"When every morning brought a noble chance,
And every chance brought out a noble"

theme from Mr. Scudder's pen.

In the spring of 1897 Mr. Scudder made a proposal which led to my spending the summer on the Pacific Coast in search of the Orthoptera of that region. On the way out I stopped for a few days in southern New Mexico with Professor Cockerell and collected there. The material thus secured, amounting to several thousand specimens, was shared between us, the bulk of it remaining in my collection, but was determined almost wholly by Mr. Scudder, though the Xiphidiini and Tettiginæ were worked up by me at his special request. No report on the collection as a whole has ever been prepared but upon it were based in large part a series of short papers by Mr. Scudder during the late 90's, papers which form a very considerable contribution to the knowledge of the orthoptera of that region. The weekly, sometimes daily, postal card bulletins which Mr. Scudder sent me during the process of identification, announcing progress and new discoveries, remain among my treasured mementoes of a delightful and all too brief association with one of the truly great men of his time.

SYNONYMICAL, AND OTHER NOTES ON THE TIPULIDÆ (DIPTERA).

By Charles P. Alexander,
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The question as to whether, or not, the name *Limnophila*, Macquart (Nat. Hist. Dipt., Vol. I, p. 95, 1834) can be retained for the well-known genus of crane-flies, has faced every student of *Tipulidæ* since the time of Rondani. Rondani in his "Prodromus Dipterol. Italicæ" (Corrigenda, IV, 1861) stated that this generic name was preoccupied in the Mollusca and proposed the new name, *Limnomya*.

A careful study of conchological literature failed to find any mention of a *genus Limnophila*, but constant reference to a suborder of that name. G. W. Tryon, Jr., "Structural and Systematic

Conchology" (Vol. III, p. 92, 1884), gives *Limnophila*, Hartmann, as a synonym of the suborder *Hygrophila*, Ferrusac (order *Basommatophora*). Dr. Paul Fischer in his great work, "Manuel de Conchyhologie et de Paléontologie Conchyologique (Paris, 1887, p. 503) concerning the suborder *Hygrophila*, states that the suborder *Limnophila* is a synonym.

It is, of course, possible that a genus *Limnophila* was erected in the Mollusca in 1828, in which case the name of the Tipulid genus would become *Limnomya*, Rond., this being the first term applied to the genus as a whole, although the sub-genera *Elœophila*, Rondani ('56); *Lasiomastex*, O.S. ('60); *Prionolabis*, O.S. ('60); *Dactylolabis*, O.S. ('60) and *Dicranophragma*, O.S. ('60) were erected before this genus. One, *Idioptera*, Macq. (Nat. Hist. Dipt., I, p. 94) was proposed even before *Limnophila*. However, these names are used by many authorities as full genera, and by others as sub-genera, all applying to groups of species contained in the old genus *Limnophila*. If any change should have to be made, it would be better to use the name which first covers the genus as a whole.

If there is no genus *Limnophila* in the *Mollusca* prior to 1834, then the Tipulid name is perfectly valid because that section of the rules of nomenclature that deals with synonymy decrees that "the laws of synonymy appertain only to genera, subgenera, species and sub-species" and consequently the *Suborder Limnophila* is outside the field.

The late Mr. D. W. Coquillet on p. 590 of his invaluable publication, "The Type species of the North American genera of Diptera"[1] has placed the American species of the genus *Limnophila* in Bigot's genus *Phylidorea* (Bigot, Synoptic Table, etc., p. 456).[2] As explained by Osten Sacken (Studies on Tipulidæ, pt. II, p. 234, 235)[3] the genus *Phylidorea* is merely a synonym of *Limnophila*.

Bigot, l. c., p. 456, states that "the species of *Limnophila*, Macq., provided with a discal cell are my true *Tipulidæ* and receive the new generic name, *Phylidorea*, Bigot." But Osten Sacken, l. c., p. 235, remarks, "what species Mr. Bigot places in

[1] Proc. U. S. Nat. Mus., Vol. 37, pp. 499–647 (1910).

[2] Bigot. Ann. Soc. Entom., France, pp. 447–482 (1854).

[3] Osten Sacken, C. R., Berliner Entom. Zeitschr., Bd. XXXI, Heft II, pp. 163–242 (1887).

his genus *Limnophila* without discal cell is not explained in his paper and I am not aware of the existence of any such species."

