

**A NEW SPECIES OF *LEPTOCERA* OLIVIER (DIPTERA:
SPHAEROCERIDAE) FROM EASTERN UNITED STATES**

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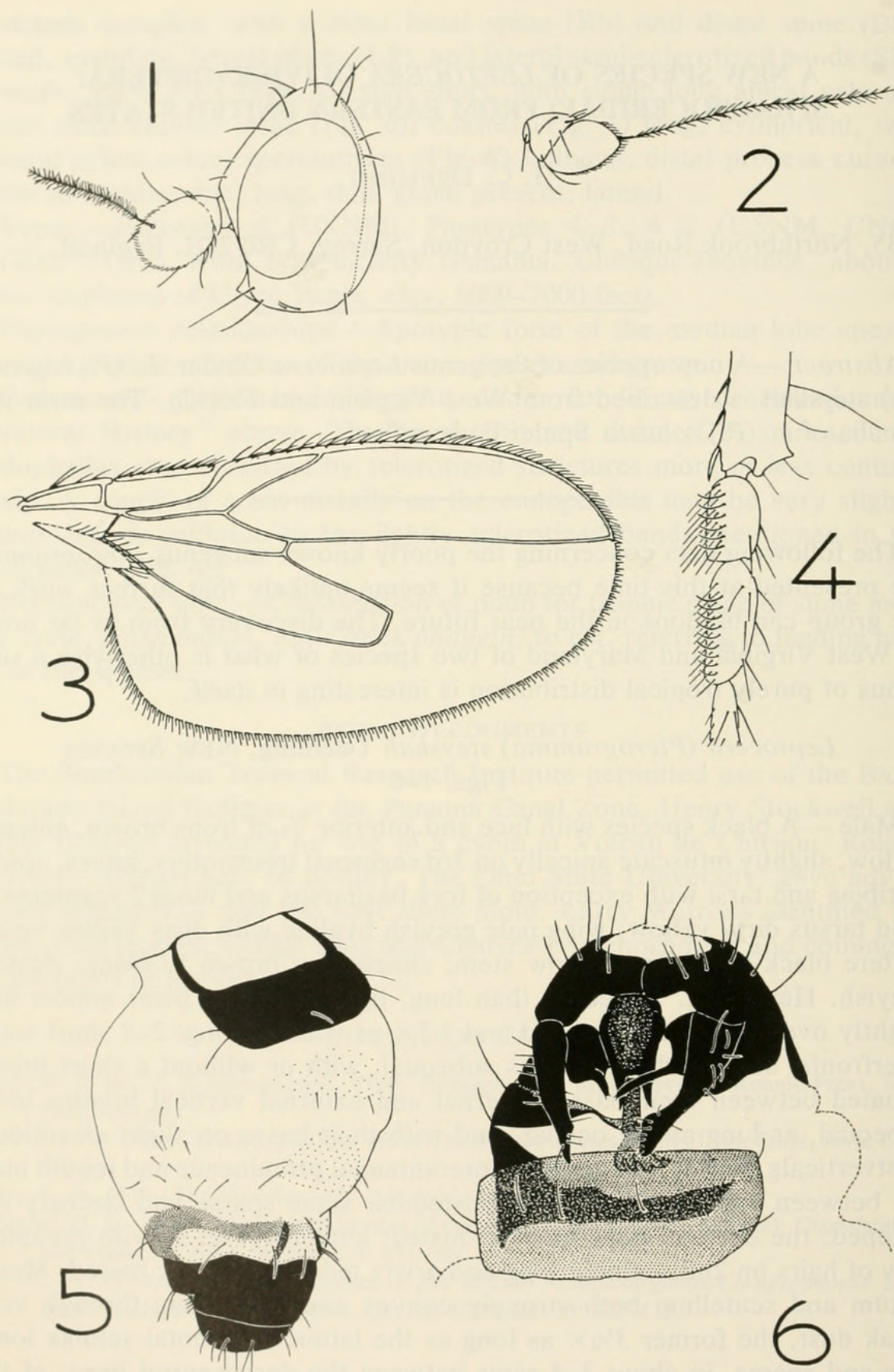
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Abstract.—A new species of the genus *Leptocera* Olivier, *L. (Pterogramma) steyskali* is described from West Virginia and Florida. The male terminalia of *L. (P.) robusta* Spuler is described.

