

Occasional Papers
OF THE
Boston Society of Natural History.

THE CRANE-FLIES (TIPULIDAE) OF NEW ENGLAND:
THIRD SUPPLEMENTARY LIST.

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THE basic list of Tipulidae for New England, as given in Mr. Johnson's 'Diptera of New England' (Occas. Papers Boston Soc. Nat. Hist. 7, no. 15: 1-326, 1925) recorded 264 species of these flies from the New England states. In two supplementary lists (Occas. Papers Boston Soc. Nat. Hist. 5: 169-174, 1925, and *ibid.* 5: 223-231, 1927) I have added 26 species to this total, bringing the list to 290 species. In recent years further collecting has produced a considerable number of additional records which are given at this time and bring the list of Tipulidae to a total of 318. In the present paper, I wish to record these additional forms, to discuss in some detail the crane-fly fauna of Mount Mansfield, highest of the Green Mountains, Vermont, and to describe three novelties included in the list of additions to the list for New England.

ADDITIONS TO THE TIPULIDAE OF NEW ENGLAND.

291. *Tipula hinei* Alex. (Ohio Journ. Sci. 20: 200, 1920).
Mt. Mansfield, Vermont, 2100 feet, June 16, 1927 (*C. P. Alexander*).
292. *Tipula maritima*, sp. nov.
Nantucket Is., Mass., October 1-8, 1925 (*W. S. Brooks*).
293. *Tipula vicina* Dietz. (Ent. News 28: 148-149, 1917).
West branch of the Waterbury R., near Stowe, Vermont, along stream, June 14, 1927 (*C. P. Alexander*).
294. *Cylindrotoma tarsalis* Johnson. (Psyche 19: 2, 1912).
Wooderest Farm, foot of Mt. Mansfield, Vermont, altitude 1000 feet, June 14, 1927; Bingham Falls, Vermont, June 18, 1927 (*C. P. Alexander*). Norfolk, Conn., September 11-12, 1928 (*G. C. Crampton and C. P. Alexander*).

295. *Limonia (Limonia) novae-angliae* Alex. (Ent. News 40: 44-45, 1929).
Orient Springs, Hampshire Co., Mass., altitude 375 feet, July 20, 1929 (*C. P. Alexander*); Chesterfield Gorge, Mass., August 2, 1928 (*C. P. Alexander*); Manitic Lake, Conn., August 6, 1929 (*C. P. Alexander*).
296. *Limonia (Dicranomyia) gibsoni* Alex. (Can. Ent. 61: 17-18, 1929).
Nantucket Is., Mass., in salt marsh, August 21, 1926 (*C. W. Johnson*).
297. *Limonia (Dicranomyia) iowensis* (Rogers). (Florida Ent. 9: 150-152, 1926).
Amherst, Mass., at trap lantern, October 3-17, 1928 (*C. F. Clagg*); Manitic Lake, Conn., June 8-9, 1929; West Granby, Conn., June 8, 1929 (*C. P. Alexander*).
298. *Limonia (Dicranomyia) uliginosa* Alex. (Bull. Brooklyn Ent. Soc. 24: 27-28, 1929).
Foot of Mt. Mansfield, near Stowe, Vermont, in sphagnum bog, altitude 1000 feet, June 22-24, 1927 (*C. P. Alexander*); Manitic Lake, Conn., in bog, June 8-9, 1929 (*C. P. Alexander*).
299. *Pedicia margarita* Alex. (Bull. Brooklyn Ent. Soc. 24: 300-302, 1929).
Orient Springs, Hampshire Co., Mass., Aug. 9, 1928 (*Alexander, Edwards and Rogers*), July 29, 1929 (*C. P. Alexander*); Bashbish Falls, Berkshire Co., Mass., altitude 900 feet, August 20, 1929 (*M. M. Alexander*).
300. *Tricyphona johnsoni*, sp. nov.
Nantucket Is., Mass., June 25, 1926, June 7-22, 1927 (*C. W. Johnson*).
301. *Tricyphona paludicola* Alex. (Proc. Acad. Nat. Sci. Philadelphia for 1916: 538-540, 1916).
Smugglers Notch, Mt. Mansfield, Vermont, altitude 2100 feet, in sphagnum bog, June 16, 1927 (*C. P. Alexander*).
302. *Rhaphidolabis avis* Alex. (Ent. News, 37: 50-51, 1926).
Becket, Mass., in gorge, July 18, 1928 (*G. C. Crampton*).
303. *Dactylolabis supernumeraria* Alex. (Ent. News, 40: 46, 1929).

