Description of two new genera of Mesostigmata (Acarina), Aspidilaelaps from Samoa and Protoholaspis from Peru.

By

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Thanks to the great courtesy of professor R. Spärck, curator of the Entomological Museum of the University of Copenhagen, and to dr. S. L. Tuxen I have been able to examine some of the mites of the museum. In this paper two of the most remarkable forms are described. The *Celænopsina* will be treated in another paper together with other genera of the same cohors, collected by the author in South-Africa in 1904—05, in New Guinea by dr. Womersley of the South Australia Museum, Adelaide, and by dr. Geijskes in Paramaribo, Suriname.

Aspidilaelaps nov. gen.

The species for which this new genus has been established is one of the most peculiar mites I have ever seen. At the first glance it resembles, with its dark-brown, thick and richly sculptured dorsal shield, more a tick than a mite. But when the ventral side is investigated — which can only be done by separating it from the dorsal shield — one notices some features which indicate that it belongs to the *Laelaptidae* in spite of its many strange features.

The genus is, indeed, so peculiar that the proper thing to do would be to establish a new family for it. But as only one female has so far been captured it seems best to await the discovery of the male before its exact systematic position is considered.

Although there are no data on the label, indicating that the mite is associated with insects, there is one structure which seems to support the view that it is not a free-living species but derives its food from insects, either ants or termites. I refer to the shape of the mandibles, with their very narrow and feeble, edentate chela. Chiefly through the researches of Berlese it is well known that in the myrmecophilous mites the mandibles are very poorly developed, presumably because the mites are offered liquid food by the ants.

Diagnosis. Dorsal side covered by a thick, highly sculptured shield, the posterior edge of which has a row of eleven pairs of stout bristles turned like a cork-screw. Ventral shield quite soft and transparent. Sternal shield short, rounded posteriorly and finely punctured, with only two pairs of hairs. Epigynial shield without hairs. No ventral shield. Anal shield very large, with soft, transparent median area and a stout postanal bristle. Mandibles with very long and narrow, edentate chela.

Type species: A. mirabilis nov. spec.

Female.

Length 2000 μ ; width 1500 μ .

Colour dark chestnut brown.

Dorsal side (fig. 1) entirely covered by a single shield which is very broad oval, a little pointed posteriorly and very bluntly convex anteriorly. The shield has a very complicated sculpture which it is easier to delineate than to describe. The whole surface is covered by small, circular depressions. In the anterior half there are in the middle three pairs of irregular areas where the depressions are larger and behind them there is a large, central area where the cuticle is thinner. Along the posterior border there is a broad band with radiating furrows. A great number of large pores are distributed over the shield, most conspicuous on the lightcoloured areas.



Fig. 1. Aspidilaelaps mirabilis nov. gen. nov. spec. Female. Dorsal shield.

The vertex-hairs are very short and blunt. At the shoulders which are not demarcated, a pair of short, blunt submarginal bristles, directed backwards, and in front of the middle a pair of submarginal, stout and blunt bristles directed straight outwards. Along the posterior border of the dorsal shield a row of eleven piars of very peculiar, pointed bristles, the anterior one of which scarcely projects beyond the edge of the shield. The others are radiating, increasing successively in length backwards. The surface of the bristles has a spiral furrow which gives them the appearance of being twisted round several times.

Ventral side (fig. 2) very thin, almost transparent, contrasting strangely with the strongly chitinized dorsal shield. Between the basis of the gnathosoma and the sternal shield there is a portion of soft, transversally wrinkled cuticle. Along the anterior border of the sternal shield there is a transverse, crescent-shaped, browncoloured shield, extending laterally between acetabula I and II and sending out backwards two short, brown coloured, almost parallel bars. Between them the very finely punctured sternal shield extends backwards almost to the sternal hairs III, with almost semicircular posterior margin.

Sternal hairs I on the soft portion in front of the crescent-shaped bar, short but stout and perpendicular. Behind them and a little farther laterally and close to the anterior margin of the bar pores I are situated. Hairs II about three times as long as hairs I and inserted marginally a little behind the longitudinal bars. Pores II placed submarginally half-way between hairs II and the posterior end of the sternal shield. Hairs III not associated with any shields, short, perpendicular and placed in a transverse row on a level with the posterior margin of the sternal shield. Hairs IV short, placed far laterally on a level with a line drawn between coxae II and III.