Consequently, the species in the New World, as well as the Old, should be known as *Limnophila*, but it would be better to accept the prior name *Petaurista* (Meigen, 1800) as the tribal name, *i. e.*, *Petauristini* instead of *Limnophilini*.

There are a few corrections in synonymy to be made. *Tipula costalis*, Say of the Eastern United States (Jour. Acad. Nat. Sci. Philadelphia, III, 23.2, 1823) is preoccupied by *Macromastix costalis*, Swed. of Australia. (*Tipula costalis*, Swederus; Act. Holm, 286, 1787.) No other name seems to have been applied to the *costalis* of Say, and I propose the name *Tipula sayi*, nom. nov. (non *Oropeza sayi*, Johns). *Dicranomyia brunnea*, Grimshaw, of Hawaii (Fauna Hawaiiensis, III, 1901) is preoccupied by *D. brunnea* Doane (Eastern United States) (Jour. New York Ent. Soc. VIII, 1900) and its describer should propose a new name for the Hawaiian insect. In the "Type-species of Am. Dipt.," the late Mr. D. W. Coquillet states that the type of *Holorusia*, Loew, is *grandis*, Bergr. Bergroth (Ent. Tidskr, IX, 1888) proposed the name *grandis* to replace *rubiginosa*, preoc., on the grounds that *Holorusia* is not distinct from *Tipula*. If the genus *Holorusia* is to be considered as distinct as is done by Mr. Coquillet, the type is still *rubiginosa*, Loew, and not *grandis*, Bergr.

Descriptions of New Species.

In the description of the following species of crane-flies, I have adopted many of the suggestions proposed by Mr. R. A. Muttkowski in his splendid article "The Composition of Taxonomic Papers." (Ann. Ent. Soc. Amer., June, 1911; Vol. II, No. 2, pp. 194–217). Concerning the thoracic structure, the terminology given by Mr. R. E. Snodgrass, "The Thorax of Insects and the Articulation of the Wings" (Proc. U. S. Nat. Mus., XXXVI, pp. 568, 569; pl. 62; figs. 173, 174; pl. 63, figs. 175–178) is largely used. The best paper on crane-fly genitalia, is, without question, that by Mr. Snodgrass on "The Hypopygium of *Tipulidæ*." (Trans. Am. Ent. Soc., XXX, June, 1904; pp. 179–236, pl. VIII, XVIII.) The terminology used therein has been adopted in the present paper,

but it would be desirable could we have a common terminology for all of the Dipterous families, if not for all the orders of insects.

I wish to thank Dr. A. D. MacGillivary, of Illinois, for advise on certain points; Dr. J. C. Bradley, for the Georgia material herein included, and, especially, Dr. J. G. Needham for kind advice and assistance upon many points.

Limnophila similis sp. nov.

Male. Dark brownish-black; L. 7.5 mm.; wing, 9 mm. Rostrum brownish-yellow, darker at the tip; palpi dark brownish-black; front, vertex and genæ, light gray. Antennæ: first segment elongated, cylindrical, as long as segments two, three and four combined, brown; second segment, globular, reddish-brown; remaining segments generally similar to one another in shape, cylindrical, armed with long black verticils and clothed with a fine yellow pubescence.

Thorax: Pronotum, dark brown with a fine pubescence; mesonotum: anterior portion of the præscutum, glabrous, shining black; remainder with a yellowish-brown bloom; a regular V-shaped row of yellowish-brown hairs, extending from the caudal end of the naked patch described above, posteriorly to near the transverse suture; scutum, scutellum and postnotum with a gray bloom, the scutum with scattered hairs; scutellum with a transverse row of yellowish-hairs along the caudal margin. Metanotum gray. The pleuræ dull yellowish-brown; venter, pale yellow, its sides with a gray bloom. Halteres, pale yellow, the knobs darker, brown. Legs: coxæ, bright yellow; femora, yellow, tipped with brown; tibiæ, brownish-yellow, extreme tip darker; metatarsus yellowish-brown, the remainder of the tarsi, dark brown.

Abdomen, dark brown, densely covered with long, pale brown hairs, the genital segment brighter brown. Genitalia: the pleura is moderately long, thickly armed with very long dark brown hairs; these hairs as long as the apical appendages. The dorsal apical appendage, pointing meso-caudad, chitinized at the tip, toothed; the ventral appendage thickened at the base, the slender apical portion short, directed caudad. (See fig. 8.)

