen)
   Forskinneben uden sådan ventral børstebesætning, palper med sorte børster i spidsen, kroppen mere eller mindre tæt behåret ..... *Scathophaga* 3
3. Bageste tværribber (dm-cu og r-m) mørktfarvede (ofte utydeligt hos *S. apicalis),* orangebrune til gråbrune arter ... 5
   Bageste tværribber ikke mørktfarvede, grålige arter 4
4. Palper sorte. Pteropleuron uden eller med enkelte hår, hårkrans om bageste thoracalspirakel tæt, acrostichalbørster og dorsocentralbørster mangler .... *Scathophaga nigripalpis* Becker
   Palper orange. Pteropleuron tydeligt håret på forreste halvdel, hårkrans om bageste thoracalspirakel løs, acrostichalbørster og dorsocentralbørster tydelige ..... *Scathophaga litorea* (Fallén)
5. Børstekrans om bageste thoracalspirakel løs, forskinneben ofte med kraftige børster. Vibrissae omgivet af enkelte børster ..... *Scathophaga furcata* (Say)

Børstekrans om bageste thoracalspirakel tæt, forskinneben sjældent med kraftige børster. Vibrissae omgivet af adskillige børster .... *Scathophaga apicalis* Curtis

Gonarcticus arcticus (Becker, 1907). Fig. 1.

Pselaphephila arctica Becker; Nielsen (1907:398), Becker (1907:412), Henriksen & Lundbeck (1917:650), Henriksen (1939:93).
De i Lundbeck (1895:116) nævnte seks eksemplarer (♂♂) af *Cleigastra sp.* fra Hekla Havn er de eksemplarer, hvorpå Becker (1907) beskrev arten.
G. arcticus er en nearktisk art, i Canada knyttet til områder nord for trægrænsen og i Grønland begrænset til de nordlige og nordøstlige dele. Thule, Inglefield Land, Jørgen Brønlund Fjord, Ella Ø, Hekla Havn, Mestersvig.

Microprosopa haemorrhoidalis (Meigen, 1826). Fig. 1.

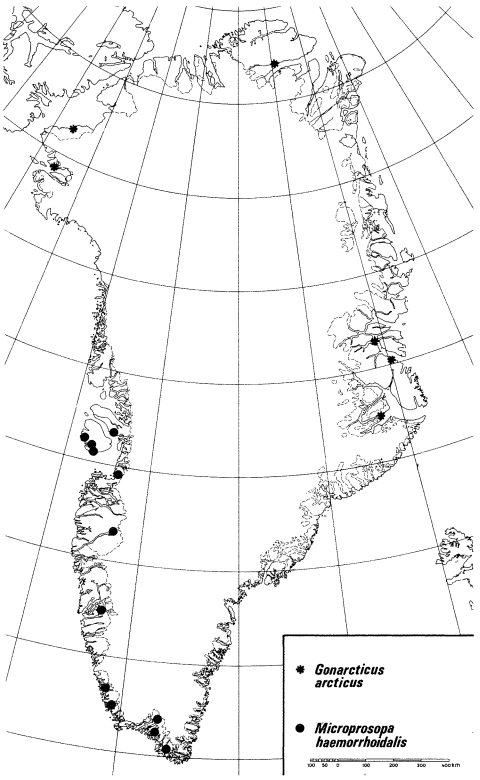


Fig. 1. Udbredelse af *Gonarcticus arcticus* (Becker) og *Microprosopa haemorrhoidalis* (Meigen) i Grønland.

Cordylura haemorrhoidalis Meigen; Stæger (1844:366).
Cleigastra haemorrhoidalis (Meigen); Lundbeck (1901:290).
Microprosopa haemorrhoidalis (Meigen); Henriksen & Lundbeck (1917:653), Carpenter (1938:549), Henriksen (1939:94).
Holarktisk art med lavarktisk-højboreal og boreoalpin udbredelse. Almindelig i Grønland langs hele den sydlige vestkyst til ca. 70°N, hvilket omtrent falder sammen med forekomst af kratvegetation, *M. haemorrhoidalis* er knyttet til den mere frodige lavarktiske vegetation og er fanget i stort tal på blomstrende kvan *(Angelica archangelica)* på Disko.

Scathophaga nigripalpis Becker, 1907. Fig. 2.

Scatophaga nigripalpis Becker; Nielsen (1907:398), Becker (1907:413), Henriksen & Lundbeck (1917:658), Collin (1937:595), Henriksen (1939:94).

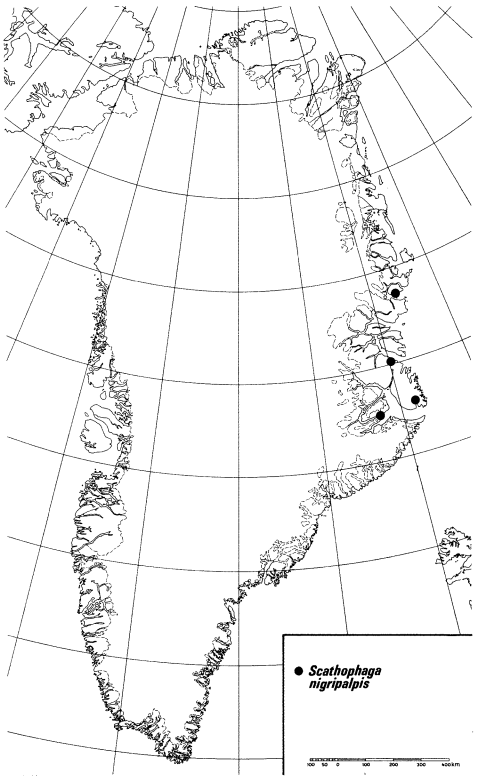


Fig. 2. Udbredelse af *Scathophaga nigripalpis* Becker i Grønland.

I Lundbeck (1895:116) nævnes tre eksemplarer (♂♂) af *Cleigastra sp.*, hvilke må være de tre eksemplarer, arten blev beskrevet på. *S. nigripalpis* er udbredt omtrent som *G. arcticus* og som denne kun registreret fra nearktis. *S. nigripalpis* foreligger kun i få eksemplarer: Hekla Havn, 3♂♂ (typer), Deichman; Elvdal v. falske Eskimonæs, 1♂, H. Madsen; Mestersvig, 1♂, C. Vibe; samt 6♂♂ fra Hurry Inlet, Scoresby Sund, nævnt i Collin (1937).
I højarktisk Canada er *S. nigripalpis* observeret på blomster af *Dryas integrifolia* (McAlpine, 1965:250) og *Saxifraga oppositifolia* (Hocking, 1968:386).

Scathophaga apicalis Curtis, 1835. Fig. 3.

Scatophaga lanata Lundbeck; Lundbeck (1901:294), Nielsen (1907:397), Henriksen & Lundbeck (1917:651), Brændegaard et al. (1935:14), Collin (1937:595), Carpenter (1937:407), Carpenter & Holm (1939:71), Henriksen (1939:94).
Scatophaga squalida Meigen; Nielsen (1910:64). Fejlbestemmelse.

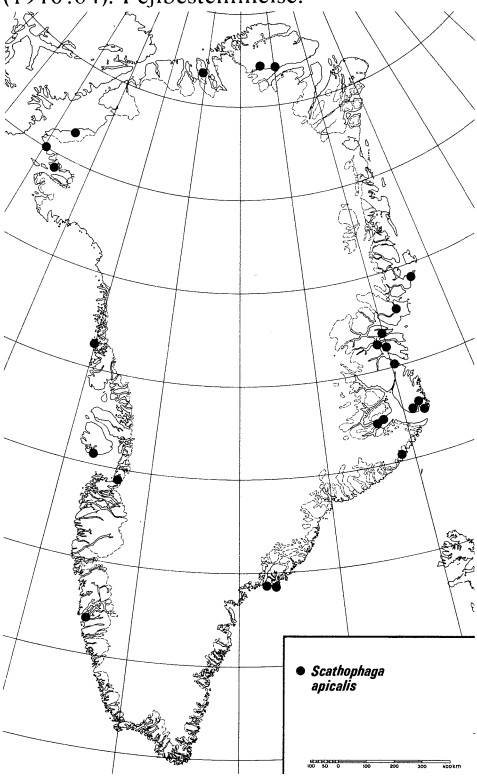


Fig. 3. Udbredelse af *Scathophaga apicalis* Curtis i Grønland.

Scathophaga nigrolanata Cresson; Cresson (1918:136).
De i Lundbeck (1895:116) nævnte eksemplarer af *Scatophaga sp.* er det materiale, hvorpå Lundbeck (1901) beskrev *S. lanata.*
S. apicalis er udbredt i de arktiske dele af holarktis med tyngdepunkt i det højarktiske. Forekommer ikke i Europa. I Grønland er *S. apicalis* hyppig i de nordlige og nordøstlige dele, aftager sydpå stærkt i hyppighed og synes helt at mangle i det sydligste Grønland. Fra Godhavnsområdet på Disko, der er relativt godt indsamlet, foreligger otte eksemplarer, fra Nuuk (Godthåb) to. Sydligste findested på østkysten er Ammassalik og Kap Dan.

Scathophaga furcata (Say, 1823). Fig. 4.

Musca scybalaria Linnaeus; Fabricius (1780:204). Fejlbestemmelse.
Scatomyza squalida (Meigen); Zetterstedt (1840:721).
Scatophaga squalida Meigen; Stæger (1844:366), Lundbeck (1895:116), Lundbeck (1901:295), Nielsen (1907:397), Hen-

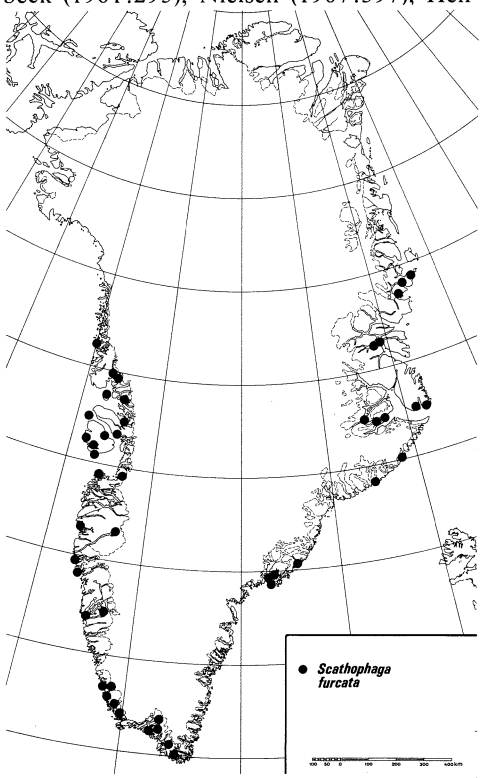


Fig. 4. Udbredelse af *Scathophaga furcata* (Say) i Grønland.

riksen & Lundbeck (1917:651), Brændegaard et al. (1935:14), Collin (1931:89), Gelting (1937:94), Carpenter (1938:549), Carpenter & Holm (1939:71), Henriksen (1939:94).
Vidt udbredt holarktisk art. Meget almindelig i både Vest- og Østgrønland syd for ca. 75°N. Taget på blomsterstande af pil *(Salix)* og kvan *(Angelica archangelica)* samt på gødning (Collin, 1931; Carpenter, 1938), i Sydgrønland ofte på hestegødning (P. Nielsen pers. medd.).

Scathophaga litorea (Fallén, 1819). Fig. 5.

Anthomyia impudica Reiche; (1857:175).
Scatophaga littorea (Fallén); Lundbeck (1895:116).
Scatophaga litorea (Fallén); Stæger (1844:366), Lundbeck (1891:115), Lundbeck (1901:296), Nielsen (1907:398), Henriksen & Lundbeck (1917:652), Collin (1931:90), Henriksen (1939:94).
Scatophaga nigripes Holmgren; Holmgren (1872:103), Carpenter (1938:549).

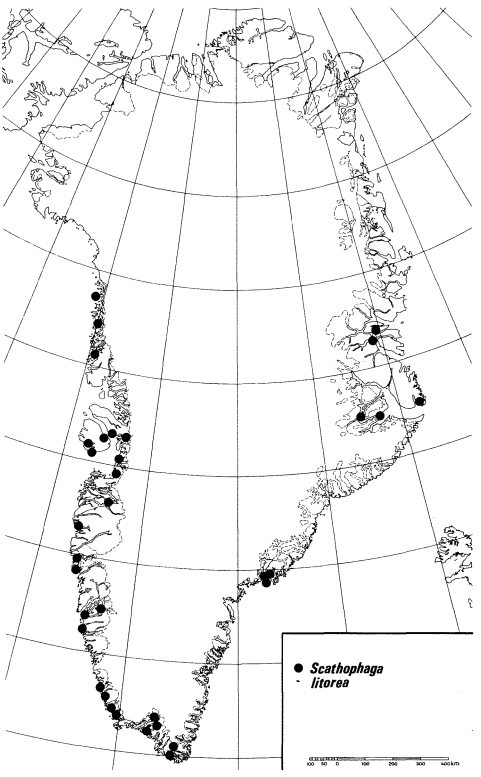


Fig. 5. Udbredelse af *Scathophaga litorea* (Fallén) i Grønland.

Holarktisk art med littoral udbredelse, således også i Grønland knyttet til selve stranden (Lundbeck, 1891; Madsen, 1936), hvor larverne lever i opskyllet tang. Udbredt i Grønland omtrent som *S. furcata.*

P. Nielsen og U. Røen takkes for værdifuld hjælp under udarbejdelsen af kortene.

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A centipede in Greenland: *Lamyctes fulvicornis* Meinert, 1868 (Chilopoda, Lithobiomorpha, Henicopidae)

JENS BÖCHER & HENRIK ENGHOFF

Böcher, J. & Enghoff H.: A centipede in Greenland: *Lamyctes fulvicornis* Meinert, 1868 (Chilopoda, Lithobiomorpha, Henicopidae) Ent. Meddr 52: 49-50, Copenhagen, Denmark, 1984. ISSN 0013-8851.

Lamyctes fulvicornis Meinert, 1868 (Chilopoda, Lithobiomorpha, Henicopidae) is recorded as the first centipede from Greenland. 3♀♀ were found at Grønnedal in S. Greenland. An indoor find of *Lithobius forficatus* (L.) from W. Greenland is also mentioned.

Jens Böcher & Henrik Enghoff, Zoological Museum, Universitetsparken 15, DK-2100 Copenhagen, Denmark.

This is the first report of a myriapod from Greenland. Three females of *Lamyctes fulvicornis* Meinert, 1868, were taken under stones at Grønnedal, SW Greenland (61°14′N, 48°05′W) on 10.ix.1959, by cand. mag. Torben Andersen, who was at that time a teacher at the naval station in Grønnedal and in addition made entomological collections and studies, mainly on spiders.

According to Mr. Andersen (pers.comm.) the sample which contained *L. fulvicornis* was taken during a study of the biology of the spider *Steatoda albomarginata* (Degeer) in a scree area on a SW-facing slope about 500 m NE of the outermost building of the naval station, and about 250 m above sea level. The vegetation of the locality is sparse and may be characterized as dry heath, but above and surrounding the scree is found a vigorous vegetation with *Salix glauca*-shrub, ferns and luxuriant herb fields. The sample with *L. fulvicornis* further contained specimens of the weevil *Otiorrhynchus arcticus* (O. Fabricius) and the ground-beetle *Trichocellus cognatus* (Gyllenhal).

L. fulvicornis was a likely candidate for the first species of centipede to be found in the free in Greenland: It is extremely widespread in the West Palaearctic subregion including Iceland and the entire Nearctic subregion, and it reaches latitudes north of 60° in Fennoscandia and North America (Andersson 1984, Eason 1970, Kevan 1983, Palmén 1948). So far it has not been reported with certainty in the Soviet Union east of ca. 50° E (Zalesskaja 1978). Much of the distribution of *L. fulvicornis* may be due to human transport, but Kevan (1983) regards the remoteness of some of the Canadian localities as evidence that they represent natural occurrences. Dispersal of the species will be favoured by the fact that it is parthenogenetic over most of its range, males being known only from the Azores and the Canary Islands (Eason 1964, Andersson 1984). In this respect it is in accordance with a trend of adaptation to Arctic conditions found among a number of other arthropod taxa (cf. Downes 1962, 1965; Böcher 1971).

The material reported on here is kept in the Zoological Museum, University of Copenhagen, where also a sample of another lithobiomorph centipede from Greenland is present, viz., a single specimen of the ubiquitous *Lithobius forficatus* (L., 1758) (Lithobiidae), taken in a building in Ivigtut, West Greenland, in 1938. This obviously accidental introduction of a centipede to Greenland is of considerably less interest than the find of *L. fulvicornis,* which – whether due to anthropochory or not – seems to represent a population which is able to survive outdoors in Greenland. The place where *L. fulvicornis* was found is loca-

ted in the climatically most favoured, subarctic part of Greenland, where, e.g., birch trees *(Betula pubescens)* are found in the innermost parts of the fjords. The beetles found together with *L. fulvicornis* both have a pronouncedly southern distribution in Greenland (S of about 65°N).

We are grateful to Dr. E. H. Eason for comments on the manuscript.

Sammendrag

En grønlandsk skolopender: *Lamyctes fulvicornis* Meinert, 1868

Skolopendre har hidtil ikke været kendt fra Grønland. Nu er imidlertid *Lamyctes fulvicornis* fundet ved Grønnedal i Sydgrønland. Tre hunner blev fundet under sten i 1959. Arten er vidt udbredt på den nordlige halvkugle og er næsten overalt parthenogenetisk. Det er uvist, om det grønlandske fund skyldes indslæbning, men under alle omstændigheder ser arten ud til at kunne klare sig udendørs i Sydgrønland.

Addendum

After the manuscript went to press, two further females of *L. fulvicornis* were discovered in the material of Torben Andersen. They are from the same locality and the same date as the three females recorded above.

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MINDRE MEDDELELSE

Tamarisk-cikaden, *Opsius stactogalus* Fieber, 1866, fundet i Danmark

På en tamariskbusk i Gentofte (NEZ, UB 48) har jeg den 30.viii.-20.ix.1984 fundet talrige eksemplarer af *Opsius stactogalus* Fieber, 1866 – en cikade, som er ny for landet. Jeg meddelte straks fundet til Lars Trolle, Østermarie, som derefter gik ud og gjorde ligeså, idet han fandt arten d. 10.ix. i Rønne (B, VB 80).

Ifølge F. Ossiannilsson: The Auchenorrhyncha (Homoptera) of Fennoscandia and Denmark Part 3 (Scandinavian Science Press 1983) er arten kendt fra et par steder i Skåne samt fra Botanisk Have i Oslo. Ellers forekommer den i Mellem- og Sydeuropa, Nordafrika, Mellemøsten og Nordamerika.

O. stactogalus er en 4-5 mm lang, smaragdgrøn cikade. Den lever specielt på tamarisk, hvilket ingen andre cikader gør her på lag. Tamarisk findes i Danmark kun som dyrket, og *O. stactogalus* hører således til vor menneskebetingede fauna. Den kan undertiden optræde som et betydeligt skadedyr på sin værtplante.

Henrik Enghoff, Zoologisk Museum, Universitetsparken 15, 2100 København Ø.

Pemphredon montanus Dahlbom, 1845 – en ny dansk gravehveps (Hymenoptera: Sphecoidea)

OLE LOMHOLDT

Lomholdt, Ole: *Pemphredon montanus* Dahlbom, 1845 – a new Danish sphecid wasp (Hymenoptera: Sphecoidea).
Ent. Meddr 51: 51-52. Copenhagen, Denmark 1984. ISSN 0013-8851.

A rather extensive material of *Pemphredon montanus* has been found in east Jutland. All records are from nests in isolating materials. The aphid *Cinara pinea* Mordvilko constitutes the provision at least in some populations, and the ichneumonid wasp *Perithous mediator* (Fabricius) is a possible parasit. *Pemphredon montanus* is a boreal, holarctic species, being mainly confined to coniferous forests.

Ole Lomholdt, Zoologisk Museum, Universitetsparken 15, DK-2100 København Ø.

I en henvendelse fra Miljø- og Levnedmiddelkontrollen i Viborg til Statens Skadedyrlaboratorium i Lyngby ved København forespurgtes der i juni 1983 angående en hveps' redebygning i nogle flamingoplader, stammende fra Kornblomstvej i Viborg, G. Larsen leg. Arten blev ved hjælp af Nielsen, 1907 bestemt til *Pemphredon lugubris* Latreille, men da de fire eksemplarer (alle hunner) ankom hertil, måtte jeg korrigere bestemmelsen til *P. montanus*.

Lidt senere på sommeren forespurgte Ole Vagtholm-Jensen, Billund angående en *Pemphredon*-art, der i stort antal færdedes i hans udhus, gnavende redegange i flamingomateriale. Også her drejede det sig om *P. montanus*. Ole Vagtholm indsamlede en del af det anvendte fodermateriale, og Ole E. Heie, Danmarks Lærerhøjskole, har været så venlig at bestemme det til bladlusarten *Cinara pinea* Mordvilko – en på fyr levende art. Snyltehvepsen *Perithous mediator* (Fabricius) (Ichneumonidae) blev af Ole Vagtholm fundet nær *montanus* rederne, og dette kan ikke undre, da arten er en velkendt parasit på især *Pemphredon* og *Trypoxylon*.

I september rettedes henvendelse til Statens Skadedyrlaboratorium angående nogle hvepse, der havde gnavet huller i cellotexmateriale i et sommerhus ved Horsens Fjord mellem Horsens og Odder. Der var vedlagt to *Pemphredon montanus* hunner, O. Christiansen leg., O. Lomholdt det.

Artens tilstedeværelse her i landet er lidt uventet, idet den trods mangeårige, ret så grundige indsamlinger, ikke tidligere har været fundet. Den er almindelig i næsten hele Fennoskandien, i Alperne, og gennem USSR til Japan. Den forekommer desuden i USA og har således en holarktisk udbredelse. Den er tilknyttet nåleskovsbæltet (Taigaen) og er normalt en i dødt fyrretræ redebyggende bladlussamler. Det forekommer sandsynligt, at de relativt varme somre i 1982 og 1983 har befordret denne »kontinentale« arts etablering i Danmark.

Alle de her omtalte eksemplarer er opbevaret på Zoologisk Museum i København.

Arten ligner *lugubris* meget, men *montanus* er gennemgående lidt mere kraftigt bygget, dvs. finder man en relativ bred *»lugubris«*, er der grund til at se lidt nærmere på den. Forskelle i redebygningen hos de to arter er ikke konstateret men det vides, at arterne er en smule mindre solitære end de fleste andre gravehvepse, idet flere hunner kan anvende samme indgangshul. Hvis to eller flere hunner anvender samme indgang til reden formoder jeg, at socialiteten derefter er ophørt, idet den videre udformning af rede/gangsystemerne holdes adskilt. Det samlede – resulterende – rede/gangsystem er ofte særde-

les kompliceret i sin struktur, og kompleksiteten øges også ved, at næste års hunner (eller andre arter!) bygger videre på det eksisterende redesystem.
Netop inden for Penphredoninae findes den højest udviklede sociale adfærd, der kendes inden for gravehvepsene, idet *Microstigmus comes* Krombein fra Costa Rica opviser reproduktiv dominans, dvs. arbejdsdeling mellem hunnerne. Et sådant udviklingstrin er direkte sammenligneligt med det, vi f.eks. finder hos nogle af de sociale bier. Begyndelsen til social adfærd er, at den aggressive adfærd mellem hunner af samme art bortfalder. Det er spændende, om nye iagttagelser over de to arters levevis kan bidrage til forståelsen af den sociale adfærds opståen og udvikling.
Nedenstående oversigt skulle lette adskillelsen mellem de to arter. Se i øvrigt Lomholdt, 1975.

montanus

♀

Pygidialfeltet bredt og fladt
Forranden af clypeus vinkelformet fremstående

Scutum med en kraftig, fingeraftrykslignende skulptering
Mesopleuron mat, ventralt svagt skulpteret, med tydelig mikroskulptering

♂

Den mediane udskæring i clypeus' forrand smallere end antennernes ledgruber
Mesopleuron ventralt uden tværstribet skulptering

lugubris

♀

Pygidialfeltet smalt, rendeformet
Forranden af clypeus bredt afstudset eller svagt buet
Scutums skulptering betydelig svagere

Mesopleuron blankere, ventralt med kraftig tværstribet skulptering, mikroskulpteringen svag

♂

Den mediane udskæring i clypeus' forrand betydelig bredere end antennernes ledgruber
Mesopleuron ventralt med tværstribet skulptering

Der i denne forbindelse grund til at nævne, at især *P. balticus* Merisuo meget ligner små eksemplarer af *lugubris,* og da *balticus* har sine forekomster meget nær Danmark, kan arten forventes her i landet. Den angives at yngle i hule grene af druehyld *(Sambucus racemosa),* hvor man i øvrigt finder adskillige andre gravehvepse boende.

Litteratur

Lomholdt, O., 1975: The Sphecidae (Hymenoptera) of Fennoscandia and Denmark. – Fauna Entomologica Scandinavica 4. – Klampenborg, Denmark.

Nielsen, J.C., 1970: Gravehvepse og Gedehamse. – Danmarks Fauna 2. – København.

Katalog over de danske Sommerfugle

Catalogue of the Lepidoptera of Denmark

Redaktion: Karsten Schnack

Forfattere:

Ole Karsholdt, Niels Peder Kristensen, Svend Kaaber
Knud Larsen, Ebbe Schmidt Nielsen, Eivind Palm
Karsten Schnack, Peder Skou, Bjarne Skule

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Indledning

Det foreliggende værk er i to henseender en aktuel fortegnelse over de danske sommerfugle. Først og fremmest er der tale om en faunistisk registrering af samtlige 2319 arter. For hver enkelt art angives, i hvilke af de 11 danske distrikter den hidtil er fundet. Samtidig er der tale om en check-liste, hvor systematikken og nomenklaturen er ført helt ajour under hensyntagen til den nyeste forskning på området.

Som check-liste betragtet tager fortegnelsen sit udgangspunkt i Karsholt & Nielsen: Systematisk fortegnelse over Danmarks sommerfugle, Klampenborg 1976. Opfattelsen af storsystematikken har undergået en del forandringer siden da. Dette redegøres der for af Niels Peder Kristensen i et selvstændigt kapitel. Ole Karsholt har fulgt det nomenklatoriske arbejde op. Der er helt hen i korrekturfasen taget hensyn til nye oplysninger på området. Alle væsentlige ændringer i forhold til Karsholt & Nielsen (1976) har givet anledning til en n(omenklatur)-note. Disse n-noter er samlet i et særligt kapitel med en indledning. De navne, der optræder i disse noter, er medtaget i registeret. Herved er det gjort muligt entydigt at finde frem til alle de arter, der er medtaget i det tidligere katalog. For identifikation af ældre synonymer må man fortsat benytte sig af dette.

Som grundlag for den faunistiske registrering er benyttet den efterhånden vel indarbejdede opdeling af landet i 11 distrikter – jfr. det her viste kort og Enghoff, H. & Nielsen, E.S.: Et nyt grundkort til brug for faunistiske undersøgelser i Danmark, baseret på UTM-koordinatsystemet, Entomologiske Meddelelser 45: 65-74, 1977. En ikke udfyldt cirkel angiver, at der kun findes fund fra før 1960 fra det pågældende distrikt. En sort prik angiver, at der eksisterer mindst et kontrolleret eksemplar fra distriktet fra 1960 eller senere. Larvefund er kun medtaget, hvis der foreligger klækket materiale.

Ved benyttelsen af tilsvarende prikkataloger støder man ofte på den vanskelighed, at man ikke kan finde frem til baggrunden for forfatterens angivelser. For at undgå dette

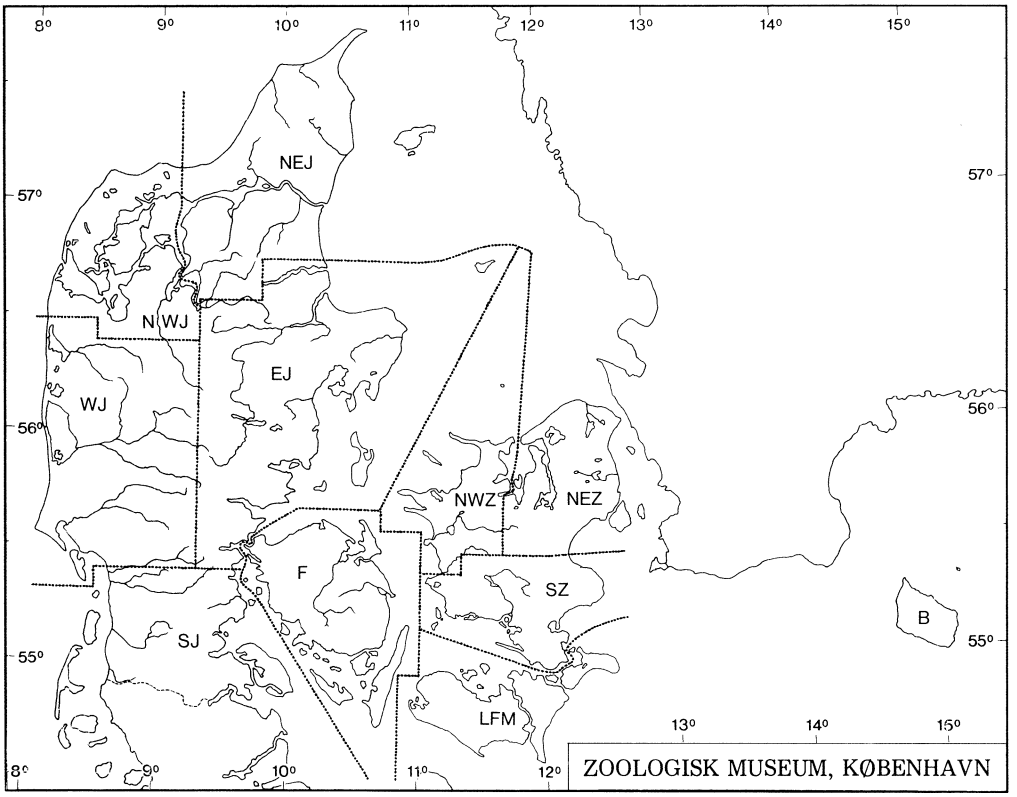
Introduction

The present catalogue of Danish Lepidoptera should prove of topical interest for two reasons: Although it is primarily a faunistic survey, where for each of the 2319 species records of its occurence within the 11 Danish zootopographical districts are given, it is also a check-list in which the systematic arrangement and the nomenclature have been updated in accordance with recent progress in research.

As a check-list this catalogue builds upon Karsholt & Nielsen: Systematisk fortegnelse over Danmarks sommerfugle – Catalogue of the Lepidoptera of Denmark, Klampenborg 1976. Since that date the higher classification has undergone some modifications, and these are discussed in a separate chapter by Niels Peder Kristensen. The generic and specific nomenclature have been updated by Ole Karsholt. New information has been considered and incorporated right op to the proofreading phase. All significant alterations relative to the Karsholt & Nielsen (1976) list have been dealt with in a n(omenclature)-note. The n-notes are presented in a separate chapter with an introductory section. The names which are mentioned in these notes have been included in the index. It is hereby rendered possible to trace all names mentioned in the preceding catalogue, but for the identification of other synonyms reference must still be made to the latter.

The faunistic registration is based on the now well established division of Denmark into 11 districts; reference may be made to the map shown here and to Enghoff, H. & Nielsen, E. S.: Et nyt grundkort til brug for faunistiske undersøgelser i Danmark, baseret på UTM-koordinatsystemet, Entomologiske Meddelelser 45: 65-74, 1977. An open circle indicates that only pre-1960 findings from the district in question are known. A filled circle indicates the existence of at least one checked specimen from 1960 or later. Findings of larvae are included only if successful rearing has taken place.

Users of this kind of faunistic catalogue frequently encounter the difficulty that documentation for the records presented can-



Yponomeutidae 2	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
A. aurulentella		x KS Strandtjør 10-8-73 G. Pallesen (GP)	x KS Ulfborg 13-8-79 P.L. Holst (NMÅ)		x KS Korsø: Ø-strand 10-8-079 KS (KS)		x KS Ulfsdal 28-8-80 OK (OK)		x KS Tøllemoler 10-8-80 EP (EP)	x KS diverse 20-8-79 KS (KS)	x KS Bodene 22-8-78 P.L. Holst (NMÅ)
A. ivella	x KS Draved 12-8-72 P.L. Holst (NMÅ)	x KS Lønbjer 12-8-75 G. Pallesen (GP)									
A. brockeella	x KS Kirkeltind 25-6-82 EP (EP)	x KS Lønbjer 9-7-79 G. Pallesen (GP)	x KS Ulfborg 19-6-79 P.L. Holst (NMÅ)	x KS Jordmillepl. 5-7-78 G. Pallesen (GP)	x KS Hjelmerende 2-7-66 OB (OB)	x KS Agannas 19-6-75 OB (OB)	x KS Blands 16-6-69 Kyj Pedersen (OK)	x KS Brokop 12-7-70 KS (KS)	x KS Tømmerup 1-7-82 EP (EP)	x KS Hornbæk 25-6-71 KS (KS)	x KS Bodene 4-7-68 OK (OK)
A. goedartella	x KS Kirkeltind 3-8-83 EP (EP)	x KS Lønbjer e.l. 7.5.65 G. Pallesen (GP)	x KS Kallemosen 16-7-82 K.E. Stoltz-gaard	x KS Resenbro 8-7-77 + 6 P.L. Holst (NMÅ)	x KS Nordmarks-land 4-8-72 OB (OB)	x KS Skige 11-7-81 OB (OB)	x KS Malbjerg 15-7-71 KS (KS)	x KS Skibinge 28-7-75 OK (OK)	x KS Veddinge bk. 4-7-81 EP (EP)	x KS diverse 25-7-69 KS (KS)	x KS Paradisbakken 25-7-77 OK (OK)
A. pygmaeella	x KS Tryggelev v. Ringsted 18-7-72 OB (OB)	x KS Glahved 13-7-65 G. Pallesen (GP)	x KS Ho 28-7-71 G. Pallesen (GP)	x KS Vråst 6-7-73 KS (KS)	x KS Skivum 5-7-66 OB (OB)	x KS Brockdorf 29-6-76 OB (OB)	x KS Sebstrup 17-7-71 KS (KS)	x OK Høve 19-6-72 H.K. Jensen (---)	x KS Tirsbæk 15-6-81 EP (EP)	x KS Jagerborg 10-6-71 KS (KS)	x KS Sporskeharn 5-6.7.78 OK (OK)
A. sorbiella										x KS Hillerød 27-6-78 KS (KS)	
A. arcella	x KS Sjørdrup Hede 23-6-81 EP (EP)	x KS Glahved 28-6-66 G. Pallesen (GP)		x KS Nr. Nissum 10.7.76 P.L. Holst (NMÅ)		x KS Stengade Skov 20-6-78 EP (EP)	x KS Malbjerg 4-7-71 KS (KS)	x KS Slipsnæs 26-6-71 KS (KS)	x KS Hesselø 3-7-71 OK (OK)	x KS diverse 28-6-76 KS (KS)	x KS Rand-lejre 19-7-77 KS (KS)

har vi valgt at nedskrive de data, fortegnelsen bygger på. Der er for alle arter udarbejdet lister som den her viste, hvor etiketteoplysningerne fra et kontrolleret eksemplar er skrevet ind. Desuden angives, hvem der har godkendt bestemmelsen, hvor dyret befinder sig og nummeret på eventuelt genitalpræparat. Forfatterne har gennemgået museumssamlingerne og et meget stort antal private samlinger med henblik på at få fyldt så mange felter ud som muligt. Vi har under dette langvarige arbejde overalt mødt stor gæstfrihed. Tak til alle, der på denne måde har bidraget til at gøre fortegnelsen næsten komplet. Listerne opbevares i arkiv på Zoologisk Museum i København.

Det har været et grundprincip kun at medtage distriktsangivelser, hvor der har kunnet spores et eksemplar, hvis identitet har kunnet kontrolleres (og etiketten altså skrives ind i »rålisten«). Alle samlinger rummer flere eller færre fejlbestemmelser. Mange af disse er blevet opdaget under dette arbejde, og en del af de mere interessante, oversete fund er blevet optaget i de senere års fundlister. Samtidig er en del fejl i tidligere publikationer blevet rettet. Tilbage er dog stadig en række ikke publicerede nyheder og uoverensstemmelser med tidligere angivelser, som har givet anledning til en serie f(aunistiske) noter. Disse f-noter bringes umiddelbart efter selve fortegnelsen. Hver enkelt note afsluttes med forfatterens initialer i parentes.

Som så ofte har der været mange problemer forbundet med at tyde de højst forskelligartede etiketter. Vi vil derfor endnu engang opfordre alle samlere til at være meget grundige med etiketteringen. Det mindsker flertydigheden at skrive distriktsforkortelse på etiketten, især hvis man skriver den rigtige. Som en hjælp skal her anføres nogle af de lokaliteter, vi erfaringsmæssigt ved ofte bliver opfattet som liggende i et andet distrikt.

not be traced. To overcome this, we have chosen to make written records of the data on which this catalogue is based. For every species a list has been made, similar to the example shown, in which the label data of a checked specimen have been written down. Records have been made of who accepted the identification, the depository of the specimen and the genitalia slide number (if any). The authors have examined the Danish museum collections and a very large number of private collections in an endeavour to obtain as many district records as possible. During this very prolonged work we have always been met with great hospitality. Our thanks are due to all those who thereby contributed to making this catalogue almost complete. The manuscript lists are kept in the archives of the Zoological Museum in Copenhagen.

It has been a basic principle that only those district records have been included for which voucher material has been traceable (that is, label data could be written in the »raw list«). All collections contain a smaller or larger number of misidentifications. Many of these have been discovered during the preparatory work on this catalogue, and a number of the more interesting, hitherto overlooked findings have been recorded in the annual publications on interesting findings over the last few years. At the same time a number of erroneous records in previous publications have been corrected. There remain, however, a series of unpublished records and discrepancies with previously published records; these are being dealt with in a series of f(aunistic) notes. These f-notes are printed immediately after the main list. Each note is marked with the author's initials in parentheses.

Interpretations of the very differently written labels have presented numerous difficulties. We therefore, once again, urge all collectors to prepare their label texts with great care. Ambiguity is lessened if the district abbreviation is included – particularly when it is correct! As an aid, a number of localities which have proved particularly liable of misassignment are here listed with the correct district abbreviation.

Alindelille – NEZ
Als Odde – EJ
Bildsø – NWZ
Billesborg Skov – SZ
Bindeballe – WJ
Bjerget – NWJ
Blæsinge Bakker – NWZ
Borup Hede – NEJ
Bromme – NWZ
Bækkelund – EJ
Bølling Sø – EJ
Bøvlingebjerg – WJ
Djeld – NWJ
Fanø – WJ
Fasterholt – WJ
Fosdal Pl. – NEJ
Fouslet – EJ
Frølunde Fed – SZ
Ginneskov Krat – WJ
Grønne Strand – NEJ
Gårdsdal Krat – NWJ
Haderup – WJ
Hald Ege – EJ
Hampen Sø – EJ
Hjortdal – NEJ
Holbæk (vestkanten) – NWZ
Hvidding Krat – EJ
Idum – WJ
Isenvad – WJ
Klosterhede
(den største del) – WJ
Kongenhus Mindepark – WJ
Køge nord og Køge Ås – NEZ
Lellinge – SZ
Lovnkjær – EJ
Lyng v. Bromme – SZ
Mandø – SJ
Mariager – EJ
Møborg – WJ
Næsby Strand – NWZ
Randbøl – WJ
Regnemark – NEZ
Resen(borg) – NWJ
Riber Kærgård – WJ
Risbæk – WJ
Rishøje – WJ
Rom Hede – NWJ
Rydhave Skov – NWJ
Sevel – NWJ
Skellebjerg – NWZ
Skindbjerg Krat – NEJ
Slagelse – NWZ
Slagelse Skov – SZ
Sorø – SZ
Spentrup – EJ
Stenholt Krat – EJ
Stillinge Strand – NWZ
Stoubæk – WJ
Strandbjerg gd. – NWJ
Svanemose v. Kolding – EJ
Svinkløv – NEJ
Særløse Overdrev – NEZ
Sønderby v. Lemvig – NWJ
Tinnet Krat – EJ
Ulbjerg Klint – NEJ
Undløse Åmose – NWZ
Vem(b) – WJ
Vesløs – NWJ
Villestrup – EJ
Vive – EJ
Vrads Sande – EJ
Ørgård Nors – NWJ

Da vi ved, fortegnelsen har interesse også for entomologer, der ikke læser dansk, bringes al tekst på engelsk i højre spalte. Niels Peder Kristensen har forestået oversættelsen og G. S. Robinson og M. E. Petersen takkes for kritisk gennemlæsning af dele heraf.

Det er forfatternes håb, at den foreliggende fortegnelse vil kunne danne et solidt grundlag for det fortsatte arbejde med den danske sommerfuglefauna.

København, juni 1985

Karsten Schnack

We trust that the present work will prove of interest also to entomologists who cannot read Danish and consequently the entire text is presented in Englich in the right-hand columns. The translation has been made by N. P. Kristensen. Some parts of the English text have been linguistically corrected by Dr. G. S. Robinson, London, some others by M. E. Petersen, Copenhagen; this assistance is gratefully acknowledged.

It is the authors' hope that the present catalogue will provide a firm foundation for continued research on the Danish fauna of moths and butterflies.

Copenhagen, June 1985
Karsten Schnack

Sommerfuglenes storsystematik

NIELS P. KRISTENSEN

I dette katalog er storsystematikken (d.v.s. grupperingen af sommerfuglene i højere kategorier, fra underfamilie/familieniveau »opad«, og rækkefølgen af disse kategorier) i store træk overensstemmende med den, som anvendtes i Karsholt & Nielsen-kataloget fra 1976, men en lang række detaljer er dog blevet ændret. To spørgsmål melder sig naturligt i denne sammenhæng, nemlig 1) hvad er årsagen til disse ændringer? og 2) skal vi regne med, at yderligere ændringsforslag vil blive fremsat i samme tempo længe endnu?

Svaret på det første spørgsmål er selvfølgelig til dels, at der er tilvejebragt ny viden om dyrene. Der kan f.eks. være gjort opdagelser af hidtil oversete, men systematisk vigtige ligheder mellem bestemte grupper. Et godt eksempel er Kyrki's (1984b) påvisning af en ejendommelig specialisering af det ottende bagkropsleds bygning hos Ochsenheineriidae, (flertallet af) Lyonetiidae samt Yponomeutidae; denne specialisering er et stærkt argument for et nært fylogenetisk slægtskab mellem disse grupper. Det kan omvendt også forekomme, at en antaget specifik lighed mellem bestemte grupper ikke kan stå for en nærmere efterprøvning. Dette er f.eks. (ifølge Minet 1982) tilfældet med den af Kiriakoff (1970) postulerede lighed mellem høreorganernes bygning hos Notodentidae og ugleslægten *Diloba,* en lighed som foranledigede Kiriakoff til at placere *Diloba* i en egen familie i en overfamilie Notodontoidea.

En anden årsag til ændringer er, at man i systematisk biologi nu i vid udstrækning har skærpet kravene til de grupper, der skal kunne anerkendes. Sådanne grupper skal nemlig efter mange forskeres opfattelse være monofyletiske i en snæver forstand, d.v.s. de skal rumme *samtlige* efterkommere af den sidste fælles stamform for gruppens medlemmer. Hvis en gruppe ikke indeholder samtlige efterkommere af medlemmernes sidste stamform siges den at være *parafyletisk* og den anerkendes ikke i et strengt fylogenetisk sy-

The higher classification of Lepidoptera

NIELS P. KRISTENSEN

In this catalogue the higher classification (i.e., the grouping of lepidopterans into high-rank categories from subfamily/family level »upwards«, as well as the sequence of these categories) still largely conforms with that employed in the Karsholt & Nielsen catalogue of 1975. Numerous details have been altered, however. This begets two questions: firstly, what are the reasons for these changes, and, secondly, will similar changes occur at a similar rate in the future?

The answer to the first question is, in part, that novel information about the insects is now available. For instance, some systematically important similarities between certain groups have been discovered in recent time. A good example is Kyrki's (1984) finding of a striking modification of abdominal segment VIII in Ochsenheimeriidae, (most) Lyonetiidae and Yponomeutidae; this modification provides a strong argument in favour of a close phylogenetic relationship between the groups in question. On the other hand, alleged specific similarities between certain groups may have been shown to be spurious. This, for example, is the case (according to Minet 1982) with those alleged similarities in ear structure of Notodontidae and the noctuid genus *Diloba* that led Kiriakoff (1970) to place *Diloba* in a family of its own within the superfamily Notodontoidea.

Another reason for the changes is that the formation of categories in systematic biology is now widely performed in accordance with a set of criteria that are more restrictive than those previously employed. According to a now widespread view, only groups which are monophyletic in a strict sense should be admitted to the classification. Such groups must include *all* descendants from their members' last common ancestor. A group which does not include all such descendants is said to be para- (or poly-)phyletic, and it is not acceptable in a phylogenetic classification because it does not have »a history of

stem, fordi den ikke har haft »sin egen historie«. Når en gruppe i det eksisterende system erkendes som parafyletisk kan den gøres monofyletisk ved at udvides til også at omfatte den/de gruppe(r) af efterkommere, som har været holdt adskilt; en alternativ løsning er, at gruppen opdeles i flere delgrupper, der hver for sig er strengt monofyletiske. Et eksempel på den første type ændring er udvidelsen af familien Noctuidae, uglerne, til også at omfatte den gruppe som i tidligere systemer opførtes som den selvstændige familie Nolidae. Uglerne, som tidligere afgrænset, antages nu ikke at have haft en stamform, som ikke tillige har været stamform for *Nola*-gruppen. Den anden type ændring illustreres ved, at *Herminia*-gruppen nu flyttes ud af uglerne og gives rang af en selvstændig familie: Dette var nødvendigt for at familien Noctuidae kunne anses for strengt monofyletisk, idet man nemlig ikke i dag kender argumenter for at noctuiderne og *Herminia*-gruppen skulle have haft en fælles stamform, som ikke tillige var stamform også for arctiiderne. Der er overvejelser af samme type, som i de seneste år har ført til oprettelsen af et betydligt antal overfamilier, som hver kun omfatter en enkelt (eller ganske få) familier: Tischerioidea, Sesioidea, Epermenioidea etc., etc.

Endelig har det været årsag til ændringer, at man i dette katalog har søgt mere konsekvent at holde sig til konventionen »primitiveste grupper først«. Særligt mærkbart har dette princip været i uglesystemet, som nærmest er »vendt om« i forhold til det hidtil gængse arrangement. Det skal dog understreges, at det rekonstruerede stamtræ for en given gruppe kun i specielle tilfælge kan »oversættes« entydigt til et *simpelt* system på listeform. Det skal også understreges, at man i mange tilfælde slet ikke har nogen velbegrundet forestilling om de indbyrdes slægtskabsforhold mellem de enkelte delgrupper af en given gruppe. Det gælder eksempelvis for de enkelte familier af overfamilien Yponomeutoidea og for de enkelte underfamilier af de »trifine« ugler (Pantheinae/Acronictinae og alle følgende); i sådanne tilfælde er altså den her valgte rækkefølge ikke mere »korrekt« end en hvilkensomhelst anden ville være.

Hermed er man så inde på det andet af de indledningsvis stillede spørgsmål. Og svaret

its own«. Whenever a previously recognized group turns out to be paraphyletic it can be rendered monophyletic by being widened to include the group(s) of descendants that were formely excluded; an alternative procedure is to subdivide the group into a number of smaller entities, each of which is strictly monophyletic. An example of the first kind of change is the widening of the family Noctuidae to include that group which in previous classifications has been treated as a separate family Nolidae. The noctuids, as previously delimited, cannot now be assumed to have had an ancestor which was not also ancestral to the *Nola*-group. The second type of change may be illustrated by the fact that the *Herminia*-group is now being removed from the Noctuidae and is given the rank of a separate family. This was a prerequisite for the recognition of the Noctuidae as a strictly monophyletic entity, since there is no known evidence that the noctuids and the *Herminia*-group should have had a common ancestor which was not also ancestral to the arctiids. Similar considerations have in recent years led to the establishment of a considerable number of superfamilies, each of which contains but a single (or very few) families: Tischeroidea, Sesioidea, Epermenioidea etc., etc.

One further cause of change is that the authors of this catalogue have endeavoured to adhere more consistently to the convention of »most primitive groups first« than did their predecessors. This principle has led to particularly noticeable changes in the noctuid system which has literally been turned upside down. It should be stressed, however, that only in special cases can the inferred phylogenetic tree of a given group be unambiguously transformed into a *simple* list. It should also be stressed that, in the case of several higher lepidopteran groups, well founded theories on the interrelationships of the member taxa are lacking. This is true, for instance, of the families within the superfamily Yponomeutoidea and of the subfamilies within the »trifine« noctuids (i.e., Pantheinae/Acronictinae plus the following ones); in such cases the sequence presented here cannot at present be said to be more »correct« than any other sequence would be.

This leads to a consideration of the

må blive, at der rent faktisk er langt igen, før vi kan regne med, at sommerfuglenes storsystematik er stabiliseret. Nogle af de højere enheder, vi endnu opererer med, kan umiddelbart mistænkes for at være parafyletiske, og deres afgrænsning må altså forudses at skulle ændres på et eller andet tidspunkt; det gælder f.eks. ugle-underfamilien Amphipyrinae, familier som Oecophoridae og Tineidae, samt måske overfamilien Tineoidea. Men også for talrige andre højere kategorier gælder det, at deres medlemmer holdes sammen på et meget spinkelt grundlag, og at man derfor må regne med ændringer i deres status og/eller sammensætning, når grundigere undersøgelser bliver udført. Man må gøre sig klart, at for flere store sommerfuglegruppers vedkommende er undersøgelser over såvel de voksne dyrs som ungdomsstadiernes bygning endnu kun i en indledende fase. Imidlertid har der de seneste år været en stigende interesse for storsystematiske undersøgelser over sommerfugle efter velformulerede principper og med inddragelse af mange forskellige karaktersæt. Vi kan derfor forvente at opnå væsentlig større sikkerhed i vore konklusioner i løbet af de næste årtier.

second question asked in the opening paragraph. The answer can only be that there is still a long way to go before the higher classification of the Lepidoptera can with any confidence be considered stable. There is suspicion that some of the higher categories in the current classification are paraphyletic; if they are, then there will be changes in their delimitation. This is, for instance, the case with the noctuid subfamily Amphipyrinae, families like the Oecophoridae and Tineidae, and perhaps the superfamily Tineoidea. Members of a great many other higher categories are grouped together on the basis of very slender evidence and alterations in their status and/or composition are likely as further investigations are made. It should be realized that, in the case of several major lepidopteran groups, investigations of the structure of the adult insects as well as of the immature stages are still really in a very early phase. However, the latest years have witnessed an upsurge of investigations into the higher classification of Lepidoptera in accordance with well formulated principles and with several different character sets being taken into account. It may therefore reasonably be anticipated that conclusions in this field may be drawn with much greater confidence within the next decades.

Højere kategorier af sommerfugle i Danmark med angivelse af antallet af danske arter. Numre i parentes henviser til de efterfølgende noter.

Higher catagories of Lepidoptera from Denmark with numbers of Danish species. Figures in brackets refer to the subsequent notes.

Lepidoptera – 2319

ZEUGLOPTERA – 7

Micropterigoidea – 7

Micropterigidae – 7

GLOSSATA – 2312

DACNONYPHA – 8

Eriocranioidea – 8

Eriocraniidae – 8

EXOPORIA – 5

Hepialoidea – 5

Hepialidae – 5

HETERONEURA-NEPTICULINA (1) – 85

Nepticuloidea – 85

Opostegidae – 3
Nepticulidae – 82

HETERONEURA-INCURVARIINA (2) – 35

Incurvarioidea – 35

Heliozelidae – 4
Adelidae – 19
Nematopogoninae – 7
Adelinae – 12
Incurvariidae – 6
Prodoxidae (3) – 6

HETERONEURA-TISCHERIINA (4) – 2

Tischerioidea – 2

Tischeriidae – 2

HETERONEURA-DITRYSIA (5) – 2177

Tineoidea – 155

Psychidae (6) – 18
Lypusinae – 1
Taleporiinae – 7
Psychinae – 6
Oiketinae – 4

Tineidae – 43
Scardiinae – 1
Myrmecozelinae (7) – 3
Meessiinae – 6
Nemapogoninae – 15
Tineinae – 18

Gracillariidae – 78
Gracillariinae – 30
Lithocolletinae – 45
Phyllocnistinae (8) – 3

Roeslerstammidae (9) – 1

Bucculatricidae (10) – 12

Douglasiidae (11) – 3

Yponomeutoidea (12) – 87

Yponomeutidae (13) – 70
Argyresthiinae – 24
Yponomeutinae – 20
Praydinae (14) – 1
Scythropiinae (14) – 1
Plutellinae (15) – 6
Ypsolophinae (15) – 13
Orthotaeliinae – 1
Acrolepiinae – 4

Ochsenheimeriidae (16) – 4

Lyonetiidae (17) – 7
Cemiostominae – 4
Lyonetiinae – 2
Bedelliinae – 1

Glyphipterigidae (18) – 6

Gelechioidea (19) – 402

Oecophoridae – 80
Depressariinae (20) – 47
Ethmiinae (21) – 4
Oecophorinae (22) – 26
Chimabachinae – 3

Elachistidae – 48

Coleophoridae – 111

Agonoxenidae (23) – 6
Blastodacninae – 6

Batrachedridae (23) – 2

Momphidae (23) – 14

Cosmopterigidae (23) – 10
Antiquerinae (23) – 2
Cosmopteriginae – 5
Chrysopeleiinae – 3

Scythrididae – 12

Blastobasidae – 3
Symmocinae – 1
Blastobasinae – 2

Gelechiidae (24) – 164
Aristoteliinae – 36
Apatetrinae – 1
Gelechiinae – 94
Anacampsinae – 16
Chelariinae – 5
Dichomerinae – 12

Cossoidea – 5

Cossidae – 3
Zeuzerinae – 2
Cossinae – 1

Limacodidae (25) – 2

Tortricoidea – 362

Tortricidae (26) – 362
Tortricinae (26,27) – 125
Chlidanotinae (27) – 2
Olethreutinae – 235

Sesioidea (28) – 20

Choreutidae (29) – 6

Sesiidae – 14
Tinthiinae – 1
Sesiinae – 13

Schreckensteinioidea (30) – 1

Schreckensteiniidae – 1

Epermenioidea (31) – 5

Epermeniidae – 5

Alucitoidea – 2

Alucitidae – 2

Pterophoroidea – 37

Pterophoridae – 37
Agdistinae – 1
Platyptilinae – 22
Pterophorinae – 14

Pyraloidea – 184

Pyralidae (32) – 184
Gallerinae – 4
Phycitinae – 58
Pyralinae – 6
Nymphulinae (33) – 5
Schoenobiinae – 3
Crambinae – 38
Scopariinae – 13
Evergestinae – 6
Odontiinae – 2
Heliothelinae (34) – 1
Pyraustinae (35) – 48

Zygaenoidea (25) – 8

Zygaenidae – 8
Procridinae – 1
Zygaeninae – 7

Hesperioidea (36) – 10

Hesperiidae – 10
Pyrginae – 4
Hesperiinae – 6

Papilionoidea – 82

Papilionidae – 3
Parnassiinae – 2
Papilioninae – 1

Pieridae – 12
Dismorphiinae – 1
Pierinae – 6
Coliadinae – 5

Nymphalidae – 41
Danainae – 1
Nymphalinae – 27
Satyrinae – 13

Lycaenidae – 26
Riodininae – 1
Theclinae – 6
Lycaeninae (37) – 6
Polyommatinae (37) – 13

Drepanoidea (38) – 16

Drepanidae – 16
Drepaninae – 7
Thyatirinae – 9

Geometroidea – 295

Geometridae – 295
Archiearinae – 2
Oenochrominae – 1
Geometrinae – 9
Sterrhinae – 39
Larentiinae – 165
Ennominae (39) – 79

Bombycoidea – 18

Lasiocampidae (40) – 14

Endromidae – 1

Lemoniidae – 1

Saturniidae – 2
Agliinae – 1
Saturniinae – 1

Sphingoidea – 17

Sphingidae (41) – 17
Sphinginae – 7
Macroglossinae – 10

Noctuoidea (42) – 471

Notodontidae – 29
Notodontinae – 28
Thaumetopoeinae (43) – 1

Lymantriidae – 13

Arctiidae – 31
Lithosiinae – 16
Arctiinae – 14
Ctenuchinae (44) – 1

Herminiidae (45) – 9

Noctuidae (46) – 389
Rivulinae (47) – 3
Hypenodinae (48) – 3
Hypeninae (45) – 6
Catocalinae (47) – 18
Acontiinae – 7
Nolinae (49) – 5
Chloephorinae – 4
Sarrothripinae – 4
Plusiinae (50) – 19
Pantheinae (51) – 2
Acronictinae – 18
Amphipyrinae – 101
Cucullinae (52) – 66
Hadeninae – 61
Noctuinae – 66
Heliothinae – 6

(1) Den genindførte brug af navnet Nepticulina (Kristensen & Nielsen 1980) i stedet for Nannolepidoptera følges. Minet (1984) anser det heteroneure ribbenet for at være udviklet uafhængigt hos Nepticulina og de øvrige Heteroneura. Her følges imidlertid den opfattelse (Kristensen 1984) at Heteroneura i den klassiske afgrænsning fremdeles kan opretholdes som en monofyletisk gruppe. Udskillelsen af Tischeriidae fra Nepticulina følger Minet (1984) og Nielsen (*in press c*), som begge anser denne familie for at være Ditrysias nærmeste slægtninge. Specielt den af Minet påpegede overensstemmelse mellem Incurvariina, Tischeriidae og Ditrysia i en specialisering i imagos forbrystruktur (en fast skleritbro mellem sternums forhjørne og pleuron) forekommer at være et vægtigt argument for denne fylogenetiske model. Det skal dog bemærkes, at Davis (*in press*) argumenterer for monofylien af Nepticulina *inklusive* Tischeriidae, samt for at Ditrysias søstergruppe er et taxon »Monotrysia« som omfatter Nepticulina + Incurvariina. Flertallet af de karakterer som støter dette arrangement er imidlertid simple reduktions-træk, eller de forekommer af andre grunde diskutable; modellen fortjener dog fortsat opmærksomhed.

(1) The name Nepticulina, reintroduced by Kristensen & Nielsen (1980), is used in favour of Nannolepidoptera. Heteroneurous venation is considered by Minet (1984) to have been evolved independently in the Nepticulina and the other Heteroneura. However, Kristensen (1984) maintained that the Heteroneura in the conventional sense may still be opheld as a probably monophyletic taxon; this view is followed here. The exclusion of the Tischeriidae from the Nepticulina follows Minet (1984) and Nielsen *(in press c),* both of whom consider this family to be the sister group of the Ditrysia. One particularly weighty argument in favour of this arrangement seems to be the specialization in adult prothoracic structure (a firmly sclerotized connection between the sternal fore corner and the pleuron), which, as pointed out by Minet, is shared by the Incurvariina, Tischeriidae and the Ditrysia. On the other hand it must be noted that Davis *(in press)* supports the monophyly of the Nepticulina *inclusive* of the Tischeriidae, and he further maintains the view that the sister group of the Ditrysia is a monophyletic taxon »Monotrysia« comprising the Nepticulina + Incurvariina. Most of the characters supporting this arrangement are simple regressive traits, or they appear of doubtful significance for other reasons; however the model nevertheless does deserve futher attention.

(2) Familieklassifikationen inden for Incurvariina følger Nielsen (*in press c*).

(2) The family-level classification within the Incurvariina follows Nielsen *(in press c).*

(3) Overførelsen af *Lampronia* Stephens, 1829 fra Invurvariidae til Prodoxidae følger Nielsen & Davis (*in press*).

(3) The transfer of *Lampronia* Stephens, 1829 from the Incurvariidae to Prodoxidae follows Nielsen & Davis *(in press).*

(4) Placeringen af Tischeriidae i en særskilt højere taxon Tischeriina følger Nielsen (*in press c*); navnet Etiomonotrysia Minet, 1984 er et alternativ til Tischeriina. Se også note 1.

(4) The placing of the Tischeriidae in a separate higher taxon Tischeriina follows Nielsen (1985); the name Etiomonotrysia Minet, 1984 is an alternative to Tischeriina. See also note 1.

(5) Klassifikationen af de ditryse sommerfugle frembyder fremdeles store vanskeligheder. Det er muligt, omend endnu ikke særligt velunderbygget, at Cossoidea og alle de følgende overfamilier tilsammen udgør en monofyletisk enhed, »Apoditrysia« (Minet 1983). Det er også muligt, at et taxon

(5)The classification of the distrysian Lepidoptera remains exceedingly difficult. It is possible, although not very well substantiated, that the Cossoidea plus all following superfamilies might constitute together a monophyletic entity, the »Apoditrysia« (Minet 1983). It is also just possible, that a

»Macrolepidoptera«, afgrænset som Zygaenoidea plus de følgende overfamilier, virkelig kunne være en monofyletisk enhed; hos disse former er i hvert fald de ældre larvestadiers gangvorter forsynet med kroge i »mesoserie« (d.v.s. de er »klamrefødder«) og larverne er typisk fritlevende.

(6) Placeringen af Psychidae i overfamilien Tineoidea følger almindelig praksis, men sagen kræver nøjere undersøgelse. Hasenfuss (1963) påpegede, at chaetotaxien af larvens »analskjold« tyder på, at psychiderne kunne være søstergruppe til samtlige andre Ditrysia.

(7) Overførelsen af slægten *Haplotinea* Diakonoff & Hinton, 1956, til Myrmecozelinae fra Nemapogoninae følger Robinson (1984).

(8) Placeringen af Phyllocnistinae som underfamilie af Gracillaridae følger Davis (1983).

(9) Her følges Kyrkis (1983) placering af *Roeslerstammia* Zeller, 1839 i den tineoide familie, for hvilken navnet Amphitheridae Meyrick, 1913 tidligere er brugt; familiegruppenavnet Roeslerstammiidae Bruand, 1850 (som Röslertammidae [sic.]) har prioritet.

(10) Af de fire lyonetiide-underfamilier, der opførtes hos Karsholt & Nielsen (1976), hører iflg. nye undersøgelser af Kyrki (1984a, b) kun Bucculatricinae til overfamilien Tineoidea (hvor den får status som selvstændig familie); de øvrige skal overføres til Yponomeutoidea.

(11) Overførelsen af Douglasiidae fra Yponomeutoidea til Tineoidea følger Kyrki (1984a, b).

(12) Afgræsningen af overfamilien Yponomeutoidea følger Kyrki (1984a, b).

(13) Familie-niveau klassifikationen i overfamilien Yponomeutoidea må anses for helt foreløbig. Kyrki (1984b) erkender 15 formentlig monofyletiske slægtsgrupper inden

taxon »Macrolepidoptera«, delimited as Zygaenoidea plus the following superfamilies, could indeed be a monophyletic entity; in these insects at least the late larval instars have the proleg crochets arranged in a »mesoseries« and the larvae are typically freeliving.

(6) The placing of the Psychidae in the superfamily Tineoidea follows current usage, but this position needs further scrutiny. Hasenfuss (1963) pointed out, that there is evidence from the chaetotaxy of the »anal shield« in the larva that psychids might be the sister group of all other Ditrysia together.

(7) The transfer of the genus *Haplotinea* Diakonoff & Hinton, 1965, to the Myrmecozelinae from the Nemapogoninae follows Robinson (1984).

(8) The placing of the Phyllocnistinae as a subfamily of the Gracillaridae follows Davis (1983).

(9) Kyrki (1983) placed *Roeslerstammia* Zeller, 1839 in that tineoid family, for which the name Amphitheridae Meyrick, 1913 was previously in use; the family-group name Roeslerstammiidae Bruand, 1850 (as Roeslertammidae [sic]) has priority.

(10) Four subfamilies of Lyonetiidae are listed by Karsholt & Nielsen (1976) but according to recent investigations by Kyrki (1984a, b) only one of these, viz., the Bucculatriginae, belongs in the Tineoidea; it is here given rank as a family of its own. The remaining lyonetiids are transferred to the Yponomeutoidea.

(11) The transfer of the Douglasiidae from the Yponomeutoidea to Tineoidea follows Kyrki (1984a, b).

(12) The delimitation of the superfamily Yponomeutoidea follows Kyrki (1984a, b).

(13) The family-level classification within the superfamily Yponomeutoidea must be considered quite preliminary. Kyrki (1984b) recognizes 15 presumably monophyletic ge-

for overfamilien, men finder det i øjeblikket umuligt at fastlægge deres formelle status (d.v.s. at afklare deres indbyrdes relationer i det fylogenetiske hierarki). Han anbefaler derfor at fortsætte den gængse brug af familiegruppenavne, men problemet er, at denne »gængse brug« er forskellig i forskellige dele af verden. Her følges Kyrki (1984a) i afgrænsningen af familien Yponomeutidae; de enkelte slægtsgrupper som fandtes ved Kyrkis detaljerede analyse (1984b) gives alle rang af underfamilier.

(14) Udskillelsen af *Prays* Hübner (1825) og *Scythropia* Hübner (1825) fra Yponomeutinae s.str. er en konsekvens af Kyrkis analyse (1984b) jfr. note 13; vedrørende *Roeslerstammia* se note 9.

