PROCEEDINGS OF SOCIETIES.

CAMBRIDGE ENTOMOLOGICAL CLUB.

(Continued from p. 300.)

14 April 1882.—84th meeting. Mr. S: H. Scudder read a letter from Prof. J. H. Comstock on his recent researches in entomology.

Mr. R. Hayward made a few remarks on the food of several New England birds. He stated that his remarks were only preliminary, since he lacked sufficient material to render his work conclusive.

Dr. H. A. Hagen expressed his surprise that no hemiptera had been discovered in the stomachs of the cliff-swallow (Petrochelidon humilis) of which three specimens had been examined, as he had taken young nestlings of the European swallow literally filled with aphides.

Dr. Hagen showed, from an as yet unpublished monograph, some plates of Psorina and Atrophina. He stated that all the fossil species of Psocus and Epipsocus are similar in all respects to the modern species of those genera, while on the other hand, there is considerable difference between the modern and fossil species of Atrophina. All the species of Atrophos are furnished with the organs necessary for producing sound, but the sound, if produced, is probably not audible to our ears; in the other genera these organs are entirely wanting.

Mr. S: H. Scudder exhibited a specimen of a fossil insect probably belonging to the Ilysanura. There is apparently no head but this part is reduced to mouth-parts which are distinct, and evidently concealed, when at rest, within the second thoracic segment, and can be thrust beyond the body. This peculiarity is not individual, as a number of specimens examined by Mr. Scudder possess the same characteristic. He then showed drawings representing the insect restored.

NOTES ON PTEROPHORIDAE OF NORTH AMERICA.

The following references were collected, for the most part, in endeavoring to find out if the glandular hairs of some of the larvae of pterophoridae had been studied. The notes here given cite the original and the prominent subsequent descriptions of larvae of pterophoridae of North America that have been reared. To these citations are added references to published figures of different stages, to notices of food-plants of larvae, to localities of capture, and to observations on a few species that I have taken or reared.

For the identification of the Pterophoridae of my collection I am indebted to Prof. C. H. Fernald, of Orono, Maine.

Chrysocorys festaliella Hüb. (Wocke, Cat. 2705). Imago figured by Walsingham (Pteroph. Cal. and Oreg., 1880, p. 1-2, pl. 1, fig. 1), by whom it is said ‘They appear to be in all respects the same as European specimens, having also the same habit of frequenting one or more species of the genus Rubus.’ Found in Cal. and in Europe.

Chrysocorys felicella Wals. (Pteroph. Cal. and Oreg., 1880, p. 2-3). Walsingham reared this species from larvae feeding on two kinds of Orthocarpus (l. c., p. 3), and figures its pupa and imago (l. c., pl. 1, fig. 2). Oregon.

Chrysocorys erythraella Clemens (Proc. Acad. nat. sci. Phil., 1860, p. 171). Clemens (l. c.) describes the larva and pupa, and writes ‘The larva feeds on the fruit racemes of sumach [Rhus]’ in July. Pa.? 1

1 The notes are each independent and can be cut and pasted on slips by those persons who thus use the Bibliographical record.
Platyptilus bertramii Rössel. (Wocke, Cat. 3122). Thought by Walsingham to be the same as P. ochroacanthacalyx Hüb. (Zeller, in Isis, 1841, p. 775, tab. 4, fig. 16-19) and P. bischoffii Zell. (Entom. zeit. . . . zu Stettin, 1867, p. 333). Figured by Walsingham (Pteroph. Cal. and Oreg., pl. 1, fig. 3). Fish writes (Can. entom., Nov. 1880, v. 12, p. 240), "I am strongly of the opinion that the larvae feed in the stalks of our common yarrow (Achillea millefolium), since the moths are often taken about this plant, and since the European species feeds in the stalks of Achillea ptarmica and Tanacetum vulgare. The moth appears in New England in June." A specimen taken 14 July 1874, on Mt. Washington, N. H., was determined for me by Prof. Eernald (July 1883) as "Platyptilus bischoffi Zell." New England, Cal., Oreg., Europe.

Platyptilus carduidacalyx Riley (1st Rept. state entom. Missouri, 1869, p. 180-181, pl. 2, fig. 13-14). Riley (l. c.) describes the larva, and describes and figures the pupa and imago of this species, giving Cirsimr lanceolatum as food-plant of the larva. The imago is figured by Walsingham (Pteroph. Cal. and Oreg., 1880, pl. 1, fig. 6). Atlantic Coast, Mo., Cal.

Platyptilus orthocarpus Wsm. (Pteroph. Cal. and Oreg., 1880, p. 11-12, pl. 1, fig. 9). The imago is figured by Walsingham (l. c.), who writes "the larvae were found feeding on buds and flowers of a species of Orthocarpus." Oreg.


