

lateral margin gently curved in S-shape, with long strong setae; posterior lobe slightly narrower than in *plummani*, with heavy setae and bristles in 2 rows, bristles ca. as long as but distinctly heavier than those of tergite 1. Tergite 3 not definable. Anal segment short, strongly narrowed apically, laterally fringed with long strong setae. Lateral 1 rather finely setose. Lateral connexivum covered with uniformly short setulae each arising from fairly large basal papillae, setulae at level of sternite 6 slightly longer and with slightly smaller basal papillae. Synsternite 1-2 (fig. 24) moderately short, 18-29, anterior margin distinctly notched at middle, surface sparsely setose; ctenidium composed of 60- slender pointed teeth, and not flanked by strong setae. Sternite 3 (fig. 16) represented by 5- rows of small setae and 1 row of long ones; setae on anterolateral corner distinctly longer than on anteromedian area and posterolateral corner. Sternite 4 represented by single row of long setae but its lateral area with 2-3 additional rows of small setae. Sternite 5 with single row of long setae, no interstitial setae between its side pieces. Sternite 6 moderately large, anterior margin very gently convex, posterior margin distinctly produced at middle and fringed with long setae, surface largely bare, with only few discal setae. Sternite 7 wide, with stronger marginal setae than on sternite 6, posterior margin very gently convex. Postgenital plate as in fig. 27; infra-anal plate (fig. 26) with 2 apical setae; adanal plate ca. 3- as wide as infra-anal plate, with 3-4 apical setae.

A NEW *CARNUS* FROM MALAYA (Diptera: Milichidae)¹

By T. C. MAAS²

Abstract: A new *carinivorous*-fly, *Carnus orientalis*, is described from a juvenile fish-owl in Malaya.

Carnus orientalis Maas, new species

MALAYA. 8♂♂, 11♀♀ incl. holotype ♀, all decalate, Selangor, Rantau Panjang, 8 km N of Klang, ex juvenile fish owl (*Bubo ketupu* Horsfield) (#1015402), IX.XI.1961. Holotype (Bishop 76043); paratypes in Bishop Mus. and U. S. Nat. Mus.

Habitat. At present known only from Malaya ex juvenile fish owl. By implication of its probable parallelism to the known host and distributional ranges of *C. hemiptera*, the new species is expected to be found in nests and juveniles of different birds and to be widely spread in the Oriental Region.

Affinities. This is the second species of the genus which is heretofore known only from Europe and N. America and solely represented by *C. hemiptera* Nitzsch 1818 (= *Candida* *eggeri* Schiner 1862, = *Carnus setatus* Stobbe 1913). Comparisons with 2♂♂, 4♀♀ of *C. hemiptera* from Leiden, Netherlands ex juvenile *Ardia cinerea* Linn. revealed that the new species differs in being slightly smaller and darker in average and in having interocular face narrower, eyes more bulging, epistoma with parallel inner lateral margins, labial theca shorter and wider in proportion, labella longer, cheeks strongly narrowed forward, abdomen with fewer setae and smaller median plates (of tergites and sternites) etc. As shown in the accompanying figures, details of terminalia of both sexes in the 2 species are also not quite identical. No American specimens are available for comparison but it is beyond the scope of this paper to go into the problem whether or not they are really inseparable from European ones.

Description. Body (in alcohol) of ♂ 1.4-1.6 mm., ♀ 1.9-2.4 mm. long, slightly darker than in average specimens of *C. hemiptera*. Head in dorsal view (fig. 1a) ca 2/3 as long as wide; interocular face ca. as long as wide, ca 2× as wide as eye, hardly narrowed forward; eye well bulging; inner orbit (parafrontalia) poorly definable, much widened forward. Antenna in front view 8×5.5, anterolaterally subangulate; arista bare, stouter than any cephalic bristle ca 1.5× as long as orbital bristle. Outer and inner lateral margins of epistoma (fig. 2a) subparallel and parallel respectively. Labial theca (fig. 3a) slightly longer than wide, less than 2× as long as labella; palpus (fig. 4a) narrowly rounded at apex. Cheek (fig. 5a) strongly narrowed forward.