Wings of a whitish color; cells C and Sc tinged with yellow; stigma, brown; basal deflection of R_{4+5}, base of R_8 and the deflection of Cu_1 with brown clouds; distal portion of cells 2d R_1, R_2, R_3 and R_5, tinged with darker. Venation: almost exactly as in *L. adusta*, O.S., both agreeing in the following essentials: R_8 very short, arcuated at its origin; R_3 rather short, oblique, with the radial cross-vein near its middle and at the tip of R_1; 2d Anal similar in the two species. (See fig. 4.)

Female. Similar to the male; L. 8–9 mm.; w. 10–10.5 mm. Generally similar to the male, but the mesothoracic scutum and scutellum are covered with a yellowish-brown bloom; postnotum with a gray bloom; abdomen pale yellow with light brown apical rings on the segments; abdomen beneath, light yellow with brown caudal margins to the segments.

Limnophila similis is allied to *adusta*, O.S., but is much darker in coloration, dark brown, not red or yellow. In *adusta*, the ventral apical appendage of the male hypopygium (see fig. 9) is thickened on both sides of the base; in *similis* (see fig. 8) the thickening is all on one side (cephalic margin in the normal position of rest). The slender portion of this appendage is much longer than the thickened base in *adusta*, shorter than this base in *similis*. The dorsal appendage in *adusta* is long, slender, thickened on the inner margin of the chitinized tooth, in *similis* much shorter. The gonapophyses are much smaller in *similis* than in *adusta*, but have not yet been studied critically.

Holotype: male; Johnstown, N. Y. (Hale's Creek) June 10, '10.

Allotype: female; with the type.

Para-type: female; Johnstown, N. Y., June 26, '10.

Swept from vegetation near water; Coll. C. P. Alexander.

Limnophila noveboracensis sp. nov.

Male and *female*. Brownish-yellow; legs, yellow; L. male, 5.2–5.8 mm. Female 7–8 mm.; W. male, 6.5 mm.; female, 7–7.5 mm.

Rostrum, light brown; palpi with numerous long hairs, brown; front and vertex yellow with a light gray bloom, producing a silvery effect. Antennæ: 1st segment, elongate, cylindrical; 2d, more globular, both segments brown, armed with scattered black hairs; segments of the flagellum becoming gradually more and more elongated and slender, yellowish-brown, with a rather short pubescence and long scattered verticils. Front, vertex and the prolonged occiput, thickly beset with long, brown hairs.

Thorax: surface opaque; Pronotum, brownish-yellow; the neck with a gray pubescence. Mesothorax: præscutum, yellowish-brown; a distinct humeral pit on the latero-anterior margin, brownish-black; no distinct thoracic stripes; a conspicuous double dot near the cephalic margin of the præscutum. Remainder of the mesothoracic and the metathoracic dorsums, light brownish yellow. Pleuræ pale brownish-yellow. Halteres pale, the distal portion of the knob darker. Legs: coxæ yellow; femora and tibiæ pale yellow, the extreme tips barely darker; tarsal segments excepting the metatarsus, yellowish-brown.

Abdomen hairy, brownish above, paler, yellowish, beneath; genitalia, light.

Wings hyaline, or nearly so; stigma indistinct; veins pale brown. Venation: Sc long, extending almost to the inner margin of cell R_3. Sc_1 about twice the length of Sc_2. R long, the cross-vein *r* far from its tip, at least twice its own length. R_3 long, gently arcuated at its origin; petiole of cell R_2, short, from one-fourth to two-fifths as long as vein R_2; R_3 long, sinuate; R_{4+5} between R_3 and the cross-vein *r-m*, longer than this cross-vein. M_3 beyond the cell 1st M_2, longer than this cell.

Basal deflection of Cu_1 anterior to the middle of cell 1st M_2. R_2+_3, so arcuated that R_s is not in a direct line with R_3. 2d Anal vein curved sharply inward at its tip. Cell R_3 is decidedly anterior to cell R_5 and about on a level with cell 1st M_2. M_1+_2 fused to the wing-margin, eliminating cell M_1. (See fig. 3.)