The epigynial shield is extremely finely punctured and in outline tongue-shaped, with semicircular posterior margin and slightly concave sides, without

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Aspidilaelaps mirabilis nov. gen. nov. spec. Female. Fig. 2. Ventral shields. Fig. 3. Leg I. Fig. 4. Leg. II.

triangular projections (which may, however, be the result of tearing during the dissection). One pair of short hairs just outside the middle of the shield and one pair

hairs. The anterior border of the epigynial shield is thin and transparent and its edge seems to extend into two behind the shield in exactly the same position to it as hairs III are to the sternal shield.

No ventral shield but the anal shield is large, pear-shaped in outline and dark-coloured. It has a longitudinal, median, and finely longitudinally wrinkled area in the middle of which the anal aperture is placed, flanked by a pair of small hairs on a level with its posterior end. One very large post-anal bristle.

The structure of the anal shield with its median area of soft cuticle seems to suggest that the shield is used as an organ for the purpose of attaching the mite to some insect.

The rest of the ventral surface is very finely striated and in the posterior part of the ventral side there are about 100 pairs of hyalin, rather stout and slightly curved hairs.

Tritosternum (fig. 7). The trunk is only about twice as long as it is wide at the base, with a transverse suture in the middle; the slips are very narrow, about three times as long as the trunk and naked in their proximal half.

The legs. All the legs are very powerful and darkcoloured. Legs I (fig. 3) with well developed, conical coxae, with two short hairs distally on the exterior side; trochanter with two stout, perpendicular bristles in the middle on the inner side, of the same peculiar, twisted shape as those of the posterior margin of the dorsal shield. Femur with well demarcated basifemur, clubshaped and cut off obliquely at the top which implies that the genu is bent sharply downwards, as is also the tibia; tarsus slightly tapering towards the tip, with a large, perpendicular bristle dorsally in the middle and a little behind and at the tip with about 15 fine tactile hairs and a very weekly chitinized empodium with two very small claws.

Legs II (fig. 4) very powerful, with short and broad

joints, with numerous bristles and short but powerful spines. The bristles are chiefly inserted on the dorsal margin and are shaped like the bristles of the posterior margin of the dorsal shield, generally two on each joint.



Aspidilaelaps mirabilis nov. gen. nov. spec. Female.

Fig. 5. Mandible. Fig. 6. Stigma and peritrema. Fig. 7. Tritosternum. Fig. 8. Top of leg I with ambulacres. Fig. 9. Hypostome and palp, lateral view.

The spines are placed submarginally near the dorsal side, one on femur, two on genu, two on tibia and one on basitarsus. At the top of the tarsus a ring of four blunt, stout spines and in front of them two twisted spines.

Gnathosoma very small. Epistome triangular, feebly chitinized, with irregularly serrated edge.

Mandibles (fig. 5) very small, with long, very nar-

row, edentate chela. Hypostome (fig. 9) with small, horn-shaped maxillary lobes and very long, setiform, naked maxillary plates. The four hypostomatic hairs are in transverse rows of 1, 2 and 1, the distance between the anterior and median hairs being half the distance between the median and posterior ones. Hairs I setiform, twice as long as hairs II but more slender, hairs III short but stout and acutely pointed, hairs IV of the same shape as hairs III but twice as large.

Stigma (fig. 6) small in comparison with the large peritremata which runs forwards and is visible from above in the region of the shoulders, hence bending inwards and backwards in an even curve.

Locality: Samoa 1934. One female. Type specimen in the Copenhagen Museum.

Remarks on the organization and the systematic position of *Aspidilaelaps*.

This genus is very remarkable in several respects and it is to be deplored that so far only one female has been captured and that there are no data about the biotope where the female was collected. The most striking feature is the enormous contrast in thickness between the cuticle of the dorsal and that of the ventral side. The dorsal side is covered by a thick, profusely sculptured shield, resembling that of the highly sculptured *Uropodina*, whereas the ventral cuticle is quite soft and transparent, without any distinct shields in the sternal region, the shields being substituted by a quite unique structure, the crescent-shaped bar with its two short, longitudinal bars, directed backwards, obviously for the purpose of strengthening the soft cuticle.

The shape of the epigynial shield, however, definitively places the genus amongst the *Laelaptidae*.

The row of stout, marginal bristles along the posterior portion of the dorsal shield is a feature shared by several genera found on millipeds but might just as well be an adaptation towards living on other arthropods. The structure of the anal shield seems to suggest that it acts as an adhesive organ and, finally, the narrow, edentate mandibles seem definitively to exclude the possibility that the mite is a free-living species, able to procure its food without the help of some insects, probably of social habits.

