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Article II.—REPORT ON THE DIPTERA COLLECTED AT THE
STATION FOR THE STUDY OF INSECTS, HARRIMAN
INTERSTATE PARK, N. Y.

BY C. H. CURRAN

APPENDIX.—TIPULIDÆ AND PTYCHOPTERIDÆ

BY CHARLES P. ALEXANDER

During the years 1925–1928 the Department of Insect Life, under the direction of Dr. F. E. Lutz, maintained a “Station for the Study of Insects” in the Harriman Interstate Park. The station was located near the southern end of the park about three miles from the village of Tuxedo, N. Y. and a little less than six miles from the New Jersey state line. The purpose of the station was primarily for the study of insect life under natural conditions and, in view of the many special problems engaging the attention of the staff, no attempt was made until the year 1928 to make a survey of the insect fauna of the region.

During the last week in June and the months of July and August the author collected extensively in the neighborhood, paying particular attention to the Diptera and Micro-Lepidoptera. From mid-July to late September Mr. F. E. Watson was engaged in the study of butterfly life-histories and the collection of Lepidoptera.

Most of the collecting was done within a radius of a half mile of headquarters, and the vast majority of specimens were taken within a quarter mile. So ideally was the camp located that one had only to step out-of-doors to commence collecting and conditions were so perfect that very few trips were made away from the station clearing.

The country is rough and hilly with a heavy second growth of deciduous trees, oak, maple, beech, and birch predominating, while along the streams and bordering the old farm clearings the alders predominate. Flowering bushes of dogwood and elderberry provided the necessary melliferous bloom so attractive to the flower-loving species, while later in the season the flowers of goldenrod turned the clearings golden yellow. The streams in the park are cold and swift and provide a suitable habitat for many forms of insect life, but owing to the similarity of the soil and absence of mud-beds their insect life is not so varied as might be desired. They are, nevertheless, very attractive and their inhabitants typical of such watersheds. In addition to the wooded



slopes and clearings, there are small ponds, the often sluggish Ramapo River, open meadows and gravelly slopes, so that conditions suitable for insects peculiar to such places were to be found within surprisingly short distances of the cabins.

To secure an idea of the extent of the fauna, one may form his own conclusions by glancing quickly through the following pages. To summarize: the total number of species of flies secured in less than nine weeks collecting is 540. Of these, 97 are new to New York State and are to be added to the 'New York State List of Insects.' Thirty of these species are new to science, a quite large number when one considers that, with the exception of the Washington district, there is probably no region in America where the collection of insects has been so thorough as in New York and vicinity.

A LIST OF SPECIES NOT CONTAINED IN THE NEW YORK STATE LIST OF INSECTS

TIPULIDÆ

Tipula filipes Walker
Limonia novæangliæ Alexander
Limonia iowensis Rogers
Adelphomyia pleuralis Dietz

CULICIDÆ

Chaoborus albatrus Johnson

CHIRONOMIDÆ

Tanytus currani Walley
Tanytus cornuticaudatus Walley
Tanytus multipunctatus, n. sp.
Protethes fasciger, n. sp.
Chironomus tuzis, n. sp.
Chironomus tendens Fabricius
Chironomus parviamellatus Malloch
Chironomus tenuicaudatus Malloch
Chironomus viridis Macquart
Chironomus artifer, n. sp.
Metriocnemis par Johannsen
Metriocnemis innocuus, n. sp.
Metriocnemis mitis, n. sp.
Camptocladus fumosinus, n. sp.
Camptocladus nerius, n. sp.
Orthocladus julia, n. sp.

RHAGIONIDÆ

Symphoromyia pleuralis, n. sp.

ASILIDÆ

Atomosia rufipes Macquart

THEREVIDÆ

Thereva bella Kröber

EMPIDIDÆ

Anthalia flava Coquillett
Hilara juno, n. sp.
Hilara argyrata, n. sp.
Hilara seriata, Loew
Hilara lutea Loew
Empis varipennis, n. sp.
Rhamphomyia disconcerta, n. sp.
Rhamphomyia argentia, n. sp.
Rhamphomyia bipunctata, n. sp.
Wiedemannia hamifera Melander
Platypalpus mimus Melander

DOLICHOPIDÆ

Chrysotimus lutea, n. sp.

PHORIDÆ

Gymnophora arcuatus Meigen

PIPUNCULIDÆ

Pipunculus semifasciatus Cresson
Pipunculus fasciatus Loew

SYRPHIDÆ

Microdon ocellaris Curran
Volucella bombylans evecta Walker
Chrysotoxum radiosum Shannon
Epistrophe cincitellus Zetterstedt
Sphærophoria robusta, n. sp.