Limnophila noveboracensis comes in the same category with *lenta*, O.S., *quadrata*, O.S.; *nigrilinea*, Doane and *antennata*, Coq. in that it lacks cell M_1. It differs from these species as follows:

L. lenta, O.S. (fig. 1) (E. U. S.) has: Sc_1, slightly longer than Sc_2; petiole of cell R_2 (R_2+_3) rather long, two thirds the length of R_2; cross-vein *r* usually just beyond the fork; vein R_2 short, oblique; R_s almost on a straight line with R_3; cells R_3, R_5 and 1st M_2 all on a level; distal portion of vein M_3 rarely longer than cell 1st M_2; R_s usually short, arcuated at origin; coloration, ochraceous-yellow.

L. quadrata, O.S. (fig. 2) (E. U. S.) has: Sc_2 longer than Sc_1; petiole of cell R_2 (R_2+_3) nearly as long as R_2; the cross-vein *r* inserted just beyond the fork; vein R_2 short, oblique; R_s in a straight line with R_3; cells R_3, R_5 and 1st M_2 all on a level; distal portion of vein M_3 about as long as cell 1st M_2; R_s long, gently arcuated near its origin; coloration yellowish-gray.

L. nigrilinea, Doane (Jour. N. Y. Ent. Soc., VIII, p. 190) (W. U. S.; Olympia, Wash.) has: Petiole of cell R_2 one and one half the length of the basal deflection of Cu_1; cross-vein *r* slightly removed from tip of R_1; cell R_3 slightly anterior to cell R_5; general color yellow, with a black dorsal band. L. (female) 12 mm.; distal portion of wings pubescent.

L. antennata, Coq. (Jour. N. Y. Ent. Soc., XIII, pp. 58, 59) (W. Am.; Brit. Col.) has: Petiole of cell R_2 obliterated or nearly so; cross-vein *r* at the tip of R_1; cell R_3 slightly anterior to cell R_5; general color black; antennæ of the male long, reaching the base of the 6th abdominal segment.

Although *noveboracensis* agrees, superficially, with *lenta* and *quadrata*, it belongs to a very different group of species. In all respects except the presence of cell M_1, this species is a typical member of the *luteipennis* group of the genus. The four species, *luteipennis*, *contempta*, *inornata* and the present species, agree in possessing the following group characters: Structure of the head, narrowed and prolonged behind; neck produced forewards to

meet the caudal portion of the head; structure of the antennæ; the pronounced humeral pits, and the double dot on the mesothoracic præscutum; venation; cell R_3 longer than cell R_5; vein R_3 arcuated; 2d A strongly incurved at tip, etc.

Holotype: male. Sacandaga Park (Fulton Co.), N. Y., along the R. R. embankment, June 28, 1911.

Allotype: female; with the Holotype.

Para-types: 3, in the type-locality, June 21, '11.

Para-types: 10, in the type-locality, June 28, '11.

Para-types: 3, Coy Glen, Ithaca, N. Y.; July 11, '11.

Common on rank vegetation, usually near running water; Coll. C. P. Alexander.

L. noveboracensis is common, and apparently widely distributed in the North. The type locality is in the Southern Adirondack Mts. (N. Y.). The species is common about Ithaca, N. Y. (Coy Glen), and there are specimens in Dr. Needham's collection labelled "Walnut Lake, Mich., July 8, 1906." It has probably been confused with *L. quadrata* in collections. The figure in Dr. Needham's Report on the Crane-flies of New York (23d Rept. of the N. Y. State Entomol., pl. 18, fig. 6) is not *quadrata* but belongs to this new species. The specimen of *L. luteipennis*, mentioned by Osten Sacken (Monographs, etc., IV, p. 218) where he says "I possess a specimen without petiolated (second) posterior cell in both wings" may possibly belong to *noveboracensis*.

Limnophila (Prionolabis) simplex sp. nov.

Male. Dark brown; L. 11 mm.; w. 11.5 mm. Described from an alcoholic specimen. Rostrum pale; palpi brown; front, occiput and vertex, dark brown; antennæ, dark brown.

Thorax: pronotum, dark brown. Mesonotum, præscutum and scutum dark brown, the scutellum lighter brown. Metanotum dark brown. Pleuræ dark brown. Halteres uniformly pale. Legs: coxæ brown; trochanters brownish-yellow; base of femora, brownish-yellow, gradually darker to the tip; tibiæ, yellowish-brown, the tip suddenly darker; tarsi dark brown.

