

have already been killed by the barkbeetle, *Dendroctonus piceaperda* Hopk., which increased considerably in numbers in 1931. There are no previous records of such an outbreak. The insect has been determined by the outbreaks at both the United States National Museum and at the British Museum to be the European species, *Diprion polytomum* Hartig.

Although this species was first described in 1834, and there are a number of references to it in European literature as a defoliator of spruce, it does not seem to have appeared before in such destructive numbers. That it should be first discovered on this continent in the form of a large outbreak throughout the interior of the Gaspé peninsula raises the question as to how it was introduced. It seems to have established itself over a very extensive area before developing into an epidemic. There is no evidence that it entered the country at any point.

No parasites have as yet been found and the chief biotic factor of control seems to be the destruction of the cocoons by shrews and mice. At higher altitudes a number of the larvae were caught by early snows and considerably mortality may result from the shortness of the season. No general reduction of numbers, however, was discovered during the past season and a continuance of the outbreak is to be expected. There has been an unusual overlapping of generations and about seventy-five per cent of last winter's hibernating larvae remained dormant during the summer and are still in the prepupal stage. This probably adds to the likelihood of a continued outbreak.

The larvae, which may be found on the trees from July to September, vary somewhat in colour in the different instars. They gradually turn from pale yellowish to fairly dark green. In the fourth stage, five fine, white, longitudinal stripes appear. In the sixth stage, which hibernates without feeding, these white stripes are missing and the body is marked by one dorso-medial and two dorso-lateral light green stripes on a dark ground. The head is greenish-brown with the eyes almost black.

There is only one generation a year in the Gaspé peninsula. The eggs are laid singly in the needles throughout July and the first part of August, and hatch in about ten days. Hibernation commences in September. It is not known yet whether this year's larvae will produce adults next year or whether they will all carry over in the ground another season.

THE OCCURRENCE OF THE ODD BEETLE AND A BRIEF NOTE ON OTHER DERMESTID SPECIES IN CANADA

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The occurrence in Canada of that unique and interesting species, *Thyrodrias contractus* Mots., which Felt (2) has dubbed "the odd beetle", is a matter worthy of note.

This species was first discovered in North America, in May, 1902, by Mrs. Annie Trumbull Slosson, who found the insects in a box of neglected entomological specimens stored in an old closet in her home in New York. She sent specimens to leading coleopterists in the United States and England, all

of whom were impressed by the unusual characters of the species but were unable to identify it. In a paper recording her experiences Mrs. Slosson (6) styled the insect *Ignotus aenigmaticus* without intention of endowing it with a name. The species bore this name, however, for several years, and, in 1908, Mrs. Slosson (7) published a description of the male and female adult, and the larva, prepared by Frederick Blanchard, and accompanied by several excellent drawings. This article came to the attention of Philip Zaitzev, a Russian entomologist, who pointed out (8) that the species already had been described and figured by Motschulsky, in 1839, from Transcaucasia under the name *Thylocladius contractus*.

In 1916, Felt (1) reported the presence of great numbers of the larvae of this species in a house in New York, and expressed the opinion that the species "may possibly become a pest of considerable importance in museums, probably in stored food products and perhaps in dwellings". In 1927, Mutchler and Weiss, in a paper on the dermestid beetles of New Jersey (5), stated that their attention had been called, from time to time, to infestations of the species in collections of insects and other natural history specimens.

In May, 1930, several of the larvae were found at Ottawa, feeding on dried specimens of Oestrid flies, in a small box labelled "A. E. Porsild, Yukon delta, July 18, 1926". We were unaware of the identity of the larvae and placed them in a petri dish with the dried bodies of several moths. The larvae fed readily on the moths, and one (a female) pupated and emerged on June 19. The remainder were still in the larval stage when examined in January, 1931. The petri dish was subsequently misplaced during the process of office moving and was not again examined until January, 1932, when it was found that six adults, one male and five females, had emerged and died, and no living larvae remained. The beetles were then passed to W. J. Brown who kindly determined them as *Thylocladius contractus* Mots.

Both sexes of the odd beetle bear a single ocellus between the compound eyes, and are 2-3 mm. in length, yellowish-brown in colour and thinly clothed with pale hairs. The male is elongate, has long slender antennae and legs, and possesses elytra but no wings. The female is larviform, and has neither wings nor elytra. It is stouter and its antennae and legs are much shorter and weaker than in the male. The larva is a stout brownish grub, somewhat similar in appearance to the larva of the buffalo carpet beetle, but smaller, and lacks the caudal hair tufts of the latter species, and bears on its abdominal dorsum a dense covering of short clavate bristles.

There are eight other species of dermestid beetles in Canada, that feed on animal matter, and are of actual or potential economic importance. These are the larder beetle, *Dermestes lardarius* L.,* a common and widespread household pest especially fond of animal food products; the hide or leather beetle, *Dermestes vulpinus* Fab.* (recorded from Ontario and Quebec), which feeds on meat and other food materials of high protein content; the black carpet beetle, *Attagenus piceus* Oliv.,* a widespread pest of fabrics, furs, other materials of animal origin, and also of cereal products; *Attagenus pellio* L., taken

*For a more detailed account see Gibson and Twinn (4).

in Ontario and Quebec and reared by Fletcher (3) in 1902 from larvae destroying carpets at Wolfeville, Nova Scotia; *Trogoderma versicolor* Creutz.,* received in 1930 from Napanee, Ont., and reared at Ottawa on woollen cloth and cereal products; *Trogoderma ornata* Say, taken at Trenton, Ont., June 7, 1902, and recorded in the United States as occurring in dwellings and occasionally attacking insect collections; the buffalo carpet beetle, *Anthrenus scrophulariae* L.,* a wide-spread pest of carpets, clothing and other materials of animal origin, and the varied carpet beetle, *Anthrenus verbasci* L.,* a species of similar habits received from Toronto in 1928, and reared at Ottawa on cereals and wool.

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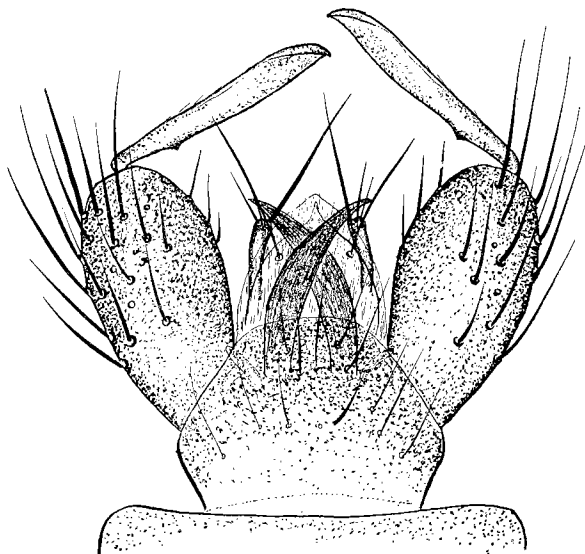
A NEW SPECIES OF FORCIPOMYIA (DIPT.; CHIRONOMIDAE)*

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***Forcipomyia simulata* n. sp.**

Male.—Length 2 mm. Black, shining. Antennal plumes black; basal antennal segment dull black, segments of flagellum brownish.

Thorax black, pleural membranes brownish, dorsum greyish pollinose; scutellum and metanotum dull black with faint pollen. Halteres dark brownish with creamy white knobs. Femora and tibiae brownish with apices of tibiae slightly



***F. simulata* n. sp.**

*Contribution from the Division of Systematic Entomology, Entomological Branch, Dept. of Agric., Ottawa.