

A Revision of the Genus *Leptoremus* (Coleoptera: Pedilidae)¹

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ABSTRACT

The genus is recharacterized on the basis of both sexes. Its type and only species, *L. argenteus* Casey, 1904, originally described only from males, is redescribed, and additional distributional records are included. Char-

acters are given for separating *Leptoremus* from *Stereopalpus* Laferte, *Pergetus* Casey, *Mastoremus* Casey, and *Bactrocercus* LeConte.

The genus *Leptoremus* was originally described by Casey (1904, pp. 314-5) with a single included species, *L. argenteus* Casey, which automatically became its genotype. The original description of this species was based on a few male specimens only. The object of the present paper is to redescribe the genotype on the basis of both male and female characters, to present additional data on geographical distribution, and to comment on the systematic position of this monotypic genus.

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Leptoremus Casey

Medium-sized. Vestiture: body sculpture concealed by dense, decumbent hairs, short or moderate in length, without trace of erect hairs at any point. Eyes large, slightly emarginate, coarsely faceted, separated by less than half their width above. Tempora not well developed. Antennae serrate in male, filiform in female. Maxillary palpi with last segment obliquely truncate, twice as long as third. Neck broad, about half as wide as pronotum. Prothorax slightly longer than broad, narrower than head. Mesepisterna nearly meeting in front of mesosternum (fig. 5). Wing with anal cell open. Abdomen with fifth sternite entire, sixth slightly emarginate in male. Male genitalia: parameres (lateral lobes) slender, each with a row of spines on side (fig. 7); aedeagus (median lobe) sinuously serrate at apex (fig. 8). Female genitalia slender, not covered with spines, the valvifers reduced to baculi (fig. 6).

Leptoremus argenteus Casey

Leptoremus argenteus Casey, 1904: 315-6.

MALE.—Length 5.5 to 7.2 mm., width 1.6 to 2.0 mm. Color brown, with silvery pubescence on body, maculose. Head wider than prothorax, dark brown to black, covered with long, decumbent hairs; epi-

cranial and frontoclypeal sutures obliterated, clypeolabral suture prominent. Eyes convex, dark brown. Antennae rufous, pubescent, 4.4 mm. long, serrate-compressed basally, attenuate, slender, 11-segmented; first segment twice as long as wide, second as long as wide, third to fifth serrate, in the form of right-angled triangles, longer than wide, sixth and seventh serrate, becoming longer, eighth to tenth gradually less serrate, more than three times longer than wide, last segment about as long as the preceding two combined (fig. 1). Labrum sparsely punctured, twice as broad as long, apex fringed with long hairs. Mandibles less than twice as long as broad (fig. 3). Maxillae hairy, punctate, galea much bigger than lacinia. Maxillary palpi four-segmented, first segment smallest, triangular, second longer than third, fourth largest (fig. 4). Labium small, mentum subcircular to crescentic, weakly sclerotized, ligula fringed with long hairs and punctate; labial palpi three-segmented, last segment subcircular. Prothorax brown, pubescent, apex smaller and more rounded than base. Scutellum semicircular at apex. Elytra brown, punctate, covered with silvery-white pubescence, sides parallel, becoming rounded at apex, 4.5 mm. long, 1 mm. wide. Legs brown, densely pubescent; coxae contiguous; tibiae and tarsi spinulate; tarsi 5-, 5-, 4-jointed. Abdomen covered with silvery pubescence.