Abdomen: dorsum, light reddish-brown, the 8th segment rather darker; hypopygium, brown, the pleura medium-brown, paler mesally; apical appendages yellow with the tips chitinized, brownish-black. Genitalia: hypopygium, tergal portion rather deeply notched, the notch obtuse, the sides produced posteriorly into short blunt points; pleura, rather short, armed with long, numerous black hairs. The apical appendages two, the ventral one produced posteriorly, elongate,

toothed along the inner face of the tip; teeth relatively few, one tooth, near the middle, relatively larger than those below it. The anterior, or dorsal apical appendage is simple, unarmed, projecting mesally, curved so that the tip projects slightly caudad. The Anal tube is long, almost concealing the guard of the penis; the second gonapophyses are long and slender; the guard of the penis is bent strongly ventrad near its tip. (See fig. 10.)

Wings: light yellowish-gray, the cells all uniform in coloration; stigma rather indistinct, gray; a pale gray cloud at the base of R_5; pale clouds along R_2+_3, basal deflection of R_4+_5, cross-vein *m*, deflection of M_1+_2, and along the basal deflection of Cu_1; Cu tinged with brown. Venation as in *Limnophila rufibasis*, O.S. to which this species is related.

This species belongs to the sub-genus *Prionolabis*, O.S., and is closely related to L. (*P.*) *rufibasis*, O.S. of the Eastern States. It differs in the following respects: L. *rufibasis* has the costal and subcostal cells much richer yellow than the other cells of the wing; stigma clear-cut, dark brown; markings along the cord of the wing and along Cu, much darker. Base of the femora bright yellow, not tinged with brown. The deciding difference lies in the shape of the anterior apical appendage of the male genitalia, which, in *rufibasis* (See fig. 11) is bifurcated with the ventral arm toothed, whereas in *simplex* (see fig. 10), it is simple. The species, L. *munda*, O.S., which is also referred to the subgenus *Prionolabis* is very distinct from either of the above.

Holotype: male, Gainesville, Ga., April 2, 1911; Coll. J. C. Bradley.

It is probable that some of Osten Sacken's specimens of *rufibasis* (*Monographs*, etc., IV, p. 226) belong to this new species, as he says "the wings are more yellowish in the larger specimens and more grayish in the smaller ones." The drawing of the genitalia (id., pl. IV, fig. 27) is highly diagrammatic.

Polymera georgiae sp. nov.

Male. Dark brownish black; L. 4.2–5 mm.; w. 5 mm., ant. 5.75 mm. Described from alcoholic specimens.

Rostrum and palpi, light brown; front and vertex, dark brown; eyes, black, the ommatidia large, few in number; antennæ: first segment, short, round, brown; second segment, rounded, brown; third, very elongated, cylindrical, brownish-yellow, the tip, pale, whitish; segment with short scattered hairs and a few long delicate ones; segment 4 to 16, generally similar to one another in shape, elongate-cylindrical, swollen near each end, the swellings armed with short, scattered hairs and on the third to fifth segments with scanty long delicate ones; segments brown, pale at the ends producing an annulated effect.

Thorax: pro-, meso-, and meta-nota, as well as the pleuræ, dark brownish-black. Halteres brownish-yellow, the knob large, darker. Legs: anterior pair, coxæ brown, trochanters light brown; femora, light brown, with a dark sub-apical ring,

the extreme tip yellowish white; extreme base of the tibiæ, yellowish white, remainder of tibiæ, brown; tarsus light yellow, the base of the metatarsus rather darker. Middle pair: femora brown, darkest before the tip; tip abruptly whitish yellow; tibiæ and tarsi as in fore legs. Posterior pair: coxæ brown; femora brown, with a darker subapical band; tip yellowish-white; base of tibia yellow; remainder brown; tarsi, yellowish-white, the terminal segments somewhat darker.

Abdomen dark brownish-black with long conspicuous hairs.

Wings: grayish brown throughout; venation: quite similar to P. *albitarsis*. Will. (Dipt. St. Vincent; P. 296, 297; Pl. 10, fig. 71) (Copied in Needham, Craneflies (23d Rept. St. Ent. N. Y.; Pl. 21, fig. 2) and Williston, Manual of N. Am. Dipt. (1908); p. 85, fig. 28). However the longitudinal veins in the distal portion of the wing are much longer than there shown, the free portions of M_3 and Cu, longer, the basal deflection of Cu_1 beyond the fork of M, not at it, etc. (See fig. 5.)