Temnostoma trifasciatum Robertson
Parhelophilus rex Curran and Fluke

PIOPHILIDÆ

Piophilila affinis Meigen
Piophilila pusilla Meigen

EPHYDRIDÆ

Notiphila vittata Loew
Notiphila latelimbata, n. sp.
Hydrellia prudens, n. sp.

CHLOROPIDÆ

Chlorops rufescens, Coquillett
Chlorops surda, n. sp.

PSILIDÆ

Chyliza erudita Melander

MUSCIDÆ

Americina adusta Loew
Scatophaga pallida Walker
Fannia pretiosina, n. sp.
Fannia abrupta Malloch
Fannia curvipes Malloch
Helina uniseta Stein
Limnophora suspecta Malloch
Trichopticus maculiventris Malloch

SARCOPHAGIDÆ

Lucilia australis Townsend
Helicobia latisetosa Parker
Phrosinella fumosa Allen
Gymnoprosope filipalpus Allen

TACHINIDÆ

Atelogossa trivittata, n. sp.
Cylindromyia pusilla Aldrich
Elephantocera angulicornis, n. sp.
Lixophaga parva Townsend
Lixophaga diatrææ Townsend
Lixophaga nigrbasis, n. sp.
Lixophaga fasciata, n. sp.
Dexodes exilis Coquillett
Dexodes chætoneura Coquillett
Erycia tuxedo, n. sp.
Erycia delecta Curran
Erycioides thoracica, n. sp.
Lydella hyphantriæ Tothill
Lydella eufitchæ Townsend
Compsilura concinnata Meigen
Sturmia schizuræ Coquillett
Sturmia protoparcis Townsend
Hypertrophomma opaca Townsend
Phrynofrontina discalis Coquillett
Tachinomyia variata Curran
Cryptomeigenia dubia Curran
Chætogædia crebra Wulp
r'aralispe aldrichi Curran
Zenillia valens Aldrich and Webber
Zenillia cærulea Aldrich and Webber
Phorocera mitis, n. sp.
Phorocera tortricis Coquillett
Phorocera erecta Coquillett
Phorocera sternalis Coquillett
Phorocera tuxedo, n. sp.
Phorocera tenuiseta Aldrich and Webber

ACKNOWLEDGMENTS AND DATA

For the report on the crane-flies, published as an appendix to this paper, I am indebted to Dr. Charles P. Alexander, who very generously offered to make the identifications. In the data in connection with each species the year has been omitted, since all the records are for 1928. Unless otherwise stated, all material in this report was collected by the author. The specimens all bear labels reading as follows: Sta. Study Insects, Tuxedo, N. Y., with the date and name of the collector.

RHYPHIDÆ

Rhyphus alternatus Say

SAY, 1823, Journ. Acad. Nat. Sci. Phila., III, p. 27.

One pair, July 11.

with grayish tinge, the veins somewhat luteous. Halteres brownish yellow, the tips and base yellow. Abdomen shining brown, black haired.

TYPE.—Male, July 5.

Camptocladius nerius, new species

Head and thorax bright yellow; abdomen brown with yellow sides and genitalia. Length, about 1.75 mm.

MALE.—Head bright yellow, flagellar antennal segments and rays brownish. Eyes bare. Thorax bright yellowish, the usual vittæ scarcely darker, the outer ones sometimes with brownish tinge posteriorly, humeral area whitish; hair yellow; notopleura pale brownish in some views. Legs yellowish, tips of femora and tibiæ, and the tarsi mostly, pale brownish or brownish yellow; first segment of anterior tarsi about one-sixth shorter than tibiæ. Wings with slight gray tinge; posterior branch of fifth vein strongly sinuate apically. Abdomen brownish, the lateral margins and genitalia yellow; apices of segments sometimes yellow; hair yellowish.

HOLOTYPE.—Male, July 10, paratypes, 15 males, July 4 and 10.

Orthocladius julia, new species

Differs from *oceanica* Packard in having the abdomen pale greenish with brown apex. Belongs in the genus *Psectrocladius* Speiser because of the presence of small brown pulvilli. Length 4 mm.

MALE.—Head yellow; antennæ orange; palpi brown with exception of basal segment. Eyes bare. Thorax pale yellow with orange markings as follows: the three mesonotal vittæ, metanotum, a small spot below the base of the wings and the pectus. Legs yellowish; apical two tarsal segments, whole of front tarsi and apex of front tibiæ, brownish; tibiæ with black apical comb. Wings grayish hyaline, with white reflections. Halteres yellow with green knob. Abdomen pale green the apical segments and genitalia brownish yellow. Hair wholly yellowish.

TYPE.—Male, July 5.

