Noona Dan Papers No. 22.

Lacebugs collected by the Noona Dan Expedition to the Bismarck and Philippine Archipelagos (Hemiptera, Tingidae).

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The present paper is confined to species of the family Tingidae collected by members of the Noona Dan Expedition (1961-62) in the Bismarck and Philippine Archipelagos (see Petersen, 1966).

The lacebugs comprise 26 specimens separated into six genera and six species, including a new species of *Alloiothuca* described herein from the Philippines. The holotype of the new species and most of the other specimens are deposited in the Zoological Museum, Copenhagen.

I am indebted to Dr. B. Petersen, Zoological Museum, Copenhagen for the privilege of studying this interesting collection. The illustration were executed by Mrs. Richard C. Froeschner, Arlington, Virgina. In the measurements, 80 units equal 1 millimeter.

Subfamily CANTACADERINAE Stål.

Cantacader quinquecostatus (Fieber).

Taphrostethus quinquecostatus Fieber 1844, p. 41, pl. 3 (figs. 18-22). Monanthia subovata Motschulsky 1863, p. 91. — Kirby 1891, p. 109. Cantacader subovata: Stål, 1873, p. 116.

Cantacader quinquecostatus: Stål 1873, p. 117. — Distant 1903, p. 123, fig. 88. — Drake 1960, p. 341. — Drake and Ruhoff 1965a, p. 27.

Philippine Islands. — TAWI TAWI: Tarawakan, $12 \circ \circ \circ$ and $7 \circ \circ \circ$, 13.-15. XI. 1961, all drawn to mercury lamps.

This species is one of the commoner and more widely dispersed members of the genus in southeastern Asia and islands of the Indian and South Pacific Oceans. The type locality "Ostindien" likely refers to either eastern India or the East Indies. It is very frequently drawn to an electric lamp. Food plant and breeding habits are unknown. Carl J. Drake: Lacebugs collected by the Noona Dan Expedition

Subfamily TINGINAE Laporte.

Teleonemia scrupulosa Stål.

Teleonemia scrupulosa Stål 1873, p. 132. — Champion 1898, p. 40, pl. 3, figs. 12, 12a. — Drake and Ruhoff 1965a, p. 383.

Teleonemia bifasciata (not Champion): Kirkaldy 1905, p. 216.

Teleonemia lantanae Distant 1907, p. 60.

Teleonemia vanduzeei Drake 1919, p. 24.

Bismarck Archipelago. — DUKE OF YORK: Manuan, $1 \circ, 7.1$. 1962.

This is a common Neotropical species widely distributed in South America, West Indies, Central America, Mexico and occasionally netted in northern Texas. Years ago, it was experimentally introduced in the State of Hawaii from Mexico for the control of the weed lantana. Since then it has been transported for the same purpose into numerous islands of the Indian and South Pacific Ocean, Australia, India and Africa. It feeds and breeds on several species of *Lantana* as well as a number of related plants. Its increase and spread has been very rapid and as yet little undiminished in newly established areas.

Physatocheila aeuthes Drake and Ruhoff.

Physatocheila aeuthes Drake and Ruhoff 1965b, p. 250, fig. 5.

Philippine Islands. — TAWI TAWI: Lapid Lapid, 19. XI. 1961, 1 macropterous ♂.

This species was recently described from specimens collected in NE New Guinea, N. Borneo, and New Britain. The lack of elytral crossbands, biseriate costal areas, and narrow paranota, each covering slightly more than half of the space between its outer border and the lateral carinae are distinguishing features. The outer edge of each paranotum is narrowly upcurved above the pronotal surface.

Eritingis recens (Drake and Poor).

Perissonemia (Ulonemia) recentis Drake and Poor 1937b, p. 5. Perissonemia recentis: Drake and Poor 1937a, p. 400.

Ulqnemia recens: Drake 1947, p. 229. — Drake and Ruhoff 1962, p. 497, fig. 3; 1965a, p. 209; 1965b, p. 255, fig. 10.

Eritingis recens: Drake and Ruhoff, 1962, p. 497.

Philippine Islands. — PALAWAN: Brooke's Point, Uring Uring, 18. VIII. 1961, 2 ♂♂.

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Bismarck Archipelago. — NEW IRELAND: Lelet Plateau, Lemkamin, 900 m, 21. IV. 1962, 1 ♂.

Known heretofore from Singapore and North Borneo. Feeding habits unrecorded.

Eteoneus lectus Drake.

Eteoneus lectus Drake 1960, p. 353, fig. 9. — Drake and Ruhoff 1965a, p. 212.

Bismarck Archipelago. — LAVONGAI: Banatam, 1 $\stackrel{\circ}{\downarrow}$, 18. III. 1962.

Known heretofore from New Britain, Philippine Islands, NW New Guinea (Sedlacek and Keravat). The outward projection at each humeral angle is fairly prominent.

Alloiothucha chaera, Drake, n. sp. (Figure 1).

Small, distinctly lacy, testaceous with a few scattered veinlets brownish; areolae hyaline. Body beneath and above brown, bucculae pale testaceous. Appendages testaceous, slender. Length 2.25 mm, width (elytra) 1.70 mm.

Head very short, without armature; bucculae narrow, whitish testaceous, triseriate, open in front, areolets small. Rostrum brownish, reaching to abdomen in resting position; rostral laminae uniseriate. Antenna moderately long, very slender, smooth; fourth segment long, slender, about three-fourths as long as three; segmental measurements: I, 10: II, 7; III, 60; IV, 40. Hypocostal laminae narrow, uniseriate. Ostiole and ostiolar channel of each metasternum plainly visible.

Pronotum convex, punctate, almost totally concealed by (damaged) hood; paranota narrow, crescentic, three areolae deep, hood fairly large, strongly inflated, not constricted laterally, extending forward between eyes, backwards beyond middle of discoidal areas, much longer than high (80:32); wider than high (45:32). Legs long, slender, smooth. Discal structures of pronotum not perceptible beneath damaged hood.

Elytra broad, together in resting posture obovate, much wider and longer than abdomen, apices jointly rounded; costal area wide, widest near middle, there four areolae deep; subcostal area narrow, uniseriate, vertical adjacent to discoidal area, areolae almost quadrate; discoidal area not reaching to middle of elytra, extending backwards slightly beyond hood, three areolets deep at middle; sutural areas large, slightly overlapping each other within at rest. Hind pair of wings a little longer than abdomen.



Fig. 1. Alloiothucha chaera Drake, new species, holotype.

H o l o t y p e, macropterous \bigcirc ⁷, Philippines. — PALAWAN: Mantalingajan, Tagembung, el. 1150 metres, 19. IX. 1961, Illustrated.

Allied to *A. philippinensis* Drake but with a smaller, testaceous hood with areolae hyaline. The hood in *philippinensis* is distinctly

larger, (110 long, 65 high, and 70 wide) with areoleta as well as veinlets brown, and fourth antennal segment is crowded with spinelike bristles about twice as long as the thickness of segment (length III, 60; IV, 55). The other two members of the genus, *artocarpa* Drake and *necopinata* Drake have longer hoods and each is deeply constricted near the middle on lateral sides. The genus is not known to occur outside of the Philippine Islands.

Summary.

Six species of lacebugs (Tingidae) are recorded from the Philippines and the Bismarck Islands. A new species of *Alloiothuca* is described from the Philippines.

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