(15) Udskillelsen af *Ypsolopha* Latreille, 1796 fra Plutellinae s.str. er en konsekvens af Kyrkis analyse (1984b) jfr. note 13.

(16) Overførelsen af Ochsenheimeriidae fra Tineoidea til Yponomeutoidea følger Kyrki (1984a, b); opretholdelsen af familiestatus for Ochsenheimeriiderne følger Kyrki (1984a), men det kan ikke udelukkes, at gruppen vil vise sig blot at være en underordnet delgruppe af Yponomeutidae-Ypsolophinae (Kyrki 1984b).

(17) Den anvendte afgræsning og underfamilieinddeling af Lyonetiidae samt overførelsen af familien fra Tineoidea til Yponomeutoidea følger Kyrki (1984b).

(18) Af de to glyphipterigide-underfamilier, som opførtes hos Karsholt & Nielsen (1976) kan kun den ene, Glyphipteriginae, fortsat placeres i Yponomeutoidea; den får her status som selvstændig familie (Kyrki 1984a, b). Choreutinae flyttes til Sesioidea, jfr. note 29.

(19) Klassifikationen inden for Gelechioidea er modificeret under hensyntagen til nyere synspunkter fremsat af Hodges (1978) og Riedl (1984b). Familiernes rækkefølge er arrangeret således, at de familier, som rummer medlemmer med en tornet gnathos (d.v.s. Oecophoridae til Agonoxenidae) er bragt

nus groups within the superfamily. But he finds it impossible at present to elucidate their relative positions within the phylogenetic hierarchy and thus their formal status; it is consequently recommended that current usage of family-group names be continued. However, current usage has been very different in different parts of the world. Kyrki's delimitation (1984a) of the family Yponomeutidae is here followed, and all genus-groups that were recognized in Kyrki's detailed analysis (1984b) are given subfamily rank.

(14) The exclusions of *Prays* Hübner, 1825 and *Scythropia* Hübner, 1825 from the Yponomeutinae s.str. are consequences of Kyrki's (1984b) analysis, note 13; as to *Roeslerstammia* see note 9.

(15) The exclusion of *Ypsolopha* Latreille, 1796 from the Plutellinae s.str. is a consequence of Kyrki's (1984b) analysis, see note 13.

(16) The transfer of the Ochsenheimeriidae from the Tineoidea to the Yponomeutoidea follows Kyrki (1984a, b); maintenance of full family status for the ochsenheimeriids follows Kyrki (1984a), but it cannot be excluded that the taxon will eventually prove to be a mere subgroup of the Yponomeutidae-Ypsolophinae (Kyrki 1984b).

(17) The present delimitation and subfamily division of the Lyonetiidae as well as the transfer of this family from the Tineoidea to the Yponomeutoidea follow Kyrki (1984b).

(18) Of the two glyphipterigid subfamilies recognized in Karsholt & Nielsen (1976) only the Glyphipteriginae are retained in the Yponomeutoidea; it is here given rank as a family of its own (Kyrki 1984a, b). The Choreutinae are transferred to the Sesioidea.

(19) The classification within the Gelechioidea has been revised with attention paid to the recent suggestions by Hodges (1978) and Riedl (1984b). The family sequence has been modified so that families comprising members with a spinose gnathos (i.e. the Oecophoridae through Agonoxenidae) are

sammen. Det skal bemærkes, at Zimmerman i sin Hawaii-fauna (1978) har forenet flertallet af gelechioiderne til en enkelt familie, Gelechiidae, og faktisk kunne der argumenteres for en endnu mere vidtgående sammenlægning, idet Zimmerman nok inkluderede Oecophoridae i denne familie men holdt de andre »tornet-gnathos« familier Elachistidae (som Cycnodiidae) og Agonoxenidae udenfor (Coleophoridae er ikke repræsenteret på Hawaii). Det synes i hvert fald umiddelbart nærliggende at antage, at familien Oecophoridae vil vise sig at være parafyletisk m.h.t. flere andre gelechioider, incl. de netop omtalte »tornet-gnathos« grupper. Og det er under alle omstændigheder klart, at en stabilisering af gelechioidesystemet vil kræve omfattende og indgående nye undersøgelser som også påpeget af Zimmerman (1978) og Heppner *(in press).*

(20) *Amphibatis* Zeller, 1870 og *Pseudatemelia* Rebel, 1910 opførtes hos Karsholt & Nielsen (1976) i underfamilien Amphisbatinae. Degraderingen af dette taxon til en underordnet delgruppe af Depressariinae følger Hodges (1974).

(21) Degraderingen af Ethmiidae til en underfamilie i Oecophoridae følger Hodges (1978).

(22) *Stathmopoda* Herrich-Schäffer, 1853 har tidligere været placeret i en separat familie Stathmopodidae, og denne opretholdes endnu af Riedl (1984b). Her følges imidlertid det synspunkt (Hodges 1978), at *Stathmopoda*-gruppen kun er en underordnet delgruppe af Oecophoridae-Oecophorinae.

(23) Hos Karsholt & Nielsen (1976) opførtes fem momphide-underfamilier, som alle har fået deres status revideret af Hodges (1978) og Riedl (1984b); de to forfattere nåede ret forskellige konklusioner. Batrachedrinae blev af Hodges overført til Coleophoridae, men modsat sidstnævnte har de ikke tornet gnathos; Riedl giver gruppen status som selvstændig familie, hvilket følges her. Hodges' placering af Blastodacninae i Agonoxenidae følges; de to taxa betragtes som adskilte familier af Riedl, omend også han erkender nære indbyrdes slægtskab. Cosmopterigi-

brought together. It is worth noting that, in his treatment of the Hawaiian fauna, Zimmerman (1978) grouped most of the gelechioids together in a single family Gelechiidae. Indeed, one might argue in favour of an even more extensive »lumping« since, although Zimmerman did include the oecophorids in this family, he kept other »spiny-gnathos« families, Elachistidae (as Cycnodiidae) and Agonoxenidae separate (the Coleophoridae are unrepresented in Hawaii). It seems reasonable to assume that the family Oecophoridae will prove paraphyletic in terms of several other gelechioids including the abovementioned »spinose-gnathos« groups. It is clear that it will take extensive and penetrating new investigations to stabilize the gelechioid classification, as also pointed out by Zimmerman and Heppner *(in press).*

(20) Karsholt & Nielsen (1976) placed/retained *Amphisbatis* Zeller, 1870 and *Pseudatemelia* Rebel, 1910 in the subfamily Amphisbatinae. The downgrading of this taxon as a subgroup of the Depressariinae follow Hodges (1974).

(21) The downgrading of the Ethmiidae as a subfamily in the Oecophoridae follows Hodges (1978).

(22) *Stathmopoda* Herrich-Schäffer, 1853 has previously been placed in a separate family Stathmopodidae, and this arrangement is still being upheld by Riedl (1984b). According to Hodges (1978), however, the Stathmopoda-group is a mere subgroup in the Oecophoridae-Oecophorinae, and this view is followed here.

(23) Hodges (1978) and Riedl (1984b) have recently revised the status of the five momphid subfamilies recognized in the Karsholt-Nielsen catalogue; the conclusion of the two authors are somewhat different. The Batrachedrinae were transferred by Hodges to the Coleophoridae, but unlike the latter they do not have a spinose gnathos; Riedl gives the group the status of a separate family, and this view is followed here. Hodges' assignment of the Blastodacninae to the Agonoxenidae is here followed; the two taxa are given status as separate families by Riedl

nae og Chrysopeleiinae opfattes af Hodges som underfamilier af en enkelt familie, Cosmopterigidae, mens Riedl giver hver gruppe status som selvstændig familie; førstnævnte synspunkt følges her med forbehold. Placeringen af *Pancalia* Stephens, 1829 i underfamilien Antequerinae følger Riedl (1984a, b).

(24) Underfamilie-inddelingen af Gelechiidae er problematisk og langtfra stabiliseret. Den her anvendte inddeling, som er valgt af O. Karsholt, indeholder elementer fra flere af de forskellige eksisterende systemer; ikke alle de seneste forslag til ændringer er fulgt.

(25) Flytningen af Limacodidae fra Zygaenoidea til Cossoidea følger Brock (1971).

(26) Hos Karsholt & Nielsen (1976) opførtes slægterne fra *Hysterosia* Stephens, 1852 til *Falseuncaria* Obratzov & Swatschek, 1958 i en selvstændig familie Cochylidae, og *Sparganothis* Hübner, 1825 opførtes i tortricide-underfamilien Sparganothinae. Placeringen af disse taxa i Tortricidae-Tortricinae følger Horak (1984).

(27) Overførelsen af *Olindia* Guenée, 1845 og *Isotrias* Meyrick, 1895 fra Tortricinae til Chlidanotinae følger Horak (1984).

(28) Afgrænsningen og klassifikationen af Sesioidea følger Heppner & Duckworth (1981).

(29) Choreutidae var hos Karsholt & Nielsen (1976) opført som underfamilie af Yponomeutoidea–Glyphipterigidae, jfr. note 18; placeringen i Sesioidea følger Heppner & Duckworth (1981).

(30) Schreckensteiniidae var hos Karsholt & Nielsen (1976) opført under Yponomeutoidea. Placeringen i en egen overfamilie følger Minet (1983).

(31) Epermeniidae var hos Karsholt & Nielsen (1976) opført under Yponomeutoidea.

although he does recognize their close mutual relationship. The Cosmopteriginae and Chrysopeleiinae are considered by Hodges to be subfamilies of a single family, Cosmopterigidae, whereas Riedl accords them each the rank of a separate family; the former view is tentatively followed here. The placing of *Pancalia* Stephens, 1829 in the subfamily Antequerinae follows Riedl (1984a, b).

(24) The subfamily-level classification within the Gelechiidae is problematical and far from stabilized. The present classification, chosen by O. Karsholt, includes elements from a variety of different current arrangements; not all recently proposed alterations have been adopted.

(25) The transfer of the Limacodidae from the Zygaenoidea to the Cossoidea follows Brock (1971).

(26) In Karsholt & Nielsen (1976) the genera from *Hysterosia* Stephens, 1852 through *Falseuncaria* Obratzov & Swatschek, 1958 are placed in a separate family Cochylidae, and *Sparganothis* Hübner, 1825 is placed in a tortricid subfamily Sparganothinae. The placing of these taxa in the Tortricidae-Tortricinae follows Horak (1984).

(27) The transfer of *Olindia* Guenée, 1845 and *Isotrias* Meyrick, 1895 from the Tortricinae to the Chlidanotinae follows Horak (1984).

(28) The delimitation and classification of the Sesioidea follow Heppner & Duckworth (1981).

(29) In Karsholt & Nielsen (1976) the Choreutidae were ranked as a subfamily in the Yponomeutoidea – Glyphipterigidae, see note 18; their assignment to the Sesioidea follows Heppner & Duckworth (1981).

(30) In Karsholt & Nielsen (1976) the Schreckensteiniidae were placed in the Yponomeutoidea. Their placement in a superfamily of their own follows Minet (1983).

(31) In Karsholt & Nielsen (1976) the Epermeniidae were placed in the Yponomeutoi-

Placeringen i en egen overfamilie følger Minet (1983).

(32) Klassifikationen af Pyralidae er den samme som hos Palm *(in press)*. Munroe (1972, 1983) grupperer vore pyralider i de to »serier« Pyraliformes (Gallerinae til Pyralinae) og Crambiformes (de øvrige) på grundlag af manglen resp. tilstedeværelsen af et »præcinctorium«, en fold af kropsvæggen foran tympanalorganerne. Minet (1981) behandler de to »serier« som adskilte familier (Pyralidae og Crambidae), men dette synspunkt følges ikke her.

(33) *Acentria* Stephens, 1829 (syn. *Acentropus* Curtis, 1834) opførtes hos Karsholt & Nielsen (1976) under Schoenobiinae. Placeringen i Nymphulinae følger Speidel (1981). Under henvisning til nomenklaturkodens artikel 23 (d) opretholder Minet (1981) brugen af underfamilienavnet Nymphulinae skønt Acentropidae Stephens, 1835 har prioritet over Nymphulites Duponchel, 1844; dette synspunkt følges her.

(34) Anerkendelsen af underfamilien Heliothelinae følger Minet (1981).

(35) Underfamilien Pyraustinae som her anvendt svarer til Minet's (1981) Pyraustinae + Spilomelinae. De to taxa er adskilt på tribusniveau af Munroe (1983) og også hos Fletcher & Nye (1984) får *Spilomela*-gruppen kun tribusrang. Minet erkender den iøvrigt også som sandsynligvis ikke-monofyletisk.

(36) Heppner *(in press)* placerer hesperiiderne i overfamilien Papilionoidea. Her følges den gængse opretholdelse af en særskilt overfamilie for hesperiiderne, men det er formentlig rigtigt, at de to overfamilier tilsammen udgør en monofyletisk enhed (Kristensen 1976).

(37) Adskillelsen af »ildfugle«-gruppen og de egl. blåfugle på underfamilieniveau følger Eliot (1973).

(38) Degraderingen af Thyatiridae til en underfamilie af Drepanidae og placeringen af

dea. Their placement in a superfamily of their own follows Minet (1983).

(32) The subfamily-level classification within the Pyralidae is identical with that of Palm *(in press)*. Munroe (1972, 1983) groups our pyralids into two »series«, the Pyraliformes (Gallerinae through Pyralinae) and Crambiformes (the remaining ones), on the basis of the absence/presence of a »praecinctorium«, an intergumental fold in front of the tympanic organs. Minet (1981) treats these two »series« as distinct families, but this view is not adopted here.

(33) In Karsholt & Nielsen (1976) *Acentria* Stephens, 1829 (syn. *Acentropus* Curtis, 1834) was placed in the Schoenobiinae. Its assignment to the Nymphulinae follows Speidel (1981). Minet (1981), referring to ICZN article 23(d), maintained the use of the subfamily name Nymphulinae although Acentropidae Stephens, 1835 has priority over Nymphulites Duponchel, 1844; this view is here accepted.

(34) Recognition of the subfamily Heliothelinae follows Minet (1981).

(35) The subfamily Pyraustinae in its present sense is equivalent to Minet's (1981) Pyraustinae + Spilomelinae. These two taxa are separated at tribal level only by Munroe, and Fletcher & Nye (1984) also accord the *Spilomela*-group tribal rank only. Minet himself actually recognizes the probable non-monophyly of this entity.

(36) Heppner *(in press)* assigns the hesperiids to the superfamily Papilionoidea. The conventional recognition of a separate superfamily for the skippers is here upheld, but it is still presumed that the two superfamilies together constitute a monophyletic entity (Kristensen 1976).

(37) The separation of the »coppers« and the genuine »blues« at the subfamily level follows Eliot (1973).

(38) The downgrading of the Thyatiridae to a subfamily in the Drepanidae follows Minet

disse dyr i en egen overfamilie, adskilt fra Geometroidea, følger Minet (1983).

(39) Ennominerne er de »trifine« målere: Ligesom de trifine ugler (underfamilierne Acronictinae og flg.) har de bagvingens ribbe M_2 mere eller mindre stærkt reduceret. Analogt til placeringen af de trifine ugler placeres ennominerne her sidst i målersystemet, hvor de også er anbragt i den nye håndbog af Skou (1984) og overhovedet i den gængse europæiske litteratur. Der kunne imidlertid også argumenteres for en placering af ennominerne blandt familiens først uddifferentierede linier, idet gruppen i sin grundplan har bevaret et ret veludviklet sæt larvale gangvorter; afgrænsningen mellem Archiearinae og Ennominae er meget vanskelig når visse sydhalvkugle-slægter tages i betragtning (P. McQuillan, pers.medd.). Af Ferguson (1983) placeres ennominerne efter Oenochrominae. Som påpeget af Fletcher (1979) er navnet Ennominae det ældste for underfamilien; det skal altså erstatte Boarmiinae.

(40) En underfamilieinddeling af lasiocampiderne har ikke tidligere været anvendt i dansk litteratur og vil heller ikke blive indført i nærværende arbejde. Franclemont (1973) fandt den af Aurivillius (1927) introducerede inddeling utilfredsstillende, og Franclemonts egen inddeling af de nordamerikanske lasiocampider lader sig ikke umiddelbart overføre på den gamle verdens fauna.

(41) Inddelingen af sphingiderne i to (og kun to) underfamilier følger Hodges (1971).

(42) I overensstemmelse med Hodges *et al.* (1983) anvendes overfamilienavnet Noctuoidea her i en bredere betydning end hos Karsholt & Nielsen (1976), idet der ikke opretholdes en særskilt overfamilie for Notodontidae. *Diloba* Boisduval, 1840 henføres atter til Noctuidae, følgende Minet (1982) og Kitching (1984) (jfr. note 52).

(1983); this is true also of the placing of these insects in a superfamily of their own, separate from the Geometroidea.

(39) The ennomines are the »trifine« geometrids: Like the trifine noctuids (subfamilies Acronictinae and the following) their hindwing vein M_2 is more or less markedly reduced. Analogous to the placing of the trifine noctuids the ennomines are here placed at the end of the geometrid system; they are similarly placed in the recent manual by Skou (1984) and indeed in the current European literature. However, a case could also be made for placing these moths among the first differentiated geometrid lineages, since a rather full complement of larval prolegs is retained in the ground plan of the group; the distinction between the Archiearinae and the Ennominae is difficult when certain southern hemisphere genera are taken unto account (P. McQuillan, pers.comm.). The ennomines are placed next to the Oenochrominae by Ferguson (1983). As noted by Fletcher (1979) Ennominae is the oldest available name for the subfamily and should therefore replace Boarmiinae.

(40) A subfamily-level division of the Lasiocampidae has not previously been applied in Danish literature and it will not be introduced here either. The division made by Aurivillius (1927) was considered unsatisfactory by Franclemont (1973) and the latter author's own division of the nearctic lasiocampids cannot be extended to the Old World fauna without further research.

(41) The division of the sphingids into two (and *only* two) subfamilies follows Hodges (1971).

(42) In accordance with Hodges *et al.* (1983) the superfamily name Noctouidea is here applied in a broader sense than in the Karsholt & Nielsen catalogue (1976) since a separate superfamily is not maintained for the Notodontidae. *Diloba* Boisduval, 1840 is again placed in the Noctuidae, following Minet (1982) and Kitching (1984) (cp. note 52).

(43) Placeringen af processionsspinderne som en underfamilie af Notodontidae følger Heppner (under trykning).

(43) The *Thaumatopoea*-group is given rank as a subfamily in the Notodontidae following Heppner *(in press)*.

(44) Placeringen af Ctenuchinae som underfamilie af Arctiidae følger Franclemont (1983).

(44) The Ctenuchinae are considered an arctiid subfamily following Franclemont (1983).

(45) Placeringen af *Herminia*-gruppen i en særlig familie, adskilt fra Noctuidae, følger Kitching (1984).

(45) Following Kitchin (1984) the *Herminia*-group is excluded from the Noctuidae and placed in a family of its own.

(46) En omfattende og kritisk oversigt over den historiske udvikling af den højere klassifikation af Noctuidae er for helt nyligt givet af Kitching (1984), hvis forslag til en underfamilieinddeling konsekvent følges her. Alle de her anvendte underfamilienavne har i større eller mindre udstrækning været benyttet også af tidligere forfattere. Det skal påpeges, som det også stærkt pointeres af Kitching selv, at monofylien af flere af underfamilierne kun er yderst spinkelt begrundet; i enkelte tilfælde (Rivulinae, Acontiinae, Amphipyrinae) kan monofylien slet ikke begrundes, og de pågældende grupper må betragtes som helt foreløbige »opsamlingskategorier«.

(46) An extensive and critical review of the historical development of the higher classification within the Noctuidae has very recently been published by Kitching (1984); the subfamily classification proposed by this author is consistently followed in the present catalogue. All of the subfamily names applied here have previously been used, more or less extensively, by other authors as well. It should be noted, as also stressed by Kitching himself, that the monophyly of several of the subfamilies rests on slender evidence; in some cases (Rivulinae, Acontiinae, Amphipyrinae) evidence for monophyly is lacking altogether, and the groups in question must be regarded as mere provisional aggregates.

(47) Underfamilien Ophiderinae er i nyere tid opgivet af flere forfattere. De danske slægter, som af Karsholt og Nielsen (1976) henføres til denne gruppe, er her fordelt på Rivulinae og Catocalinae i overensstemmelse med Franclemont & Todd (1983) eller (for *Laspeyria,* som ikke findes i N.Amerika) med Beck (1960).

(47) Recognition of the subfamily Ophiderinae has recently been abandoned by a number of authors. The Danish genera placed in this group in the Karsholt & Nielsen catalogue (1976) have now been assigned to the Rivulinae and Catocalinae in accordance with Franclemont & Todd (1983) or (in the case of *Laspeyria* which does not occur in N. America) with Beck (1960).

(48) Anerkendelse af en selvstændig underfamilie Hypenodinae følger Franclemont & Todd (1983) og Kitching (1984).

(48) The recognition of a separate subfamily Hypenodinae follows Franclemont & Todd (1983) and Kitching (1984).

(49) Degraderingen af Nolidae til underfamilierang inden for Noctuidae er foretaget af flere nyere forfattere. Kitching (1984) opfatter den specifikke lighed i kokonens struktur hos Nolinae og Chloephorinae + Sarrothripinae som indikation for monofyli af en enhed omfattende disse grupper.

(49) The downgrading of the Nolidae to subfamily rank within the Noctuidae has been made by a number of recent authors. Kitching (1984) considers the specific similarity in the structure of the cocoon in the Nolinae and the Chloephorinae + Sarrothripinae to be indicative of the monophyly of an entity comprising these groups.

(50) Plusiinae anses af Kitching (1984) for (måske sammen med den eksotiske underfamilie Stictopterinae) at være de trifine uglers nærmeste slægtninge.

(51) Pantheinernes mulige søstergruppeforhold til Acronictinae (antydet ved larvernes sekundære børster) accepteres med udtrykkeligt forbehold af Kitching (1984); Pantheinae placeres derfor i gruppen af trifine ugler, selv om deres bagvingeribbenet ikke udviser den trifine konfiguration. M.h.t. *Diloba* se nedenfor.

(52) *Diloba,* som hos Karsholt & Nielsen (1976) var placeret i en egen familie som foreslået af Kiriakoff (1970), anses nu igen for at være en noctuide. Placeringen i Cucullinae følger Minet (1982) og Tams (jfr. Kitching 1984: 210), men spørgsmålet om *Dilobas* slægtskabsforhold må fremdeles anses for åbent, hvad også Kitching understreger. Det kan bemærkes, at Beck (1960) på larvemorfologiske karakterer placerer *Diloba* i panthein/acronictingruppen, og at Eggers (1919) fandt tympanalorganet påfaldende overensstemmende med det hos *Colocasia* Ochsenheimer, 1816 (men Richards (1932) fandt tympanalorganet særlig overensstemmende med det hos amphipyrinslægten *Trachea* Ochsenheimer, 1816, og Minet (1982) med det hos cucullinslægten *Episema* Ochsenheimer, 1816!).

(50) Kitching (1984) considers the Plusiinae to be (perhaps together with the exotic subfamily Stictopterinae) the closest relatives of the trifine noctuids.

(51) The probable sister-group relationship of the Pantheinae to the Acronictinae (indicated by the secondary setae of the larvae) is accepted by Kitching (1984), albeit with express reservations. The pantheines are therefore placed in the trifine noctuids although their hindwing venation does not exhibit the trifine configuration. As to *Diloba,* see below.

(52) In Karsholt & Nielsen (1976) *Diloba* was placed in a family of its own as suggested by Kiriakoff (1970), but it is now again considered to be a noctuid. Its assignment to the Cuculliinae follows Minet (1982) and Tams (see Kitching 1984: 210), but the question of the systematic position of *Diloba* should still be considered open, as also stressed by Kitching. It is worth noting, that Beck (1960) placed *Diloba* in the pantheine-/acronictine group on the basis of larval structure and that Eggers (1919) found its tympanic organ to be strikingly similar to that of *Colocasia* Ochsenheimer, 1916 (but Richards 1932 considered the tympanic organ particularly close to that of the amphipyrine genus *Trachea* Ochsenheimer, 1816, and Minet 1982 found it particularly close to that of the cuculliine genus *Episema* Ochsenheimer, 1816!).

Nomenklatur

OLE KARSHOLT

Nomenklaturen i denne liste over Danmarks sommerfugle bygger på fortegnelsen fra 1976 (Karsholt & Nielsen, 1976). For arter, hvor der er sket ændringer i nomenklaturen i forhold til 1976-listen, gives kommentarer til disse nedenfor. Både de navne, der anvendes i selve listen, samt de, der findes i kommentarerne, er opført i indexet. Denne liste er primært et udbredelseskatalog, og derfor omtales kun synonymer til de arter, som har skiftet enten slægts- eller artsnavn siden 1976-listen. For yderligere synonymer (fx til Hoffmeyers bøger) henvises til Karsholt & Nielsen (1976).

Nomenklaturen følger i al væsentlighed de i International Code of Zoological Nomenclature (ICZN, 1961 – med senere ændringer) givne regler. Dog afviger den lidt ved på to punkter at følge nyere tendenser, der gør sig gældende ved arbejdet med nomenklaturen hos sommerfuglene:

1) Ifølge ICZN (artikel 30) skal et artsnavn – såfremt det er et tillægsord – følge slægtsnavnets køn efter de i ovennævnte artikel nærmere angivne regler. Om et art skal stå i en given slægt beror ofte på subjektive skøn, og det sker derfor ikke sjældent, at arter flyttes fra én slægt til en anden. Desuden har den manglende fiksering af slægternes typearter været årsag til en ustabil slægtsnomenklatur. Derfor bliver den moderne taxonom ofte stillet over for det problem at skulle tage stilling til, om et slægtsnavn er af græsk eller latinsk oprindelse, samt hvilket grammatisk køn det tilhører, og ligeledes skal det opklares, om artsnavnet er et tillægsord eller ej. I modsætning til tidligere tiders zoologer, der havde en klassisksproglig uddannelse, er vi i dag nødt til at søge ekspertbistand på dette område, og en sammenligning af forskellige landes fortegnelser over sommerfugle viser, at resultaterne – dersom forfatterne ikke kun har valgt at skrive af efter hinanden – sjældent stemmer overens. For at komme uden om dette problem har jeg her valgt at følge den opfattelse, at alle artsnavne kan betragtes som navneord – vel vidende, at det er lidt af en tilsni-

Nomenclature

OLE KARSHOLT

The nomenclature in this catalogue of Danish Lepidoptera builds on that used in its predecessor (Karsholt & Nielsen 1976). Changes in nomenclature relative to the 1976 list are commented upon in the note section below. Names used in the main catalogue as well as those mentioned in the note section are all indexed. The emphasis in this work is on distributions, and synonymies are therefore given only in the case of genera and species whose names have been changed since the 1976 catalogue. For further synonymies (e.g. enumeration of the names used in the Hoffmeyer handbooks) reference must be made to the Karsholt & Nielsen catalogue.

The treatment of nomenclature is largely in accordance with the rules laid down in the International Code of Zoological Nomenclature, »ICZN« (1961 with later amendments). However, two particular tendencies which have been in evidence in much recent work on Lepidoptera nomenclature have been followed:

1) According to the International Code of Zoological Nomenclature, »ICZN«, (article 30) a species name which is an adjective must agree in gender with the genus name in question, according to rules specified in the said article. The generic position of any given species is subject to individual judgement, and species are therefore frequently transferred from one genus to another. Moreover, the earlier lack of a well established fixation of type species for generic names has contributed markedly to an unstable generic nomenclature. The modern taxonomist is therefore often confronted with new generic combinations and hence with questions concerning the origin (Latin or Greek) and gender of a generic name, and moreover will have to decide whether a species name is, or is not, an adjective. Contrary to previous zoologists who mostly were well versed in classical languages, we today are forced to seek expert advice on such matters; a comparison of Lepidoptera catalogues from different countries amply

gelse. De skal derfor bruges i den i originalbeskrivelsen anvendte stavemåde uanset hvilken slægt, de nu står i. Jeg tror på, at dette på længere sigt vil føre til en stabilisering i nomenklaturen på artsniveau.

2) Ligesom i fortegnelsen fra 1976 søges ICZN's artikel 23 (»Law of Priority«) anvendt overalt i denne liste. Det er min helt sikre opfattelse, at stabilitet indenfor arter og slægter af sommerfugle kun kan opnås ved konsekvent altid at anvende det ældste gyldige navn for ethvert taxa. Punkt (a-b) i artikel 23 giver ganske vist nogle undtagelser fra denne lov, men praksis har vist, at denne regel fortolkes meget forskelligt. De internationale nomenklaturregler (ICZN, 1961: artikel 79) åbner således mulighed for at bevare eller undertrykke navne, dersom tungtvejende grunde taler for det. Nomenklaturkommisionen skal imidlertid tage sig af henvendelser vedrørende alle dyrerigets millioner af taxa, og det tager derfor (og også på grund af kommissionens utilstrækkelige økonomiske grundlag) lang tid at få en afgørelse på de ofte komplicerede sager. Det kan således nævnes, at spørgsmålet, om ribsglassværmeren skal hedde *Synanthedon tipuliformis* (Clerck) eller *S. salmachus* (Linnaeus) (Karsholt & Nielsen, 1976: 76), først for ganske nylig har fundet sin afgørelse i kommisionen. I de tilfælde, hvor uafsluttede problemer ligger hos kommisionen, bruges navnene fra 1976-listen, indtil en afgørelse foreligger (se dog kommentaren til *Chrysoclista).* Det er vigtigt, at nomenklaturkommisionen kun spørges i sager af mere principiel karakter, mens spørgsmål om, hvorvidt en art skal hedde det ene eller det andet, kun i helt ekstraordinære tilfælde bør belaste kommisionens arbejde.

I de forløbne 9 år er der publiceret en mængde større og mindre afhandlinger, som helt eller delvist foreslår ændringer i nomenklaturen og systematikken hos sommerfugle, der forekommer i Danmark. Så vidt det har været muligt, har jeg forsøgt at efterprøve disse ændringer, og specielt for dem, der er

shows that the results rarely are concordant – unless one author has chosen consistently to copy another. In order to circumvent this problem I have chosen to adhere to the view that any species name can be considered as a noun (while realizing that this may be forcing the issue) and that the original spelling therefore is to be retained irrespective of the present generic combination. I am convinced that this priciple eventually will lead to a stabilizing of the nomenclature at the species level.

2) As in the 1976 catalogue article 23 of ICZN (»Law of Priority«) is strictly adhered to throughout this list. It is my firm conviction that nomenclatural stability at the generic/specific level in the Lepidoptera can be reached only by consistent application of the oldest valid name for each taxon. It is true that sections (a-b) in article 23 make provisions for exempting names from the priority rule, but experience has shown that this point in the *Code* is subject to very variable interpretations. Article 23 (a-b) together with article 79 thus makes provisions for conserving or suppressing names if there are weighty arguments in favour of so doing. However, the *Commission* of nomenclature has to deal with cases concerning the million(s) of taxa throughout the Animal Kingdom and for this reason (as well as because of inadequate economic foundation of the *Commission*'s work), its treatment of submitted cases may be very tardy. Thus the question whether the currant clearwing moth should be referred to as *Synanthedon tipuliformis* (Clerck) or *S. salmachus* (Linnaeus) (see Karsholt & Nielsen 1976: 76) has not until quite recently been answered. In cases of unsolved problems which have been submitted to the *Commission* the names from the 1976 catalogue are being used here pending the decision (but see the note on *Chrysoclista).* It is important that only cases of general significance are submitted to the *Commission,* whereas questions concerning the names of individual species only under very extraordinary circumstances should burden the *Commission.*

In the past nine years several works have been published in which alterations are made of the nomenclature and/or systematic status of lepidopterans occurring in Denmark. I have endeavoured to check these al-

foreslået af Kocak (1982-84), har det i mange tilfælde vist sig, at de er baseret på et forløst grundlag. Det falder imidlertid uden for denne fortegnelses rammer at kommentere alle de tilfælde, hvor forslag til navneændringer ikke har kunnet dokumenteres, og kun for ændringer i forhold til Karsholt & Nielsen (1976) gives her kommentarer. Det må således umiddelbart tages for givet, at dersom en ændring ikke afspejler sig i denne liste, er det enten, fordi den bygger på et fejlagtigt grundlag, eller fordi den ikke har kunnet dokumenteres.

Det skal dog her påpeges, at den af Mentzer (1984) foreslåede fortolkning af Denis & Schiffermüller's værk ikke kan accepteres, da dette ville føre til uoverskuelige ændringer i nomenklaturen. I stedet følges den gængse opfattelse af ovennævnte værk, således som den kommer til udtryk hos Sattler & Tremewann (1984), hvis synspunkter jeg helt kan tilslutte mig.

Denne fortegnelse rummer en betydelig række nomenklatoriske ændringer i forhold til 1976-listen. Selv om der stadig publiceres mange navneændringer, skal det dog her påpeges, at mens dette for 9 år siden så ud til ikke at skulle få nogen ende, vil jeg i dag vove den påstand, at en stabil nomenklatur for nordeuropæiske sommerfugles artsnavne er i sigte. Derimod tror jeg, at de kommende års systematiske forskning indenfor sommerfuglene fortsat vil medføre betydelige omrokeringer i nomenklaturen på slægtsniveau.

Det er mig en glæde her at kunne takke følgende specialister for deres hjælp med de mange nomenklatoriske spørgsmål: E. Balletto, Genoa; J.D. Bradley, London; P. Leraut, Paris; V. Michelsen, København; E.S. Nielsen, Canberra; E.J. van Nieukerken, Amsterdam; B.W. Rasmussen, København; K. Sattler, London; M. Shaffer, London og R.I. Vane-Wright, London. En særlig tak skylder jeg Bjarne Skule, som har hjulpet med udarbejdelsen af kommentarerne til Hesperioidea, Papilionidea og Noctuoidea.

terations as far as possible and in some cases they have proved to rest on spurious evidence; this is particularly true of several of those proposed by Kocak (1982-84). However, it is outside the scope of the present work to comment on all proposed nomenclature alterations which could not be substantiated; comments are given only for the alterations relative to the Karsholt & Nielsen (1976) catalogue. If some suggested alteration is not adopted in this list it therefore indicates that it has been proposed for erroneous reasons or at least has not been adequately substantiated.

Special mention should here be made of Mentzer's (1984) proposed interpretation of the Denis & Schiffermüller memoir; this interpretation is not accepted since it would lead to countless nomenclature alterations. I fully concur with the opinions on the case expressed by Sattler & Tremewan (1984), and the current interpretations of the Denis & Schiffermüller names are therefore adopted here.

This catalogue contains numerous nomenclature changes relative to its predecessor from 1976, and new changes are continuously published. It should be pointed out, however, that whereas this process appeared endless nine years ago, I would maintain today that a stability in the species names of North European Lepidoptera is within reach. On the other hand I do believe that future systematic research on Lepidoptera will lead to considerable changes in generic names for a long time to come.

It is a pleasure here to express my gratitude to the following experts for their help with the numerous nomenclature problems: E. Balletto, Genoa; J.D. Bradley, London; P. Leraut, Paris; V. Michelsen, Copenhagen; E.S. Nielsen, Canberra; E.J. van Nieukerken, Amsterdam; B.W. Rasmussen, Copenhagen; K. Sattler, London; M. Shaffer, London & R.I. Vane-Wright, London. Special thanks are due to B. Skule who has contributed to the note section concerning Hesperioidea, Papilionoidea and Noctuoidea.

1. Systematik og rækkefølge i Nepticulidae følger Nieukerken *(in press).*

(1) Classification and species sequence in the Nepticulidae follow Nieukerken (in press).

2. *Stigmella aucupariae* (Frey, 1857) og *S. nylandriella* (Tengström, 1848) har vist sig at være synonymer, og *aucupariae* sensu Karsholt & Nielsen, (1976) skal nu hedde *nylandriella* (Tengström, 1848). For den art, som tidligere gik under navnet *nylandriella,* skal *magdalenae* (Klimesch, 1950) anvendes (Borkowski, 1975).

(2) *Stigmella aucupariae* (Frey, 1857) is a junior synonym of *S. nylandriella* (Tengström, 1848). *S. nylandriella* sensu Karsholt & Nielsen (1976) is, however, a different species to which the name *magdalenae* (Klimesch, 1950) should be applied (Borkowski 1975).

3. *Stigmella repentiella* (Wolff, 1955) er junior synonym til *S. zelleriella* (Snellen, 1875) (Nieukerken, 1983).

(3) *Stigmella repentiella* (Wolff, 1955) is a junior synonym of *S. zelleriella* (Snellen, 1875) (Nieukerken 1983).

4. *Trifurcula pallidella* sensu Karsholt & Nielsen (1976) er en fejlbestemmelse af *T. pallidella* (Duponchel, 1843) – og blev fejlagtigt tilskrevet Zeller, 1848. Arten skal hedde *T. beirnei* Puplesis, 1984 (E. van Nieukerken, mundtl. medd.)

(4) *Trifurcula pallidella* sensu Karsholt & Nielsen (1976) is a misidentification of *T. pallidella* (Duponchel, 1843) – and the name was erroneously attributed to Zeller (1848). The species should be known as *T. beirnei* Puplesis, 1984 (E. van Nieukerken, pers. comm.).

5. *Etainia sphendamni* (M. Hering, 1937) er junior synonym til *E. louisella* (Sircom, 1849) (E. van Nieukerken, skr. medd.).

(5) *Etainia sphendamni* (M. Hering, 1937) is a junior synonym of *E. louisella* (Sircom, 1849) (E. van Nieukerken *in litt.).*

6. *Ectoedemia argentipedella* (Zeller, 1839) er junior synonym til *E. occultella* (Linnaeus, 1767). *E. strigilella* (Thunberg, 1794) er et yderligere junior synonym til denne (Robinson & Nielsen, 1983).

(6) *Ectoedemia argentipedella* (Zeller, 1839) is a junior synonym of *E. occultella* (Linnaeus, 1767). *E. strigilella* (Thunberg, 1794) is another junior synonym of this name (Robinson & Nielsen, 1983).

7. *Ectoedemia mediofasciella* (Haworth, 1828) er junior synonym til *E. occultella* (Linnaeus, 1767). For *E. mediofasciella* sensu Karsholt & Nielsen (1976) skal igen anvendes *E. woolhopiella* (Stainton, 1887) (E. van Nieukerken, mundtl. medd.).

(7) *Ectoedemia mediofasciella* (Haworth, 1828) is a junior synonym of *E. occultella* (Linnaeus, 1767). The name *E. woolhopiella* (Stainton, 1887) should again be applied to *E. mediofasciella* sensu Karsholt & Nielsen (1976) (E. van Nieukerken, pers.comm.).

8. *Antispila pfeifferella* (Hübner, 1813) er junior homonym til *pfeifferella* (Hübner, 1813) (i *Nemophora)* og skal erstattes af *A. metallella* (Denis & Schiffermüller, 1775) (Nielsen, *in press* a).

(8) *Antispila pfeifferella* (Hübner, 1813) is a junior homonym of *pfeifferella* (Hübner, 1813) (in *Nemophora)* and should be replaced by *A. metallella* (Denis & Schiffermüller, 1775) (Nielsen *in press* a).

9. *Nematopogon variella* (Brandt, 1937) er junior synonym til *N. magna* (Zeller, 1878) (Nielsen, *in press* b).

(9) *Nematopogon variella* (Brandt, 1937) is a junior synonym of *N. magna* (Zeller, 1878) (Nielsen, *in press* b).

10. *Nematopogon panzerella* (Fabricius, 1794) er junior synonym til *N. adansoniella* (Villers, 1789) (Nielsen, *in press* b)

11. *Adela reamurella* hos Karsholt & Nielsen (1976) er en fejlstavning af *A. reaumurella* (Linnaeus, 1758).

12. Ifølge Nielsen & Johansson (1980) skal arterne *rufimitrella* (Scopoli, 1763), *fibulella* (Denis & Schiffermüller, 1775) og *rufifrontella* (Treitschke, 1833) anbringes i en særlig slægt *Cauchas* Zeller, 1839.

13. *Lampronia rubiella* (Bjerkander, 1781) er junior synonym til *L. corticella* (Linnaeus, 1758) (Robinson & Nielsen, 1983).

14. *Narycia monilifera* (Fourcroy, 1785) (ikke Geoffroy) er junior synonym til *N. duplicella* (Goeze, 1783) (Kocak 1982-83).

15. *Solenobia* Duponchel, 1843 er junior synonym til *Taleporia* Hübner, 1825. For *Solenobia* auct. anvendes *Dahlica* Enderlein, 1912 (Lerault, 1979, Hättenschwiler, 1980).

16. *Dahlica fumosella* (Heinemann, 1870) er junior synonym til *D. lazuri* (Clerck, 1759) (Robinson & Nielsen, 1983).

17. *Dahlica cembrella* (Linnaeus, 1761) er junior synonym til *D. listerella* (Linnaeus, 1758) (Robinson & Nielsen, 1983). Denne art skal ifølge Hättenschwiler (1980) anbringes i slægten *Siederia* Meier, 1953.

18. *Diplodoma herminata* (Fourcroy, 1785) (ikke Geoffroy) er junior synonym til *D. laichartingella* (Goeze, 1783) (Kocak, 1982-83).

19. *Bacotia sepium* (Speyer, 1846) er junior synonym til *B. claustrella* (Bruand, 1845) (Leraut, 1984a).

(10) *Nematopogon panzerella* (Fabricius, 1794) is a junior synonym of *N. adansoniella* (Villers, 1789) (Nielsen, *in press* b).

(11) *Adela reamurella* in Karsholt & Nielsen (1976) is a misspelling of *A. reaumurella* (Linnaeus, 1758).

(12) According to Nielsen & Johansson (1980) the species *rufimitrella* (Scopoli, 1763), *fibulella* (Denis & Schiffermüller, 1775) and *rufifrontella* (Treitschke, 1833) shall be placed in a separate genus *Cauchas* Zeller, 1839.

(13) *Lampronia rubiella* (Bjerkander, 1781) is a junior synonym of *L. corticella* (Linnaeus, 1758) (Robinson & Nielsen 1983).

(14) *Narycia monilifera* (Fourcroy, 1785) (not Geoffroy) is a junior synonym of *N. duplicella* (Goeze, 1783) (Kocak 1982-83).

(15) *Solenobia* Duponchel, 1843 is a junior synonym of *Taleporia* Hübner, 1825. For *Solenobia* auct. *Dahlica* Enderlein, 1912 is available (Leraut, 1979, Hättenschwiller 1980).

(16) *Dahlica fumosella* (Heinemann, 1870) is a junior synonym of *D. lazuri* (Clerck, 1759) (Robinson & Nielsen 1983).

(17) *Dahlica cembrella* (Linnaeus, 1761) is a junior synonym of *D. listerella* (Linnaeus, 1758) (Robinson & Nielsen 1983). According to Hättenschwiler (1980) this species should be placed in *Siederia* Meier, 1953.

(18) *Diplodoma herminata* (Fourcroy, 1785) (not Geoffroy) is a junior synonym of *D. laichartingella* (Goeze, 1783) (Kocak 1982-83).

(19) *Bacotia sepium* (Speyer, 1846) is a junior synonym of *B. claustrella* (Bruand, 1845) (Leraut 1984a).

20. *Canephora unicolor* (Hufnagel, 1766) er junior synonym til *C. hirsuta* (Poda, 1761) (Leraut, 1984a).

21. *Celestica angustipennis* (Herrich-Schäffer, 1854) er junior synonym til *C. cyaneimarmorella* (Milliére, 1854) (Leraut, 1983). Ifølge Davis (1983) er *Stenoptinea* Dietz, 1905 senior synonym til *Celestica* Meyrick, 1917.

22. *Agnathosia propulsatella* (Rebel, 1892) er junior synonym til *A. mendicella* (Denis & Schiffermüller, 1775) (se note 37).

23. *Nemapogon personella* (Pierce & Metcalfe, 1934) er junior synonym til *N. variatella* (Clemens, 1859) (Davis, 1983).

24. *Nemapogon heydeni* G. Petersen, 1957 er junior synonym til *N. inconditella* (Lucas, 1956) (Robinson, 1982).

25. *Monopis rusticella* (Hübner, 1813) er junior homonym til *rusticella* Hübner, 1796 (et junior synonym til *Haplotinea insectella* (Fabricius, 1794)) og skal erstattes af *M. laevigella* (Denis & Schiffermüller, 1775) (Leraut, 1983).

26. *Monopis ferruginella* (Hübner, 1813) er junior homonym til *ferruginella* Thunberg, 1788 og skal erstattes af *M. obviella* (Denis & Schiffermüller, 1775) (Leraut, 1983).

27. *Niditinea fuscipunctella* (Haworth, 1828) er junior synonym til *N. fuscella* (Linnaeus, 1758). Et yderligere junior synonym er *N. spretella* (Denis & Schiffermüller, 1775) (Robinson & Nielsen, 1983).

28. *Tinea turicensis* Müller-Rutz, 1920 er junior synonym til *T. dubiella* Stainton, 1859 (Robinson, 1979).

29. Ifølge Kumata (1982) skal *syringella* Fabricius, 1794 flyttes fra *Caloptilia* til slægten *Gracillaria* Haworth, 1828 som *G. syringella* (Fabricius, 1794).

(20) *Canephora unicolor* (Hufnagel, 1766) is a junior synonym of *C. hirsuta* (Poda, 1761) (Leraut 1984a).

(21) *Celestica angustipennis* (Herrich-Schäffer, 1854) is a junior synonym of *C. cyaneimarmorella* (Milliere, 1854) (Leraut 1983). According to Davis (1983) *Stenoptinea* Dietz, 1905 is a senior synonym of *Celestica* Meyrick, 1917.

(22) *Agnathosia propulsatella* (Rebel, 1892) is a junior synonym of *A. mendicella* (Denis & Schiffermüller, 1775) (see note 37).

(23) *Nemapogon personella* (Pierce & Metcalfe, 1934) is a junior synonym of *N. variatella* (Clemens, 1859) (Davis 1983).

(24) *Nemapogon heydeni* G. Petersen, 1957 is a junior synonym of *N. inconditella* (Lucas, 1956) (Robinson 1982).

(25) *Monopis rusticella* (Hübner, 1813) is a junior homonym of *rusticella* Hübner, 1796 (a junior synonym of *Haplotinea insectella* (Fabricius, 1794)) and should be replaced by *M. laevigella* (Denis & Schiffermüller, 1775) (Leraut 1983).

(26) *Monopis ferruginella* (Hübner, 1813) is a junior homonym of *ferruginella* Thunberg, 1788 and should be replaced by *M. obviella* (Denis & Schiffermüller, 1775) (Leraut 1983).

(27) *Niditinea fuscipunctella* (Haworth, 1828) is a junior synonym of *N. fuscella* (Linnaeus, 1758). Another junior synonym is *N. spretella* (Denis & Schiffermüller, 1775) (Robinson & Nielsen 1983).

(28) *Tinea turicensis* Müller-Rutz, 1920 is a junior synonym of *T. dubiella* Stainton, 1859 (Robinson 1979).

(29) According to Kumata (1982) *syringella* Fabricius, 1794 should be transferred from *Caloptilia* to *Gracillaria* Haworth, 1828 as *G. syringella* (Fabricius, 1794).

30. *Phyllonorycter spinolella* (Duponchel, 1840) er junior synonym til *P. hilarella* (Zetterstedt, 1839) (Benander, 1940). I UZIL i Lund, Sverige opbevares et eksemplar fra hver af de to lokaliteter, hvorfra Zetterstedt beskrev sin *hilarella.* Til lectotype har jeg udvalgt en hun etiketteret: »E. hilarella Zett., ♂ [sic], Rusele«, Gen. præp. OK 2403♀, LECTOTYPE, O. Karsholt design. 1984.

31. *Phyllonorycter quinnata* (Fourcroy, 1785) (ikke Geoffroy) er junior synonym til *P. esperella* (Goeze, 1783) SYN. N.(O. K. upubl.).

32. *Phyllonorycter sylvella* (Haworth, 1828) er junior homonym til *silvella* Hübner, 1813 (ICZN 1961, artikel 52(2)). Som erstatningsnavn anvendes *P. acerifoliella* (Zeller, 1839) (Kocak, 1984).

33. *Bucculatrix frangulella* sensu Karsholt & Nielsen (1976) er en fejlstavning af *B. frangutella* (Goeze, 1783) (Kocak, 1982-83).

34. *Bucculatrix crataegi* (Zeller, 1839) er junior synonym til *B. bechsteinella* (Bechstein & Scharfenberg, 1805) (Hering, 1957).

35. Ifølge Moriuti (1969) falder *Blastotere* Ratzeburg, 1840 ind under *Argyresthia* Hübner, 1825 og bliver junior synonym til denne.

36. På grund af usikkerhed med datering af Fabricius' »Genera Insectorum« anvendes i litteraturen både 1776 og 1777 som årstal for arter beskrevet i dette værk. Imidlertid skriver Fabricius i en posthumt publiceret selvbiografi (Fabricius, 1819): »1776 gab ich die Genera Insectorum heraus, ...«, hvorfor dette årstal bør anvendes for alle deri beskrevne arter. I forhold til Karsholt & Nielsen (1976) er det rigtige citat for følgende arter: *Argyresthia arcella* (Fabricius, 1776), *Olethreutes schulziana* (Fabricius, 1776), *Agriopis marginaria* (Fabricius, 1776), *Pheosia gnoma* (Fabricius, 1776) og *Brachylomia viminialis* (Fabricius, 1776) (O.K. upubl.).

(30) *Phyllonorycter spinolella* (Duponchel, 1840) is a junior synonym of *P. hilarella* (Zetterstedt, 1839) (Benander 1940). The UZIL collection, Lund, contains one syntypic specimen from each of the two localities from where Zetterstedt described his *hilarella.* As lectotype I have designated a female labelled »E. hilarella Zett. ♂ [sic], Rusele, Gen.præp. OK 2403 ♀, LECTOTYPE, O. Karsholt design 1984«.

(31) *Phyllonorycter quinnata* (Fourcroy, 1785) (not Geoffroy) is a junior synonym of *P. esperella* (Goeze, 1783), SYN.N. (O. Karsholt, unpublished).

(32) *Phyllonorycter sylvella* (Haworth, 1828) is a junior homonym of *silvella* Hübner, 1813 (ICZN 1961, article 52(2)). *P. acerifoliella* (Zeller, 1839) is available as replacement name (Kocak 1984).

(33) *Bucculatrix frangulella* sensu Karsholt & Nielsen (1976) is a misspelling of *B. frangutella* (Goeze, 1783) (Kocak, 1982-83).

(34) *Bucculatrix crataegi* (Zeller, 1839) is a junior synonym of *B. bechsteinella* (Bechstein & Scharfenberg, 1805) (Hering 1957).

(35) According to Moriuti (1969) *Blastotere* Ratzeburg, 1840 is a junior synonym of *Argyresthia* Hübner, 1825.

(36) Because of previous incertainties concerning the dating of Fabricius' »Genera Insectorum« 1776 as well as 1777 are currently cited for species described in this work. However, Fabricius himself wrote in a posthumously published autobiography (Fabricius 1819) that »1776 gab ich die Genera Insectorum heraus. . .«; therefore that year should be cited for all species described in the said work. Corrections relative to the Karsholt & Nielsen catalogue (1976) have been made in the following cases: *Argyresthia arcella* (Fabricius, 1776), *Olethreutes schulziana* (Fabricius, 1776), *Agriopis marginaria* (Fabricius, 1776), *Pheosia gnoma* (Fabricius, 1776) and *Brachylomia viminalis* (Fabricius, 1776).

37. *Argyresthia mendica* (Haworth, 1828) er både en ugyldig navneændring og en fejlbestemmelse af *Tinea mendicella* Hübner, 1796, der er samme art som *Agnathosia mendicella* (Denis & Schiffermüller, 1775) (AUCT. REV.). Dette er sammenligneligt med synonymiseringen af *Retinia resinella* (Linnaeus, 1758) og *Scoparia resinea* Haworth, 1811. For *A. mendica* auct. anvendes *A. spinosella* Stainton, 1849 (O. K. upubl.).

(37) *Argyresthia mendica* (Haworth, 1828) is an unjustified emendation of, as well as a misidentification of, *Tinea mendicella* Hübner, 1796. The latter is identical with *Agnathosia mendicella* (Denis & Schiffermüller, 1775), AUCT. REV. This case is analogous with the synonymizing of *Retinia resinella* (Linnaeus, 1758) and *Scoparia resinea* Haworth, 1811. The valid name for *A. mendica* auct. is *A. spinosella* Stainton, 1849 (O. Karsholt, unpublished).

38. *Argyresthia curvella* (Linnaeus, 1761) er junior synonym til *A. bonnetella* (Linnaeus, 1758) (Robinson & Nielsen, 1983).

(38) *Argyresthia curvella* (Linnaeus, 1761) is a junior synonym of *A. bonnetella* (Linnaeus, 1758) (Robinson & Nielsen 1983).

39. *Yponomeuta vigintipunctata* (Retzius, 1783) er ikke publiceret som et binomen (ICZN, 1961, artikel 5) og er derfor ikke gyldig som artsnavn. Arten skal hedde *Y. sedella* Treitschke, 1832 (O. K. upubl.).

(39) *Yponomeuta vigintipunctata* (Retzius, 1783) is not published as a binomen (ICZN 1961, article 5) and is therefore not available as a species name. *Y. sedella* Treitschke, 1832 is available for the species in question. (O. Karsholt, unpublished).

40. *Paraswammerdamia spiniella* (Hübner, 1809) er junior synonym til *P. albicapitella* (Scharfenberg, 1805) SYN. N. Det er denne art, som tidligere kaldtes *P. caesiella* (Hübner, 1813) nec (Hübner, 1796) (O. K. upubl.).

(40) *Paraswammerdamia spiniella* (Hübner, 1809) is a junior synonym of *P. albicapitella* (Scharfenberg, 1805), SYN. N. It is this species which previously has been known as *P. caesiella* (Hübner, 1813) nec (Hübner, 1796) (O. Karsholt, unpublished).

41. *Paraswammerdamia lutarea* (Haworth, 1828) er junior synonym til *P. nebulella* (Goeze, 1783). *P. plumbaea* (Fourcroy, 1785) er yderligere et synonym (Leraut, skr. medd.).

(41) *Paraswammerdamia lutarea* (Haworth, 1828) is a junior synonym of *P. nebulella* (Goeze, 1783). *P. plumbaea* (Fourcroy, 1785) is yet another junior synonym (P. Leraut, *in litt.*).

42. *Acrolepia pygmaeana* (Haworth, 1811) er homonym til *pygmaeana* Hübner, 1799 og skal erstattes af *A. autumnitella* Curtis, 1838 (Bradley & Fletcher, 1983).

(42) *Acrolepia pygmaeana* (Haworth, 1811) is a junior homonym of *pygmaeana* Hübner, 1799 and should be replaced by *A. autumnitella* Curtis, 1838 (Bradley & Fletcher 1983).

43. *Ochsenheimeria bisontella* (Lienig & Zeller, 1846) er junior synonym til *O. urella* Fischer von Röslerstamm, 1842 (Karsholt & Nielsen, 1984).

(43) *Ochsenheimeria bisontella* (Lienig & Zeller, 1846) is a junior synonym of *O. urella* Fischer von Röslerstamm, 1842 (Karsholt & Nielsen 1984).

44. *Leucoptera scitella* (Zeller, 1839) er junior synonym til *L. malifoliella* (Costa, 1836) (Tremewan, 1977).

(44) *Leucoptera scitella* (Zeller, 1839) is a junior synonym of *L. malifoliella* (Costa, 1836) (Tremewan 1977).

45. *Glyphipterix equitella* (Scopoli, 1763) er en sydeuropæisk art. Vores *equitella* auct. skal hedde *G. minorella* (Snellen, 1882) (Diakonoff, 1976).

46. *Agonopterix alstroemeriana* hos Karsholt & Nielsen (1976) er en fejlstavning af *A. alstromeriana* (Clerck, 1759) (Robinson & Nielsen, 1983).

47. *Agonopterix liturella* (Denis & Schiffermüller, 1775) er junior synonym til *A. kaekeritziana* (Linnaeus, 1767) (Robinson & Nielsen, 1983).

48. Ifølge Hodges (1978) og Leraut (1980: 187) skal *augustella* (Hübner, 1796) og *stipella* (Linnaeus, 1758) anbringes i slægten *Denisia* Hübner, 1825 (syn.: *Chambersia* Riley, 1891). Også *albimaculea* (Haworth, 1828) (COMB. N.) hører til denne slægt, mens de øvrige arter forbliver i *Schiffermuelleria* Hübner, 1825.

49. *Diurnea phryganella* (Hübner, 1796) er junior synonym til *D. lipsiella* (Denis & Schiffermüller, 1775) (Kocak, 1982 - 84).

50. *Elachista diederichiella* hos Karsholt & Nielsen (1976) er en fejlstavning af *E. diederichsiella* E. Hering, 1889.

51. *Elachista pulchella* (Haworth, 1828) er homonym til *pulchella* Fabricius, 1794 og skal erstattes af *E. canapennella* (Hübner, 1813) SYN. N., *E. canifoliella* Treitschke, 1833 SYN. N. og *E. salicis* (Tengström, 1848) SYN. N. er to yderligere synonymer (E. S. Nielsen skr. medd. og Nielsen & Nye, *in press.).*

52. Ifølge Traugott-Olsen & Nielsen (1977) skal *serricornis* (Stainton, 1854), *scirpi* (Stainton, 1887), *eleochariella* (Stainton, 1851), *utonella* (Frey, 1856) og *albidella* (Nylander, 1848) anbringes i slægten *Biselachista* Traugott-Olsen & Nielsen, 1977.

53. *Biselachista mitterbergeri* (Rebel, 1906) er junior synonym til *B. serricornis* (Stainton, 1854) (Traugott-Olsen & Nielsen, 1977).

(45) *Glyphipterix equitella* (Scopoli, 1763) is a South European species. Our *equitella* auct. should be known as *G. minorella* (Snellen, 1882) (Diakonoff 1976).

(46) *Agonopterix alstroemeriana* in Karsholt & Nielsen (1976) is a misspelling of *A. alstromeriana* (Clerck, 1759) (Robinson & Nielsen 1983).

(47) *Agonopterix liturella* (Denis & Schiffermüller, 1775) is a junior synonym of *A. kaekeritziana* (Linnaeus, 1767) (Robinson & Nielsen 1983).

(48) According to Hodges (1978) and Leraut (1980: 187) *augustella* (Hübner, 1796) and *stipella* (Linnaeus, 1758) should be transferred from *Schiffermuelleria* Hübner, 1825 to *Denisia* Hübner, 1825 (syn. *Chambersia* Riley, 1891); the same is true also for *albimaculea* (Haworth, 1828), COMB. N. Our other *Schiffermuelleria* species remain in that genus.

(49) *Diurnea phryganella* (Hübner, 1776) is a junior synonym of *D. lipsiella* (Denis & Schiffermüller, 1775) (Kocak 1982-84).

(50) *Elachista diederichiella* in Karsholt & Nielsen (1976) is a misspelling of *E. diederichsiella* E. Hering, 1889.

(51) *Elachista pulchella* (Haworth, 1828) is a junior synonym of *E. canapennella* (Hübner, 1813), SYN. N.; it is also a junior homonym of *pulchella* Fabricius, 1794. *E. canifoliella* Treitschke, 1833 SYN. N. and *E. salicis* (Tengström, 1848) SYN. N. are further synonyms (E. S. Nielsen *in litt.;* Nielsen & Nye in press).

(52) According to Traugott-Olsen & Nielsen (1977) the following species should be placed in *Biselachista* Traugott-Olsen & Nielsen, 1977: *serricornis* (Stainton, 1854), *scirpi* (Stainton, 1887), *eleochariella* (Stainton, 1851), *utonella* (Frey, 1856) and *albidella* (Nylander, 1848).

(53) *Biselachista mitterbergeri* (Rebel, 1906) is a junior synonym of *B. serricornis* (Stainton, 1854) (Traugott-Olsen & Nielsen 1977).

54. *Coleophora cerasivorella* Packard, 1870 er junior synonym til *C. spinella* (Schrank, 1802) SYN. N. (O. K. upubl.).

55. *Coleophora spissicornis* (Haworth, 1828) er junior synonym til *C. mayrella* (Hübner, 1813) (Zeller, 1849).

56. *Coleophora lineola* sensu Karsholt & Nielsen (1976) er en fejlstavning af *C. lineolea* (Haworth, 1828).

57. *Coleophora crocinella* Tengström, 1848 er junior synonym til *C. colutella* (Fabricius, 1794) (Kasy, 1978). *C. serenella* (Duponchel, 1843) er yderligere et synonym (Baldizzone, 1979). B. W. Rasmussen har i Fabricius' samling på ZMUC designeret en lecotype af denne art, som her publiceres for første gang: »*Tinea colutella* Fabricius, 1794, LECTOTYPE, Gen. præp. BWR 2650♂, coll. Kiel, B. W. Rasmussen design. 1964«. Der er ikke i Fabricius' samling eksemplarer af den art, der kendes som *colutella* auct., og det er en art, som ikke forekommer i Danmark (B. W. Rasmussen, mundtl. medd.).

58. *Coleophora anatipennella* (Hübner, 1796) er junior synonym til *C. bernoulliella* (Goeze, 1783). *C. tiliella* (Schrank, 1802) er yderligere et synonym (Zeller, 1849).

59. *Coleophora palliatella* (Zincken, 1813) er junior synonym til *C. kuehnella* (Goeze, 1783). *C. lamellifera* (Fourcroy, 1785) er et yderligere synonym (Zeller, 1849).

60. *Coleophora onosmella* (Brahm, 1891) er junior synonym til *C. pennella* (Denis & Schiffermüller, 1775). *C. borowskiella* (Goeze, 1783) er et yderligere synonym (Kocak, 1982-84).

61. *Coleophora benanderi* Kanerva, 1941 er junior synonym til *C. saxicolella* (Duponchel, 1843) (Baldizzone, 1979).

(54) *Coleophora cerasivorella* Packard, 1870 is a junior synonym of *C. spinella* (Schranck, 1802), SYN. N. (O. Karsholt, unpublished).

(55) *Coleophora spissicornis* (Haworth, 1828) is a junior synonym of *C. mayrella* (Hübner, 1813) (Zeller, 1849).

(56) *Coleophora lineola* sensu Karsholt & Nielsen (1976) is a misspelling of *C. lineolea* (Haworth, 1828).

(57) *Coleophora crocinella* Tengström, 1848 is a junior synonym of *C. colutella* (Fabricius, 1794) (Kasy, 1978). *C. serenella* (Duponchel, 1843) is yet another junior synonym (Baldizzone, 1979). B.W. Rasmussen has designated a lectotype of this species from the Fabricius collection deposited in ZMUC; it is here published for the first time: »*Tinea colutella* Fabricius, 1794, LECTOTYPE, Gen. præp. BWR 2650 ♂, coll. Kiel, B. W. Rasmussen design. 1964«. Fabricius' collection contains no specimens of the species known as *colutella* auct.; the latter is a species which does not occur in Denmark (B.W.Rasmussen, pers. comm.).

(58) *Coleophora anatipennella* (Hübner, 1796) is a junior synonym of *C. bernoulliella* (Goeze, 1783). *C. tiliella* (Schrank, 1802) is yet another junior synonym (Zeller 1849).

(59) *Coleophora palliatella* (Zincken, 1813) is a junior synonym of *C. kuehnella* (Goeze, 1783). *C. lamellifera* (Fourcroy, 1785) is yet another junior synonym (Zeller 1849).

(60) *Coleophora onosmella* (Brahm, 1791) is a junior synonym of *C. pennella* (Denis & Schiffermüller, 1775). *C. borowskiella* (Goeze, 1783) is yet another synonym (Kocak 1982-84).

(61) *Coleophora benanderi* Kanerva, 1941 is a junior synonym of *C. saxicolella* (Duponchel, 1843) (Baldizzone 1979).

62. *Coleophora laripennella* (Zetterstedt, 1839) er junior synonym til *C. vestianella* (Linnaeus, 1758) (Sattler & Tremewan, 1978).

63. *Coleophora suaedivora* Meyrick, 1928 er junior synonym til *C. deviella* Zeller, 1849 (Baldizzone, 1982).

64. *Celeophora troglodytella* (Duponchel, 1843) er junior synonym til *C. follicularis* (Vallot, 1802) (P. Leraut skr. medd.).

65. *Monochroa farinosae* (Stainton, 1867) er junior synonym til *M. servella* (Zeller, 1839) SYN. N. (O. K. upubl.).

66. *Dactylotula* Cockerell, 1888 er junior synonym til *Apatetris* Staudinger, 1879 (Leraut, 1980).

67. *Rhynchopacha* Staudinger, 1871 er junior synonym til *Athrips* Billberg, 1820 (Sattler, 1978).

68. *Lita virgella* (Thunberg, 1794) er junior synonym til *L. sexpunctella* (Fabricius, 1794) (Fletcher, 1938-39, Karsholt & Nielsen, *in press).*

69. *Argyrotaenia pulchellana* (Haworth, 1811) er junior synonym til *A. ljungiana* (Thunberg, 1797) (Karsholt & Nielsen, *in press).*

70. *Parasyndemis* Obraztsov, 1954 er junior synonym til *Dichelia* Guenée, 1845 (Leraut, 1978).

71. *Paraclepsis* Obraztsov, 1954 er junior homonym til *Paraclepsis* Hardinger, 1924 og skal erstattes af *Periclepsis* Bradley, 1977 (Bradley, 1977).

72. *Cnephasia interjectana* (Haworth, 1811) er junior synonym til *C. asseclana* Denis & Schiffermüller, 1775) (Obraztsov, 1966).