1. Partial results of a grant to Bishop Museum from the United States National Institutes of Health (AI-01723-10).

2. B. P. Bishop Museum, Honolulu, Hawaii 96819.

Maas, 1968

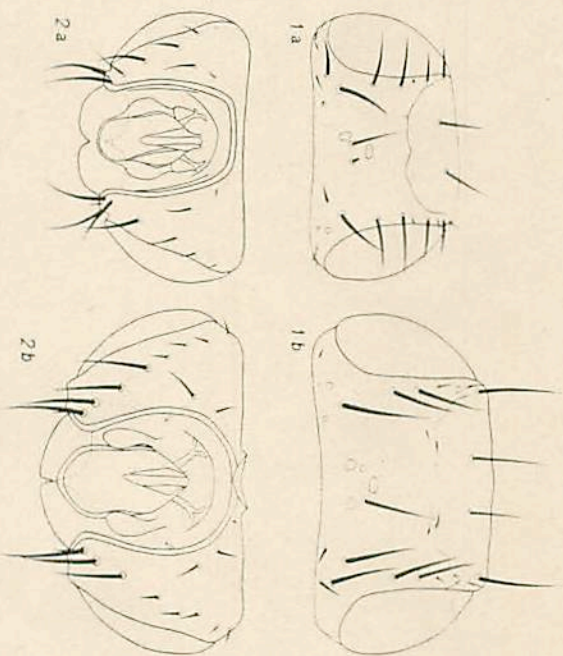


Fig. 12. *Carnus orientalis* n. sp. (a) and *C. hemipterus* Nitzsch (b). ♂ heads in dorsal view and faces in front view. Drawn to same scale.

Eye in its full view as long as wide (in front view of head, ca 2 \times as long as wide), anteroventrally more produced than posteroventrally, so that diagonal axis from anteroventral margin to its opposite side longer than transverse width (11:10). Head and thorax chaetotaxy similar to that in *hemipterus* in number and arrangement but bristles and setae slightly stouter. Wing (?). Legs more slender than in *hemipterus*. Abdomen (figs. 6a, 7a, 8a, 9a) less setose than in *hemipterus*; median plates of tergites (δ ♀) and sternites (δ) smaller and narrower; median plates of ♂ sternites 2-4 more or less longer than wide; that of sternite 5 hardly shorter than wide; genitalia as in figs. 10a, 11a; ♀ epi- and hypopygia both shorter than wide; median setal patch of

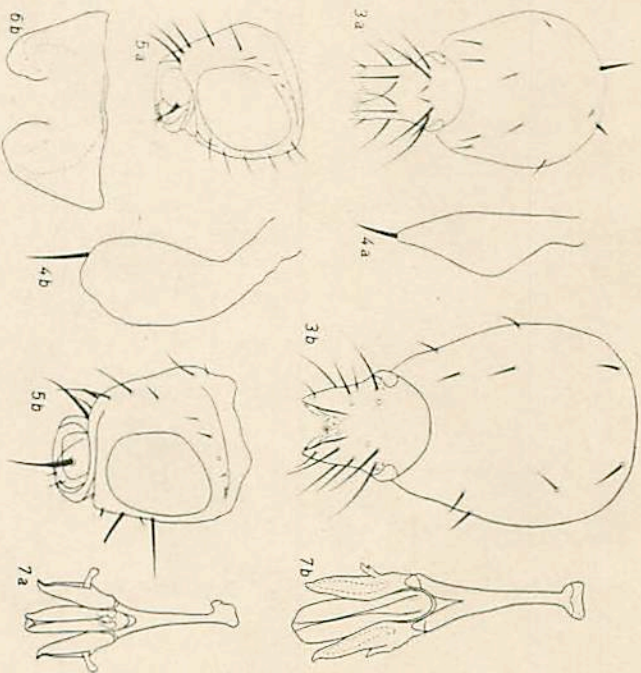


Fig. 37. *Carnus orientalis* n. sp. (a) and *C. hemipterus* Nitzsch (b). ♀ labial thecae and labeliae (3); palpi (microscopically omitted); 4); heads in lateral view (5); ♂ inner genital frame (6) and ♂ inner genitalia (7). Scales varied but same organ of the 2 species in same scale.

♀ sternite 3 quite isolated from lateral patches; ♀ pygidium usually flanked at each side by single seta near last spiracle.

Acknowledgments. I am deeply indebted to Dr R. Traub for the collection and sending of this interesting new species and to the authorities of the Leiden Museum for the gift of some European specimens of *C. hemipterus*. The camera lucida drawings were kindly executed by Mr C. T. Lin and Miss S. M. Kwang from microscopic preparations.

