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Two New Species of *Coleophora* from Nova Scotia (Lepidoptera, Coleophoridae)

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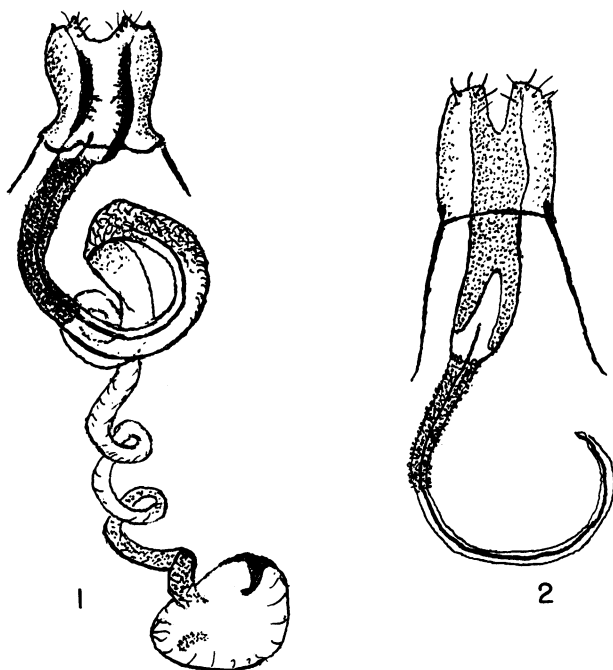
For several years a single female coleophorid with quite distinctive genitalia had been set aside in the collection of the Nova Scotia Museum of Science as probably a new species. It had been captured at light by Douglas Ferguson at Petite Riviere, Nova Scotia, on August 14, 1954, and, at the time, the author refrained from describing it in the hope that more material could eventually be secured.

When a collection of Microlepidoptera taken at light during the summer of 1959 at Boulderwood, a suburban area of Halifax, situated on the Purcell's Cove road was worked over, a second female was discovered, the genitalia of which matched excellently those of the Petite Riviere specimen. A check with northern European species, to determine whether the present species had a Holarctic distribution, failed to reveal any species with similar female genitalia, the most closely allied species being *sternipennella* Zetterstedt as figured by Toll (1952, Eupistidae [Coleophoridae] of Poland, p. 177, pl. 29, fig. 278). This species is placed by Toll in a small group, the larval cases of which are found on *Atriplex* and *Chaenopodium*, and *versurella* Zeller, of which *thalassella* McDunnough has been proved a synonym (1955, Amer. Mus. Novitates, no. 1719, p. 7), is included in the group.

A male that was taken at Boulderwood on the same date as the above-mentioned female could very well be a specimen of the same species as far as maculation is concerned. The genitalia greatly resemble those of

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thalassella as figured in an earlier paper (1940, Trans. Roy. Soc. Canada, sect. 5, p. 63, pl. 2, fig. 2). As in that species, the inner tooth on the dorso-caudal angle of the sacculus is lacking, the only obvious difference being the considerably shorter length of the two sclerotized rods of the aedeagus. As, however, an element of doubt exists as to the correctness of the sex association, this male specimen has not been included in the type series, which is limited to the two above-mentioned females. A description follows.



FIGS. 1, 2. Female genitalia. 1. *Coleophora detractella*, new species. 2. *Coleophora simulans*, new species.

***Coleophora detractella*, new species**

FEMALE: Palpi upturned, long, slender, white, the second joint with a very faint tuft ventro-apically. Antennae slender, white, distinctly annulate, with brown in the basal two-thirds. Head and thorax white. Primaries a light fawn color, paling towards costa, which is whitish; very faint traces of darker striation in the apical section. Fringes concolorous. Secondaries pale smoky. Expanse, 12 mm.

FEMALE GENITALIA: Genital plate more or less rectangular, the lateral edges concave in their cephalic half, terminating in characteristic truncate projections from which the short anterior apophyses arise; they terminate caudally in a small, pointed projection. The caudal edge of the plate shows a large, shallow, U-shaped, median excavation, forming the ostium from which the sides slope downward; a prominent, rounded projection, slightly setose, occurs on each side of the ostium. The initial portion of the ductus bursae is broad, with more or less parallel edges, strongly sclerotized; this section projects very slightly beyond the cephalic end of the genital plate and is followed by the usual narrower, spiculate section, which bends to the right, becomes membranous, and forms a large convolution with gradually expanding width; the usual narrow, so-called watch-spring band runs medially through both these sections. Narrowing again, the membranous and very slightly shagreened ductus forms several small convolutions before entering the oval bursa, which shows the usual armature of a short, curved spine and a short, weakly spiculate band.

TYPE MATERIAL: Holotype, female, Boulderwood, Halifax County, Nova Scotia, August 11, 1959 (D. C. Ferguson); deposited in the Canadian National Collection, Ottawa. Paratype, female, Petite Riviere, Lunenburg County, Nova Scotia, August 14, 1954 (D. C. Ferguson), in the author's collection.

***Coleophora simulans*, new species**

FEMALE: Palpi long, slender, more or less porrect, white; second joint with well-developed ventro-apical tuft. Antennae slender, white, distinctly annulated with brown. Head and thorax white. Primaries light fawn, costa and veins white, the darker color of the radial interspaces giving a distinctly striated appearance to the apical half of the wing. Fringes pale, whitish. Secondaries light smoky, with paler fringes. Legs white, the hind legs with traces of a fine, brown, longitudinal, median line. Expanse, 10 mm.

FEMALE GENITALIA: Genital plate rectangular, somewhat higher than wide, the lateral edges feebly convex and without any projection on the caudal ends. The caudal margins slope slightly upward and are broken by a large, median, V-shaped incision, forming the ostium; the caudal edges of the ostium also show no traces of projections. The broad, evenly sclerotized ductus bursae, the sides of which are virtually parallel, extends far beyond the cephalic margin of the genital plate. The distal end is separated into two lateral sections by a long, membranous, V-shaped incision, which narrows cephalad for a short distance and is continued

by a very narrow spiculate section. This, in turn, is followed by a still narrower membranous section, which forms a large convolution before continuing in several small convolutions to the bursa. The usual watch-spring band runs through both these sections. Bursa armed with a small spine, arising from a broader base, as well as a short, feebly spiculate band.

TYPE MATERIAL: Female, Coldbrook, Kings County, Nova Scotia, May 18, 1954 (D. C. Ferguson); the type remains for the present in the author's collection.

REMARKS: There is some possibility that the present species is the opposite sex of *dubiella* McDunnough described (1946, Canadian Ent., vol. 78, p. 56) from three males taken at Parrsboro on July 3 and 4. The much earlier date of appearance of this specimen, however, seems to preclude such an association. It would, however, appear that the species may belong in the *Aster*-feeding group, as some similarity exists between the ductus bursae of this species and that of *asterophagella* McDunnough (1944, Canadian Ent., vol. 76, p. 106, pl. 7, fig. 7). On various occasions mature, parchment-like, "cigar" cases have been found in August on various *Aster* species, but unfortunately it was never possible to secure from them imagoes in the following spring.