This species differs from *P. albitarsis* Will. (Is. St. Vincent), in the conspicuous annulated antennæ, darker color of the thorax and other colorational differences. From the unsatisfactory description of *P. fusca*, Wied. (Brazil) (Wiedemann, Aussereuropäische zweifl. Inseckt, Vol. I, p. 58, pl. VI b, figs. 3 and 4) it differs in the color of the antennæ and feet, and, if the drawing is accurate, in venation. *P. obscura*, Macq. is similar to *fusca* and considered a synonym by Kertesz. *P. hirticornis*, Fabr. (S. America) has white bands on the wings.

The genus is new to the Nearctic fauna, having been recorded, hitherto, only from South America and the Lesser Antilles.

Holotype: male, St. Simon's Is., Ga., April–May, 1911. Coll. J. C. Bradley.

Para-types: 2 males, with the holotype.

Ormosia apicalis sp. nov.

Male. Yellow and brown; L. 4.5 mm.; w. 5.25 mm. Described from an alcoholic specimen.

Rostrum and palpi brown; front, vertex and occiput, yellowish-brown; antennæ: 1st segment of the antennæ, elongate, cylindrical; second globular; 3d to 8th oval, generally similar to one another in shape; remainder elongated, the segments covered with a short pubescence, and long, scattered hairs; antennæ, pale yellowish-white.

Thorax: Pronotum grayish-white. Mesonotum: præscutum yellow with two indistinct brown lines running forwards from the ends of the arms of the V-shaped suture; these lines with numerous black hairs which meet in front of the suture; an indistinct brown median line; scutum yellow with a row of hairs on either side leading from the ends of the V-shaped suture toward the wing-roots; scutellum whitish-yellow, thickly set with dark hairs; postnotum very pale, almost white.

Metanotum yellow; pleuræ whitish with a tinge of brown. Halteres, pale. Legs, brownish-yellow throughout.

Abdomen, dark brown, pleuræ somewhat paler; genital segment yellow, tinged with brown in the apical half.

Wings: hyaline, the costal margin somewhat darker. A large, dark spot above the base of the R_s, a second surrounds Sc_2 and a third at the tip of Sc_1, extending down over cross-vein *r*. The whole apical portion of the wing from the stigma down to the median veins is blackish. Dark clouds on the basal deflection of Cu_1 and cross-vein *r–m*; base of wing between R and Cu dark; veins brown; deflection of M_1+_2, very pale. Venation (see fig. 6): Sc long, Sc_1 ending at a point slightly anterior to the cross-vein *r*. Sc_2 remote from the tip of Sc_1, about midway between that point and the base of R_s. R_s long, feebly arcuated. Cross-vein *r* far back from the tip of R_1 and just beyond the fork of R_2+_3. R_2+_3 longer than the basal deflection of Cu_1. Cell 1st M_2 closed. Basal deflection of Cu_1 anterior to the fork of M. (Most of the pubescence of the wing disc has become detached due to its being in alcohol with other specimens.)

This species does not seem very closely related to any of the described American forms. The three species with spots on bands on the wings, *innocens*, O.S., *fascipennis*, Zett., and *nubilus*, O.S. are quite distinct in that the spotted and banded effect is brought about by dark hairs, and not by the color of the membrane itself, as in *apicalis*. It agrees with *innocens* in the essential features of venation, closed cell 1st M_2, divergent Anal veins, etc.

Holotype: male, Burton, Ga. (May 20, 1911); Coll. J. C. Bradley.

Furcomyia monticola sp. nov.

Male and *female*. Light yellow and brown; L. male 6–6.5 mm.; female, 7.5–7.8 mm.; w. male, 6.5 mm.; female 7 mm.

Rostrum brownish-yellow; palpi brown, the first segment lighter colored. Front and vertex, brown. Antennæ: first segment, cylindrical, light yellow, with a few scattered black hairs; remaining segments rounded-oval, almost moniliform, brown.