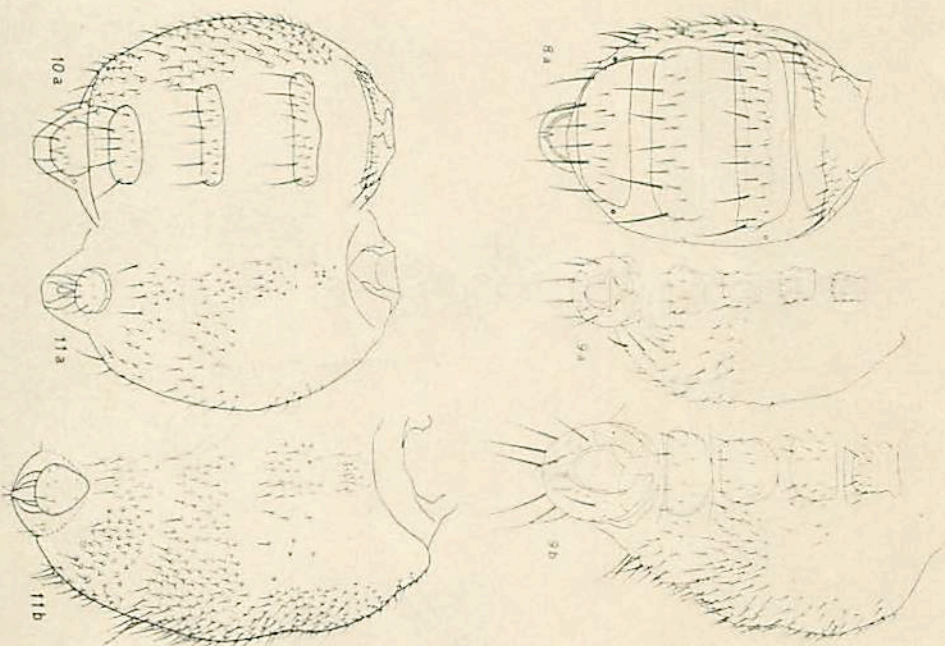


Fig. 8-11. *Carnus orientalis* n. sp. (8) and *C. homopterus* Nitsch (9), ♂ abdomens, dorsal (8) and ventral views (9); ♀ abdomens, dorsal (10) and ventral views (11).

NORTH AMERICAN SCIARIDAE (Diptera).
 1. A NEW SPECIES OF SCATOPSCIARA AND
 LECTOTYPE DESIGNATION OF EUGNORISTE
 OCCIDENTALIS COQUILLETT¹

By Wallace A. Steffan

BISHOP MUSEUM, HONOLULU

Abstract: A new sciarid, *Scatopscia dendroica* Steffan, is described from California and a lectotype is designated for *Eugnoriste occidentalis* Coquillett. Both *S. dendroica* and *E. occidentalis* are figured.

This is the first of a series of papers on North American Sciariidae. Terminology and measurements are as in Steffan (1966). The following new species was collected by investigators studying the parasites, predators and associated insects from ponderosa pine (*Pinus ponderosa* Douglas) attacked by the bark beetle *Dendroctonus brevicornis* LeConte. The larvae of this sciarid feed either under the bark or in the galleries of *D. brevicornis*.

Scatopscia dendroica Steffan, new species

Fig. 1a-h.

♂. *Head*: Eye haired (short hairs extending only slightly beyond curvature of facets); eye-bridge 2.3 facets wide. Vertexal bristles barely extending beyond level of lateral ocelli; occipital bristles numerous, subequal to or slightly shorter than vertexal bristles. *Antenna*: Flagellomeres subequal, decreasing only slightly in length apically, flagellomeres 2.13 each with short distal necks, flagellomere 4 (fig. 1c) about 2 \times as long as wide, neck about 1/2 as long as width of section, flagellar hairs subequal to width of sections; prefrons with median patch of 18 bristles, subequal to or shorter than flagellar hairs; clypeus with 1-2 median bristles. *Palpus*: 3-segmented (fig. 1e); segment 1 globular with 1 dorsolateral seta and dorsomedial sensory patch of numerous short, sensory pegs; segments 2 and 3 about 2/3 length of 1st, 2 with 5 setae, 3 with 2 apical and 5 subapical setae.

Thorax: Notum with moderately strong acrostichals and dorsocentrals, supraalar strong, scutellum with 8 setae, *ppr* bare, *gpr* with 1 strong seta, proepisternum with 4 strong setae, posterior epimeron of mesothorax about 3 \times as long as wide.

Wing: (Fig. 1a). L10 1.40 mm. Costa extending about 3/5 distance between tips of *R*₁ and *M*₁; Sc faint; costal, *R*₁ and *R*₂ with macrotrichia, posterior wing veins bare, *R*₄ short, ending well before base of *M*-fork; ratio of *r-m* to *M*-pedicel: 8:38; ratio of base of *M* to *Cu*-pedicel: 18:8; *r-m* generally bare, occasionally with 1 distal seta. *Legs*: leg ratio: anterior, 32:34:16; posterior, 42:46:22; foretibia with indistinct apical tibial comb of 2-3 unilateral setae distinctly

1. Partial results of a grant to Bishop Museum from the U. S. National Institutes of Health (AI-01723-10).

V. Tschirnhaus

9. AUG. 1994

Diese Kopie ist nur zum persönlichen Gebrauch des Bestellers angefertigt und darf nicht zu gewerblichen Zwecken verwendet werden.
Senftenbergische Bibliothek
Frankfurt am Main