

## A New Species of Leptocera Olivier from Hawaii (Diptera: Sphaeroceridae)

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In my paper on the Sphaeroceridae of Hawaii (PROC. HAW. ENT. SOC. 14:429, 1952) I followed Duda in using the generic name *Limosina* Macquart instead of *Leptocera* Olivier. Mr. Curtis W. Sabrosky has since written to me deploring this and stating that the type of *Leptocera* is certainly not a chloropid as Duda maintained. It is perhaps better to follow what has become normal usage and to treat *Limosina* Macquart, 1835, (= *Scotophilella* Duda, 1918) as a subgenus of *Leptocera* Olivier, 1813, the typical subgenus of the latter being equivalent to *Paracollinella* Duda, 1924.

The following species collected by Miss M. S. Adachi and Prof. D. E. Hardy appears to be new.

### *Leptocera* (*Limosina*) *pachypus*, new species

Female. Black; top of head and especially mesoscutum and scutellum brightly shining; antennae somewhat brownish; tibiae and tarsi dark brown, first two segments of hind tarsi yellowish-brown; stalk of halteres brown. Wings hyaline with areas along the longitudinal veins, especially  $R_{2+3}$ , considerably clouded. Length 2.3 mm.

Largest bristle next to the vibrissae only one-third as long. Face gently convex, shining, no marked facial "knob," frons in side view produced considerably beyond the eyes. Top of head, except for a small anterior area on each side between the adfrontal bristles and the orbits which is rather duller, strongly shining; a single strong adfrontal bristle (as long as an ocellar) on each side. Antennae widely separated, moderately diverging, third segment a little pointed, in side view almost twice as long as broad, with rather well-developed pale pubescence, arista about six times as long as the antenna, with rather long pubescence.

Thorax with one strong humeral bristle, two posterior pairs of dorso-centrals, microchaetes in not very close irregular rows, about eight between the anterior dorso-centrals; four scutellar bristles, basal ones three-quarters as long, apicals as long as scutellum; only one very short posterior sternopleural. Fore femur rather thin, without long bristles, tibia and tarsus normal; mid trochanter without a long ascending bristle, mid femur almost without bristles except the short anterior one near apex, tibia with five anterodorsals,

the apical ones longer, four considerably shorter posterodorsals not paired with the anterodorsals, some much shorter irregular bristles between the larger ones, no mid ventral, a moderate apicoventral; basitarsus rather stout, about two-fifths as long as the tibia, ventrally with short stout oblique microchaetes, whole tarsus as long as tibia. Hind femur rather thick; it and the tibia without long bristles, tibia without a small spur, first two segments of hind tarsus considerably thickened, both a little wider than the tibia, first tarsal segment in dorsal view one and a half times as long as broad, second segment two and a third times as long as broad, a little longer than the remaining segments together. Wings (fig. 1) with basal costal bristle short, bristles along first sector of costa very short, second sector of costa about as long as first, about one and two-thirds times as long as the third, costa ending at  $R_5$ ;  $R_{2+3}$  nearly straight, distally bent very gradually onto the costa; last sector of  $R_{4+5}$  at first straight, then rather strongly bent onto the costa, ending nearly as far before the wing tip as  $M_{1+2}$  does behind it;  $M_{1+2}$  produced beyond cell as a transparent fold to wing-margin, course straight and directed somewhat forwards, posterior angle of cell completely rounded;  $Cu_1 + 1A$  strongly curved, convexity anterior, not reaching the margin; alula rather narrow.

Abdomen with first two fused tergites normal, third segment large but considerably desclerotized, fourth segment very short, fifth much longer but not half as long as the third, sixth very short, these segments with very short bristles; anal split large, oval, directed somewhat upwards, surrounded by some moderately long bristles, hairs of cerci very short and woolly; sternites moderately broad and shining, with short bristles, last visible one somewhat spoon-shaped.