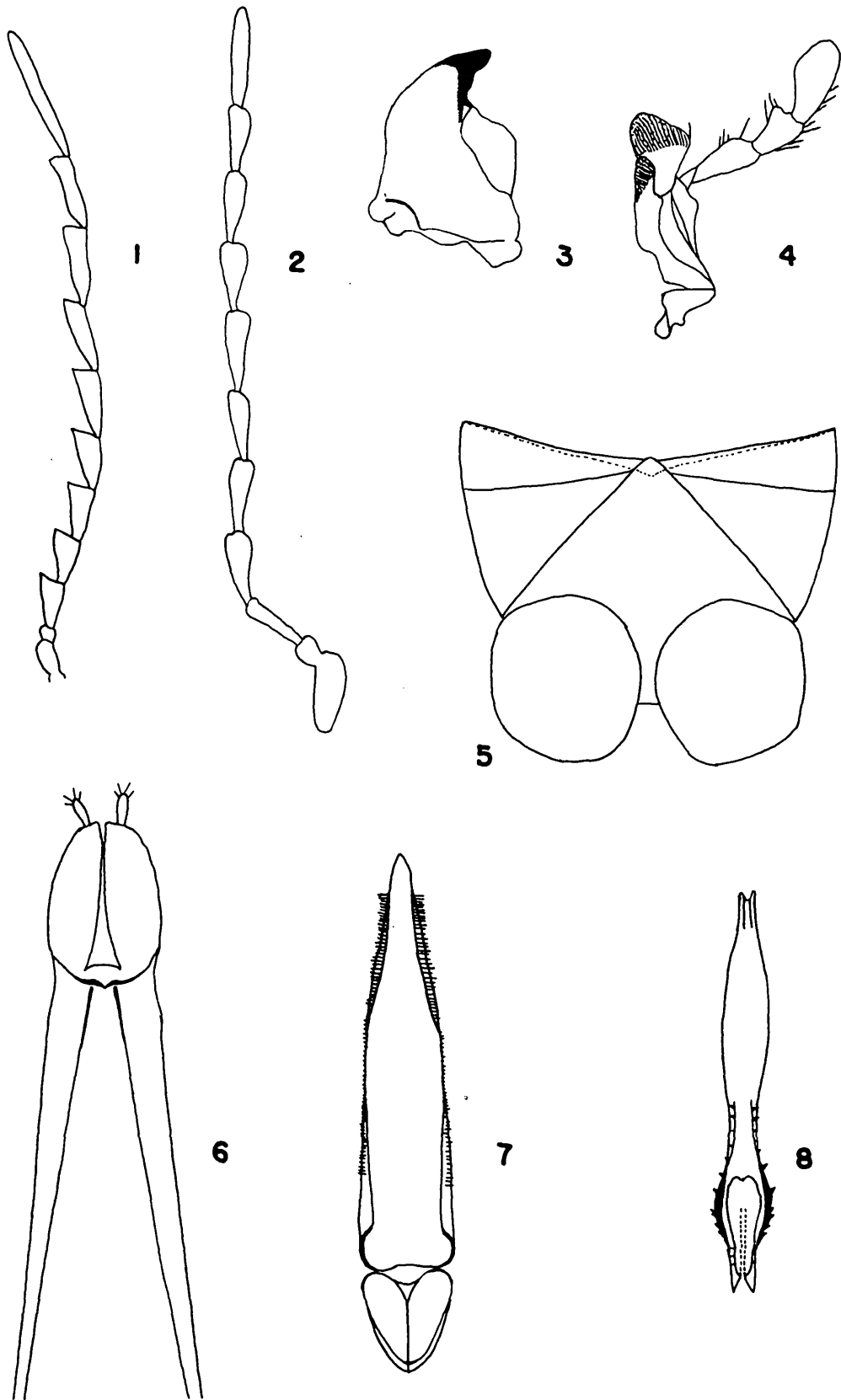
FEMALE.—Length 7.2 mm., width 2.2 mm. Antennae 2.3 mm. long, smaller than in male, filiform or only feebly serrate (fig. 2). Abdomen with fifth sternite entire or only slightly emarginate.

Type Locality.—El Indio, California. The holotype is a male specimen collected by H. F. Wickham on August 19. Presumably it is in the U. S. National Museum.