73. *Trachysmia rigana* (Sodoffsky, 1829) skal ifølge Leraut (1978) anbringes i slægten *Xerocnephasia* Leraut, 1978 med *Trachysmia* auct. som synonym. Se også note 74.

(62) *Coleophora laripennella* (Zetterstedt, 1839) is a junior synonym of *C. vestianella* (Linnaeus, 1758) (Sattler & Tremewan 1978).

(63) *Coleophora suaedivora* Meyrick, 1928 is a junior synonym of *C. deviella* Zeller, 1849 (Baldizzone 1982).

(64) *Coleophora troglodytella* (Duponchel, 1843) is a junior synonym of *C. follicularis* (Vallot, 1802) (P. Leraut, *in litt.*).

(65) *Monochroa farinosae* (Stainton, 1867) is a junior synonym of *M. servella* (Zeller, 1839), SYN. N. (O. Karsholt, unpublished).

(66) *Dactylotula* Cockerell, 1888 is a junior synonym of *Apatetris* Staudinger, 1879 (Leraut 1980).

(67) *Rhynchopacha* Staudinger, 1871 is a junior synonym of *Athrips* Billberg, 1820 (Sattler 1978).

(68) *Lita virgella* (Thunberg, 1794) is a junior synonym of *L. sexpunctella* (Fabricius, 1794) (Fletcher 1938-39, Karsholt & Nielsen in press).

(69) *Argyrotaenia pulchellana* (Haworth, 1811) is a junior synonym of *A. ljungiana* (Thunberg, 1797) (Karsholt & Nielsen in press).

(70) *Parasyndemis* Obraztsov, 1954 is a junior synonym of *Dichelia* Guenée, 1845 (Leraut 1978).

(71) *Paraclepsis* Obraztsov, 1954 is a junior homonym of *Paraclepsis* Harding, 1924 and should be replaced by *Periclepsis* Bradley, 1977 (Bradley 1977).

(72) *Cnephasia interjectana* (Haworth, 1811) is a junior synonym of *C. asseclana* (Denis & Schiffermüller, 1775) (Obraztsov 1966).

(73) *Trachysmia rigana* (Sodoffsky, 1829) should be placed in the genus *Xerocnephasia* Leraut, 1978, to which *Trachysmia* auct. is a synonym (Leraut 1978).

74. *Hysterosia* Stephens, 1852 er junior synonym til *Trachysmia* Geunée, 1845 (Leraut, 1978).

75. *Stenodes* Guenée, 1845 er homonym til *Stenodes* Dujardin, 1844 og skal erstattes af *Cochylimorpha* Razowski, 1959 (Kocak, 1981-83).

76. *Hedya nubiferana* (Haworth, 1811) er junior synonym til *H. dimidioalba* (Retzius, 1783) (Zeller, 1839, Kocak, 1982-83).

77. *Endothenia ericetana* (Humphreys & Westwood, 1854) er junior synonym til *E. trifoliana* (Herrich-Schäffer, 1851) (Razowski, 1983).

78. *Epinotia stroemiana* (Fabricius, 1781) er junior synonym til *E. trigonella* (Linnaeus, 1758) (Robinson & Nielsen, 1983). Vi betragter *E. indecorana* (Zetterstedt, 1839), hvoraf et par eksemplarer er fundet i NEJ, som en underart til *trigonella.* (Sml. Buhl *et al.,* 1984).

79. Ifølge Brown (1979) skal *stagnana* (Denis & Schiffermüller, 1775) og *myrtillana* (Humphreys & Westwood, 1845) angringes i slægten *Rhopobota* Lederer, 1859 (syn.: *Griselda* auct.). *Griselda* Heinrich, 1923 er en monotypisk, nearktisk slægt.

80. *Rhopobota unipunctana* (Havorth, 1811) er homonym til *unipunctana* Donovan, 1805 og skal erstattes af *R. naevana* (Hübner, 1817) (Bradley *et al.,* 1979).

81. *Zeiraphera diniana* (Guenée, 1845) er junior synonym til *Z. griseana* (Hübner, 1799) (Kuznetsov, 1978).

82. *Epiblema farfarae* (T. Fletcher, 1938) er junior synonym til *E. melstediana* Larsen, 1927 (Karsholt & Nielsen, 1976). Imidlertid mener jeg, at det endnu ældre navn *E. sticticana* (Fabricius, 1794) er det gyldige for denne art (O. K. upubl.).

(74) *Hysterosia* Stephens, 1852 is a junior synonym of *Trachysmia* Guenée, 1845 (Leraut 1978).

(75) *Stenodes* Guenée, 1845 is a junior homonym of *Stenodes* Dujardin, 1844 and should be replaced by *Cochylimorpha* Razowski, 1959 (Kocak 1981-83).

(76) *Hedya nubiferana* (Haworth, 1811) is a junior homonym of *H. dimidioalba* (Retzius, 1783) (Zeller 1839, Kocak 1982-83).

(77) *Endothenia ericetana* (Humphreys & Westwood, 1854) is a junior synonym of *E. trifoliana* (Herrich-Schäffer, 1851) (Razowski 1983).

(78) *Epinotia stroemiana* (Fabricius, 1781) is a junior synonym of *E. trigonella* (Linnaeus, 1758) (Robinson & Nielsen 1983). We consider the taxon *E. indecorana* (Zetterstedt, 1839) to be a subspices of *trigonella;* a few specimens of *indecorana* have been found i NEJ Buhl *et al.* 1984).

(79) According to Brown (1979) the species *stagnana* (Denis & Schiffermüller, 1775) and *myrtillana* (Humphreys & Westwood, 1845) should be placed in the genus *Rhopobota* Lederer, 1859 (syn. *Griselda* auct.). *Griselda* Heinrich, 1923 is a monotypic nearctic genus.

(80) *Rhopobota unipunctana* (Haworth, 1811) is a junior homonym of *unipunctana* Donovan, 1805 and should be replaced by *R. naevana* (Hübner, 1817) (Bradley et al. 1979).

(81) *Zeiraphera diniana* (Guenée, 1845) is a junior synonym of *Z. griseana* (Hübner, 1799) (Kuznetsov 1978).

(82) *Epiblema farfarae* (T. F. Fletcher, 1938) is a junior synonym of *E. melstediana* Larsen, 1927 (Karsholt & Nielsen 1976). However, I consider the much older name *E. sticticana* (Fabricius, 1794) to be the valid name for this species (O. Karsholt, unpublished).

83. *Petrova* Heinrich, 1923 er junior synonym til *Retinia* Guenée, 1845 (Leraut, 1978).

84. *Pammene inquilana* hos Karsholt & Nielsen (1976) er en fejlstavning af *P. inquilina* Fletcher, 1938.

85. *Cydia nigricana* (Fabricius, 1794) er junior synonym til C. *rusticella* (Clerck, 1759) (Robinson & Nielsen, 1983).

86. *Eutromula* Frölich, 1828 er junior synonym til *Choreutis* Hübner, 1825. *Choreutis* auct. med *sehestediana* (Fabricius, 1776) og *myllerana* (Fabricius, 1794) anbringes i slægten *Prochoreutis* Diakonoff & Heppner, 1980 (Diakonoff & Heppner, 1980).

87. *Crombrugghia* Tutt, 1906 er junior synonym til *Oxyptilus* Zeller, 1841, og *distans* (Zeller, 1847) skal anbringes i sidstnævnte slægt (K. Schnack, upubl.).

88. *Stenoptilia graphodactyla* (Treitschke, 1833) og *S. pneumonanthes* (Büttner, 1880) er to adskilte arter, og de danske populationer tilhører sidstnævnte (K. Schnack, upubl.).

89. Ifølge Roesler (1980) betragtes *semirubella* (Scopoli, 1763) og *faecella* (Zeller, 1839) som hørende til to slægter, henholdsvis *Pollichia* Roesler, 1980 og *Ladomia* Ragonot, 1888. Imidlertid fremgår det af Fletcher & Nye (1984), at *Pollichia* er junior synonym til *Oncocera* Stephens, 1829, således at førstnævnte art fortsat skal hedde *Oncocera semirubella* (Scopoli, 1763).

90. *Rhodophaea* Guenée, 1845 og *Salebria* Zeller, 1846 er synonymer til *Pempelia* Hübner, 1825 med arterne *palumbella* (Denis & Schiffermüller, 1775) og *formosa* (Haworth, 1811) (Leraut, 1979). For *Rhodophaea* auct. skal *Numonia* Ragonot, 1893 anvendes, og for *Pempelia* auct. skal *Pseudosyria* Rebel, 1926 anvendes (Roesler, 1985).

(83) *Petrova* Heinrich, 1923 is a junior synonym of *Retinia* Guenée, 1845 (Leraut 1978).

(84) *Pammene inquilana* in Karsholt & Nielsen (1976) is a misspelling of *P. inquilina* T. F. Fletcher, 1938.

(85) *Cydia nigricana* (Fabricius, 1794) is a junior synonym of *C. rusticella* (Clerck, 1759) (Robinson & Nielsen 1983).

(86) *Eutromula* Frölich, 1828 is a junior synonym of *Choreutis* Hübner, 1825. *Choreutis* auct. which includes *sehestediana* (Fabricius, 1776) and *myllerana* (Fabricius, 1794) should be placed in the genus *Prochoreutis* Diakonoff & Heppner, 1980 (Diakonoff & Heppner 1980).

(87) *Crombrugghia* Tutt, 1906 is a junior synonym of *Oxyptilus* Zeller, 1841; *distans* (Zeller, 1847) should be placed in this genus (K. Schnack, unpublished).

(88) *Stenoptilia graphodactyla* (Treitschke, 1833) and *S. pneumonanthes* (Büttner, 1880) are two distinct species and the Danish populations belong to the latter (K. Schnack, unpublished).

(89) According to Roesler (1980) *semirubella* (Scopoli, 1763) and *faecella* (Zeller, 1839) belong to two distinct genera, viz., *Pollichia* Roesler, 1980 and *Laodamia* Ragonot, 1888 respectively. However, the type species of *Oncocera* Stephens, 1829 is *Phalaena carnella* Linnaeus, 1767 (Fletcher & Nye 1984), which is a junior synonym of *Phalaena semirubella* Scopoli, 1763; *Pollichia* therefore is a junior synonym of *Oncocera.* The valid name for the firstmentioned species thus remains *Oncocera semirubella* (Scopoli, 1763).

(90) *Rhodophaea* Guenée, 1845 and *Salebria* Zeller, 1846 are junior synonyms of *Pempelia* Hübner, 1825 which then comprises *P. palumbella* (Denis & Schiffermüller, 1775) and *P. formosa* (Haworth, 1811) (Leraut, 1979). For *Rhodophaea* auct. *Numonia* Ragonot, 1893 is available, and for *Pempelia* auct. *Pseudosyria* Rebel, 1926 is available (Roesler, 1985).

91. *Alispa* Zeller, 1848 er junior synonym til *Nephopterix* Hübner, 1825 (Fletcher & Nye, 1984). For *Nephopterix* auct. kan *Sciota* Hulst, 1888 anvendes (M. Shaffer, skr. medd.) Slægtssystematikken indenfor Phycitinae er endnu mangelfuldt revideret, og yderligere navneændringer i denne og beslægtede slægter er forventelig.

(91) *Alispa* Zeller, 1848 is a junior synonym of *Nephopterix* Hübner, 1825; *Tinea angustella* Hübner, 1796 is the type species of both genera (Fletcher & Nye, 1984). *Sciota* Hulst, 1888 is available for *Nephopterix* auct. (M. Shaffer, *in litt.).* The generic classification of the Phycitinae is in need of revision and further nomenclature changes in this genus group are foreseeable.

92. *Myelois cribrella* (Hübner, 1796) er junior synonym til *M. circumvoluta* (Fourcroy, 1785) (P. Leraut, skr. medd.).

(92) *Myelois cribrella* (Hübner, 1796) is a junior synonym of *M. circumvoluta* (Fourcroy, 1785) (P. Lerault, *in litt.*).

93. Udgår.

(93) Omitted.

94. *Zophodia convolutella* sensu (Hübner, 1796) er en fejlbestemmelse af *convolutella* Denis & Schiffermüller, 1775. Arten skal hedde *Z. grossulariella* (Zincken, 1818) (Leraut, 1982a).

(94) *Zophodia convolutella* sensu (Hübner, 1796) is a misidentification of *convolutella* Denis & Schiffermüller, 1775. The species in question should be known as *Z. grossulariella* (Zincken, 1818) (Leraut 1982a).

95. *Nyctegretis achatinella* (Hübner, 1824) er et junior synonym til *N. lineana* (Scopoli, 1786) (Kocak, 1982-83).

(95) *Nyctegretis achatinella* (Hübner, 1824) is a junior synonym of *N. lineana* (Scopoli, 1786) (Kocak 1982-83).

96. *Phycitodes carlinella* (Heinemann, 1865) er junior synonym til *P. maritima* (Tengström, 1848) (Leraut, 1982b).

(96) *Phycitodes carlinella* (Heinemann, 1865) is a junior synonym of *P. maritima* (Tengström, 1848) (Leraut 1982b).

97. *Vitula edmandsae* (Heinrich, 1956) er en ugyldig navneændring af *V. edmandsii* (Packard, 1864) (Munroe, 1983).

(97) *Vitula edmandsae* (Heinrich, 1956) is an unjustified emendation of *V. edmandsii* (Packard, 1864) (Munroe 1983).

98. *Synaphe angustalis* (Denis & Schiffermüller, 1775) er junior synonym til *S. punctalis* (Fabricius, 1775) (Bradley & Fletcher, 1979).

(98) *Synaphe angustalis* (Denis & Schiffermüller, 1775) is a junior synonym of *S. punctalis* (Fabricius, 1775) (Bradley & Fletcher 1979).

99. For *Nymphula* auct. anvendes *Elophila* Hübner, 1822 (Fletcher & Nye, 1984).

(99)*Elophila* Hübner, 1822 is available for *Nymphula* auct. (Fletcher & Nye 1984).

100. *Acentria nivea* (Olivier, 1791) er ifølge Speidel (1984) junior synonym til *A. ephemerella* (Denis & Schiffermüller, 1775).

(100) *Acentria nivea* (Olivier, 1791) is a junior synonym of *A. ephemerella* (Denis & Schiffermüller, 1775) (Speidel 1984).

101. *Crambus nemorella* (Hübner, 1813) er homonym til *nemorella* Thunberg, 1788 og skal erstattes af *C. lathoniellus* (Zincken, 1817) (Kocak, 1982-83). Det er denne art, som tidligere blev kaldt *C. pratella* auct., nec (Linnaeus, 1758).

(101) *Crambus nemorella* (Hübner, 1813) is a homonym of *nemorella* Thunberg, 1788 and should be replaced by *C. lathoniellus* (Zincken, 1817) (Kocak 1982-83). This species is *C. pratella* auct., nec (Linnaeus, 1758).

102. Nomenklatur og rækkefølge i Scopariinae følger Leraut (1984b).

103. *Scoparia arundinata* (Thunberg, 1792) er junior synonym til *S. pyralella* (Denis & Schiffermüller, 1775) (Bradley & Fletcher, 1979).

104. *Scoparia sylvestralis* Wolff, 1959 er junior synonym til *S. conicella* (La Harpe, 1863) (Leraut, 1984b).

105. *Scoparia ulmella* Knaggs, 1867 er junior synonym til *S. ancipitella* (La Harpe, 1855) (Leraut, 1984b).

106. *Eudonia crataegella* sensu (Hübner, 1796) er en fejlbestemmelse af *crataegella* Linnaeus, 1767. Arten skal hedde *E. lacustrata* (Panzer, 1804) (Leraut, 1982a).

107. *Eudonia vandaliella* (Herrich-Schäffer, 1851) er junior synonym til *E. delunella* (Stainton, 1849) (Leraut, 1981a).

108. Ifølge Leraut & Luquet (1982) skal *pollinalis* (Denis & Schiffermüller, 1775) stå i en særlig slægt *Eurrhypis* Hübner, 1825.

109. *Heliothela atralis* (Hübner, 1788) (ikke 1796) er junior synonym til *H. wulfeniana* (Scopoli, 1763), og *atralis* Hübner, 1788 er desuden homonym til *atralis* (Fabricius, 1775) (Leraut, 1982b, Fletcher & Nye, 1984).

110. *Pyrausta cespitalis* (Denis & Schiffermüller, 1775) er junior synonym til *P. despicata* (Scopoli, 1763). *P. koenigiana* (Müller, 1764) er yderligere et synonym (P. Leraut, skr. medd.).

111. *Pyrausta aerealis* (Hübner, 1796) er junior synonym til *P. obsoletalis* (Fabricius, 1794) (SYN. N.). I Fabricius' samling på ZMUC opbevares 1♂ og 1♀ af *obsoletalis,* og hannen publiceres her som lectotype. Den er etiketteret: 1) obsoletalis [i Fabricius' håndskrift], 2) LECTOTYPE, Phalaena obsoletalis, Fabricius, 1794, O. Karsholt design.,

(102) Nomenclature and species sequence in Scopariinae follow Leraut (1984b).

(103) *Scoparia arundinata* (Thunberg, 1792) is a junior synonym of *S. pyralella* (Denis & Schiffermüller, 1775) (Bradley & Fletcher 1979).

(104) *Scoparia sylvestralis* Wolff, 1959 is a junior synonym of *S. conicella* (La Harpe, 1863) (Leraut 1984b).

(105) *Scoparia ulmella* Knaggs, 1867 is a junior synonym of *S. ancipitella* (La Harpe, 1855) (Leraut 1984b).

(106) *Eudonia crataegella* sensu (Hübner, 1796) is a misidentification of *crataegella* Linnaeus, 1767. The species should be known as *Dipleurina lacustrata* (Panzer, 1804) (Leraut 1982a).

(107) *Eudonia vandaliella* (Herrich-Schäffer, 1851) is a junior synonym of *E. delunella* (Stainton, 1849) (Leraut 1981a).

(108) According to Leraut & Luquet (1982), *pollinalis* (Denis & Schiffermüller, 1775) should be placed in a separate genus, *Eurrhypis* Hübner, 1825.

(109) *Heliothela atralis* (Hübner, 1788)(not 1796) is a junior synonym of *H. wulfeniana* (Scopoli, 1763) and the specific name is moreover a junior homonym of *atralis* (Fabricius, 1775) (Leraut 1982b, Fletcher & Nye 1984).

(110) *Pyrausta cespitalis* (Denis & Schiffermüller, 1775) is a junior synonym of *P. despicata* (Scopoli, 1763). *P. koenigiana* (Müller, 1764) is another junior synonym of this name (P. Leraut, *in litt.).*

(111) *Pyrausta aerealis* (Hübner, 1796) is a junior synonym of *P. obsoletalis* (Fabricius, 1794) SYN. N.. In the Fabricius collection in ZMUC there are 1 ♂ and 1 ♀ of *obsoletalis* and the male specimen is hereby designated as a lectotype. It is labelled: 1) obsoletalis (in Fabricius' handwriting), 2) LECTOTYPE, Phalaena obsoletalis, Fabricius, 1794, O. Karsholt design., 1985, 3) seen by MS (=

1985, 3) seen by MS (= Michael Shaffer) 4.3.1980. (O. Karsholt, upubl.).

Arten skal ifølge Munroe (1976) anbringes i slægten *Pyrausta* Schrank, 1802, der er senior synonym til *Panstegia* Hübner, 1825.

112. *Margaritia* Stephens, 1827 er junior synonym til *Loxostege* Hübner, 1825 (Fletcher og Nye, 1984).

113. *Uresiphita limbalis* sensu (Denis & Schiffermüller, 1775) er en fejlbestemmelse af *limbata* Linnaeus, 1767. Arten skal igen hedde *U. polygonalis* (Denis & Schiffermüller, 1775) (Fletcher & Nye, 1984).

114. *Diasemia litterata* (Scopoli, 1763) er junior synonym til *D. reticularis* (Linnaeus, 1761) (Robinson & Nielsen, 1983).

115. *Zygaena diaphana* Staudinger, 1887 er junior synonym til *Z. minos* (Denis & Schiffermüller, 1775) (Tremewan, 1981b).

116. I den forrige liste (Karsholt & Nielsen, 1976) anvendtes Pontoppidan som author til *Zygaena purpuralis,* hvilket formelt er korrekt. Imidlertid er det efter aftale med W. G. Tremewan *(in litt.)* besluttet at følge dennes argumentation for (Tremewan, 1981a), at Brünnich bør betragtes som author. Arten skal således citeres *Z. purpuralis* (Brünnich, 1763).

117. *Limenitis* Fabricius, 1807 er senior synonym til *Ladoga* Moore, 1898 og skal derfor anvendes for *populi* (Linnaeus, 1758) og *camilla* (Linnaeus, 1764). *Ladoga* kan benyttes som underslægtsnavn for *camilla* (R. I. Vane-Wright *in litt.).*

118. *Nordmannia* Tutt, 1907 er junior synonym til *Satyrium* Scudder, 1876 (Clench, 1978). Udover *ilicis* (Esper, 1779) bør også *w-album* (Knoch, 1782) og *pruni* (Linnaeus, 1758) anbringes i *Satyrium* (N. P. Kristensen, upubl.).

Michael Shaffer) 4.3.1980. (O. Karsholt, unpublished).

According to Munroe (1976) the species should be placed in *Pyrausta* Schrank, 1802, which is a senior synonym of *Panstegia* Hübner, 1825.

(112) *Margaritia* Stephens, 1827 is a junior synonym of *Loxostege* Hübner, 1825 (Fletcher & Nye 1984).

(113) *Uresiphita limbalis* sensu (Denis & Schiffermüller, 1775) is a misidentification of *limbata* Linnaeus, 1767. The species should again be known as *U. polygonalis* (Denis & Schiffermüller, 1775) (Fletcher & Nye 1984).

(114) *Diasemia litterata* (Scopoli, 1763) is a junior synonym of *D. reticularis* (Linnaeus, 1761) (Robinson & Nielsen 1983).

(115) *Zygaena diaphana* Staudinger, 1887 is a junior synonym of *Z. minos* (Denis & Schiffermüller, 1775) (Tremewan, 1981b).

(116) In the previous list (Karsholt & Nielsen 1976), Pontoppidan is named as the author of *Zygaena purpuralis,* which is formally correct. However, in agreement with W. G. Tremewan (*in litt.*) I have now accepted the view of Tremewan (1981a) in ascribing the authorship to Brünnich. The species therefore should be cited as *Z. purpuralis* (Brünnich, 1763).

(117) *Limenitis* Fabricius, 1807 is a senior synonym of *Ladoga* Moore, 1898 and should therefore be used for *populi* (Linnaeus, 1758) and *camilla* (Linnaeus, 1764). *Ladoga* is applicable as a subgeneric name for *camilla* (R. I. Vane-Wright, *in litt.*).

(118) *Nordmannia* Tutt, 1907 is a junior synonym of *Satyrium* Scudder, 1876 (Clench 1978). In addition to *ilicis* (Esper, 1779), also *w-album* (Knoch, 1782) and *pruni* (Linnaeus, 1758) should be placed in *Satyrium* (N. P. Kristensen, pers. comm.).

119. Systematik og rækkefølge for arterne i *Polyommatus* Latreille, 1804 til *Plebejus* Kluk, 1802 (Polyommatini) følger E. Balletto (mundtl. medd.).

120. *Palaeodrepana* Inoue, 1962 er junior synonym til *Sabra* Bode, 1907 (Fletcher, 1979).

121. *Hemiostola chrysoprasaria* (Esper, 1794) er junior synonym til *H. biliosata* (Villers, 1789) (P. Leraut skr. medd.).

122. *Idaea humuliata* sensu Karsholt & Nielsen (1976) er en fejlstavning af *I. humiliata* (Hufnagel, 1767).

123. *Lythria purpurata* (Linnaeus, 1758) erstattes af *L. rotaria* (Fabricius, 1798), idet *purpurata* Linnaeus, 1758 er en anden art, og *purpurata* Linnaeus, 1761, som er vores *Lythria,* er homonym til denne (Lempke, 1976).

124. *Mesotype* Hübner, 1825 er junior synonym til *Perizoma* Hübner, 1825. *Mesotype* auct. erstattes af *Phibalapteryx* Stephens, 1829 (Fletcher, 1979).

125. *Eupithecia bilunulata* (Zetterstedt, 1839) har vist sig at være junior synonym til *E. abietaria* (Goeze, 1791). *E. bilunulata* auct. skal hedde *analoga* Djakonof, 1926 (Lempke, 1976).

126. Ifølge Skou (1984) skal *sylvata* (Scopoli, 1763) bringes i en særlig slægt *Calospilos* Hübner, 1825.

127. *Opistograptis* sensu Karsholt & Nielsen (1976) er en fejlstavning af *Opisthograptis* Hübner, 1823.

128. Ifølge Skou (1984) er *Nyssia* Duponchel, 1829 synonym til *Lycia* Hübner, 1825, og *zonaria* (Denis & Schiffermüller, 1775) skal således anbringes i *Lycia.*

129. Ifølge Skou (1984) skal *punctinalis* (Scopoli, 1763) anbringes i *Boarmia* Treitschke, 1825, og slægtsnavnet *Serraca* Moore, 1887 udgår af den danske liste.

(119) The classification of the species in *Polyommatus* Latreille, 1804 through *Plebejus* Kluk, 1802 (Polyommatini) follows E. Balletto (pers. comm.).

(120) *Palaeodrepana* Inoue, 1962 is a junior synonym of *Sabra* Bode, 1907 (Fletcher 1979).

(121) *Hemiostola chrysoprasaria* (Esper, 1794) is a junior synonym of *H. biliosata* (Villers, 1789) (P. Leraut, *in litt.*).

(122) *Idaea humuliata* in Karsholt & Nielsen (1976) is a misspelling of *I. humiliata* (Hufnagel, 1767).

(123) *Lythria purpurata* (Linnaeus, 1758) is replaced by *L. rotaria* (Fabricius, 1798); *purpurata* Linnaeus, 1758 is another species, and *purpurata* Linnaeus, 1761, which is our *Lythria,* is a junior homonym of the former (Lempke, 1976).

(124) *Mesotype* Hübner, 1825 is a junior synonym of *Perizoma* Hübner, 1825. *Mesotype* auct. is replaced by *Phibalapteryx* Stephens, 1829 (Fletcher 1979).

(125) *Eupithecia bilunulata* (Zetterstedt. 1839) has turned out to be a junior synonym of *E. abietaria* (Goeze, 1781). *E. bilunulata* auct. should be known as *analoga* Djakonof, 1926 (Lempke 1976).

(126) According to Skou (1984), *sylvata* (Scopoli, 1763) should be placed in a separate genus, *Calospilos* Hübner, 1825.

(127) *Opistograptis* in Karsholt & Nielsen (1976) is a misspelling of *Opisthograptis* Hübner, 1823.

(128) According to Skou (1984), *Nyssia* Duponchel, 1829 is a synonym of *Lycia* Hübner, 1825, and *zonaria* (Denis & Schiffermüller, 1775) therefore should be placed in this genus.

(129) According to Skou (1984) *punctinalis* (Scopoli, 1763) should be placed in *Boarmia* Treitschke, 1825 and the generic name *Serraca* Moore, 1887 thus be eliminated from the Danish list.

130. *Ectropis crepuscularia* (Denis & Schiffermüller, 1775) og *E. bistortata* (Goeze, 1781) rummer ifølge undersøgelser af Sommerer (1983) kun én art, for hvilken førstnævnte navn skal gælde.

131. *Ectropis extersaria* (Hübner, 1799) er junior synonym til *E. similaria* (Hufnagel, 1767) (Sommerer, 1983). Arten skal nu – sammen med *consonaria* (Hübner, 1799) anbringes i slægten *Paradarsia* Warren, 1897 (Bradley & Fletcher, 1983).

132. Ifølge Skou (1984) skal *distinctata* (Herrich-Schäffer, 1839) anbringes i slægten *Lomographa* Hübner, 1825.

133. *Philudoria* Kirby, 1892 er junior synonym til *Euthrix* Meigen, 1830 (Fletcher & Nye, 1982).

134. *Hybocampa* Lederer, 1853 er junior synonym til *Harpygia* Ochsenheimer, 1810. For *Harpygia* auct. anvendes *Furcula* Lamarck, 1816 (Watson et al., 1980).

135. *Drymonia melagona* (Borkhausen, 1790) er junior synonym til *D. obliterata* (Esper, 1785) (Schintlmeister, 1982).

136. *Orgyia ericae* (Germar) dateres af Watson et al. (1980) til 1824. Derved bliver den junior synonym til *O. antiquoides* (Hübner, 1822) (Lempke, 1976).

137. *Dasychira* Hübner, 1809 forekommer kun i Amerika. Arterne *abietis* (Denis & Schiffermüller, 1775) og *pudibunda* (Linnaeus, 1758) anbringes i *Calliteara* Butler, 1881 og *fascelina* (Linnaeus, 1758) i *Dicallomera* Butler, 1881 (Holloway, 1982).

138. *Thaumatha* sensu Karsholt & Nielsen (1976) er en fejlstavning af *Thumatha* Walker, 1866 (Watson et al., 1980).

139. Ifølge Bretherton (1983) skal *strigilata* (Linnaeus, 1758) anbringes i slægten *Pechipogo* Hübner, 1825.

(130) *Ectropis crepuscularia* (Denis & Schiffermüller, 1775) and *E. bistortata* (Goeze, 1781) are one and the same species according to investigations by Sommerer (1983); the former name is the valid one.

(131) *Ectropis extersaria* (Hübner, 1799) is a junior synonym of *E. similaria* (Hufnagel, 1767) (Sommerer 1983). This species should now be placed in the genus *Paradarsia* Warren, 1897, and the same is true of *consonaria* (Hübner, 1799) (Bradley & Fletcher 1983).

(132) According to Skou (1984), *distinctata* (Herrich-Schäffer, 1839) should be placed in the genus *Lomographa* Hübner, 1825.

(133) *Philudoria* Kirby, 1892 is a junior synonym of *Euthrix* Meigen, 1830 (Fletcher & Nye 1982).

(134) *Hybocampa* Lederer, 1853 is a junior synonym of *Harpyia* Ochsenheimer, 1810. *Furcula* Lamarck, 1816 is available for *Harpyia* auct. (Watson *et al.* 1980).

(135) *Drymonia melagona* (Borkhausen, 1790) is a junior synonym of *D. obliterata* (Esper, 1785) (Schintlmeister 1982).

(136) *Orgyia ericae* (Germar) is by Watson *et al.* (1980) dated to 1824 whereby it is rendered a junior synonym of *O. antiquoides* (Hübner, 1822) (See Lempke 1976).

(137) *Dasychira* Hübner, 1809 is an exclusively American genus. The species *abietis* (Denis & Schiffermüller, 1775) and *pudibunda* (Linnaeus, 1758) are now placed in *Calliteara* Butler, 1881 and *fascelina* (Linnaeus, 1758) in *Dicallomera* Butler, 1881 (Holloway 1982).

(138) *Thaumatha* in Karsholt & Nielsen is a misspelling of *Thumatha* Walker, 1866 (Watson *et al.* 1980).

(139) According to Bretherton (1983) *strigilata* (Linnaeus, 1758) should be placed in the genus *Pechipogo,* 1825.

140. *Herminia nemoralis* (Fabricius, 1775) er homonym til *nemoralis* Scopoli, 1763 og skal erstattes af *H. grisealis* (Denis & Schiffermüller, 1775) (Kocak, 1982-83).

141. *Paracolax derivalis* (Hübner, 1796) er junior synonym til *P. tristalis* (Fabricius, 1794) (Robinson & Nielsen, 1983).

142. *Hypenodes turfosalis* (Wocke, 1850) er junior synonym til *H. humidalis* Doubleday, 1850 (Bretherton, 1983).

143. *Eublemma noctualis* (Hübner, 1796) er junior synonym til *E. minutata* (Fabricius, 1794) (Mikkola, 1981).

144. De arter, som hos Karsholt & Nielsen (1976) var inkluderet i slægterne *Lithacodia* Hübner, 1818 og *Eustrotia* Hübner, 1821 henføres her til slægterne *Protodeltote* Ueda, 1984, *Neustrotia* Sugi, 1982 og *Deltote* Reichenbach, 1817 i overensstemmelse med Ueda (1984); *Lithacodia* og *Eustrotia* er junior synonymer til *Deltote.*

145. *Parastichtis* Hübner, 1821 med *suspecta* (Hübner, 1817) og *ypsillon* (Denis & Schiffermüller, 1775) flyttes til lige efter *Enargia paleacea* (Esper, 1788) (Leraut, 1980: 188, Franclemont & Todd, 1983).

146. Nomenklaturen hos vore to arter af *Mesapamea* Heinicke, 1959 er endnu meget uafklaret. Linné beskrev under navnet *secalis* både en pyralide-imago og en ugle-larve, og som lectotype for *secalis* Linnaeus har Robinson & Nielsen (1983) valgt pyraliden, der er et synonym til *Evergestis frumentalis* (Linnaeus, 1761). Vores velkendte *Mesapamea* er således uden navn, men det foreslås, at vi her betegner den *Mesapamea »secalis«* (Linnaeus, 1758), indtil dens gyldige navn kan udredes blandt de mange gamle navne, der er givet til denne variable art. Dette arbejde vil sandsynligvis også medføre, at *M. secalella* Remm, 1983 viser sig at være et junior synonym, for hvilket et ældre

(140) *Herminia nemoralis* (Fabricius, 1775) is a junior homonym of *nemoralis* Scopoli, 1763 and should be replaced by *grisealis* (Denis & Schiffermüller, 1775) (Kocak 1982-83).

(141) *Paracolax derivalis* (Hübner, 1796) is a junior synonym of *P. tristalis* (Fabricius, 1794) (Robinson & Nielsen 1983).

(142) *Hypenodes turfosalis* (Wocke, 1850) is a junior synonym of *H. humidalis* Doubleday, 1850 (Bretherton 1983).

(143) *Eublemma noctualis* (Hübner, 1796) is a junior synonym of *E. minutata* (Fabricius, 1794) (Mikkola, 1981).

(144) The species which in Karsholt & Nielsen (1976) were included in the genera *Lithacodia* Hübner, 1818 and *Eustrotia* Hübner, 1821 are here assigned to the genera *Protodeltote* Ueda, 1984, *Neustrotia* Sugi, 1982 and *Deltote* Reichenbach, 1817 in accordance with Ueda (1984); *Lithacodia* and *Eustrotia* are junior synonyms of *Deltote.*

(145) *Parastichtis* Hübner, 1821, comprising *suspecta* (Hübner, 1817) and *ypsillon* (Denis & Schiffermüller, 1775), is now placed immediately following *Enargia paleacea* (Esper, 1788) (Leraut 1980: 188, Franclemont & Todd 1983).

(146) The nomenclature of our two species in *Mesapamea* Heinicke, 1959 remains wholy unclarified. Linnaeus described an adult pyralid and a larval noctuid under the name *secalis,* and as a lectotype for *secalis* Linnaeus, Robinson & Nielsen have designated the pyralid thereby rendering the name a synonym of *Evergestis frumentalis* (Linnaeus, 1761). Our well-known *Mesapamea* is therefore currently unnamed, but it is here suggested that it be called *Mesapamea »secalis«* (Linnaeus, 1758) until its valid name has been identified among the numerous old names that have been given to this variable species. This search presumably will disclose that *M. secalella* Remm, 1983 is a junior synonym of an older name. A possible solution is to ask the Internatio-

navn skal anvendes. En mulig udvej på problemet er at bede nomenklaturkommisionen om at underkende Robinson & Nielsen's lectotypedesignation; navnet *frumentalis* beholdes derfor indtil videre for pyraliden (O. K. upubl.).

147. *Hoplodrina alsines* (Brahm, 1791) er junior synonym til *H. octogenaria* (Goeze, 1781) (Kocak, 1982-83).

148. *Blepharita* Hampson, 1907 skal nu deles, således at *adusta* (Esper, 1790) og *solieri* (Boisduval, 1840) anbringes i *Mniotype* Franclemont, 1941, mens *amica* (Treitschke, 1825) og *satura* (Denis & Schiffermüller, 1775) forbliver i *Blepharita* (B. Skule, upubl.).

149. *Ceramica* Guenée, 1852 er junior synonym til *Melanchra* Hübner, 1820 (Franclemont & Todd, 1983).

150. Ifølge Franclemont & Todd (1983) skal *biren* (Goeze, 1781) anbringes i slægten *Papestra* Sukhareva, 1973.

151. *Orthosia stabilis* (Denis & Schiffermüller, 1775) er junior synonym til *O. cerasi* (Fabricius, 1775) (SYN. REV.). Efter at have set Schiffermüller's samling synonymiserede Fabricius (1787: 146) de to arter med hinanden, og Fabricius' beskrivelse fra 1775 har prioritet over Denis & Schiffermüller's. I 1794 beskrev Fabricius denne art yderligere en gang under navnet *Noctua renata.* Typeeksemplarer til Fabricius' arter findes opbevaret på ZMUC, og følgende lectotyper pbliceres her for første gang: 1) *Noctua cerasi* Fabricius, 1775, LECTOTYPE ♀, »N. cerasi, D. Andersch«, »Mus. Sch. e T.L.«, O. Karsholt design. 1984. 2) *Noctua renata* Fabricius, 1794, LECTOTYPE ♀, »N. renata, Ar Cerasi«, »Mus. Sch. e T.L.«, O. Karsholt design. 1984 (O. K. upubl.).

152. Ifølge Fibiger & Svendsen (1984) skal kun *plecta* (Linnaeus, 1761) stå i *Ochropleura* Hübner, 1821, mens *praecox* (Linnaeus, 1758) og *fennica* (Tauscher, 1806) skal anbringes i den efterfølgende slægt *Actebia* Stephens, 1829.

nal Commision of Zoological Nomenclature to set aside the lectotype designation by Robinson & Nielsen; the name *frumentalis* is therefore upheld for the pyralid for the present. (O. Karsholt, unpublished).

(147) *Hoplodrina alsines* (Brahm, 1791) is a junior synonym of *H. octogenaria* (Goeze, 1781) (Kocak 1982-83).

(148) *Blepharita* Hampson, 1907 is now devided to the effect that *adusta* (Esper, 1790) and *solieri* (Boisduval, 1840) are placed in *Mniotype* Franclemont, 1941 whereas *amica* (Treitschke, 1825) and *satura* (Denis & Schiffermüller, 1775) remain in *Blepharita* (B. Skule, unpublished).

(149) *Ceramica* Guenée, 1852 is a junior synonym of *Melanchra* Hübner, 1820 (Franclemont & Todd 1983).

(150) According to Fraclemont & Todd (1983), *biren* (Goeze, 1781) should be placed in the genus *Papestra* Sukhareva, 1973.

(151) *Orthosia stabilis* (Denis & Schiffermüller, 1775) is a junior synonym of *O. cerasi* (Fabricius, 1775) SYN. REV. Having seen the Schiffermüller collection Fabricius (1787: 146) synonymized the two species, and Fabricius' 1775 discription has priority over that of Denis & Schiffermüller. In 1794 Fabricius described the same species by the name *Noctua renata.* Type material of the Fabrician species are present in the ZMUC material and the following lectotype designations are here published for the first time: 1) Noctua cerasi Fabricius, 1775, LECTOTYPE ♀, »N. cerasi, D. Andersch«, »Mus. Seh. e T.L.«, O. Karsholt design. 1984. 2) Noctua renata Fabricius, 1794, LECTOTYPE ♀, »N. renata, Ar Cerasi«, »Mus. Seh. e T.L.«, O. Karsholt design. 1984 (O. Karsholt, unpublished).

(152) According to Fibiger & Svendsen (1984) only *plecta* (Linnaeus, 1761) should remain in *Ochropleura* Hübner, 1821, whereas *praecox* (Linnaeus, 1758) and *fennica* (Tauscher, 1806) should be transferred to the following genus, *Actebia* Stephens, 1829.

153. *Helicoverpa* Hardwick, 1965 er junior synonym til *Heliothis* Ochsenheimer, 1816 (Franclemont & Todd, 1983).

154. Spørgsmålet om hvilket af slægtsnavnene *Glyphipteryx* Curtis, 1827 eller *Chrysoclista* Stainton, 1854, der skal anvendes for *razowskii* Riedl, 1965 og *linneella* (Clerck, 1859), behandles i øjeblikket af den internationale nomenklaturkommision. Det nyeste indlæg i sagen tyder på, at *Chrysoclista* vil blive foretrukket, hvorfor dette anvendes her (Melville, 1984).

155. *Thera albonigrata* (Höfer, 1920) er oprindelig foreslået som navnet på en form (aberration) af *T. variata* (Denis & Schiffermüller, 1775) og er derfor ugyldigt som artsnavn. For vores nye *Thera*-art skal *T. britannica* (Turner, 1925) i stedet anvendes (Agassiz & Skinner, 1980).

156. *Lithophane socia* (Hufnagel, 1766) er junior synonym til *L. hepatica* (Clerck, 1759) (Mikkola, 1985).

157. *Polia hepatica* (Clerck, 1759) erstattes af *Polia tincta* (Brahm, 1791), idet *hepatica* er den art, som hidtil er kaldt *Lithophane socia* (Hufnagel, 1766); se note 156.

(153) *Helicoverpa* Hardwick, 1965 is a junior synonym of *Heliothis* Ochsenheimer, 1816 (Franclemont & Todd 1983).

(154) Whether *Glyphipteryx* Curtis, 1827 or *Chrysoclista* Stainton, 1854 is the valid name for the genus comprising *razowskii* Riedl, 1965 and *linneella* (Clerck, 1859) is a problem currently under consideration in the International Commission of Zoological Nomenclature. The latest comments on the case (Melville 1984) indicate that *Chrysoclista* will be the preferred name and it is therefore adopted here.

(155) *Thera albonigrata* (Höfer, 1920) was originally described as an infrasubspecific form of *T. variata* (Denis & Schiffermüller, 1775) and is therefore invalid as a species name. For our newly recognized *Thera* species the name *T. britannica* (Turner, 1925) is available.

(156) *Lithophane socia* (Hufnagel, 1766) is a junior synonym of *L. hepatica* (Clerck, 1759) (Mikkola 1985).

(157) *Polia hepatica* (Clerck, 1759) should be replaced by *Polia tincta* (Brahm, 1791), since *hepatica* is the species hitherto known as *Lithophane socia* (Hufnagel, 1766); see note 156.

Katalog over de danske sommerfugle

SJ	Sønderjylland
EJ	Østjylland
WJ	Vestjylland
NWJ	Nordvestjylland
NEJ	Nordøstjylland
F	Fyn
LFM	Lolland, Falster, Møn
SZ	Sydsjælland
NWZ	Nordvestsjælland
NEZ	Nordøstsjælland
B	Bornholm

Se kortet side 3.

● = Mindst ét kontrolleret eksemplar fra 1960 eller senere.
○ = Kun kontrollerede eksemplarer fra før 1960.

ln – 157n = noter vedrørende nomenklatur, se s. 21-41.
lf – 142f = noter vedrørende faunistik, se s. 115-132.

Catalogue of the Lepidoptera of Denmark

SJ	South Jutland
EJ	East Jutland
WJ	West Jutland
NWJ	North West Jutland
NEJ	North East Jutland
F	Funen
LFM	Lolland, Falster, Møn
SZ	South Zealand
NWZ	North West Zealand
NEZ	North East Zealand
B	Bornholm

See the map at p. 3.

● = At least one controlled specimen from 1960 or later.
○ = Only controlled specimens from before 1960.

ln – 157n = notes on nomenclature, see p. 21-41.
lf – 142f = notes on faunistics, see p. 115-132.

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
ZEUGLOPTERA												
MICROPTERIGOIDEA												
MICROPTERIGIDAE (Ole Karsholt)												
Micropterix Hübner, 1825												
– tunbergella (Fabricius, 1787)			●				●	●	●	●	●	
– mansuetella Zeller, 1844			●		●	●	●	●	●	●	●	
– aureatella (Scopoli, 1763)		●	●	●	●	●				●	●	●
– schaefferi Heath, 1975			●			●						
– osthelderi Heath, 1975			●									
– aruncella (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	
– calthella (Linnaeus, 1761)		○	○	●	●		●	●	●	●	●	●
GLOSSATA												
ERIOCRANIOIDEA												
ERIOCRANIIDAE (Ole Karsholt)												
Dyseriocrania Spuler, 1910												
– subpurpurella (Haworth, 1828)		●	●	●	●	●	●	●	●	●	●	●
Heringocrania Kusnezov, 1941												
– chrysolepidella (Zeller, 1851)								●				
– unimaculella (Zetterstedt, 1839)		●	●	●	●	●	●	●	●	●	●	
Eriocrania Zeller, 1851												
– sparrmannella (Bosc, 1791)		●	●	●		●			●	●	●	●
– salopiella (Stainton, 1854)			●			●						
– haworthi Bradley, 1966		●	●	●	●	●	●	●		●	●	
– sangii (Wood, 1891)			●	●	●	●	●	●	●	●	●	●
– semipurpurella (Stephens, 1835)			●		●	●	●	●	●	●	●	●
EXOPORIA												
HEPIALOIDEA												
HEPIALIDAE (Svend Kaaber)												
Hepialus Fabricius, 1775												
– humuli (Linnaeus, 1758)	1 f	●	●	●	●	●	●	●	●	●	●	
– sylvina (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	○
– hecta (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– lupulina (Linneaus, 1758)	2 f	○	●	●			●	●	●	●	●	●
– fusconebulosa (DeGeer, 1778)		●	●	●	●	●	●	●			●	
HETERONEURA-NEPTICULINA												
NEPTICULOIDEA												
OPOSTEGIDAE (Ole Karsholt)												
Opostega Zeller, 1839												
– salaciella (Treitschke, 1833)		●	●	●		○	●	●	●	●	●	●
– auritella (Hübner, 1813)				●			○	●	●	●	●	●
– crepusculella Zeller, 1839		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
NEPTICULIDAE (Ole Karsholt)	1 n, 3 f											
Johanssoniella Kocak, 1981												
– acetosae (Stainton, 1854)				●			○					
Stigmella Schrank, 1802												
– lapponica (Wocke, 1862)		●	●	●	●	●	●	●	●	●	●	●
– confusella (Walsingham & Wood, 1894)						●		●				
– tiliae (Frey, 1856)								●	○		●	●
– betulicola (Stainton, 1856)		●	●	●		●		●	●		●	●
– luteella (Stainton, 1857)			●			●	●	●	●		●	●
– glutinosae (Stainton, 1858)							○	●			○	
– alnetella (Stainton, 1856)							○	●	○		○	●
– microtheriella (Stainton, 1854)					●		●	●	●	●	●	●
– prunetorum (Stainton, 1855)							○	●	●	●	●	●
– aceris (Frey, 1857)								○				
– malella (Stainton, 1854)							○	●	●	●	○	●
– rhamnella (Herrich-Schäffer, 1860)	4 f							●				
– catharticella (Stainton, 1853)							○	●	●		●	
– anomalella (Goeze, 1783)			●	●	○		○	●	●	●	●	●
– centifoliella (Zeller, 1848)											●	
– ulmivora (Fologne, 1860)						○		●	○	●	●	○
– regiella (Herrich-Schäffer, 1855)							○		●		●	○
– crataegella (Klimesch, 1936)			●					●	●	●		
– magdalenae (Klimesch, 1850)	2 n					●					●	
– nylandriella (Tengström, 1848)			●	●	●	●				●	●	●
– oxyacanthella (Stainton, 1854)	5 f						●	●	●		●	●
– hybnerella (Hübner, 1796)					●		●	●	●	●	●	○
– floslactella (Haworth, 1828)			●		●		●	●	●	●	●	●
– carpinella (Heinemann, 1862)												●
– tityrella (Stainton, 1854)		○	●	●	●	●	●	●	●	●	●	○
– salicis (Stainton, 1854)		●	●	●	●	●	●	●	●	●	●	●
– myrtillella (Stainton, 1857)			●	●					●	●	●	
– zelleriella (Snellen, 1875)	3 n		●	●	●	●					●	
– benanderella (Wolff, 1955)				●		●					●	
– obliquella (Heinemann, 1862)							○	●	●		●	●
– trimaculella (Haworth, 1828)			○				○	●	●		●	●
– assimilella (Zeller, 1848)				●		●	○	●		●	●	●
– sorbi (Stainton, 1861)			○	●		●			●	●	●	○
– plagicolella (Stainton, 1854)							○	●	●	●	●	○
– marginicolella (Stainton, 1853)			●	●	○	●	●	●	●	●	●	●
– continuella (Stainton, 1856)					●						○	
– auromarginella (Richardson, 1890)			●			●				●		●
– splendidissimella (Herrich-Schäffer, 1855)	6 f	●	●	●	●	●	●	●	●	●	●	
– pretiosa (Heinemann, 1862)							○	●			●	●
– aeneofasciella (Herrich-Schäffer, 1855)							○	●	●	●	●	○
– poterii (Stainton, 1857)		●		●	●	○		○			○	
– filipendulae (Wocke, 1871)											●	
– ulmariae (Wocke, 1879)							●	●			○	
– pomella (Vaughan, 1858)							●	●	●	●	○	●
– perpygmaeella (Doubleday, 1859)							○	●	●		●	○
– hemargyrella (Kollar, 1832)			●	●		●	●	●	●	○	●	●
– basiguttella (Heinemann, 1862)									●			●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– ruficapitella (Haworth, 1828)			●	●			●				●	●
– atricapitella (Haworth, 1828)				●	●	●	●	●	●	●	●	●
– samiatella (Zeller, 1839)			●	●		●						
– svenssoni (Johansson, 1971)					●	●		●			●	●
– roborella (Johansson, 1971)			●	●	●		●	●	●	●	●	●
Trifurcula Zeller, 1848												
– headleyella (Stainton, 1854)								●				
– cryptella (Stainton, 1856)		●		●								
– eurema (Tutt, 1899)				●								
– immundella (Zeller, 1839)		●	●	●	●	●	●	●	●	●	●	●
– beirnei Puplesis, 1984	4 n			●		●						
– maxima Klimesch, 1953				●								
– griseella Wolff, 1957			●			●				●	●	
Bohemannia Stainton, 1859												
– pulverosella (Stainton, 1849)			●		●	●	○	●	●		●	●
– quadrimaculella (Boheman, 1853)							○	●			●	●
Ectoedemia Busck, 1907												
– sericopeza (Zeller, 1839)			●						●		●	●
– louisella (Sircom, 1849)	5 n						●	●	●		●	
– decentella (Herrich-Schäffer, 1855)								●			●	●
– albibimaculella (Larsen, 1927)				●		●						
– weaveri (Stainton, 1855)			●	●		●					●	
– septembrella (Stainton, 1849)				●		○	●	●	●	●	●	●
– atrifrontella (Stainton, 1851)								●	●			●
– amani Svensson, 1966								●				●
– intimella (Zeller, 1848)			●			●	○	●	●		○	●
– hannoverella (Glitz, 1872)								●	●			
– turbidella (Zeller, 1848)			●						●		●	
– argyropeza (Zeller, 1839)		●	●	●	●		●	●	●	●	●	●
– albifasciella (Heinemann, 1871)		○	●	●	●		●	●	●	●	●	●
– subbimaculella (Haworth, 1828)							●	●	●	●	●	●
– angulifasciella (Stainton, 1849)							○	●		●	●	●
– atricollis (Stainton, 1857)	7 f						●	●	●		●	●
– arcuatella (Herrich-Schäffer, 1855)			●				○	○				○
– rubivora (Wocke, 1860)	8 f		●				○	●	●		●	
– occultella (Linnaeus, 1767)	6 n		●		●	●	●	●	●	●	●	●
– woolhopiella (Stainton, 1887)	7 n	●									●	

HETERONEURA-INCURVARIINA

INCURVARIOIDEA

HELIOZELIDAE

(Ole Karsholt & Ebbe Schmidt Nielsen)

Heliozela Herrich-Schäffer, 1853												
– sericiella (Haworth, 1828)			●	●	●	●	●	●	●	●	●	●
– resplendella (Stainton, 1851)	9 f	●	●	●	●	●	○	●	○	●	●	●
– hammoniella Sorhagen, 1885	9 f											
Antispila Hübner, 1825												
– metallella (Denis & Schiffermüller, 1775)	8 n							●		●	●	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
ADELIDAE (O. Karsholt & E. S. Nielsen)												
Nematopogoninae												
Nematopogon Zeller, 1839												
– pilella (Denis & Schiffermüller, 1775)			●	●	●	●						
– schwarziellus Zeller, 1839			●			●	●	●	●	●	●	●
– magna (Zeller, 1878)	9 n											●
– adansoniella (Villers, 1789)	10 n	○	●	●	●		●	●	●	●	●	
– metaxella (Hübner, 1813)		●	●			○	●	●	●	●	●	●
– swammerdamella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– robertella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
Adelinae												
Nemophora Illiger & Hoffmannsegg, 1798												
– metallica (Poda, 1761)		●	●	●	●	●	●			●	●	○
– cupriacella (Hübner, 1819)	10 f				○		○	●	●	●	●	○
– minimella (Denis & Schiffermüller, 1775)	11 f	○	●	●		●	○	●			●	○
– degeerella (Linnaeus, 1758)		●	●	●		●	●	●	●	●	●	●
– congruella (Fischer von Röslerstamm, 1840)				●							●	
– ochsenheimerella (Hübner, 1813)		●	●	●			●	●	●			
Adela Latreille, 1796												
– cuprella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– reaumurella (Linnaeus, 1758)	11 n	●	●	●	●	●	●	●	●	●	●	●
– croesella (Scopoli, 1763)		●	●		●	●	●	●	●	●	●	●
Cauchas Zeller, 1839	12 n											
– fibulella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	○
– rufimitrella (Scopoli, 1763)		○	●		●	●	●	●	●	●	●	●
– rufifrontella (Treitschke, 1833)			●		●	●	○					
INCURVARIIDAE (O. Karsholt & E. S. Nielsen)												
Phylloporia Heinemann, 1870												
– bistrigella (Haworth, 1828)			●	●	○	●	●	●	●	●	●	●
Incurvaria Haworth, 1828												
– praelatella (Denis & Schiffermüller, 1775)		●	●			●	●	●	●	●	●	
– oehlmanniella (Hübner, 1796)		●	●	●	●	●	●	●	●	●	○	●
– koerneriella (Zeller, 1839)			●	●	●	○	●	●	●	●	●	
– pectinea Haworth, 1828		●	●	●	●	●	●	●	●	●	●	○
– masculella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
PRODOXIDAE (O. Karsholt & E. S. Nielsen)												
Lampronia Stephens, 1829												
– capitella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– luzella (Hübner, 1817)			●					○	●	●	●	
– flavimitrella (Hübner, 1817)		●	●	●	●	●	●	●	●	●	●	●
– morosa Zeller, 1852			●		●		●	●	●	●	●	●
– fuscatella (Tengström, 1848)			●			●		●	●		●	○
– corticella (Linnaeus, 1758)	13 n	●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
HETERONEURA – TISCHERIINA												
TISCHERIOIDEA												
TISCHERIIDAE (Ole Karsholt)												
Tischeria Zeller, 1839												
– ekebladella (Bjerkander, 1795)		●	●	●	●	●	●	●	●	●	●	●
– dodonaea Stainton, 1858								●	●		●	
HETERONEURA – DITRYSIA												
TINEOIDEA												
PSYCHIDAE (Svend Kaaber)												
Lypusinae												
Lypusa Zeller, 1852												
– maurella (Denis & Schiffermüller, 1775)			●	●	●	●						
Taleporiinae												
Narycia Stephens, 1836												
– duplicella (Goeze, 1783)	14 n		●		●		●	●	●	●	●	●
Dahlica Enderlein, 1912	15 n											
– triquetrella (Hübner, 1813)			●			●	●	●	●	●	●	●
– lichenella (Linnaeus, 1761)		●	●		●	●	●	●	●	●	●	●
– lazuri (Clerck, 1759)	16 n	●	●		●	●	●	●	●	●	●	
Siederia Meier, 1953												
– listerella (Linnaeus, 1758)	17 n		●									
Diplodoma Zeller, 1852												
– laichartingella (Goeze, 1783)	18 n	●	●	●	●	●	●	●	●	●	●	●
Taleporia Hübner, 1825												
– tubulosa (Retzius, 1783)		●	●	●	●	●	●	●	●	●	●	●
Psychinae												
Bacotia Tutt, 1899												
– claustrella (Bruand, 1845)	19 n	●	●					●	●	●	●	
Psyche Schrank, 1801												
– casta (Pallas, 1767)		●	●	●	●	●	●	●	●	●	●	●
– crassiorella (Bruand, 1851)			●									●
– betulina (Zeller, 1839)	12 f		●								●	
Epichnopterix Hübner, 1825												
– plumella (Denis & Schiffermüller, 1775)		●										
– retiella (Newman, 1847)		●	●	●	●	●	○					
Oiketicinae												
Acanthopsyche Heylaerts, 1861												
– atra (Linnaeus, 1767)		●	●			●	●		●		●	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Pachythelia Westwood, 1848												
– villosella (Ochsenheimer, 1810)		●	●	●		●						
Canephora Hübner, 1822												
– hirsuta (Poda, 1761)	20 n						○	●		●		●
Phalacropterix Hübner, 1825												
– graslinella (Boisduval, 1852)		●	●	●		●						
TINEIDAE (Knud Larsen)												
Scardiinae												
Morophaga Herrich-Schäffer, 1853												
– choragella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Myrmecozelinae												
Myrmecozela Zeller, 1852												
– ochraceella (Tengström, 1848)				●	●	●				●	○	
Haplotinea Diakonoff & Hinton, 1956)												
– ditella (Pierce, Metcalfe & Diakonoff, 1938)								○				●
– insectella (Fabricius, 1794)		●	●	●	●	●	○	●	●	●	●	●
Meessiinae												
Infurcitinea Spuler, 1910												
– argentimaculella (Stainton, 1849)			●					●	●		●	●
– ignicomella (Heydenreich, 1851)			●			●					○	●
– albicomella (Stainton, 1851)												●
– marianii (Rebel, 1936)		●					●	●	●		●	
Stenoptinea Dietz, 1905	21 n											
– cyaneimarmorella (Millière, 1854)	21 n		●					●	●			●
Agnathosia Amsel, 1954												
– mendicella (Denis & Schiffermüller, 1775)	22 n										●	
Nemapogoninae												
Nemapogon Schrank, 1802												
– granella (Linnaeus, 1758)			●	●			○	●	●	●	●	●
– cloacella (Haworth, 1828)		●	●	●	●	●	●	●	●	●	●	●
– wolffiella Karsholt & Nielsen, 1976		●	●				●	●	●	●	●	
– variatella (Clemens, 1859)	23 n						○	●	●		●	●
– inconditella (Lucas, 1956)	24 n		●								●	○
– clematella (Fabricius, 1781)			●	○	●	●	●	●	●		●	●
– picarella (Clerck, 1759)		●	●		○	●	●	●	●	●	●	●
– nigralbella (Zeller, 1839)						●		●			●	
– fungivorella (Benander, 1939)			●				○	○			●	
– falstriella (Haas, 1881)							●	●	●			
Archinemapogon Zagulajev, 1962												
– yildizae Koçak, 1981								●				
Nemaxera Zagulajev, 1964												
– betulinella (Paykull, 1785)		●	●	●	●	●	●	●	●	●	●	●
Triaxomera Zagulajev, 1959												
– parasitella (Hübner, 1796)			●				●	●	●	●	●	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– fulvimitrella (Sodoffsky, 1830)		●	●		●	●	●	●	●	●	●	●
Triaxomasia Zagulajev, 1964												
– caprimulgella (Stainton, 1851)										●	●	
Tineinae												
Monopis Hübner, 1825												
– laevigella (Denis & Schiffermüller, 1775)	25 n	●	●	●	●	●	●	●	●	●	●	●
– weaverella (Scott, 1858)		●	●	●	●	●	●	●	●	●	●	●
– spilotella (Tengström, 1848)						●					●	●
– obviella (Denis & Schiffermüller, 1775)	26 n		●	●		●	●	●	●	●	●	●
– imella (Hübner, 1813)			○	●	●	●	○	●	○	●	○	●
– monachella (Hübner, 1796)		●	●	●		●	●	●	●		●	●
– fenestratella (Heyden, 1863)							●					
Trichophaga Ragonot, 1894												
– tapetzella (Linnaeus, 1758)			○		○	○	●	●	●	●	○	○
Tineola Herrich-Schäffer, 1853												
– bisselliella (Hummel, 1823)	13 f		●		●		○	○	●	●	●	○
Niditinea G. Petersen, 1957												
– fuscella (Linnaeus, 1758)	27 n		●	●	●	●	●	●	●	●	●	●
– piercella (Bentinck, 1935)			●			●	●	●	●		●	
Tinea Linnaeus, 1758												
– columbariella Wocke, 1877		●	●	●	●	●	●	●	●	●	●	●
– pellionella (Linnaeus, 1758)		○	●	●	●	●	●	●	●		●	
– dubiella Stainton, 1859	28 n		●				●	●	●	●		●
– flavescentella Haworth, 1828							○					
– pallescentella Stainton, 1851			●				○	○		●	●	○
– semifulvella Haworth, 1828		○	●	●	●	●	●	●	●	●	●	●
– trinotella Thunberg, 1794		○	●	●	●	●	●	●	●	●	●	●
GRACILLARIIDAE (Knud Larsen)												
Gracillariinae												
Caloptilia Hübner, 1825												
– cuculipennella (Hübner, 1796)							○	●	●			
– populetorum (Zeller, 1839)						●					○	●
– suberinella (Tengström, 1848)			●	●	●	●	●	●	●	●	●	●
– elongella (Linnaeus, 1761)			●	●	●	●	●	●	●	●	●	●
– betulicola (M. Hering, 1928)			●	●	●	●	●	●	●	●	●	●
– rufipennella (Hübner, 1796)		●	●	●	●	●	●	●	●	●	●	●
– alchimiella (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
– robustella Jäckh, 1972							●	●	●	●	●	
– stigmatella (Fabricius, 1781)			●	●	●	●	●	●	●	●	●	●
– falconipennella (Hübner, 1813)							○					
– semifascia (Haworth, 1828)							●	●	●		○	
– leucapennella (Stephens, 1835)			●				○		●			●
Gracillaria Haworth, 1828												
– syringella (Fabricius, 1794)	29 n	●	●	●	●	●	●	●	●	●	●	●
Aspilapteryx Spuler, 1910												
– tringipennella (Zeller, 1839)			●	●	●	●	●	●	●	●	●	●
Calybites Hübner, 1822												
– phasianipennella (Hübner, 1813)			●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– auroguttella (Stephens, 1835)		●	●	●	●	●	●	●	●	●	●	●
Parectopa Clemens, 1860												
– ononidis (Zeller, 1839)			●	●			●	●	●	●	●	
Parornix Spuler, 1910	14 f											
– loganella (Stainton, 1848)						●						
– fagivora (Frey, 1861)			●			●	●	●	●	●	●	
– anglicella (Stainton, 1850)		●	●	●	●	●	●	●	●	●	●	●
– devoniella (Stainton, 1850)		●	●	●	●		●	●	●		●	●
– betulae (Stainton, 1854)		●	●	●	●	●	●	●	●	●	●	●
– scoticella (Stainton, 1850)		●	●	●	●	●		●		●	●	●
– finitimella (Zeller, 1850)			●	●	●	●	●	●	●	●	●	●
– traugotti Svensson, 1976	15 f					●					●	
– torquillella (Zeller, 1850)			●				●	●	●	●	●	●
Callisto Stephens, 1834												
– denticulella (Thunberg, 1794)		●	●	●	●	●	●	●	●	●	●	●
Acrocercops Wallengren, 1881												
– imperialella (Zeller, 1847)	16 f						●	●				
– brongniardella (Fabricius, 1798)	17 f							○			○	
Leucospilapteryx Spuler, 1910												
– omissella (Stainton, 1848)							●	●	●			●
Lithocolletinae												
Phyllonorycter Hübner, 1822												
– harrisella (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– roboris (Zeller, 1839)			●									
– heegeriella (Zeller, 1846)		●	●				●	●	●	●	●	●
– tenerella (Joannis, 1915)							●	●	●	●	●	●
– quercifoliella (Zeller, 1839)		●	●	●	●	●	●	●	●	●	●	●
– oxyacanthae (Frey, 1856)		●	●	●	●	●	●	●	●	●	●	●
– sorbi (Frey, 1855)		●	●	●	●	●	●	●	●	●	●	●
– blancardella (Fabricius, 1781)		●	●	●	●	●	●	●	●	●	●	●
– junoniella (Zeller, 1846)	18 f		●	●	○	●			●	●	●	
– pomonella (Zeller, 1846)							●	●	●	●	●	●
– cerasicolella (Herrich-Schäffer, 1855)			●		●		●	●	●	●	●	●
– corylifoliella (Hübner, 1796)			●			●	●	●	●		●	●
– salictella (Zeller, 1846)		●	●	●	●	●	●	●	●	●	●	●
– salicicolella (Sircom, 1848)		●	●	●	●	●	●	●	●	●	●	●
– dubitella (Herrich-Schäffer, 1855)		●	●	●			●	●	●	●	●	●
– hilarella (Zetterstedt, 1839)	30 n		●	●	●	●	●	●	●	●	●	●
– cavella (Zeller, 1846)			●			●		●	●	●	●	●
– scopariella (Zeller, 1846)			●	●	●	●	●					
– staintoniella (Nicelli, 1853)				●	○	●						
– maestingella (Müller, 1764)		●	●	●	●	●	●	●	●	●	●	●
– coryli (Nicelli, 1851)		●	●	●	●		●	●	●	●	●	●
– esperella (Goeze, 1783)	31 n		●				●	●	●	●	●	●
– strigulatella (Lienig & Zeller, 1846)		●	●	●	●	●	●	●	●	●	●	●
– rajella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– quinqueguttella (Stainton, 1851)			●	●	●	●	●	●		●	●	●
– anderidae (W. Fletcher, 1885)											●	
– nigrescentella (Logan, 1851)						○		●	●		●	
– insignitella (Zeller, 1846)								●		●	●	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– lautella (Zeller, 1846)		●	●	●	●	●	●	●	●	●	●	●
– ulmifoliella (Hübner, 1817)		●	●	●	●	●	●	●	●	●	●	●
– emberizaepennella (Bouché, 1834)		●	●	●	●	●	●	●	●	●	●	●
– tristrigella (Haworth, 1828)		●	●	●	●	●	●	●	●	●	●	●
– stettinensis (Nicelli, 1852)		●	●	●	●	●	●	●	●	●	●	●
– froelichiella (Zeller, 1839)			●			●	●	●	●	●	●	●
– nicellii (Stainton, 1851)		○					●	●		●	●	●
– kleemannella (Fabricius, 1781)		●	●			●	●	●	●	●	●	●
– trifasciella (Haworth, 1828)							●	●	●	●	●	●
– platani (Staudinger, 1870)											●	
– acerifoliella (Zeller, 1839)	32 n				●	●	●	●	●		●	
– platanoidella (Joannis, 1920)						●	●	●	●	●	●	●
– geniculella (Ragonot, 1874)		●	●		●		●	●	●	●	●	●
– connexella (Zeller, 1846)								●				
– sagitella (Bjerkander, 1790)												●
– apparella (Herrich-Schäffer, 1855)								●				
– populifoliella (Treitschke, 1833)							○				○	
Phyllocnistinae												
Phyllocnistis Zeller, 1848												
– saligna (Zeller, 1839)								●				
– labyrinthella (Bjerkander, 1790)	19 f										○	
– unipunctella (Stephens, 1834)			●			●	●	●	●	●	●	●
ROESLERSTAMMIDAE (Karsten Schnack)												
Roeslerstammia Zeller, 1839												
– erxlebella (Fabricius, 1787)								●				●
BUCCULATRICIDAE (Ole Karsholt, Knud Larsen & Karsten Schnack)												
Bucculatrix Zeller, 1839												
– cristatella (Zeller, 1839)			●	●	●	●	●	●	●	●	●	●
– nigricomella (Zeller, 1839)		●	●	●	○	●	●	●	●	●	●	○
– gnaphaliella (Treitschke, 1833)								●				
– maritima Stainton, 1851			●	●	●	●	●	●	●	●	●	●
– artemisiella Herrich-Schäffer, 1855								●			●	●
– ratisbonensis Stainton, 1861			●			●	●	●	●	●	●	●
– frangutella (Goeze, 1783)	33 n	●	●	●	●	●	●	●	●	●	●	●
– demaryella (Duponchel, 1840)		●	●			●		●	●	●	●	●
– bechsteinella (Bechstein & Scharfenberg, 1805)	34 n	●	●	●	●	●	●	●	●	●	●	●
– ulmella Zeller, 1848		●	●	●		●	●	●	●	●	●	●
– cidarella (Zeller, 1839)			●	○		●	○	●	●	●	●	●
– thoracella (Thunberg, 1794)								●				●
DOUGLASIIDAE (Ole Karsholt, Knud Larsen & Karsten Schnack)												
Tinagma Zeller, 1839												
– anchusella (Benander, 1936)			●				●	●	●	●	●	●
– ocnerostomella (Stainton, 1850)			●				●	●	●	●	●	●
Klimeschia Amsel, 1938												
– transversella (Zeller, 1839)						●					●	●