- Bingham Falls, Vermont, June 18, 1927 (*C. P. Alexander*); Smugglers Notch, Mt. Mansfield, Vermont, altitude 2100 feet, June 15-20, 1927 (*C. P. Alexander*).
304. *Limnophila (Phylidorea) adustoides* Alex. (Bull. Brooklyn Ent. Soc. 22: 63-64, 1927).
Amherst, Mass., at trap-lantern, July 18-19, 1928 (*C. F. Clagg*). Wings slightly darker than in the type.
305. *Limnophila (Phylidorea) luteola* Alex. (Bull. Brooklyn Ent. Soc. 22: 113-114, 1927).
Woodcrest Farm, near foot of Mt. Mansfield, Vermont, altitude 1000 feet, in boggy areas, June 17-20, 1927 (*C. P. Alexander*); Mt. Desert Island, Maine, June 20, 1928 (*K. A. Salman*).
306. *Limnophila (Ephelia) sabrina* Alex. (Bull. Brooklyn Ent. Soc. 24: 189-190, 1929).
West branch of the Waterbury R., near Stowe, Vermont, June 14-29, 1927 (*C. P. Alexander*); Amherst, Mass., June 5, 1924 (*C. P. Alexander*); waterfall, near Winsted, Conn., June 9, 1929 (*C. P. Alexander*).
307. *Limnophila (Dicranophragma) angustula* Alex. (Bull. Brooklyn Ent. Soc. 24: 190-191, 1929).
Orono, Maine, July 8, 1913 (*C. P. Alexander*); Mt. Desert Island, Maine, August 29-September 1, 1926 (*C. P. Alexander*); Amherst, Mass., altitude 275 feet, July 15-25, 1928 (*C. P. Alexander*).
308. *Pilaria vermontana* Alex. (Ent. News 40: 47-48, 1929).
Woodcrest Farm, near Stowe, Vermont, altitude 1000 feet, in boggy areas, June 22-24, 1927 (*C. P. Alexander*); Manitic Lake, Conn., in bog, June 8-9, 1929 (*C. P. Alexander*).
309. *Eriocera gibbosa* Doane. (Journ. N. Y. Ent. Soc. 8: 193, 1900).
Avon Old Farms, Avon, Conn., June 15, 1929 (*C. H. Curran*).
310. *Gonomyia (Gonomyia) currani* Alex. (Can. Ent. 58: 239, 1926).
Becket, Mass., in gorge, July 18, 1928 (*G. C. Crampton*).
311. *Gonomyia (Lipophleps) alexanderi* (Johnson). Psyche 19: 3, 1912).
Near Middlebury, Vermont, June 17, 1927 (*C. L. Farrar*).

312. *Gonomyia (Lipophleps) sacandaga* Alex. (Proc. Acad. Nat. Sci. Philadelphia for 1914: 587-588, 1914).
Near Middlebury, Vermont, June 17, 1927 (*C. L. Farrar*).
313. *Ormosia mesocera* Alex. (Can. Ent. 49: 25, 1917).
Mt. Mansfield, Vermont, altitude 3500 feet, June 16-24, 1927 (*C. P. Alexander*).
314. *Erioptera (Ilisia) laevis* Alex. (Bull. Brooklyn Ent. Soc. 25: 1930, in press).
Amherst, Mass., July 18, 1928 (*C. F. Clagg*); Chesterfield Gorge, altitude 850 feet, August 2, 1928 (*C. P. Alexander*).
315. *Erioptera (Erioptera) ebenina* Alex. (Can. Ent. 58: 237-238, 1926).
Manitic Lake, Conn., in cranberry bog, June 8-9, 1929 (*C. P. Alexander and G. C. Crampton*).
316. *Erioptera (Erioptera) uliginosa*, sp. nov.
Manitic Lake, Conn., in cranberry bog, June 8-9, 1929 (*C. P. Alexander and G. C. Crampton*).
317. *Erioptera (Erioptera) viridula* Alex. (Can. Ent. 61: 20, 1929).
Woodcrest Farm, near foot of Mt. Mansfield, Vermont, in boggy areas, altitude 1000 feet, June 20-27, 1927 (*C. P. Alexander*).
318. *Molophilus paludicola* Alex. (Journ. N. Y. Ent. Soc. 37: 57-58, 1929).
Boggy meadows, near Amherst, Mass., altitude 275 feet, July 15-25, 1928 (*C. P. Alexander*).

