SOME MISCELLANEOUS GERRIDÆ IN THE COLLECTION OF THE MUSEUM OF COMPARATIVE ZOOLOGY (HEMIPTERA)

BY C. J. DRAKE AND H. M. HARRIS,
Ames, Iowa

Through the courtesy of Mr. Nathan Banks, curator of Entomology in the Museum of Comparative Zoology at Harvard University, the writers have received for study a collection of miscellaneous Hemiptera from North and South America. The present paper is based upon the members of the family Gerridæ in this collection. It includes notes on fifteen species, two of which are described as new. The types of these new species are deposited in the museum.

Gerris remigis Say

Guerrero Mills, Hidalgo, Mexico, 3 specimens, collected by W. M. Mann. This is one of the commonest and most widely distributed gerrids in North America. It exhibits marked variation in both size and color. *G. orba* Stål and *G. robusta* Uhler are both synonyms of *remigis* Say.

Gerris nyctalis Drake and Hottes

Three specimens, Nicholsville, Newfoundland, Aug., collected by G. K. Noble; and one specimen, Sand Cove, Newfoundland, Aug. 25, Fernald. Heretofore known only from the Rocky Mountain regions of United States and Canada.

Gerris dissortis Drake and Harris

Romaine Brooks, Newfoundland, Aug., G. K. Noble.

Gerris incognitus Drake and Hottes

Moscow, Idaho, A. C. Burrill, collector; and Metlakatla,

B. C., Keen, collector. This species is quite common in western North America.

Gerris buenoi Kirkaldy

Several specimens, Romaine Brook, Newfoundland, August, G. K. Noble. The range extends from coast to coast in North America.

Gerris chilensis (Berg)

Curico, Chile, 4 specimens. This insect is quite common in Argentina and Chile.

Gerris cariniventris Champion

Furcy, Hayti, 2 females, collected by W. M. Mann.

Gerris carmelus, n. sp.

Moderately large, clothed above with extremely fine golden pubescence. Head black, its sides and under-surface and a transverse patch above at the base ochraceous, sometimes these markings more or less replaced with black. Antennæ brown, darkened apically, the first segment with a few short setæ near its tip; formula, 40:30:30:27. Rostrum ochraceous, distal segment black, extending beyond apex of mesosternum. Pronotum black, the sides and a median elongate spot on disc of anterior lobe ochraceous; the apex rounded, attaining middle of mesonotum. Mesonotum ochraceous, strongly raised, tumid, almost rectangular in outline. Sides of thorax ochraceous, the meso and metapleura with a longitudinal blackish stripe, this at times extending on propleuron. Legs brownish, the intermediate femora each produced at the apex into two conspicuous, sharp, claw-like spines. Abdomen above blackish. Venter ochraceous. Length (♂ ♀), 7-8.5 mm.; width 2-2.6 mm.

(*Male*). Anterior lobe of pronotum strongly raised and sharply delimited from posterior lobe. Front femora somewhat incrassate and bowed, the inner surface a little behind the middle strongly dilated into a prominent blackish tubercle. Venter indistinctly carinate along the median line, the sixth segment about as broad as the fifth; its apical margin deeply and roundly excavated at the middle. First genital segment very long, slender and cylindrical.

(*Female*). Broader than male. Anterior lobe of pronotum only feebly raised above posterior lobe. Metanotum with a prominent, raised callosity on each side, these callosities pale and conspicuously hairy. Connexivum broader than in male, clothed along apical half with brownish hairs, these becoming longer and more numerous distally; the apices strongly produced into long, upwardly curving, hairy processes. Mesosternum and venter carinate down the middle. Sixth segment without carina, more thickly pilose than the fifth and more than twice as long.

Holotype, no. 17024, M. C. Z. apterous male, and *allotype*, apterous female, Jamaica, near Troy, May 12, 1909, A. E. Wight, collector. *Paratypes*, 6 males and 8 females, taken with type.

This species apparently is nearest related to *G. cariniventris* Champion. Its color markings are somewhat variable. From *cariniventris* it may be recognized by the larger, more prominent tubercular dilations of the anterior femora and the more deeply excavated sixth segment of the venter in the male, and the strongly produced connexival apices in the female.

Limnogonus guerini Lethierry and Severin

Gerris marginatus Guérin, Icon. R. An. Ins., 1844, p. 351, pl. 57, fig. 2; in Sagra, Hist. de Cuba, Ins. 1857, p. 173.

Limnogonus guerini Lethierry and Severin, Cat. Gen. Hem., III, 1894, p. 61.

Many apterous and alate specimens:—Port Antonio, Jamaica, Jan. 1, 1906, A. E. Wight; Grande Anse, Haiti, P. R. Uhler; St. Moore, Haiti, Jan. 1913, W. M. Mann; San Domingo, P. R. Uhler; Rio Bayamo, Cuba, Dr. Thomas Barbour; Bajo, Calif., one female, N. Banks.

This species is widely distributed and is very common in the West Indies and Central America. Long series of specimens from Honduras, Guatemala and the islands of the West Indies show that there is variation in size and considerable modification in the color markings. The female specimen from Baja, California, Collection of Nathan Banks, greatly extends the range of the species. The record indicates that the form from California described

by Stål as *Limnogonus (Gerris) franciscanus* may be *L. guerini*.

