NOTES ON THE SYRPHIDAE COLLECTED AT JAFFREY AND MOUNT MONADNOCK, N. H., WITH A DESCRIPTION OF A NEW SPECIES

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My first visits to Jaffrey and Mt. Monadnock, N. H., were made in February and March, 1917. Even with the deep snow covering the beautiful woodland and mountain, one could readily see that this would be an ideal place for collecting. June, 1917, was therefore selected for another two weeks visit. Arriving on the 15th, the flowers of the choke cherry were just opening and for four days I caught hundreds of syrphids and other insects on these blossoms. Later the flowers of a Cornus followed by those of a Viburnum attracted many other species. Among the specimens obtained were about seventy species of Syrphidae. In 1920 another visit was made, this time covering a period from June 4th to 14th. In the depression back of the old red school house some timber had recently been cut and from the stumps of sugar maple and birch sap was still flowing freely, the fermented sap containing many larvae from which were bred Ferdinandea dives and Brachyopa perplexa. The Cornus bushes were mostly dead, probably winter killed by the severe cold of January, 1918. My next visit was in 1923, staying from June 14th to the 23rd. A few rainy days had made the cherry blossoms poor collecting ground but this loss was somewhat made up by the flowers of the raspberry which had grown up on the clearing back of the old red school house, species of Criorhina and Xylota being especially common. My next visit covering a period from May 9th to 21st, 1925, was perhaps the most interesting. To see the various spring species appear one after the other was a very enjoyable experience. An old oak log along the brook near “The Ark” was visited daily from the 14th to the 21st to secure the two species of
Chalcomyia. The last of my June trips was in 1926 from the 5th to the 18th.

It is interesting to note how seasons and conditions change in different years in this fascinating place. I was not able to duplicate the great catch I made in June, 1917, on the flowers of the choke cherry, neither have I been able to find so much sap flowing from stumps as in 1920, nor another oak log frequented by the two species of Chalcomyia. The area covered in collecting extends from the Shattuck Inn to about 1700 feet on Mt. Monadnock and from Mead's Brook to Hadley Brook, an area of about two square miles. A few trips were made to the top of the mountain (3166 ft.) but no additional species were taken, all those on the bare rocks of the summit being probably derived from lower levels. With “The Ark”, where I stayed, as a center, I doubt if there is a corresponding area that would produce as many Syrphidæ in the time mentioned. Of the 113 species recorded below, six were new to science. In addition to these a great many other insects were also collected.

**List of Species**

*Chrysotoxum fasciolatum* DeGeer. June 18, 1917.
*C. pulchella* Will. June 18, 1917.
*P. nigrotibiata* Curr. Allotype June 17, 1917.
*P. quadrimaculata* Panz. May 12, '25, June 19, '17.
*Paragus bicolor* Fab. May 16, '25, June 15, '17.
*Chilosia (Chilosia) orillænsis* Curr. June 16-18, 1923.
*C. (Cartosyrphus) slissonæ* Shan. May 16-18, 1925.
Chalcomyia ærea Loew. May 14-21, 1925.
C. cyanea Smith. May 16-19, 1925.
M. varipes Loew. June 18, 1917.
Ferdinandea dives O. S. Bred from larvae in sap oozing from the stumps of maple and birch. Adults emerged June 25 to July 6, 1920.
Pyrophaena rosarum Fab. June 16, 1923.
M. mellinum Linn. May 18, ’25, June 19, ’17.
M. obscurum Say. May 9, ’25, June 18, ’17.
Syrphus lapponicus Zett. (arcuatus auct.) June 12, 1926.
S. johnsoni Curr. Type June 15, another June 18, 1917.
S. nitens Zett. May 17, 1925.
S. ribesii Linn. May 19- June 21, 1917.
S. torvus O. S. May 19, 1925.
Epistrophe arcticus Zett. May 9, 1920.
E. mentalis Will. May 12, 1925.
E. oronoensis Metc. May 17, 1925.
E. xanthostomus Will. May 18 ’25, June 18, ’17.
E. xylotoides John. One male, June 18, 1917.
Syrphidae Collected at New Hampshire


Sphærophoria menthastri Linn. May 16, '23, June 15, '17.