Thorax: Dorsum light yellow, marked with brown. Pronotum, very light brown medially. Mesonotum: a straight band of brown beginning near the cephalic margin of the præscutum, running backward and expanding out over the caudal portion of the sclerite, in the middle ending just before the V-shaped suture on the sides running to the suture and meeting the mark on the scutum; scutum with two lunate brown marks on each side of the yellow median line; scutellum largely brown; postnotum brown, yellow on the cephalic margin. Metanotum brown. Pleuræ clear light yellow, unmarked. Halteres pale, knob slightly darker. Legs light yellow throughout, with numerous black hairs.

Abdomen: dorsum yellowish-brown, the joints of the sclerites darker. Ventral surface light yellow; genitalia brownish-yellow. Genitalia of male. (See figs.

12, 13.) The ventral soft fleshy lobes, very large, resembling boxing gloves in shape, covered with scattered hairs pointing posteriorly. From its inner margin, pointing inwards, is a slender arm, terminating in a stout chitinized tooth, armed with denticulæ along the cephalic margin; on the caudal margin of this arm, and pointing posteriorly, are two stout bristles. The dorsal arm is chitinized, rather slender, the free portion short, curved, pointing cephalad. The guard of the penis, when viewed from above, is almost straight, the second gonapophyses pointing inwards. Viewed from the side, the penis-guard is strongly decurved ventrally, with a protuberence beyond the middle on the ventral side; the second gonapophyses, conical, pointing ventrad and armed with numerous hairs at the tip.

Wings: hyaline; stigma light brown, distinct. Venation (see fig. 7); Sc moderately long, the fork at the origin of R_s, or (usually) somewhat beyond it. Sc_1, from one to two times as long as Sc_2. Cross-vein *r* at the tip of R_1. Deflection of R_{4+5} about one half as long as R_5. Basal deflection of Cu_1 at the inner end of cell 1st M_2. Cross-vein *m* present, closing cell 1st M_2.

On some of the cotype males, the basal deflection of Cu_1 is anterior to the fork of M.

This species comes nearest to *F. moniliformis*, Doane (Jour. N. Y. Ent. Soc., 1900, p. 184, pl. VII, fig. 8) but differs in the following particulars: antennæ and palpi brown; markings on thoracic dorsum very different, as well as decided differences in color of legs, abdomen, wings, etc. Sc_1 ends beyond the origin of R_s, never before it; no pubescence in distal portions of the wings, etc. The forceps of the male are notable and agree in some respects with the brief description of this part in *haeretica*, O.S. (Monographs IV, p. 70.)

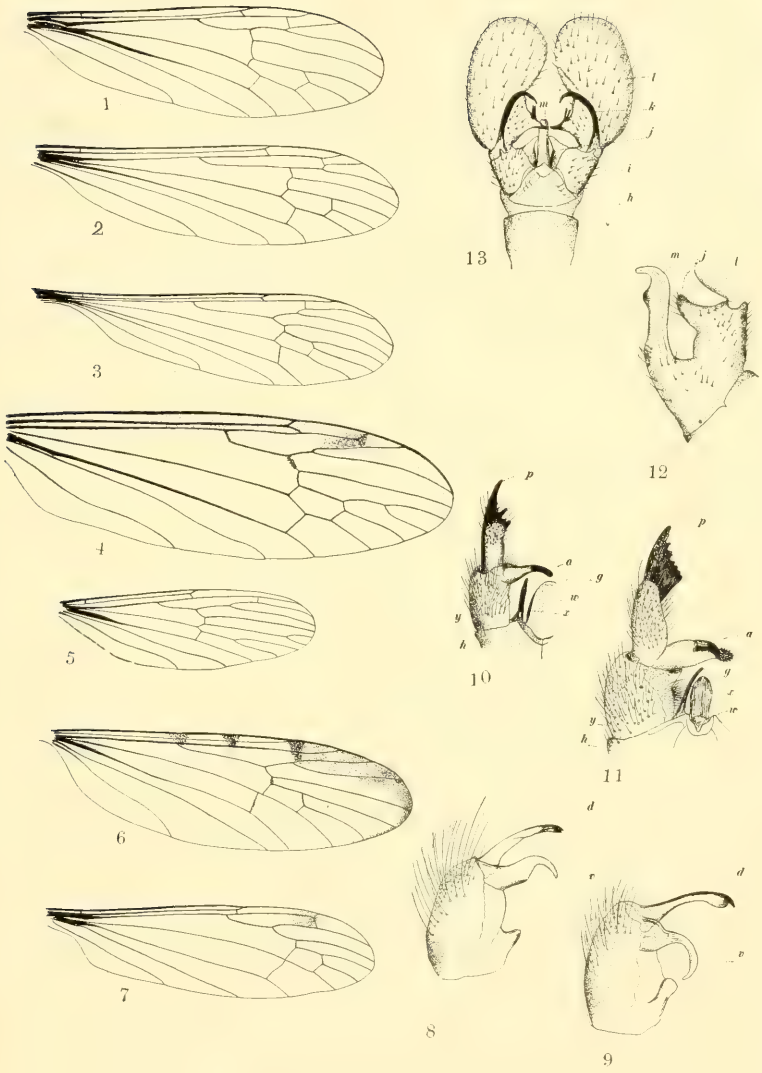
Holotype: male, Black Rock Mt. (Rabun Co.) Ga., alt. 3,000 ft., May 24, '11. Coll. J. C. Bradley.