YPONOMEUTOIDEA

YPONOMEUTIDAE (Karsten Schnack)

Argyresthiinae

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Argyresthia Hübner, 1825	35 n											
– laevigatella Herrich-Schäffer, 1855			●	●		●	○	●	●	●	●	●
– glabratella (Zeller, 1847)		●	●	●	●	●	●	●	●	●	●	●
– bergiella (Ratzeburg, 1840)		●	●	●		○	○	●	●	●	●	●
– praecocella Zeller, 1839			●	●		●	●	●		●	●	●
– arceuthina Zeller, 1839		●	●	●		●	●	●		●	●	●
– dilectella Zeller, 1847			●	●	●	●	○	●	●	●	●	●
– abdominalis Zeller, 1839			●	●	●	●	●	●		●	○	●
– aurulentella Stainton, 1849			●	●		●		●		●	●	●
– ivella (Haworth, 1828)		●	●									
– brockeella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– goedartella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– pygmaeella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– sorbiella (Treitschke, 1833)											●	
– arcella (Fabricius, 1776)	36 n	●	●		●		●	●	●	●	●	●
– retinella Zeller, 1839		●	●	●	●	●	●	●	●	●	●	●
– fundella (Fischer von Röslerstamm, 1835)		●	●	●	●	●	●	●	●	●	●	●
– glaucinella Zeller, 1839			●	●		●		●	●		●	●
– spinosella Stainton, 1849	37 n	●	●	●		●	●	●	●	●	●	●
– conjugella Zeller, 1839		●	●	●	●	●	●	●	●	●	●	●
– semifusca (Haworth, 1828)			●				○	●	●			
– pruniella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– bonnetella (Linnaeus, 1758)	38 n	●	●	●	●	●	●	●	●	●	●	●
– albistria (Haworth, 1828)		●	●		●	●	●	●	●	●	●	●
– semitestacella (Curtis, 1833)		●	●	●	●		●	●	●	●	●	●

Yponomeutinae

Yponomeuta Latreille, 1796												
– evonymella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– padella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– malinellus Zeller, 1838			●		●	●	●	●	●	○	●	●
– cagnagella (Hübner, 1813)			●	●		●	●	●	●	●	●	●
– rorrella (Hübner, 1796)				●	●			●		●	○	●
– irrorella (Hübner, 1796)								●	●			●
– plumbella (Denis & Schiffermüller, 1775)		●	●		●	●	●	●	●	●	●	●
– sedella Treitschke, 1832	39 n		●	●	●	●	●	●	●	●	●	●
Zelleria Stainton, 1849												
– hepariella Stainton, 1849			●		●	●	●	●	●		●	●
Pseudoswammerdamia Friese, 1960												
– combinella (Hübner, 1786)			●	●	●		●	●	●	●	●	●
Swammerdamia Hübner, 1825												
– caesiella (Hübner, 1796)			●	●	●	●	●	●	●	●	●	●
– pyrella (Villers, 1789)		●	●	●	●	○	●	●	●	●	●	●
– compunctella (Herrich-Schäffer, 1855)		●	●					●	●		●	●
Paraswammerdamia Friese, 1960												
– albicapitella (Scharfenberg, 1805)	40 n		●	●	●		●	●	●		●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– nebulella (Goeze, 1783)	41 n		●	○	●	●	●	●	●	●	●	●
– conspersella (Tengström, 1848)										●	●	
Cedestis Zeller, 1839												
– gysseleniella Zeller, 1839		●	●	●	●	●	●	●	●	●	●	●
– subfasciella (Stephens, 1834)			●	●	●	●	●	●		●	●	●
Ocnerostoma Zeller, 1847												
– piniariella Zeller, 1847			●	●	●	●	●	●		●	●	●
– friesei Svensson, 1966			●	●	●	●		●	●	●	●	●
Praydinae												
Prays Hübner, 1825												
– fraxinella (Bjerkander, 1784)		●	●	●	●	●	●	●	●	●	●	●
Scythropinae												
Scythropia Hübner, 1825												
– crataegella (Linnaeus, 1767)								●	●	●	●	●
Plutellinae												
Plutella Schrank, 1802												
– xylostella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– porrectella (Linnaeus, 1758)			●		●	●	●	●	●	●	●	●
Rhigognostis Staudinger, 1857												
– senilella (Zetterstedt, 1839)					●							
– incarnatella (Steudel, 1873)											●	●
– annulatella (Curtis, 1832)						●						
Eidophasia Stephens, 1842												
– messingiella (Fischer von Rösslerstamm, 1840)		●	●	●	●	●	●	●	●	●	●	●
Ypsolophinae												
Ypsolopha Latreille, 1796												
– mucronella (Scopoli, 1763)			●				●	●	●	●	●	●
– nemorella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– dentella (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
– asperella (Linnaeus, 1761)												●
– scabrella (Linnaeus, 1761)			●			●						●
– horridella (Treitschke, 1835)		●	●	●	●	●	●	●	●	●	●	●
– lucella (Fabricius, 1775)		●	●	●	○	●	●	●	●		●	●
– alpella (Denis & Schiffermüller, 1775)			●		●	●	●	●	●	●	●	●
– sylvella (Linnaeus, 1767)		●	●	●	●	●	●	●	●	●	●	●
– parenthesella (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– ustella (Clerck, 1759)			●	●	●	●	●	●	●	●	●	●
– sequella (Clerck, 1759)			●	●			●	●	●	●	●	
– vittella (Linnaeus, 1758)			●	●	●	●	●	●	●	●	●	●
Orthotaeliinae												
Orthotaelia Stephens, 1834												
– sparganella (Thunberg, 1788)			●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Acrolepiinae												
Digitivalva Gaedike, 1970												
– valeriella (Snellen, 1878)								●	●			
– arnicella (Heyden, 1863)			●	●	●	●	●					
Acrolepiopsis Gaedike, 1970												
– assectella (Zeller, 1839)		●	●	●		●	●	●	●	●	●	●
Acrolepia Curtis, 1838												
– autumnitella Curtis, 1838	42 n						○	●				
OCHSENHEIMERIIDAE (Ole Karsholt)												
Ochsenheimeria Hübner, 1825												
– vacculella Fischer von Röslerstamm, 1842		○	●	●	●	●	●	●	●	●	●	
– urella Fischer von Röslerstamm, 1842	43 n			●		●					●	
– mediopectinellus (Haworth, 1828)		●	●	●		●	○	●	●	●	○	
– taurella (Denis & Schiffermüller, 1775)								○				
LYONETIIDAE (Ole Karsholt, Knud Larsen & Karsten Schnack)												
Cemiostominae												
Paraleucoptera Heinrich, 1918												
– sinuella (Reutti, 1853)			●	●	○	●		○		●	●	○
Leucoptera Hübner, 1825												
– laburnella (Stainton, 1851)			●	●	●		●	●	●	●	●	●
– spartifoliella (Hübner, 1813)			●	●	●	●	●	●	●	●	●	●
– malifoliella (Costa, 1836)	44n,20f			●	○		○	○				●
Lyonetiinae												
Lyonetia Hübner, 1825	21 f											
– clerkella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– ledi Wocke, 1859						●					●	
Bedelliinae												
Bedellia Stainton, 1849												
– somnulentella (Zeller, 1847)			●		●		○	●	●	●	●	●
GLYPHIPTERIGIDAE (Ole Karsholt, Knud Larsen & Karsten Schnack)												
Glyphipterix Hübner, 1825												
– simpliciella (Stephens, 1834)			●	●	●	●	●	●	●	●	●	●
– minorella (Snellen, 1882)	45 n		●		●	●	●	●	●	●	●	●
– forsterella (Fabricius, 1781)		●		●		●	●	●	●	●	●	●
– haworthana (Stephens, 1834)		●	●	●		●	●	●	●	●	●	
– thrasonella (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
– bergstraesserella (Fabricius, 1781)		●	●	●		●	●	●			●	●

GELECHIOIDEA

OECOPHORIDAE (Eivind Palm)

Depressariinae

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Semioscopis Hübner, 1825												
– oculella (Thunberg, 1794)			●									
– avellanella (Hübner, 1793)			●			●		●			●	
– steinkellneriana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Enicostoma Stephens, 1829												
– lobella (Denis & Schiffermüller, 1775)		●	●				●	●	●	●	●	●
Exaeretia Stainton, 1849												
– allisella Stainton, 1849		●	●	●	●	●	●	●	●	●	●	●
Depressaria Haworth, 1811												
– daucella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– ultimella Stainton, 1849			●	●			●	●	●	●	●	
– pastinacella (Duponchel, 1838)		●	●	●	●	●	●	●	●	●	●	●
– pimpinellae Zeller, 1839							○	○				
– badiella (Hübner, 1796)		●	●	●	●	●	●	●	●	●	●	●
– pulcherrimella Stainton, 1849			●	●	●	●	●	●	○	●	●	●
– douglasella Stainton, 1849								●				●
– weirella Stainton, 1849		●	●	●	●	●	●	●	●	●	●	●
– emeritella Stainton, 1849		●	●	●	●	●	●	●	●	●	●	●
– albipunctella (Denis & Schiffermüller, 1775)	22 f										●	
– olerella Zeller, 1854						●					●	
– depressana (Fabricius, 1775)	23 f		●				●	●	●	●	●	●
– artemisiae Nickerl, 1862			●			●	○	●	●	●	●	●
Levipalpus Hannemann, 1953												
– hepatariella (Lienig & Zeller, 1846)				●	●	●					●	○
Agonopterix Hübner, 1825												
– heracliana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– ciliella (Stainton, 1849)			●	●	●	●	●	●	●	●	●	
– alstromeriana (Clerck, 1759)	46 n		●		●		●	●	●	●	●	
– selini (Heinemann, 1870)							●	●	●	●		●
– propinquella (Treitschke, 1835)		●	●	●	○	●	○	●	●	●	●	○
– kaekeritziana (Linnaeus, 1767)	47 n		●	●	●	●	●	●	●	●	●	●
– laterella (Denis & Schiffermüller, 1775)									●		○	○
– liturosa (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– conterminella (Zeller, 1839)		○	●	●	●	●	●	●	●	●	●	●
– ocellana (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
– nervosa (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– ulicitella (Stainton, 1849)	24 f			●								
– scopariella (Heinemann, 1870)	25 f		●	●	●	●	●	●		●	●	●
– atomella (Denis & Schiffermüller, 1775)				●	○	●						
– assimilella (Treitschke, 1832)		●	●	●	●	●	●	●	●	●	●	●
– cnicella (Tretischke, 1832)				●	●	●						
– astrantiae (Heinemann, 1870)		●	●				●	●	●	●	●	●
– yeatiana (Fabricius, 1781)		○	●	●	●	●	●	●	●	●	●	●
– purpurea (Haworth, 1811)			●			●	●	●	●	●	●	●
– subpropinquella (Stainton, 1849)	26 f	●	●	●		●	●	●	●	●	●	●
– angelicella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– capreolella (Zeller, 1839)				●	●	●						○
– pallorella (Zeller, 1839)			●							●		
– arenella (Denis & Schiffermüller, 1775)		○	●	●	●	●	●	●	●	●	●	●
Amphisbatis Zeller, 1870												
– incongruella (Stainton, 1849)		●	●	●	●	●					●	
Pseudatemelia Rebel, 1910												
– josephinae (Toll, 1956)			●		●	●	●	●	●	●	●	●
– subochreella (Doubleday, 1859)			●				●				●	
– flavifrontella (Denis & Schiffermüller, 1775)		●	●		●	●	●	●	●	●	●	●
Ethmiinae												
Ethmia Hübner, 1819												
– dodecea (Haworth, 1828)							○	●		●	●	○
– funerella (Fabricius, 1787)								●	●			●
– terminella T. Fletcher, 1938												●
– bipunctella (Fabricius, 1775)			●		●		●	●	●	●	●	●
Oecophorinae												
Schiffermuelleria Hübner, 1825												
– schaefferella (Linnaeus, 1758)		●						●				
– stroemella (Fabricius, 1781)											●	
– similella (Hübner, 1796)		●		●		●	●	●	●	●	●	●
Denisia Hübner, 1825	48 n											
– albimaculea (Haworth, 1828)			●				○	●	○	●	●	
– augustella (Hübner, 1796)											○	
– stipella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Tichonia Hübner, 1825												
– tinctella (Hübner, 1796)		●	●		○	○	●	●	●	●	●	●
Batia Stephens, 1834												
– unitella (Hübner, 1796)			●			●	●	●	●	●	●	○
– lambdella (Donovan, 1793)		●	●									
– internella Jäckh, 1972			●									●
Borkhausenia Hübner, 1825												
– fuscescens (Haworth, 1828)		●	●	●	●	●	●	●	●	●	●	●
– luridicomella (Herrich-Schäffer, 1856)			●			●	●	●		●	●	●
– minutella (Linnaeus, 1758)			●		●	●	●	●	●	●	●	●
Telechrysis Toll, 1956												
– tripuncta (Haworth, 1828)							●	●			●	●
Metalampra Toll, 1956												
– cinnamomea (Zeller, 1839)			●									●
Bisigna Toll, 1956												
– procerella (Denis & Schiffermüller, 1775)		●	●	●			●	●	●	●	●	●
Oecophora Latreille, 1796												
– bractella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Harpella Schrank, 1802												
– forficella (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
Orophia Hübner, 1825												
– ferrugella (Denis & Schiffermüller, 1775)			●			●		●		●	●	●
Hypercallia Stephens, 1829												
– citrinalis (Scopoli, 1763)								●				●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Carcina Hübner 1825												
– quercana (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
Endrosis Hübner, 1825												
– sarcitrella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Hofmannophila Spuler, 1910												
– pseudospretella (Stainton, 1849)		●	●	●	●	●	●	●	●	●	●	●
Stathmopoda Herrich-Schäffer, 1853												
– pedella (Linnaeus, 1761)			●	○	●	●	●	●	●	●	●	●
Aplota Stephens, 1834												
– palpella (Haworth, 1828)							●	●	●		●	
Pleurota Hübner, 1825												
– bicostella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	
Chimabachinae												
Diurnea Haworth, 1811												
– fagella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– lipsiella (Denis & Schiffermüller, 1775)	49 n	●	●	●	●	●	●	●	●	●	●	●
Cheimophila Hübner, 1825												
– salicella (Hübner, 1796)		●		●	○	●	○		●	○	●	
ELACHISTIDAE (Karsten Schnack)	27 f											
Mendesia Joannis, 1902												
– farinella (Thunberg, 1794)			●		●	○				●	○	
Perittia Stainton, 1854												
– obscurepunctella (Stainton, 1848)		●	●		●		●	●	●	●	●	
– herrichiella (Herrich-Schäffer, 1855)								●	●		●	●
Stephensia Stainton, 1858												
– brunnichella (Linnaeus, 1767)								●				
Elachista Treitschke, 1833	28 f											
– regificella Sircom, 1849			●	●	●	●	●	●	●	●	●	●
– gleichenella (Fabricius, 1781)			●	●		●	●	●	●	●	●	●
– biatomella (Stainton, 1848)				●	●	●					●	
– poae Stainton, 1855								○	●		●	●
– atricomella Stainton, 1849			●	●	●	●	●	●	●	●	●	●
– kilmunella Stainton, 1849	29 f		●									
– alpinella Stainton, 1854			●	●	●	●	●	●	●	●	●	
– diederichsiella E. Hering, 1889	50 n						●	●		●	●	
– compsa Traugott-Olsen, 1974			●				●	●	●	●	●	
– luticomella Zeller, 1839		●	●	●	●	●	●	●	●	●	●	●
– albifrontella (Hübner, 1817)		●	●	●	●	●	●	●	●	●	●	●
– bifasciella Treitschke, 1833		●	●	●	●	●	●	●		●	●	●
– nobilella Zeller, 1839			●	●	●	●	●	●	●	●	●	○
– apicipunctella Stainton, 1849			●				●	●	●	●	●	○
– subnigrella Douglas, 1853									●		●	
– orstadii Palm, 1943			●		●	●				●	●	
– pomerana Frey, 1870								●	●	●	●	
– humilis Zeller, 1850			●	●	●		●	●	●	●	●	●
– canapennella (Hübner, 1813)	51 n	●	●	●	●	●	●	●	●	●	●	●
– anserinella Zeller, 1839											○	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– rufocinerea (Haworth, 1828)		●	●	●	●	●	●			●		
– cerusella (Hübner, 1796)		●	●	●	●	●	●	●	●	●	●	●
– argentella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– pollinariella Zeller, 1839								●				
– triatomea (Haworth, 1828)		●	●	●	●	●	●	●	●	●	●	●
– dispilella Zeller, 1839				○								
– megerlella (Hübner, 1810)								●	●			
– unifasciella (Haworth, 1828)			●				●	●	●	●	●	
– gangabella Zeller, 1850			●				●	●	●		●	●
– subalbidella Schläger, 1847		●	●	●	●	●	●	●	●	●	●	●
– revinctella Zeller, 1850		●	●	●	●	●	●	●	●	●	●	●
– bisulcella (Duponchel, 1843)		●			●	●	●	●	●	●	●	●
– pullicomella Zeller, 1839							●	●	●	●	●	
– littoricola Le Marchand, 1938								●				
– bedellella (Sircom, 1848)		●	●			●		●		●	●	●
Biselachista Traugott-Olsen & Nielsen, 1977	52 n											
– serricornis (Stainton, 1854)	53 n		●	○				●	●		●	●
– scirpi (Stainton, 1887)				●	●	●	●	●	●	●	●	
– eleochariella (Stainton, 1851)				●	●	●		●			●	
– utonella (Frey, 1856)			●	●	●	●	●	●	●	●	●	●
– albidella (Nylander, 1848)		●	●	●		●	●	●	●		●	●
Cosmiotes Clemens, 1860												
– freyerella (Hübner, 1825)			●	●	●	●	●	●	●	●	●	●
– exactella (Herrich-Schäffer, 1855)		●	●	●	●	●	●	●	●	●	●	●
– stabilella (Stainton, 1858)								●	●		●	
– consortella (Stainton, 1851)			●				●	●	●	●	●	●
COLEOPHORIDAE (Knud Larsen)												
Augasma Herrich-Schäffer, 1853												
– aeratella (Zeller, 1839)			●				○	●	●			
Metriotes Herrich-Schäffer, 1853												
– lutarea (Haworth, 1828)		●	●	●			●	●	●	●	●	●
Coleophora Hübner, 1822	30 f											
– lutipennella (Zeller, 1838)		●	●		●	●	●	●	●	●	●	●
– gryphipennella (Hübner, 1796)			●		●	●	●	●	●		●	●
– flavipennella (Duponchel, 1843)		●	●	●	●	●	●	●	●		●	●
– limosipennella (Duponchel, 1843)							●	●	●	●	●	●
– adjectella Herrich-Schäffer, 1861												●
– milvipennis Zeller, 1839		●	●	●	●	●		●	●		●	●
– alnifoliae Barasch, 1934								●			●	
– badiipennella (Duponchel, 1843)								●			●	
– hydrolapathella M. Hering, 1924			●			●	●	●	●	●	●	
– trigeminella Fuchs, 1881								●				
– siccifolia Stainton, 1856								●	●			●
– uliginosella Glitz, 1872			●		●	●					●	
– serratella (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– prunifoliae Doets, 1944							●	●	●	●	●	●
– spinella (Schrank, 1802)	54 n				●	●	●	●	●		●	●
– fuscocuprella Herrich-Schäffer, 1855								●				
– arctostaphyli Meder, 1933				●	○	●						
– viminetella Zeller, 1849		●		●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– idaeella Hofmann, 1869			●	●					●		●	
– vacciniella Herrich-Schäffer, 1861						●				●	●	
– plumbella Kanerva, 1941				●		●					●	
– vitisella Gregson, 1856											●	
– glitzella Hofmann, 1869			●	●		●					●	
– violacea (Ström, 1783)			●			●	○	●	●	●	●	●
– juncicolella Stainton, 1851			●	●		●	●	●			●	
– orbitella Zeller, 1849			●	●	●	●	●	●	●	●	●	●
– binderella (Kollar, 1832)			●				●	●			●	
– ahenella Wocke, 1876		●	●	●	●		●	●	●	●	●	
– potentillae Elisha, 1885			●	●		●		●	●	●	●	
– albitarsella Zeller, 1849			●				●	●	●	●	●	●
– pulmonariella Ragonot, 1874								●				
– trifolii (Curtis, 1832)					●	●	●	●	●	●	●	●
– frischella (Linnaeus, 1758)			●	●	●				●		○	○
– alcyonipennella, (Kollar, 1832)							●		●		●	○
– deauratella Lienig & Zeller, 1846			●	●	●	●	●	●	●	●	●	●
– mayrella (Hübner, 1813)	55 n		●	●	●	●		●	●	●	●	●
– lineolea (Haworth, 1828)	56 n	●	●				●	●	●	●	●	○
– hemerobiella (Scopoli, 1763)												●
– lithargyrinella Zeller, 1849		●	●				●	●	●	●	●	●
– colutella (Fabricius, 1794)	57 n						●	●	●	●		
– genistae Stainton, 1857				●	○	●						
– bilineatella Zeller, 1849			●	●	●	●	●	●	○	○	●	●
– niveicostella Zeller, 1839							●					
– discordella Zeller, 1849		●	●	●	●	●	●	●	●	●	●	●
– chalcogrammella Zeller, 1839							○			●	●	
– bernoulliella (Goeze, 1783)	58 n		●	●			●	●	●	●	●	●
– albidella (Denis & Schiffermüller, 1775)		●	●	●	●	●		●	●	●	●	●
– kuehnella (Geoze, 1783)	59 n	●	●				●	●	●	●	●	●
– ibipennella Zeller, 1849		●	●				●	●	●		●	●
– zelleriella Heinemann, 1854	127 f							●				
– betulella Wocke, 1876			●			●	●	●			●	●
– currucipennella Zeller, 1839			●	●	●		●	●	●	●	●	
– pyrrhulipennella Zeller, 1839		●	●	●	●	●	●	●	●	●	●	●
– serpylletorum E. Hering, 1889							●	●		●		
– gallipennella (Hübner, 1796)			●				●	●	●		●	●
– conspicuella Zeller, 1849			●				●	○		●		
– vibicigerella Zeller, 1839			●			●		●	●	●	●	●
– caelebipennella Zeller, 1839			●			●	●	●	○	●	●	●
– lixella Zeller, 1849		●	●	●	●	●	●	●	●	●	●	●
– vulnerariae Zeller, 1839			●	●	●	●			●	●	●	
– laricella (Hübner, 1817)			●	●	●	●	●	●	●	●	●	●
– antennariella Herrich-Schäffer, 1861		●	●			●		●			●	
– solitariella Zeller, 1849			●		●	●	●	●	●	○	●	
– pennella (Denis & Schiffermüller, 1775)	60 n		●				●	●	●	●	●	●
– adjunctella Hodgkinson, 1882			●	●	●	●	●	●	●	●	●	●
– caespititiella Zeller, 1839		●	●	○			●	●	●	●	●	●
– tamesis Waters, 1929				●	●	●		●	●		●	●
– glaucicolella Wood, 1892		●	●	●	●	●	●	●	●	●	●	●
– murinipennella (Duponchel, 1844)		●	●	●	●	●	●	●	●	●	●	●
– alticolella Zeller, 1849		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– taeniipennella Herrich-Schäffer, 1855			●	●	●	●	●	●	●	●	●	●
– sylvaticella Wood, 1892			●		●			●				
– maritimella Newman, 1873									●			
– virgaurea Stainton, 1857			●	●	●	●	●	●	●	●	●	●
– therinella Tengström, 1848		●	●	●	●	●	●	●	●	●	●	●
– asteris Mühlig, 1864			●	●		●	●	●	●	●	●	●
– saxicolella (Duponchel, 1843)	61 n		●	●	●	●	●	●	●	●	●	●
– sternipennella (Zetterstedt, 1839)			●	●	●	●	●		●	●	●	●
– squamosella Stainton, 1856			●	●	●	●	●	●	●	●		○
– versurella Zeller, 1849			●	●	●	●	●	●	●	●	●	●
– vestianella (Linnaeus, 1758)	62 n	●	●	●	●	●	●	●	●	●	●	●
– atriplicis Meyrick, 1928		●		●	●	●	●	●	●	●	●	●
– pappiferella Hofmann, 1869			○	●	○	●						
– absinthii Wocke, 1876			●			●		●				●
– deviella Zeller, 1849	63 n			○								
– artemisicolella Bruand, 1855			●			●	●	●	●	●	●	●
– separatella Benander, 1939			●				●	●				●
– succursella Herrich-Schäffer, 1855							●	●			○	
– gnaphalii Zeller, 1839			●					●	●	●	●	●
– millefolii Zeller, 1849					●	●	○	○			●	●
– peribenanderi Toll, 1943		●	●	●	●	●	●	●	●	●	●	●
– ramosella Zeller, 1849				●								●
– trochilella (Duponchel, 1843)		●	●	●	●	●	●	●	●	●	●	●
– directella Zeller, 1849			●					●	●	●	●	●
– striatipennella Nylander, 1848		●	●	●	●	●	●	●	●	●	●	●
– tanaceti Mühlig, 1865								●	●		●	●
– artemisiella Scott, 1861		●	●		●	●	●	●	●	●	●	●
– hackmani (Toll, 1952)			●							●		
– argentula (Stephens, 1834)		●	●	●	●	●	●	●	●	●	●	●
– follicularis (Vallot, 1802)	64 n						●	●	●	●	●	●
– granulatella Zeller, 1849			●			●		●	●	●	●	●
– adspersella Benander, 1939			●				●	●	●	●	●	●
– nutantella Mühlig & Frey, 1857			●	●				●	●	●	●	●
– graminicolella Wocke, 1876						●	●		●		●	●
– lassella Staudinger, 1859				●	●						○	
– paripennella Zeller, 1839												●
– clypeiferella Hofmann, 1871			●			●	●	●	●	●	●	●
– squalorella Zeller, 1849								●				●
– salicorniae Wocke, 1876				●	●	●	●	●	●		●	
AGONOXENIDAE (Karsten Schnack)												
Blastodacninae												
Chrysoclista Stainton, 1854	154 n											
– razowskii (Riedl, 1965)			○			●						
– linneella (Clerck, 1759)								●			●	●
Spuleria Hofmann, 1898												
– flavicaput (Haworth, 1828)		○					○	●	●		○	●
Blastodacna Wocke, 1876												
– hellerella (Duponchel, 1838)							●	●	●	●	●	
– atra (Haworth, 1828)		●	●		●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Dystebenna Spuler, 1910												
– stephensi (Stainton, 1849)								●				
BATRACHEDRIDAE (Karsten Schnack)												
Batrachedra Herrich-Schäffer, 1853												
– praeangusta (Haworth, 1828)		●	●	●	●	●	●	●	●	●	●	●
– pinicolella (Zeller, 1839)			●	●	●	●	●	●	●	●	●	●
MOMPHIDAE (Karsten Schnack)												
Mompha Hübner, 1825												
– langiella (Hübner, 1796)							●	●	●		○	○
– terminella (Humphreys & Westwood, 1845)							●	●	●	●	●	
– locupletella (Denis & Schiffermüller, 1775)					●	●	○	●		●	●	
– raschkiella (Zeller, 1839)		●	●	●	●	●	●	●	●	●	●	●
– miscella (Denis & Schiffermüller, 1775)			●							●	●	●
– idaei (Zeller, 1839)			●	●	●	●	●	●		●	●	●
– conturbatella (Hübner, 1819)		●	●	●	●	●	●	●	●	●	●	●
– ochraceella (Curtis, 1839)		●	●		●		●	●	●	●	●	●
– lacteella (Stephens, 1834)			●			●		●	●	●	●	●
– propinquella (Stainton, 1851)					●		●	●	●	●	●	●
– divisella Herrich-Schäffer, 1854							●	●	●		●	
– nodicolella Fuchs, 1902			●				●	●		●	●	●
– subbistrigella (Haworth, 1828)											●	
– epilobiella (Denis & Schiffermüller, 1775)			●	●	●	●	●	●	●	●	●	●
COSMOPTERIGIDAE (Karsten Schnack)												
Antequerinae												
Pancalia Stephens, 1829												
– leuwenhoekella (Linnaeus, 1761)								●	●	●	●	
– latreillella (Curtis, 1830)		●		●	●	●	○	●	●	●	●	●
Cosmopteriginae												
Cosmopterix Hübner, 1825												
– zieglerella (Hübner, 1810)			●				○	●	●	●	●	
– orichalcea Stainton, 1861								●			●	
– scribaiella (Zeller, 1850)							●	●	●			
– lienigiella (Lienig & Zeller, 1846)			●	●	●	●	●	●	●		●	●
Limnaecia Stainton, 1851												
– phragmitella Stainton, 1851		●	●	●	●	●	●	●	●	●	●	●
Chrysopeleiinae												
Sorhagenia Spuler, 1910												
– rhamniella (Zeller, 1839)			●							●		
– lophyrella (Douglas, 1846)			●				●	●	○	●	●	
– janiszewskae Riedl, 1962							○	●	●		○	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
SCYTHRIDIDAE (Ole Karsholt)												
Scythris Hübner, 1825												
– potentillella (Zeller, 1847)		●	●			●				●	●	●
– cicadella (Zeller, 1839)	31 f		●	●	●	●	○					
– limbella (Fabricius, 1775)	32 f		●				●			●	●	○
– knochella (Fabricius, 1794)										●	○	
– palustris (Zeller, 1855)	33 f		○				○					
– inspersella (Hübner, 1817)		○	●	●	●	●	●	●	●	●	●	●
– empetrella Karsholt & Nielsen, 1976			●	●	●	●				●	●	○
– siccella (Zeller, 1839)			●	●	●	●						●
– picaepennis (Haworth, 1828)	34 f		●	●	●	●	○	●			●	
– laminella (Denis & Schiffermüller, 1775)											●	
– ericevorella (Ragonot, 1880)			●	●	●	●						
– crypta Hannemann, 1961	35 f			●								
BLASTOBASIDAE (Ole Karsholt)												
Symmocinae												
Oegoconia Stainton, 1854												
– deauratella (Herrich-Schäffer, 1854)			●			●	●	●	●	●	●	●
Blastobasinae												
Holcocera Clemens, 1863												
– binotella (Thunberg, 1794)			●	●	●	●	●	●		●	●	●
– inunctella (Zeller, 1839)								●				
GELECHIIDAE (Ole Karsholt)												
Aristoteliinae												
Metzneria Zeller, 1839												
– lappella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– ehikeella Gozmány, 1954												●
– metzneriella (Stainton, 1851)			●		●	●	●	●	●	●	●	●
– aestivella (Zeller, 1839)			●		●		●	●	●	●	●	●
– neuropterella (Zeller, 1839)						●						●
– aprilella (Herrich-Schäffer, 1854)								●				●
Isophrictis Meyrick, 1917												
– striatella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– anthemidella (Wocke, 1871)											●	
Eulamprotes Bradley, 1971												
– wilkella (Linnaeus, 1758)			●	●	●	●	●	●	●	●	●	●
– superbella (Zeller, 1839)	36 f		●	○		●	○	●			○	
– unicolorella (Duponchel, 1843)			●	●		●	○	●	●	●	●	●
– atrella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Argolamprotes Benander, 1945												
– micella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Paltodora Meyrick, 1894												
– cytisella (Curtis, 1837)			●			●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Monochroa Heinemann, 1870												
– rumicetella (Hofmann, 1868)			●								○	●
– tenebrella (Hübner, 1817)		●	●	●	●	●	●	●	●	●	●	●
– servella (Zeller, 1839)	65 n											●
– conspersella (Herrich-Schäffer, 1854)		●					●	●	●	●	●	●
– tetragonella (Stainton, 1885)			●	●	●	●	●	●	●	●	●	●
– elongella (Heinemann, 1870)		●	●	●	●	●	●	●	●	●	●	●
– lutulentella (Zeller, 1839)			●		●	●	●	●	●	●	●	●
– lucidella (Stephens, 1834)		●	●	●	●	●	●	●	●	●	●	●
– divisella (Douglas, 1850)								●	○			●
– palustrella (Douglas, 1850)		●	●				●	●	●	●	●	●
– arundinetella (Stainton, 1858)				●	●							●
– suffusella (Douglas, 1850)		●	●	●		●	●	●	●	●	●	
– ferrea (Frey, 1870)												○
– hornigi (Staudinger, 1883)				●					●	●	●	●
– niphognatha (Gozmány, 1953)								●	●		●	●
Chrysoesthia Hübner, 1825												
– drurella (Fabricius, 1775)			●	●	●	●	●	●	●	●	●	○
– sexguttella (Thunberg, 1794)		●	●	●		○	●	●	●	●	●	●
Ptocheuusa Heinemann, 1870												
– inopella (Zeller, 1839)			●					○	●	●	●	
Aristotelia Hübner, 1825												
– subdecurtella (Stainton, 1859)							●	●	●	●	●	●
– ericinella (Zeller, 1839)		●	●	●	●	●	●	●	●	●	●	●
– brizella (Treitschke, 1833)		●	●	●	●	●	●	●	●	●	●	●
Xystophora Wocke, 1876												
– pulveratella (Herrich-Schäffer, 1854)											●	●
Apatetrinae												
Apatetris Staudinger, 1879	66 n											
– kinkerella (Snellen, 1876)			●	●	●	●		●			●	
Gelechiinae												
Stenolechia Meyrick, 1894												
– gemmella (Linnaeus, 1758)			●	●	●	●	●	●	●	●	●	●
Parachronistis Meyrick, 1925												
– albiceps (Zeller, 1839)			●		●	●	●	●	●	●	●	●
Recurvaria Haworth, 1828												
– nanella (Denis & Schiffermüller, 1775)											●	
– leucatella (Clerck, 1759)			●			●	●	●	●	●	●	●
Exoteleia Wallengren, 1881												
– dodecella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Xenolechia Meyrick, 1895												
– aethiops (Humphreys & Westwood, 1845)				●								
Pseudotelphusa Janse, 1958												
– scalella (Scopoli, 1763)			●	●	●						●	
Teleiodes Sattler, 1960												
– vulgella (Denis & Schiffermüller, 1775)	37 f	●	●				●	●	●	●	●	●
– scriptella (Hübner, 1796)								●				
– paripunctella (Thunberg, 1794)		●	●	●	●	●	●	●	●	●	●	●
– wagae (Nowicki, 1860)							●	●				

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– notatella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– proximella (Hübner, 1796)		●	●	●	●	●	●	●	●	●	●	●
– saltuum (Zeller, 1878)			●	●	●	●	●	●	●	●	●	●
– alburnella (Zeller, 1839)			●			●	●	●	●	●	●	●
– fugitivella (Zeller, 1839)		●	●	●	●	●	●	●	●	●	●	●
– luculella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– flavimaculella (Herrich-Schäffer, 1854)			●			●		●	●	●	●	●
Teleiopsis Sattler, 1960												
– diffinis (Haworth, 1828)		○	●	●	●	●	●	●	●	●	●	●
Athrips Billberg, 1820	67 n											
– mouffetella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– pruinosella (Lienig & Zeller, 1846)		●	●	●	●	●			●	●	●	
– tetrapunctella (Thunberg, 1794)			●	●	●	●						●
Bryotropha Heinemann, 1870												
– umbrosella (Zeller, 1839)		●	●	●	●	●	●	●		●	●	●
– affinis (Haworth, 1828)		●	●	●	●	●	●	●	●	●	●	●
– similis (Stainton, 1854)		●	●	●	●	●	●	●	●	●	●	●
– mundella (Douglas, 1850)			○	●	●	●	●				●	
– senectella (Zeller, 1839)		●	●	●	●	●	●	●	●	●	●	●
– terrella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– desertella (Douglas, 1850)			●	●	●	●	●	●	●	●	●	●
– galbanella (Zeller, 1839)	38 f	○	●	●	●	○					●	
– plantariella (Tengström, 1848)			●	●	●	●	●		●		●	
Chionodes Hübner, 1825												
– electella (Zeller, 1839)			●	●	●	●	●	●	●	●	●	●
– fumatella (Douglas, 1850)		●	●	●	●	●	●	●	●	●	●	●
– ignorantella (Herrich-Schäffer, 1854)			●	●	●	●	●	○			●	●
– tragicella (Heyden, 1865)							●	●		●		●
– distinctella (Zeller, 1839)			●	●	●	●	●	●	●	●	●	●
– continuella (Zeller, 1839)		●	●	●	●	●					●	●
Lita Treitschke, 1833												
– sexpunctella (Fabricius, 1794)	68 n	●	●	●	●	●	●		●	●	●	●
– solutella (Zeller, 1839)		●	○	●	●	●						
Aroga Busck, 1914												
– velocella (Zeller, 1839)		●	●	●	●	●	●	●	●	●	●	●
Neofaculta Gozmány, 1955												
– infernella (Herrich-Schäffer, 1854)			●			●						
– ericetella (Geyer, 1832)		●	●	●	●	●	●	●	●	●	●	●
Filatima Busck, 1939												
– incomptella (Herrich-Schäffer, 1854)		●	●	●	●	●					●	●
Neofriseria Sattler, 1960												
– peliella (Treitschke, 1835)		○	●	●		●	●	●	●	●	●	●
– singula (Staudinger, 1876)			●	○			○			●	●	●
Mirificarma Gozmány, 1955												
– mulinella (Zeller, 1839)		●	●	●	●	●	●	●	●	●	●	●
– lentiginosella (Zeller, 1839)			●			●						
Gelechia Hübner, 1825												
– rhombella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– scotinella Herrich-Schäffer, 1854			●				●	●	●	●	●	
– sabinella Zeller, 1839			●	●		●	●	●	●	●	●	●
– sororculella (Hübner, 1817)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– muscosella Zeller, 1839			●		●	●	●	●	●	●	●	●
– cuneatella Douglas, 1852			●			●	●		●	●	●	○
– hippophaella (Schrank, 1802)				●	●	●		●	●	●	○	●
– nigra (Haworth, 1828)		●	●	●	●	●	●	●	●	●	●	●
– turpella (Denis & Schiffermüller, 1775)		○	●			●	●	●	●	●	●	●
– rhombelliformis Staudinger, 1870							●	●				●
Psoricoptera Stainton, 1854												
– gibbosella (Zeller, 1839)			●		●	●	●	●	●	○	●	○
Gnorimoschema Busck, 1900												
– streliciella (Herrich-Schäffer, 1854)			○									
– bodillum Karsholt & Nielsen, 1974	39 f			●		●						
– herbichii (Nowicki, 1864)			●					●	●			
Scrobipalpula Povolný, 1964												
– psilella (Herrich-Schäffer, 1854)			●				●	●	●	●	●	●
Scrobipalpa Janse, 1951												
– acuminatella (Sircom, 1850)		●	●	●	●	●	●	●	●	●	●	●
– proclivella (Fuchs, 1886)								●				●
– clintoni Povolný, 1968			●			●	●	●	●	●	●	
– artemisiella (Treitschke, 1833)		●	●	●	●	●	○			●	●	●
– stangei (E. Hering, 1889)				●	●	●		●	●	●	●	●
– samadensis (Pfaffenzeller, 1870)		●	●	●	●	●	●	●	●	●	●	●
– salinella (Zeller, 1847)		●	●	●	●	●		●	○	●	●	●
– instabilella (Douglas, 1846)			●	●								
– nitentella (Fuchs, 1902)		●	●	●	●	●	●	●	●	●	●	●
– obsoletella (Fischer von Röslerstamm, 1841)		●	●	●	●	●	●	●	●	●	●	●
– atriplicella (Fischer von Röslerstamm, 1841)		●	●	●	●	●	●	●	●	●	●	●
– costella (Humphreys & Westwood, 1845)	40 f			●								
Caryocolum Gregor & Povolný, 1954												
– kroesmanniella (Herrich-Schäffer, 1854)		●	●	●	●	●	●	●	●	●	●	
– huebneri (Haworth, 1828)									●			
– albifasciella (Toll, 1936)						●		●	●			
– tricolorella (Haworth, 1812)		●	●	●	●	●	●	●	●	●	●	●
– blandelloides Karsholt, 1981			●	●	●	●						
– blandella (Douglas, 1852)		●	●	●	●	●	●	●	●	●	●	●
– proxima (Haworth, 1828)											●	
– blandulella (Tutt, 1887)			●	●		●				●	●	●
– junctella (Douglas, 1851)									●			
– fraternella (Douglas, 1851)			●	●	●	●	●	●	●	●	●	●
– pullatella (Tengström, 1848)									●			●
– marmorea (Haworth, 1828)		●	○	●	●	●	○					○
– viscariella (Stainton, 1855)			●									
– alsinella (Zeller, 1868)			●	●	●	●	○	●	●	●	●	●
– amaurella (M. Hering, 1924)												●
– cauliginella (Schmid, 1863)								●				●
– vicinella (Douglas, 1851)						●		●				●
– fischerella (Treitschke, 1833)								●	●		●	●
Nothris Hübner, 1825												
– verbascella (Denis & Schiffermüller, 1775)			●				●	●	●	●	●	
Reuttia Hofmann, 1898												
– subocellea (Stephens, 1834)			●				●	●	●	●	○	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Anacampsinae												
Sophronia Hübner, 1825												
– semicostella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– sicariella (Zeller, 1839)											●	
– humerella (Denis & Schiffermüller, 1775)			●	●		●	○	●	●	●	●	●
Stomopteryx Heinemann, 1870												
– remissella (Zeller, 1847)											●	
Aproaerema Durrant, 1897												
– anthyllidella (Hübner, 1813)			●	●	●	●	●	●	●	●	●	●
Syncopacma Meyrick, 1925												
– vinella (Bankes, 1898)			○									
– suecicella (Wolff, 1958)				●								
– cinctella (Clerck, 1759)			●	○		●	●	●	●	●	●	●
– larseniella (Gozmány, 1957)		●	●	●	●		●	●	●		○	●
– wormiella (Wolff, 1958)								●			○	●
– taeniolella (Zeller, 1839)		○	●	●	●	●	○	●		●	●	
Acanthophila Heinemann, 1870												
– alacella (Zeller, 1839)			●					●	●		○	●
Acompsia Hübner, 1825												
– cinerella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
Anacampsis Curtis, 1827												
– populella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– blattariella (Hübner, 1796)			●		●	●	●	●	●	●	●	●
– temerella (Lienig & Zeller, 1846)		●	●	●	●	●				○	●	●
Chelariinae												
Platyedra Meyrick, 1895												
– subcinerea (Haworth, 1828)												●
Pexicopia Common, 1958												
– malvella (Hübner, 1805)								●	●		●	●
Anarsia Zeller, 1839												
– spartiella (Schrank, 1802)			●	●	○	●		●			○	●
– lineatella Zeller, 1839							●	●	●		●	
Hypatima Hübner, 1825												
– rhomboidella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Dichomerinae												
Mesophleps Hübner, 1825												
– silacella (Hübner, 1796)	42 f											●
Telephila Meyrick, 1923												
– schmidtiellus (Heyden, 1848)							●	●	●	●	○	
Dichomeris Hübner, 1818												
– marginella (Fabricius, 1781)			●	●		●	●	●	●	●	●	●
– juniperella (Linnaeus, 1761)			●	●	●	●	●	●	●	●	●	●
– ustalella (Fabricius, 1794)								●	○			
– fasciella (Hübner, 1796)								○				
Brachmia Hübner, 1825												
– dimidiella (Denis & Schiffermüller, 1775)						●				○		●
– blandella (Fabricius, 1798)			●				●	●	●	●	●	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– inornatella (Douglas, 1850)		●	●				●	●	●	●	●	
– lineolella (Zeller, 1839)					●	●						
– lutatella (Herrich-Schäffer, 1854)			●			●		●	●		●	●
– rufescens (Haworth, 1828)		●	●	●	●	●	●	●	●	●	●	●
COSSOIDEA												
COSSIDAE (Svend Kaaber)												
Zeuzerinae												
Phragmataecia Newman, 1850												
– castaneae (Hübner, 1790)	43 f							●	●		●	
Zeuzera Latreille, 1804												
– pyrina (Linnaeus, 1761)		●	●	●		●	●	●	●	●	●	●
Cossinae												
Cossus Fabricius, 1793												
– cossus (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
LIMACODIDAE (Svend Kaaber)												
Apoda Haworth, 1809												
– limacodes (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
Heterogenea Knoch, 1783												
– asella (Denis & Schiffermüller, 1775)		●	●			○	●	●	●	●	●	●
TORTRICOIDEA												
TORTRICIDAE (Eivind Palm)												
Tortricinae												
Pandemis Hübner, 1825												
– corylana (Fabricius, 1794)		●	●	●	●	●	●	●	●	●	●	●
– cerasana (Hübner, 1786)		●	●	●	●	●	●	●	●	●	●	●
– cinnamomeana (Treitschke, 1830)		●	●		●		●	●	●	●	●	●
– heparana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– dumetana (Treitschke, 1835)		●	●	●	●	●	●	●	●	●	●	●
Argyrotaenia Stephens, 1852												
– ljungiana (Thunberg, 1797)	69 n	●	●	●	●	●			●	●	●	
Choristoneura Lederer, 1859												
– diversana (Hübner, 1817)			●							●		●
– hebenstreitella (Müller, 1764)		●	●	●	●	●	●	●	●	●	●	●
Archips Hübner, 1822												
– oporana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– podana (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
– betulana (Hübner, 1787)		●	●	●	●	●		○			●	●
– crataegana (Hübner, 1799)		●	●				●	●			●	●
– xylosteana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– rosana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Syndemis Hübner, 1825												
– musculana (Hübner, 1799)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Dichelia Guenée, 1845	70 n											
– histrionana (Frölich, 1828)		●	●	●	●	●	●	●	●	●	●	●
Ptycholomoides Obraztsov, 1954												
– aeriferana (Herrich-Schäffer, 1851)		●	●	●	●	●	●	●	●	●	●	●
Aphelia Hübner, 1825												
– viburnana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	○	○	●	●	●
– paleana (Hübner, 1793)		●	●	●	●	●	●	●	●	●	●	●
– unitana (Hübner, 1799)		●	●			●	●	●		●	●	●
Clepsis Guenée, 1845												
– senecionana (Hübner, 1819)		●	●	●	●	●	●	●	●	●	●	●
– rurinana (Linnaeus, 1758)								●				●
– spectrana (Treitschke, 1830)		●	●	●	●	●	●	●	●	●	●	●
– consimilana (Hübner, 1817)		●	●	●		●	●	●	●	●	●	●
– pallidana (Fabricius, 1776)			●			●		●		●	●	●
Adoxophyes Meyrick, 1881												
– orana (Fischer von Röslerstamm, 1834)		●	●			●	●	●	●	●	●	●
Ptycholoma Stephens, 1829												
– lecheana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Lozotaenia Stephens, 1829												
– forsterana (Fabricius, 1781)		●	●		●	●	●	●	●	●	●	●
Paramesia Stephens, 1829												
– gnomana (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
Periclepsis Bradley, 1977	71 n											
– cinctana (Denis & Schiffermüller, 1775)		○	●	●	●	●	●	●	●	●	●	●
Epagoge Hübner, 1825												
– grotiana (Fabricius, 1781)		●	●	●		●	●	●	●		●	●
Capua Stephens, 1834												
– vulgana (Frölich, 1828)		●	●	●	●	●	●	●	●	●	●	●
Philedone Hübner, 1825												
– gerningana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Philedonides Obraztsov, 1954												
– lunana (Thunberg, 1784)		●	●	●	●	●	●		●	●	●	●
Ditula Stephens, 1829												
– angustiorana (Haworth, 1811)			●				○	○			●	●
Pseudargyrotoza Obraztsov, 1954												
– conwagana (Fabricius, 1775)		●	●	○	●	●	●	●	●	●	●	●
Eulia Hübner, 1825												
– ministrana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Cnephasia Curtis, 1826												
– longana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– communana (Herrich-Schäffer, 1851)		●	●	●		●	●	●	●	●	●	●
– stephensiana (Doubleday, 1849)		●	●	●	●	●	●	●	●	●	●	●
– asseclana (Denis & Schiffermüller, 1775)	72 n	●	●	●	●	●	●	●	●	●	●	●
– pasiuana (Hübner, 1799)			●	●	●	●	●	●	●	●	●	●
– genitalana Pierce & Metcalfe, 1915						●		●	●	●	●	●
– incertana (Treitschke, 1835)		●	●	●	●	●	●	●	●	●	●	●
Tortricodes Guenée, 1845												
– alternella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Exapate Hübner, 1825												
– congelatella (Clerck, 1759)							○	○			●	●
Neosphaleroptera Réal, 1953												
– nubilana (Hübner, 1799)		●	●	●	●		●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Eana Billberg, 1820												
– osseana (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
– incanana (Stephens, 1852)		●	●	●	●	●	●	●	●	●	●	●
– penziana (Thunberg, 1791)					●	●		●			●	●
Xerocnephasia Leraut, 1978	73 n											
– rigana (Sodoffsky, 1829)						●						
Aleimma Hübner, 1825												
– loeflingiana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Tortrix Linnaeus, 1758												
– viridana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Spatalistis Meyrick, 1907												
– bifasciana (Hübner, 1787)		●					●	●	●	●	●	●
Croesia Hübner, 1825												
– bergmanniana (Linnaeus, 1758)			●	○	●	●	●	●	●	●	●	●
– forsskaleana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– holmiana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Acleris Hübner, 1825												
– laterana (Fabricius, 1794)		●	●	●	●	●	●	●	●	●	●	●
– comariana (Lienig & Zeller, 1846)		●	●	●	●	●	●	●	●	●	●	●
– sparsana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– rhombana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– aspersana (Hübner, 1817)		●	●	●	●	●	●	●	●	●	●	●
– ferrugana (Denis & Schiffermüller, 1775)		●	●			●	●	●	●	●	●	●
– notana (Donovan, 1806)			●	●	○	●	●	●	●	●	●	●
– quercinana (Zeller, 1849)				●	●							○
– shepherdana (Stephens, 1852)		●	●	●	●	●	○	●	●	●	●	●
– variegana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– permutana (Duponchel, 1836)			●	●	●			●		●		●
– logiana (Clerck, 1759)			●			●	●	●	●	●	●	●
– hastiana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– cristana (Denis & Schiffermüller, 1775)			●				●	●				●
– hyemana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– fimbriana (Thunberg, 1791)						○						
– lipsiana (Denis & Schiffermüller, 1775)			●	●	●	●	○		●		●	●
– rufana (Denis & Schiffermüller, 1775)			○		○			●	○	○	●	
– lorquiniana (Duponchel, 1835)							●	●	○		●	●
– abietana (Hübner, 1822)	44 f	●	●	●	●	●	●	●	●	●	●	●
– maccana (Treitschke, 1835)			●	●	○	●	○	●		●	●	●
– literana (Linnaeus, 1758)		●	●	○	●	●	●	●	●	●	●	●
– emargana (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
Trachysmia Guenée, 1845	74 n											
– sodaliana (Haworth, 1811)			●			●	●	●	●	●		●
– inopiana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
Cochylimorpha Razowski, 1959	75 n											
– hilarana (Herrich-Schäffer, 1851)						●		●	●	●	○	●
– woliniana (Schleich, 1868)												●
– straminea (Haworth, 1811)			●		●		●	●	●	●	●	○
– alternana (Stephens, 1834)		●	●	●	●	●	●	●	●	●	●	●
Phalonidia Le Marchand, 1933												
– gilvicomana (Zeller, 1847)			●	○	●		●	●	●	●	●	●
– curvistrigana (Stainton, 1859)			●		●	●	●	●	●	●	●	●
– manniana (Fischer von Röslerstamm, 1839)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– affinitana (Douglas, 1846)		●	●	●	●	●	●	●	●	●	●	●
– luridana (Gregson, 1870)									●		●	●
– vectisana (Humphreys & Westwood, 1845)		●	●	●	●	●	●	●	●	●	●	●
– alismana (Ragonot, 1883)			●	●	●	●	●	●	●	●	●	●
– minimana (Caradja, 1916)					●	●	●		●		●	●
– permixtana (Denis & Schiffermüller, 1775)			●					●	●		●	●
Agapeta Hübner, 1822												
– hamana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– zoegana (Linnaeus, 1767)		●	●		●	●	●	●	●	●	●	●
Eupoecilia Stephens, 1829												
– angustana (Hübner, 1799)		●	●	●	●	●	●	●	●	●	●	●
– ambiguella (Hübner, 1796)		●	●	●		●	●	●	●	●	●	●
Aethes Billberg, 1820												
– cnicana (Westwood, 1854)		●	●	●	●	●	●	●	●	●	●	●
– rubigana (Treitschke, 1830)		●	●		●	●	●	●	●	●	●	●
– margaritana (Haworth, 1811)		●	●	●		●	●	●	●	●	●	●
– smeathmanniana (Fabricius, 1781)		●	●	●	●	●	●	●	●	●	●	●
– rutilana (Hübner, 1817)			●			●	●	●		●	●	●
– tesserana (Denis & Schiffermüller, 1775)							●	●	●	●	○	●
– hartmanniana (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– dilucidana (Stephens, 1852)						●						
– francillana (Fabricius, 1794)		○	●				●	●	●	●	●	●
– beatricella (Walsingham, 1898)			●				●	●	●	●	○	●
– kindermanniana (Treitschke, 1830)			●		○	●	●	●	●	●	●	●
Cochylidia Obraztsov, 1956												
– rupicola (Curtis, 1834)		●	●				●	●	●	●	●	●
– heydeniana (Herrich-Schäffer, 1851)			●		●	●	●	●	●	●	●	●
– moguntiana (Rössler, 1864)								●	●			
– implicitana (Wocke, 1856)		●	●			●	●	●	●	●	●	●
Cochylis Treitschke, 1829												
– flaviciliana (Westwood, 1854)		●	●	●	●	●	●	●	●	●	●	●
– hybridella (Hübner, 1813)							●	●	●	●		
– dubitana (Hübner, 1799)		●	●	●	●	●	●	●	●	●	●	●
– atricapitana (Stephens, 1852)		●	●			●	●	●	●	●	●	●
– pallidana Zeller, 1847			●	●	●	●	●	○	○	●	●	●
– posterana Zeller, 1847		●	●			●	●	●	●	●	●	●
– epilinana (Duponchel, 1843)												●
– nana (Haworth, 1811)			●	●	●	●	●	●	●	●	●	●
Falseuncaria Obraztsov & Swatschek, 1958												
– ruficiliana (Haworth, 1811)		●	●	●	●	●	○	●	●	●	●	●
– degreyana (McLachlan, 1869)			●		●	●	●	●	●	●	●	
Sparganothis Hübner, 1825												
– pilleriana (Denis & Schiffermüller, 1775)										●		●
Chlidanotinae												
Olindia Guenée, 1845												
– schumacherana (Fabricius, 1787)		●	●			○	●	●	●	●	●	●
Isotrias Meyrick, 1895												
– rectifasciana (Haworth, 1811)							●	●				