***Limnogonus aduncus*, n. sp.**

Apterous Male: Dark brownish to black. Size and general aspect similar to *Limnogonus recurvus* D. & H. Head and pronotum with markings as in that species. Antennæ dark brown; proportions, 104:88:68:87. Rostrum dark-brown, the apical segment blackish, reaching upon the anterior portion of mesosternum. Front legs dark brown, stout, the femora slightly bowed and flattened beneath. Pronotum black, indistinctly margined with fulvous; anterior lobe moderately tumid, with two short ochraceous lines on the disc; posterior lobe broadly rounded behind, extending upon base of metanotum, with a median ochraceous line. Abdomen above with a median longitudinal ochraceous line. Body beneath yellowish brown with grayish pubescence, the mesosternum large, the venter with a broad, blackish, submarginal stripe. Legs proportioned as in *recurvus*. Connexivum moderately broad, slightly produced at apex, segments two, three, and four each with a prominent pale spot. Venter somewhat flattened, hairy along posterior margin, the last segment almost twice as long as the preceding. Genital segments large, dark brownish, segment I depressed on each side of a median raised portion which becomes narrowed posteriorly and ends in a distinct, recurved, blackish hook. Length, 9 mm.; width, 1.62 mm.

Apterous Female: Broader and stouter than male, brownish black. Finely pubescent, the sides of pronotum, the intermediate and posterior acetabula, and second and third segments of connexivum silvery. Antennæ brownish; proportion, 92:72:III and IV absent. Abdomen above with a broad, median, longitudinal flavous to fulvous stripe. Connexivum distinctly, triangularly produced behind. Anterior legs slightly bowed. Last segment of venter nearly twice as long as preceding, its hind margin convexly sinuate at the middle. Length, 8.82 mm.; width, 2.15 mm.

Winged Male: Pronotum with the humeri raised and prominent, the anterior lobe with a distinct indentation at

the middle of each pale stripe. Hemelytra brownish black, reaching beyond tip of abdomen. Antennæ mutilated.

Holotype, no. 17025, M. C. Z. apterous male, San Fidelio, Brazil, February, Thayer Expedition. *Allotype*, apterous female, Rio Janeiro, Brazil. *Paratype*, winged male, taken with holotype.

This species is most closely allied to *Limnogonus recurvus* D. & H., from which it may be separated by the proportional lengths of the antennal segments and especially the structure of the male genitalia. In the former the first genital segment bears a large prominent and strongly tumid protuberance in front of its apical hook.

Metrobates denticornis (Champ.)

Trepobotopsis denticornis Champion, Biol. Centr.-Amer., Rhyn. II, 1898, p. 158, pl. IX, fig. 26.

Two specimens, Los Amates, Guatemala; collected by Kellerman.

Metrobates tumidus Anderson

Metrobates tumidus Anderson, Jour. Kansas Ent. Soc., V, 1932, p. 57.

Metrobates cubanus Drake and Harris, Ann. Carn. Mus., XXI, 1932, p. 86, pl. II, figs. 2 e, 4 e.

Several examples, Grand Ainse, Haiti; collected by P. R. Uhler.

Platygerris depressus White

Ten specimens, all apterous, Los Amates, Guatemala, collected by Kellerman.

Trepobates trepidus Drake and Harris

One female, with mutilated wings, Los Amates, Guatemala.

Trepobates pictus (Herrich-Schäffer)

A single apterous female, Pt. Antonio, Jamaica, A. E. Wight.

Trepobates taylori (Kirkaldy)

Kallistometra taylori Kirkaldy, Entomologist, XXXII, 1899, p. 28; Kirkaldy and Bueno, Ent. Soc. Wash., X, 1907, p. 212.

Trepobates pictus Uhler, Proc. Zool. Soc. Lond., 1894, No. XV, p. 213.

Trepobates comitalis Drake and Harris, Fla. Ent., XII, 1928, p. 7; Bul. Brook. Ent., XXVII, 1932, p. 117.

The type of *Kallistometra tayloi* Kirk. (♀, St. Andrew, C. B. Taylor, Sept., 1898) in the Kirkaldy collection, U. S. National Museum has been examined. It is a typical species of *Trepobates* Uhler and belongs to the group having the posterior margin of the mesonotum in the apterous form subtruncate and not produced at the middle. The type specimen is badly mutilated, having the appendages all wanting on the right side, the last two segments of the left antennæ missing and also the tarsi of the second and third legs. As the data on the locality, date, and collector labels and type specimen in the Kirkaldy collection of the U. S. National Museum agree with the original description (except length of legs), there seems to be no question regarding identity of the type specimen of *Kallistometra taylori*; furthermore, the labels are written in Kirkaldy's own handwriting. After carefully studying this type (genotype) and numerous other examples the writers feel that the genus *Kallistometra* Kirkaldy must be suppressed and considered identical with the genus *Trepobates* Uhler. *Trepobates comitalis* D. & H. should be treated as a synonym of *taylori*.

In the Kirkaldy collection there are also two specimens (♂ and ♀) of *Metrobates tumidus* Anderson (= *Metrobates cubanus* D. & H.) labeled in Kirkaldy's handwriting "co-type," "Jamaica, C. B. Taylor." These specimens were not mentioned in the original description.

Several specimens are also in the Museum collection from Cuba, Ch. Wright; S. Domingo, P. R. Uhler; Mandeville, Jamaica, A. E. Wight; and Martinique. These specimens are all apterous (some nymphs) and in rather poor condition of preservation.