Male. Resembles female except as follows: size about the same; mid femur with two closely placed moderately long bristles near base ventrally, directed obliquely outwards; mid tibiae near apex ventrally with a group of about four long bristles, mid basitarsus rather shorter and stouter, dorsally flattened, a little concave beneath where the small bristles are unusually short and dense; hind trochanter with three or four stout but very short adpressed bristles, hind femur thin on basal quarter, then considerably thickened, curved down where these two parts join, base of femur beneath with one short isolated bristle, distal half beneath also with a row of short bristles, hind tibia somewhat thin at base and thickened towards apex.

Abdomen with segments three and four apparently partly desclerotized (more or less as in female), fifth segment shining, very large, longer on left side than on right. Genitalia very large, curved under the abdomen, distal part dull and shagreened, anal split large and elliptical, anteriorly directed ventral part of genitalia with a group of long dense curved bristles on each side, overlapping one another and also some long bristles on the apical sternites.

Manoa Valley, Oahu, Jan., 1952, ♀ holotype and ♀ paratype, D. E. Hardy and M. S. Adachi; same place, Feb., 1952, ♂ allotype, ♂ (headless) paratype, ♀ paratype, same collectors.

The numerous bristles on the mid tibia and the paler first two segments of the hind tarsus suggest some relationship to the subgenus *Poecilosomella* Duda. But the thorax has no grey flecks, the wing-venation is different from most *Poecilosomella* ( $R_1$  not sharply bent), the wings are not conspicuously marked, and the legs have no clear white markings. The pointed third antennal segment is a condition found even more marked in the subgenus *Mallochella* Duda and its allies, but these differ in various ways. It appears best to regard the new species as a rather aberrant member of the subgenus *Limosina* Macquart. In Duda's key (ARCH. NATURG. 90(11):153, 1925, as *Scotophilella*) it runs rather well to *L. beckeri* Duda, which was described from Orotava in the Canary Islands. This differs, however, in having normal ad-frontal bristles, quite different mid tibial bristles,  $R_{4+5}$  more sharply bent forwards distally, and the posterior corner of the cell not rounded. In Duda's later key to the same subgenus (*in* Lindner, DIE FLIEGEN DER PALAEARKTISCHEN REGION, 57:101, 1938), it also runs best to the same species but it is clearly not at all closely allied. The characters of both sexes are very peculiar and there is no reason to suppose that the species is not endemic.

The type and allotype are deposited in the Bernice P. Bishop Museum, Honolulu, Hawaii; one female paratype in the collection of the University of Hawaii; the other paratypes in my collection.

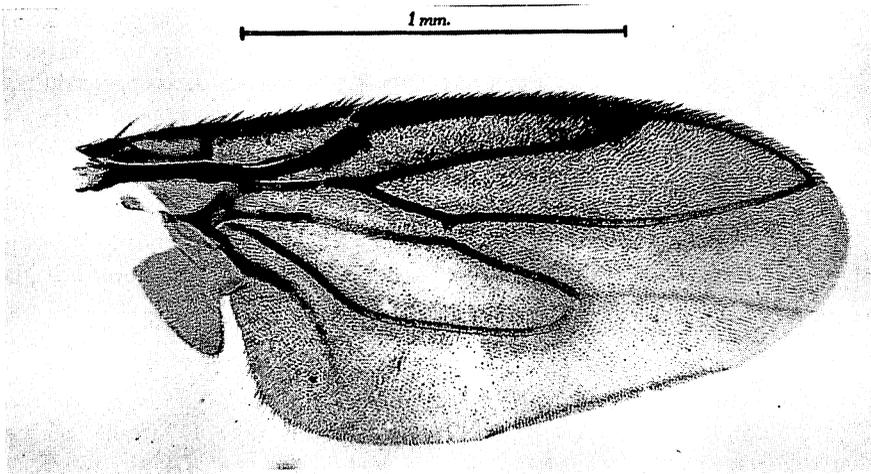


FIG. 1. *Leptocera pachypus*, n. sp. Right wing of female paratype. (Photograph by J. W. Siddorn).