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Olethreutinae												
Celypha Hübner, 1825												
– striana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– rosaceana (Schläger, 1847)		●	●	●	●	●	●	●	●	●	●	●
– rufana (Scopoli, 1763)			●	●	●	●	●	●	●	●	●	●
– rurestrana (Duponchel, 1843)						●	○	●				●
– flavipalpana (Herrich-Schäffer, 1848)												●
– cespitana (Hübner, 1817)		●	●	●	●	●	●	●	●	●	●	●
Olethreutes, Hübner, 1822												
– arcuella (Clerck, 1759)		○	●	●	●	●	●	●	●	●	●	●
– dalecarliana (Guenée, 1845)						●					●	○
– siderana (Treitschke, 1835)		●	●	●		●	●	●		●	●	●
– bifasciana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– umbrosana (Freyer, 1842)			●			●	○	●	●	●	●	
– dissolutana (Stange, 1886)			●	●				●		●	●	●
– mygindiana (Denis & Schiffermüller, 1775)			●	●	●	●	●	●	●	●	●	
– arbutella (Linnaeus, 1758)			●	●	●	●						
– tiedemanniana (Zeller, 1845)			●	●	●	●	●	●	●	●	●	●
– lacunana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– bipunctana (Fabricius, 1794)			●			●			●		●	●
– olivana (Treitschke, 1830)		●	●	●	●	●	●	●	●	●	●	●
– palustrana (Lienig & Zeller, 1846)		○	●	●		●	●	●	●	●	●	●
– metallicana (Hübner, 1799)			●			●					●	
– schulziana (Fabricius, 1776)	36 n	●	●	●	●	●	●	●	●	●	●	●
– turfosana (Herrich-Schäffer, 1851)											●	●
– aurofasciana (Haworth, 1811)			○			●		○			○	
– rivulana (Scopoli, 1763)			●	●	●	●	●	●	●	●	●	●
Pristerognatha Obraztsov, 1960												
– fuligana (Denis & Schiffermüller, 1775)		●	●				●	●	●	●	●	
– penthinana (Guenée, 1845)		●	●			●	●	●	●	●	●	
Pseudohermenias Obraztsov, 1960												
– abietana (Fabricius, 1887)		●	●	●	●	●	●	●	●	●	●	●
Hedya Hübner, 1825												
– pruniana (Hübner, 1799)		●	●		●	●	●	●	●	●	●	●
– dimidioalba (Retzius, 1783)	76 n	●	●	●	●	●	●	●	●	●	●	●
– ochroleucana (Frölich, 1828)		○	●	●	●	●	●	●	●	●	●	●
– atropunctana (Zetterstedt, 1839)		●	●	●	●	●	●	●	●	●	●	●
– dimidiana (Clerck, 1759)								●	●			
– roseomaculana (Herrich-Schäffer, 1851)											●	●
– salicella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Cymolomia Lederer, 1859												
– hartigiana (Saxesen, 1840)			●	●		●	●	●	●	●	●	●
Orthotaenia Stephens, 1829												
– undulana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Pseudosciaphila Obraztsov, 1966												
– branderiana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Apotomis Hübner, 1825												
– semifasciana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– infida (Heinrich, 1926)		●	●	●		●	●	●	●	●		
– lineana (Denis & Schiffermüller, 1775)							●	●	●	●	●	●
– turbidana Hübner, 1825		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– capreana (Hübner, 1817)		●	●	●	●	●	●	●	●	●	●	●
– betuletana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– sororculana (Zetterstedt, 1839)		●	●	●	●	●	●	●	●	●	●	●
– sauciana (Frölich, 1828)		●	●		●	●		●			●	●
– inundana (Denis & Schiffermüller, 1775)						●		●				●
Endothenia Stephens, 1852												
– oblongana (Haworth, 1811)			●			●	●	●	●	●		●
– marginana (Haworth, 1811)			●		●	●			●	●	●	●
– ustulana (Haworth, 1811)							●	●	●			
– nigricostana (Haworth, 1811)		●	●				●	●	●	●	●	●
– trifoliana (Herrich-Schäffer, 1851)	77 n	●	●	●	●	●	●	●	●	●	●	●
– quadrimaculana (Haworth, 1811)		○	●	○	●	●	●	●	●	●	●	●
Lobesia Guenée, 1845												
– reliquana (Hübner, 1825)		●	●	●	●	●	●	●	●	●	●	●
– littoralis (Humphreys & Westwood, 1845)		○	●	●	●	●	●	●	●	●	●	●
– bicinctana (Duponchel, 1844)			●			●	●	●		●	●	
– abscisana (Doubleday, 1849)		●	●	●	●	●	●	●	●	●	●	●
Bactra Stephens, 1834												
– robustana (Christoph, 1872)		●	●	●	●	●	●	●	●	●	●	●
– lancealana (Hübner, 1799)		●	●	●	●	●	●	●	●	●	●	●
– furfurana (Haworth, 1811)	46 f	●	●	●	●	●	●	●	●	●	●	●
Eudemis Hübner, 1825	47 f											
– profundana (Denis & Schiffermüller, 1775)			●	●	●	●	●	●	●	●	●	●
– porphyrana (Hübner, 1799)			●				●	●	●	●	●	●
Ancylis Hübner, 1825												
– laetana (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
– uncella (Denis & Schiffermüller, 1775)		●	●	●	●	●	○	●	●	●	●	●
– unguicella (Linnaeus, 1758)		●	●	●	●	●	○	●	○	●	●	●
– mitterbacheriana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– upupana (Treitschke, 1835)			●		●	●	●	●		●	●	●
– geminana (Donovan, 1806)	48 f	●	●	●	●	●	●	●	●	●	●	●
– diminutana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– obtusana (Haworth, 1811)			●					●				●
– selenana (Guenée, 1845)								●	●	●	●	
– tineana (Hübner, 1799)			●			●		●	●	●	●	
– achatana (Denis & Schiffermüller, 1775)			●		●	●	●	●	●	●	●	●
– badiana (Denis & Schiffermüller, 1775)		○	●	●	●	●	●	●	●	●	●	●
– myrtillana (Treitschke, 1830)			●	●	●	●		●	●	●	●	●
– unculana (Haworth, 1811)		●	●	●		●	●	●	●	●	●	●
– apicella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Epinotia Hübner, 1825												
– trigonella (Linnaeus, 1758)	78 n	●	●	●	●	●	●	●	●	●	●	●
– sordidana (Hübner, 1824)		●	●	●	●	●	●	●	●	●	●	●
– solandriana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– brunnichana (Linnaeus, 1767)			●	●	●	●	●	●	●	●	●	●
– maculana (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
– caprana (Fabricius, 1798)		●	●	●	●	●	●	●	●	●	●	●
– abbreviana (Fabricius, 1794)		●	●	●	●	●	●	●	●	●	●	●
– subocellana (Donovan, 1806)		●	●	●	●	●	●	●	●	●	●	●
– bilunana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– ramella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– demarniana (Fischer von Röslerstamm, 1840)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– immundana (Fischer von Röslerstamm, 1839) ..		●	●	●	●	●	●	●	●	●	●	●
– tetraquetrana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– nisella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– tenerana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– nigricana (Herrich-Schäffer, 1851).....		●	○	●	●	●	●	●	●	●	●	●
– nemorivaga (Tengström, 1848)				●	●	●						
– tedella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– fraternana (Haworth, 1811).....		●	●	●	●	●	●	●	●	●	●	●
– signatana (Douglas, 1845)			●			○	●	●	●	●	●	●
– granitana (Herrich-Schäffer, 1851)		●	●	●	●	●	●	●	●	●	●	●
– rubiginosana (Herrich-Schäffer, 1851)		●	●	●	●	●	●	●	●	●	●	●
– cruciana (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– gimmerthaliana (Lienig & Zeller, 1846)											●	
– nanana (Treitschke, 1835).....		●	●	●	●	●	●	●	●	●	●	●
– crenana (Hübner, 1817).....			●		●	●					●	
– pygmaeana (Hübner, 1799).....		●	●	●	●	●	●	●	●	●	●	●
– subsequana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	
Crocidosema Zeller, 1847												
– plebejana Zeller, 1847				●								
Rhopobota Lederer, 1859	79 n											
– ustomaculana (Curtis, 1831).....			●	●	●	●		●		●	●	
– naevana (Hübner, 1817)	80 n	●	●	●	●	●	●	●	●	●	●	●
– stagnana (Denis & Schiffermüller, 1775)		●	●	●	●	●	○		●	●	●	●
– myrtillana (Humphreys & Westwood, 1845)		●	●	●	●	●	○	●	●	●	●	○
Zeiraphera Treitschke, 1829												
– ratzeburgiana (Saxesen, 1840)		○	●	●	●	●	●	●	●	●	●	●
– rufimitrana (Herrich-Schäffer, 1851).....		○	●	●	●	●	●	●	○		●	●
– isertana (Fabricius, 1794)		●	●	●	●	●	●	●	●	●	●	●
– griseana (Hübner, 1799)	81 n		●	●	●	●	●	●	●	●	●	●
Gypsonoma Meyrick, 1895												
– dealbana (Frölich, 1828)		●	●	●	●	●	●	●	●	●	●	●
– aceriana (Duponchel, 1843)		○	●	●	●	●	●	●	●	●	●	●
– minutana (Hübner, 1799)								●	●		●	●
– sociana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– oppressana (Treitschke, 1835)		●	●		●	●	●	●	●	●	●	●
– nitidulana (Lienig & Zeller, 1846)		●	●	●		●						
Gibberifera Obraztsov, 1946												
– simplana (Fischer von Röslerstamm, 1836)			●		●	●		●	●	●	●	●
Epiblema Hübner, 1825												
– cynosbatella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– uddmanniana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– junctana (Herrich-Schäffer, 1856)							●	●	●		●	●
– trimaculana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– rosaecolana (Doubleday, 1850)		●	●	●	●	●	●	●	●	●	●	●
– roborana (Denis & Schiffermüller, 1775)		○	●	●	●	●	●	●	●	●	●	●
– incarnatana (Hübner, 1800)		●	●	●	●	●	○	●	●	●	●	●
– grandaevana (Lienig & Zeller, 1846)		●	●	●	●	●	●	●	●	●	●	●
– foenella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– sticticana (Fabricius, 1794)	82 n	●	●	●	●	●	●	●	●	●	●	●
– scutulana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– cirsiana (Zeller, 1843)			●				●	●	●	●	●	●
– obscurana (Herrich-Schäffer, 1851).....												●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– graphana (Treitschke, 1835)			●			●	●	●	●	●	●	●
Pelochrista Lederer, 1859												
– caecimaculana (Hübner, 1799)			●				●	●	●	●	●	●
– huebneriana (Lienig & Zeller, 1846)						●						●
– infidana (Hübner, 1824)			●			●		●	●	●	●	●
Eriopsela Guenée, 1845												
– quadrana (Hübner, 1813)		●	●		●	●						○
Eucosma Hübner, 1823												
– hohenwartiana (Denis & Schiffermüller, 1775)		●	●	●		●	●	●	●	●	●	●
– balatonana (Osthelder, 1937)								●	●	●		●
– cana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– obumbratana (Lienig & Zeller, 1846)		●	●	●	●	●	●	●	●	●	●	●
– krygeri (Rebel, 1937)										●	●	
– pupillana (Clerck, 1759)			●			●		●	●	●	○	●
– maritima (Humphreys & Westwood, 1845)		●	●	●	●	●	●	●	●	●	●	●
– metzneriana (Treitschke, 1830)								●				
– aemulana (Schläger, 1849)			●			●	●	●	●	●	●	●
– aspidiscana (Hübner, 1817)			●	●			●					
– tripoliana (Barret, 1880)		●	●	●	●	●	●	●	●	●	●	
– catoptrana (Rebel, 1903)				●								
– conterminana (Guenée, 1845)						●	●	●	●	●	●	●
– campoliliana (Denis & Schiffermüller, 1775)		●	●	●			●	●	●	●	●	●
– messingiana (Fischer von Röslerstamm, 1837)			●					●	●	●	●	●
Thiodia Hübner, 1825												
– citrana (Hübner, 1799)		○	●	●	●	●	●	●	●	●	●	●
Spilonota Stephens, 1829												
– ocellana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– laricana (Heinemann, 1863)		●	●	●	●	●	●	●	●	●	●	●
Blastesthia Obraztsov, 1960												
– posticana (Zetterstedt, 1839)			●				●	●		●	●	●
– turionella (Linnaeus, 1758)			●	●	●	●	●	●	●	●	●	●
Rhyacionia Hübner, 1825												
– buoliana (Denis & Schiffermüller, 1775)			●	●	●	●	●	●	●	●	●	●
– pinicolana (Doubleday, 1849)		●	●	●	●	●	●	●	●	●	●	●
– pinivorana (Lienig & Zeller, 1846)		●	●	●	●	●	●	●	●	●	●	●
– duplana (Hübner, 1813)	49 f		●	●	●	●	○		●	●	●	
– logaea Durrant, 1911											●	
Retinia Guenée, 1845	83 n											
– resinella (Linnaeus, 1758)		●	●	●	●	●				●	●	●
Enarmonia Hübner, 1826												
– formosana (Scopoli, 1763)		●	●		○	●	●	●	●	●	●	●
Froelichia Obraztsov, 1960												
– textana (Frölich, 1828)		●	●	●	●	●	●	●	●	●	●	
Eucosmomorpha Obraztsov, 1951												
– albersana (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
Lathronympha Meyrick, 1926												
– strigana (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
Collicularia Obraztsov, 1960												
– microgrammana (Guenée, 1845)			●				●	●	●	●	●	●
Strophedra Herrich-Schäffer, 1854												
– weirana (Douglas, 1850)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– nitidana (Fabricius, 1794)		●	●	●		●	●	●	●	●	●	●
Pammene Hübner, 1825												
– luedersiana (Sorhagen, 1885)			●	●	●	●			●		●	
– splendidulana (Guenée, 1845)		●	●	●	●	●	●	●	●	●	●	●
– obscurana (Stephens, 1834)		●	●	●	●	●	●	●		●	●	●
– agnotana Rebel, 1914			●		●		●	●	●	●	●	
– inquilina T. Fletcher, 1938	84 n	●	●	●	●	●	●	●		●	●	●
– argyrana (Hübner, 1799)		●	●	●	●	●	●	●	●	●	●	●
– ignorata Kuznetsov, 1968								●	●	●	●	●
– albuginana (Guenée, 1845)		●	●	●	●	●	●	●	●	●	●	●
– suspectana (Lienig & Zeller, 1846)							●	●	●	●	○	○
– spiniana (Duponchel, 1843)							○	●	●	●		●
– populana (Fabricius, 1787)		●	●		●	●	○	●	●	●	●	●
– aurantiana (Staudinger, 1871)		●	●				●	●	●	●	●	●
– regiana (Zeller, 1849)			●		●	●	●	●	●	●	●	●
– trauniana (Denis & Schiffermüller, 1775)							●	●	●	●	●	
– fasciana (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– germmana (Hübner, 1799)							●	●	●		●	
– ochsenheimeriana (Lienig & Zeller, 1846)		●	●	●	●	●	●	●	●	●	●	○
– rhediella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
Cydia Hübner, 1825												
– succedana (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– pactolana (Zeller, 1840)		●	●	●	●		●	●	●	●	●	●
– duplicana (Zetterstedt, 1839)			●	●	●	●		●		●	●	●
– aurana (Fabricius, 1775)		○	○				●	●	○		●	●
– servillana (Duponchel, 1836)			●	●	●	●	●	●	●	●	●	●
– splendana (Hübner, 1799)		●	●	●	●	●	●	●	●	●	●	●
– fagiglandana (Zeller, 1841)		●	●	●		●	●	●	●	●	●	●
– gallicana (Guenée, 1845)		●	●	●	●	●	●	●	●	●	●	●
– conicolana (Heylaerts, 1874)							●	●	●	●	●	
– rusticella (Clerck, 1759)	85 n	●	●	●	●	●	●	●	●	●	●	●
– zebeana (Ratzeburg, 1840)									●			
– cosmophorana (Treitschke, 1835)			●	●	●	●	●	●		●	●	●
– cognatana (Barrett, 1874)				●	●	●		●			●	
– coniferana (Saxesen, 1840)		●	●	●	●	●	●	●	●	●	●	●
– indivisa (Danilevsky, 1963)		●		●			●	●	●	●	●	
– illutana (Herrich-Schäffer, 1851)							●	●	●		●	●
– pomonella (Linnaeus, 1758)		●	●	○	●	●	●	●	●	●	●	●
– corollana (Hübner, 1823)	50 f		●									
– medicaginis (Kuznetsov, 1962)											●	●
– leguminana (Leinig & Zeller, 1846)								●				
– inquinatana (Hübner, 1799)								●			●	
– strobilella (Linnaeus, 1758)			●	●		●	●	●	●	●	●	○
– janthinana (Duponchel, 1835)			●	○	●	○	●	●	●	●	●	●
– tenebrosana (Duponchel, 1843)		●	●	●	●	●	●	●	●	●	●	●
– andabatana (Wolff, 1957)												●
– funebrana (Treitschke, 1835)			●	●	●	●	●	●	●	●	●	●
– jungiella (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– discretana (Wocke, 1861)			●				○	●			●	○
– lunulana (Denis & Schiffermüller, 1775)			●	●	●	●	●			●	●	●
– orobana (Treitschke, 1830)			●			●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– compositella (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
– pallifrontana (Leinig & Zeller, 1846)		●	●			●	●	●	●	●	●	●
Dichrorampha Guenée, 1845												
– petiverella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– alpinana (Treitschke, 1830)										●		
– flavidorsana Knaggs, 1867		●	●	●	●	●	●	●	●	●	●	●
– plumbagana (Treitschke, 1830)		●	●	●	●	●	●	●	●	●	●	●
– obscuratana (Wolff, 1955)	51 f	●	●	●	●		●	●	●	●	●	●
– incognitana (Kremky & Maslowski, 1933)			●	●				●			●	●
– acuminatana (Lienig & Zeller, 1846)		●	●	●	●	●	●	●	●	●	●	●
– simpliciana (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– sylvicolana Heinemann, 1863			●	●	●	●			●	●	●	
– gueneeana Obraztsov, 1953	52 f		●	●	●	●	●	●	●	●	●	●
– agilana (Tengström, 1848)		●	●	●	●		●	●	●	●	●	●
– plumbana (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
– sedatana Busck, 1906		●	●	●	●		●	●	●	●	●	●
– aeratana (Pierce & Metcalfe, 1915)			●					●	●	●	●	
SESIOIDEA												
CHOREUTIDAE (Ole Karsholt, Knud Larsen & Karsten Schnack)												
Anthophila Haworth, 1811												
– fabriciana (Linnaeus, 1767)		●	●	●	●	●	●	●	●	●	●	●
Prochoreutis Diakonoff & Heppner, 1980	86 n											
– sehestediana (Fabricius, 1776)		●	●			●	●	●	●	●	●	●
– myllerana (Fabricius, 1794)		○	●	●	○	●	●	●	●	●	●	●
Tebenna Billberg, 1820												
– bjerkandrella (Thunberg, 1784)								●				
Choreutis Hübner, 1825	86 n											
– pariana (Clerck, 1759)											●	●
– diana (Hübner, 1822)						●	○					○
SESIIDAE (Svend Kaaber)												
Tinthiinae												
Pennisetia Dehne, 1850												
– hylaeiformis (Laspeyres, 1801)		●	●	●	●	●	●	●	●	●	●	●
Sesiinae												
Sesia Fabricius, 1775												
– melanocephala Dalman, 1816			●		●	●						
– apiformis (Clerck, 1759)		●	●			●	●	●	●	●	●	
– bembeciformis (Hübner, 1806)		●	●				●				●	●
Paranthrene Hübner, 1819												
– tabaniformis (Rottemburg, 1775)		●	●			●						●
Synanthedon Hübner, 1819												
– scoliaeformis (Borkhausen, 1789)			●						●		●	
– spheciformis (Denis & Schiffermüller, 1775)		●	●	●		●	●	●	●		●	●
– culiciformis (Linnaeus, 1758)		●	●		●	●	●	●	●	●	●	●
– formicaeformis (Esper, 1783)	53 f	●	●	●	●	●		●		●	●	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– tipuliformis (Clerck, 1759)		○	●		○	●	●	●	○	●	●	●
– flaviventris (Staudinger, 1883)												●
– vespiformis (Linnaeus, 1761)									○			
Bembecia Hübner, 1819												
– scopigera (Scopoli, 1763)			●	○	●	●	●	●	●	●	●	●
– muscaeformis (Esper, 1783)			●	●	●	●	●	●	●	●	●	
SCHRECKENSTEINIOIDEA												
SCHRECKENSTEINIIDAE (Karsten Schnack)												
Schreckensteinia Hübner, 1825												
– festaliella (Hübner, 1819)		●	●	●	●		●	●	●	●	●	●
EPERMENIOIDEA												
EPERMENIIDAE (Karsten Schnack)												
Phaulernis Meyrick, 1895												
– dentella (Zeller, 1839)			●				●	●	●	●	●	
– fulviguttella (Zeller, 1839)			●	●	●	●	●	●	●	●	●	
Cataplectica Walsingham, 1894												
– profugella (Stainton, 1856)			●	●	●			●			●	
Epermenia Hübner, 1825												
– illigerella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– chaerophyllella (Goeze, 1783)		●	●			●		○			○	●
ALUCITOIDEA												
ALUCITIDAE (Karsten Schnack)												
Alucita Linnaeus, 1758												
– hexadactyla (Linnaeus, 1758)			●	●	●	●	●	●	●	●	●	●
– grammodactyla Zeller, 1841								●	○			
PTEROPHOROIDEA												
PTEROPHORIDAE (Karsten Schnack)												
Agdistinae												
Agdistis Hübner, 1825												
– bennetii (Curtis, 1833)								●	●			
Platyptiliinae												
Oxyptilus Zeller, 1841												
– pilosellae (Zeller, 1841)		●	●	●	●	●	●	●	●	●	●	●
– chrysodactyla (Denis & Schiffermüller, 1775)								●				●
– ericetorum (Zeller, 1844)			○		○				○	○	●	
– parvidactyla (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– distans (Zeller, 1847)	87 n							●				●
Geina Tutt, 1906												
– didactyla (Linnaeus, 1758)			●		●		●	●	●	●	●	●
Buckleria Tutt, 1905												
– paludum (Zeller, 1839)							●	●	●		●	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Cnaemidophorus Wallengren, 1862												
– rhododactyla (Denis & Schiffermüller, 1775) ...						●		●	●		●	●
Amblyptilia Hübner, 1825												
– acanthadactyla (Hübner, 1813)		○	○			●	●	●	●			●
– punctidactyla (Haworth, 1811)		●	●	●			●	●	●	●	●	●
Platyptilia Hübner, 1825												
– tesseradactyla (Linnaeus, 1761)						●						
– calodactyla (Denis & Schiffermüller, 1775)	54 f											●
– gonodactyla (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– isodactylus (Zeller, 1852)				●	●		●	●		●		
– ochrodactyla (Denis & Schiffermüller, 1775) ...		●	●	●	●	●	●	●	●	●	●	●
– pallidactyla (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
– capnodactylus (Zeller, 1841)								●	○		●	
Stenoptilia Hübner, 1825												
– pneumonanthes (Büttner, 1880)	88n,55f	●		●	●	●						
– pelidnodactyla (Stein, 1837)			●	●	●	●	●	●	●	●		●
– zophodactylus (Duponchel, 1840)								●	●	●		
– bipunctidactyla (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
– pterodactyla (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
Pterophorinae												
Pterophorus Schäffer, 1766												
– tridactyla (Linnaeus, 1758)		●					●	●	●	●		
– fuscolimbatus (Duponchel, 1844)			●	●	●	●						
– baliodactylus Zeller, 1841			●					●	●		●	
– pentadactyla (Linnaeus, 1758)		○	●	●	●	●	●	●	●	●	●	●
– galactodactyla (Denis & Schiffermüller, 1775) ..			●				○	●	●	●	●	
Pselnophorus Wallengren, 1881												
– heterodactyla (Müller, 1764)			●	○		●	○	●	●	●	●	●
Adaina Tutt, 1905												
– microdactyla (Hübner, 1813)			●	●		●	●	●	●	●	●	●
Leioptilus Wallengren, 1862												
– scarodactyla (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– distinctus (Herrich-Schäffer, 1855)			●			●	●	●		●	●	●
– osteodactylus (Zeller, 1841)			●		●	●		●	●			●
– tephradactyla (Hübner, 1813)		●	●	●	●	●	○	●	●	●	○	●
– lienigianus (Zeller, 1852)		●	●	●	●	●	●	●	●	●	●	●
Oidaematophorus Wallengren, 1862												
– lithodactyla (Treitschke, 1833)								●	○		●	●
Emmelina Tutt, 1905												
– monodactyla (Linnaeus, 1758)		○	●	●	●	●	●	●	●	●	●	●
PYRALOIDEA												
PYRALIDAE (Eivind Palm)	128 f											
Galleriinae												
Galleria Fabricius, 1798												
– mellonella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Achroia Hübner, 1819												
– grisella (Fabricius, 1794)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Aphomia Hübner, 1825												
– sociella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Melissoblaptes Zeller, 1839												
– zelleri (Joannis, 1932)		●		●		●		●	●		●	●
Phycitinae												
Anerastia Hübner, 1825												
– lotella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
Cryptoblabes Zeller, 1848												
– bistriga (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
Oncocera Stephens, 1829	89 n											
– semirubella (Scopoli, 1763)		●	●	●			●	●	●	●		●
Laodamia Ragonot, 1888	89 n											
– faecella (Zeller, 1839)						●		●				●
Pempelia Hübner, 1825	90 n											
– palumbella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	○	●	●	●
– formosa (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
Salebriopsis Hannemann, 1965												
– albicilla (Herrich-Schäffer, 1849)								●				
Sciota Hulst, 1888	91 n											
– rhenella (Zincken, 1818)												○
– hostilis (Stephens, 1834)			●	●	●	●	●	●	●	●	●	●
– adelphella (Fischer von Röslerstamm, 1836)			●		●		●	●	●	●	●	●
Selagia Hübner, 1825												
– argyrella (Denis & Schiffermüller, 1775)												●
– spadicella (Hübner, 1796)			●			●	●	●	●	●	●	○
Phycita Curtis, 1828												
– roborella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Dioryctria Zeller, 1846												
– abietella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– mutatella Fuchs, 1903			●	●	●	●	●	●	●	●	●	●
– schuetzeella Fuchs, 1899		●	●	●	●	●	●	●	●	●	●	●
– sylvestrella (Ratzeburg, 1840)				●							○	●
Hypochalcia Hübner, 1825												
– ahenella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Microthrix Ragonot, 1888												
– similella (Zincken, 1818)								●		●	●	●
Metriostola Ragonot, 1893												
– vacciniella (Lienig & Zeller, 1846)											○	
– betulae (Goeze, 1778)		●	●	●	●	●	●	●	●	●	●	●
Pyla Grote, 1882												
– fusca (Haworth, 1811)		●	●	●	●	●	●	●	●	●	●	●
Etiella Zeller, 1839												
– zinckenella (Treitschke, 1832)												●
Pima Hulst, 1888												
– boisduvaliella (Guenée, 1845)		●	●	●	●	●		●	●	●	●	●
Pseudosyria Rebel, 1927	90 n											
– dilutella (Denis & Schiffermüller, 1775)			●	●	●	●	●	●	●	●	●	●
– ornatella (Denis & Schiffermüller, 1775)		○	●	●	●	●		●	●	●	●	●
Acrobasis Zeller, 1839												
– tumidana (Denis & Schiffermüller, 1775)												●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– repandana (Fabricius, 1798)		●	●	●		●	●	●	●	●	●	●
– consociella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
Numonia Ragonot, 1893	90 n											
– suavella (Zincken, 1818)										●		●
– advenella (Zincken, 1818)		●	●	●	●	●	●	●	●	●	●	●
– marmorea (Haworth, 1811)			●			●	●	●	●	●	●	●
Nephopterix Hübner, 1825	91 n											
– angustella (Hübner, 1796)								●	○			
Myelois Hübner, 1825												
– circumvoluta (Fourcroy, 1785)	92 n		○	○			●	●			●	●
– cirrigerella (Zincken, 1818)			●								○	○
Apomyelois Heinrich, 1956												
– bistriatella (Hulst, 1887)			●		●	●	●	●	●		○	●
Gymnancyla Zeller, 1848												
– canella (Denis & Schiffermüller, 1775)				○								
Zophodia Hübner, 1825												
– grossulariella (Zincken, 1818)	94 n		●			●	●	●	●	●	●	●
Assara Walker, 1863												
– terebrella (Zincken, 1818)			●			●	○	●	●	●	●	●
Euzophera Zeller, 1867												
– pinguis (Haworth, 1811)		●	●			●	●	●	●	●	●	●
– cinerosella (Zeller, 1839)			●			●		●	●	●		●
– fuliginosella (Heinemann, 1865)												●
Nyctegretis Zeller, 1848												
– lineana (Scopoli, 1786)	95 n	●	●	●	●	●	●	●	●	●	●	●
Ancylosis Zeller, 1839												
– oblitella (Zeller, 1848)				●	●		●	●				
Homoeosoma, Curtis, 1833												
– sinuella (Fabricius, 1794)			●							●	●	●
– nebulella (Denis & Schiffermüller, 1775)		●	○				●		●		○	●
– nimbella (Duponchel, 1836)		●	●	●	●	●	●		●	●	●	●
Phycitodes Hampson, 1917												
– maritima (Tengström, 1848)	96 n	●	●	●	●	●	●	●	●	●	●	●
– binaevella (Hübner, 1813)		●	●	●		●	●	●	●	●	●	●
– saxicola (Vaughan, 1870)			●	●	●	●	●	●		●	●	●
– albatella (Ragonot, 1887)		●	●	●		●	●	●	●	●	●	●
Vitula Ragonot, 1887												
– edmandsii (Packard, 1864)	97 n			●	●	●	●	●		●	●	●
– biviella (Zeller, 1848)			●			●		●	●	●	●	●
Plodia Guenée, 1845												
– interpunctella (Hübner, 1813)			●		●	●	●	●	●	●	●	●
Ephestia Guenée, 1845												
– kuehniella Zeller, 1879		○	●	●	○	○	●	●	●	●	●	●
– mistralella (Millière, 1874)			●			●				●	●	●
– elutella (Hübner, 1796)		●	●	●	●	●	●	●	●	●	●	●
Cadra Walker, 1864												
– cautella (Walker, 1863)			●	○			●		○	●	●	●
Pyralinae												
Hypsopygia Hübner, 1825												
– costalis (Fabricius, 1775)							●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Synaphe Hübner, 1825												
– punctalis (Fabricius, 1775)	98 n	●	●				●	●	●	●	●	●
Orthopygia Ragonot, 1890												
– glaucinalis (Linnaeus, 1758)		●	●	●		●	●	●	●	●	●	●
Pyralis Linnaeus, 1758												
– farinalis (Linnaeus, 1758)		●	●	●	○		●	●	●	●	●	●
Aglossa Latreille, 1796												
– pinguinalis (Linnaeus, 1758)		○	●	●	●	●	●	●	●	●	●	●
Endotricha Zeller, 1847												
– flammealis (Denis & Schiffermüller, 1775)			●	●		●	●	●	●	●	●	●
Nymphulinae												
Acentria Stephens, 1829												
– ephemerella (Denis & Schiffermüller, 1775)	100 n	●	●	●	●	●	●	●	●	●	●	●
Elophila Hübner, 1822	99 n											
– nymphaeata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Cataclysta Hübner, 1825												
– lemnata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Parapoynx Hübner, 1825												
– stratiotata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Nymphula Schrank, 1802	99 n											
– stagnata (Donovan, 1806)		●	●	●	●	●	●	●	●	●	●	●
Schoenobiinae												
Schoenobius Duponchel, 1836												
– gigantella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– forficella (Thunberg, 1794)		●	●	●	●	●	●	●	●	●	●	●
Donacaula Meyrick, 1890												
– mucronella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Crambinae												
Euchromius Guenée, 1845												
– ocellea (Haworth, 1811)								●			●	●
Chilo Zincken, 1817												
– phragmitella (Hübner, 1810)		●	●	●	●	●	●	●	●	●	●	●
Calamotropha Zeller, 1863												
– paludella (Hübner, 1824)		●	●	●	●	●	●	●	●	●	●	●
Chrysoteuchia Hübner, 1825												
– culmella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Crambus Fabricius, 1798												
– pascuella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– silvella (Hübner, 1813)			●	○	●	●	●	●	●	●	●	●
– uliginosellus Zeller, 1850			●	○	●	●	○	●	○	●	●	●
– ericella (Hübner, 1813)			●	●				●			●	●
– alienellus (Germar & Kaulfuss, 1817)								○			●	
– heringiella Herrich-Schäffer, 1848			●			●	●	●	●	●	●	●
– pratella (Linnaeus, 1758)		●	●	●	●		●	●	●		●	●
– lathoniellus (Zincken, 1817)	101 n	●	●	●	●	●	●	●	●	●	●	●
– hamella (Thunberg, 1788)		●	●	●	●	●		●	●	●	●	●
– perlella (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Agriphila Hübner, 1825												
– deliella (Hübner, 1813)		○	●	●	●	●	●	●		●	●	●
– tristella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– inquinatella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– latistria (Haworth, 1811)		●		●	●	●	●	●	●	●		●
– aeneociliella (Eversmann, 1844)	56 f										○	
– selasella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– straminella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– poliellus (Treitschke, 1832)			●				●	●	●	●	●	●
– geniculea (Haworth, 1811)		●	●	●	●		●	●	●	●	●	●
Catoptria Hübner, 1825												
– permutatella (Herrich-Schäffer, 1848)		●	●	●	●	●	●	●	●	●	●	●
– osthelderi (Lattin, 1950)		○	●	●			●	●		●	●	●
– pinella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– margaritella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– fulgidella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– maculalis (Zetterstedt, 1839)							○					
– falsella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– verellus (Zincken, 1817)	57 f						●	●	○		○	
– lythargyrella (Hübner, 1796)		○	●	●	●	●	●	●	●	●	●	●
Thisanotia Hübner, 1825												
– chrysonuchella (Scopoli, 1763)			●			●	●	●	●	●	●	●
Pediasia Hübner, 1825												
– fascelinella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– contaminella (Hübner, 1796)							●	●	●	●	●	●
– aridella (Thungberg, 1788)		●	●	●	●	●	●	●	●	●	●	●
Platytes Guenée, 1845												
– cerussella (Denis & Schiffermüller, 1775)		●	●	●		●	●	●	●	●	●	●
– alpinella (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
Scopariinae	102 n											
Scoparia Haworth, 1811												
– subfusca Haworth, 1811		●	●		●	●	●	●	●	●	●	●
– pyralella (Denis & Schiffermüller, 1775)	103 n	●	●	●	●	●	●	●	●	●	●	●
– ambigualis (Treitschke, 1829)		●	●	●	●	●	●	●	●	●	●	●
– basistrigalis Knaggs, 1866		●	●	●	●		●	●	●	●	●	●
– conicella (La Harpe, 1863)	104 n		●	●			●	●	●	●	●	●
– ancipitella (La Harpe, 1855)	105 n	○	●	●	●	●	○	●	●	●	●	●
Dipleurina Chapman, 1912												
– lacustrata (Panzer, 1804)	106 n	●	●	●	●	●	●	●	●	●	●	●
Eudonia Billberg, 1820												
– mercurella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– pallida (Curtis, 1827)		●	●	●	●	●	●	●	●	●	●	●
– murana (Curtis, 1827)					●	●		●			●	
– truncicolella (Stainton, 1849)		●	●	●	●	●	●	●	●	●	●	●
– sudetica (Zeller, 1839)		●	●	●	●	●	○			●	●	○
– delunella (Stainton, 1849)	107 n		○				○	○	○		○	●
Evergestinae												
Evergestis Hübner, 1825												
– limbata (Linnaeus, 1767)			●					●	●		●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– aenealis (Denis & Schiffermüller, 1775)							●	●	●	●	●	●
– frumentalis (Linnaeus, 1761)			●			○	○			●	○	
– forficalis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– pallidata (Hufnagel, 1767)		●	●		●	●	●	●	●	●	●	●
– extimalis (Scopoli, 1763)				●	●	●		●	●	○	●	●
Odontiinae												
Cynaeda Hübner, 1825												
– dentalis (Denis & Schiffermüller, 1775)	58 f						○	○	●			●
Eurrhypis Hübner, 1825	108 n											
– pollinalis (Denis & Schiffermüller, 1775)		●	●	●	●	●						
Heliothelinae												
Heliothela Guenée, 1854												
– wulfeniana (Scopoli, 1763)	109 n	○	●	●	●	●	●	○	○	●	●	●
Pyraustinae												
Pyrausta Schrank, 1802												
– aurata (Scopoli, 1763)			●				●	●	●	●	●	●
– purpuralis (Linnaeus, 1758)		○	●	●	●	●	●	●	●	●	●	●
– ostrinalis (Hübner, 1796)		●	●	●	●	●	○			●	●	●
– porphyralis (Denis & Schiffermüller, 1775)	59 f	○	●	●	○	●		○			●	
– despicata (Scopoli, 1763)	110 n	●	●	●	●	●	●	●	●	●	●	●
– sanguinalis (Linnaeus, 1767)			●			●				●	●	●
– nigrata (Scopoli, 1763)			●				●	●		●	●	
– cingulata (Linnaeus, 1758)								●			●	●
– obsoletalis (Fabricius, 1794)	111 n	●	●		●	●	●	●	●	●	●	●
Loxostege Hübner, 1825	112 n											
– sticticalis (Linnaeus, 1761)		○	●	●		●	●	●	●	●	●	●
– turbidalis (Treitschke, 1829)								●	●		○	●
Uresiphita Hübner, 1825												
– polygonalis (Denis & Schiffermüller, 1775)	113 n						○	●				●
Sitochroa Hübner, 1825												
– palealis (Denis & Schiffermüller, 1775)		○	●	●	●	●	●	●	●	●	●	●
– verticalis (Linnaeus, 1758)		○	●		○	●	●	●	●	●	●	●
Microstega Meyrick, 1890												
– pandalis (Hübner, 1825)			●		●	●		●	●	○	●	●
– hyalinalis (Hübner, 1796)			●				●	●	●	○	●	●
Ostrinia Hübner, 1825												
– palustralis (Hübner, 1796)								●	●	●	●	●
– nubilalis (Hübner, 1796)			●	●	●	●	●	●	●	●	●	●
Sclerocona Meyrick, 1890												
– acutellus (Eversmann, 1842)								●		●		
Eurrhypara Hübner, 1825												
– hortulata (Linnaeus, 1758)		●	●		●	●	●	●	●	●	●	●
Perinephela Hübner, 1825												
– lancealis (Denis & Schiffermüller, 1775)		●	●				●	●	●	●	●	●
Phlyctaenia Hübner, 1825												
– perlucidalis (Hübner, 1809)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– coronata (Hufnagel, 1767)		●	●	●	●	●	●	●	●	●	●	●
– stachydalis (Germar, 1822)		●	●			●	●	●	●	●	●	●
Mutuuraia Munroe, 1976												
– terrealis (Treitschke, 1829)			●			●	○	●	●	●	●	●
Anania Hübner, 1823												
– funebris (Ström, 1768)			●	●		●						
– verbascalis (Denis & Schiffermüller, 1775)			●								○	○
Psammotis Hübner, 1825												
– pulveralis (Hübner, 1796)		●	●	●		●	●	●	●	●	●	●
Ebulea Doubleday, 1849												
– crocealis (Hübner, 1796)							●	●	●			●
Opsibotys Warren, 1890												
– fuscalis (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Nascia Curtis, 1835												
– cilialis (Hübner, 1796)		●					●	●	●		●	●
Udea Guenée, 1845												
– lutealis (Hübner, 1809)		●	●	●	●	●	●	●	●	●	●	●
– fulvalis (Hübner, 1809)												●
– prunalis (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– inquinatalis (Lienig & Zeller, 1846)			●								●	
– olivalis (Denis & Schiffermüller, 1775)		●	●		○	●	●	●	●	●	●	●
– hamalis (Thunberg, 1788)	61 f		○							●	●	●
– ferrugalis (Hübner, 1796)		●	●	●	●	●	●	●	●	●	●	●
Mecyna Doubleday, 1849												
– flavalis (Denis & Schiffermüller, 1775)				●		●		●	●	●	●	●
Nomophila Hübner, 1825												
– noctuella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Dolicharthria Stephens, 1834												
– punctalis (Denis & Schiffermüller, 1775)												●
Antigastra Lederer, 1863												
– catalaunalis (Duponchel, 1833)									●			
Diasemia Hübner, 1825												
– reticularis (Linnaeus, 1761)	114 n										●	●
Diasemiopsis Munroe, 1957												
– ramburialis (Duponchel, 1834)	62 f							●				
Hymenia Hübner, 1825												
– recurvalis (Fabricius, 1775)											●	
Pleuroptya Meyrick, 1890												
– ruralis (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
Palpita Hübner, 1808												
– unionalis (Hübner, 1796)			●	●	●	●	●	●	●		●	●
Agrotera Schrank, 1802												
– nemoralis (Scopoli, 1763)							●	●				●
ZYGAENOIDEA												
ZYGAENIDAE (Svend Kaaber)												
Procridinae												
Adscita Retzius, 1783												
– statices (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Zygaeninae												
Zygaena Fabricius, 1775												
– osterodensis Reiss, 1921							○					
– viciae (Denis & Schiffermüller, 1775)	63 f	●	●			●		●	●	●	●	
– filipendulae (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– trifolii (Esper, 1783)		●	●	●	●	●	●					
– lonicerae (Scheven, 1777)		●	●	●	●	●	●	○	○	●	●	●
– minos (Denis & Schiffermüller, 1775)	115 n									●	●	
– purpuralis (Brünnich, 1763)	116 n						○	●	○	●	●	
HESPERIOIDEA												
HESPERIIDAE (Svend Kaaber & Bjarne Skule)												
Pyrginae												
Erynnis Schrank, 1801												
– tages (Linnaeus, 1758)		●	●	●	●	●	●	○	○	○	●	
Pyrgus Hübner, 1819												
– malvae (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	
– armoricanus (Oberthür, 1910)	129 f	○								●	●	●
– serratulae (Rambur, 1839)	64 f							○				
Hesperiinae												
Carterocephalus Lederer, 1852												
– silvicolus (Meigen, 1829)								●				
Heteropterus Duméril, 1806												
– morpheus (Pallas, 1771)								●	●			
Thymelicus Hübner, 1819												
– lineola (Ochsenheimer, 1808)		●	●	●		●	●	●	●	●	●	●
– sylvestris (Poda, 1761)	65 f	●	●	●	●	●	●	○				
Hesperia Fabricius, 1793												
– comma (Linnaeus, 1758)		●	●	●	●	●	○	○	●	●	○	●
Ochlodes Scudder, 1872												
– venata (Bremer & Grey, 1853)	66 f	●	●	●	●	●	●	●	●	●	●	○
PAPILIONOIDEA												
PAPILIONIDAE (S. Kaaber & B. Skule)												
Parnassiinae												
Parnassius Latreille, 1804												
– apollo (Linnaeus, 1758)	67 f		○		○							
– mnemosyne (Linnaeus, 1758)	68 f						○	○	○	○	●	
Papilioninae												
Papilio Linnaeus, 1758												
– machaon Linnaeus, 1758		●	●	●	○	●	●	●	○	○	●	○

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
PIERIDAE (S. Kaaber & B. Skule)												
Dismorphiinae												
Leptidea Billberg, 1820												
– sinapis (Linnaeus, 1758)	69 f		●			●			○	●	●	●
Pierinae												
Aporia Hübner, 1819												
– crataegi (Linnaeus, 1758)		●	●	●	●	●	○	○	○		●	○
Pieris Schrank, 1801												
– brassicae (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– rapae (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– napi (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Pontia Fabricius, 1807												
– daplidice (Linnaeus, 1758)		●	●	○	○	○	○	●	○	○	○	●
Anthocharis Boisduval, Rambur, Duméril & Graslin, 1833												
– cardamines (Linnaeus, 1758)		●	●	●	○	●	●	●	●	●	●	●
Coliadinae												
Colias Fabricius, 1807												
– palaeno (Linnaeus, 1761)			○			●	○	○	○	●	●	●
– hyale (Linnaeus, 1758)		●	●			○	●	●	●	●	●	●
– alfacariensis Ribbe, 1905		○					○					
– crocea (Fourcroy, 1785)		●	●	●	○	●	●	●	●	●	●	○
Gonepteryx Leach, 1815												
– rhamni (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
NYMPHALIDAE (S. Kaaber & B. Skule)												
Danainae												
Danaus Kluk, 1802												
– plexippus (Linnaeus, 1758)					●							
Nymphalinae												
Apatura Fabricius, 1807												
– iris (Linnaeus, 1758)		●	●		●		●	●	●	○	●	●
Limenitis Fabricius, 1807	117 n											
– populi (Linnaeus, 1758)								○			○	
– camilla (Linnaeus, 1764)	70 f	○	○				●	●		●	●	●
Nymphalis Kluk, 1802												
– polychloros (Linnaeus, 1758)		○	●	○	○	○	●	●	●	○	●	●
– xanthomelas (Denis & Schiffermüller, 1775)	71 f								○			●
– vaualbum (Denis & Schiffermüller, 1775)							○				○	
– antiopa (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Inachis Hübner, 1819												
– io (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Vanessa Fabricius, 1807												
– atalanta (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Cynthia Fabricius, 1807												
– cardui (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Aglais Dalman, 1816												
– urticae (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Polygonia Hübner, 1819												
– c-album (Linnaeus, 1758)		●	●	●	○	●	●	●	●	●	●	●
Araschnia Hübner, 1819												
– levana (Linnaeus, 1758)		○	●				●	●	●	●	●	
Argynnis Fabricius, 1807												
– paphia (Linnaeus, 1758)	72 f	●	●		○	●	●	●	●	●	●	●
Mesoacidalia Reuss, 1926												
– aglaja (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Fabriciana Reuss, 1920												
– adippe (Denis & Schiffermüller, 1775)	73 f		●		●	●	●	●	●	●	●	●
– niobe (Linnaeus, 1758)	74 f		●	●	●	●	○			●	●	●
Issoria Hübner, 1819												
– lathonia (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Brenthis Hübner, 1819												
– ino (Rottemburg, 1775)		●	●				●	●	●	●	●	●
Boloria Moore, 1900												
– aquilonaris (Stichel, 1908)	75 f	●	●	●	●	●	●	○	●		●	○
Clossiana Reuss, 1920												
– selene (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– euphrosyne (Linnaeus, 1758)			●			●	●	●	●	●	●	
Melitaea Fabricius, 1807												
– cinxia (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	○
– diamina (Lang, 1789)	76 f		○				●	○	●	●	●	
Mellicta Billberg, 1820												
– athalia (Rottemburg, 1775)	77 f	●	●	●	●	●			○	○	●	
Euphydryas Scudder, 1872												
– maturna (Linnaeus, 1758)								○				
– aurinia (Rottemburg, 1775)	78 f	●	●	●	●	●	○		○		○	
Satyrinae												
Hipparchia Fabricius, 1807												
– semele (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Erebia Dalman, 1816												
– ligea (Linnaeus, 1758)	79 f					●	○			○	○	●
Maniola Schrank, 1801												
– jurtina (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Aphantopus Wallengren, 1853												
– hyperantus (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Pyronia Hübner, 1819												
– tithonus (Linnaeus, 1768)											○	
Coenonympha Hübner, 1819												
– tullia (Müller, 1764)		●	●	●	●	●	●	○	●	●	●	
– pamphilus (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– arcania (Linnaeus, 1761)			●	●	●							
– hero (Linnaeus, 1761)									●	○	○	
Parage Hübner, 1819												
– aegeria (Linnaeus, 1758)		●	●		○	●	●	●	●	●	●	○

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Lasiommata Westwood, 1841												
– megera (Linnaeus, 1767)		●	●	●	●	●	●	●	●	●	●	●
– maera (Linnaeus, 1758)											●	○
– petropolitana (Fabricius, 1787)	130 f										○	
LYCAENIDAE (S. Kaaber & B. Skule)												
Riodininae												
Hamearis Hübner, 1819												
– lucina (Linnaeus, 1758)											●	
Theclinae												
Thecla Fabricius, 1807												
– betulae (Linnaeus, 1758)		●	●			●	●	●	○	●	●	●
Quercusia Verity, 1943												
– quercus (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Satyrium Scudder, 1876	118 n											
– w-album (Knoch, 1782)		●	●	●	●	●	●	●	●	●	●	●
– ilicis (Esper, 1779)	80 f	●	●									
– pruni (Linnaeus, 1758)	81 f		○					●	○	●	○	
Callophrys Billberg, 1820												
– rubi (Linnaeus, 1758)		●	●	●	●	●	●	○	●	○	●	
Lycaeninae												
Lycaena Fabricius, 1807												
– phlaeas (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– dispar (Haworth, 1803)								○				
– virgaureae (Linnaeus, 1758)			●	●	●	●	●	●	●	●	●	●
– tityrus (Poda, 1761)	82 f						●	●	○	○	○	
– alciphron (Rottemburg, 1775)								○				
– hippothoe (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
Polyommatinae												
Cupido Schrank, 1801												
– minimus (Fuessly, 1775)		●	●	●	●	●	●	●	●	●	●	○
Celastrina Tutt, 1906												
– argiolus (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Glaucopsyche Scudder, 1872												
– alexis (Poda, 1761)								○				
Maculinea Eecke, 1915												
– alcon (Denis & Schiffermüller, 1775)		●	●	●	●	●						
– arion (Linnaeus, 1758)			●		●	●	○	●	○	●	●	●
Cyaniris Dalman, 1816												
– semiargus (Rottemburg, 1775)		●	●	●	●	●	○	○		●	●	●
Polyommatus Latreille, 1804	119 n											
– icarus (Rottemburg, 1775)		●	●	●	●	●	●	●	●	●	●	●
– amanda (Schneider, 1792)		●	●	●	●	●	●	●	●	●	●	○
Aricia Reichenbach, 1817												
– agestis (Denis & Schiffermüller, 1775)			●	●	●	●	●	○	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– artaxerxes (Fabricius, 1793)						●				●		●
Vacciniina Tutt, 1909												
– optilete (Knoch, 1781)		●	●	●	●	●	●	○	●	●	●	
Plebejus Kluk, 1802												
– argus (Linnaeus, 1758)		●	●	○	●	●	●	●	○	●	●	●
– idas (Linnaeus, 1761)		●	●	●	●	●	○	○	●	●	●	●
DREPANOIDEA												
DREPANIDAE (Peder Skou)	83 f											
Drepaninae												
Falcaria Haworth, 1809												
– lacertinaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Drepana Schrank, 1802												
– binaria (Hufnagel, 1767)		●	●				●	●	●	●	●	●
– cultraria (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
– falcataria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– curvatula (Borkhausen, 1790)		●	●	●	●	●	●	●	●	●	●	●
Sabra Bode, 1907	120 n											
– harpagula (Esper, 1786)											○	○
Cilix Leach, 1815												
– glaucata (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
Thyatirinae												
Thyatira Ochsenheimer, 1816												
– batis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Habrosyne Hübner, 1821												
– pyritoides (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
Tethea Ochsenheimer, 1816												
– ocularis (Linnaeus, 1767)								●				
– or (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Tetheella Werny, 1966												
– fluctuosa (Hübner, 1803)			●			●	●	●	●	●	●	●
Ochropacha Wallengren, 1871												
– duplaris (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
Cymatophorima Spuler, 1908												
– diluta (Denis & Schiffermüller, 1775)			●			○	●	●			●	
Achlya Billberg, 1820												
– flavicornis (Linnaeus, 1758)		●	●			●	●	●	●	●	●	●
Polyploca Hübner, 1821												
– ridens (Fabricius, 1787)		●	●	●			●	●	●	●	●	
GEOMETROIDEA												
GEOMETRIDAE (Peder Skou)	83 f											
Archiearinae												
Archiearis Hübner, 1823												
– parthenias (Linnaeus, 1761)			●	●	●	●	●	●	●	●	●	●
– notha (Hübner, 1803)	84 f	●	●	●	●	●	○	○				●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Oenochrominae												
Alsophila Hübner, 1825												
– aescularia (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Geometrinae												
Pseudoterpna Hübner, 1823												
– pruinata (Hufnagel, 1767)		●	●	●	●	●	●	●		●	●	●
Geometra Linnaeus, 1758												
– papilionaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Comibaena Hübner, 1823												
– bajularia (Denis & Schiffermüller, 1775)		●	●		●	●	●	●	●	●	●	●
Hemithea Duponchel, 1829												
– aestivaria (Hübner, 1799)		●	●	●		●	●	●	●	●	●	●
Chlorissa Stephens, 1831												
– viridata (Linnaeus, 1758)		●	●	●	●	●	●	●	○	●	●	●
Thalera Hübner, 1823												
– fimbrialis (Scopoli, 1763)			●			●		●		●	●	●
Hemistola Warren, 1893												
– biliosata (Villers, 1789)	121 n							●				●
Jodis Hübner, 1823												
– lactearia (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– putata (Linnaeus, 1758)		●	●			●	○	●			●	●
Sterrhinae												
Cyclophora Hübner, 1822												
– pendularia (Clerck, 1759)											●	○
– annulata (Schulze, 1775)			○				●	●	●	●	○	
– albipunctata (Hufnagel, 1767)		●	●	●		●	●	●	●	●	●	●
– puppillaria (Hübner, 1799)								○				
– porata (Linnaeus, 1767)		●		●			●	●	●			●
– quercimontaria (Bastelberger, 1897)			●	●		●		●	●	●	●	●
– punctaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– linearia (Hübner, 1799)		●	●	●	●	●	●	●	●	●	●	●
Timandra Duponchel, 1829												
– griseata W. Petersen, 1902		●	●	●	●	●	●	●	●	●	●	●
Scopula Schrank, 1802												
– ternata Schrank, 1802		●	●	○	●	●			●		●	●
– immorata (Linnaeus, 1758)			●				●	●	●	●	●	●
– nigropunctata (Hufnagel, 1767)							●	●	○			
– rubiginata (Hufnagel, 1767)			●	●	●	●	●	●	●	●	●	●
– marginepunctata (Goeze, 1781)								●	●			●
– incanata (Linnaeus, 1758)						●						●
– floslactata (Haworth, 1809)		●	●	●	●	●	●	●		●	●	●
– immutata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– corrivalaria (Kretschmar, 1862)								●	●			●
– ornata (Scopoli, 1763)		●	●			●	●	●	●	●	●	●
– decorata (Denis & Schiffermüller, 1775)												●
– emutaria (Hübner, 1809)		●		●								
– imitaria (Hübner, 1799)	131 f				●							

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Idaea Treitschke, 1825												
– ochrata (Scopoli, 1763)								○				●
– serpentata (Hufnagel, 1767)			●			●	○		○	●	●	○
– muricata (Hufnagel, 1767)		●	●	●	●	●	●	●	●	●	●	●
– pallidata (Denis & Schiffermüller, 1775)		●	●			●						
– sylvestraria (Hübner, 1799)		○	●	●	●	●		●	○	●	●	●
– biselata (Hufnagel, 1767)		●	●	●	●	●	●	●	●	●	●	●
– fuscovenosa (Goeze, 1781)			●	○		●	●	●	●	●	●	●
– humiliata (Hufnagel, 1767)	122 n				●	●	●	●	●	●	●	●
– seriata (Schrank, 1802)		●	●	●	●	●	●	●	●	●	●	●
– dimidiata (Hufnagel, 1767)		●	●	●	●	●	●	●	●	●	●	●
– subsericeata (Haworth, 1809)		○					●	●	●		○	
– emarginata (Linnaeus, 1758)		●	●	●		●	●	●	●	●	●	●
– aversata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– straminata (Borkhausen, 1794)		●	●	●		●	●	●	○	●	●	●
– deversaria (Herrich-Schäffer, 1847)				●								●
Rhodostrophia Hübner, 1823												
– vibicaria (Clerck, 1759)		●	●	●	●	●	●	○	○	●	●	
Rhodometra Meyrick, 1892												
– sacraria (Linnaeus, 1767)			●	●	●	●	●	●	●	●	●	●
Larentiinae												
Lythria Hübner, 1823												
– rotaria (Fabricius, 1798)	123 n	●	●	●	●	●	●	●	●	●	●	●
Phibalapteryx Stephens, 1829	124 n											
– virgata (Hufnagel, 1767)		●	●	●	●	●	●	●	●	●	●	●
Scotopteryx Hübner, 1825												
– moeniata (Scopoli, 1763)		○	○	●		○		○				
– chenopodiata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– mucronata (Scopoli, 1763)		●	●	●	●	●	●	●			○	●
– luridata (Hufnagel, 1767)		●	●	●	●	●	●	○		○	●	
– coarctaria (Denis & Schiffermüller, 1775)		●	●	●	○	●		○				
Larentia Treitschke, 1825												
– clavaria (Haworth, 1809)		○	●	●	●	●	●	●	●	●	●	●
Orthonama Hübner, 1825												
– vittata (Borkhausen, 1794)		●	●	●	●	●	●	●	●	●	●	●
– obstipata (Fabricius, 1794)		●	●	●	●	●	●	●	●	●	●	●
Xanthorhoe Hübner, 1825												
– biriviata (Borkhausen, 1794)		●	●		●	●	●	●	●	●	●	●
– designata (Hufnagel, 1767)		●	●		●	●	●	●	●	●	●	●
– munitata (Hübner, 1809)						●						
– spadicearia (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– ferrugata (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– quadrifasiata (Clerck, 1759)		●	●			●	●	●	●	●	●	●
– montanata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– fluctuata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Catarhoe Herbulot, 1951												
– rubidata (Denis & Schiffermüller, 1775)		○	●				●	●	●	●	●	
– cuculata (Hufnagel, 1767)		○	●		●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Epirrhoe Hübner, 1825												
– tristata (Linnaeus, 1758)			●	●		●	●	●	●	●	●	●
– pupillata (Thunberg, 1788)					●	●						
– alternata (Müller, 1764)		●	●	●	●	●	●	●	●	●	●	●
– rivata (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– galiata (Denis & Schiffermüller, 1775)			●			●	●	●	●	●	●	●
Costaconvexa Agenjo, 1949												
– polygrammata (Borkhausen, 1794)		○	○				●	●	○	●	●	●
Camptogramma Stephens, 1831												
– bilineata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Entephria Hübner, 1825												
– caesiata (Denis & Schiffermüller, 1775)			●	●	●	●						
Anticlea Stephens, 1831												
– badiata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– derivata (Denis & Schiffermüller, 1775)		●	●		●	●	●	●	●	●	●	●
Mesoleuca Hübner, 1825												
– albicillata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Pelurga Hübner, 1825												
– comitata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Lampropteryx Stephens, 1831												
– suffumata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Cosmorhoe Hübner, 1825												
– ocellata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Eulithis Hübner, 1825												
– prunata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– testata (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– populata (Linnaeus, 1758)		●	●	●	●	●		●		●	●	●
– mellinata (Fabricius, 1787)		●	●	●	●	●	●	●	●	●	●	●
– pyraliata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Ecliptopera Warren, 1894												
– silaceata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– capitata (Herrich-Schäffer, 1839)		●	●			●	●	●	●	●	●	●
Chloroclysta Hübner, 1825												
– siterata (Hufnagel, 1767)			●	●	●	●	●	●	●	●	●	●
– miata (Linnaeus, 1758)			●	●	●	●	●	●	○	●	●	●
– citrata (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– latefasciata (Staudinger, 1889)			●			●						●
– truncata (Hufnagel, 1767)		●	●	●	●	●	●	●	●	●	●	●
Cidaria Treitschke, 1825												
– fulvata (Forster, 1771)		●	●	●	●	●	●	●	●	●	●	●
Plemyria Hübner, 1825												
– rubiginata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Thera Stephens, 1831												
– firmata (Hübner, 1822)			●	●	●	●	●	●	●	●	●	●
– variata (Denis & Schiffermüller, 1775)		○	●	●	●	●	●	●	●	●	●	●
– britannica (Turner, 1925)	155 n	●	●	●	●	●	●	●	●	●	●	●
– obeliscata (Hübner, 1787)		●	●	●	●	●	●	●	●	●	●	●
– cognata (Thunberg, 1792)			●	●	●	●		●	○	●	●	●
– juniperata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– serraria (Lienig & Zeller, 1846)						●						
Eustroma Hübner, 1825												
– reticulata (Denis & Schiffermüller, 1775)	85 f	●	●			●	●	●	●	●	●	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Electrophaes Prout, 1923												
– corylata (Thunberg, 1792)		●	●	●	●	●	●	●	●	●	●	●
Colostygia Hübner, 1825												
– olivata (Denis & Schiffermüller, 1775)		●	●				●	●				
– pectinataria (Knoch, 1781)		●	●	●	●	●	●	●	●	●	●	●
Hydriomena Hübner, 1825												
– furcata (Thunberg, 1784)		●	●	●	●	●	●	●	●	●	●	●
– impluviata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– ruberata (Freyer, 1831)		●	●	●	●	●	●	●	●	●	●	
Horisme Hübner, 1825												
– vitalbata (Denis & Schiffermüller, 1775)												●
– tersata (Denis & Schiffermüller, 1775)			●			●	●	●	●	●	●	●
– aquata (Hübner, 1813)											●	
– corticata (Treitschke, 1835)								●	●			
Melanthia Duponchel, 1829												
– procellata (Denis & Schiffermüller, 1775)							●	●				●
Pareulype Herbulot, 1951												
– berberata (Denis & Schiffermüller, 1775)								●			●	●
Spargania Guenée, 1857												
– luctuata (Denis & Schiffermüller, 1775)		●	●			●	●	●	●	●	●	●
Rheumaptera Hübner, 1822												
– hastata (Linnaeus, 1758)		●	●	●	●	●	○	○	●	○	●	○
– subhastata (Nolcken, 1870)						○					○	○
– cervinalis (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	○
– undulata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Triphosa Stephens, 1829												
– dubitata (Linnaeus, 1758)		●	●		○	●	●	●	●	●	●	●
Philereme Hübner, 1825												
– vetulata (Denis & Schiffermüller, 1775)		●	●			●	●	●	●	●	●	●
– transversata (Hufnagel, 1767)		●	●			○	●	●	●	●	●	●
Euphyia Hübner, 1825												
– biangulata (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– unangulata (Haworth, 1809)		●	●	●			●	●	●	●	●	●
Epirrita Hübner, 1822												
– dilutata (Denis & Schiffermüller, 1775)		●	●			●	●	●	●	●	●	●
– christyi (Allen, 1906)		●	●		●	●	●	●	●	●	●	●
– autumnata (Borkhausen, 1794)		●	●	●	●	●	●	●	●	●	●	●
Operophtera Hübner, 1825												
– brumata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– fagata (Scharfenberg, 1805)		●	●		●	●	●	●	●	●	●	●
Perizoma Hübner, 1825												
– taeniata (Stephens, 1831)			●									
– affinitata (Stephens, 1831)		●	●	●	●	●	●	●	●	●	●	●
– alchemillata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– hydrata (Treitschke, 1829)												●
– bifaciata (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– blandiata (Denis & Schiffermüller, 1775)			●	●	●	●	●	●		●	●	●
– albulata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– flavofasciata (Thunberg, 1792)		●	●	●	●	●	●	●	●	●	●	●
– didymata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– sagittata (Fabricius, 1787)			●			●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– parallelolineata (Retzius, 1783)		●	●	●	●	●	●	●	●	●	●	●
Eupithecia Curtis, 1825												
– tenuiata (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– inturbata (Hübner, 1817)		●	●			●	●	●	●	●	●	●
– haworthiata Doubleday, 1856			●			●	●	●	●	●	●	●
– immundata (Lienig & Zeller, 1846)			●			●	●	●	○	●	●	
– plumbeolata (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– abietaria (Goeze, 1781)		●	●	●	●	●	●	●	●	●	●	●
– analoga Djakonov, 1926	125 n	●	●	●		●	○	●	●	●	●	●
– linariata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– irriguata (Hübner, 1813)		●	●		●	●	●	●	●	●	●	○
– exiguata (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– insigniata (Hübner, 1790)		●	●			●	●	●	●	●	●	○
– valerianata (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– pygmaeata (Hübner, 1799)		●	●	●	●	●	●	●	●	●	●	●
– venosata (Fabricius, 1787)		●	●	●	●	●	●	●	●	●	●	●
– egenaria Herrich-Schäffer, 1848			●					●			●	●
– centaureata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– actaeata (Walderdorff, 1869)			●			●	●	●	●	●	●	●
– selinata Herrich-Schäffer, 1861								●	○			●
– trisignaria Herrich-Schäffer, 1848		●	●		●	●	●	●	●	●	●	●
– intricata (Zetterstedt, 1839)		●	●	●	●	●	●	●	●	●	●	●
– cauchiata (Duponchel, 1830)						●						
– satyrata (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– absinthiata (Clerk, 1759)	86 f	●	●	●	●	●	●	●	●	●	●	●
– assimilata Doubleday, 1856		●	●	●	●	●	●	●	●	●	●	●
– tripunctaria Herrich-Schäffer, 1852		●	●	●	●	●	●	●	●	●	●	●
– vulgata (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– denotata (Hübner, 1813)		●	●			●	●	●	●		●	●
– subfuscata (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– icterata (Villers, 1789)		●	●	●	●	●	●	●	●	●	●	●
– succenturiata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– subumbrata (Denis & Schiffermüller, 1775)			●	●	●	●	●	●	●	●	●	●
– millefoliata Rössler, 1866			○			●		●			●	●
– simpliciata (Haworth, 1809)			●	●	●	●	●	●	●	●	●	●
– sinuosaria Eversmann, 1848		●	●			●	●	●	●	●	●	●
– indigata (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– pimpinellata (Hübner, 1813)		○	●	●	●	●	●	●	●	●	●	●
– nanata (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– innotata (Hufnagel, 1767)	87 f	●	●		●	●	●	●	●	●	●	●
– virgaureata Doubleday, 1861			○			●		●				●
– abbreviata Stephens, 1831		●	●	●	●	●	●	●	●	●	●	●
– dodoneata Guenée, 1857		●	●	●	●	●	●	●	●	●	●	●
– pusillata (Denis & Schiffermüller, 1775)		●	●	●	○	●	●	●	●	●	●	●
– lariciata (Freyer, 1842)		●	●	●	●	●	●	●	●	●	●	●
– tantillaria Boisduval, 1840		●	●	●	●	●	●	●	●	●	●	●
– conterminata (Lienig & Zeller, 1846)			●			●					●	
– lanceata (Hübner, 1825)		●	●	●	●	●	●	●	●	●	●	●
Gymnoscelis Mabille, 1868												
– rufifasciata (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
Chloroclystis Hübner, 1825												
– v-ata (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– chloerata (Mabille, 1870)		●	●		●	●	●	●	●	●	●	○
– rectangulata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– debiliata (Hübner, 1817)		●	●	●	●	●	●	●	○	●	●	●
Anticollix Prout, 1938												
– sparsata (Treitschke, 1828)		●	●	●	●	●	●	●	●	●	●	●
Chesias Treitschke, 1825												
– legatella (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– rufata (Fabricius, 1775)		●	●	●	●	●	●	●		●	●	○
Carsia Hübner, 1825												
– sororiata (Hübner, 1813)		●	●	●	○	●	●	●		●	●	
Aplocera Stephens, 1827												
– plagiata (Linnaeus, 1758)		○	●			●	●	●	●		○	●
– efformata (Guenée, 1857)		●	●	●		●	●	●	●	●	●	●
Odezia Boisduval, 1840												
– atrata (Linnaeus, 1758)		●	●	●	●	●	●	●	○	●	●	●
Lithostege Hübner, 1825												
– griseata (Denis & Schiffermüller, 1775)			●									●
– farinata (Hufnagel, 1767)			●		○	○	●	○	○	●	●	○
Venusia Curtis, 1839												
– cambrica Curtis, 1839			●			●		●	●	●	●	●
Euchoeca Hübner, 1823												
– nebulata (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
Asthena Hübner, 1825												
– albulata (Hufnagel, 1767)		●	●			●	●	●	●	●	●	●
– anseraria (Herrich-Schäffer, 1855)								●			●	
Hydrelia Hübner, 1825												
– flammeolaria (Hufnagel, 1767)		●	●	●	●	●	●	●	●	●	●	●
– sylvata (Denis & Schiffermüller, 1775)		●	●	○	●	●	●	●	●	●	●	●
Lobophora Curtis, 1825												
– halterata (Hufnagel, 1767)		●	●	●	●	●	●	●	●	●	●	●
Tricopteryx Hübner, 1825												
– carpinata (Borkhausen, 1794)		●	●	●	●	●	●	●	●	●	●	●
Nothocasis Prout, 1937												
– sertata (Hübner, 1817)		●	●			●	●	●	●	●	●	
Pterapherapteryx Curtis, 1825												
– sexalata (Retzius, 1783)		●	●	●	●	●	●	●	●	●	●	●
Acasis Duponchel, 1845												
– viretata (Hübner, 1799)		●	●	●		●	●	●	●	●	●	●
Ennominae												
Abraxas Leach, 1815												
– grossulariata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Calospilos Hübner, 1825	126 n											
– sylvata (Scopoli, 1763)		○	●	●	●	●	●	●	●	●	●	●
Lomaspilis Hübner, 1825												
– marginata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Ligdia Guenée, 1857												
– adustata (Denis & Schiffermüller, 1775)		●	●			●	●	●	●	●	●	●
Semiothisa Hübner, 1818												
– notata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– alternaria (Hübner, 1809)		●	●	●	●	●	●	●	●	●	●	●
– signaria (Hübner, 1809)		●	●	●	●	●	●	●	●	●	●	●
– liturata (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– clathrata (Linnaeus, 1758)		●	●	●		●	●	●	●	●	●	●
– carbonaria (Clerck, 1759)		○	○	●	○	●					○	
Narraga Walker, 1861												
– fasciolaria (Hufnagel, 1767)								●				●
Itame Hübner, 1823												
– loricaria (Eversmann, 1837)												○
– wauaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– brunneata (Thunberg, 1784)		●	●	●	●	●	●	●	●	●	●	●
Cepphis Hübner, 1823												
– advenaria (Hübner, 1799)		●	●	●	●	●	●	●	●		●	●
Petrophora Hübner, 1811												
– chlorosata (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
Plagodis Hübner, 1823												
– pulveraria (Linnaeus, 1758)	88 f	●	●			●	●	●	○	○	●	●
– dolabraria (Linnaeus, 1767)		●	●	●	●	●	●	●	●	●	●	○
Pachycnemia Stephens, 1829												
– hippocastanaria (Hübner, 1799)		●	●	●	●	●	●	●		●		●
Opisthograptis Hübner, 1823	127 n											
– luteolata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Epione Duponchel, 1829												
– repandaria (Hufnagel, 1767)		●	●	●	●	●	●	●	●	●	●	●
– paralellaria (Denis & Schiffermüller, 1775)	89 f	●	●			●	●	●	●	●	●	●
Pseudopanthera Hübner, 1823												
– macularia (Linnaeus, 1758)	90 f	●	●				●	●	●	●	●	●
Ennomos Treitschke, 1825												
– autumnaria (Werneburg, 1859)		●	●	●	●	●	●	●	●	●	●	
– quercinaria (Hufnagel, 1767)		●	●		●	●	●	●	●	●	●	●
– alniaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– fuscantaria (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– erosaria (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Selenia Hübner, 1823												
– dentaria (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
– lunularia (Hübner, 1788)		●	●	○		●	○	●	●	○	●	
– tetralunaria (Hufnagel, 1767)		●	●	●		●	●	●	●	●	●	●
Apeira Gistl, 1848												
– syringaria (Linnaeus, 1758)		●	●		●	●	●	●	●	●	●	●
Odontopera Stephens, 1831												
– bidentata (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
Crocallis Treitschke, 1825												
– elinguaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Ourapteryx Leach, 1814												
– sambucaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Colotois Hübner, 1823												
– pennaria (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
Angerona Duponchel, 1829												
– prunaria (Linnaeus, 1758)	91 f		●		○	●	●	●	●	○	○	●
Apocheima Hübner, 1825												
– hispidaria (Denis & Schiffermüller, 1775)		●	●	●			●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– pilosaria (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Lycia Hübner, 1825												
– hirtaria (Clerck, 1759)		●	●			●	●	●	●	●	●	●
– zonaria (Denis & Schiffermüller, 1775)	128 n	●	●	●	●	●	○		○	●	●	
Biston Leach, 1815												
– strataria (Hufnagel, 1767)		●	●	●		●	●	●	●	●	●	●
– betularia (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Agriopis Hübner, 1825												
– leucophaearia (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– aurantiaria (Hübner, 1799)		●	●	●	●	●	●	●	●	●	●	●
– marginaria (Fabricius, 1776)	36 n	●	●	●	●	●	●	●	●	●	●	●
Erannis Hübner, 1825												
– defoliaria (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
Peribatodes Wehrli, 1943												
– rhomboidaria (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– secundaria (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– manuelaria (Herrich-Schäffer, 1852)							○	○				
Cleora Curtis, 1825												
– cinctaria (Denis & Schiffermüller, 1775)			●		●	●		○	●	●	●	●
Deileptenia Hübner, 1825												
– ribeata (Clerck, 1759)		●	●	●	●	●	●	○	○	●	●	●
Alcis Curtis, 1826												
– repandata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– jubata (Thunberg, 1788)			○			●						
Arichanna Moore, 1868												
– melanaria (Linnaeus, 1758)			●			●	●	●	●	●	●	●
Boarmia Treitschke, 1825												
– roboraria (Denis & Schiffermüller, 1775)		●	●			●	●	●	●	●	●	○
– punctinalis (Scopoli, 1763)	129 n	●	●				●	●	●	●	●	●
Cleorodes Warren, 1894												
– lichenaria (Hufnagel, 1767)		●	●	●	●	●	●	●	●	●	●	●
Fagivorina Wehrli, 1943												
– arenaria (Hufnagel, 1767)			●			●	○	○	●		○	○
Ectropis Hübner, 1825												
– crepuscularia (Denis & Schiffermüller, 1775)	130 n	●	●	●		●	●	●	●	●	●	●
Paradarsia Warren, 1897	131 n											
– consonaria (Hübner, 1799)		●						●			○	
– similaria (Hufnagel, 1767)	131 n	●	○			○	●	●	●		●	○
Aethalura McDunnough, 1920												
– punctulata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Ematurga Lederer, 1853												
– atomaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Bupalus Leach, 1815												
– piniaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Selidosema Hübner, 1823												
– brunnearia (Villers, 1789)		○	●	●	○	●				●	●	●
Cabera Treitschke, 1825												
– pusaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– exanthemata (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
Lomographa Hübner, 1825												
– bimaculata (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– temerata (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– distinctata (Herrich-Schäffer, 1839)	132 n							●				
Theria Hübner, 1825												
– rupicapraria (Denis & Schiffermüller, 1775)		●	●				●	●	●	●	●	●
– primaria (Haworth, 1809)		●	●				●	●	●	●		●
Campaea Lamarck, 1816												
– margaritata (Linnaeus, 1767)		●	●	●	●	●	●	●	●	●	●	●
Hylaea Hübner, 1822												
– fasciaria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Gnophos Treitschke, 1825												
– obscurata (Denis & Schiffermüller, 1775)		○	●	●	○	●	●	●	●	●	●	●
Siona Duponchel, 1829												
– lineata (Scopoli, 1763)		●	●		●		●	●	●	●	●	●
Dyscia Hübner, 1825												
– fagaria (Thunberg, 1784)		●	●	●	●	●				●	●	
Perconia Hübner, 1823												
– strigillaria (Hübner, 1787)		●	●	●	●	●	○			●	●	
BOMBYCOIDEA												
LASIOCAMPIDAE (Peder Skou)												
Poecilocampa Stephens, 1828												
– populi (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Trichiura Stephens, 1828												
– crataegi (Linnaeus, 1758)		●	●	●		●	●	●	○			●
Eriogaster Germar, 1810												
– lanestris (Linnaeus, 1758)		●	●				●	○	●	●	○	●
Malacosoma Hübner, 1820												
– neustria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– castrensis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Lasiocampa Schrank, 1802												
– trifolii (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	○	●	●	●
– quercus (Linnaeus, 1758)		●	●	●	●	●	●	○	●	●	●	●
Macrothylacia Rambur, 1866												
– rubi (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Dendrolimus Germar, 1812												
– pini (Linnaeus, 1758)		●	●	●	●	●	●	●	○	●	●	●
Euthrix Meigen, 1830	133 n											
– potatoria (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Phyllodesma Hübner, 1820												
– ilicifolia (Linnaeus, 1758)			●	●	●	●					○	
Gastropacha Ochsenheimer, 1810												
– quercifolia (Linnaeus, 1758)		●	○				○	●	●	●	●	○
– populifolia (Esper, 1782)												○
Odonestis Germar, 1812												
– pruni (Linnaeus, 1758)												○
ENDROMIDAE (Peder Skou)												
Endromis Ochsenheimer, 1810												
– versicolora (Linnaeus, 1758)	92 f		●			●				●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
LEMONIIDAE (Peder Skou)												
Lemonia Hübner, 1820												
– dumi (Linnaeus, 1761)			●	○							●	●
SATURNIIDAE (Peder Skou)												
Agliinae												
Aglia Ochsenheimer, 1810												
– tau (Linnaeus, 1758)	93 f	●	●			●	●	●	●	●	●	
Saturniinae												
Saturnia Schrank, 1802												
– pavonia (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	○
SPHINGOIDEA												
SPHINGIDAE (S. Kaaber & B. Skule)												
Sphinginae												
Agrius Hübner, 1819												
– convolvuli (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Acherontia Laspeyres, 1809												
– atropos (Linnaeus, 1758)		●	●	●	●	●	●	●	●	○	●	●
Sphinx Linnaeus, 1758												
– ligustri Linnaeus, 1758		●	●	●	●	●	●	●	●	●	●	●
Hyloicus Hübner, 1819												
– pinastri (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Mimas Hübner, 1819												
– tiliae (Linnaeus, 1758)		●	●	●			●	●	●	●	●	
Smerinthus Latreille, 1802												
– ocellata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Laothoe Fabricius, 1807												
– populi (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Macroglossinae												
Hemaris Dalman, 1816												
– tityus (Linnaeus, 1758)		●	●	●	●	●	●	○	○	●	●	○
– fuciformis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Macroglossum Scopoli, 1777												
– stellatarum (Linnaeus, 1758)		○	●	●	○	●	●	●	○	●	○	●
Daphnis Hübner, 1819												
– nerii (Linnaeus, 1758)	132 f		○	○		○		●	●		○	●
Hyles Hübner, 1819												
– euphorbiae (Linnaeus, 1758)		○	○		●		○	○	○		○	○
– gallii (Rottemburg, 1775)		●	●	●	●	●	●	●	●	●	●	●
– lineata (Fabricius, 1775)	133 f	○	○			○		●	○	○	●	●
Deilephila Laspeyres, 1809												
– elpenor (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– porcellus (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Hippothion Hübner, 1819												
– celerio (Linnaeus, 1758)			●	○			○					