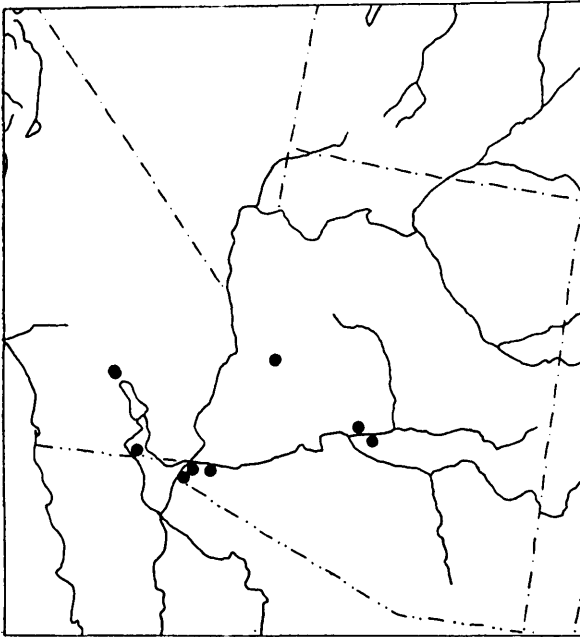
Distribution.—The species is recorded from the Colorado and Sonoran deserts of the southwestern United States (fig. 9). Specimens examined are from California and Arizona, as follows. CALIFORNIA: Calexico (S, 2); Coachella Valley (UK, 1); Indio (CNHM, 5; UK, 4; USNM, 8); Jacumba (UK, 1); Thermal, Riverside Co., 100 feet below tide (CU, 12). ARIZONA: Aguila, Maricopa Co. (CU, 1); Gila Bend, 10 mi. N. (S, 3); Phoenix (CU, 1); San Luis, Yuma Co. (CAS, 1); Tempe (CU, 1); Welton, Yuma Co. (CU, 2); Welton, 1 mi. E. (CAS 1); Yuma (CU, 1). The species has been collected from May 4 to August 22.

Host Plant.—Du Bois (1956) has collected speci-

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Leptoremus argenteus Casey. FIG. 1.—Antenna of male. FIG. 2.—Antenna of female. FIG. 3.—Mandible of male. FIG. 4.—Maxilla of male. FIG. 5.—Mesepisterna and mesosternum. FIG. 6.—Female genitalia, dorsal view. FIG. 7.—Tegmen of male, ventral view. FIG. 8.—Aedeagus of male, ventral view.



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FIG. 9.—Distribution of *Leptoremus argenteus* Casey.

mens by beating *Prosopis* sp. near San Luis, Arizona.

COMPARISON WITH RELATED NORTH AMERICAN GENERA

Leptoremus is distinguished from all other described North American genera of Pedilidae by the following combinations of characters: tarsal claws simple, nonappendiculate; neck wide; eyes large, slightly emarginate, and coarsely faceted; tempora subobsolete; maxillary palpi with fourth segment obliquely truncate and twice as long as third. There are also certain differences in the characters of the male and female genitalia.

The genera with which *Leptoremus* is most likely to be confused are *Stereopalpus*, *Pergetus* (= *Eurygenius*), *Mastoremus*, and *Bactrocercus*. These genera are compared with *Leptoremus* in the paragraphs which follow. The distinctions between *Leptoremus*

and the remaining genera of pedilid beetles will be considered in detail in a study of the classification and phylogeny of the Pedilidae now in progress.

Stereopalpus Laferte differs from *Leptoremus* by the following characters: eyes entire; tempora prominent; antennae filiform, with terminal segment abruptly tapering beyond middle; fourth segment of maxillary palpi excavated laterally on inner side, more than twice as long as third; aedeagus with a pair of large, backwardly directed spines; female genitalia robust, with sides of baculi covered with long spines.

Pergetus Casey differs by the following characters: eyes entire, separated by more than twice their width above; tempora prominent; antennae filiform, with 11th segment abruptly attenuate at middle; fourth segment of maxillary palpi subtriangular, excavated on inner side, as long as the preceding segments combined; pronotum with deep median canaliculation; claws with lobular, membranous empodium; parameres finely and sparsely spined, aedeagus longitudinally serrate at apex; female genitalia robust, with long spines apically (Abdullah 1960).

Mastoremus Casey can easily be differentiated from *Leptoremus* as follows: eyes deeply emarginate and finely granulated; maxillary palpi with last joint cylindrical and only slightly longer than third; vestiture rather sparse, coarse, and not at all concealing the surface sculpture below (Casey 1904).

Bactrocercus LeConte is distinct from *Leptoremus* on the basis of the following features: eyes smaller; surface covered with long, erect hairs which do not conceal the sculpture below; antennae filiform, the last segment as long as all others combined; maxillary palpi with last segment less than twice as long as the penultimate one; labial palpi with terminal segment nearly cylindrical; spines on parameres shorter and less sparse; aedeagus with a pair of large, backwardly directed spines.

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