Allotype: female; with the holotype.

Para-types: 7 males, 1 female, with the holotype.

EXPLANATION OF PLATE

1. *Limnophila lenta*, O.S.; wing. (Ithaca, N. Y., Aug. 12, '10.)
2. *Limnophila quadrata*, O.S.; wing. (Ithaca, N. Y., May 21, '11.)
3. *Limnophila noveboracensis* sp. nov. Para-type; wing. (Ithaca, N. Y., July 11, '11.)
4. *Limnophila similis* sp. nov. Para-type; wing. (Johnstown, N. Y., June 26, '10.)
5. *Polymera georgiæ* sp. nov. Para-type No. 2, wing. (St. Simon's Is.; Ga., April-May, '11.)
6. *Ormosia apicalis* sp. nov. Holotype, wing. (Burton, Ga., May 20, '11.)
7. *Furcomyia monticola* sp. nov. Para-type, wing. (Black Rock Mt., Ga., May 24, '11.)



ALEXANDER—TIPULIDÆ

8. *Limnophila similis* sp. nov. Holotype, male genitalia. (Johnstown, N. Y., June 10, '10.)

Pleura of the hypopygium; left side; ventral aspect. d. dorsal apical append.; v. ventral ap. app.

9. *Limnophila adusta*, O.S. Male genitalia. (Ithaca, N. Y., July 16, '11.)

As in No. 8 (*similis*).

10. *Limnophila simplex* sp. nov. Holotype, male genitalia. (Gainesville, Ga., April 2, '11.)

Pleura of the hypopygium; right side; dorsal aspect. p. posterior, or ventral apical app.; a. anterior, or dorsal apical app.; g. 2d gonapophyses; h. hypopygium; w. anal tube; x. guard of the penis; y. pleura.

11. *Limnophila rufibasis*, O.S. Male genitalia. (Ithaca, N. Y., May 22, '11.)

As in No. 10 (*simplex*).

12. *Furcomyia monticola* sp. nov. Holotype, male genitalia. (Black Rock Mt., Ga., May 24, '11.)

Hypopygium, lateral aspect.

m. guard of the penis. j. 2d gonapophyses. l. ventral apical app.

13. *Furcomyia monticola* sp. nov. Holotype, male genitalia hypopygium; dorsal aspect.

h. hypopygium; i. pleura; j. 2d gonapophyses; k. dorsal apical app.; l. ventral apical app.; m. guard of the penis.

THREE NEW ANTS FROM MEXICO AND CENTRAL AMERICA.[1]

By William Morton Wheeler.

Pheidole tisiphone sp. nov.

Soldier. Length 5.6 mm.

Head large; from above subrectangular, longer than broad, a little broader in front than behind, with nearly straight sides and very feebly excised posterior broader and a short, shallow occipital groove; in profile truncated anteriorly, flattened above in front and feebly convex below, with a narrow and very deep scrobe on each side, running obliquely backward and downward just over the eye to the outer border of the gula and ending abruptly at the middle of the head. The edges of the scrobes are sharp and parallel, the upper edges passing anteriorly into the frontal carinæ which are very widely separated. Frontal area small, deeply impressed, rounded behind. Frontal groove obsolete. Eyes small, about 1-6 the distance from the anterior to the posterior border of the head. Clypeus short and very convex, with a faint, median, longitudinal impression, and entire and deflected

[1] Contribution from the Entomological Laboratory of the Bussey Institution, Harvard University, No. 51.