Protoholaspis nov. gen.

All the genera hitherto referred to the family *Macrochelidae*, are characterized by the absence of ambulacres on the first pair of legs which are, moreover, much more slender than the other legs. Another very characteristic feature is the configuration of the epistome which projects into a fine appendage which is often bi- or tetra-furcated. It is, however, quite obvious that the ancestors of the *Macrochelidae* must have had ambulacres also on the first pair of legs and that the most primitive shape of the epistome is a simple, triangular mucro with smooth edges. In both these respects the new genus is more primitive than the other genera of the family for which reason its discovery is of great interest.

Diagnosis: Legs I very slender, provided with ambulacres. Legs II very stout, femora IV with thumb-shaped appendage. Epistome triangular, without any projections. Metapodal shields well developed, not fused with the peritrematic shield. Metasternal shield united with sternal shield through a narrow stalk.

Type species: Protoholaspis peruanus nov. spec.

Female.

Length 2100 μ ; width 1400 μ .

Colour dark chestnut brown. Shape typical for the family.

Dorsal shield with polygonal sculpture and numerous short hairs. The two hairs at the anterior end, the so-called vertex hairs, are naked.



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Protoholaspis peruanus nov. gen. nov. spec. Female. Fig. 10. Sternal, epigynial and anal shield. Fig. 11. Metasternal shield. Fig. 12. Stigma, peritrema and peritrematic shield.

Ventral side (fig. 10).

The sternal shield with quite uniform polygonal sculpture, extending backwards to the posterior margin

of coxae III. Anterior margin a thickened ridge, projecting with narrow, tapering antero-lateral angles, posterior margin with three concave excavations. Sternal hairs long, straight and acute. The first pair is inserted at the anterior margin, far laterally, hairs II a little behind the middle of coxae II, laterally, hairs III behind the middle of coxae III. Pores I on the median side of hairs I, pores II in the angles between coxae II and III. The metasternal shield is not free, as is usually the case in the *Macrochelidae*, but connected with the posterior angle of the sternal shield by a very narrow bridge (fig. 11) and squeezed in between the angle between coxae III and IV. It is very small but the metasternal hair is quite as large as the sternal hairs.

Epigynial shield with polygonal sculpture; it is pentagonal, with rounded angles, little longer than wide and has an exceedingly thin, broad and striated anterior border. One pair of long, stout hairs a little in front of the antero-lateral angles, about four times as far from one another as from the lateral margin.

No ventral shield, the cuticle between the epigynial and the anal shield being soft and transversally striated. Anal shield narrow, triangular, with deeply concave lateral sides and convex, slightly wavy anterior margin and three hairs, one pair on a level with the lateral angles of the shield, the third behind the anal aperture. It may of course be argued that the anal shield nothwithstanding its moderate size is a ventri-anal shield. But, on the other hand, whenever there is a ventral shield in the *Macrochelidae* it always bears three pairs of hairs. In Protoholaspis the shield has only the usual three hairs of the anal shield. The soft cuticle between the epigynial and anal shields bears 12 pairs of hairs of which two occur between the epigynial shield and the metapodal shield, two close to the anterior border of the anal shield and two pairs on both sides of the anal shield. The metapodal shields are narrow, triangular and have no hairs. The peritrematic shields are not fused with the dorsal shield, at their anterior ends they have two pairs of hairs. The stigmata are placed on a level with a line, drawn between coxae III and IV and the peritremata do not form any loop backwards and forwards, as they usually do in the *Macrochelidae*, but are straight and rather wide, extending forwards until in front of coxae I.

Gnathosoma.

The epistome (fig. 13) is broadly triangular in outline, with a very thin, transparent, extremely finely serrated edge, the teeth at the top being a little longer than the rest.

The mandibles (fig. 14) have a broad and short chela. Of the three large teeth in the lower jaw in the distal third the terminal and the posterior one are of subequal size and twice as large as the median one. Behind the posterior tooth a low, slightly convex blade. The upper jaw is a little longer than the lower one, with only one powerful tooth beside the terminal tooth. Between the two the edge is concave and finely serrated to receive the median tooth of the lower jaw, behind the posterior tooth there is a large pocket for the posterior tooth of the lower jaw and behind this there is a high blade with horizontal edge. Pilus dentarius very small as is also pilus basalis which is naked; the hairs of the pulvillum are very short.