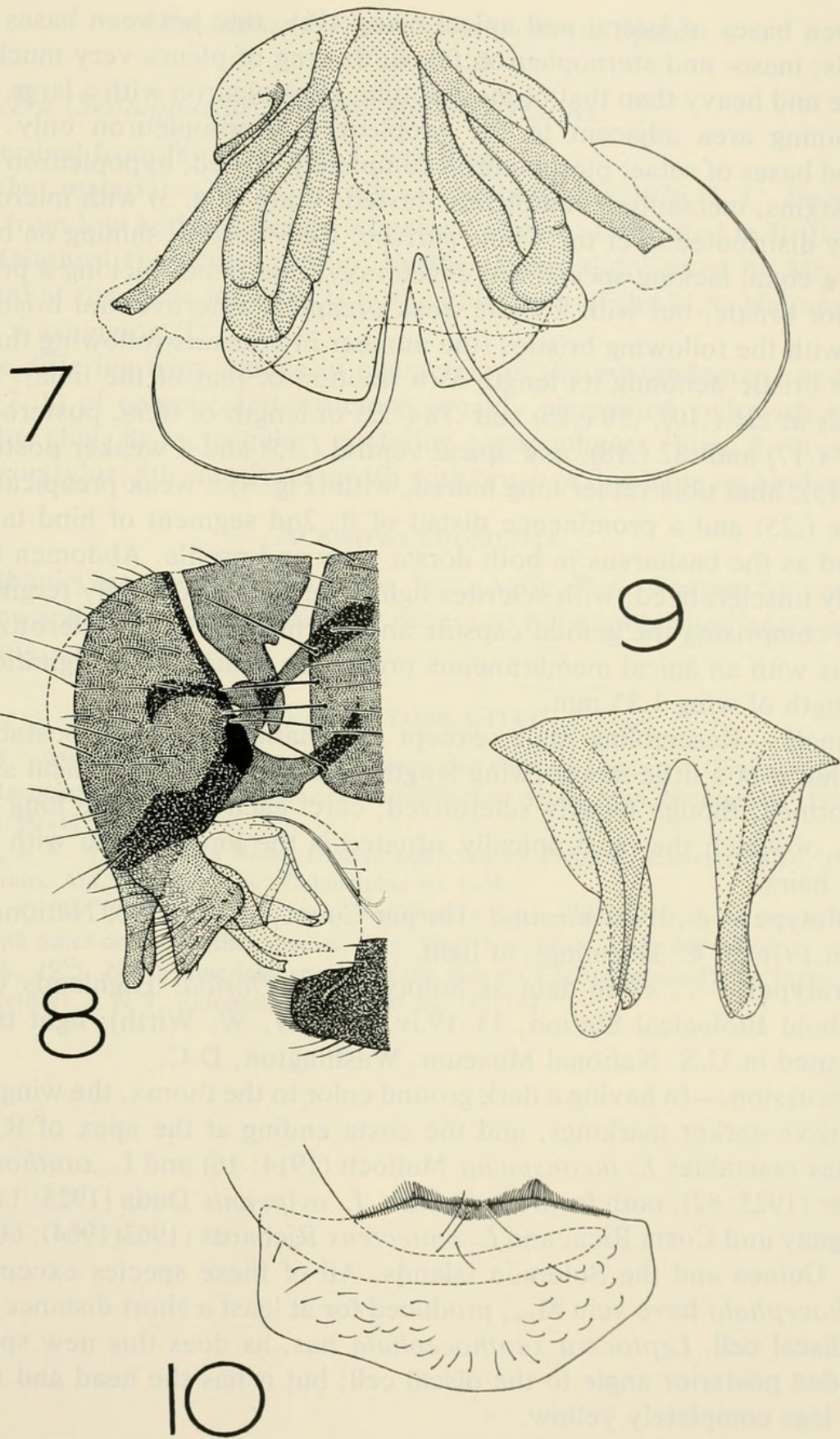
The following data concerning the poorly known subgenus *Pterogramma* are presented at this time because it seems unlikely that further work on the group can be done in the near future. The discovery from as far north as West Virginia and Maryland of two species of what is otherwise a subgenus of purely tropical distribution is interesting in itself.

Leptocera (Pterogramma) steyskali Deeming, NEW SPECIES
Figs. 1-6

Male.—A black species with face and anterior $2/5$ of frons brown; antenna yellow, slightly infusate apically on 3rd segment; trochanters, knees, apices of tibiae and tarsi with exception of fore basitarsus and basal 2 segments of hind tarsus dirty yellow; wing pale greyish hyaline with dirty yellow veins; haltere black with dirty yellow stem; chaetotaxy brown to black; dusting greyish. Head (Fig. 1) deeper than long, lightly dusted; frons almost flat, slightly over $1/2$ as wide as head and $1.2\times$ as wide as long; 2-3 short weak interfrontal setae; orbital bristles subequal, with or without a short bristle situated between their bases; internal and external vertical bristles long, subequal, as long as the ocellar, and with their bases on slight elevations; postverticals shorter, convergent; interantennal prominence and mouth margin between vibrissae produced; postocular setae sparse and strongly developed; the occiput more heavily dusted; antenna (Fig. 2) with preapical row of hairs on 2nd segment long and arista moderately long haired. Mesonotum and scutellum both strongly convex and subshining through very weak dust, the former $3\frac{1}{2}\times$ as long as the latter; mesonotal setulae long, fine and sparse, in about 3-4 rows between the dorsocentral lines; of the dorsocentrals only the prescutellar longer and stronger than the mesonotal setulae; scutellum with the usual 2 pairs of marginal bristles, the distance