Oxyptilus periscelidacalyx Fitch (1st and 2nd Rept. nox. ins. N. Y., 1856, p. 139-143). Fitch describes (l. c.) the larva, pupa, and imago of this insect, and gives the grape-vine, Vitis, as its food-plant. The pupa and imago are figured by Riley (1st Rept. state entom. Missouri, 1869, pl. 2, fig. 15-16), and the larva, pupa and imago are described and figured by Fitch (3rd Rept. state entom. Missouri, 1871, p. 65-68); the latter figures are reproduced in Amer. entom., June 1870, v. 2, p. 234, and in Can. entom., May 1873, v. 5, p. 99. The imago is figured by Walsingham (Pteroph. Cal. and Oreg., pl. 2, fig. 5). New England, N. Y., Mo., Tex.


Oedematophorus griseus Wsm. (Pteroph. Cal. and Oreg., 1880, p. 34-35). Described (l. c.) from "Eight specimens bred from larvae feeding on a species of Artemisia early in May 1872, on Rouge River, Southern Oregon." Imago figured (l. c., pl. 2, fig. 11).

Oedematophorus occidentalis Wsm. (Pteroph. Cal. and Oreg., 1880, p. 37-39). One specimen was bred by Walsingham from a larva "reared on leaves of a species of sunflower [Helianthus]." Imago figured (l. c., pl. 2, fig. 13-14).


Oedematophorus ambrosiae Murt. (Amer. entom., Oct. 1880, v. 3, p. 236). Miss Murtfeldt (l. c.) describes the larva, pupa and imago of this species; its larva feeds on Ambrosia artemisiifolia. Mo.

Pterophorus monodactylus Linn. (Wocke,
Cat. 3167). Synonyms are *P. cineridactylus* Fitch (1st and 2nd Rept. nox. ins. N. Y., 1856, p. 144) and *P. per gracilidactylus* Pack. (Ann. Lyceum nat. hist. N. Y., 1873, v. 10, p. 265-266). Two varieties of the imago are figured by Walsingham (Pteroph. Cal. and Oreg., 1880, pl. 2, fig. 16, and pl. 3, fig. 1). I have reared numerous specimens of this species from larvae feeding upon *Cassivul tricolor* and *Ipomoea purpurea*, in Cambridge, Mass. Some years the larvae are so numerous, from late in June until October, as to nearly destroy beds of *C. tricolor* and to seriously damage the appearance of plants of *I. purpurea*. The larva usually eats into the leaf and flower buds of *C. tricolor*; on *I. purpurea* it begins eating the tips of the advancing stems, but the growth of the plant is so rapid that the larva is soon left below, among leaves which have become larger. The larva then, in most cases, eats half-way through the petiole of a large leaf; the leaf soon withers and the larva finds shelter beneath the withered portion. A similar habit of eating the stem half through to make parts of a plant wilt, and thus to furnish a protecting shelter, is mentioned by Greening (I Entom. mo. mag., July 1867, v. 4, p. 39-40) in the case of the larvae of the English species *Oxyptilus hieracii*, which feed upon *Teucrium scorodonia*. *P. monodactylus* has been recorded from Mass., N. Y., Ill., Cal., Oreg., and Europe.


*Liophitlus helianthi* Wlsm. (Pteroph. Cal. and Oreg., 1880, p. 54-55). Figure of imago (*l. c.*, pl. 3, fig. 11), which was reared from larvae found feeding on a species of *Helianthus*. Oreg.

*Liophitlus sericidactylus* Murfiedt (Amer. entom., Oct. 1880, v. 3, p. 235-236). Miss Murfiedt (*l. c.*) describes the egg, larva, pupa and imago of this species; the larva feeds on the leaves and flowers of *Vernonia novoboracensis*. I took a specimen of this species on Mt. Washington, N. H., 14 July 1874. N. H., Mo.

*Liophitlus kellicottii* Fish (Can. entom., July 1881, v. 13, p. 141). Fish states (*l. c.*) that this is the species of which the larva, described by Kellicott (*l. c.*, June 1880, v. 12, p. 105-106), bores in the stems of *Solidago*. Buffalo, N. Y.

*Aciphitlus lobidactylus* Fitch (1st and 2nd Rept. ins. N. Y., 1856, p. 143-144). The larvae of this species are sometimes very abundant on *Solidago caudata*, in Cambridge, Mass., during June. The larvae are clothed with green or brownish hairs which have dew-like drops of clear liquid upon them. The period of pupation, of from six to nine days, is in the latter part of June or the early part of July. Mass., N. Y.


*Atucita hexadactyla*, Linn. (Wocke, Cat. 3211). Frisch (Besch. v. allerley Insecten in Teutschland, 1721, th. 3, p. 19-20, tab. 7) figures and describes the larvae and imago, giving the food of the larva as the buds of *Lonicera caprifoliuim*. Imago figured by Walsingham (Pteroph. Cal. and Oreg., 1880, pl. 3, fig. 16). Cal., Oreg.

Saunders (Ann. rept. Entom. soc. Ontario, 1873, p. 14-15) describes the larva of an undetermined species of *Pterophorus* which fed on the raspberry (*Rubus*).