CRANE-FLIES OF MOUNT MANSFIELD, VERMONT, AND VICINITY.

In June, 1927, Mrs. Alexander and I spent two weeks at Woodcrest Farm, at the foot of Mount Mansfield, highest of the Green Mountains. Crane-flies were exceedingly abundant and the complete list, as given at this time, adds no fewer than 72 species to those previously known from the State. Official altitudes of stations mentioned are as follows: Woodcrest Farm, A. J. Houston, proprietor, 900 feet; Stowe Fork, 962 feet; Toll House, 1300 feet; Bingham Falls, 1400 feet; Barnes Camp, 1550 feet; Big Spring, 1803 feet; Smugglers Notch, 2162 feet; Lake of the Clouds, 3900 feet; Summit of Mansfield, Nose, 4000 feet, Chin,

- 4393 feet; Taft Lodge, 3700 feet; Half-way House, 2250 feet; Moss Glen Falls, 1000 feet.
- Tanyptera frontalis* (O. S.). Smugglers Notch, June 16.
- T. fumipennis* (O. S.). Bingham Falls, June 18.
- Tipula abdominalis* (Say). Smugglers Notch, June 18.
- T. angulata* Lw. Woodcrest Farm, June 17; Bingham Falls, June 18-21.
- T. bicornis* Forbes. Stream, Waterbury R., west branch, June 14.
- T. cayuga* Alex. Woodcrest Farm, June 15; Bingham Falls, June 18-21.
- T. hermannia* Alex. Woodcrest Farm, June 22.
- T. hinei* Alex. Mount Mansfield, at 2100 feet, June 16.
- T. iroquois* Alex. Smugglers Notch, June 16; Mansfield, at 2500 feet, June 16.
- T. latipennis* Lw. Woodcrest Farm, June 15; Bingham Falls, June 21.
- T. longiventris* Lw. Woodcrest Farm, June 15.
- T. monticola* Alex. Woodcrest Farm, June 18; Mansfield, Chin, June 16.
- T. nobilis* Lw. Bingham Falls, June 16-18.
- T. noveboracensis* Alex. Woodcrest Farm, resting on boulders in Waterbury R., June 20.
- T. parshleyi* Alex. Woodcrest Farm, along Waterbury R., June 17.
- T. senega* Alex. Woodcrest Farm, June 15; Bingham Falls, June 18-21; Mansfield, 2000-2500 feet, June 24.
- T. sarta* Lw. Woodcrest Farm, June 15; Bingham Falls, June 18.
- T. strepens* Lw. Woodcrest Farm, June 17.
- T. tephrocephala* Lw. Woodcrest Farm, June 15-22; Bingham Falls, June 18-21.
- T. trivittata* Say. Woodcrest Farm, June 27.
- T. vicina* Dietz. Woodcrest Farm, along Waterbury R., June 14.
- T. youngi* Alex. Woodcrest Farm, June 20.
- T. (Trichotipula) orozeoides* Johnson. Woodcrest Farm, June 15-18; Bingham Falls, June 18-21; Mansfield, 2000-2500 feet, June 24.
- Nephrotoma euceroides* Alex. Woodcrest Farm, Waterbury R., June 14.