The palps (fig. 15). The basal joint is broader than the others and has anteriorly and ventrally a short, thumblike projection behind which two straight, perpendicular hairs are inserted. The shape and the hairs of the other joints are visible on the figure. There seems to be no trifurcated hair at the base of the terminal joint.

Hypostome (fig. 16). Of the four pairs of hairs the anterior pair is slender and inserted near the median

edge of the base of the proximal joint of the maxillary lobe; hairs II and III a little stouter than hair I, placed in a transverse line on a level with the base of the basal joint and hairs IV half-way between II and III and the posterior border of the hypostome.



Protoholaspis peruanus nov. gen. nov. spec. Female.Fig. 13. Epistome. Fig. 14. Mandible.Fig. 15. Palp. Fig. 16. Hypostome.

The maxillary lobes are strongly chitinized, browncoloured, two-jointed and hornshaped. The maxillary plates are thin, lanceolate, a little longer than the lobes and provided with a fine fringe.

The legs (figg. 17—20) differ in two respects from the type generally occurring in the family. Firstly the first pair of legs has ambulacres and secondly there appears to be no claws on any of the legs, only very soft appendages which owing to the bad condition of

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the mite, having been preserved in alcohol for a long time, were so wrinkled and folded that it was impossible to discern their shape.

Legs I (fig. 17) very slender, coxa with strong, toothshaped projection dorsally at the anterior margin; all the joints are provided with strong bristles. The tarsus



Protoholaspis peruanus nov. gen. nov. spec. Female. Fig. 17. Tarsus I. Fig. 18. Leg II. Fig. 19. Ambulacre I. Fig. 20. Trochanter and femur IV.

is cut off obliquely at the top and on the dorsal slope there is an oval, depressed area provided with a dense bundle of about 10 pointed hairs. The claws are very small, scarcely noticeable between the wrinkles and folds of the large super- and subunguinal appendages.

Legs II (fig. 18) very large and powerful, with two perpendicular hairs on the ventral side of the femur between which there is a stout, tooth-shaped calcar. Genu and tibia both with two stout, perpendicular spines, ventrally near the distal end. Legs III without any special features.

Legs IV (fig. 20). Trochanter with three terminal, stout, tooth-shaped projections; femur with one tooth and a blunt, thumb-shaped calcar, directed forwards; genu with one perpendicular, stout, blunt spine, tibia with two subterminal spines and tarsus with a blunt, tooth-shaped projection.

Locality: Peru. One female. Type specimen in the Copenhagen Museum.

Systematic position of Protoholaspis.

The new genus differs in three very important respects from all genera hitherto referred to the *Macrochelidae*. Legs I are provided with ambulacres, the epistome has no fish-tail-shaped appendage and the metasternal shields are not quite separated from the sternal shield but connected with it through a small bridge. The shape of the epistome and the presence of ambulacres on the first pair of legs are undoubtedly primitive features. The structure of the metasternal shield, on the other hand, seems to indicate that *Protoholaspis* has taken the first step towards the complete fusion of the sternal and the from the beginning separate metasternal shield which has been accomplished in so many genera regardless of their affinity.

The features enumerated above are so important that it becomes necessary to divide the *Macrochelidae* into two subfamilies, the *Macrochelinae* with *Macrocheles* as type genus and the *Protoholaspinae* with *Protoholaspis* as type genus.

Key to the subfamilies of the Macrochelidae.

- 1. Epistome a triangular mucro without any appendages. Legs I with ambulacres, metasternal shields connected with sternal shield through a small bridge... subfam. *Protoholaspinae*.

Nye Billearter for den danske Fauna. 1948. Af August West.