NOCTUOIDEA

NOTODONTIDAE (S. Kaaber & B. Skule)

Notodontinae

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Phalera Hübner, 1819												
– bucephala (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Cerura Schrank, 1802												
– vinula (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Furcula Lamarck, 1816	134 n											
– bicuspis (Borkhausen, 1790)	94 f		●			●	●		●		●	●
– furcula (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– bifida (Brahm, 1787)		●	●	●	●	●	●	●	●	●	●	●
Stauropus Germar, 1812												
– fagi (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Peridea Stephens, 1828												
– anceps (Goeze, 1781)	95 f	●	●	●		●	●	●	●	●	●	●
Notodonta Ochsenheimer, 1810												
– dromedarius (Linnaeus, 1767)		●	●	●	●	●	●	●	●	●	●	●
– torva (Hübner, 1803)								●				●
Drymonia Hübner, 1819												
– dodonea (Denis & Schiffermüller, 1775)	96 f	●	●	●		●	●	●	●	●	●	
– ruficornis (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– obliterata (Esper, 1785)	135 n		●									
Tritophia Kiriakoff, 1967												
– tritophus (Denis & Schiffermüller, 1775)						●		●			○	●
Harpyia Ochsenheimer, 1810												
– milhauseri (Fabricius, 1775)		●	●	●			●	●	●	●	●	
Pheosia Hübner, 1819												
– tremula (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– gnoma (Fabricius, 1776)	36 n	●	●	●	●	●	●	●	●	●	●	●
Ptilophora Stephens, 1828												
– plumigera (Denis & Schiffermüller, 1775)							●	●	●		●	
Pterostoma Germar, 1812												
– palpina (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
Ptilodon Hübner, 1822												
– capucina (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Ptilodontella Kiriakoff, 1967												
– cucullina (Denis & Schiffermüller, 1775)		●					●	●	●	●		
Leucodonta Staudinger, 1892												
– bicoloria (Denis & Schiffermüller, 1775)			○			●	●	●	●	●	●	●
Eligmodonta Kiriakoff, 1967												
– zigzac (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Odontosia Hübner, 1819												
– carmelita (Esper, 1799)			●	●		●		●	●	●	●	
Gluphisia Boisduval, 1828												
– crenata (Esper, 1785)								●			●	●
Clostera Samouelle, 1819												
– curtula (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– anachoreta (Denis & Schiffermüller, 1775)								○				●
– anastomosis (Linnaeus, 1758)	97 f							○			○	●
– pigra (Hufnagel, 1766)		●	●	●	●	●	●	●	○	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Thaumetopoeinae												
Thaumetopoea Hübner, 1820												
– pinivora (Treitschke, 1834)							●	●	●		●	●
LYMANTRIIDAE (S. Kaaber & B. Skule)												
Laelia Stephens, 1828												
– coenosa (Hübner, 1808)	134 f						●	●	●		○	●
Orgyia Ochsenheimer, 1810												
– recens (Hübner, 1819)			●			●	○				○	
– antiqua (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– antiquoides (Hübner, 1822)	136 n	●	●	●	●	●	●	●	●	●	○	●
Calliteara Butler, 1881	137 n											
– abietis (Denis & Schiffermüller, 1775)											●	●
– pudibunda (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Dicallomera Butler, 1881	137 n											
– fascelina (Linnaeus, 1758)		●	●	●	●	●	○	●	○	●	●	●
Euproctis Hübner, 1819												
– chrysorrhoea (Linnaeus, 1758)		●	○	●		●	●	●	●	○	●	●
– similis (Fuessly, 1775)		●	●	●	●	●	●	●	●	●	●	●
Leucoma Hübner, 1822												
– salicis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Arctornis Germar, 1810												
– l-nigrum (Müller, 1764)		●	●	●		●	●	●	●	●	●	●
Lymantria Hübner, 1819												
– monacha (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– dispar (Linnaeus, 1758)	135 f	●	●	○				●			○	●
ARCTIIDAE (S. Kaaber & B. Skule)												
Lithosiinae												
Thumatha Walker, 1866	138 n											
– senex (Hübner, 1808)		●	●	●	●	●	●	●	●	●	●	●
Setina Schrank, 1802												
– irrorella (Linnaeus, 1758)	98 f		●	○	●	●	●	●		●	●	●
Miltochrista Hübner, 1819												
– miniata (Forster, 1771)		●	●			●	●	●	●	●	●	●
Nudaria Haworth, 1809												
– mundana (Linnaeus, 1761)		○	●			●	●	●	●	●	●	●
Atolmis Hübner, 1819												
– rubricollis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Cybosia Hübner, 1819												
– mesomella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Pelosia Hübner, 1819												
– muscerda (Hufnagel, 1766)		●	●	●		●	●	●	●	●	●	●
– obtusa (Herrich-Schäffer, 1852)							●	●	●			●
Eilema Hübner, 1819												
– sororcula (Hufnagel, 1766)		●	●	○	●	○	●	●	●	●	●	●
– griseola (Hübner, 1803)		●	○			●	●	●	●	●	●	●
– pygmaeola (Doubleday, 1847)	99 f						●	●			●	●
– lutarella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– complana (Linnaeus, 1758)		●	●	●	●	●	●	◕	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– deplana (Esper, 1787)		●	●	●	●	●	●	●	●	●	●	●
– lurideola (Zincken, 1817)		●	●		●	●	●	●	●	●	●	●
Lithosia Fabricius, 1798												
– quadra (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Arctiinae												
Spiris Hübner, 1819												
– striata (Linnaeus, 1758)										●	●	
Coscinia Hübner, 1819												
– cribraria (Linnaeus, 1758)	100 f		●	●	●	●	●	●		●	●	●
Utetheisa Hübner, 1819												
– pulchella (Linnaeus, 1758)			○			○						○
Parasemia Hübner, 1820												
– plantaginis (Linnaeus, 1758)		○	●	●	●	●	●	●	●	●	●	●
Hyphoraia Hübner, 1820												
– aulica (Linnaeus, 1758)			●		●	●					●	
Arctia Schrank, 1802												
– caja (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Diacrisia Hübner, 1819												
– sannio (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Spilosoma Curtis, 1825												
– lubricipeda (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– lutea (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– urticae (Esper, 1789)		●	●	●	●	●	●	●	●	●	●	●
Diaphora Stephens, 1828												
– mendica (Clerck, 1759)		●	●	●		●	●	●	●	●	●	●
Phragmatobia Stephens, 1828												
– fuliginosa (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Callimorpha Latreille, 1809												
– dominula (Linnaeus, 1758)	101 f		●				●	●	●	●	●	●
Tyria Hübner, 1819												
– jacobaeae (Linnaeus, 1758)		●	●	●	●		●	○			●	●
Ctenuchinae												
Dysauxes Hübner, 1819												
– ancilla (Linnaeus, 1767)								●				
HERMINIIDAE (S. Kaaber & B. Skule)												
Pechipogo Hübner, 1825	139 n											
– strigilata (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Herminia Latreille, 1802												
– tarsipennalis Treitschke, 1835		●	●	●	●	●	●	●	●	●	●	●
– lunalis (Scopoli, 1763)								○				
– tarsicrinalis (Knoch, 1782)							●	●	●			●
– grisealis (Denis & Schiffermüller, 1775)	140 n	●	●	●	●	●	●	●	●	●	●	●
Macrochilo Hübner, 1825												
– cribrumalis (Hübner, 1793)		●	●		●	●	●	●	●	●	●	●
Polypogon Schrank, 1802												
– tentacularia (Linnaeus, 1758)								●	●	○		
Paracolax Hübner, 1825												

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– tristalis (Fabricius, 1794)	141 n					●		●				●
Trisateles Tams, 1939												
– emortualis (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
NOCTUIDAE (S. Kaaber & B. Skule)												
Rivulinae												
Rivula Guenée, 1845												
– sericealis (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●
Parascotia Hübner, 1825												
– fuliginaria (Linnaeus, 1761)			●	●		●	●	●	●	●	●	●
Colobochyla Hübner, 1825												
– salicalis (Denis & Schiffermüller, 1775)							●	●	●	●	○	●
Hypenodinae												
Schrankia Hübner, 1825												
– taenialis (Hübner, 1809)												●
– costaestrigalis (Stephens, 1834)		●	●	●	●		●	●	●	●	●	●
Hypenodes Doubleday, 1850												
– humidalis Doubleday, 1850	142 n	●	●	●	●	●	●	●	●	●	●	●
Hypeninae												
Hypena Schrank, 1802												
– crassalis (Fabricius, 1787)		●	●	●	●	●	●	●	●	●	●	●
– proboscidalis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– obesalis Treitschke, 1828					○							
– rostralis (Linnaeus, 1758)		●	●	●		●	●	●	●	●	●	●
– lividalis (Hübner, 1790)												●
Phytometra Haworth, 1809												
– viridaria (Clerck, 1759)	102 f	●	●	●	●	●		○	○	○	●	●
Catocalinae												
Tyta Billberg, 1820												
– luctuosa (Denis & Schiffermüller, 1775)								●	●		●	●
Lygephila Billberg, 1820												
– pastinum (Treitschke, 1826)		●	●	○		●	●	●	●	●	●	●
– viciae (Hübner, 1822)								●				●
– craccae (Denis & Schiffermüller, 1775)			●			●			●			●
Scoliopteryx Germar, 1810												
– libatrix (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Catocala Schrank, 1802												
– adultera Ménetries, 1856											●	●
– fraxini (Linnaeus, 1758)	136 f		●	●	●	●	●	●	●	●	●	●
– nupta (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– promissa (Denis & Schiffermüller, 1775)		○	●		○	○	○	●	○	○	●	●
– pacta (Linnaeus, 1758)												○
– sponsa (Linnaeus, 1767)			●		○	●	○	●	●	○	●	●
Ephesia Hübner, 1818												
– fulminea (Scopoli, 1763)												●
Minucia Moore, 1856												

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– lunaris (Denis & Schiffermüller, 1775)								●	○			
Dysgonia Hübner, 1823												
– algira (Linnaeus, 1767)											●	
Grammodes Guenée, 1852												
– stolida (Fabricius, 1775)									○			
Callistege Hübner, 1823												
– mi (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
Euclidia Ochsenheimer, 1816												
– glyphica (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	○
Laspeyria Germar, 1810												
– flexula (Denis & Schiffermüller, 1775)		○	●	●	●	●	●	●	●	●	●	●
Acontiinae	144 n											
Eublemma Hübner, 1821												
– minutata (Fabricius, 1794)	143 n		●		●	●	●	●	●	◑	●	●
Protodeltote Ueda, 1984												
– pygarga (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
Neustrotia Sugi, 1982												
– candidula (Denis & Schiffermüller, 1775)		○	●					○	●	●	●	●
Deltote Reichenbach, 1817												
– uncula (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– bankiana (Fabricius, 1775)		●	●	●		●	●	●	●	●	●	●
– deceptoria (Scopoli, 1763)		●	●			●	●	●	●	●	●	●
Emmelia Hübner, 1821												
– trabealis (Scopoli, 1763)			●				●	○	○	●	○	●
Nolinae												
Meganola Dyar, 1898												
– strigula (Denis & Schiffermüller, 1775)	103 f	●	●		●	●	●	●	●	●	●	●
– albula (Denis & Schiffermüller, 1775)		●	●	●		●	●	●	●	●	●	●
Nola Leach, 1815												
– cuculatella (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– confusalis (Herrich-Schäffer, 1847)		●	●	●	●	●	●	●	●	●	●	●
– aerugula (Hübner, 1793)	104 f	●		●			●	●				●
Chloephorinae												
Earias Hübner, 1825												
– chlorana (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– vernana (Fabricius, 1787)			●			●	●	●	●	●	●	●
Bena Billberg, 1820												
– prasinana (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Pseudoips Hübner, 1825												
– fagana (Fabricius, 1781)		●	●	●	●	●	●	●	●	●	●	●
Sarrothripinae												
Nycteola Hübner, 1822												
– revayana (Scopoli, 1772)		●	●	●	●	●	●	●	●	●	●	●
– degenerana (Hübner, 1799)								●				
– siculana (Fuchs, 1899)					○							
– asiatica (Krulikowsky, 1904)		●		●			●	●	●			●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Plusiinae												
Chrysodeixis Hübner, 1821												
– chalcites (Esper, 1798)												●
Trichoplusia McDunnough, 1944												
– ni (Hübner, 1803)			●			●	●					●
Diachrysia Hübner, 1821												
– chrysitis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– chryson (Esper, 1789)											○	
Macdunnoughia Kostrowicki, 1961												
– confusa (Stephens, 1850)		●	●	●	●	●	●	●	●	●	●	●
Lamprotes Reichenbach, 1817												
– c-aureum (Knoch, 1781)	105 f						●		●	●	●	●
Polychrysia Hübner, 1821												
– moneta (Fabricius, 1787)		●	●	●	●	●	●	●	●	●	●	●
Plusia Ochsenheimer, 1816												
– festucae (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– putnami Grote, 1873		●	●	●	●	●	●	●	●	●	●	●
Autographa Hübner, 1821												
– gamma (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– pulchrina (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– jota (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– mandarina (Freyer, 1846)												●
– bractea (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Syngrapha Hübner, 1821												
– diasema (Boisduval, 1829)					●	●						
– interrogationis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Abrostola Ochsenheimer, 1816												
– trigemina (Werneburg, 1864)		●	●	○	○	●	●	●	●	●	●	●
– asclepiadis (Denis & Schiffermüller, 1775)												●
– triplasia (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Pantheinae												
Panthea Hübner, 1820												
– coenobita (Esper, 1785)		●	●	●	●	●	●	●	●	●	●	●
Colocasia Ochsenheimer, 1816												
– coryli (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Acronictinae												
Moma Hübner, 1820												
– alpium (Osbeck, 1778)		●	●	●		●	●	●	●	●	●	●
Acronicta Ochsenheimer, 1816												
– megacephala (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– aceris (Linnaeus, 1758)	106 f	●	●	●		●	●	●	●	●	●	●
– leporina (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– alni (Linnaeus, 1767)	137 f		●			●	●	●	●	●	●	●
– cuspis (Hübner, 1813)	107 f	●	○			●	○	●	○		○	●
– tridens (Denis & Schiffermüller, 1775)		●	●	●	●	●	●		●	●	●	○
– psi (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– strigosa (Denis & Schiffermüller, 1775)							●	●	●		○	●
– menyanthidis (Esper, 1789)	108 f	●	●	●	●	●	●	○	●	●	●	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– auricoma (Denis & Schiffermüller, 1775)			●	●	●	●	●	●	●	●	●	●
– euphorbiae (Denis & Schiffermüller, 1775)		○	●			●	○	○		●	○	●
– rumicis (Linnaeus, 1758)		●	●		○	●	●	●	●	●	●	●
Simyra Ochsenheimer, 1816												
– albovenosa (Goeze, 1781)		●	●	●		●	●	●	●	●	●	●
Craniophora Snellen, 1867												
– ligustri (Denis & Schiffermüller, 1775)	109 f	●	●			●	●	●	●	●	●	●
Cryphia Hübner, 1818	111 f											
– algae (Fabricius, 1775)							○	●			●	●
– domestica (Hufnagel, 1766)	110 f		○			●	●	●	●	●	●	●
– raptricula (Denis & Schiffermüller, 1775)			●			●					●	●
Amphipyrinae												
Amphipyra Ochsenheimer, 1816												
– pyramidea (Linnaeus, 1758)		●	●	●		●	●	●	●	●	●	●
– berbera Rungs, 1949		○	●					●	○	○	●	●
– perflua (Fabricius, 1787)	112 f	○				●	●	●	○		○	○
– livida (Denis & Schiffermüller, 1775)	113 f							○				●
– tragopoginis (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
Mormo Ochsenheimer, 1816												
– maura (Linnaeus, 1758)							○		○			
Dypterygia Stephens, 1829												
– scabriuscula (Linnaeus, 1758)		●	●	●		●	●	●	●	●	●	●
Rusina Stephens, 1829												
– ferruginea (Esper, 1785)		●	●	●	●	●	●	●	●	●	●	●
Thalpophila Hübner, 1820												
– matura (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
Trachea Ochsenheimer, 1816												
– atriplicis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Euplexia Stephens, 1829												
– lucipara (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Phlogophora Treitschke, 1825												
– meticulosa (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Callopistria Hübner, 1821												
– juventina (Stoll, 1792)			○				●	●	○			●
– maillardi (Guenée, 1862)	114 f						●	●				
Ipimorpha Hübner, 1821												
– retusa (Linnaeus, 1761)		●	●		●	●	●	●	●	●	●	●
– subtusa (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Enargia Hübner, 1821												
– paleacea (Esper, 1788)		●	●	●	●	●	●	●	●	●	●	●
Parastichtis Hübner, 1821	145 n											
– suspecta (Hübner, 1817)		●	●	●	●	●	●	●	●	●	●	●
– ypsillon (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Dicycla Guenée, 1852												
– oo (Linnaeus, 1758)							○	○			○	
Cosmia Ochsenheimer, 1816												
– affinis (Linnaeus, 1767)			●	○		●	●	●	●		●	●
– diffinis (Linnaeus, 1767)											●	

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– trapezina (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– pyralina (Denis & Schiffermüller, 1775)		●	●	●		●	●	●	●	●	●	●
Hyppa Duponchel, 1845												
– rectilinea (Esper, 1788)		●	●	●	●	●	●	●	○	●	●	●
Apamea Ochsenheimer, 1816												
– monoglypha (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– lithoxylaea (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– sublustris (Esper, 1788)			●	●		●	●	●	●	●	●	●
– oblonga (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– crenata (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– epomidion (Haworth, 1809)		●	●				●	●	●	●	●	●
– aquila Donzel, 1838		●	○									
– lateritia (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– furva (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– rubrirena Treitschke, 1825						●						
– remissa (Hübner, 1809)		●	●	●	●	●	●	●	●	●	●	●
– unanimis (Hübner, 1809)		●	●	●	●	●	●	●	●	●	●	●
– illyria Freyer, 1846			●	●	●	●	●	○		●	●	●
– pabulatricula (Brahm, 1791)	115 f		●		○	●						
– anceps (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– sordens (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– scolopacina (Esper, 1788)		●	●	●	●	●	●	●	●	●	●	●
– ophiogramma (Esper, 1793)		●	●	●	●	●	●	●	●	●	●	●
Oligia Hübner, 1821												
– strigilis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– versicolor (Borkhausen, 1792)		●	●			●	●	●	●	●	●	
– latruncula (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– fasciuncula (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
Mesoligia Boursin, 1965												
– furuncula (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– literosa (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
Mesapamea Heinicke, 1959	146 n											
– »secalis« (Linnaeus, 1758)	146 n	●	●	●	●	●	●	●	●	●	●	●
– secalella Remm, 1983	138 f	○	●	●	●	●	●	●	●	●	●	●
Photedes Lederer, 1857												
– captiuncula (Treitschke, 1852)		○										●
– minima (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– morrisii (Dale, 1837)								●	●		●	
– extrema (Hübner, 1809)		●					●	●	●		●	●
– elymi (Treitschke, 1825)		●	●	●	●	●	●	●	●	●	●	●
– fluxa (Hübner, 1809)		●	●	●	●	●	●	●	●	●	●	●
– pygmina (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– brevilinea (Fenn, 1864)							●	●	●			●
Eremobia Stephens, 1829												
– ochroleuca (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Luperina Boisduval, 1828												
– testacea (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– zollikoferi (Freyer, 1836)			●				●	●	●	●	●	●
Amphipoea Billberg, 1820												
– lucens (Freyer, 1845)	139 f	○		●	●	●	○	●	●		○	●
– fucosa (Freyer, 1830)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– crinanensis (Burrows, 1908)		●	●	●	○	●				●	●	●
– oculea (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
Hydraecia Guenée, 1841												
– ultima Holst, 1965			○						●		●	●
– micacea (Esper, 1789)		●	●	●	●	●	●	●	●	●	●	●
– nordstroemi (Horke, 1952)												●
– petasitis Doubleday, 1847		●	●	●	●	●	●	●	●	●	●	●
Gortyna Ochsenheimer, 1816												
– flavago (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Calamia Hübner, 1821												
– tridens (Hufnagel, 1766)			●			●	●	●	○	●	●	●
Staurophora Reichenbach, 1817												
– celsia (Linnaeus, 1761)			●		●	●	●	●	○	●	●	●
Celaena Stephens, 1829												
– haworthii (Curtis, 1829)		●	●	●	●	●	●	●	●	●	●	●
– leucostigma (Hübner, 1808)		●	●	●	●	●	●	●	●	●	●	●
Nonagria Ochsenheimer, 1816												
– typhae (Thunberg, 1784)		●	●	●	●	●	●	●	●	●	●	●
Phragmatiphila Hampson, 1908												
– nexa (Hübner, 1808)		●	●				●	●			●	●
Archanara Walker, 1866												
– geminipuncta (Haworth, 1809)		●	●	●			●	●	●	●	●	●
– dissoluta (Treitschke, 1825)		●	●	●	●	●	●	●	●	●	●	●
– neurica (Hübner, 1808)	116 f	●	●	●	●		●	●	●			●
– sparganii (Esper, 1790)		●	●	●	●	●	●	●	●	●	●	●
– algae (Esper, 1789)		●	●	●	●	●	●	●	●	●	●	●
Rhizedra Warren, 1911												
– lutosa (Hübner, 1803)		●	●	●	●	●	●	●	●	●	●	●
Sedina Urbahn, 1933												
– buettneri (E. Hering, 1858)		●	●	●			●	●	●	●	●	●
Arenostola Hampson, 1908												
– phragmitidis (Hübner, 1803)		●	●	●	●	●	●	●	●	●	●	●
Oria Hübner, 1821												
– musculosa (Hübner, 1803)			○									
Coenobia Stephens, 1850												
– rufa (Haworth, 1809)		●	●	●			●	●	●	●	●	
Charanyca Billberg, 1820												
– trigrammica (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
Hoplodrina Boursin, 1937												
– octogenaria (Goeze, 1781)	147 n	●	●	●	●	●	●	●	●	●	●	●
– blanda (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– respersa (Denis & Schiffermüller, 1775)								●				○
– ambigua (Denis & Schiffermüller, 1775)			●					●		●	●	●
Spodoptera Guenée, 1852												
– exigua (Hübner, 1808)			●	●	●	●	●	●	●	●	●	●
Caradrina Ochsenheimer, 1816												
– morpheus (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– cinerascens (Tengström, 1869)					●	●		●				●
– selini (Boisduval, 1840)			●			●		●	●	●	●	●
– clavipalpis (Scopoli, 1763)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Chilodes Herrich-Schäffer, 1849												
– maritimus (Tauscher, 1806)		●	●	●	●	●	●	●	●	●	●	●
Athetis Hübner, 1821												
– pallustris (Hübner, 1808)			●			●	●	●	●	●	●	●
Elaphria Hübner, 1818												
– venustula (Hübner, 1790)			●			●	●	●	●	●	●	●
Panemeria Hübner, 1823												
– tenebrata (Denis & Schiffermüller, 1775)		●	●				●	●	●	●	○	●
Cucullinae												
Cucullia Schrank, 1802												
– absinthii (Linnaeus, 1761)			●	●	○	●	●	●	●	●	●	●
– fraudatrix Eversmann, 1837							●	●	●	●	●	●
– argentea (Hufnagel, 1766)			●			●	●	●	●	●	●	●
– artemisiae (Hufnagel, 1766)			●			○	●	●	●		○	●
– chamomillae (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– lucifuga (Denis & Schiffermüller, 1775)	117 f											
– lactucae (Denis & Schiffermüller, 1775)			○									●
– umbraticae (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– tanaceti (Denis & Schiffermüller, 1775)								○				
– praecana Eversmann, 1844			●				●	●	●	●	●	
– asteris (Denis & Schiffermüller, 1775)		●	●	●	○	●	●	●	●	●	●	●
– gnaphalii (Hübner, 1813)				○		○						
– lychnitis Rambur, 1833	140 f		●				●	●	○	○		
– scrophulariae (Denis & Schiffermüller, 1775)		●					●	●	●			●
– verbasci (Linnaeus, 1758)								○				
Calophasia Stephens, 1829												
– lunula (Hufnagel, 1766)		●				●		○	●		○	●
Brachylomia Hampson, 1906												
– viminalis (Fabricius, 1776)	36 n	●	●	●	●	●	●	●	●	●	●	●
Brachionycha Hübner, 1819												
– sphinx (Hufnagel, 1766)		●	●			●	●	●	●	●	●	●
– nubeculosa (Esper, 1785)	118 f		●									
Dasypolia Guenée, 1852												
– templi (Thunberg, 1792)		○	●		●	●	●	●	●	○	●	●
Aporophila Guenée, 1841												
– lutulenta (Denis & Schiffermüller, 1775)	119 f		●	●	○	●		●		●	●	●
– nigra (Haworth, 1809)					○							
Lithomoia Hübner, 1821												
– solidaginis (Hübner, 1803)		○	●	●	●	●	●	●	●	●	●	●
Lithophane Hübner, 1821												
– semibrunnea (Haworth, 1809)				●			●	●	●		○	●
– hepatica (Clerck, 1759)	156 n,		●	○			●	●	●	●	●	●
– ornitopus (Hufnagel, 1766)	120 f	○	○				●	●	●		●	●
– furcifera (Hufnagel, 1766)	141 f		●	●	○	●	●	●	●	●	●	●
– lamda (Fabricius, 1787)			●			●	○		●		●	●
– consocia (Borkhausen, 1792)						●		●	●	●	●	●
Xylena Ochsenheimer, 1816												
– vetusta (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
– exsoleta (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Xylocampa Guenée, 1837												

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– areola (Esper, 1789)		●	●	●	●	●	●	●	●	●	○	
Allophyes Tams, 1942												
– oxyacanthae (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Dichonia Hübner, 1821												
– aprilina (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Dryobotodes Warren, 1910												
– eremita (Fabricius, 1775)			●	●	●	●	●	●	●	●	●	●
Blepharita Hampson, 1907	148 n											
– amica (Treitschke, 1825)												●
– satura (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Mniotype Franclemont, 1941	148 n											
– adusta (Esper, 1790)		●	●	●	●	●	●	●	●	●	●	●
– solieri (Boisduval, 1840)								○				
Polymixis Hübner, 1820												
– polymita (Linnaeus, 1761)		●	●		●	●	●	●	●	●	●	●
– flavicincta (Denis & Schiffermüller, 1775)			○				●	●	○		○	●
– gemmea (Treitschke, 1825)		●	●	●	●	●	●	●	●	●	●	●
Antitype Hübner, 1821												
– chi (Linnaeus, 1758)			●	●	●	●	●		○	●	●	●
Ammoconia Lederer, 1857												
– caecimacula (Denis & Schiffermüller, 1775)		●	●	●		●	●	●		●	●	●
Eumichtis Hübner, 1821												
– lichenea (Hübner, 1813)				●				●				
Eupsilia Hübner, 1821												
– transversa (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
Conistra Hübner, 1821												
– vaccinii (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– rubiginosa (Scopoli, 1763)			●									●
– rubiginea (Denis & Schiffermüller, 1775)			●			●	●	●	○	●	●	●
– erythrocephala (Denis & Schiffermüller, 1775)			●		○			●	●		●	●
Agrochola Hübner, 1821												
– circellaris (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– lota (Clerck, 1759)		●	●	●	●	●	●	●	●	●	●	●
– macilenta (Hübner, 1809)		●	●	●	●	●	●	●	●	●	●	●
– nitida (Denis & Schiffermüller, 1775)		○	●			●	●	●	●	●	●	●
– helvola (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– litura (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– lychnidis (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– laevis (Hübner, 1803)								○				
Omphaloscelis Hampson, 1906												
– lunosa (Haworth, 1809)				●								
Xanthia Ochsenheimer, 1816												
– citrago (Linnaeus, 1758)		●	●		●	○	●	●	●	●	●	●
– aurago (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– togata (Esper, 1788)		●	●	●	●	●	●	●	●	●	●	●
– icteritia (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– gilvago (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– ocellaris (Borkhausen, 1792)	121 f		○				●	●	●	●	●	●
Diloba Boisduval, 1840												
– caeruleocephala (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
Hadeninae												
Anarta Ochsenheimer, 1816												
– myrtilli (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– cordigera (Thunberg, 1788)			●	●	●	●					●	
Discestra Hampson, 1905												
– trifolii (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
Hada Billberg, 1820												
– proxima (Hübner, 1808)			●			●				●	●	●
– nana (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
Polia Ochsenheimer, 1816												
– bombycina (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– tincta (Brahm, 1791)	157n,		●	●	●	●		●	●		●	●
– nebulosa (Hufnagel, 1766)	122f	●	●	○	●	●	●	●	●	●	●	●
Pachetra Guenée, 1841												
– sagittigera (Hufnagel, 1766)		●	●	●			●	●	○	○	●	●
Sideridis Hübner, 1821												
– albicolon (Hübner, 1813)		●	●	●	●	●	●	●	●	●	●	●
Conisania Hampson, 1905												
– leineri (Freyer, 1836)									●			●
Heliophobus Boisduval, 1828												
– reticulata (Goeze, 1781)		●	●	●	●	●	●	●	●	●	●	●
Mamestra Hübner, 1816												
– brassicae (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Melanchra Hübner, 1820	149 n											
– persicariae (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– pisi (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Lacanobia Billberg, 1820												
– contigua (Denis & Schiffermüller, 1775)			●	●	●	●	●	●	●	●	●	●
– w-latinum (Hufnagel, 1766)			●			●	●	●	●	●	●	●
– thalassina (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– suasa (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– splendens (Hübner, 1808)								●				●
– oleracea (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– aliena (Hübner, 1809)												○
Papestra Sukhareva, 1973	150 n											
– biren (Goeze, 1781)		●	●	●	●	●	●	●	●	●	●	●
Hecatera Guenée, 1852												
– bicolorata (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
Hadena Schrank, 1802												
– rivularis (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
– perplexa (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– compta (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– confusa (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– albimacula (Borkhausen, 1792)								●	●			●
– bicruris (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– filigramma (Esper, 1788)			●				●	○	●	●		●
Eriopygodes Hampson, 1905												
– imbecilla (Fabricius, 1794)											●	
Cerapteryx Curtis, 1833												
– graminis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Tholera Hübner, 1821												

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– cespitis (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– decimalis (Poda, 1761)		●	●	●	●	●	●	●	●	●	●	●
Panolis Hübner, 1821												
– flammea (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Orthosia Ochsenheimer, 1816												
– cruda (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– miniosa (Denis & Schiffermüller, 1775)		●	●	●		●	●	●	●	●	●	●
– opima (Hübner, 1809)		●	●	●	●	●	●	●	●	●	●	●
– populeti (Fabricius, 1781)		●	●	●	●	●	●	●	●	●	●	●
– gracilis (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– cerasi (Fabricius, 1775)	151 n	●	●	●	●	●	●	●	●	●	●	●
– incerta (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– munda (Denis & Schiffermüller, 1775)		●	●		●	●	●	●	●	●	●	●
– gothica (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Mythimna Ochsenheimer, 1816												
– turca (Linnaeus, 1761)							●	●	●			●
– conigera (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– ferrago (Fabricius, 1787)		●	●	●	●	●	●	●	●	●	●	●
– albipuncta (Denis & Schiffermüller, 1775)				●	●		●	●	●		●	●
– vitellina (Hübner, 1808)							●					
– unipuncta (Haworth, 1809)						●	●	●				●
– pudorina (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– straminea (Treitschke, 1825)		●	●	●	●	●	●	●	●	●	●	●
– impura (Hübner, 1808)		●	●	●	●	●	●	●	●	●	●	●
– pallens (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– litoralis (Curtis, 1827)		●	●	●	●	●		●		●	●	●
– l-album (Linnaeus, 1767)							●	○	●			●
– obsoleta (Hübner, 1803)		●	●	●	●	●	●	●	●	●	●	●
– comma (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– loreyi (Duponchel, 1827)											●	
Senta Stephens, 1834												
– flammea (Curtis, 1826)		●	●	●		●	●	●	●	●	●	●
Noctuinae												
Euxoa Hübner, 1821												
– lidia (Stoll, 1782)			○	●	○	○						
– obelisca (Denis & Schiffermüller, 1775)		○	●	●	●	●	●	●		●	●	●
– tritici (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– nigricans (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
– cursoria (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– recussa (Hübner, 1817)								●			○	●
Agrotis Ochsenheimer, 1816												
– cinerea (Denis & Schiffermüller, 1775)	123 f		●	●	●	●	●	●	●	●	●	●
– vestigialis (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– segetum (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– clavis (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– exclamationis (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– ipsilon (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– ripae (Hübner, 1823)		●	●	●	●	●	●	●	●	●	●	●
Actinotia Hübner, 1821												
– polyodon (Clerck, 1759)		●	●	●		●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– hyperici (Denis & Schiffermüller, 1775)						●						
Axylia Hübner, 1821												
– putris (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
Ochropleura Hübner, 1821	152 n											
– plecta (Linnaeus, 1761)		●	●	●	●	●	●	●	●	●	●	●
Actebia Stephens, 1829	152 n											
– praecox (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– fennica (Tauscher, 1806)			●	●	●	●	●	●	●	●	●	●
Parexarnis Boursin, 1946												
– fugax (Treitschke, 1825)												○
Eugnorisma Boursin, 1946												
– depuncta (Linnaeus, 1761)		●	●	○		●	●	●	●	●	●	●
Standfussiana Boursin, 1946												
– lucernea (Linnaeus, 1758)						●				●		
Rhyacia Hübner, 1821												
– grisescens (Fabricius, 1794)						●					●	●
– simulans (Hufnagel, 1766)		●	●	●	○	●	●	●	●	●	●	●
Chersotis Boisduval, 1840												
– cuprea (Denis & Schiffermüller, 1775)						●						
Noctua Linnaeus, 1758												
– pronuba (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– orbona (Hufnagel, 1766)		○	●	●	●	●	●	●	●	●	●	●
– interposita (Hübner, 1789)								●				
– comes Hübner, 1813		●	●	●	●	●	●	●	●	●	●	●
– fimbriata (Schreber, 1759)		●	●	●	●	●	●	●	●	●	●	●
– janthina Denis & Schiffermüller, 1775		●	●	●	●	●	●	●	●	●	●	●
– interjecta Hübner, 1803		●		●			●	●	●			●
Epilecta Hübner, 1821												
– linogrisea (Denis & Schiffermüller, 1775)												●
Spaelotis Boisduval, 1840												
– ravida (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– suecica (Aurivillius, 1890)								●			●	●
Opigena Boisduval, 1840												
– polygona (Denis & Schiffermüller, 1775)		●	●		○	●	●	●	●	●	●	●
Graphiphora Ochsenheimer, 1816												
– augur (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
Eugraphe Hübner, 1821												
– sigma (Denis & Schiffermüller, 1775)						○					●	
– subrosea (Stephens, 1829)		●	●	●		●	●	●		●	●	○
Paradiarsia McDunnough, 1929												
– sobrina (Duponchel, 1843)			●			●	○			●	●	●
– glareosa (Esper, 1788)	124 f	●	●	●	●	●				●	●	●
Lycophotia Hübner, 1821												
– porphyrea (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Peridroma Hübner, 1821												
– saucia (Hübner, 1808)		●	●	●	●	●	●	●	●	●	●	●
Diarsia Hübner, 1821												
– mendica (Fabricius, 1775)		●	●	●	●	●	●	●	●	●	●	●
– dahlii (Hübner, 1813)		●	●	●		●	●	●	●	●	●	●
– brunnea (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●

	NOTER	SJ	EJ	WJ	NWJ	NEJ	F	LFM	SZ	NWZ	NEZ	B
– rubi (Vieweg, 1790)		●	●	●	●	●	●	●	●	●	●	●
– florida (Schmidt, 1859)		●	●	●	●	●	●	●	●	●	●	●
Xestia Hübner, 1818												
– speciosa (Hübner, 1813)					●	●				●	●	●
– alpicola (Zetterstedt, 1839)			●								○	●
– c-nigrum (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
– ditrapezium (Denis & Schiffermüller, 1775)				●					●		○	○
– triangulum (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
– ashworthii (Doubleday, 1855)								●				
– baja (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– rhomboidea (Esper, 1790)	125 f	●	●			○	●	●	●	●	●	●
– castanea (Esper, 1796)	142 f	●	●	●	●	●				●	●	●
– sexstrigata (Haworth, 1809)		●	●	●	●	●	●	●	●	●	●	●
– xanthographa (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– agathina (Duponchel, 1827)		●		●			○	●				
Naenia Stephens, 1827												
– typica (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Eurois Hübner, 1821												
– occulta (Linnaeus, 1758)		●	●	●	●	●	●	●	●	●	●	●
Anaplectoides McDunnough, 1929												
– prasina (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
Cerastis Ochsenheimer, 1816												
– rubricosa (Denis & Schiffermüller, 1775)		●	●	●	●	●	●	●	●	●	●	●
– leucographa (Denis & Schiffermüller, 1775)		●	●			●	●	●	●	●	●	
Mesogona Boisduval, 1840												
– oxalina (Hübner, 1803)				●	●	●			○		●	●
Heliothinae												
Pyrrhia Hübner, 1821												
– umbra (Hufnagel, 1766)		●	●	●	●	●	●	●	●	●	●	●
Heliothis Ochsenheimer, 1816	153 n											
– armigera (Hübner, 1808)								●			○	
– viriplaca (Hufnagel, 1766)			●	●	●	●	●	●	●	●	●	●
– maritima Graslin, 1855		○		●	●	●						
– peltigera (Denis & Schiffermüller, 1775)			○	●			●	●		●	●	●
Protoschinia Hardwick, 1970												
– scutosa (Denis & Schiffermüller, 1775)	126 f	●	●		●	●	●	●	●	●	●	●

Faunistiske noter

1. *Hepialus humuli* (L.) har tidligere været angivet fra Bornholm. Det sikreste belæg for artens forekomst på øen er et eksemplar fra coll. Hjorth på Bornholms museum i Rønne, etiketteret »Bornholm«. (SK).

2. *Hepialus lupulina* (L.) er hos Kaaber (1982:31) også nævnt fra de nordjyske distrikter NWJ og NEJ. De pågældende fund har senere vist sig at være fejlbestemte. (SK).

3. Nepticulidae. Specielt indenfor denne familie findes i litteraturen (især Sønderup, 1949) mange angivelser baseret på fund af tomme miner eller larver, hvoraf der ikke klækkede imagines. Som omtalt i indledningen er prikkerne i denne liste kun sat, hvor imagines har kunnet kontrolbestemmes. I øvrigt har det vist sig, at en lang række af de angivelser, der i litteraturen er baseret på minefund, skyldes fejlbestemmelser. (OK).

4. *Stigmella rhamnella* (HS.). Ny for Danmark: LFM: Jydelejet, la. 24.ix.1983, *Rhamnus catharticus* (O. Karsholt, K. Schnack) (se Buhl *et al., in prep.*). (OK).

5. *Stigmella ariella* (Herrich-Schäffer, 1860) (et junior synonym til *S. mespilicola* (Frey, 1856)) har været angivet fra Danmark (senest af Karsholt & Nielsen, 1976). Der foreligger imidlertid ikke klækkede eksemplarer, hvorfor angivelsen ikke opfylder de krav, som stilles i indledningen til denne liste, og arten må derfor udgå af fortegnelsen, indtil sikre fund foreligger. Sandsynligvis drejer det sig om fejlbestemte miner af *S. oxyacanthella* (Stt.). (OK).

6. *Stigmella splendidissimella* (HS.). Fundet fra B: Gudhjem, la. vi. 1920 (kl. viii. 1920), *Fragaria* (Gudmann) (meldt som *S. fragariella* Heyden af Sønderup, 1949) må udgå, da eksemplaret ikke

Notes on faunistics

(1) *Hepialus humuli* (L.) has previously been recorded from Bornholm. The most convincing evidence for the occurrence of the species on this island is a specimen from coll. Hjorth which is labelled »Bornholm«; it is now in Bornholms Museum, Rønne. (SK).

(2) *Hepialus lupina* (L.) has by Kaaber (1982: 31) been recorded also from the North Jutlandic districts NWJ and NEJ. The specimens in question have been proved misidentified. (SK).

(3) Nepticulidae. For members of this family in particular there are many literature records (particularly Sønderup 1949) based only on findings of empty mines or of larvae from which no adults have been reared. As mentioned in the Introduction, district records are given in this list only where determinations have been checked on adults specimens. It has been demonstrated that a great many of the literature records based on mines only are indeed misidentifications. (OK).

(4) *Stigmella rhamnella* (HS.). New to Denmark: LFM, Jydelejet, la. 24.ix.1983, *Rhamnus catharticus* (O. Karsholt, K. Schnack) (see Buhl *et al., in prep.)* (OK).

(5) *Stigmella ariella* (Herrich-Schäffer, 1860) (a junior synonym of *S. mespilicola* (Frey, 1856)) has been recorded from Denmark, latest by Karsholt & Nielsen (1976). Adult specimens are not available, however, and the records therefore do not meet the demands of the present list, as explained in the Introduction. The species thus has to be omitted from the Danish list until documented material becomes available. Previous Danish records have most likely been based on misidentified mines of *S. oxyacanthella* (Stt.) (OK).

(6) *Stigmella splendidissimella* (HS.). The record from B: Gudhjem, la. vi.1920 (reared viii, 1920), *Fragaria* (Gudmann) (recorded as *S. fragariella* Heyden by Sønderup 1949) is omitted, since the specimen in question

har kunnet opspores. Sandsynligvis har det drejet sig om en forveksling med *S. aeneofasciella* (HS.). (OK).

7. *Ectoedemia atricollis* (Stt.). Undersøgelser af Wilkinson *et al.* (1983) har vist, at denne er artsforskellig fra *E. angulifasciella* (Stt.). (OK).

8. *Ectoedemia rubivora* (Wcke.). Undersøgelser af Wilkinson *et al.* (1983) har vist, at denne er artsforskellig fra *E. arcuatella* (HS.). (OK).

9. *Heliozela resplendella* (Stt.) og *H. hammoniella* Sorh. opføres her under førstnævnte, idet det med vort nuværende kendskab ikke er muligt med sikkerhed at skelne eksemplarer af disse to taxa fra hinanden. Siden slutningen af forrige århundrede har europæiske microlepidopterologer antaget, at *resplendella* minerer på el og er artsforskellig fra *hammoniella,* der minerer på birk. De angivne forskelle i udseendet er meget vage, og der har tilmed ikke været enighed om, hvilke af disse, der skulle tillægges betydning ved artsadskillelsen. Af samme grund er det ikke muligt at afgøre, om de to taxa virkelig er monofage på henholdsvis el og birk. Imidlertid angives forskelle i flyvetiden samt i minens udseende (tilblivelse), hvorfor det ikke kan udelukkes, at der faktisk er tale om to arter. Hidtidige undersøgelser har ikke påvist forskelle i genitalierne, men disse bør dog efterprøves med en mere forfinet teknik.
Danske eksemplarer er fanget enkeltvis på og omkring både el og birk over hele landet – i enkelte elle-bevoksninger (LFM: Bøtø og NEJ: Svinkløv) i lidt større antal. (OK).

10. *Nemophora cupriacella* (Hb.). Arten meldtes fra NEJ: Allerup Bakker, 8.vii.1920 (A. C. Thomsen) af Larsen (1927: 169). Eksemplaret har ikke kunnet opspores, hvorfor fundet må udgå. (OK).

11. *Nemophora minimella* (Den. & Schiff.). Arten meldtes uden lokalitetsangivelse fra NWJ af Buhl *et al.* (1983: 2). Der er

has not been traceable; most probably it has been a misidentified *S. aeneofasciella* (HS.) (OK).

(7) *Ectoedemia atricollis* (Stt.). Wilkinson *et al.* (1983) have shown that this is a species separate from *E. angulifasciella* (Stt.) (OK).

(8) *Ectoedemia rubivora* (Wcke). Wilkinson *et al.* (1983) have shown that this is a species separate from *E. arcuatella* (HS.) (OK).

(9) *Heliozela resplendella* (Stt.) and *H. hammoniella* Sorh. Findings are here lumped together under the former name since present knowledge does not permit reliable separation of specimens of the two taxa. Since the end of last century, European microlepidopterists have supposed that the alder-mining *resplendella* is specifically distinct from the birch-mining *hammoniella.*
So far only very minor differences in the moths' external features have been noted, and the taxonomic significance of these remain disputable. For these reasons it is still not clear whether the two taxa are actually monophagous on alder and birch respectively. However, because of alleged differences in flight period and in the initiation of the mine it cannot be excluded that two species are indeed involved. Attempts of identifying genitalia differences have so far been unsuccesful, but should be repeated with the use of more refined techniques. In Denmark specimens have been found singly on or around alder as well as birch, and throughout the country; occurrence in greater numbers is recorded only from a few alder stands (LFM: Bøtø, and NEJ: Svinkløv). (OK).

(10) *Nemophora cupriacella* (Hb.). The species was recorded from NEJ: Allerup Bakker, 8.viii.1920 (A. C. Thomsen) by Larsen (1927: 169). The specimen has not been traced and the record is therefore omitted. (OK).

(11) *Nemophora minimella* (Den. & Schiff.). The species was by Larsen (1927: 169) recorded from Mors: Legind Bakker (V. S.

muligvis tale om det af Larsen (1927: 169) meldte eksemplar fra Mors: Legind Bakker (V. S. Knudsen). Belægseksemplarer fra NWJ har imidlertid ikke kunnet opspores, hvorfor fundet må udgå. (OK).

12. *Psyche betulina* (Zell.) er hos Hoffmeyer (1960: 243) også omtalt fra LFM: Ulvshale. Belægsmaterialet har imidlertid ikke kunnet opspores. (SK).

13. *Tineola bisselliella* (Humm.). Arten er fejlagtigt ikke anført i fortegnelsen over danske sommerfugle (Karsholt & Nielsen, 1976). (KL).

14. *Parornix carpinella* (Frey, 1861) er i de tidligere danske fortegnelser (Larsen, 1916 & 1927, Karsholt & Nielsen, 1976) opført som dansk, men udgår af herværende fortegnelse på grund af manglende belægsmateriale. (KL).

15. *Parornix traugotti* Svens. Arten er i det tidligere danske katalog (Karsholt & Nielsen, 1976) opført som *Parornix sp.* (KL).

16. *Acrocercops imperialella* (Zell.). Alle meldinger af *A. hofmanniella* (Schleich, 1867) fra Danmark har vist sig at tilhøre arten *A. imperialella* (Zell.). (KL).

17. *Acrocercops brongniardella* (F.). Arten er af Sønderup (1949) meldt fra F: Damsbo Skov, 1 mine 18.vii.1921 (H. P. S. Sønderup). Der foreligger ikke noget klækket eksempar, hvorfor arten ikke er registreret fra F. (KL).

18. *Phyllonorycter junoniella* (Zell.). Arten er af Larsen (1927) meldt fra F: Snarup Mose, antal la. 26.v.1925 (C. S. Larsen). Ingen eksemplarer har kunnet opspores, hvorfor arten ikke er registreret fra F. (KL).

19. *Phyllocnistis labyrinthella* (Bjerk.). Arten er kun kendt i ganske enkelte eksemplarer fra NEZ: Asserbo i 1950 og 1954. Meldingen fra 1977 (Pallesen & Palm, 1979) udgår på grund af fejlbestemmelse. (KL).

Knudsen) and was subsequently listed from NWJ without further locality dates in Buhl *et al.* (1983: 12). Voucher specimens from NWJ have not been traceable, however. (OK).

(12) *Psyche betulina* (Zell.) is by Hoffmeyer (1960: 243) recorded from LFM: Ulfshale. Voucher specimens have not been traceable. (SK).

(13) *Tineola bisseliella* (Humm.). The species was accidentally omitted from the Karsholt & Nielsen (1976) catalogue of Danish Lepidoptera. (KL).

(14) *Parornix carpinella* (Frey, 1861) has been included in previous Danish lists (Larsen 1916, 1927; Karsholt & Nielsen 1976), but since no voucher specimens from Denmark are available it is here omitted. (KL).

(15) *Parornix traugotti* Svens. This species was recorded as *Parornix* sp. in the preceding Danish catalogue (Karsholt & Nielsen 1976) (KL).

(16) *Acrocerops imperialella* (Zell.). All records of *A. hofmanniella* (Schleich, 1867) from Denmark have proved to be referable to *A. imperialella* (Zell.) (KL).

(17) *Acrocerops brongniardella* (F.) The species is by Sønderup (1949) recorded from F: Damsbo Skov, 1 mine 18.vii.1921 (H. P. S. Sønderup). No reared specimens from F are available and the record from this district is therefore omitted. (KL).

(18) *Phyllonorycter junoniella* (Zell.). The species is by Larsen (1927) recorded from F: Snarup Mose, numerous larvae 26.v.1925 (C. S. Larsen). No voucher specimens from F have been found and the record from this district is therefore omitted. (KL).

(19) *Phyllocnistis labyrinthella* (Bjerk). The species is known only from a very few specimens from NEZ: Asserbo in 1950 and 1954. The 1977 record (Pallesen & Palm 1979) is due to misidentification.

20. *Leucoptera malifoliella* (Costa). Prikkerne angiver frilandsfund. Arten indslæbes desuden regelmæssigt med frugter af *Pyrus communis* (Pære). (OK).

21. *Lyonetia prunifoliella* (Hübner, 1796) angives fra Danmark (LFM, Maribo) af Sønderup (1939, 1949) på grundlag af miner i blade af *Betula.* Der foreligger ikke klækkede eksemplarer, hvorfor angivelsen ikke opfylder de krav, som stilles i indledningen til denne liste, og arten må derfor udgå af fortegnelsen, indtil sikre fund foreligger. (OK).

22. *Depressaria albipunctella* (Den. & Schiff.). Ny for Danmark: NEZ, Horneby Sand, 8.-22.ix.1984 (J. F. Rasmussen) (se Buhl *et al., in prep.).* (OK).

23. *Depressaria depressana* (F.).Eksemplaret, der ligger til grund for prikken i NEJ i Palm (1973) har ikke kunnet genfindes. (EP).

24. *Agonopterix ulicetella* (Stt.). Ny for Danmark: WJ: Vejrs Strand, 15.ix.-5.x.1984 (E. Hauritz, P. Svendsen) (se Buhl *et al., in prep.).* (OK).

25. *Agonopterix scopariella* (Hein.). Fra SZ foreligger der kun larvefund. (EP).

26. *Agonopterix subpropinquella* (Stt.). Eksemplaret fra NWJ i Palm (1973) er *A. atomella* (Den. & Schiff.). (EP).

27. Elachistidae. I Traugott-Olsen & Nielsen (1977) findes enkelte distriktsangivelser, som ikke har kunnet bekræftes i forbindelse med dette arbejde. I et tilfælde *(E. alpinella* Stt. i SJ) synes der at være tale om en fejlopfattelse af en lokalitets beliggenhed. I andre tilfælde synes der at være tale om fejlbestemmelser *(E. dispilella* Zell. fra Østdanmark og *C. stabilella* (Stt.) fra Jylland). Endelig kan der i visse tilfælde være tale om bortkommet materiale. (KS).

28. Angivelsen af *Elachista elegans* Frey, 1859 i Karsholt & Nielsen (1976) beror på fejlbestemmelse. (KS).

(20) *Leucoptera malifoliella* (Costa). List records indicate outdoor findings exclusively. The species is regularly introduced on pear fruits, *Pyrus communis* (OK).

(21) *Lyonetia prunifoliella* (Hübner, 1796) was by Sønderup (1939, 1949) recorded from Denmark (LFM: Maribo) on the basis of mines in leaves of *Betula.* No reared specimens are available, and the record therefore does not meet the demands made in this catalogue; the species is consequently omitted from the Danish list pending reliable findings. (OK).

(22) *Depressaria albipunctella* (Den. & Schiff.). First Danish record: NEZ, Horneby Sand, 8.-22.ix.1984 (J. F. Rasmussen) (see Buhl *et al., in prep.*) (OK).

(23) *Depressaria depressana* (F.). The specimen on the basis of which the record from NEJ was given in Palm (1973) cannot now be traced (EP).

(24) *Agonopterix ulicetella* (Stt.). First Danish record: WJ, Vejrs Strand, 15.ix.-15.x.1984 (E. Hauritz, P. Svendsen) (see Buhl *et al., in prep.*). (OK).

(25) *Agonopterix scopariella* (Hein.). From SZ only findings of larvae are known. (EP).

(26) *Agonopterix subpropinquella* (Stt.). The NWJ record in Palm (1973) was based on a misidentified *A. atomella* (Den. & Schiff.). (EP).

(27) Elachistidae. In Traugott-Olsen & Nielsen (1977) there are a few district records which could not be confirmed during the preparation of the present work. In one case *(E. alpinella* Stt. in SJ) the discrepancy seems to be due to an erroneous district assignment of the finding site. A few records are apparently due to misidentifications *(E. dispilella* Zell. from eastern Denmark and *C. stabilella* (Stt.) from Jutland) whereas in other cases voucher material seems to be lost.

(28) The inclusion of *Elachista elegans* Frey 1859 in the Danish list (Karsholt & Nielsen 1976) was due to a misidentification (KS).

29. *Elachista kilmunella* Stt. Ny for Danmark: EJ: Løvenholm Skov, 12.vi.1984 (O. Karsholt, K. Schnack) (se Buhl *et al., in prep.*). (KS).

(29) *Elachista kilmunella* Stt. First Danish record: EJ, Løvenholm Skov, 12.vi.1984 (O. Karsholt, K. Schnack) (see Buhl *et al., in prep.*) (KS).

30. *Coleophora* Hb. Arten *C. albicostella* (Duponchel, 1843) er af Pallesen & Palm (1975) og i det sidste danske katalog over sommerfugle (Karsholt & Nielsen, 1976) opført som dansk, men udgår af herværende fortegnelse på grund af fejlbestemmelse. (KL).

(30) *Coleophora albicostella* (Duponchel, 1843). Records of this species from Denmark (Pallesen & Palm 1975, Karsholt & Nielsen 1976) are due to misidentification. (KL).

31. *Scythris cicadella* (Zell.). Fundet fra SJ: Søgård, 6.vi.1978 (G. Pallesen) (Pallesen & Palm, 1980: 12) udgår p. g. a. fejlbestemmelse. Det drejer sig om *S. potentillella* (Zell.). (OK).

(31) *Scythris cicadella* (Zell.). The record from SJ: Søgård, 6.vi.1978 (G. Pallesen) (Pallesen & Palm 1980: 12) is omitted; it was based on a misidentified *S. potentilla* (Zell.) (OK).

32. *Scythris limbella* (F.). Arten meldtes fra SZ: Korsør af Larsen (1916: 239). Eksemplaret har ikke kunnet opspores, hvorfor fundet må udgå. (OK).

(32) *Scythris limbella* (F.). The species was by Larsen (1916: 239) recorded from SZ: Korsør, but the specimen in question has not been traced and the district record consequently is omitted. (OK).

33. *Scythris palustris* (Zell.). Arten meldtes fra LFM: Horbelev, 23.vii.1949 (E. Kjær) af van Deurs (1950). Eksemplaret tilhører ZMUC, og jeg husker at have set det her for ca. 15 år siden, uden at jeg i dag kan sige, at det virkelig var denne art. Trods ihærdig eftersøgning er det imidlertid ikke lykkedes at opspore eksemplaret, og fundet må derfor udgå. (OK).

(33) *Scythris palustris* (Zell.). The species was by van Deurs (1950) recorded from LFM: Horbelev, 23.vii.1949 (E. Kjær). The specimen belongs to ZMUC and I recall having seen it here some 15 years ago; however, I cannot now positively state that it did indeed belong to this species. The specimen has subsequently been removed and considerable efforts to locate it have so far been futile. The record is consequently omitted. (OK).

34. *Scythris picaepennis* (Hw.). Fundet fra B: Gudhjem (Larsen, 1927: 151) udgår p. g. a. fejlbestemmelse. Det drejer sig om *S. potentillella* (Zell.). (OK).

(34) *Scythris picaepennis* (Hw.). The record from B: Gudhjem (Larsen 1927: 151) is omitted, since it was due to a misidentification of *S. potentilla* (Zell.). (OK).

35. *Scythris crypta* Hann. Ny for Danmark: WJ: Ståsø Plantage (Ulfborg), 19.vi., 5.vii. og 15.vii. 1984 (P. Falck, H. Hendriksen) (se Buhl *et al., in prep.*). (OK).

(35) *Scythris crypta* Hann. First Danish record: WJ, Ståsø Plantage (Ulfborg), 19.vi, 5.vii. and 15.vii. 1984 (P. Falck, H. Hendriksen) (se Buhl *et al., in prep.*) (OK).

36. *Eulamprotes superbella* (Zell.). Arten opgives af Larsen (1927) som fundet på B: Ringedal. Fundet bør imidlertid udgå, indtil nyere dokumentation foreligger (Karsholt & Larsen, *in press*). (OK).

(36) *Eulamprotes superbella* (Zell.). The species was recorded by Larsen (1927) from B: Ringedal, but this district record should be omitted pending other documentation (Karsholt & Larsen, *in press*) (OK).

37. *Teleiodes vulgella* (Den. & Schiff.). Arten meldtes fra NWJ: Hansted, 6.vii.195? leg. ?) af Worm-Hansen (1960). Eksemplaret har ikke kunnet opspores, og sandsynligvis drejer det sig om en forveksling med *Exoteleia dodecella* (L.). (OK).

(37) *Teleiodes vulgella* (Den. & Schiff.). The species was by Worm-Hansen (1960) recorded from NWJ: Hansted, 6.vii.195? (leg. ?). The specimen in question has not been traceable and most probably it has been a misidentified *Exoteleia dodecella* (L.) (OK).

38. *Bryotropha galbanella* (Zell.). Arten meldtes fra B: Hasle, 7.viii.1916 (H. P. S. Sønderup) af Larsen (1916: 297). Eksemplaret har ikke kunnet opspores, og fundet må derfor udgå. (OK).

(38) *Bryotropha galbanella* (Zell). The species was by Larsen (1916: 297) recorded from B: Hasle, 7.viii.1916 (H. P. S. Sønderup). The specimen has not been traceable and the district record is therefore omitted. (OK).

39. *Gnorimoschema bodillum* Karsh. & Niels. Arten er meldt fra NWJ: Agger, i antal 11.vii.1976 (G. Pallesen) (Pallesen & Palm, 1977: 82). Belægseksemplarer har imidlertid ikke kunnet opspores, hvorfor fundet må udgå. (OK).

(39) *Gnorimoschema bodillum* Karsh. & Niels. The species is recorded from NWJ: Agger, in numbers, 11.vii.1976 (G. Pallesen) (Pallesen & Palm, 1977). Voucher specimens have not been traceable and the district record is therefore omitted. (OK).

40. *Scrobipalpa costella* (Humphr. & Westw.). Ny for Danmark: WJ: Skallingen, 8.-18.ix.1984 (P. Falck, G. Jeppesen, K. Larsen) (se Buhl *et al., in prep.*). (OK).