- N. ferruginea* (Fabr.). Smugglers Notch, June 18.
N. incurva (Lw.). Smugglers Notch, June 18.
N. lugens (Lw.). Woodcrest Farm, Waterbury R., June 18.
N. tenuis (Lw.). Woodcrest Farm, June 20.
Dolichopeza americana Needh. Woodcrest Farm, June 15; Bingham Falls, June 21; Mansfield, 2000–2500 feet, June 24.
Oropeza obscura Johnson. Woodcrest Farm, June 20.
Oropeza venosa Johnson. Woodcrest Farm, June 15; Bingham Falls, June 21; Mansfield, 2000–2500 feet, June 24.
Phalacrocer tipulina O. S. Woodcrest Farm, in bogs, June 18–20.
Cylindrotoma tarsalis Johnson. Woodcrest Farm, June 14; Bingham Falls, June 18.
Liogma nodicornis O. S. Woodcrest Farm, June 14–22; Bingham Falls, June 18–21.
Antocha opalizans O. S. Woodcrest Farm, along Waterbury R., June 25.
Heliopsis flavipes (Macq.). Woodcrest Farm, June 17.
Limonia (Limonia) cinctipes (Say). Smugglers Notch, June 16.
L. (L.) indigena (O. S.). Woodcrest Farm, June 15.
L. (L.) macateei (Alex.). Bingham Falls, June 18.
L. (L.) pubipennis (O. S.). Woodcrest Farm, June 15; Bingham Falls, June 16–21.
L. (L.) solitaria (O. S.). Along stream, near Stowe, June 14; Bingham Falls, June 21.
L. (L.) triocellata (O. S.). Woodcrest Farm, June 17; Bingham Falls, June 18.
L. (Dicranomyia) halterata (O. S.). Moss Glen Falls, June 26.
L. (D.) humidicola (O. S.). (*badia* of authors). Woodcrest Farm, June 15.
L. (D.) longipennis (Schumm.). Woodcrest Farm, bog, June 18–20.
L. (D.) morioides (O. S.). Bingham Falls, June 16–21.
L. (D.) profunda Alex. Woodcrest Farm, June 20; Mansfield, 3200 feet, June 16.
L. (D.) uliginosa Alex. Woodcrest Farm, in bog, June 18–24.
L. (Rhipidia) maculata (Mg.). Woodcrest Farm, June 15.
L. (Geranomyia) canadensis (Westw.). Woodcrest Farm, June 27.
L. (G.) rostrata (Say). Woodcrest Farm, June 17–22.

- Pedicia contermina* Walk. Smugglers Notch, remains in spider's web, June 18.
Tricyphona auripennis (O. S.). Smugglers Notch, June 16.
T. calcar (O. S.). Woodcrest Farm, June 15; Bingham Falls, June 18–21; Smugglers Notch, June 16; Mansfield, 2000–3000 feet, June 16–24.
T. inconstans (O. S.). Woodcrest Farm, June 15–20; Mansfield, 2000–2500 feet, June 24.
T. paludicola Alex. Smugglers Notch, June 16.
T. vernalis (O. S.). Bingham Falls, June 16–21.
Amalopina flaveola (O. S.). Woodcrest Farm, June 17; Bingham Falls, June 21.
Rhaphidolabis (Rhaphidolabis) cayuga Alex. Mansfield, 2500 feet, June 16–17.
R. (R.) forceps Alex. Woodcrest Farm, June 15; Bingham Falls, June 18–20; Mansfield, 2500 feet, June 16.
R. (R.) rubescens Alex. Woodcrest Farm, June 15–19; Bingham Falls, June 18; Smugglers Notch, June 16; Mansfield, 2000–2500 feet, June 24.
R. (R.) tenuipes O. S. Woodcrest Farm, June 15–20.
R. (Plectromyia) modesta (O. S.). Woodcrest Farm, June 15; Bingham Falls, June 18–21; Mansfield, 2000–3500 feet, June 16–24.
Adelphomyia minuta Alex. Woodcrest Farm, June 15–20.
Ula paupera O. S. Woodcrest Farm, June 15; Mansfield, 2500 feet, June 16.
U. elegans O. S. Bingham Falls, June 16; Mansfield, 2500 feet, June 16.
Epiphragma fascipennis (Say). Woodcrest Farm, June 15; Bingham Falls, June 18; Mansfield, 2000–2500 feet, June 24, 3200 feet.
Dactylolabis supernumeraria Alex. Bingham Falls, June 18; Smugglers Notch, June 16, abundant on cliff faces.
Pseudolimnophila contempta (O. S.). Woodcrest Farm, June 15–22; Bingham Falls, June 18–20.
P. inornata (O. S.). Woodcrest Farm, in bogs, June 17–22.
P. luteipennis (O. S.). Woodcrest Farm, June 17.
P. toxoneura (O. S.). Woodcrest Farm, June 15; Bingham Falls, June 18; Mansfield, 2000–2500 feet, June 24.
Limnophila (Eutonja) alleni Johnson. Woodcrest Farm, in

boggy areas, June 20-22, in two instances hawked by *Cordulegaster* dragon-flies but not caught by them; still other specimens found caught in spiders' webs.