Siden Tillæg I til "Fortegnelse over Danmarks Biller m. m." udkom (i April 1947) blev der i 1947 (jvfr. Ent. Medd. 25. Bd, p. 209-211) konstateret 17 for den danske Fauna nye Arter, og i 1948 er der yderligere konstateret 11 for vor Fauna nye Arter, for hvilke der nedenfor redegøres.¹)

- 190 a. Amara tricuspidata Dej. (D. F. XI. 162). Bagaa paa Bornholm (1 Eks. i Opskyl i Nærheden af Aaens Udløb, $2/_7$ 1948; Civilingeniør Erik Larsen leg. F. L. det.).
- 674 b. Orthoperus improvisus Bruce (Op. Ent. 1946, p. 106; Op. Ent. 1948, Supplementum IX, p. 29). Kohaven ved Nykøbing F. (1 Eks., Marts 1894; Fabritius de Tengnagel leg., Bruce det., coll. Z. M.), Tømmerplads antagelig ved København (1 Eks., ²⁴/₄ 1887; Løvendal leg., Bruce det., coll. Z. M.).
- 1182 a. Hypocyptus hanseni Palm (Ent. T. 1949, p. 75). Ulfslyst ved Haderslev (1 Eks., S, i Skovbunden ved Paddehatte, ²⁵/₉ 1948; V. H. leg., Palm det.).
- 1308 a. Atheta (Microdota) sødermani Bernh. (Norsk Ent. T. 1935, p. 40 og 52; Ent. T. 1948, p. 10 og 41). Dyrehaven (nogle eks. paa halvskygget Skovbund ved Hiorteog Fugleaadsel, ${}^{23-31}/_{7}$ 1948; V. H. leg. og det.).

1) Forklaring til Forkortelserne.

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1 1110	raturhe	rnnen	inger.

Lilleralarnenvisni	inger:	
Col. Centralblatt	= Coleopterologisches Centralblatt, Berlin, 1926- 1932.	
	1932.	
D. F.	— Danmarks Fauna, København.	
Ent. T.	= Entomologisk Tidskrift, Stockholm.	
F. G.	= Fauna Germanica, Stuttgart, 1908-1916.	
Ho.	= Horion: Nachtrag zu Fauna Germanica, Krefeld,	
	1935.	
K. M.	— Ganglbauer: Die Käfer von Mitteleuropa, Wien	
	1892—1904.	
Norsk Ent. T.	= Norsk Entomologisk Tidsskrift, Oslo.	
Op. Ent.	= Opuscula Entomologica, Lund.	
Personers og Inst	itutioners Navne:	
F.L. = Lere	er F. Larsen, Holte.	
	llæge Niels Høeg, Horsens.	
Nynonin — Ama	nuensis Tord Nyholm, Naturhistoriska Riksmuseum,	

Stockholm. V. H.

= Højesteretsdommer Victor Hansen.

Z. M. = Zoologisk Museum, København.

- 1348 a. Atheta (Hypatheta) pertyi Heer (Ho. 112). Folekobbel ved Skeldebro paa Broagerland (1 Eks. i Paddehatte paa en Bøgestub, $1^{12}/_{8}$ 1948; V. H. leg. og det.).
- 1431 a. Meotica (Pragensiella) marchii Dodero (Col. Centralbl. 1926-27, p. 306). Dyrehaven (1 Eks. sigtet paa 2. Tøjreslag, ²³/₆ 1946; V. H. leg. og det.).
- 1768 b. Cyphon punctipennis Sharp. (D. F. X. 112). Lysbro ved Silkeborg (1 Eks. ketset ²⁰/₈ 1948; V. H. leg., Nyholm det.); Ørnsø ved Silkeborg (1 Eks. ²¹/₄ 1919; Hg. leg., Nyholm det.).
- 1769 b. Cyphon kongsbergensis Munster (D. F. X. 113). Prinsessestien i Lyngby Mose (1 Eks., ¹⁷/₇ 1927; Dr. phil. Sv. G. Larsson leg., Nyholm det.; coll. Z. M.).
- 2139 a. Scymnus punctillum Wse. (F. G. III. 132, K. M. III. 966). Havskrænten ved Skeldebrø paa Broagerland (en Del Eks. banket af Slaaen, ¹¹⁻¹⁴/₈ 1948; V. H. leg. og det.); Vej, Vest for Sønderskov paa Als (1 Eks. ketset langs et Hegn, ¹⁴/₈ 1948; V. H. leg. og det.).
- 2242 a. Ptinus sexpunctatus Panz. (F. G. III. 325). Bognæs (1 Eks. banket af Eg $^{27}/_{7}$ 1948; V. H. leg. og det.).
- 2468 a. Obrium brunneum F. (F. G. IV. 30). Kjeld Skov (1 Eks. paa en Skærmplante under Ege, i hvis Nærhed der var Gran, $^{7}/_{7}$ 1948; V. H. leg. og det.). I Tyskland er Larven fundet under Gran- og Fyrrebark, Imago paa Blomster (bl. a. paa Skærmplanter i Fyrreskov) ofte i Antal, $^{11}/_{6}$ - $^{2}/_{7}$ (Hans Riecke i Verh. des Ver. f. naturw. Heimatforschung zu Hamburg 1939, Bd. 27, p. 2).

