

*Type*.—Cat. No. 22825, U. S. Nat. Mus.

Described from ten specimens, four males and six females. Nine of these specimens were collected by Geo. Hofer at light between May 28 and August 10, and the other specimen was collected by Messrs. Hubbard and Schwarz, on July 5th.

This species is allied to *crypta* Say, but is easily distinguished from that species by being more parallel, pubescence more distinctly variegated with white and ochreous hairs, and by having the antennae not distinctly annulated.

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COLEOPHORA NOTES WITH DESCRIPTION OF TWO NEW SPECIES (LEPID.).

BY CARL HEINRICH, *Bureau of Entomology.*

*Coleophora occidentis* Zeller.

Dyar Cat. No. 6034.

Zeller describes the larval case of *occidentis* as very similar to that of the European *nigricella*. This would indicate that it is a good species and should be removed from its present position as a synonym of *pruniella* Clem. The larval case of the latter as described by Miss Braun (Cin. Soc. Nat. Hist. XXI, No. 4, p. 157, 1914) is of quite a different structure, resembling that of *leucochrysell*a much more than it does *nigricella*.

*Coleophora acamtopappi* Busck.

Busck. Proc. Ent. Soc. Wash., Vol. 17, p. 87, 1915.

Busck described this species from adults only. We have since received two reared specimens from H. Jobbins-Pomeroy with larval cases. The larval case is very striking and the longest yet recorded from North America. It is white; cylindrical; 25 to 28 mm. long by 4 mm. thick; tapering slightly to posterior end, which is triangularly compressed; mouth deflecting to 45 degrees. The larvae were taken feeding on *Coreopsis* species, Havana, Ill., moths issuing in June. Busck's type was reared from *Acamtopappus* from Los Angeles Co., Calif.

*Coleophora astericola*, n. sp.

Labial palpi grayish fuscous streaked with white above and below; second joint tufted. Antennae white faintly annulated with pale gray-brown; basal joint slightly thickened with appressed, glossy gray-brown scales, not tufted. Face, head and thorax glossy, gray-brown with narrow borders of white above the eyes and antennae and along the inner margins of the patagia. Fore wings dark grayish brown with two longitudinal white stripes, one on costa from base to middle, the other extending along the lower vein of the cell, and disappearing towards tornus; a few blackish scales scattered over the wing; cilia concolorous with wing, somewhat marked with white scales

at tornus. Hind wings dark grayish brown; cilia concolorous. Abdomen pale glossy gray-brown. Legs white, longitudinally banded on outer sides with grayish fuscous.

*Alar Expanse*.—13 mm.

*Locality*.—Boston, Mass.

*Food Plant*.—*Aster multiflorus*.

*Type*.—Cat. No. 22806, U. S. N. M.

Described from a single female reared September 20, 1920, by August Busck, from larva taken feeding on *Aster multiflorus*. This species is nearest to *C. infuscatella* Clemens, but separable from it by having two, not four, longitudinal white stripes on the forewings.

The larval case is grayish white, of silk, evenly and entirely covered with small particles of sand (possibly an accidental accretion from the rearing jar); cylindrical; slender and slightly tapering toward posterior end; 13 mm. long by about 2 mm. thick at the widest part just before middle; posterior end rounded and flatly compressed; mouth deflected to 45 degrees.

***Coleophora veroniaeella* Chambers.**

Dyar Cat. No. 6051.

Braun. Ent. News, Vol. 23, p. 163, 1912.

This species was described by Chambers from larval cases taken on *Vernonia*. Miss Braun later reared and described the moths. During 1914 I found cases answering Chambers' description very abundantly on a species of swamp *Helianthus* in a low, shaded, damp piece of woodland at Falls Church, Va. The moths reared from these proved to be Chambers' species. Larvae were taken feeding in May and adults issued June 24 to July 10. The nearest iron weed (*Vernonia*) is about a mile distant but to date I have not found any larval cases on it. As there is no doubt as to the identity of the adults, both plants must be regarded as food plants.

***Coleophora tiliifoliella* Clem.**

Dyar Cat. No. 6048.

Kearfott. Can. Ent., Vol. 36, p. 324, 1904.

Kearfott describes the moth reared from cases collected at Ottawa, Canada, as having white scaling on and below the costa of forewing. Specimens in U. S. N. M. (reared by Wm. Wild, from Gowanda, N. Y.) show no such white markings, which would indicate that there are two pistol case feeders on *Tilia*, or that the species is more variable than others in this genus. The cases, however, agree in every detail with Clemens' description. To date I have not been able to locate Kearfott's specimen.

***Coleophora atromarginata* Braun.**

Braun. Cin. Soc. Nat. Hist., Vol. 21, p. 166, 1914.