L. (Phylidorea) adusta O. S. Smugglers Notch, June 18.

L. (P.) auripennis Alex. Mansfield, Chin, June 16, among stunted spruce and balsam.

L. (P.) luteola Alex. Woodcrest Farm, in boggy areas, June 17-20.

L. (Ephelia) aprilina O. S. Woodcrest Farm, June 15; Bingham Falls, June 21.

L. (E.) johnsoni Alex. Woodcrest Farm, June 15, Bingham Falls, June 21.

L. (E.) sabrina Alex. Waterbury R., near Stowe, on rank vegetation along stream, June 14.

L. (Lasiomastix) macrocera (Say.). Woodcrest Farm, June 17.

L. (L.) tenuicornis O. S. Woodcrest Farm, June 15.

L. (Prionolabis) munda O. S. Smugglers Notch, June 16; Mansfield, 2000-2500 feet, June 24.

L. (P.) rufibasis O. S. Woodcrest Farm, June 15; Bingham Falls, June 18-21.

L. (Dicranophragma) fuscovaria O. S. Woodcrest Farm, June 18-22; Bingham Falls, June 21.

L. (Prolimnophila) areolata O. S. Woodcrest Farm, June 15; Bingham Falls, June 18-21; Mansfield, 2000-2500 feet, June 24.

L. brevifurca O. S. Woodcrest Farm, June 15; Bingham Falls, June 16; Mansfield, 3000 feet, June 16.

L. laricicola Alex. Woodcrest Farm, in bogs, June 17-22.

L. subcostata Alex. Bingham Falls, June 18-21; Smugglers Notch, June 16; Mansfield, 3000-3500 feet, June 16.

L. unica O. S. Waterbury R., near Stowe, on rank vegetation near stream, associated with *Limnophila sabrina*, June 14.

Shannonomyia lenta (O. S.). Waterbury R., along stream, June 14-17.

Pilaria stanwoodae (Alex.). Woodcrest Farm, in bogs, June 20-22.

P. vermontana Alex. Woodcrest Farm, in bogs, June 22-24.

Eriocera spinosa O. S. Woodcrest Farm, along the Waterbury R., June 25.

Elephantomyia westwoodi O. S. Bingham Falls, June 15.

Lipsothrix sylvia (Alex.). Woodcrest Farm, June 17; Bingham Falls, June 18-21.

Gnophomyia tristissima O. S. Moss Glen Falls, June 26.

Gonomyia (Ptilostena) mathesoni Alex. Woodcrest Farm, along Waterbury R., June 14.

G. (Gonomyia) florens Alex. Woodcrest Farm, June 15.

G. (G.) noveboracensis Alex. Woodcrest Farm, along Waterbury R., June 17; Moss Glen Falls, June 26.

G. (G.) sulphurella O. S. Waterbury R., near Stowe, June 14; Woodcrest Farm, June 18-22, in bog.

G. (G.) subcinerea O. S. Bingham Falls, June 16.

Rhabdomastix flava (Alex.). Waterbury R., near Stowe, along stream, June 14.

Erioptera (Ilisia) armillaris O. S. Woodcrest Farm, June 27.

E. (Mesocyphona) needhami Alex. Woodcrest Farm, June 18-20 in bog.

E. (Empeda) nyctops Alex. Bingham Falls, June 16; Smugglers Notch, June 16-18; Mansfield, 2000-3500 feet, June 16-24.

E. (E.) stigmatica (O. S.). Woodcrest Farm, June 15-20, in bog; Bingham Falls, June 18-21; Mansfield, 2000-3000 feet, June 16-24.

E. (Erioptera) chrysocoma O. S. Woodcrest Farm, June 17-22, in bogs.

E. (E.) megophthalma Alex. Woodcrest Farm, June 15-17, in bogs.

E. (E.) septemtrionis O. S. Woodcrest Farm, June 17-18, bogs; Lake of the Clouds, June 16; Mansfield, Chin, June 16.

E. (E.) vespertina O. S. Woodcrest Farm, June 17, in bog.

E. (E.) viridula Alex. Woodcrest Farm, common in bogs and boggy meadows, June 20-27.

Helobia hybrida Meig. Lake of the Clouds, June 16.