MYCETOPHILIDÆ

Macrocera clara Loew

LOEW, 1869, Berl. Ent. Zeitschr., XIII, p. 133.

Three specimens of each sex, June 25 to July 5, one at light.

Asindulum montanum Roeder

ROEDER, 1887, Wien. Ent. Zeit., VI, p. 116.

Male and female, July 1 and 16.

The male abdomen is black with only one broad yellow fascia near the middle. The color of this species is most variable.

Platyura mendosa Loew

LOEW, 1869, Berl. Ent. Zeitschr., XIII, p. 135.

Female, July 11.

Platyura elegans Coquillett

COQUILLET, 1895, Proc. Acad. Nat. Sci. Phila., p. 307.

Female, July 23.

Diomonus magnificus Johannsen

JOHANNSEN, 1910, Maine Agr. Exp. Sta., Bull. No. 180, p. 155.

Male, July 6.

Leia winthemii Lehmann

LEHMANN, 1822, 'Ins. Spec. in Agro Hamb. Captac.,' p. 39.

Female, July 10.

Leia opima LoewGLAPHYROPTERA *opima* LOEW, 1869, Berl. Ent. Zeitschr., XIII, p. 145.

Male, July 23.

Leia sublunata LoewGLAPHYROPTERA *sublunata* LOEW, 1869, Berl. Ent. Zeitschr., XIII, p. 145.

Female, August 28.

SCIARIDÆ

The North American genera are separable as follows:

- | | | |
|-----|---|---------------------------------|
| 1. | Proboscis much shorter than the thorax..... | 3. |
| | Proboscis longer than the thorax..... | 2. |
| 2. | Wing with several veins detached at the bases..... | <i>Probolæus</i> Williston. |
| | Wing venation complete..... | <i>Eugnoriste</i> Coquillett. |
| 3. | Wings present..... | 4. |
| | Wings absent..... | <i>Pnyxia</i> Johannsen. |
| 4. | No wing veins detached at base..... | 5. |
| | Several veins detached at base..... | <i>Manota</i> Williston. |
| 5. | First vein ending in the costa..... | 6. |
| | First vein fused with the cross-vein at its apex..... | <i>Pnixia</i> Johannsen. |
| 6. | Wings not hairy, with the usual setulæ..... | 7. |
| | Wings with distinct hairs..... | <i>Trichosia</i> Winnertz. |
| 7. | Claws toothed..... | 8. |
| | Claws simple..... | 9. |
| 8. | Branches of fourth vein arcuate..... | <i>Metangela</i> Rubsaamen. |
| | Branches of fourth vein not arcuate..... | <i>Phorodonta</i> Coquillett. |
| 9. | Male antennal segments pedicellate and bearing whorls of hair. | |
| | | <i>Zygoneura</i> Meigen. |
| | Male antennæ simple; fourth vein rarely with strongly curved branches.... | 10. |
| 10. | Face strongly produced..... | <i>Rhynchosciara</i> Rubsaamen. |
| | Face not produced..... | <i>Sciara</i> Meigen. |

SCIARA Meigen

The collection contains representatives of two species of *Sciara*, but in the absence of males identification is not possible.

CECIDOMYIDÆ

There are two species, both captured at light.

SIMULIIDÆ

Two species were captured in the neighborhood of the cabin, but only one of these has been identified.

Simulium parnassum Malloch

MALLOCH, 1914, U. S. Dept. Agric. Bull., Tech. Ser. No. 26, p. 36.

Three specimens, June 25, 29, and July 7.

BIBIONIDÆ

The North American genera are separable as follows:

1. Third vein forked 2.
Third vein simple 3.
2. Anterior cross-vein situated more than twice its length before the fork of the fourth vein *Hesperinus* Walker.
Cross-vein situated much less than twice its length before the fork of the fourth vein *Plecia* Wiedemann.
3. Anterior tibiæ with two spurs at apex 4.
Anterior tibiæ with a series of apical spurs or spines *Dilophus* Meigen.
4. Third and fourth longitudinal veins coalescent for a short distance.
Bibioides Coquillett.
Third and fourth veins not coalescent but connected by a cross-vein.
Bibio Geoffroy.

Bibio longipes Loew

LOEW, 1864, Berl. Ent. Zeitschr., VIII, p. 55.

Thirty specimens of both sexes, July 28 to August 18.

In the male the disc of the mesonotum is very rarely reddish.

TABANIDÆ

The horseflies and deerflies appear to be represented in the Interstate Park by a large number of species, twenty-one having been secured in the two months' collecting.

Chrysops niger Macquart

MACQUART, 1838, 'Dipt. Exot.,' I, part 1, p. 161.

Female, July 4.