(40) *Scrobipalpa costella* (Humphr. & Westw.). First Danish record: WJ, Skallingen, 8.-18.ix.1984 (P. Falck, G. Jeppesen, K. Larsen) (see Buhl *et al., in prep.*). (OK).

41. Udgår.

(41) Omitted.

42. *Mesophleps silacella* (Hb.). Fundet fra LFM: Ulfshale (Bjørn & Pallesen, 1966: 162) udgår p. g. a. fejlbestemmelse. (OK).

(42) *Mesophleps silacella* (Hb.). The record from LFM: Ulfshale (Bjørn & Pallesen, 1966: 162) is omitted; it was due to a misidentification. (OK).

43. *Phragmataecia castaneae* (Hb.) er hos Kaaber (1982: 31) også nævnt fra Fyn. Dette fund har imidlertid ikke kunnet verificeres, da belægseksemplaret er gået tabt. (SK).

(43) *Phragmataecia castaneae* (Hb.) is recorded from F by Kaaber (1982: 31), but a voucher specimen is not traceable. (SK).

44. Arterne *Acleris abietana* (Hb.) og *A. nigrilineana* Kawabe, 1963 kan i det danske materiale ikke skilles fra hinanden, hvorfor sidstnævnte ikke kan optages i fortegnelsen. (EP, OK).

(44) *Acleris abietana* (Hb) and *A. nigrilineana* Kawabe, 1963 are inseparable in the Danish material and the latter species is therefore not listed in the catalogue. (EP, OK).

45. Udgår.

(45) Omitted.

46. *Bactra furfurana f. lacteana* Caradja, 1916 er fundet i alle 11 distrikter. Udbredelseskort findes i Palm (1982). Taxonets status er stadig omdiskuteret. (EP).

(46) *Bactra furfurana f. lacteana* Caradja, 1916 is recorded from all the 11 district and a distribution map is given by Palm (1982). The status of this taxon remains disputed. (EP).

47. *Aterpia corticana* (Denis & Schiffermüller, 1775) er ifølge Karsholt & Larsen (*in press*) fejlopgivet fra Danmark. (EP).

48. *Ancylis subarcuana* (Douglas, 1847) betragtes nu som underart af *A. geminana* (Don.), hvorfor begge former er samlet under dette navn. Se Buhl *et al.* (1984). (EP).

49. *Rhyacionia duplana* (Hb.). Fra B: Robbedale, 30.v.1954, foreligger et eksemplar, der ikke med sikkerhed kan henføres til denne art, da det er en hun. (EP).

50. *Cydia corollana* (Hb.). Fra NEJ foreligger kun larvefund. – Se Palm (1982). (EP).

51. *Dichrorampha obscuratana* (Wolff). Eksemplaret, der ligger til grund for prikken i NEJ hos Palm (1982), har ikke kunnet genfindes. (EP).

52. *Dichrorampha gueneeana* Obr. Eksemplaret, der ligger til grund for prikken i SJ hos Palm (1982), har ikke kunnet genfindes. (EP).

53. *Synanthedon formicaeformis* (Esp.) er hos Hoffmeyer & Knudsen (1940: 52) anført fra Bornholm. Belægsmaterialet er antagelig gået tabt under Anden Verdenskrig og har ikke kunnet verificeres. (SK).

54. *Platyptilia calodactyla* (Den. & Schiff.). Alle opgivne fund uden for Bornholm tilhører en særlig form, hvis taxonomiske status endnu er uafklaret (K. Schnack, under udarbejdelse). Denne form er kendt fra alle distrikter undtagen SJ. (KS).

55. *Stenoptilia pneumonanthes* (Bütt.). Foruden de mange jyske populationer er arten kendt i et enkelt eksemplar fra Botanisk Have i København, 23.viii.1927, leg. Gudmann, coll. ZMUC. Dette fund har næppe faunistisk interesse. (KS).

56. *Agriphila aeneociliella* (Ev.). Ny for Danmark: NEZ: Solrød Strand,

(47) *Aterpia corticana* (Denis & Schiffermüller, 1775). Danish records are erroneous, according to Karsholt & Larsen (*in press*). (EP).

(48) *Ancylis subarcuana* (Douglas,1847) is currently considered a subspecies of *A. geminana* (Don) and the two taxa are consequently recorded collectively under the latter name. Se Buhl *et al.* (1984) (EP).

(49) *Rhyacionia duplana* (Hb.). A specimen from B: Robbedale 30.v.1954 is not with certainty referable to this species since it is a female. (EP).

(50) *Cydia corollana* (Hb.). From NEJ only records of larvae are available. See Palm (1982). (EP).

(51) *Dichrorampha obscuratana* (Wolff). The specimen on which Palm's (1982) NEJ record was based has not subsequently been traceable. (EP).

(52) *Dichrorampha gueneeana* Obr. The specimen on which Palm's (1982) SJ record was based has not subsequently been traceable. (EP).

(53) *Synanthedon formicaeformis* (Esp.) was by Hoffmeyer & Knudsen (1940: 52) recorded from Bornholm. The voucher material was presumably lost during World War II and the district record remains unconfirmed. (SK).

(54) *Platyptilia calodactyla* (Den. & Schiff.). All recorded specimens outside Bornholm belong to a distinctive form whose taxonomic status is still unclarified (K. Schnack, in prep.). This form is known from all other Danish districts except SJ. (KS).

(55) *Stenoptilia pneumonanthes* (Bütt.). Apart from the numerous Jutlandic populations the species is recorded only from a single specimen in the Botanical Garden of Copenhagen, 23.viii.1927, leg. Gudmann, coll. ZMUC. This finding is hardly of faunistic significance.

(56) *Agriphila aeneociliella* (Ev.).First Danish record: NEZ, Solrød Strand,

15.viii.1953, leg. E. Traugott-Olsen, coll. ZMUC (se Buhl *et al., in prep.).* (OK).

15.viii.1953, leg. E. Traugott-Olsen, coll. ZMUC. See Buhl *et al., in prep.* (OK).

57. *Catoptria verellus* (Zinck.). Arten opgives hos Larsen (1916) fra B: Ringedal. Det pågældende eksemplar er fejlbestemt. (EP).

(57) *Catoptria verellus* (Zinck.). The species was by Larsen (1916) recorded from B: Ringedal. The specimen in question was misidentified. (EP).

58. *Cynaeda dentalis* (Den. & Schiff.). Arten har været opgivet fra NWZ (Bjørn & Pallesen, 1971), men eksemplarerne har ikke kunnet opspores. (EP).

(58) *Cynaeda dentalis* (Den. & Schiff.). The species has been recorded from NWZ (Bjørn & Pallesen 1971) but voucher specimens are not traceable. (EP).

59. *Pyrausta porphyralis* (Den. & Schiff.). Arten har været opgivet fra B (Bjørn & Pallesen, 1968), men eksemplaret er fejlbestemt. (EP).

(59) *Pyrausta pophyralis* (Den. & Schiff.). The species has been recorded from B (Bjørn & Pallesen 1968), but the specimen in question was misidentified. (EP).

60. *Udgår.*

(60) Omitted.

61. *Udea hamalis* (Thnbg). Arten opgives fra NEJ: Dronninglund Storskov, juli 1958 (Christiansen, 1958). Eksemplaret har ikke kunnet verificeres. (EP).

(61) *Udea hamalis* (Thnbg). The species has been recorded from NEJ, Dronninglund Storskov, July 1958 (Christiansen 1958) but the specimen in question has not been traceable. (EP).

62. *Diasemopsis ramburialis* (Dup.). Ny for Danmark: LFM: Fanefjord Skov, 16.ix.-7.x.1984 (J. P. Baungård) (se Buhl *et al., in prep.*). (KL).

(62) *Diasempopsis ramburialis* (Dup.). First Danish record: LFM, Fanefjord Skov, 16.ix.-7.x.1984 (J. B. Baungård) (see Buhl *et al., in prep.*). (KL).

63. *Zygaena viciae* (Den. & Schiff.) er bl.a. hos Pedersen & Sørensen (1948: 21) blev omtalt fra Fyn. Det pågældende belægsmateriale har imidlertid ikke kunnet opspores. (SK).

(63) *Zygaena viciae* (Den. & Schiff.) has been recorded from Funen e.g. by Pedersen & Sørensen (1948: 21). No voucher material from this district is traceable, however. (SK).

64. *Pyrgus serratulae* (Ramb.). Arten har hidtil været omtalt i to danske fund, det ene fra EJ: Vejle 1908 og det andet fra LFM: Strognæs dige 1909 (Wolff, 1939). Senere oplysninger har dog sandsynliggjort, at det førstnævnte er et fejletiketteret udenlandsk eksemplar, oprindelig fra coll. W. Egly. Det eneste sikre danske fund stammer således fra Lolland. Det stod indtil 1984 i coll. E. Jarby, men er nu forsvundet ved samlingens udstykning og bortsalg. (SK).

(64) *Pyrgus serratulae* (Ramb.). Two Danish findings have so far been recorded, from EJ: Vejle, 1908 and from LFM: Strognæs Dige, 1909 respectively (Wolff 1939). Subsequent evidence indicates, however, that the former specimen was a mislabelled foreign one which originated from coll. W. Egly. The only reliable Danish specimen thus came from Lolland; until 1984 it was kept in coll. C. Jarby, but it has now disappeared following the division and sale of this collection. (SK).

65. *Thymelicus sylvestris* (Poda). Arten er øst for Storebælt kun kendt fra LFM: Rødby 1916 (H. P. S. Sønderup, NMÅ). (SK).

(65) *Thymelicus sylvestris* (Poda). In Denmark east of the Great Belt this species is known only from LFM: Rødby 1916 (H. P. S. Sønderup, NMÅ). (SK).

66. *Ochlodes venata* (Brem. & Grey). Arten er fra Bornholm kun kendt fra Dueodde 1942. (I. Norgaard leg. et coll.) (SK).

67. *Parnassius apollo* (L.). Artens forekomst i Danmark er helt tilfældig og bygger i en række tilfælde kun på iagttagelser, hvoraf mange skyldes ikke-entomologer. De to sikreste danske fund er gjort af skoleelever og stammer fra EJ: Blåkilde mølle ved Hobro 1916 (NMÅ) og NWJ: Krejbjerg ved Skive 1929 (ZMUC). (SK).

68. *Parnassius mnemosyne* (L.). Artens tilbagegang og uddøen i Danmark er senest behandlet af Kaaber (1979). De sidste danske fund stammer fra NEZ: Jægerspris 1961. (SK).

69. *Leptidea sinapis* (L.). Arten er fra Fyn omtalt fra Ølstedgaard (Haas, 1874: 393) og fra WJ: Herning af Knudsen (1914: 31). Det pågældende belægsmateriale er antagelig gået tabt. (SK).
Arten er desuden angivet fra LFM: Liselund, 19.viii.1898, coll. C. S. Larsen. Eksemplaret har ikke ladet sig opspore. (BS).

70. *Limenitis camilla* (L.). Arten er fra SZ kun kendt med uregelmæssige mellemrum fra skovene ved Slagelse (Haas 1874: 388, Jensen 1918: 108). Belægsmaterialet har ikke kunnet opspores. (SK).

71. *Nymphalis xanthomelas* (Den. & Schiff.). Arten er siden 1960 kun kendt fra B: Randkløve 1979 (E. Christophersen, ZMUC). (BS).

72. *Argynnis paphia* (L.). Arten er fra de vestlige dele af Jylland senest kendt fra 1940'erne, i WJ ved Tim 1941 (Gjaldbæk, 1941) og fra NWJ på Venø 1948 (J. C. Steensgaard, NMÅ). (SK).
Eksemplaret fra Tim har ikke kunnet opspores. (BS).

73. *Fabriciana adippe* (Den. & Schiff.). Arten er fra SJ kun omtalt fra Kollund skov (Hoffmeyer & Knudsen 1938,

(66) *Ochlodes venata* (Brem. & Grey). The species is from Bornholm known only from Dueodde 1942 (I. Norgaard leg. et coll.) (SK).

(67) *Parnassius apollo* (L.). The occurrence of this species in Denmark is wholly accidental; a number of records are due to sightings only, often made by non-entomologists. The two most reliable findings have been made by schollboys and are from EJ: Blåkilde Mølle near Hobro 1916 (NMÅ) and NWJ: Krejbjerg near Skive 1929 (ZMUC) respectively. (SK).

(68) *Parnassius mnemosyne* (L.). The decline and extinction of this species in Denmark is most recently discussed by Kaaber (1979). The last Danish specimens are from NEZ: Jægerspris 1961. (SK).

(69) *Leptidea sinapis* (L.). The species has been recorded from Funen: Ølstedgaard (Hass 1874: 393) and from WJ: Herning (Knudsen 1914: 31). Voucher material from the two districts in question is apparently lost. The species has also been recorded from LFM: Liselund, 19.viii.1898, coll. C. S. Larsen; the specimen in question is similarly untraceable. (SK, BS).

(70) *Limenitis camilla* (L.). From SZ only irregular occurences in the Slagelse forests have been recorded (Haas 1874: 388, Jensen 1918: 108) and no voucher specimens have been traceable.

(71) *Nymphalis xanthomelas* (Den. & Schiff.). Since 1960 the species has been recorded only from B: Randkløve 1979 (E. Christophersen. ZMUC) (BS).

(72) *Argynnis paphia* (L.). From Western Jutland this species has last been recorded in the 1940'es, viz. WJ: Tim, 1941 (Gjaldbæk 1941) and NWJ: Venø, 1948 (J. C. Steensgaard. NMÅ). The Tim specimen is not traceable. (SK).

(73) *Fabriciana adippe* (Den. & Schiff.). From SJ the species is reported only from Kollund Skov (Hoffmeyer & Knudsen 1938,

Warnecke 1955: 67). Noget belægsmateriale har ikke kunnet opspores. (SK).

74. *Fabriciana niobe.* (L.). Arten er fra SJ omtalt fra Frøslev (Hoffmeyer & Knudsen 1938, Henriksen 1956), og fra LFM ved Lyttesholm (Jørgensen, 1913: 89), men der foreligger tilsyneladende intet belægsmateriale. En angivelse fra SZ: Holmegårds mose 1962 (Kaaber & Norgaard, 1963) udgår som følge af en sandsynlig etiketteringsfejl. (SK).

75. *Boloria aquilonaris* (Stich.). Arten er fra Bornholm kun kendt fra Almindingen ca. 1900 (coll. Hjorth. Bornholms museum, Rønne). (SK).

76. *Melitaea diamina* (Lang). Arten er fra Bornholm kun omtalt fra Almindingen ca. 1900 (Hoffmeyer & Knudsen, 1937: 51). Belægsmaterialet synes at være gået tabt. (SK).

77. *Mellicta athalia* (Rott.). Arten er i litteraturen nævnt fra flere findesteder på Lolland (Jørgensen 1913: 89). Belægsmaterialet har ikke kunnet kontrolleres, og oplysningerne skyldes muligvis forveksling med *M. diamina. (SK).*

78. Euphydryas aurinia (Rott.). Arten er også anført fra Lolland (Jørgensen 1913) og fra Bornholm ca. 1900 (Hoffmeyer & Knudsen, 1937: 51). Belægsmaterialet har ikke kunnet opspores. (SK).

79. *Erebia ligea* (L.). Arten er kun kendt i fem sikre danske fund. NEJ: Tranum klit mellem 1971-73 (O. Nielsen leg. T. Landboe coll.), F: Søllinge mellem 1911-12 (E. Mackeprang coll.), NWZ: Røsnæs mellem 1870-90 (ZMUC), NEZ: Greve strand 1934 (ZMUC), og B: Christiansø 1980 (O. Graack coll.). (SK).

80. *Satyrium ilicis* (Esp.). Arten er fra NEZ meldt fra Geelskov 1892 (Gudmann, 1897). Det pågældende eksemplar har ikke kunnet opspores. (SK).

Warnecke 1955: 67). Voucher material from the district is not available.

(74) *Fabriciana niobe* (L.). The species has been recorded from SJ: Frøslev (Hoffmeyer & Knudsen 1938, Henriksen 1956) and from LFM: Lyttesholm (Jørgensen 1913: 89) but apparently no voucher material from these districts is available. A record from SZ: Holmegaards mose 1962 (Kaaber & Norgaard 1963) is omitted since it is most likely due to an labelling error. (SK).

(75) *Boloria aquilonaris* (Stich). The species is from Bornholm known only from Almindingen, ca. 1900 (coll. Hjorth. Bornholms Museum, Rønne). (SK).

(76) *Melitaea diamina* (Lang). The species is from Bornholm recorded only from Almindingen, ca. 1900 (Hoffmeyer & Knudsen 1937: 50); voucher material from this district seems to be lost. (SK).

(77) *Mellicta athalia* (Rott.). There are literature records of this species from a number of localities on Lolland (Jørgensen 1913: 89) Voucher material has not been available and the records may be due to confusion with *M. diamina.* (SK).

(78) *Euphydryas aurinia* (Rott). The species has been recorded from Lolland (Jørgensen 1913) and Bornholm, ca. 1900 (Hoffmeyer & Knudsen 1937: 51), but voucher material has not been traceable. (SK).

(79) *Erebia ligea* (L.). There are only five reliable records of this species from Denmark. NEJ: Tranum Klit, between 1971-73 (O. Nielsen leg., T. Landboe coll.), F: Søllinge, between 1911-12 (E. Mackeprang jr. coll.), NWZ: Røsnæs between 1870-90 (ZMUC), NEZ: Greve Strand 1939 (ZMUC) and B: Christiansø (O. Graack coll.). (SK).

(80) *Satyrium ilicis* (Esp.). The species has been recorded from NEZ: Geelskov 1892 (Gudmann 1897) but the specimen in question is not traceable.

81. *Satyrium pruni* (L.). Arten er fra EJ kendt fra Katrinebjerg skov ved Trelde 1936 (E. Kristensen leg. ZMUC). (SK).

82. *Lycaena tityrus* (Poda). Arten er fra B omtalt fra flere steder (Hoffmeyer & Knudsen, 1937-40). De pågældende eksemplarer har ikke kunnet opspores. Fra SJ er den kun kendt fra Holbøl ved Padborg 1909 (Warnecke, 1956: 78). Det pågældende eksemplar har været kontrolleret af afdøde dr. G. Warnecke, Hamburg, men er sandsynligvis nu gået tabt. (SK).

83. *Drepanidae* og *Geometridae.* I Skou (1984) findes en del oplysninger om arter, der i tidligere litteratur har været angivet fra distrikter, hvorfra det i dag ikke er muligt at opspore belægseksemplarer. Disse oplysninger er ikke gentaget i noter her. (PS).

84. *Archiearis notha* (Hb.). Ifølge Hoffmeyer (1966) er arten kendt fra NEZ: Køge Ås, men et belægseksemplar har ikke ladet sig opspore. I ZMUC's samling opbevares eksemplarer af *A. parthenias* (L.) fra denne lokalitet, så der er muligvis tale om en forveksling med denne art. (PS).

85. *Eustroma reticulata* (Den. & Schiff.). Ifølge Hoffmeyer og Knudsen (1938) kendes arten fra NWJ: Skive, men et belægseksemplar har ikke kunnet opspores. (PS).

86. *Eupithecia absinthiata* (Cl.). Ifølge Kaaber (1980) foreligger der hidtil intet grundlag for at betragte *Eupithecia goossensiata* Mabille, 1869 som en selvstændig art. (PS).

87. *Eupithecia innotata* (Hufn.). Ifølge Kaaber (1981) foreligger der hidtil intet grundlag for at betragte *Eupithecia fraxinata* Crewe, 1863 som en selvstændig art. (PS).

88. *Plagodis pulveraria* (L.). Arten kendes ifølge Hoffmeyer og Knudsen (1938) fra WJ: Nørholm og ifølge Hoffmeyer

(81) *Satyrium pruni* (L.). The species is from EJ known from Katrinebjerg skov near Trelde, 1936 (E. Kristensen leg., ZMUC). (SK).

(82) *Lycaena tityrus* (Poda). The species has been recorded from a number of localities in district B (Hoffmeyer & Knudsen 1937-40), but pertinent voucher specimens have not been traceable. From SJ it is known only from Holbøl near Padborg, 1909 (Warnecke 1956: 78). The specimen in question has been checked by the late dr. G. Warnecke, Hamburg, but is apparently now lost. (SK).

(83) Drepanidae and Geometridae. Skou (1984) discussed several district records in previous literature which cannot now be substantiated by voucher material. This information is not repeated in the present note section. (PS).

(84) *Archiearias notha* (Hb). According to Hoffmeyer (1966) the species is known from NEZ: Køge Ås, but no voucher specimen is traceable. In the ZMUC collection there is a specimen of *A. parthenias* from this locality; a confusion with the latter species thus probably has taken place. (PS).

(85) *Eustroma reticulata* (Den. & Schiff.). According to Hoffmeyer & Knudsen (1938) the species is known from NWJ: Skive, but no voucher specimen is available. (PS).

(86) *Eupithecia absinthiata* (Cl.). According to Kaaber (1980) no adequate justification has so far been provided for considering *E. goossensiata* Mabille, 1869 a separate species. (PS).

(87) *Eupithecia innotata* (Hufn.). According to Kaaber (1981) no adequate justification has so far been provided for considering *E. fraxinata* Crewe, 1863 a separate species. (PS).

(88) *Plagodis pulveraria* (L.). The species has been recorded from WJ: Nørholm (Hoffmeyer & Knudsen 1938) and NWJ: Hanst-

(1966) fra NWJ: Hanstholm, men det har ikke været muligt at opspore eksemplarer fra disse to distrikter. Vedrørende Hanstholmangivelsen se Kaaber (1964). (PS).

89. *Epione paralellaria* (Den. & Schiff.). Ifølge Hoffmeyer og Knudsen (1938) kendes arten fra flere lokaliteter i distrikt WJ, men et belægseksemplar har det ikke været muligt at opspore. (PS).

90. *Pseudopanthera macularia* (L.). Arten kendes ifølge Hoffmeyer (1966) fra NEJ: Lovns, men det har ikke været muligt at finde et eksemplar herfra. (PS).

91. *Angerona prunaria* (L.). Arten kendes ifølge Hoffmeyer og Knudsen (1938) fra SJ: Kollund, men et eksemplar fra distriktet har ikke kunnet opspores. (PS).

92. *Endromis versicolora* (L.). Ifølge Kaaber (1982) kendes arten fra SZ: Slagelse Skov i 1940 og 1962. Et eksemplar fra 1940 har ikke kunnet opspores, og 1962-fundet eksisterer kun som dagbogsnotat. (PS).

93. *Aglia tau* (L.). Ifølge Kaaber (1982) kendes arten fra NWJ: Vinderup i 1970, men fundet har ikke kunnet kontrolleres, hvorfor arten indtil videre ikke kan anføres fra distriktet. (PS).

94. *Furcula bicuspis* (Bkh.). Arten er fra SJ kun kendt fra Draved Skov 1960 og 1967 (E. Bundgaard leg.). De pågældende eksemplarer var imidlertid ikke i finderens samling, da denne ankom til Zoologisk Museum. (SK, OK).

95. *Peridea anceps* (Goeze). Arten er hos Kaaber (1982) angivet fra et enkelt UTM-kvadrat i NWJ, ved Struer. Belægsmaterialet herfra synes ikke at være bevaret. (SK).

96. *Drymonia dodonea* (Den. & Schiff.). Arten er flere gange blevet meldt fra Bornholm (Hoffmeyer 1960, Kaaber 1982). Der har imidlertid ikke kunnet konstateres belæg for de hidtidige oplysninger. (SK).

holm (Hoffmeyer 1966), but voucher specimens from these districts have not been traceable. The Hanstholm record is discussed by Kaaber (1964). (PS).

(89) *Epione paralellaria* (Den. & Schiff.). According to Hoffmeyer & Knudsen (1938) the species is known from several localities in WJ, but no voucher material from this district has been traceable. (PS).

(90) *Pseudopanthera macularia* (L.). According to Hoffmeyer (1966) the species has been found in NEJ: Lovns, but no voucher specimen has been found. (PS).

(91) *Angerona prunaria* (L.). According to Hoffmeyer & Knudsen (1938) the species has been found in SJ: Kollund, but no voucher specimen has been found. (PS).

(92) *Endromis versicolora* (L.). According to Kaaber (1982) the species has been found in SZ: Slagelse Skov in 1940 and 1962. No specimen from 1940 has been traced and the 1962 finding is recorded as a diary note only. (PS).

(93) *Aglia tau* (L.). According to Kaaber (1982) the species has been found in NWJ: Vinderup in 1970, but the finding has not been documented, so for the time being the district record cannot be upheld. (PS).

(94) *Furcula bicuspis* (Bkh.). The species is from SJ recorded only from Draved Skov, 1960 and 1967 (E. Bundgaard leg.). The specimens in question were not, however, present in the finder's collection as the latter came on bequest to ZMUC. (SK, OK).

(95) *Peridea anceps* (Goeze). The species has been recorded from NWJ: Struer (Kaaber 1982), but voucher material is apparently lacking. (SK).

(96) *Drymonia dodonea* (Den. & Schiff.). The species has repeatedly been recorded from Bornholm (Hoffmeyer 1960, Kaaber 1982), but it has proved impossible to document these records. (SK).

97. *Clostera anastomosis* (L.). Arten er fra SZ kun kendt fra Stevns fyr i 1938 (Nielsen 1941: 41) Det pågældende belægsmateriale har hidtil ikke kunnet opspores. (SK).

98. *Setina irrorella* (L.). Arten er fra SZ kun omtalt fra Lekkende (Jensen 1921: 55). Det pågældende belægsmateriale har ikke kunnet opspores. (SK).

99. *Eilema pygmaeola* (Dbld.). Arten er hos Kaaber (1982) omtalt fra EJ: Anholt. Oplysningerne har ikke kunnet kontrolleres og skyldes sandsynligvis forveksling med *E. lutarella.* (SK).

100. *Coscinia cribraria* (L.). Arten er hos Kaaber (1982) omtalt fra SJ: Rømø 1976. Oplysningen skyldes samleren Helmut Wegner, BRD. Belægsmaterialet er ikke blevet kontrolleret. (SK).

101. *Callimorpha dominula* (L.). Arten er fra SJ omtalt fra Hejls 1959 (Hoffmeyer 1960). Belægseksemplaret er sandsynligvis ikke bevaret. (SK).

102. *Phytometra viridaria* (Cl.). Arten er fra Fyn kun kendt fra Søby ved Flemløse 1910 (Pedersen & Sørensen 1948). Belægsmaterialet har ikke kunnet opspores. (SK).

103. *Meganola strigula* (Den. & Schiff.). Arten er tidligere blevet meldt fra flere steder i Vestjylland, først af Haas (1874: 421), senest hos Kaaber (1982). Det har ikke været muligt at kontrollere belægsmateriale fra de hidtil omtalte findesteder, Nørholm Skov, Stoubæk Krat, Hastrup Krat og Vittrupkrattene. (SK).

104. *Nola aerugula* (Hb.). De danske eksemplarer fra SJ og WJ tilhører ssp. *holsatica* (Sauber, 1916), mens eksemplarer fra de øvrige danske distrikter (F, LFM og B) tilhører ssp. *aerugula* (Hb.). (SK).

105. *Lamprotes c-aureum* (Knoch). Arten er fra LFM kun kendt fra Mellemskoven på Falster 1946 (Hejgaard 1947: 56).

(97) *Clostera anastomosis* (L.). The species is from SZ recorded only from Stevns Fyr, 1938 (Nielsen 1941: 41); pertinent voucher material has not been traceable. (SK).

(98) *Setina irrorella* (L.). The species is from SZ recorded only from Lekkende (Jensen 1921: 55); pertiment voucher material has not been traceable. (SK).

(99) *Eilema pygmaeola* (Dbld). The species has been recorded from EJ: Anholt (Kaaber 1982); the record has not been documented and is probably due to confusion with *E. lutarella.* (SK).

(100) *Coscinia cribraria* (L.). The species is recorded from SJ: Rømø (Kaaber 1982) on the basis of information from the German lepidopterist Helmut Wegner. The material has not been checked. (SK).

(101) *Callimorpha dominula* (L.). The species is recorded from SJ: Hejls, 1959 (Hoffmeyer 1960). The specimen in question is most likely lost. (SK).

(102) *Phytometra viridaria* (Cl.). The species is recorded from Funen only from Søby near Flemløse, 1910 (Pedersen & Sørensen 1948). Voucher material has not been traceable. (SK).

(103) *Meganola strigula* (Den. & Schiff.). The species has been recorded from a number of localities in Western Jutland, first by Haas (1874: 421), latest by Kaaber (1982). It has proved impossible to trace voucher material from any of the recorded finding sites, viz., Nørholm Skov, Stoubæk Krat, Hastrup Krat and Vittrup Krat. (SK).

(104) *Nola aerugula* (Hb.). The Danish specimens from SJ and WJ belong to spp. *holsatica* (Sauber, 1916) whereas specimens from other districts in Denmark (F, LFM and B) belong to ssp. *aerugula.* (SK).

(105) *Lamprotes c-aureum* (Knoch). The species is from LFM recorded only from Mellemskoven, Falster, 1946 (Hejgaard

Belægsmaterialet befinder sig i en museumssamling i Michigan, U.S.A. (SK).

106. *Acronicta aceris* (L.). Arten er fra NWJ kun omtalt fra Skive (Hoffmeyer 1962). Det pågældende belægseksemplar, en larve, er ikke bevaret. (SK).

107. *Acronicta cuspis* (Hb.). Arten er meldt fra NWJ af Kaaber & Norgaard (1971). Det pågældende eksemplar har senere vist sig at være fejlbestemt. (BS).

108. *Acronicta menyanthidis* (Esp.). Arten er tidligere meldt fra flere steder på Bornholm (Hoffmeyer & Knudsen 1937-40). Det har hidtil ikke været muligt at kontrollere det pågældende materiale. (SK).

109. *Craniophora ligustri* (Den. & Schiff.). Arten er omtalt fra NWJ: Nykøbing hos Knudsen (1914: 39), men et belægsmateriale har ikke kunnet opspores. (SK).

110. *Cryphia domestica* (Hufn.). Arten er nævnt fra WJ af Kaaber & Norgaard (1973), men det pågældende fund har senere vist sig at være usikkert. (SK).

111. *Cryphia muralis* (Forst.). Artens forekomst i Danmark er tvivlsom. Den er hos Jensen (1918-21) omtalt fra Lolland. Det sikreste belæg for denne oplysning er to oprindeligt uetiketterede eksemplarer fra skovrider C. Iversens samling af danske sommerfugle, som først blev publiceret efter hans død (Sønderup 1926). Arten er ikke senere fundet i Danmark. (SK).

112. *Amphipyra perflua* (F.). Arten er fra det østlige Jylland kun meldt fra Bygholm ved Horsens (Haas 1874: 457). Det pågældende belægsmateriale har hidtil ikke kunnet opspores. (SK).

113. *Amphipyra livida* (Den. & Schiff.). Arten er fra Lolland kun kendt i to oprindeligt uetiketterede eksemplarer fra skovrider C. Iversens samling, som først blev erkendt og publiceret efter hans død (Sønderup 1926, Hoffmeyer & Knudsen 1938: 154). (SK).

1947: 56). Pertinent voucher material is lacking. (SK).

(106) *Acronicta aceris* (L.). The species is from NWJ recorded only from Skive (Hoffmeyer 1962). The pertinent voucher material (a caterpillar) is not preserved. (SK).

(107) *Acronicta cuspis* (Hb.). The species has been recorded from NWJ (Kaaber & Norgaard 1971) but the specimen in question subsequently proved to be misidentified. (BS).

(108) *Acronicta menyanthidis* (Esp.). The species has been recorded from a number of localities on Bornholm (Hoffmeyer & Knudsen 1937-40). Voucher material has not been traceable. (SK).

(109) *Craniophora ligustri* (Den. & Schiff.).The species is recorded from NWJ: Nykøbing (Knudsen 1914: 39) but voucher material is not traceable. (SK).

(110) *Cryphia domestica* (Hufn.). The species is recorded from WJ (Kaaber & Norgaard 1973) but this record is now considered doubtful. (SK).

(111) *Cryphia muralis* (Forst.). The occurrence of this species in Denmark remains doubtful. It was recorded from Lolland by Jensen (1918-21). The best available documentation for this record are two originally unlabelled specimens in the collection of Danish Lepidoptera formed by the forester C. Iversen; these became known only after the death of the collector (Sønderup 1916). The species has not subsequently been found in Denmark. (SK).

(112) *Amphipyra perflua* (F.). In Eastern Jutland this species is recorded only from Bygholm near Horsens (Haas 1874: 457). Pertinent voucher material has so far not been traceable. (SK).

(113) *Amphipyra livida* (Den. & Schiff.). The species is from Lolland recorded on the basis of two originally unlabelled specimens in the collection of the forester C. Iversen; They were identified and published only after the death of the collector (Sønderup 1926, Hoffmeyer & Knudsen 1938: 154). (SK).

114. *Callopistria maillardi* (Gn.). Denne tropiske art er i 1983 og 1984 blevet konstateret i en række frilandsfund på Fyn og LFM: Gedesby. Arten er formentlig blevet indslæbt med importerede stiklinger til danske drivhusgartnerier. (Se Andersen *et. al., in press).* (SK).

(114) *Callopistria maillardi* (Gn). Several outdoor findings of this tropical species have been made in 1983 and 1984 in Funen and LFM: Gedesby. Presumably the species has been introduced with plants imported for glasshouse cultivation. (See Andersen *et al., in press*). (SK).

115. *Apamea pabulatricula* (Brahm). Arten er fra Lolland omtalt fra Keldskov 1914 (Sønderup 1914). Belægseksemplaret har ikke kunnet opspores. (SK).

(115) *Apamea pabulatricula* (Brahm). The species has been recorded from Lolland: Keldskov, 1914 (Sønderup 1914). The specimen in question has not been traceable. (SK).

116. *Archanara neurica* (Hb.). Arten er nævnt fra NEJ hos Kaaber (1981), men oplysningen har senere vist sig at bero på en fejlbestemmelse. (SK).

(116) *Archanara neurica* (Hb.). The species is recorded from NEJ by Kaaber (1981) on the basis of a specimen which subsequently proved to be misidentified. (SK).

117. *Cucullia lucifuga* (Den. & Schiff.). Artens forekomst i Danmark er tvivlsom. Der foreligger kun et eksemplar, som oprindelig ikke har været tilstrækkeligt etiketteret, og som angives at stamme fra NEZ: Hundested 1968, se Fibiger (1976-77). (SK).

(117) *Cucullia lucifuga* (Den. & Schiff.). The occurrence of this species in Denmark is doubtful. A single, initially insufficiently labelled specimen is available; it is allegedly from NEZ: Hundested, 1968 (see Fibiger, 1976-77). (SK).

118. *Brachionycha nubeculosa* (Esp.). Arten er omtalt fra NEZ: Asserbo hos Hoffmeyer (1949). Der har ikke kunnet indhentes fyldestgørende oplysninger om det pågældende fund, som bør betragtes som usikkert. (SK).

(118) *Brachionycha nubeculosa* (Esp.). The species has been recorded from NEZ: Asserbo (Hoffmeyer 1949). No satisfactory documentation is available, and the record must be considered doubtful.

119. *Aporophila lutulenta* (Den. & Schiff.). Arten er fra Sydjylland kun omtalt fra Burkal (Hoffmeyer 1949). Det pågældende fund har ikke kunnet kontrolleres. (SK).

(119) *Aporophila lutulenta* (Den. & Schiff.). The species is from Southern Jutland recorded only from Burkal (Hoffmeyer 1949). This record has not been documented. (SK).

120. *Lithophane hepatica* (Cl.). Arten er fra NWJ kun kendt fra Lemvig 1896 (Sønderup 1902). Det pågældende eksemplar har ikke kunnet opspores. (SK).

(120) *Lithophane hepatica* (Cl.). The species is from NWJ recorded only from Lemvig, 1896 (Sønderup 1902). The specimen in question has not been traceable. (SK).

121. *Cosmia ocellaris* (Bkh.). Arten er omtalt fra WJ: Riber Kærgård hos Hoffmeyer (1962), men oplysningen har senere vist sig at bero på en fejlbestemmelse. (SK).

(121) *Cosmia ocellaris* (Bkh). The species has been recorded from WJ: Riber Kærgaard (Hoffmeyer 1962), but this record was due to a misidentification. (SK).

122. *Polia tincta* (Brahm). Arten er fra SJ kun omtalt fra Draved (Hoffmeyer & Knudsen 1938). Oplysningen stammer fra afdøde dr. Georg Warnecke, Ham-

(122) *Polia tincta* (Brahm). The species is from SJ recorded only from Draved (Hoffmeyer & Knudsen 1938). This record was based on information from the late Dr.

burg og har ikke kunnet verificeres. (SK).

123. *Agrotis cinerea* (Den. & Schiff.). Arten er ved en fejltagelse blevet angivet fra SJ: Haderslev hos Nordström et al. (1969). Der kendes ikke sikre fund fra området. (SK).

124. *Paradiarsia glareosa* (Esp.). Arten er fra Sydsjælland kun omtalt fra Magleby (Winther 1918). Det pågældende belægseksemplar har ikke kunnet opspores. (SK).

125. *Xestia rhomboidea* (Esp.). Arten er hos Hoffmeyer & Knudsen (1938) omtalt fra WJ: Ringkøbingegnen, men noget belægsmateriale har ikke kunnet konstateres i coll. Bangsgaard. (SK).

126. *Protoschinia scutosa* (Den. & Schiff.). Arten er fra NWJ kun kendt fra Venø 1960 (J. C. Steensgaard leg. NMÅ). (SK).

127. *Coleophora zelleriella* Hein. Ny for Danmark: LFM: Lungholm, 19.-27.vii.1984 (P. Falck, G. Jeppesen, K. Larsen) (se Buhl *et al., in prep.*). (KL).

128. For detaljerede udbredelseskort over de enkelte pyralide-arter se Palm (*in press*). (EP).

129. *Pyrgus armoricanus* (Ob.). Arten er fra SJ kun kendt som angivet og afbildet hos Wolff (1939): Draved 1864, leg. Jastrau. Eksemplaret har ikke kunnet opspores. (BS).

130. *Lasiommata petropolitana* (F.). Arten er kendt fra NEZ: Egebæksvang, 16.v.1959, leg. Klaus Poulsen. Eksemplaret er verificeret ved omtale og foto hos Poulsen (1959), men har ikke kunnet opspores. (BS).

131. *Scopula imitaria* (Hb.). Ny for Danmark: NWJ: Lodbjerg, 2.-11.viii.1984 (P. Falck, G. Jeppesen, K. Larsen). (KS).

Georg Warnecke, Hamburg, and has not been verified. (SK).

(123) *Agrotis cinerea* (Den. & Schiff.). The species was erroneously recorded from SJ: Haderslev in Nordström *et al.* (1969). No reliable. records from the district are available (SK).

(124) *Paradiarsia glareosa* (Esp.). The species is from Southern Zealand recorded only from Magleby (Winther 1918). The specimen in question has not been traceable. (SK).

(125) *Xestia rhomboidea* (Esp.). The species has been recorded from WJ: vicinity of Ringkøbing (Hoffmeyer & Knudsen 1938) but no voucher material has been found in coll. Bangsgaard. (SK).

(126) *Protoschinia scutosa* (Den. & Schiff.). The species is from NWJ known only from Venø, 1960 (J. C. Steensgaard leg., NMÅ). (SK).

(127) *Coleophora zelleriella* Hein. First Danish record: LFM: Lungholm, 19-27.vii.1984 (P. Falck, G. Jeppesen, K. Larsen) (see Buhl *et al.* in prep.). (KL).

(128) For detailed distribution maps of the Danish pyralid species reference should be made to Palm (in press) (EP).

(129) *Pyrgus armoricanus* (Ob). The only SJ record is a specimen mentioned and figured by Wolff (1939): Draved 1864, leg. Jastrau. The specimen is no longer traceable. (BS).

(130) *Lasiommata petropolitana* (F.). The species is recorded from NEZ: Egebæksvang, 16.v.1959, leg. Klaus Poulsen. The finding is documented by the account and photograph by Poulsen (1959), but its present depository is unknown. (BS).

(131) *Scopula imitaria* (Hb.). First Danish record: NWJ: Lodbjerg, 2-11.viii.1984 (P. Falck, G. Jeppesen, K. Larsen). (KS).

132. *Daphnis nerii* (L.). Arten er kendt fra NWJ: Skive, 5.ix.1956, leg. C. Kromann. Eksemplaret har ikke ladet sig opspore. (BS).

133. *Hyles lineata* (F.). Arten er kendt fra F: Strib, 6.viii.1952, leg. Leonard Hansen. Arten blev ved fangsten opdaget og identificeret af SK, men om eksemplaret eksisterer i dag er uvist. (BS).

134. *Laelia coenosa* (Hb.). Arten er kendt fra NEZ: Tisvilde, 29.vii.1959, leg. Erling Bloch. Eksemplaret er verificeret ved afbildningen hos Hoffmeyer (1960), men er siden blevet ødelagt ved forsendelsen tilbage til finderen. (BS).

135. *Lymantria disspar* (L.). Arten er kendt fra NWJ: Lemvig, aug. 1901, leg. H. P. S. Sønderup, senere coll. C. S. Larsen. Eksemplaret omtales hos Hoffmeyer (1960), men har ikke kunnet opspores. (BS).

136. *Catocala fraxini* (L.). Arten er angivet (Nordström *et al.*, 1969) fra SJ: Kollund, 28.viii.1938, leg. J. S. Sørensen. Belægseksemplaret har ikke kunnet opspores, og må anses for tabt. (BS).

137. *Acronicta alni* (L.). Arten er angivet (Nordström *et al.*, 1969) fra det sydlige Jylland. Det drejer sig om et eksemplar fra SJ: Skodborg, 15.v.1952, leg. K. Hermansen. Eksemplaret er ifølge pers. medd. fra finderen til SK verificeret af Hoffmeyer, men eksemplaret har ikke ladet sig opspore. (BS).

138. *Mesapamea secalella* Remm. Samtlige i listen optagne landsdelsfund af såvel *M. »secalis«* (L.) som *M. secalella* Remm. er baseret på genitalverificerede eksemplarer. (BS).

139. *Amphipoea lucens* (Frr.). Alene genitalpræparat-verificerede hanner er medtaget i listen. Som det fremgår af bl.a. Knaben (1956), er det endog meget vanskeligt at kende hunnerne af *A. lucens* fra hunnerne af *A. fucosa*, og

(132) *Daphnis nerii* (L.). The species has been found in NWJ: Skive, 5.ix.1957, leg. C. Kromann. This specimen is not now traceable. (BS).

(133) *Hyles lineata* (F.). The species has been found in F: Strib,6.viii.1952, leg. Leonard Hansen. The specimen was collected during a joint excursion with SK who actually made the discovery and identification; whether it is still preserved remains uncertain. (BS).

(134) *Laelia coenosa* (Hb). The species is known from NEZ: Tisvilde, 29.vii.1959, leg. Erling Bloch. The specimen is figured in Hoffmeyer (1960) but was accidentally destroyed when mailed back to the finder (BS).

(135) *Lymantria dispar* (L.). The species has been found in NWJ: Lemvig, aug. 1901, leg. H. P. S. Sønderup, later coll. C. S. Larsen. The specimen is mentioned by Hoffmeyer (1960) but is not now traceable (BS).

(136) *Catocala fraxini* (L.). The species is recorded (Nordstrøm *et al.* 1969) from SJ: Kollund, 28.vii.1938, leg. J. S. Sørensen. The specimen is no longer traceable and must be considered lost. (BS).

(137) *Acronicta alni* (L.). The species is recorded (Nordström *et al.* 1969) from southern Jutland. The record is based on a specimen from SJ: Skodborg, 15.v.1952, leg. K. Hermansen. According to a personal communication from the finder to SK the specimen was checked by Hoffmeyer, but it is no longer traceable. (BS).

(138) *Mesapamea secalella* Remm. All district records of *M. »secalis«* (L.) and *M. secalella* Remm are based on specimens identified by examination of genital structure. (BS).

(139) *Amphipoea lucens* (Frr). The district records are based exclusively on male specimens of which genitalia preparations have been examined. As is evident from e.g. the account by Knaben (1956) distinction between female *A. lucens* and *A. fucosa* is very

blandt hannerne er eneste stabile kendetegn udformningen af cornuti i aedeagus. (BS).

140. *Cucullia lychnitis* Rbr. Arten er fra SJ omtalt i en fund af nogle larver ved Burkal (Hoffmeyer & Knudsen, 1938). Foderplanten og tidspunktet taget i betragtning (juni 1936) sandsynliggør, at der snarere har været tale om en anden art, enten *C. verbasci* (L.) eller *C. scrophulariae* (Den. & Schiff.). Belægsmaterialet er hidtil ikke blevet kontrolleret. (SK).

141. *Lithophane furcifera* (Hfn.). Arten er angivet fra NWJ: Lemvig, 20.iv.1934, leg. T. Ambye, senere coll. Jarby. Eksemplaret er verificeret ca. 1983 af SK, men dets placering i dag er ukendt. (BS).

142. *Xestia castanea* (Esp.). Arten er meldt fra LFM: Maglehøj, 12.ix.1967, leg. Henning Hansen. Eksemplaret findes ikke i dennes efterladte samling, og der har antagelig været tale om en fejlbestemmelse. (BS).

difficult indeed. As far as males are concerned, the only reliable difference is the structure of the cornuti in the aedeagus. (BS).

(140) *Cucullia lychnitis* Rbr. A finding of larvae of this species in SJ: Burkal is recorded by Hoffmeyer & Knudsen (1938). Considering the foodplant and the date of the finding (June 1936) it seems more likely that the larvae belonged to some other species, viz., *C. verbasci* (L.) or *C. scrophularia* (Den. & Schiff.). The material in question has not later been checked (SK).

(141) *Lithophane furcifera* (Hfn.). The specimen was found in NWJ: Lemvig, 20.iv.1934, leg. T. Ambye, later in coll. Jarby. The specimen was checked by SK around 1983, but its present depository is unknown. (BS).

(142) *Xestia castanea* (Esp.). The specimen has been recorded from LFM: Maglehøj, 12.ix.1967, leg. Henning Hansen. No voucher specimen is present in the collection of the recently deceased finder, and the record is most likely due to a misidentification. (BS).

Indslæbte arter

OLE KARSHOLT

Foruden de sommerfuglearter, som yngler i Danmark eller lejlighedsvis kommer flyvende eller blæsende hertil fra andre lande, bliver der fra tid til anden gjort fund af arter, hvis tilstedeværelse her i landet efter al sandsynlighed er en følge af menneskelig aktivitet. Disse arter har ikke været i stand til at etablere sig permanent her i landet. Som regel drejer det sig om enkeltindivider (i flere tilfælde døde eksemplarer), men nogle arter bliver ret jævnligt indslæbt med varer (fx *Antichloris viridis* Druce). Enkelte af arterne har i perioder kunnet etablere en ynglebestand indendørs (fx *Caloptilia azaleella* Brants), men synes nu at være uddøde. Det har således været meget vanskeligt helt klart at afgrænse hvilke arter, der i denne liste skulle opfattes som indslæbte, og yderligere kendskab til vores sommerfuglefauna samt forandringer i denne vil sikkert føre til, at nogle arter vil ændre status på et senere tidspunkt (som det er sket med *Dysgonia algira* L. siden sidste fortegnelse).

Det materiale, der er til rådighed til bestemmelse af disse indslæbte arter, er ofte meget fåtalligt og i dårlig stand, og da der i mange tilfælde er tale om arter, der er tilført landet fra fjerne faunaer, er en sikker bestemmelse undertiden meget vanskelig. I denne liste er derfor kun medtaget de arter, som med rimelig sikkerhed har kunnet artsbestemmes, mens en række fund har måttet udelades, indtil yderligere eksemplarer eventuelt dukker op eller ny bestemmelseslitteratur publiceres.

Arter, som både træffes indslæbt og under naturlige betingelser i Danmark, omtales kun i hovedlisten. Dette gælder også for arter, der lever permanent på menneskeskabte biotoper (synanthrope arter). Derimod hører sommerfuglearter, som kommer hertil som følge af handel eller opdræt af insekter (mest kendt er nok springbønnen *Cydia deshaisiana* (Lucas, 1858) og silkesommerfuglen *Bombyx mori* (Linnaeus, 1758)) ikke hjemme i en dansk sommerfuglefortegnelse.

Introduced species

OLE KARSHOLT

In addition to those Lepidoptera which breed in Denmark or arrive here as a result of active flight or passive air-current transport, a number of species have occasionally been found whose occurrence in this country in all probability is dependent upon human activity. Usually only single specimens are found (often dead ones), but in the case of some species (e.g. *Antichloris viridis* Druce) importations with exotic goods are of fairly regular occurrence. A few of the species (e.g. *Caloptilia azaleella* Brants) have been able to establish indoor breeding populations for a period, but now apparently have become extinct. It thus proved very difficult to delimit sharply that group of species which in this catalogue should be listed as introduced. There is little doubt that as knowledge of our lepidopteran fauna and its fluctuations increases, the status of some of the species will change eventually (such as has happened in the case of *Dysgonia algira* (L.) since the 1976 catalogue).

The material available for identification of the accidentally introduced species is often sparse and in poor condition. Since the species in question are often introduced from remote faunas, a reliable identification may be most difficult. In this list only those species are included which have been identified with a reasonable degree of certainty; other findings have been omitted pending availability of further specimens – or new identification literature.

Introduced species which occur also under natural condition in Denmark are enumerated in the main list only. This is true also of species which exist permanently in man-made habitats (synanthropic species). On the other hand, species whose occurrence results from trading or domestic breeding (best known examples being the »jumping bean« moth *Cydia deshaisiana* (Lucas, 1858) and the silkworm moth *Bombyx mori* (Linnaeus, 1758)) have no place in a catalogue of Danish Lepidoptera.

Tineidae:
Dasyses Durrant, 1903
– incrustata (Meyrick, 1930)
Dryadaula Meyrick, 1893
– pactolia Meyrick, 1902
Neurothaumasia Le Marchand, 1934
– ankerella (Mann, 1867)
Tinea Linnaeus, 1758
– translucens Meyrick, 1917
Oinophila Stephens, 1848
– v-flava (Haworth, 1828)
Opogona Zeller, 1853
– sacchari (Bojer, 1856)

Gracillariidae:
Caloptilia Hübner, 1825
– azaleella (Brants, 1913)

Gelechiidae:
Sitotroga Heinemann, 1870
– cerealella (Olivier, 1789)
Phthorimaea Meyrick, 1902
– operculella (Zeller, 1873)

Tortricidae:
Cacoecimorpha Obraztsov, 1954
– pronubana (Hübner, 1799)
Epichoristodes Diakonoff, 1960
– acerbella (Walker, 1864)
Lobesia Guenée, 1845
– botrana (Denis & Schiffermüller, 1775)
Cydia Hübner, 1825
– molesta (Busck, 1916)
Cryptophlebia Walsingham, 1899
– leucotreta (Meyrick, 1913)

Pyralidae:
Eodiatraea Box, 1953
– rufescens (Box, 1931)
Elophila Hübner, 1822
– enixalis (Swinhoe, 1885)
– manilensis (Hampson, 1917)
Parapoynx Hübner, 1825
– diminutalis Snellen, 1880
Oligostigma Guenée, 1854
– bilinealis Snellen, 1876
Caphys Walker, 1863
– biliniata (Stoll, 1781)
Maruca Walker, 1859
– testulalis (Geyer, 1832)
Corcyra Ragonot, 1885
– cephalonica (Stainton, 1866)
Paralipsa Butler, 1879
– gularis (Zeller, 1877)
Cryptoblabes Zeller, 1848
– gnidiella (Millière, 1867)
Ectomyelois Heinrich, 1956
– ceratoniae (Zeller, 1839)
Cadra Walker, 1864
– calidella (Guenée, 1845)
Myrlaea Ragonot, 1887
– marmorata (Alphéraki, 1877)

Papilionidae:
Iphiclides Hübner, 1819
– podalirius (Scopoli, 1763)

Nymphalidae:
Danaus Kluk, 1802
– genutia (Cramer, 1779)
Euploea Fabricius, 1807
– core (Cramer, 1780)
Cynthia Fabricius, 1807
– carye (Hübner, 1812)
Anartia Hübner, 1819
– fatima (Fabricius, 1793)
Junonia Hübner, 1819
– atlites (Linnaeus, 1763)
Melanargia Meigen, 1829
– galathea (Linnaeus, 1758)
Neohipparchia de Lesse, 1951
– statilinus (Hufnagel, 1766)

Lycaenidae:
Lampides Hübner, 1819
– boeticus (Linnaeus, 1767)

Saturniidae:
Saturnia Schrank, 1802
– pyri (Denis & Schiffermüller, 1775)

Geometridae:
Scopula Schrank, 1802
– inquinata (Scopoli, 1763)

Lymantridae:

Orgyia Ochsenheimer, 1810
- turbata (Butler, 1879)

Arctiidae:

Antichloris Hübner, 1818
- viridis Druce, 1884

Euchromia Hübner, 1819
- lethe (Fabricius, 1775)

Noctuidae:

Apopestes Hübner, 1823
- spectrum (Esper, 1787)

Ascalaphra Hübner, 1809
- odorata (Linnaeus, 1764)

Eutelia Hübner, 1823
- adulatrix (Hübner, 1813)

Earias Hübner, 1825
- ansorgei Tams, 1930

Spodoptera Guenée, 1852
- littoralis (Boisduval, 1833)

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Navneliste – Index

abbreviana, 72
abbreviata, 94
abdominalis, 52
abietana, 69
abietana, 71
abietaria, 94
abietella, 79
abietis, 101
Abraxas, 95
Abrostola, 105
abscisana, 72
absinthiata, 94
absinthii, 109
absinthii, 60
acanthadactyla, 78
Acanthophila, 66
Acanthopsyche, 47
Acasis, 95
Acentria, 81
acerbella, 134
aceriana, 73
acerifoliella, 51
aceris, 105
aceris, 44
acetosae, 44
achatana, 72
achatinella, 95n, 80
Acherontia, 99
Achlya, 89
Achroia, 78
Acleris, 69
Acompsia, 66
Acontiinae, 104
Acrobasis, 79
Acrocercops, 50
Acrolepia, 54
Acrolepiinae, 54
Acrolepiopsis, 54
Acronicta, 105
Acronictinae, 105
actaeata, 94
Actebia, 113
Actinotia, 112
acuminatana, 76
acuminatella, 65
acutellus, 83
Adaina, 78
adansoniella, 46
Adela, 46
Adelidae, 46
Adelinae, 46
adelphella, 79
adippe, 87
adjectella, 58
adjunctella, 59
Adoxophyes, 68
Adscita, 84
adspersella, 60
adulatrix, 135
adultera, 103
adustata, 95
adusta, 110
advenaria, 96
advenella, 80
aegeria, 87
aemulana, 74
aenealis, 83
aeneociliella, 82
aeneofasciella, 44
aeratana, 76
aeratella, 58
aerealis, 111n, 83
aeriferana, 68
aerugula, 104
aescularia, 90
aestivaria, 90
aestivella, 62
Aethalura, 97
Aethes, 70
aethiops, 63
affinis, 106
affinis, 64
affinitana, 70
affinitata, 93
Agapeta, 70
agathina, 114
Agdistinae, 77
Agdistis, 77
agestis, 88
agilana, 76
Aglais, 87
aglaja, 87
Aglia, 99
Agliinae, 99
Aglossa, 81
Agnathosia, 48
agnotana, 75
Agonopterix, 55
Agonoxenidae, 60
Agriopis, 97
Agriphila, 82
Agrius, 99
Agrochola, 110
Agrotera, 84
Agrotis, 112
ahenella, 59
ahenella, 79
alacella, 66
albatella, 80
albersana, 74
albibimaculella, 45
albicapitella, 52
albiceps, 63
albicillata, 92
albicilla, 79
albicolon, 111
albicomella, 48
albicostella, 30f, 58
albidella, 58
albidella, 59
albifasciella, 45
albifasciella, 65
albifrontella, 57
albimacula, 111
albimaculea, 56
albipunctata, 90
albipuncta, 112
albipunctella, 55
albistria, 52
albitarsella, 59
albonigrata, 155n, 92
albovenosa, 106
albuginana, 75
albulata, 93
albulata, 95
albula, 104
alburnella, 64
alchemillata, 93
alchimiella, 49
alciphron, 88
Alcis, 97
alcon, 88
alcyonipennella, 59
Aleimma, 69
alexis, 88
alfacariensis, 86
algae, 106
algae, 108
algira, 104
aliena, 111
alienellus, 81
alismana, 70
Alispa, 91n, 79
allisella, 55
Allophyes, 110
alnetella, 44
alniaria, 96
alnifoliae, 58
alni, 105
alpella, 53
alpicola, 114
alpinana, 76
alpinella, 57
alpinella, 82
alpium, 105

alsinella, 65
alsines, 147n, 108
Alsophila, 90
alstromeriana, 55
alternana, 69
alternaria, 96
alternata, 92
alternella, 68
alticolella, 59
Alucita, 77
Alucitidae, 77
amanda, 88
amani, 45
amaurella, 65
ambigualis, 82
ambigua, 108
ambiguella, 70
Amblyptilia, 78
amica, 110
Ammoconia, 110
Amphipoea, 107
Amphipyra, 106
Amphipyrinae, 106
Amphisbatis, 56
Anacampsinae, 66
Anacampsis, 66
anachoreta, 100
analoga, 94
Anania, 84
Anaplectoides, 114
Anarsia, 66
Anarta, 111
Anartia, 134
anastomosis, 100
anatipennella, 58n, 59
anceps, 107
anceps, 100
anchusella, 51
ancilla, 102
ancipitella, 82
Ancylis, 72
Ancylosis, 80
andabatana, 75
anderidae, 50
Anerastia, 79
angelicella, 55
Angerona, 96
anglicella, 50
angulifasciella, 45
angustalis, 98n, 81
angustana, 70
angustella, 80
angustiorana, 68
ankerella, 134
annulata, 90
annulatella, 53
anomalella, 44
anseraria, 95
anserinella, 57
ansorgei, 135
antennariella, 59
Antequerinae, 61
anthemidella, 62
Anthocharis, 86
Anthophila, 76
anthyllidella, 66
Antichloris, 135
Anticlea, 92
Anticollix, 95
Antigastra, 84
antiopa, 86
antiqua, 101
antiquoides, 101
Antispila, 45
Antitype, 110
Apamea, 107
Apatetrinae, 63
Apatetris, 63
Apatura, 86
Apeira, 96
Aphantopus, 87
Aphelia, 68
Aphomia, 79
apicella, 72
apicipunctella, 57
apiformis, 76
Aplocera, 95
Aplota, 57
Apocheima, 96
Apoda, 67
apollo, 85
Apomyelois, 80
Apopestes, 135
Aporia, 86
Aporophila, 109
Apotomis, 71
apparella, 51
aprilella, 62
aprilina, 110
Aproaerema, 66
aquata, 93
Aquila, 107
aquilonaris, 87
Araschnia, 87
arbutella, 71
arcania, 87
arcella, 52
arceuthina, 52
Archanara, 108
Archiearinae, 89
Archiearis, 89
Archinemapogon, 48
Archips, 67
Arctia, 102
Arctiidae, 135
Arctiidae, 101
Arctiinae, 102
Arctornis, 101
arctostaphyli, 58
arcuatella, 45
arcuella, 71
arenaria, 97
arenella, 56
Arenostola, 108
areola, 110
argentea, 109
argentella, 58
argentimaculella, 48
argentipedella, 6n, 45
argentula, 60
argiolus, 88
Argolamprotes, 62
argus, 89
Argynnis, 87
argyrana, 75
argyrella, 79
Argyresthia, 52
Argyresthiinae, 52
argyropeza, 45
Argyrotaenia, 67
Arichanna, 97
Aricia, 88
aridella, 82
ariella, 5f, 44
arion, 88
Aristotelia, 63
Aristoteliinae, 62
armigera, 114
armoricanus, 85
arnicella, 54
Aroga, 64
artaxerxes, 89
artemisiae, 109
artemisiae, 55
artemisicolella, 60
artemisiella, 51
artemisiella, 65
artemisiella, 60
aruncella, 43
arundinata, 103n, 82
arundinetella, 63
Ascalaphra, 135
asclepiadis, 105
asella, 67
ashworthii, 114
asiatica, 104
asperella, 53
aspersana, 69
aspidiscana, 74
Aspilapteryx, 49
Assara, 80
asseclana, 68
assectella, 54
assimilata, 94
assimilella, 44
assimilella, 55
asteris, 109

asteris, 60
Asthena, 95
astrantiae, 55
atalanta, 86
athalia, 87
Athetis, 109
Athrips, 64
Atlites, 134
Atolmis, 101
atomaria, 97
atomella, 55
atrata, 95
atra, 47, 60
atralis, 109n, 83
atrella, 62
atricapitana, 70
atricapitella, 45
atricollis, 45
atricomella, 57
atrifrontella, 45
atriplicella, 65
atriplicis, 106
atriplicis, 60
atropos, 99
atropunctana, 71
aucupariae, 2n, 44
Augasma, 58
augur, 113
augustella, 56
augustipennis, 21n, 48
aulica, 102
aurago, 110
aurana, 75
aurantiana, 75
aurantiaria, 97
aurata, 83
aureatella, 43
auricoma, 106
aurinia, 87
auritella, 43
aurofasciana, 71
auroguttella, 50
auromarginella, 44
aurulentella, 52
Autographa, 105
autumnaria, 96
autumnata, 93
autumnitella, 54
avellanella, 55
aversata, 91
Axylia, 113
azaleella, 134

Bactra, 72
badiana, 72
badiata, 92
badiella, 55
badiipennella, 58
baja, 114
bajularia, 90
balatonana, 74
baliodactylus, 78
bankiana, 104
basiguttella, 44
basistrigalis, 82
Batia, 56
batis, 89
Batrachedra, 61
Batrachedridae, 61
beatricella, 70
bechsteinella, 51
bedellella, 58
Bedellia, 54
Bedelliinae, 54
beirnei, 45
Bembecia, 77
bembeciformis, 76
benanderella, 44
benanderi, 61n, 60
Bena, 104
bennetii, 77
berberata, 93
berbera, 106
bergiella, 52
bergmanniana, 69
bergstraesserella, 54
bernoulliella, 59
betulae, 50
betulae, 79
betulae, 88
betulana, 67
betularia, 97
betulella, 59
betuletana, 72
betulicola, 44
betulicola, 49
betulina, 47
betulinella, 48
biangulata, 93
biatomella, 57
bicinctana, 72
bicolorata, 111
bicoloria, 100
bicostella, 57
bicruris, 111
bicuspis, 100
bidentata, 96
bifaciata, 93
bifasciana, 69
bifasciana, 71
bifasciella, 57
bifida, 100
bilinealis, 134
bilineata, 92
bilineatella, 59
biliniata, 134
biliosata, 90
bilunana, 72
bilunulata, 125n, 94
bimaculata, 97
binaevella, 80
binaria, 89
binderella, 59
binotella, 62
bipunctana, 71
bipunctella, 56
bipunctidactyla, 78
biren, 111
biriviata, 91
Biselachista, 58
biselata, 91
Bisigna, 56
bisontella, 43n, 54
bisselliella, 49
Biston, 97
bistortata, 130n, 97
bistriatella, 80
bistriga, 79
bistrigella, 46
bisulcella, 58
biviella, 80
bjerkandrella, 76
blancardella, 50
blanda, 108
blandella, 65
blandella, 66
blandelloides, 65
blandiata, 93
blandulella, 65
Blastesthia, 74
Blastobasidae, 62
Blastobasinae, 62
Blastodacna, 60
Blastodacninae, 60
Blastotere, 35n, 52
blattariella, 66
Blepharita, 110
Boarmia, 97
bodillum, 65
boeticus, 135
Bohemannia, 45
boisduvaliella, 79
Boloria, 87
bombycina, 111
Bombycoidea, 98
bonnetella, 52
Borkhausenia, 56
borowskiella, 60n, 59
botrana, 134
Brachionycha, 109
Brachmia, 66
Brachylomia, 109
bractea, 105
bractella, 56
branderiana, 71
brassicae, 111
brassicae, 86

Brenthis, 87
brevilinea, 107
britannica, 92
brizella, 63
brockeella, 52
brongniardella, 50
brumata, 93
brunnearia, 97
brunneata, 96
brunnea, 113
brunnichana, 72
brunnichella, 57
Bryotropha, 64
Bucculatricidae, 51
Bucculatrix, 51
bucephala, 100
Buckleria, 77
buettneri, 108
buoliana, 74
Bupalus, 97