Ormosia adirondacensis Alex. Woodcrest Farm, June 21; Bingham Falls, June 16-18.

O. dentifera Alex. Mansfield, 3500 feet, June 16.

O. deviata Dietz. Mansfield, 2500 feet, June 16.

O. innocens (O. S.). Smugglers Notch, June 16 (*C. L. Farrar*).

O. megacera Alex. Woodcrest Farm, in bog, June 18.

O. meigenii (O. S.). Mansfield, 2500 feet, June 16.

O. mesocera Alex. Mansfield, 2500-3500 feet, June 16-24.

O. pygmaea (Alex.). Bingham Falls, June 16; Mansfield, 3500-3800 feet, June 16.

Molophilus cramptoni Alex. Mansfield, 2000-2500 feet, June 24.

M. forcipulus (O. S.). Wooderest Farm, June 17, in bogs.

M. hirtipennis (O. S.). Bingham Falls, June 16-18; Mansfield, 2000 feet, June 24.

M. pubipennis (O. S.). Waterbury R., near Stowe, June 16.

M. quadrispinosus Alex. Smugglers Notch, June 16; Mansfield, 3500 feet, June 16.

DESCRIPTIONS OF NEW SPECIES.

Tipula maritima, sp. nov.

Allied to *T. cunctans* Say; antennae with the flagellum bicolorous, yellow and black; wings with a strong yellow suffusion, the costal margin more brownish yellow, not contrasting markedly with the remainder of the ground-color; male hypopygium with the median notch of the tergite narrowly U-shaped; outer dististyle expanded at distal end, the apex obliquely truncated.

Male.—Length about 13-15 mm.; wing 14-17 mm.

Generally similar to *T. cunctans*.

Antennal flagellum bicolorous, the basal enlargement of the segments dark brown, the remainder yellow. Head gray, median region of the vertex more brownish gray.

Mesonotal praescutum gray, the three praescutal stripes a trifle darker, their edges faintly bordered by darker brown; posterior sclerites of mesonotum gray, the scutellum more reddish gray with a barely indicated median line. Pleura with the anepisternum dark gray, the sternopleurite more reddish yellow, darkened ventrally, the posterior sclerites of pleura more brownish yellow. Legs yellow, the tips of the femora and tibiae infuscated. Wings with a strong yellow suffusion, the costal margin more brownish yellow, not contrasting strongly with the remainder of the wing as is the case in *cunctans*, obliterate areas conspicuous.

Abdomen yellow, the tergites with a nearly continuous median black vitta extending from tergite one through seven; outer sternites with a similar black line; hypopygium pale. Male hypopygium relatively small. Ninth tergite with a relatively deep U-shaped median notch, this much narrower than in *cunctans*, the lateral margins narrowly blackened but nearly smooth. Outer dististyle narrowed basally, the distal end expanded, the apex obliquely truncated. Inner dististyle with the apical beak blackened, simple; blackened flange on margin of blade smooth, in *cunctans* conspicuously serrulate. Mesal margins of ninth sternite produced into a subtriangular pale blade.

Habitat.—Massachusetts.

Holotype.—Male, Polpis, Nantucket Is., October 8, 1925 (*W. S. Brooks*).

Paratopotypes.—Three males, October 1-8, 1925 (*W. S. Brooks*).

Type.—In the collection of the Boston Society of Natural History.

Tipula maritima is readily told from *T. cunctans* Say by the bicolorous flagellum, the strongly tinted wings with the costal margin only slightly darkened, and the details of structure of the male hypopygium. The present species serves to connect

cunctans with other members of the group, as *ultima* Alexander and *tennessa* Alexander.

Tricyphona johnsoni, sp. nov.

Entirely similar and closely related to *T. inconstans* (Osten Sacken), differing most conspicuously in the structure of the ninth tergite of the male hypopygium.

Wings narrower than in *inconstans*. Venation: *Rs* long-spurred at origin; radial field with adventitious crossveins, chiefly arranged in cell *R*₄ where they vary in number from one to seven. Ninth tergite of the male hypopygium narrowed outwardly, the caudal end conspicuously narrower than the base, the margin gently concave. In *inconstans*, the caudal margin of the tergite is more deeply concave and produced into small sublateral lobes, with a smaller lateral incision on either side, the margin of the tergite fringed with delicate setae.