Syn.—*C. currucipennella* Walsingham (nec Zeller). Trans. Ent. Soc. Lond., p. 430, 1882.

Dyar Cat. No. 6014.

This is our common oak-feeding pistol case bearer which Walsingham and others have identified as the European *C. currucipennella* Zell. It is somewhat variable in size, ranging anywhere from 10.5 to 14.5 mm. Miss Braun's description was drawn from a unique and rather small specimen. The average size is about 13 mm. alar expanse. There are consistent differences both in larval cases and adult moths between our American species and the true *currucipennella*. In the latter the flaps of the cases are as a rule larger and more delicate and the upper edge of the barrel is rougher, containing one or more projections. In the American species the barrel is smooth. In *currucipennella* the yellow stripes on the forewings of the moth are continuous from the base of the wings, while in *atromarginata* more than half the wing from the base is white without appreciable markings, the yellow stripes becoming indistinct only in the apical portion where they shade into a dark brown at the tip. The name *currucipennella* should be dropped from our lists as this form does not occur in the United States.

***Coleophora atlantica*, n. sp.**

Palpi white faintly streaked with golden brown above; second joint tufted. Antennae white faintly annulated beyond second joint with light golden brown; base covered above by large white projecting tuft; under side of tuft shaded with pale golden brown. Face, head and thorax silvery white. Fore wings silver white, lightly irrorated beyond middle with brownish scales; costal cilia white; cilia at apex pale, dull fuscous; dorsal cilia grayish golden. Hind wings lead gray, cilia concolorous with a somewhat more golden fuscous tinge on dorsum near apex. Abdomen white dusted with fuscous; anal tuft silvery white. Tips of tarsi faintly annulated with golden brown.

Alar Expanse.—11–15 mm.

Locality.—Eastern U. S. (Type locality, Falls Church, Va.)

Food Plant.—*Prunus serotina*.

Type.—Cat. No. 22805, U. S. N. M.

Described from six reared and four collected specimens (males and females) from Falls Church, Va. (Heinrich reared, five specimens from *Prunus serotina* under Hopk. U. S. Nos. 11135a, 12127a, and 13432a; June 7 to July 3), East Aurora, N. Y. (Wm. Wild, reared one specimen July 14), Washington, D. C. (August Busck, one specimen, July), Oak Station, Pa. (Fred. Marloff, one specimen, July 1), Trenton, Ontario, Canada. (Evans, two

specimens, June 21 and July 14). This is the species wrongly identified by Kearfott as *C. pruniella* and so listed in the New Jersey list. It is very close to *C. sacramenta* Heinrich. In fact, for a long time I thought that the California pest on cultivated plum might be our eastern wild cherry feeder that had been carried west on nursery stock. The cases of the two, however, are enough different to forbid us placing them under one name without more definite evidence. In the adult of *atlantica* the dark shadings on the under side of the antannal tuft and at the outer margin of the apical cilia of the forewings are paler than those of *sacramenta*.

The larvae feed externally on the leaves of the wild cherry and during April and May their cases are quite abundant locally about Washington. The case is of the "pistol" type, black, with the flaps rather small and closely appressed; the mouth deflected to about 45 degrees and the posterior end evenly rounded giving the "pistol handle" a rather small and tightly curled appearance; length of case 6 to 8 mm.

#### BUMBLEBEES OF DISTRICT OF COLUMBIA AND VICINITY.

(Hym., *Bremus*.)

BY L. O. JACKSON.

The region covered by this paper is the same as that of several local lists on the fauna and flora of the District of Columbia and vicinity, being the area within a radius of fifteen miles from the Capitol. Great Falls and Mount Vernon, Va., are about the northern and southern, and Beltsville, Md., and Dunn-Loring, Va., the eastern and western limits, respectively.

This list comprises records of several years collecting in this locality and contains a key for the separation of the species found here. Under the annotated list will be found the records of earliest and latest date of capture of each sex of the several species. In this connection the observations of another writer on one of the included species may be of interest.

Frison<sup>1</sup> says that at Champaign, Ill., *auricomus* queens began to fly about the 12th of May. Under artificial breeding conditions the first worker emerged July 20, with five more by July 25. Under more natural conditions the preceding year, a worker was found June 24, and "judging from the ——— appearance of the worker, the worker had only recently appeared."<sup>2</sup> In the last paper cited, the first male emerged July 22. With us, the earliest record for queens is April 6, with several for the end of April (28-30), and the first collected record for males is July 14.

<sup>1</sup> T. H. Frison. Ann. Ent. Soc. Am., Vol. XI, 1918, p. 43.

<sup>2</sup> Ibid., Vol. X, 1917, p. 278.