Figs. 1-6. *Leptocera steyskali*, male. 1, Head in profile (antenna foreshortened). 2, Antenna, inner surface. 3, Wing. 4, Apex of right hind tibia and basal tarsal segments in profile. 5, Abdomen in dorsolateral view. 6, Terminalia in ventral view.



Figs. 7-10. *Leptocera robusta*, male. 7, Aedeagus in ventral view. 8, Terminalia in profile. 9, Posterior gonapophyses from behind. 10, Fifth sternite from beneath.

between bases of lateral and apical being $1\frac{1}{2}\times$ that between bases of the apicals; meso- and sternopleuron fused; dusting of pleura very much more coarse and heavy than that of mesonotum; mesopleuron with a large rounded shining area adjacent to the propleuron; sternopleuron only dusted around bases of setae; pteropleuron completely dusted; hypopleuron dusted on margins; metanotum completely dusted. Wing (Fig. 3) with microtrichia evenly distributed over the whole surface. Legs dusted, shining on basal $\frac{2}{3}$ of fore coxa, lacking specialized chaetotaxy; mid femur lacking a preapical anterior bristle, but with a short weak preapical anteroventral bristle; mid tibia with the following bristles (the number in brackets following the name of the bristle denoting its length as a fraction of that of the tibia): anterodorsals at .25 (.10), .50 (.15) and .78 (.12) of length of tibia, posterodorsals at .37 (.17) and .82 (.18), and apical ventral (.15) and a weaker posterior at .90 (.15); hind tibia rather long haired, with (Fig. 4) a weak preapical dorsal bristle (.25) and a prominence distad of it; 2nd segment of hind tarsus as dilated as the basitarsus in both dorsal view and profile. Abdomen (Fig. 5) largely unsclerotized, with sclerites lightly dusted, black; only tergite 2 and those comprising the genital capsule and sternite 5 (Fig. 6) sclerotized; aedeagus with an apical membranous projection bearing four digitations.

Length of wing 1.35 mm.

Female.—Resembling male, except for characters of the postabdomen and that it is a little larger (wing length 1.65 mm); the two apical sternites are formed, though weakly sclerotized; cerci each with three long sinuate hairs, of which the most apically situated is the longest, and with several short hairs.

Holotype.—♂, *West Virginia*: Harper County, Lost River National Park, 29.viii.1976 (J. C. Deeming), at light.

Paratypes.—♀, same data as holotype: ♀, *Florida*: Highlands County, Archbold Biological Station, 13–19.iv.1970 (W. W. Wirth), light trap. All deposited in U.S. National Museum, Washington, D.C.

Discussion.—In having a dark ground color to the thorax, the wing lacking extensive darker markings, and the costa ending at the apex of R_{4+5} , this species resembles *L. inconspicua* Malloch (1914: 16) and *L. xanthocephala* Spuler (1925: 82), both from Costa Rica, *L. ovipennis* Duda (1925: 115) from Paraguay and Costa Rica, and *L. annectens* Richards (1963(1964): 609) from New Guinea and the Solomon Islands. All of these species except for *L. xanthocephala* have vein M_{3+4} produced for at least a short distance beyond the discal cell. *Leptocera xanthocephala* has, as does this new species, a rounded posterior angle to the discal cell; but it has the head and mid and hind legs completely yellow.

Leptocera (Pterogramma) robusta Spuler

Figs. 7-10

Leptocera (Scotophilella) robusta Spuler, 1925: 81.

Described from females from Costa Rica.

Further material.—♂, ♀, *Maryland*: Bethesda, ix.1976 (J. C. Deeming), swept from low herbage beside woodland stream. Deposited in British Museum (Natural History), London. Further material collected by Mr. G. C. Steyskal at the same locality, is in the collection of the U.S. National Museum, Washington, D.C.

Male differing from female in characters of the postabdomen. Aedeagus (Figs. 7, 8) of complicated structure, weakly pigmented yellowish brown; surstylus (Fig. 8) rectangular; posterior gonapophyses (Figs. 8, 9) as long as the surstylus; 5th sternite (Fig. 10) with brush of fine hairs on hind margin.

ACKNOWLEDGMENTS

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