Habitat.—Massachusetts.

Holotype.—Male, Nantucket Is., June 22, 1927 (*C. W. Johnson*).

Paratopotypes.—Numerous specimens, June 25, 1926; June 7-22, 1927 (*C. W. Johnson*).

Type.—In the collection of the Boston Society of Natural History.

Trichyphona johnsoni is named in honor of the collector of the type-series, my friend, Charles W. Johnson, to whom we owe our greatest advance in knowledge of the Diptera of New England. Although very similar and closely allied to *T. inconstans*, I have no doubt of the distinctness of the present form. The nature of the venation in the type-series of more than thirty specimens has been discussed in detail by Mr. Johnson (*Psyche* 34: 216-217, 4 figs., 1927).

Erioptera (Erioptera) uliginosa, sp. nov.

General coloration dull brown; knobs of halteres darkened; wings with a strong brown suffusion, more saturated in the costal and stigmal regions; male hypopygium with the outer dististyle elongate, expanded at apex into an oval blade; inner dististyle much smaller, simple, narrowed to a point.

Male.—Length about 4.5-4.8 mm.; wing 4.5-5.3 mm.

Female.—Length about 5 mm.; wing 5.3-5.5 mm.

Rostrum and palpi black. Antennae dark brown throughout. Head of male large; eyes very large, separated above, protuberant and contiguous beneath; in female, head and eyes smaller. Head dull brown, the orbits brighter.

Mesonotum opaque dark brown, the praescutum almost covered by three more reddish brown stripes, the dorsum in cases more uniformly brown. Pleura gray. Halteres brownish yellow, the knobs brown. Legs with the coxae brownish gray; trochanters obscure yellow; remainder of legs brown, the femoral bases more brightened. Wings with a strong brown suffusion, more saturated in the costal and stigmal regions; veins brown. Venation: *Rs*

shorter than Sc_1 ; R_{2+3+4} a trifle longer than the basal section of R_5 , the distal section of the latter thickened; vein *2nd A* and outer end of second section of Cu_1 strongly sinuous.

Abdomen dull dark brown, including the hypopygium. Male hypopygium with the tergite extensive, the lobes obliquely truncate. Outer dististyle an elongate smooth arm that expands at apex into a long-oval blade. Inner dististyle a much smaller simple blade that narrows gradually to a point. Gonapophyses appearing as strongly curved sickle-shaped hooks that narrow gradually to acute points, their margins smooth. Ovipositor with the valves yellowish horn-color, the tergal valves long and slender, gently upcurved, the margins smooth.

Habitat.—Connecticut.

Holotype.—Male, Manitic Lake, in cranberry bog, June 8, 1929. (*C. P. Alexander*).

Allotopotypes.—Female, pinned with type.

Paratopotypes.—Fifteen males and females, June 8–9, 1929 (*Alexander and Crampton*).

Type.—Preserved in the collection of the author.

Paratypes.—In the Boston Society of Natural History and Connecticut Agricultural Experiment Station Collections. Alcoholic material in the collection of Dr. Crampton.

Erioptera uliginosa is undoubtedly a characteristic bog-inhabiting species, associated in nature with other equally characteristic bog forms as *Phalacrocera tipulina* O. S., *Limonia* (*Dicranomyia*) *uliginosa* Alexander, *L. (D.) sphagnicola* Alexander, *Pseudolimnophila inornata* (O. S.), *Limnophila (Phylidorea) platyphallus* Alexander, *Pilaria stanwoodae* (Alexander), *P. vermontana* Alexander and *Erioptera ebenina* Alexander. It was formerly considered that the sphagnum bogs in northeastern North America supported a very restricted crane-fly fauna but this is certainly not the case. Many of the bog species are local and most species become more active at dusk, remaining concealed during the hours of bright sunlight.

Erioptera uliginosa has the knobs of the halteres darkened, in this respect agreeing most closely with *E. septemtrionis* Osten Sacken and *E. ebenina* Alexander. It differs from the former in the strongly darkened wings and structure of the male hypopygium, as the simple inner dististyle; from *ebenina* it differs in the opaque mesonotum and very different hypopygial structure. In its general appearance, especially the coloration of the body and wings, the new species more closely resembles *E. villosa* Osten Sacken, differing conspicuously in the darkened knobs of the halteres and the structure of the male hypopygium.