Cabera, 97
Cacoecimorpha, 134
Cadra, 134
Cadra, 80
caecimaculana, 74
caecimacula, 110
caelebipennella, 59
caeruleocephala, 110
caesiata, 92
caesiella, 40n, 52
caesiella, 52
caespititiella, 59
cagnagella, 52
caja, 102
Calamia, 108
Calamotropha, 81
c-album, 87
calidella, 134
Callimorpha, 102
Callistege, 104
Callisto, 50
Calliteara, 101
Callophrys, 88
Callopistria, 106
calodactyla, 78
Calophasia, 109
Caloptilia, 134
Caloptilia, 49
Calospilos, 95
calthella, 43
Calybites, 49
cambrica, 95
camilla, 86
Campaea, 98
campoliliana, 74
Camptogramma, 92
canapennella, 57
cana, 74
candidula, 104
canella, 80
Canephora, 48
canifoliella, 51n, 57
Caphys, 134
capitata, 92
capitella, 46
capnodactylus, 78
caprana, 72
capreana, 72
capreolella, 56
caprimulgella, 49
captiuncula, 107
Capua, 68
Capucina, 100
Caradrina, 108
carbonaria, 96
Carcina, 57
cardamines, 86
cardui, 87
carlinella, 96n, 80
carmelita, 100
carpinata, 95
carpinella, 14f, 50
carpinella, 44
Carsia, 95
Carterocephalus, 85
carye, 134
Caryocolum, 65
castaneae, 67
castanea, 114
casta, 47
castrensis, 98
Cataclysta, 81
catalaunalis, 84
Cataplectica, 77
Catarhoe, 91
catharticella, 44
Catocala, 103
Catocalinae, 103
catoptrana, 74
Catoptria, 82
Cauchas, 46
cauchiata, 94
cauliginella, 65
c-aureum, 105
cautella, 80
cavella, 50
Cedestis, 53
Celaena, 108
Celastrina, 88
celerio, 99
Celestica, 21n, 48
celsia, 108
Celypha, 71
cembrella, 17n, 47
Cemiostominae, 54
centaureata, 94
centifoliella, 44
Cephalonica, 134
Cepphis, 96
ceramica, 149n, 111
Cerapteryx, 111
cerasana, 67
cerasicolella, 50
cerasivorella, 54n, 58
cerasi, 112
Cerastis, 114
ceratoniae, 134
cerealella, 134
Cerura, 100
cerusella, 58
cerussella, 82
cervinalis, 93
cespitalis, 110n, 83
cespitana, 71
cespitis, 112
chaerophyllella, 77
chalcites, 105
chalcogrammella, 59
chamomillae, 109
Charanyca, 108
Cheimophila, 57
Chelariinae, 66
chenopodiata, 91
Chersotis, 113
Chesias, 95
Chilodes, 109
Chilo, 81
Chimabachinae, 57
Chionodes, 64
chi, 110
Chlidanotinae, 70
Chloephorinae, 104
chloerata, 95
chlorana, 104
Chlorissa, 90
Chloroclysta, 92
Chloroclystis, 94
chlorosata, 96
choragella, 48
Choreutidae, 76
Choreutis, 76
Choristoneura, 67
christyi, 93
chrysitis, 105
Chrysoclista, 60
chrysodactyla, 77
Chrysodeixis, 105
Chrysoesthia, 63
chrysolepidella, 43
chrysonuchella, 82
chryson, 105
Chrysopeleiinae, 61
chrysoprasaria, 121n, 90
chrysorrhoea, 101
Chrysoteuchia, 81
cicadella, 62

cidarella, 51
Cidaria, 92
cilialis, 84
ciliella, 55
Cilix, 89
cinctana, 68
cinctaria, 97
cinctella, 66
cinerascens, 108
cinerea, 112
cinerella, 66
cinerosella, 80
cingulata, 83
cinnamomeana, 67
cinnamomea, 56
cinxia, 87
circellaris, 110
circumvoluta, 80
cirrigerella, 80
cirsiana, 73
citrago, 110
citrana, 74
citrata, 92
citrinalis, 56
clathrata, 96
claustrella, 47
clavaria, 91
clavipalpis, 108
clavis, 112
clematella, 48
Cleora, 97
Cleorodes, 97
Clepsis, 68
clerkella, 54
clintoni, 65
cloacella, 48
Clossiana, 87
Clostera, 100
clypeiferella, 60
Cnaemidophorus, 78
Cnephasia, 68
cnicana, 70
cnicella, 55
c-nigrum, 114
coarctaria, 91
Cochylidia, 70
Cochylimorpha, 69
Cochylis, 70
Coenobia, 108
coenobita, 105
Coenonympha, 87
coenosa, 101
cognatana, 75
cognata, 92
Coleophora, 58
Coleophoridae, 58
Coliadinae, 86
Colias, 86
Collicularia, 74
Colobochyla, 103
Colocasia, 105
Colostygia, 93
Colotois, 96
columbariella, 49
colutella, 59
comariana, 69
combinella, 52
comes, 113
Comibaena, 90
comitata, 92
comma, 112
comma, 85
communana, 68
complana, 101
compositella, 76
compsa, 57
compta, 111
compunctella, 52
confusalis, 104
confusa, 111
confusa, 105
confusella, 44
congelatella, 68
congruella, 46
conicella, 82
conicolana, 75
coniferana, 75
conigera, 112
Conisania, 111
Conistra, 110
conjugella, 52
connexella, 51
consimilana, 68
consocia, 109
consociella, 80
consonaria, 97
consortella, 58
conspersella, 53
conspersella, 63
conspicuella, 59
contaminella, 82
conterminana, 74
conterminata, 94
conterminella, 55
contigua, 111
continuella, 44
continuella, 64
conturbatella, 61
convolutella, 94n, 80
convolvuli, 99
conwagana, 68
Corcyra, 134
cordigera, 111
core, 134
corollana, 75
coronata, 84
corrivalaria, 90
corticana, 47f, 72
corticata, 93
corticella, 46
corylana, 67
corylata, 93
corylifoliella, 50
coryli, 105
coryli, 50
Coscinia, 102
Cosmia, 106
Cosmiotes, 58
cosmophorana, 75
Cosmopterigidae, 61
Cosmopteriginae, 61
Cosmopterix, 61
Cosmorhoe, 92
Cossidae, 67
Cossinae, 67
Cossoidea, 67
Cossus, 67
cossus, 67
Costaconvexa, 92
costaestrigalis, 103
costalis, 80
costella, 65
Cozelinae, 48
craccae, 103
Crambinae, 81
Crambus, 81
Craniophora, 106
crassalis, 103
crassiorella, 47
crataegana, 67
crataegella, 106n, 82
crataegella, 44
crataegella, 53
crataegi, 34n, 51
crataegi, 86
crataegi, 98
crenana, 73
crenata, 107
crenata, 100
crepuscularia, 97
crepusculella, 43
cribraria, 102
cribrella, 92n, 80
cribrumalis, 102
crinanensis, 108
cristana, 69
cristatella, 51
Crocallis, 96
crocealis, 84
crocea, 86
Crocidosema, 73
crocinella, 57n, 59
croesella, 46
Croesia, 69
Crombrugghia, 87n, 77
cruciana, 73
cruda, 112

Cryphia, 106
crypta, 62
cryptella, 45
Cryptoblabes, 134
Cryptoblabes, 79
Cryptophlebia, 134
Ctenuchinae, 102
cuculata, 91
cuculatella, 104
cuculipennella, 49
Cucullia, 109
Cucullinae, 109
cucullina, 100
culiciformis, 76
culmella, 81
cultraria, 89
cuneatella, 65
Cupido, 88
cuprea, 113
cuprella, 46
cupriacella, 46
currucipennella, 59
cursoria, 112
curtula, 100
curvatula, 89
curvella, 38n, 52
curvistrigana, 69
cuspis, 105
cyaneimarmorella, 48
Cyaniris, 88
Cybosia, 101
Cyclophora, 90
Cydia, 134
Cydia, 75
Cymatophorima, 89
Cymolomia, 71
Cynaeda, 83
cynosbatella, 73
Cynthia, 134
Cynthia, 87
cytisella, 62

Dactylotula, 66n, 63
Dahlica, 47
dahlii, 113
dalecarliana, 71
Danainae, 86
Danaus, 86
Danauskluk, 134
Daphnis, 99
daplidice, 86
Dasychira, 137n, 101
Dasypolia, 109
Dasyses, 134
daucella, 55
dealbana, 73
deauratella, 59
deauratella, 62
debiliata, 95
decentella, 45
deceptoria, 104
decimalis, 112
decorata, 90
defoliaria, 97
degeerella, 46
degenerana, 104
degreyana, 70
Deilephila, 99
Deileptenia, 97
deliella, 82
Deltote, 104
delunella, 82
demarniana, 72
demaryella, 51
Dendrolimus, 98
Denisia, 56
denotata, 94
dentalis, 83
dentaria, 96
dentella, 53
dentella, 77
denticulella, 50
deplana, 102
depressana, 55
Depressaria, 55
Depressariinae, 55
depuncta, 113
derivalis, 141n, 103
derivata, 92
desertella, 64
designata, 91
despicata, 83
deversaria, 91
deviella, 60
devoniella, 50
Diachrysia, 105
Diacrisia, 102
diamina, 87
diana, 76
diaphana, 115n, 85
Diaphora, 102
Diarsia, 113
diasema, 105
Diasemia, 84
Diasemiopsis, 84
Dicallomera, 101
Dichelia, 68
Dichomerinae, 66
Dichomeris, 66
Dichonia, 110
Dichrorampha, 76
Dicycla, 106
didactyla, 77
didymata, 93
diederichsiella, 57
diffinis, 106
diffinis, 64
Digitivalva, 54
dilectella, 52
Diloba, 110
dilucidana, 70
dilutata, 93
diluta, 89
dilutella, 79
dimidiana, 71
dimidiata, 91
dimidiella, 66
dimidioalba, 71
diminutalis, 134
diminutana, 72
diniana, 81n, 73
Dioryctria, 79
Dipleurina, 82
Diplodoma, 47
directella, 60
Discestra, 111
discordella, 59
discretana, 75
Dismorphiinae, 86
dispar, 101
dispar, 88
dispilella, 58
dissolutana, 71
dissoluta, 108
distans, 77
distinctata, 98
distinctella, 64
distinctus, 78
ditella, 48
ditrapezium, 114
Ditula, 68
Diurnea, 57
diversana, 67
divisella, 61
divisella, 63
dodecea, 56
dodecella, 63
dodonaea, 47
dodoneata, 94
dodonea, 100
dolabraria, 96
Dolicharthria, 84
domestica, 106
dominula, 102
Donacaula, 81
douglasella, 55
Douglasiidae, 51
drepana, 89
Drepanidae, 89
Drepaninae, 89
Drepaniodea, 89
dromedarius, 100
drurella, 63
Dryadaula, 134
Drymonia, 100
Dryobotodes, 110
dubiella, 49

dubitana, 70
dubitata, 93
dubitella, 50
dumetana, 67
dumi, 99
duplana, 74
duplaris, 89
duplicana, 75
duplicella, 47
Dypterygia, 106
Dysauxes, 102
Dyscia, 98
dyseriocrania, 43
Dysgonia, 104
Dystebenna, 61

Eana, 69
Earias, 135
Earias, 104
Ebulea, 84
Ecliptopera, 92
Ectoedemia, 45
Ectomyelois, 134
Ectropis, 97
edmandsii, 80
efformata, 95
egenaria, 94
ehikeella, 62
Eidophasia, 53
Eilema, 101
ekebladella, 47
Elachista, 57
Elachistidae, 57
Elaphria, 109
electella, 64
Electrophaes, 93
elegans, 28f, 57
eleochariella, 58
Eligmodonta, 100
elinguaria, 96
ella, 49
elongella, 49
elongella, 63
Elophila, 134
Elophila, 81
elpenor, 99
elutella, 80
elymi, 107
emargana, 69
emarginata, 91
Ematurga, 97
emberizaepennella, 51
emeritella, 55
Emmelia, 104
Emmelina, 78
emortualis, 103
empetrella, 62
emutaria, 90
Enargia, 106
Enarmonia, 74
Endothenia, 72
Endotricha, 81
Endromidae, 98
Endromis, 98
Endrosis, 57
Enicostoma, 55
Enixalis, 134
Ennominae, 95
Ennomos, 96
Entephria, 92
Eodiatraea, 134
Epagoge, 68
Epermenia, 77
Epermeniidae, 77
Epermenioidea, 77
ephemerella, 81
Ephesia, 103
Ephestia, 80
Epiblema, 73
Epichnopterix, 47
Epichoristodes, 134
Epilecta, 113
epilinana, 70
epilobiella, 61
Epinotia, 72
Epione, 96
Epirrhoe, 92
Epirrita, 93
Epomidion, 107
equitella, 45n, 54
Erannis, 97
Erebia, 87
eremita, 110
Eremobia, 107
ericae, 136n, 101
ericella, 81
ericetana, 77n, 72
ericetella, 64
ericetorum, 77
ericevorella, 62
ericinella, 63
Eriocrania, 43
Eriocraniidae, 43
Eriocranioidea, 43
Eriogaster, 98
Eriopsela, 74
Eriopygodes, 111
erosaria, 96
erxlebella, 51
Erynnis, 85
erythrocephala, 110
esperella, 50
Ethmia, 56
Ethmiinae, 56
Etiella, 79
Eublemma, 104
Euchoeca, 95
Euchromia, 135
Euchromius, 81
Euclidia, 104
Eucosma, 74
Eucosmomorpha, 74
Eudemis, 72
Eudonia, 82
Eugnorisma, 113
Eugraphe, 113
Eulamprotes, 62
Eulia, 68
Eulithis, 92
Eumichtis, 110
euphorbiae, 106
euphorbiae, 99
euphrosyne, 87
Euphydryas, 87
Euphyia, 93
Eupithecia, 94
Euplexia, 106
Euploea, 134
Eupoecilia, 70
Euproctis, 101
Eupsilia, 110
eurema, 45
Eurois, 114
Eurrhypara, 83
Eurrhypis, 83
Eustroma, 92
Eustrotia, 144n, 104
Eutelia, 135
Euthrix, 98
Eutromula, 86n, 76
Euxoa, 112
Euzophera, 80
Evergestinae, 82
Evergestis, 82
evonymella, 52
exactella, 58
Exaeretia, 55
exanthemata, 97
Exapate, 68
exclamationis, 112
exiguata, 94
exigua, 108
Exoporia, 43
Exoteleia, 63
exsoleta, 109
extersaria, 131n, 97
extimalis, 83
extrema, 107

fabriciana, 76
fabriciana, 87
faecella, 79
fagana, 104
fagaria, 98
fagata, 93
fagella, 57
fagiglandana, 75

fagivora, 50
Fagivorina, 97
fagi, 100
Falcaria, 89
falcataria, 89
falconipennella, 49
falsella, 82
Falseuncaria, 70
falstriella, 48
farfarae, 82n, 73
farinalis, 81
farinata, 95
farinella, 57
farinosae, 65n, 63
fascelina, 101
fascelinella, 82
fasciana, 75
fasciaria, 98
fasciella, 66
fasciolaria, 96
fasciuncula, 107
fatima, 134
fenestratella, 49
fennica, 113
ferrago, 112
ferrea, 63
ferrugalis, 84
ferrugana, 69
ferrugata, 91
ferrugella, 56
ferruginea, 106
ferruginella, 26n, 49
festaliella, 77
festucae, 105
fibulella, 46
Filatima, 64
filigramma, 111
filipendulae, 44
filipendulae, 85
fimbrialis, 90
fimbriana, 69
fimbriata, 113
finitimella, 50
firmata, 92
fischerella, 65
flammealis, 81
flammea, 112
flammea, 112
flammeolaria, 95
flavago, 108
flavalis, 84
flavescentella, 49
flavicaput, 60
flaviciliana, 70
flavicincta, 110
flavicornis, 89
flavidorsana, 76
flavifrontella, 56
flavimaculella, 64
flavimitrella, 46
flavipalpana, 71
flavipennella, 58
flaviventris, 77
flavofasciata, 93
flexula, 104
florida, 114
floslactata, 90
floslactella, 44
fluctuata, 91
fluctuosa, 89
fluxa, 107
foenella, 73
follicularis, 60
forficalis, 83
forficella, 56
forficella, 81
formicaeformis, 76
formosana, 74
formosa, 79
forsskaleana, 69
forsterana, 68
forsterella, 54
fragariella, 6f, 44
francillana, 70
frangutella, 51
fraternana, 73
fraternella, 65
fraudatrix, 109
fraxinata, 87f, 94
fraxinella, 53
fraxini, 103
freyerella, 58
friesei, 53
frischella, 59
Froelichia, 74
froelichiella, 51
frumentalis, 83
fuciformis, 99
fucosa, 107
fugax, 113
fugitivella, 64
fulgidella, 82
fuligana, 71
fuliginaria, 103
fuliginosa, 102
fuliginosella, 80
fulminea, 103
fulvalis, 84
fulvata, 92
fulviguttella, 77
fulvimitrella, 49
fumatella, 64
fumosella, 16n, 47
fundella, 52
funebrana, 75
funebris, 84
funerella, 56
fungivorella, 48
furcata, 93
furcifera, 109
furcula, 100
furcula, 100
furfurana, 72
furuncula, 107
furva, 107
fuscalis, 84
fuscantaria, 96
fuscatella, 46
fusca, 79
fuscella, 49
fuscescens, 56
fuscipunctella, 27n, 49
fuscocuprella, 58
fuscolimbatus, 78
fusconebulosa, 43
fuscovenosa, 91

galactodactyla, 78
galathea, 134
galbanella, 64
galiata, 92
Galleria, 78
Galleriinae, 78
gallicana, 75
gallii, 99
gallipennella, 59
gamma, 105
gangabella, 58
Gastropacha, 98
Geina, 77
Gelechia, 64
Gelechiidae, 134
Gelechiidae, 62
Gelechiinae, 63
Gelechioidea, 55
Geminana, 72
geminipuncta, 108
gemmea, 110
gemmella, 63
geniculea, 82
geniculella, 51
genistae, 59
genitalana, 68
Genutia, 134
Geometra, 90
Geometridae, 135
Geometridae, 89
Geometrinae, 90
Geometroidea, 89
germmana, 75
gerningana, 68
gibberifera, 73
gibbosella, 65
gigantella, 81
gilvago, 110
gilvicomana, 69
gimmerthaliana, 73

glabratella, 52
glareosa, 113
glaucata, 89
glaucicolella, 59
glaucinalis, 81
glaucinella, 52
Glaucopsyche, 88
gleichenella, 57
glitzella, 59
Glossata, 43
Gluphisia, 100
glutinosae, 44
glyphica, 104
Glyphipterigidae, 54
Glyphipterix, 54
Glyphipteryx, 154n, 60
gnaphaliella, 51
gnaphalii, 109
gnaphalii, 60
gnidiella, 134
gnomana, 68
gnoma, 100
Gnophos, 98
Gnorimoschema, 65
goedartella, 52
Gonepteryx, 86
gonodactyla, 78
goossensiata, 86f, 94
Gortyna, 108
gothica, 112
gracilis, 112
Gracillaria, 49
Gracillariidae, 134
Gracillariidae, 49
Gracillariinae, 49
graminicolella, 60
graminis, 111
grammodactyla, 77
Grammodes, 104
grandaevana, 73
granella, 48
granitana, 73
granulatella, 60
graphana, 74
Graphiphora, 113
graphodactyla, 88n, 78
graslinella, 48
griseallis, 102
griseana, 73
griseata, 95
griseata, 90
griseella, 45
Griselda, 79n, 73
grisella, 78
griseola, 101
grisescens, 113
grossulariata, 95
grossulariella, 80
grotiana, 68
gryphipennella, 58
gueneeana, 76
gularis, 134
Gymnancyla, 80
Gymnoscelis, 94
Gypsonoma, 73
gysseleniella, 53

Habrosyne, 89
hackmani, 60
Hada, 111
Hadena, 111
Hadeninae, 111
halterata, 95
hamalis, 84
hamana, 70
hamearis, 88
hamella, 81
hammoniella, 45
hannoverella, 45
Haplotinea, 48
harpagula, 89
Harpella, 56
Harpyia, 100
harrisella, 50
hartigiana, 71
hartmanniana, 70
hastata, 93
hastiana, 69
haworthana, 54
haworthiata, 94
haworthii, 108
haworthi, 43
headleyella, 45
hebenstreitella, 67
Hecatera, 111
hecta, 43
Hedya, 71
heegeriella, 50
Helicoverpa, 153n, 114
Heliophobus, 111
Heliothela, 83
Heliothelinae, 83
Heliothinae, 114
Heliothis, 114
Heliozela, 45
Heliozelidae, 45
hellerella, 60
helvola, 110
hemargyrella, 44
Hemaris, 99
hemerobiella, 59
Hemistola, 90
Hemithea, 90
heparana, 67
hepariella, 52
hepatariella, 55
hepatica, 157n, 111
hepatica, 109
Hepialidae, 43
Hepialoidea, 43
Hepialus, 43
heracliana, 55
herbichii, 65
heringiella, 81
Heringocrania, 43
herminata, 18n, 47
Herminia, 102
Herminiidae, 102
hero, 87
herrichiella, 57
Hesperia, 85
Hesperiidae, 85
Hesperiinae, 85
Hesperioidea, 85
heterodactyla, 78
Heterogenea, 67
Heteroneura-Ditrysia, 47
Heteroneura-Incurvariina, 45
Heteroneura-Nepticulina, 43
Heteroneura-Tischeriina, 47
Heteropterus, 85
hexadactyla, 77
heydeniana, 70
heydeni, 24n, 48
hilarana, 69
hilarella, 50
Hipparchia, 87
hippocastanaria, 96
hippophaella, 65
Hippothion, 99
hippothoe, 88
hirsuta, 48
hirtaria, 97
hispidaria, 96
histrionana, 68
hofmanniella, 16f, 50
Hofmannophila, 57
hohenwartiana, 74
Holcocera, 62
holmiana, 69
holsatica, 104f, 104
Homoeosoma, 80
Hoplodrina, 108
Horisme, 93
hornigi, 63
horridella, 53
hortulata, 83
hostilis, 79
huebneriana, 74
huebneri, 65
humerella, 66
humidalis, 103
humiliata, 91
humilis, 57
humuliata, 122n, 91
humuli, 43
hyale, 86

hyalinalis, 83
hybnerella, 44
Hybocampa, 134n, 100
hybridella, 70
Hydraecia, 108
hydrata, 93
Hydrelia, 95
Hydriomena, 93
hydrolapathella, 58
hyemana, 69
Hylaea, 98
hylaeiformis, 76
Hyles, 99
Hyloicus, 99
Hymenia, 84
Hypatima, 66
Hypena, 103
Hypeninae, 103
Hypenodes, 103
Hypenodinae, 103
hyperantus, 87
Hypercallia, 56
hyperici, 113
Hyphoraia, 102
Hypochalcia, 79
Hyppa, 107
Hypsopygia, 80
Hysterosia, 74n, 69

ibipennella, 59
icarus, 88
icterata, 94
icteritia, 110
Idaea, 91
idaeella, 59
idaei, 61
idas, 89
ignicomella, 48
ignorantella, 64
ignorata, 75
ilicifolia, 98
ilicis, 88
illigerella, 77
illutana, 75
illyria, 107
imbecilla, 111
imella, 49
imitaria, 90
immorata, 90
immundana, 73
immundata, 94
immundella, 45
immutata, 90
imperialella, 50
implicitana, 70
impluviata, 93
impura, 112
Inachis, 86
incanana, 69
incanata, 90
incarnatana, 73
incarnatella, 53
incertana, 68
incerta, 112
incognitana, 76
incomptella, 64
inconditella, 48
incongruella, 56
incrustata, 134
Incurvaria, 46
Incurvariidae, 46
Incurvarioidea, 45
indecorana, 78n, 72
indigata, 94
indivisa, 75
infernella, 64
infidana, 74
infida, 71
infurcitinea, 48
innotata, 94
inopella, 63
inopiana, 69
inornatella, 67
ino, 87
inquilina, 75
inquinatalis, 84
inquinatana, 75
inquinata, 135
inquinatella, 82
insectella, 48
insigniata, 94
insignitella, 50
inspersella, 62
instabilella, 65
interjectana, 72n, 68
interjecta, 113
internella, 56
interposita, 113
interpunctella, 80
interrogationis, 105
intimella, 45
intricata, 94
inturbata, 94
inunctella, 62
inundana, 72
io, 86
Iphiclides, 134
Ipimorpha, 106
ipsilon, 112
iris, 86
irriguata, 94
irrorella, 101
irrorella, 52
isertana, 73
isodactylus, 78
Isophrictis, 62
Isotrias, 70
Issoria, 87
Itame, 96
ivella, 52

jacobaeae, 102
janiszewskae, 61
janthinana, 75
janthina, 113
Jodis, 90
Johanssoniella, 44
josephinae, 56
jota, 105
jubata, 97
juncicolella, 59
junctana, 73
junctella, 65
jungiella, 75
juniperata, 92
juniperella, 66
Junonia, 134
junoniella, 50
jurtina, 87
juventina, 106

kaekeritziana, 55
kilmunella, 57
kindermanniana, 70
kinkerella, 63
kleemannella, 51
Klimeschia, 51
knochella, 62
koenigiana, 110n, 83
koerneriella, 46
kroesmanniella, 65
krygeri, 74
kuehnella, 59
kuehniella, 80

laburnella, 54
labyrinthella, 51
Lacanobia, 111
lacertinaria, 89
lacteana, 46f, 72
lactearia, 90
lacteella, 61
lactucae, 109
lacunana, 71
lacustrata, 82
Ladoga, 117n, 86
Laelia, 101
laetana, 72
laevigatella, 52
laevigella, 49
laevis, 110
laichartingella, 47
l-album, 112
lambdella, 56
lamda, 109
lamellifera, 59n, 59
laminella, 62

Lampides, 135
Lampronia, 46
Lampropteryx, 92
Lamprotes, 105
lancealana, 72
lancealis, 83
lanceata, 94
lanestris, 98
langiella, 61
Laodamia, 79
Laothoe, 99
lappella, 62
lapponica, 44
Larentia, 91
Larentiinae, 91
laricana, 74
laricella, 59
lariciata, 94
laripennella, 62n, 60
larseniella, 66
Lasiocampa, 98
Lasiocampidae, 98
Lasiommata, 88
Laspeyria, 104
lassella, 60
latefasciata, 92
laterana, 69
laterella, 55
lateritia, 107
lathonia, 87
lathoniellus, 81
Lathronympha, 74
latistria, 82
latreillella, 61
latruncula, 107
lautella, 51
lazuri, 47
lecheana, 68
ledi, 54
legatella, 95
leguminana, 75
leineri, 111
Leioptilus, 78
lemnata, 81
Lemonia, 99
Lemoniidae, 99
lentiginosella, 64
leporina, 105
Leptidea, 86
Lethe, 135
leucapennella, 49
leucatella, 63
Leucodonta, 100
leucographa, 114
Leucoma, 101
leucophaearia, 97
Leucoptera, 54
Leucospilapteryx, 50
leucostigma, 108
Leucotreta, 134
leuwenhoekella, 61
levana, 87
Levipalpus, 55
libatrix, 103
lichenaria, 97
lichenea, 110
lichenella, 47
lidia, 112
lienigianus, 78
lienigiella, 61
Ligdia, 95
ligea, 87
ligustri, 106
ligustri, 99
limacodes, 67
Limacodidae, 67
limbalis, 113n, 83
limbata, 82
limbella, 62
Limenitis, 86
Limnaecia, 61
limosipennella, 58
linariata, 94
lineana, 71
lineana, 80
linearia, 90
lineata, 98
lineata, 99
lineatella, 66
lineola, 85
lineolea, 59
lineolella, 67
linneella, 60
linogrisea, 113
lipsiana, 69
lipsiella, 57
listerella, 47
Lita, 64
literana, 69
literosa, 107
Lithacodia, 142n, 104
lithargyrinella, 59
Lithocolletinae, 50
lithodactyla, 78
Lithomoia, 109
Lithophane, 109
Lithosia, 102
Lithosiinae, 101
Lithostege, 95
lithoxylaea, 107
litoralis, 112
litterata. 114n, 84
littoralis, 135
littoralis, 72
littoricola, 58
liturata, 96
litura, 110
liturella, 47n, 55
liturosa, 55
lividalis, 103
livida, 106
lixella, 59
ljungiana, 67
l-nigrum, 101
lobella, 55
Lobesia, 134
Lobesia, 72
Lobophora, 95
locupletella, 61
loeflingiana, 69
logaea, 74
loganella, 50
logiana, 69
Lomaspilis, 95
Lomographa, 97
longana, 68
lonicerae, 85
lophyrella, 61
loreyi, 112
loricaria, 96
lorquiniana, 69
lota, 110
lotella, 79
louisella, 45
Loxostege, 83
Lozotaenia, 68
lubricipeda, 102
lucella, 53
lucens, 107
lucernea, 113
lucidella, 63
lucifuga, 109
lucina, 88
lucipara, 106
luctuata, 93
luctuosa, 103
luculella, 64
luedersiana, 75
lunalis, 102
lunana, 68
lunaris, 104
lunosa, 110
lunulana, 75
lunularia, 96
lunula, 109
luperina, 107
lupulina, 43
luridana, 70
luridata, 91
lurideola, 102
luridicomella, 56
lutarea, 41n, 53
lutarea, 58
lutarella, 101
lutatella, 67
lutealis, 84
lutea, 102

luteella, 44
luteolata, 96
luticomella, 57
lutipennella, 58
lutosa, 108
lutulenta, 109
lutulentella, 63
luzella, 46
Lycaena, 88
Lycaenidae, 135
Lycaenidae, 88
Lycaeninae, 88
lychnidis, 110
lychnitis, 109
Lycia, 97
Lycophotia, 113
Lygephila, 103
Lymantria, 101
Lymantridae, 135
Lymantriidae, 101
Lyonetia, 54
Lyonetiidae, 54
Lyonetiinae, 54
Lypusa, 47
Lypusinae, 47
lythargyrella, 82
Lythria, 91

maccana, 69
Macdunnoughia, 105
machaon, 85
macilenta, 110
Macrochilo, 102
Macroglossinae, 99
Macroglossum, 99
Macrothylacia, 98
maculalis, 82
maculana, 72
macularia, 96
Maculinea, 88
maera, 88
maestingella, 50
magdalenae, 44
magna, 46
maillardi, 106
malacosoma, 98
malella, 44
malifoliella, 54
malinellus, 52
malvae, 85
malvella, 66
Mamestra, 111
mandarina, 105
manilensis, 134
Maniola, 87
manniana, 69
mansuetella, 43
manuelaria, 97
margaritana, 70
margaritata, 98
margaritella, 82
margaritia, 112n, 83
marginana, 72
marginaria, 97
marginata, 95
marginella, 66
marginepunctata, 90
marginicolella, 44
marianii, 48
maritima, 114
maritima, 51
maritima, 74
maritima, 80
maritimella, 60
maritimus, 109
marmorata, 134
marmorea, 65
marmorea, 80
Maruca, 134
masculella, 46
matura, 106
maturna, 87
maura, 106
maurella, 47
maxima, 45
mayrella, 59
Mecyna, 84
medicaginis, 75
mediofasciella, 7n, 45
mediopectinellus, 54
Meessiinae, 48
megacephala, 105
meganola, 104
megera, 88
megerlella, 58
melagona, 135n, 100
Melanargia, 134
melanaria, 97
Melanchra, 111
melanocephala, 76
Melanthia, 93
Melissoblaptes, 79
Melitaea, 87
Mellicta, 87
mellinata, 92
mellonella, 78
melstediana, 82n, 73
Mendesia, 57
mendica, 113
mendica, 102
mendica, 37n, 52
mendicella, 37n, 52
mendicella, 48
menyanthidis, 105
mercurella, 82
Mesapamea, 107
Mesoacidalia, 87
Mesogona, 114
Mesoleuca, 92
Mesoligia, 107
mesomella, 101
Mesophleps, 66
Mesotype, 123n, 91
mespilicola, 5f, 44
messingiana, 74
messingiella, 53
Metalampra, 56
metallella, 45
metallicana, 71
metallica, 46
metaxella, 46
meticulosa, 106
Metriostola, 79
Metriotes, 58
metzneriana, 74
metzneria, 62
metzneriella, 62
miata, 92
micacea, 108
micella, 62
microdactyla, 78
microgrammana, 74
Micropterigidae, 43
Micropterigoidea, 43
Micropterix, 43
Microstega, 83
microtheriella, 44
Microthrix, 79
milhauseri, 100
millefoliata, 94
millefolii, 60
Miltochrista, 101
milvipennis, 58
Mimas, 99
miniata, 101
minimana, 70
minima, 107
minimella, 46
minimus, 88
miniosa, 112
ministrana, 68
minorella, 54
minos, 85
Minucia, 103
minutana, 73
minutata, 104
minutella, 56
Mirificarma, 64
miscella, 61
mistralella, 80
mitterbacheriana, 72
mitterbergeri, 53n, 58
mi, 104
mnemosyne, 85
mniotype, 110
moeniata, 91
moguntiana, 70

molesta, 134
Moma, 105
Mompha, 61
Momphidae, 61
monacha, 101
monachella, 49
moneta, 105
monilifera, 14n, 47
Monochroa, 63
monodactyla, 78
monoglypha, 107
Monopis, 49
montanata, 91
Mormo, 106
Morophaga, 48
morosa, 46
morpheus, 108
morpheus, 85
morrisii, 107
mouffetella, 64
mucronata, 91
mucronella, 53
mucronella, 81
mulinella, 64
mundana, 101
munda, 112
mundella, 64
munitata, 91
muralis, 111f, 106
murana, 82
muricata, 91
murinipennella, 59
muscaeformis, 77
muscerda, 101
muscosella, 65
musculana, 67
musculosa, 108
mutatella, 79
Mutuuraia, 84
Myelois, 80
mygindiana, 71
myllerana, 76
Myrlaea, 134
Myrmecozela, 48
myrtillana, 72
myrtillana, 73
myrtillella, 44
myrtilli, 111
Mythimna, 112

Naenia, 114
naevana, 73
nanana, 73
nanata, 94
nana, 111
nana, 70
nanella, 63
napi, 86
Narraga, 96
Narycia, 47
Nascia, 84
nebulata, 95
nebulella, 53
nebulella, 80
nebulosa, 111
Nemapogoninae, 48
Nemapogon, 48
Nematopogoninae, 46
Nematopogon, 46
Nemaxera, 48
Nemophora, 46
nemoralis, 140n, 102
nemoralis, 84
nemorella, 101n, 81
nemorella, 53
nemorivaga, 73
Neofaculta, 64
Neofriseria, 64
Neohipparchia, 134
Neosphaleroptera, 68
Nephopterix, 80
Nepticulidae, 44
Nepticuloidea, 43
nerii, 99
nervosa, 55
neurica, 108
neuropterella, 62
Neurothaumasia, 134
neustria, 98
Neustrotia, 104
nexa, 108
nicellii, 51
Niditinea, 49
nigralbella, 48
nigrata, 83
nigra, 109
nigra, 65
nigrescentella, 50
nigricana, 73
nigricana, 85n, 75
nigricans, 112
nigricomella, 51
nigricostana, 72
nigrilineana, 44f, 69
nigropunctata, 90
nimbella, 80
niobe, 87
niphognatha, 63
nisella, 73
nitentella, 65
nitidana, 75
nitida, 110
nitidulana, 73
nivea, 100n, 81
niveicostella, 59
ni, 105
nobilella, 57
noctualis, 143n, 104
Noctua, 113
noctuella, 84
Noctuidae, 135
Noctuidae, 103
Noctuinae, 112
Noctuoidea, 100
nodicolella, 61
Nola, 104
Nolinae, 104
Nomophila, 84
Nonagria, 108
nordstroemi, 108
Normannia, 118n, 88
notana, 69
notata, 95
notatella, 64
notha, 89
Nothocasis, 95
Nothris, 65
Notodonta, 100
Notodontidae, 100
Notodontinae, 100
nubeculosa, 109
nubiferana, 76n, 71
nubilalis, 83
nubilana, 68
Nudaria, 101
Numonia, 80
nupta, 103
nutantella, 60
Nyctegretis, 80
Nycteola, 104
nylandriella, 2n, 44
nylandriella, 44
nymphaeata, 81
Nymphalidae, 134
Nymphalidae, 86
Nymphalinae, 86
Nymphalis, 86
Nymphula, 81
Nymphulinae, 81
Nyssia, 128n, 97

obeliscata, 92
obelisca, 112
obesalis, 103
obliquella, 44
oblitella, 80
obliterata, 100
oblongana, 72
oblonga, 107
obscurana, 73
obscurana, 75
obscuratana, 76
obscurata, 98
obscurepunctella, 57
obsoletalis, 83
obsoleta, 112
obsoletella, 65

obstipata, 91
obtusana, 72
obtusa, 101
obumbratana, 74
obviella, 49
occulta, 114
occultella, 45
ocellana, 55
ocellana, 74
ocellaris, 110
ocellata, 92
ocellata, 99
ocellea, 81
Ochlodes, 85
ochraceella, 48
ochraceella, 61
ochrata, 91
ochrodactyla, 78
ochroleucana, 71
ochroleuca, 107
Ochropacha, 89
Ochropleura, 113
ochsenheimerella, 46
ochsenheimeriana, 75
Ochsenheimeria, 54
Ochsenheimeriidae, 54
Ocnerostoma, 53
ocnerostomella, 51
octogenaria, 108
ocularis, 89
oculea, 108
oculella, 55
Odezia, 95
Odonestis, 98
Odontiinae, 83
Odontopera, 96
Odontosia, 100
odorata, 135
Oecophora, 56
Oecophoridae, 55
Oecophorinae, 56
Oegoconia, 62
oehlmanniella, 46
Oenochrominae, 90
Oidaematophorus, 78
Oiketicinae, 47
Oinophila, 134
oleracea, 111
olerella, 55
Olethreutes, 71
Olethreutinae, 71
Oligia, 107
Oligostigma, 134
Olindia, 70
olivalis, 84
olivana, 71
olivata, 93
omissella, 50
Omphaloscelis, 110
Oncocera, 79
ononidis, 50
onosmella, 60n, 59
oo, 106
operculella, 134
Operophtera, 93
ophiogramma, 107
Opigena, 113
opima, 112
Opisthograptis, 96
Opogona, 134
oporana, 67
Opostega, 43
Opostegidae, 43
oppressana, 73
Opsibotys, 84
optilete, 89
orana, 68
orbitella, 59
orbona, 113
Orgyia, 135
Orgyia, 101
Oria, 108
orichalcea, 61
ornata, 90
ornatella, 79
ornitopus, 109
orobana, 75
Orophia, 56
orstadii, 57
Orthonama, 91
Orthopygia, 81
Orthosia, 112
Orthotaelia, 53
Orthotaeliinae, 53
Orthotaenia, 71
or, 89
osseana, 69
osteodactylus, 78
osterodensis, 85
osthelderi, 43
osthelderi, 82
ostrinalis, 83
Ostrinia, 83
Ourapteryx, 96
oxalina, 114
oxyacanthae, 110
oxyacanthae, 50
oxyacanthella, 44
Oxyptilus, 77

pabulatricula, 107
Pachetra, 111
Pachycnemia, 96
Pachythelia, 48
pacta, 103
pactolana, 75
Pactolia, 134
padella, 52
palaeno, 86
Palaeodrepana, 120n, 89
paleacea, 106
palealis, 83
paleana, 68
pallens, 112
pallescentella, 49
palliatella, 59n, 59
pallidactyla, 78
pallidana, 68
pallidana, 70
pallidata, 83
pallidata, 91
pallida, 82
pallidella, 4n, 45
pallifrontana, 76
pallorella, 56
pallustris, 109
palpella, 57
palpina, 100
palpita, 84
Paltodora, 62
paludella, 81
paludum, 77
palumbella, 79
palustralis, 83
palustrana, 71
palustrella, 63
palustris, 62
pammene, 75
pamphilus, 87
Pancalia, 61
pandalis, 83
pandemis, 67
Panemeria, 109
Panolis, 112
Panstegia, 111n, 83
Panthea, 105
Pantheinae, 105
panzerella, 10n, 46
Papestra, 111
paphia, 87
papilionaria, 90
Papilionidae, 134
Papilionidae, 85
Papilioninae, 85
Papilionoidea, 85
Papilio, 85
pappiferella, 60
Parachronistis, 63
Paraclepsis, 71n, 68
Paracolax, 102
Paradarsia, 97
Paradiarsia, 113
Parage, 87
paralellaria, 96
Paraleucoptera, 54
Paralipsa, 134
parallelolineata, 94

Paramesia, 68
Paranthrene, 76
Parapoynx, 134
Parapoynx, 81
Parapoynx, 99n, 81
Parascotia, 103
Parasemia, 102
parasitella, 48
Parastichtis, 106
Paraswammerdamia, 52
Parasyndemis, 70n, 68
Parectopa, 50
parenthesella, 53
Pareulype, 93
Parexarnis, 113
pariana, 76
paripennella, 60
paripunctella, 63
Parnassiinae, 85
Parnassius, 85
Parornix, 50
parthenias, 89
parvidactyla, 77
pascuella, 81
pasiuana, 68
pastinacella, 55
pastinum, 103
pavonia, 99
Pechipogo, 102
pectinataria, 93
pectinea, 46
pedella, 57
Pediasia, 82
pelidnodactyla, 78
peliella, 64
pellionella, 49
Pelochrista, 74
Pelosia, 101
peltigera, 114
Pelurga, 92
Pempelia, 79
pendularia, 90
pennaria, 96
pennella, 59
Pennisetia, 76
pentadactyla, 78
penthinana, 71
penziana, 69
Perconia, 98
perflua, 106
Peribatodes, 97
peribenanderi, 60
Periclepsis, 68
Peridea, 100
Peridroma, 113
Perinephela, 83
Perittia, 57
Perizoma, 93
perlella, 81
perlucidalis, 83
permixtana, 70
permutana, 69
permutatella, 82
perplexa, 111
perpygmaeella, 44
persicariae, 111
personella, 23n, 48
petasitis, 108
petiverella, 76
Petrophora, 96
petropolitana, 88
Petrova, 83n, 74
Pexicopia, 66
pfeifferella, 8n, 45
Phalacropterix, 48
Phalera, 100
Phalonidia, 69
phasianipennella, 49
Phaulernis, 77
Pheosia, 100
Phibalapteryx, 91
Philedone, 68
Philedonides, 68
Philereme, 93
Philudoria, 133n, 98
phlaeas, 88
Phlogophora, 106
Phlyctaenia, 83
Photedes, 107
Phragmataecia, 67
Phragmatiphila, 108
Phragmatobia, 102
phragmitella, 61
phragmitella, 81
phragmitidis, 108
phryganella, 49n, 57
Phthorimaea, 134
Phycita, 79
Phycitinae, 79
Phycitodes, 80
Phyllocnistinae, 51
Phyllocnistis, 51
Phyllodesma, 98
Phyllonorycter, 50
Phylloporia, 46
Phytometra, 103
picaepennis, 62
picarella, 48
piercella, 49
Pieridae, 86
Pierinae, 86
Pieris, 86
pigra, 100
pilella, 46
pilleriana, 70
pilosaria, 97
pilosellae, 77
Pima, 79
pimpinellae, 55
pimpinellata, 94
pinastri, 99
pinella, 82
pinguinalis, 81
pinguis, 80
piniaria, 97
piniariella, 53
pinicolana, 74
pinicolella, 61
pinivorana, 74
pinivora, 101
pini, 98
pisi, 111
plagiata, 95
plagicolella, 44
Plagodis, 96
plantaginis, 102
plantariella, 64
platani, 51
platanoidella, 51
Platyedra, 66
Platyptilia, 78
Platyptiliinae, 77
Platytes, 82
plebejana, 73
plebejus, 89
plecta, 113
Plemyria, 92
Pleuroptya, 84
Pleurota, 57
plexippus, 86
Plodia, 80
plumbaea, 41n, 53
plumbagana, 76
plumbana, 76
plumbella, 52
plumbella, 59
plumbeolata, 94
plumella, 47
plumigera, 100
Plusia, 105
Plusiinae, 105
Plutella, 53
Plutellinae, 53
pneumonanthes, 78
poae, 57
podalirius, 134
podana, 67
Poecilocampa, 98
Polia, 111
poliellus, 82
Pollichia, 89n, 79
pollinalis, 83
pollinariella, 58
polychloros, 86
Polychrysia, 105
polygonalis, 83
polygona, 113

Polygonia, 87
polygrammata, 92
polymita, 110
Polymixis, 110
polyodon, 112
Polyommatinae, 88
Polyommatus, 88
Polyploca, 89
Polypogon, 102
pomella, 44
pomerana, 57
pomonella, 50
pomonella, 75
Pontia, 86
populana, 75
populata, 92
populella, 66
populeti, 112
populetorum, 49
populifolia, 98
populifoliella, 51
populi, 86
populi, 98
populi, 99
porata, 90
porcellus, 99
porphyralis, 83
porphyrana, 72
porphyrea, 113
porrectella, 53
posterana, 70
posticana, 74
potatoria, 98
potentillae, 59
potentillella, 62
poterii, 44
praeangusta, 61
praecana, 109
praecocella, 52
praecox, 113
praelatella, 46
prasinana, 104
prasina, 114
pratella, 101n, 81
pratella, 81
Praydinae, 53
Prays, 53
pretiosa, 44
primaria, 98
Pristerognatha, 71
proboscidalis, 103
procellata, 93
procerella, 56
Prochoreutis, 76
proclivella, 65
Procridinae, 84
Prodoxidae, 46
profugella, 77
profundana, 72
promissa, 103
pronubana, 134
pronuba, 113
propinquella, 55
propinquella, 61
propulsatella, 22n, 48
Protodeltote, 104
Protoschinia, 114
proxima, 111
proxima, 65
proximella, 64
pruinata, 90
pruinosella, 64
prunalis, 84
prunaria, 96
prunata, 92
prunetorum, 44
pruniana, 71
pruniella, 52
prunifoliae, 58
prunifoliella, 21f, 54
pruni, 88
pruni, 98
Psammotis, 84
Pselnophorus, 78
Pseudargyrotoza, 68
Pseudatemelia, 56
Pseudohermenias, 71
Pseudoips, 104
Pseudopanthera, 96
Pseudosciaphila, 71
pseudospretella, 57
Pseudoswammerdamia, 52
Pseudosyria, 79
Pseudotelphusa, 63
Pseudoterpna, 90
psilella, 65
psi, 105
Psoricoptera, 65
Psyche, 47
Psychidae, 47
Pterapherapteryx, 95
pterodactyla, 78
Pterophoridae, 77
Pterophorinae, 78
Pterophoroidea, 77
Pterophorus, 78
Pterostoma, 100
Ptilodontella, 100
Ptilodon, 100
Ptilophora, 100
Ptocheuusa, 63
Ptycholoma, 68
Ptycholomoides, 68
pudibunda, 101
pudorina, 112
pulchellana, 69n, 67
pulchella, 102
pulchella, 51n, 57
pulcherrimella, 55
pulchrina, 105
pullatella, 65
pullicomella, 58
pulmonariella, 59
pulveralis, 84
pulveraria, 96
pulveratella, 63
pulverosella, 45
punctalis, 81
punctalis, 84
punctaria, 90
punctidactyla, 78
punctinalis, 97
punctulata, 97
pupillana, 74
pupillata, 92
puppillaria, 90
purpuralis, 83
purpuralis, 85
purpurata, 123n, 91
purpurea, 55
pusaria, 97
pusillata, 94
putata, 90
putnami, 105
putris, 113
Pygarga, 104
pygmaeana, 42n, 54
pygmaeana, 73
pygmaeata, 94
pygmaeella, 52
pygmaeola, 101
pygmina, 107
Pyla, 79
pyralella, 82
pyraliata, 92
Pyralidae, 134
Pyralidae, 78
Pyralinae, 80
pyralina, 107
Pyralis, 81
Pyraloidea, 78
pyramidea, 106
Pyrausta, 83
Pyraustinae, 83
pyrella, 52
Pyrginae, 85
Pyrgus, 85
pyrina, 67
Pyritoides, 89
pyri, 135
Pyronia, 87
Pyrrhia, 114
pyrrhulipennella, 59

quadrana, 74
quadra, 102
quadrifasiata, 91

quadrimaculana, 72
quadrimaculella, 45
quercana, 57
quercifolia, 98
quercifoliella, 50
quercimontaria, 90
quercinana, 69
quercinaria, 96
Quercusia, 88
quercus, 88
quercus, 98
quinnata, 31n, 50
quinqueguttella, 50

rajella, 50
ramburialis, 84
ramella, 72
ramosella, 60
rapae, 86
raptricula, 106
raschkiella, 61
ratisbonensis, 51
ratzeburgiana, 73
ravida, 113
razowskii, 60
reaumurella, 46
recens, 101
rectangulata, 95
rectifasciana, 70
rectilinea, 107
recurvalis, 84
recurvaria, 63
recussa, 112
regiana, 75
regiella, 44
regificella, 57
reliquana, 72
remissa, 107
remissella, 66
renata, 151n, 112
repandana, 80
repandaria, 96
repandata, 97
repentiella, 3n, 44
resinella, 74
respersa, 108
resplendella, 45
reticularis, 84
reticulata, 111
reticulata, 92
retiella, 47
retinella, 52
Retinia, 74
retusa, 106
Reuttia, 65
revayana, 104
revinctella, 58
rhamnella, 44
rhamniella, 61
rhamni, 86
rhediella, 75
rhenella, 79
Rheumaptera, 93
Rhigognostis, 53
Rhizedra, 108
rhododactyla, 78
Rhodometra, 91
Rhodophaea, 90n, 79
Rhodostrophia, 91
rhombana, 69
rhombella, 64
rhombelliformis, 65
rhomboidaria, 97
rhomboidea, 114
rhomboidella, 66
Rhopobota, 73
Rhyacia, 113
Rhyacionia, 74
Rhynchopacha, 67n, 64
ribeata, 97
ridens, 89
rigana, 69
Riodininae, 88
ripae, 112
rivata, 92
rivulana, 71
rivularis, 111
Rivula, 103
Rivulinae, 103
robertella, 46
roborana, 73
roboraria, 97
roborella, 45
roborella, 79
roboris, 50
robustana, 72
robustella, 49
Roeslerstammia, 51
Roeslerstammidae, 51
rorrella, 52
rosaceana, 71
rosaecolana, 73
rosana, 67
roseomaculana, 71
rostralis, 103
rotaria, 91
ruberata, 93
rubidata, 91
rubiella, 13n, 46
rubigana, 70
rubiginata, 92
rubiginata, 90
rubiginea, 110
rubiginosana, 73
rubiginosa, 110
rubivora, 45
rubi, 114
rubi, 88
rubi, 98
rubricollis, 101
rubricosa, 114
rubrirena, 107
rufana, 69
rufana, 71
rufata, 95
rufa, 108
rufescens, 134
rufescens, 67
ruficapitella, 45
ruficiliana, 70
ruficornis, 100
rufifasciata, 94
rufifrontella, 46
rufimitrana, 73
rufimitrella, 46
rufipennella, 49
rufocinerea, 58
rumicetella, 63
rumicis, 106
rupicapraria, 98
rupicola, 70
ruralis, 84
rurestrana, 71
rurinana, 68
Rusina, 106
rusticella, 25n, 49
rusticella, 75
rutilana, 70

sabinella, 64
Sabra, 89
sacchari, 134
sacraria, 91
sagitella, 51
sagittata, 93
sagittigera, 111
salaciella, 43
Salebriopsis, 79
salicalis, 103
salicella, 57
salicella, 71
salicicolella, 50
salicis, 101
salicis, 44
salicis, 51n, 57
salicorniae, 60
salictella, 50
saligna, 51
salinella, 65
salopiella, 43
saltuum, 64
samadensis, 65
sambucaria, 96
samiatella, 45
sangii, 43
sanguinalis, 83
sannio, 102

sarcitrella, 57
Sarrothripinae, 104
satura, 110
Saturnia, 135
Saturnia, 99
Saturniidae, 135
Saturniidae, 99
Saturniinae, 99
satyrata, 94
Satyrinae, 87
Satyrium, 88
sauciana, 72
saucia, 113
saxicola, 80
saxicolella, 60
scabrella, 53
scabriuscula, 106
scalella, 63
Scardiinae, 48
scarodactyla, 78
schaefferella, 56
schaefferi, 43
Schiffermuelleria, 56
schmidtiellus, 66
Schoenobiinae, 81
Schoenobius, 81
Schrankia, 103
Schreckensteinia, 77
Schreckensteiniidae, 77
Schreckensteinioidea, 77
schuetzeella, 79
schulziana, 71
schumacherana, 70
schwarziellus, 46
Sciota, 79
scirpi, 58
scitella, 44n, 54
Sclerocona, 83
scoliaeformis, 76
Scoliopteryx, 103
scolopacina, 107
Scoparia, 82
scopariella, 55
scopariella, 50
Scopariinae, 82
scopigera, 77
Scopula, 135
Scopula, 90
scoticella, 50
scotinella, 64
Scotopteryx, 91
scribaiella, 61
scriptella, 63
Scrobipalpa, 65
Scrobipalpula, 65
scrophulariae, 109
scutosa, 114
scutulana, 73
Scythrididae, 62
Scythris, 62
Scythropia, 53
Scythropinae, 53
secalella, 107
secalis, 107
secundaria, 97
sedatana, 76
sedella, 52
Sedina, 108
segetum, 112
sehestediana, 76
Selagia, 79
selasella, 82
selenana, 72
selene, 87
Selenia, 96
Selidosema, 97
selinata, 94
selini, 108
selini, 55
semele, 87
semiargus, 88
semibrunnea, 109
semicostella, 66
semifasciana, 71
semifascia, 49
semifulvella, 49
semifusca, 52
Semioscopis, 55
Semiothisa, 95
semipurpurella, 43
semirubella, 79
semitestacella, 52
senecionana, 68
senectella, 64
senex, 101
senilella, 53
Senta, 112
separatella, 60
sepium, 19n, 47
septembrella, 45
sequella, 53
serenella, 57n, 59
seriata, 91
sericealis, 103
sericiella, 45
sericopeza, 45
serpentata, 91
serpylletorum, 59
Serraca, 129n, 97
serraria, 92
serratella, 58
serratulae, 85
serricornis, 58
sertata, 95
servella, 63
servillana, 75
Sesia, 76
Sesiidae, 76
Sesiinae, 76
Sesioidea, 76
Setina, 101
sexalata, 95
sexguttella, 63
sexpunctella, 64
sexstrigata, 114
shepherdana, 69
sicariella, 66
siccella, 62
siccifolia, 58
siculana, 104
siderana, 71
Sideridis, 111
Siederia, 47
sigma, 113
signaria, 96
signatana, 73
silaceata, 92
silacella, 66
silvella, 81
silvicolus, 85
similaria, 97
similella, 56
similella, 79
similis, 101
similis, 64
simplana, 73
simpliciana, 76
simpliciata, 94
simpliciella, 54
simulans, 113
Simyra, 106
sinapis, 86
singula, 64
sinuella, 54
sinuella, 80
sinuosaria, 94
Siona, 98
siterata, 92
Sitochroa, 83
Sitotroga, 134
smeathmanniana, 70
Smerinthus, 99
sobrina, 113
sociana, 73
socia, 156n, 109
sociella, 79
sodaliana, 69
solandriana, 72
Solenobia, 15n, 47
solidaginis, 109
solieri, 110
solitariella, 59
solutella, 64
somnulentella, 54
Sophronia, 66
sorbiella, 52
sorbi, 44

sorbi, 50
sordens, 107
sordidana, 72
Sorhagenia, 61
sororculana, 72
sororcula, 101
sororculella, 64
sororiata, 95
spadicearia, 91
spadicella, 79
Spaelotis, 113
sparganella, 53
Spargania, 93
sparganii, 108
Sparganothis, 70
sparrmannella, 43
sparsana, 69
sparsata, 95
spartiella, 66
spartifoliella, 54
Spatalistis, 69
speciosa, 114
spectrana, 68
spectrum, 135
spheciformis, 76
sphendamni, 5n, 45
Sphingidae, 99
Sphinginae, 99
Sphingoidea, 99
sphinx, 109
Sphinx, 99
Spilonota, 74
Spilosoma, 102
spilotella, 49
spinella, 58
spiniana, 75
spiniella, 40n, 52
spinolella, 30n, 50
spinosella, 52
Spiris, 102
spissicornis, 55n, 59
splendana, 75
splendens, 111
splendidissimella, 44
splendidulana, 75
Spodoptera, 135
Spodoptera, 108
sponsa, 103
spretella, 27n, 49
Spuleria, 60
squalorella, 60
squamosella, 60
stabilella, 58
stabilis, 151n, 112
stachydalis, 84
stagnana, 73
stagnata, 81
staintoniella, 50
Standfussiana, 113
stangei, 65
Stathmopoda, 57
statices, 84
statilinus, 134
Stauropora, 108
Stauropus, 100
steinkellneriana, 55
stellatarum, 99
Stenodes, 75n, 69
Stenolechia, 63
Stenoptilia, 78
Stenoptinea, 48
stephensiana, 68
Stephensia, 57
stephensi, 61
sternipennella, 60
Sterrhinae, 90
stettinensis, 51
sticticalis, 83
sticticana, 73
stigmatella, 49
Stigmella, 44
stipella, 56
stolida, 104
Stomopteryx, 66
straminata, 91
straminea, 112
straminea, 69
straminella, 82
strataria, 97
stratiotata, 81
streliciella, 65
striana, 71
striata, 102
striatella, 62
striatipennella, 60
strigana, 74
strigilata, 102
strigilella, 6n, 45
strigilis, 107
strigillaria, 98
strigosa, 105
strigulatella, 50
strigula, 104
strobilella, 75
stroemella, 56
stroemiana, 78n, 72
Strophedra, 74
suaedivora, 63n, 60
suasa, 111
suavella, 80
subalbidella, 58
subarcuana, 48f, 72
subbimaculella, 45
subbistrigella, 61
subcinerea, 66
subdecurtella, 63
suberinella, 49
subfasciella, 53
subfuscata, 94
subfusca, 82
subhastata, 93
sublustris, 107
subnigrella, 57
subocellana, 72
subocellea, 65
subochreella, 56
subpropinquella, 55
subpurpurella, 43
subrosea, 113
subsequana, 73
subsericeata, 91
subtusa, 106
subumbrata, 94
succedana, 75
succenturiata, 94
succursella, 60
sudetica, 82
suecica, 113
suecicella, 66
suffumata, 92
suffusella, 63
superbella, 62
suspectana, 75
suspecta, 106
svenssoni, 45
swammerdamella, 46
Swammerdamia, 52
sylvata, 95
sylvata, 95
sylvaticella, 60
sylvella, 32n, 51
sylvella, 53
sylvestralis, 104n, 82
sylvestraria, 91
sylvestrella, 79
sylvestris, 85
sylvicolana, 76
sylvina, 43
Symmocinae, 62
Synanthedon, 76
Synaphe, 81
Syncopacma, 66
Syndemis, 67
Syngrapha, 105
syringaria, 96
syringella, 49

tabaniformis, 76
taenialis, 103
taeniata, 93
taeniipennella, 60
taeniolella, 66
tages, 85
Taleporia, 47
Taleporiinae, 47
tamesis, 59
tanaceti, 109

tanaceti, 60
tantillaria, 94
tapetzella, 49
tarsicrinalis, 102
tarsipennalis, 102
taurella, 54
tau, 99
Tebenna, 76
tedella, 73
Telechrysis, 56
Teleiodes, 63
Teleiopsis, 64
Telephila, 66
temerata, 98
temerella, 66
templi, 109
tenebrata, 109
tenebrella, 63
tenebrosana, 75
tenerana, 73
tenerella, 50
tentacularia, 102
tenuiata, 94
tephradactyla, 78
terebrella, 80
terminella, 56
terminella, 61
ternata, 90
terrealis, 84
terrella, 64
tersata, 93
tesseradactyla, 78
tesserana, 70
testacea, 107
testata, 92
testulalis, 134
Tethea, 89
Tetheella, 89
tetragonella, 63
tetralunaria, 96
tetrapunctella, 64
tetraquetrana, 73
textana, 74
thalassina, 111
Thalera, 90
Thalpophila, 106
Thaumatha, 138n, 101
Thaumetopoea, 101
Thaumetopoeinae, 101
Thecla, 88
Theclinae, 88
Thera, 92
Theria, 98
therinella, 60
Thiodia, 74
Thisanotia, 82
Tholera, 111
thoracella, 51
thrasonella, 54
Thumatha, 101
Thyatira, 89
Thyatirinae, 89
Thymelicus, 85
Tichonia, 56
tiedemanniana, 71
tiliae, 44
tiliae, 99
tiliella, 58n, 59
Timandra, 90
Tinagma, 51
tincta, 111
tinctella, 56
tineana, 72
Tinea, 134
Tinea, 49
Tineidae, 134
Tineidae, 48
Tineinae, 49
Tineoidea, 47
Tineola, 49
Tinthiinae, 76
tipuliformis, 77
Tischeria, 47
Tischeriidae, 47
Tischerioidea, 47
tithonus, 87
tityrella, 44
tityrus, 88
tityus, 99
togata, 110
torquillella, 50
Tortricidae, 134
Tortricidae, 67
Tortricinae, 67
Tortricodes, 68
Tortricoidea, 67
Tortrix, 69
torva, 100
trabealis, 104
Trachea, 106
Trachysmia 73n, 69
Trachysmia, 69
tragicella, 64
tragopoginis, 106
translucens, 134
transversata, 93
transversa, 110
transversella, 51
trapezina, 107
traugotti, 50
trauniana, 75
tremula, 100
triangulum, 114
triatomea, 58
Triaxomasia, 49
Triaxomera, 48
Trichiura, 98
Trichophaga, 49
Trichoplusia, 105
tricolorella, 65
Tricopteryx, 95
tridactyla, 78
tridens, 105
tridens, 108
trifasciella, 51
trifoliana, 72
trifolii, 111
trifolii, 59
trifolii, 85
trifolii, 98
trifurcula, 45
trigemina, 105
trigeminella, 58
trigonella, 72
trigrammica, 108
trimaculana, 73
trimaculella, 44
tringipennella, 49
trinotella, 49
Triphosa, 93
triplasia, 105
tripoliana, 74
tripunctaria, 94
tripuncta, 56
triquetrella, 47
Trisateles, 103
trisignaria, 94
tristalis, 103
tristata, 92
tristella, 82
tristrigella, 51
tritici, 112
Tritophia, 100
tritophus, 100
trochilella, 60
troglodytella, 64n, 60
truncata, 92
truncicolella, 82
tubulosa, 47
tullia, 87
tumidana, 79
tunbergella, 43
turbata, 135
turbidalis, 83
turbidana, 71
turbidella, 45
turca, 112
turfosalis, 142n, 103
turfosana, 71
turicensis, 28n, 49
turionella, 74
turpella, 65
typhae, 108
typica, 114
Tyria, 102
Tyta, 103

uddmanniana, 73
Udea, 84
ulicitella, 55
uliginosella, 58
uliginosellus, 81
ulmariae, 44
ulmella, 105n, 82
ulmella, 51
ulmifoliella, 51
ulmivora, 44
ultima, 108
ultimella, 55
umbraticae, 109
umbra, 114
umbrosana, 71
umbrosella, 64
unangulata, 93
unanimis, 107
uncella, 72
unculana, 72
uncula, 104
undulana, 71
undulata, 93
unguicella, 72
unicolorella, 62
unicolor, 20n, 48
unifasciella, 58
unimaculella, 43
unionalis, 84
unipunctana, 80n, 73
unipuncta, 112
unipunctella, 51
unitana, 68
unitella, 56
upupana, 72
urella, 54
Uresiphita, 83
urticae, 102
urticae, 87
ustalella, 66
ustella, 53
ustomaculana, 73
ustulana, 72
Utetheisa, 102
utonella, 58

vacciniella, 59
vacciniella, 79
vacciniina, 89
vaccinii, 110
vacculella, 54
valerianata, 94
valeriella, 54
vandaliella, 107n, 82
Vanessa, 86
variata, 92
variatella, 48
variegana, 69
variella, 9n, 46
v-ata, 94
vaualbum, 86
vectisana, 70
velocella, 64
venata, 85
venosata, 94
Venusia, 95
venustula, 109
verbascalis, 84
verbascella, 65
verbasci, 109
verellus, 82
vernana, 104
versicolora, 98
versicolor, 107
versurella, 60
verticalis, 83
vespiformis, 77
vestianella, 60
vestigialis, 112
vetulata, 93
vetusta, 109
v-flava, 134
vibicaria, 91
vibicigerella, 59
viburnana, 68
viciae, 103
viciae, 85
vicinella, 65
vigintipunctata, 39n, 52
villosella, 48
viminalis, 109
viminetella, 58
vinella, 66
vinula, 100
violacea, 59
viretata, 95
virgata, 91
virgaureae, 88
virgaureata, 94
virgaurea, 60
virgella, 68n, 64
viridana, 69
viridaria, 103
viridata, 90
viridis, 135
viriplaca, 114
viscariella, 65
vitalbata, 93
vitellina, 112
vitisella, 59
vittata, 91
vittella, 53
vitula, 80
vulgana, 68
vulgata, 94
vulgella, 63
vulnerariae, 59

wagae, 63
w-album, 88
wauaria, 96
weaveri, 45
weirana, 74
weirella, 55
wilkella, 62
w-latinum, 111
wolffiella, 48
woliniana, 69
woolhopiella, 45
wormiella, 66
wulfeniana, 83

Xanthia, 110
xanthographa, 114
xanthomelas, 86
Xanthorhoe, 91
Xenolechia, 63
Xerocnephasia, 69
Xestia, 114
Xylena, 109
Xylocampa, 109
xylosteana, 67
xylostella, 53
Xystophora, 63

yeatiana, 55
yildizae, 48
Yponomeuta, 52
Yponomeutidae, 52
Yponomeutinae, 52
Yponomeutoidea, 52
ypsillon, 106
Ypsolopha, 53
Ypsolophinae, 53

zebeana, 75
Zeiraphera, 73
Zelleria, 52
zelleriella, 44
zelleriella, 59
zelleri, 79
Zeugloptera, 43
Zeuzera, 67
Zeuzerinae, 67
zieglerella, 61
zigzac, 100
zinckenella, 79
zoegana, 70
zollikoferi, 107
zonaria, 97
zophodactylus, 78
Zophodia, 80
Zygaena, 85
Zygaenidae, 84
Zygaeninae, 85
Zygaenoidea, 84