An Undescribed Crane-Fly from the Hawaiian Islands (Diptera: Tipulidae)

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The crane-fly discussed herewith was sent to me for determination by Professor D. Elmo Hardy, who found the first specimens in Manoa Valley in early January, 1952. Subsequent collecting revealed the fact that the species occurred not only on Oahu but also on Kauai, indicating that the introduction to the islands was not particularly recent. I have compared the fly with approximately 100 species of the subgenus in my collection and believe that it must have been introduced into the islands from some place in the Americas, since it is obviously allied to those species that center about Limonia (Geranomyia) canadensis (Westwood), having a composite range from Canada as far south as the Argentine. Despite its close relationships with certain of these flies I cannot determine it as being any of the previously described forms and must regard it as being new. The species will be further discussed and figured by Hardy in the forthcoming volume treating of the Nematocera in the "INSECTS OF HA-WAII." The types have been returned to Professor Hardy. The holotype and allotype are to be deposited in the U. S. National Museum. The paratypes are being placed in the following collections: B. P. Bishop Museum, Hawaiian Sugar Planters' Association, University of Hawaii and the C. P. Alexander collection.

Limonia (Geranomyia) advena, new species

Allied to canadensis; mesonotal praescutum chiefly covered by three brown stripes, the posterior sclerites of the mesonotum gray pruinose; rostrum relatively long, nearly one-half the remainder of body, brownish black throughout; femora light brown with a darker subterminal ring; wings subhyaline, unpatterned except for the large pale brown stigma; Sc_1 ending nearly opposite midlength of Rs; male hypopygium with the ventral dististyle unusually small, its rostral prolongation long and narrow, the two spines elongate, placed at or near the tip, arising from very unequal basal tubercles.

Male.—Length, excluding rostrum, about 6.5-7.5 mm.; wing 7.3-8.5 mm.; rostrum about 3-3.8 mm.

Female.—Length, excluding rostrum, about 5.5-7 mm.; wing 5.5-8 mm.; rostrum about 2.5-4 mm.

Rostrum relatively long, nearly one-half the remainder of body, brownish black throughout; maxillary palpi very small. Antennae dark brown to brownish black; flagellar segments long-suboval, with truncated ends; verticils small and inconspicuous. Head above gray, paling to obscure yellow beneath; anterior vertex (male) narrow, less than the diameter of the scape.

Cervical sclerites and pronotum dark brown, the scutellum and pretergites more yellowed. Mesonotal praescutum chiefly covered by three brown stripes, the narrow interspaces more pruinose, the lateral margins narrowly pale; posterior sclerites of notum brown, more heavily pruinose, especially the postnotum. Pleura pale, heavily pruinose, least so on the ventral sternopleurite. Halteres with stem pale, knob more infuscated. Legs with all coxae and trochanters yellow; femora light brown with a darker subterminal ring; remainder of legs darker brown. Wings subhyaline, unpatterned except for

the large pale brown stigma; veins brown. Venation: Sc long, Sc_1 ending nearly opposite midlength of Rs; free tip of Sc_2 lying just proximad of R_2 ; cell 1st M_2 relatively narrow, a little widened outwardly, nearly as long as the distal section of vein M_3 ; m-cu close to the fork of M; vein 2nd A gently sinuous.

Abdominal tergites dark brown, sternites yellow; styli of hypopygium clearer yellow. Male hypopygium with the ninth tergite transverse, the posterior border emarginate; lobes conspicuous, with abundant coarse setae. Basistyle with the ventromesal lobe large. Dorsal dististyle a slender strongly curved sickle, its tip acute. Ventral dististyle unusually small, the rostral prolongation long and narrow, the usual two spines placed at or near the apex; spines elongate, from very unequal basal tubercles, the one from the longer tubercle more strongly curved. Gonapophysis with the mesal-apical lobe a pale blade that narrows to an acute point. Aedeagus long and narrow.

Holotype male, allotopotype female, Honolulu, May, 1952 (E. Dresner). Paratopotypes, 1 male, 2 females; paratypes, 3 females, Manoa Valley, Oahu, January-April, 1952 (Dresner and Hardy); 2 females, Kaimuki, Oahu, March 15-May 11, 1952 (G. Hirata, H. Sakamoto); 1 female, Mc-Kinley, Oahu, June 7, 1952 (Y. Kaneko); 2 females, Mana, Kauai, July, 1952 (Hardy).

The most nearly allied species and races include Limonia (Geranomyia) argentinensis Alexander, L. (G.) austroandina Alexander, L. (G.) canadensis (Westwood), L. (G.) communis (Osten Sacken), L. (G.) guatemalensis Alexander, and L. (G.) remingtoni Alexander. It is most like the last-named species but is well distinguished by the hypopygial characters, as well as the unusually small ventral dististyle and the conformation of the rostral spines. The subgenus Geranomyia is new to the Hawaiian fauna.