Spheina campanulata Robt. June 20, '23.


S. monticola Mall. June 11, 1926.


Neoascia distincta Will. May 13-20, 1925.

N. globosa Walk. May 20, 1925.


Hammerschmidtia ferruginea Fall. June 25, 1917.


Condidea lata Coq. One, June 16, 1926.


E. flavipes Walk. May 19, '25, June 18, '17.


Helophilus fasciatus Walk. (similis auct.) June 15, 1917.

Parhelophilus lactus Loew. June 17, 1917.


Lejops lunulatus Meig. May 21, '25, June 18, '23.


Syritta pipiens Linn. May 19, '25, June 18, '17.

Xylota aristata n. sp.

Head bluish black, face shining, with a pollinose spot on each side and white hairs on the cheeks, front slightly roughened and pollinose, narrowly margined with brown above the antennæ, first and second joints of the antennæ dark brown, the third joint light brown, arista white, the base with a slight yellow tinge. Thorax black, slightly roughened and with short blackish pubescence, pleura shining, scutellum black, slightly rugose. Abdomen dark blue, shining, second and third segments margined posteriorly with an opaque black band that extends forward in the middle forming a broad triangle. Legs black with white hairs, posterior femora irregularly thickened with a cluster of spine-like bristles on the underside near the apex, posterior tibia strongly curved, with a prominent apical spur. under side of the tarsal joints with yellowish pubescence. Wings hyaline, base, stigma and veins dark brown, the cross-veins slightly clouded. Halteres light yellow. Length, 7 mm.

One male, Jaffrey, May 18, 1925. Type in the collection of the Boston Society of Natural History. The species is readily recognized by its white aristae.

X. pigra Fab. June 9, 1926.
C. nigra Will. May 16, '25, June 18, 1917.
An autumn trip to Jaffrey (Oct. 2nd to 16th, 1929) yielded comparatively few insects. Among these, however, were twenty species of Syrphidae of which the following are not in the above list: Syrphus wiedemanni John. Epistrophe grossulariae Meig. and Toxomerus marginatus Say.

This region has entomologically speaking, an interesting history from the fact that the earliest collection of insects made in the state were found here. These were collected by the Rev. L. W. Leonard of Dublin, N. H., between 1828 and 1835. The specimens are now in the Harris collection, in the Boston Society of Natural History. In referring to Mr. Leonard's work Dr. T. W. Harris, in a letter to Hentz dated Milton, [Mass.] June 17, 1823, says: "My friend, Mr. Leonard has promised to send me a quantity of duplicates from his parish in Dublin, N. H. near the Grand Monadnock Mountain. Many among those which I have already received from him are entirely new to me. Mr. Leonard is indefatigable in studying the habits of insects and very successful in raising them from the larvae. Through him I have ascertained the larvae of many species in my collection and particularly of the Lepidoptera."

In Hitchcock's Report on the Geology, Botany and Zoology of Massachusetts, 1835, in the notes, page 601, Dr. Harris says: "I have included in the catalogue some insects which, though found beyond the boundaries of the State, may eventually be detected in Massachusetts. For these, and an immense number of duplicates, I am indebted to my friend the Rev. L. W. Leonard of Dublin, N. H., who has still more increased my obligations to him by his disinterested liberality in sending me even the rare and undescribed insects of which he possessed no duplicates."

In the material collected by Rev. L. W. Leonard are a number of interesting Syrphidae including the type of Temnostoma excentricum Harr., and a specimen of Criornhina intermedia John., collected May 1832, which had been sent to Say by Harris in 1833 and given the manuscript name "Milesia gnava." There are also specimens of Chryso toxum perplexum John., Sphærophoria cylindrica Say., Helophilu latifrons Loew, Criornhina verbosa Walk., and Spilomyia fusca Loew.