Nye og sjældne Sommerfugle i 1948. Af W. van Deurs.

På Entomologisk Forenings møde den 26. januar 1949 blev der givet meddelelse om følgende for den danske fauna nye arter:

Scopula marginepunctata Goeze. 1 eks. Robbedale, Bornholm, 31. maj 1948 (J. Chr. Jensen, se "Flora og Fauna" 1948, pag. 127).

Piercea (Phalonia) alismana Rag. 1 eks. Hannenov Skov, Falster, 10. aug. 1948 (N. L. Wolff).

Argyroploce pomedaxana Pierce. 1 eks. fra Holsteinborg 23. juli 1941 (E. Kjær) blev erkendt som denne art. Det viste sig herefter, at omtrent alle de som A. profundana F. bestemte eksemplarer også var pomedaxana.

Epinotia aceriana Dup. Mellemskoven, Falster, 11. juli 1948 og senere (E. Kjær) samt Horreby Lyng (Kaj Pedersen).

Epinotia subsequana Hw. 1 eks. Grunderup Skov 17. maj 1948 (E. Kjær) og 2 eks. Denderup Vænge samme dag (N. L. Wolff).

Semasia messingiana F. R. Første fund Ulfshale 1946 (Tage Jensen), i 1948 Melby Overdrev (N. L. Wolff og J. Lundqvist) og talrige Strøby Jærne (flere samlere).

Sophronia sicariella Z. 3 eks. Grønholt Vang 17. juli og 1. aug. 1948 (N. L. Wolff).

Recurvaria nanella Hb. Botanisk Have, København, 26. juli 1948 og senere (E. Kjær).

Bryotropha desertella Dgl. 1 eks. Kregme 22. juni 1943 (N. L. Wolff).

Lita salicorniae Her. 5 eks. Fanø 8.—9. juli 1948 (N. L. Wolff). De hidtil i fortegnelserne opførte er *L. psilella* H. S.

Xystophora servella Z. Fanø 5. juli 1948 (N. L. Wolff). Det i C. S. Larsens fortegnelse opførte eks. er X. lutulentella Zell.

Lithocolletis domesticella Sorh.(?). Mine i *Prunus* i Fortunen 21. okt. 1944 (E. Kjær).

Af sjældne arter omtaltes og forevistes bl. a. følgende:

Drepana binaria Hfn. 1 eks. Hannenov (J. Lundqvist).

Arsilonche albovenosa Goeze. 1 eks. Ulse af forårsgenerationen (Tage Jensen).

Calophasia lunula Hfn. 1 eks. fra Jylland (Villy Nielsen). Orrhodia vau-punctatum Esp. Talrig i en have mellem Randkløve og Saltuna, Bornholm (Erik Christoffersen).

Earias vernana Hb. 1 eks. klækket fra Bøtø (E. Pyndt), 1 eks. Mellemskoven (Tage Jensen) og 1 eks. Kregme (N. L. Wolff).

Herminia derivalis Hb. 1 eks. Dueodde (Erik Christoffersen).

Opistograptis luteolata ab. niko Christ. 1 eks. i Sønderjylland af denne yderst sjældne aberration — fra Europa var hidtil kun kendt 1 eks. (Østergaard Nielsen).

Phragmatoecia castaneae Hb. Ulfshale på Møn, talrig på lys 1948 (P. Forum Petersen).

Homoeosoma pseudonimbella Bent. Asserbo 21. maj og

19. aug., Præstø Fed 15. maj 1948. Hidtil kun kendt i 1 dansk eks. (N. L. Wolff).

Euergestis extimalis Sc. 1 eks. Lumsås 29. juni 1948 på lys (Flemming Weis) – det 2. danske eks.

Pyrausta cilialis Hb. Endnu 1 eks. Ulfshale (P. Forum Petersen) og 1 eks. Mellemskoven, Falster (Kaj Pedersen).

Argyroploce siderana Tr. Talrig Fanø 20. juni-3. juli 1948 (N. L. Wolff) — hidtil kun 1 dansk eks.

Laspeyresia duplicana auct. == interruptana H. S. Tisvilde Hegn 5. juni 1948 (E. Kjær).