

DIPTEROUS PARASITES OF SAWFLIES.¹BY CHARLES T. GREENE, *Bureau of Entomology.*

There are few published records of the Dipterous parasites of the sawflies.

In this paper I have endeavored to bring together all the records I could find on this subject and have added some new breeding records which are marked with an asterisk.

The material was reared by Messrs. S. A. Rohwer and Wm. Middleton at the Eastern Field Station, Forest Insect Investigations, Falls Church, Virginia. The number following each species refers to the Hopkins U. S. note system used in the Division of Forest Insects. The date, as here used, is the rearing date or the date on which the fly emerged from the puparium.

***Tachina rustica* Fallén.** (of Coquillett.)*Host.—*Macremphytus variana* Nort.

Collected at Plummer's Island, Maryland, by Wm. Middleton.

Adult emerged May 26, 1916.

Hopks. U. S. No. 13635.

Collected at Cupid's Bower, Maryland, by T. E. Snyder.

Adults emerged September 1 to 19, 1916.

Hopks. U. S. No. 13649 q.

Tachina mella* Walker.Host.—*Macremphytus variana* Nort.

Collected at Plummer's Island, Maryland, by Wm. Middleton.

Adult emerged May 29, 1916.

Hopks. U. S. No. 13635.

***Phorocera claripennis* Macq.**Host.—*Neodiprion lecontei* Fitch.

Collected at Tomahawk Lake, Wisconsin, by S. A. Rohwer.

Adults emerged October 22 and 23, 1912.

Hopks. U. S. No. 10169 and 10170.

*Host.—*Neodiprion* sp.

Collected at Kanawha Station, West Virginia, by Dr. A. D.

Hopkins. Adults emerged August 23, 1912.

Hopks. U. S. No. 10719 b.

Phorocera* sp.Host.—*Neodiprion* sp.

Collected at Cardinal, Virginia, by W. P. Smith. Adults emerged July 31, 1915.

Hopks. U. S. No. 10737 k.

***Phorocera* sp. (near *macra*.)**Host.—*Neodiprion lecontei* Fitch.

Collected at Washington, District of Columbia, by L. Forman.

¹Sawfly determinations by Mr. S. A. Rohwer, Custodian of Hymenoptera, U. S. Nat. Mus.

Adults emerged from August 17 to 28 and September 11, 1916.

Hopks. U. S. No. 13648 *b*.

Host.—*Neodiprion sp.*

Collected at East River, Connecticut, by Dr. C. R. Ely.

Adults emerged September 24 to 26, 1914.

Hopks. U. S. No. 13675 *a*l.

***Spathimeigenia spinigera* Towns.**

Host.—*Neodiprion edwardsii* Nort.

Collected at Redlands, California, by H. E. Burke. Adults emerged August 5, 1914.

Hopks. U. S. No. 12070 *j*.

Host.—*Neodiprion lecontei* Fitch.

Collected at Reading, Pennsylvania, by S. A. Rohwer. Adults emerged April 27, 1913.

Hopks. U. S. No. 10174.

Host.—*Neodiprion lecontei* Fitch.

Collected at Linglestown, Pennsylvania, by Wm. Middleton. Adults emerged May 29, 1914.

Hopks. U. S. No. 10724.

*Host.—*Neodiprion affinis* Rohwer.

Collected at Falls Church, Virginia, by J. N. Knull. Adults emerged May 19, 1917.

Hopks. U. S. No. 13648 *g*.

*Host.—*Neodiprion sp.*

Collected at Reading, Pennsylvania, by S. A. Rohwer. Adults emerged March 29, 1913.

Hopks. U. S. No. 10173 *c*.

Host.—*Neodiprion sp.*

Collected at Falls Church, Virginia, by S. A. Rohwer. Adults emerged August 14, 1916.

Hopks. U. S. No. 13648 *d*.

Host.—*Neodiprion sp.*

Collected at Falls Church, Virginia, by Wm. Middleton. Adults emerged August 9 to 22, 1917.

Hopks. U. S. No. 13662 *b*.

***Admontia hylotomae* Coq.**

*Host.—*Arge sp.*

Collected at East River, Connecticut, by C. R. Ely. Adults emerged September 10 to 13, 1912.

Hopks. U. S. No. 10163 and 10163 *a*.

*Host.—*Arge sp.*

Collected at Falls Church, Virginia, by C. Heinrich. Adults emerged September 1 to 9, 1913.

Hopks. U. S. No. 11394.

Host.—*Neodiprion lecontei* Fitch.

Collected at Falls Church, Virginia, by S. A. Rohwer. Adults emerged May 16, 1913.

Hopks. U. S. No. 10175.

*Host.—Sawfly. (No record, but probably a *Diprion* sp).

Collected at Snow Crack Canyon, Yosemite National Park, California, by J. M. Miller.

Hopks. U. S. No. 10825.

Sturmia sp.

*Host.—*Arge* sp.

Collected at East River, Connecticut, by C. R. Ely. Adults emerged August 11, 1914.

Hopks. U. S. No. 12081 g.

Phorocera claripennis Macq.

*Host.—*Neodiprion virginiana* Rohwer.

Collected at Kanawha Station, West Virginia, by Miss L. Hopkins. Adults emerged September 4, 1913, and June 25, 1914.

Hopks. U. S. No. 10722 b.

Masicera sp. (near *exilis*.)

Host.—*Neodiprion lecontei* Fitch.

Collected at Falls Church, Virginia, by S. A. Rohwer. Adults emerged May 22, 1914.

Hopks. U. S. No. 10716 b.

Frontina armigera Coq.

*Host.—*Neodiprion* sp.

Collected at Mt. Airy, Georgia, by T. J. McConnell. Adults emerged July 13 to 28, 1914.

Hopks. U. S. No. 10737 l.

Exorista petiolata Coq.

*Host.—*Neodiprion* sp.

Collected at East River, Connecticut, by C. R. Ely. Adults emerged September 10 to 12, 1917.

Hopks. U. S. No. 13675 b.

BIBLIOGRAPHY.

1892. TOWNSEND, C. H. T.—Notes on North American Tachinidae, with descriptions of new species. Paper 7. Trans. Amer. Ent. Soc. XIX, pp. 284-289.
1897. COQUILLET, D. W.—Revision of the Tachinidae of America north of Mexico. Bull. No. 7. Technical Series, U. S. Dept. Agric. Division of Entomology.
1912. HEWITT, C. GORDON.—The Large Larch Sawfly (*Nematus erichsonii*). Bull. 10, second series, pp. 33-34. (Division of Entomology, Canada.)
1913. TOTHILL, J. D.—Tachinidae and some Canadian host. Canadian Entomologist, vol. 45, pp. 69-75.