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## New Microlepidoptera from the Region of Halifax, Nova Scotia, with Notes on Other Species

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Since taking up residence in Halifax in the early summer of 1950, the author has devoted considerable time during the summer months to the collection and breeding of so-called Microlepidoptera. Most of this work has been done in Point Pleasant Park, a reserve of about 350 acres at the tip of the Halifax peninsula in which natural conditions have remained more or less untouched. On this account it has proved to be an excellent and easily accessible area for the work in question and has already produced several species which appear to be undescribed. The present paper deals with some of these and also offers notes on the unknown early stages of already described species.

### EUCOSMIDAE OLETHREUTINAE

*Aphania bifida* McDUNNOUGH: Larvae of this species occurred in early spring in the leaf buds of *Alnus crispa* var. *mollis* Fernald, later forming a small fold at the edge of a leaf. The larva is pale green with small white pinnacula and in confinement pupates in mid June, the moths emerging in July; under natural conditions the adult can be taken as late as August. A study of the male genitalia has shown that the bifid nature of the spine in the aedeagus as figured in the original description (1938, Canadian Ent., vol. 70, p. 94, pl. 7, fig. 2) is not always constant, some of the specimens possessing a single short, straight spine, although in

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other respects no difference could be detected, either in other sections of the genitalia or in maculation.

*Exartema melanomesum* HEINRICH: Occasional specimens of this species have been reared from larvae tying the terminal leaf buds of *Kalmia*. The larva is a typical *Exartema*, green in color with a black head and prothoracic shield, and is extremely lively. The close relationship to the *Viburnum* feeder, *trepidulum* Heinrich, has already been discussed (1942, Canadian Ent., vol. 74, p. 64).

*Pseudexentera costomaculana* CLEMENS: Larvae of this species occurred plentifully on *Hamamelis virginiana* Linnaeus in the spring of 1951. The young larvae live mostly in the terminal leaf buds but later form a tight narrow fold on the upper edge of a leaf, frequently near its base. This habitat is easily distinguished from the large rolls of *Episimus argutanus* Clemens on the same plant by its much smaller and tighter nature, as well as by the lack of any strong white threads on the outer edge. The pupae hibernate, and the moth emerges during the first warm spell of spring.

From *Anchylopera* larvae feeding on *Rhodora* in Point Pleasant Park several specimens have been bred which, while evidently closely related to *pulchellana* Clemens, show sufficient differences to warrant description as a new species as follows:

*Anchylopera rhodorana*, new species

MALE: Palpi white, the ventral portion of the second joint tinged with smoky. Head white. Front, tegulae and thorax red-brown; patagia largely white bordered inwardly with red-brown. Abdomen dorsally blackish with a paler terminal tuft. Primaries with a large red-brown patch on basal half of inner margin, in shape much as in *burgessiana* Zeller. Costa broadly white and slightly silvery in basal half of primaries, sending a thin line of similar color to border outer edge of basal patch; a number of short dark streaks along costal edge. To the naked eye the outer half of wing is a rather even gray, slightly silvered, and showing few signs of the usual oblique band from mid costa. Under a low-power lens this band is faintly visible, of an olivaceous color, and arising from a triangular red-brown costal mark; in shape and direction it is much as in other species and terminates in a larger blotch in mid section of wing which shows faint traces of the usual two transverse, black bars. A thin silvery line borders this band outwardly and forms the inner edge of the grayish speculum. The black dot in the tornal area which is said by Heinrich to be characteristic of *pulchellana* is lacking. The outer half of costa shows the usual four short, white, geminate streaks, sepa-

rated by distinct red-brown triangular patches. The apex of the wing is bright red-brown, the fringes below it are white, cut by a black streak. Balance of fringes pale smoky, silvery at base. Secondaries whitish basally, broadly smoky outwardly; fringes pale smoky cut by a darker basal line. Expanse: 10–12 mm.

FEMALE: In general somewhat darker than the male, especially in the terminal half of the primaries and the fringes. The secondaries are almost evenly smoky.

MALE GENITALIA: As far as can be judged from Heinrich's poor photograph of the genitalia of *pulchellana*, very similar to those of this species, with the same type of long curved aedeagus.

LARVA: Pale yellowish green with the usual dark lateral spots on the prothoracic plate. It lives in a tent formed by joining the outer edges of a leaf, feeding inside same, and frequently making a new tent when the old leaf has been practically skeletonized. Hibernation occurs in the tent, and pupation follows in spring without further feeding.

HOLOTYPE: Male, Point Pleasant Park, Halifax, Nova Scotia, May 15, 1952 (bred from *Rhodora*), in the American Museum of Natural History.

ALLOTYPE: Female, same data, in the Canadian National Collection.

PARATYPES: One female, same data but May 14; one female, same data but May 13, 1953; one male, Peggy's Cove, Halifax County, June 22, 1952 (collected at light), in author's collection.

REMARKS: At White Point Beach, Queens County, Nova Scotia, where the author spent several weeks in 1953, a few specimens which appear to belong to this species were taken around *Rhodora* in late June.

### COLEOPHORIDAE

The Halifax region has proved a very fertile collecting ground for the larval cases of this interesting family. The adults of several new species have been bred and the unknown cases of an already described species discovered. These are dealt with in the following pages.

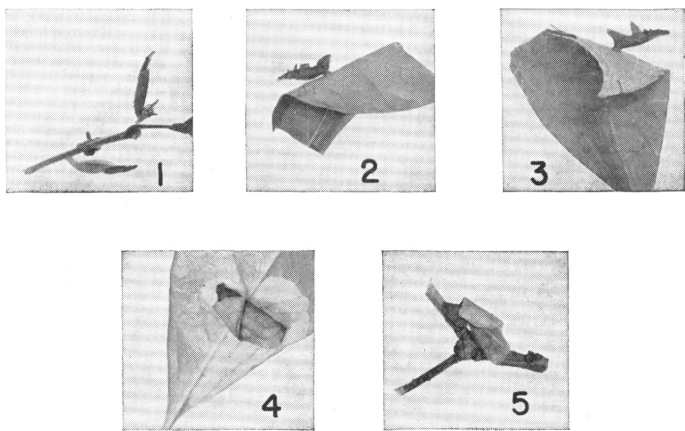
#### *Coleophora peregrinaevorella*, new species

Figures 1, 7A

Palpi long, slightly upturned, white, the second joint smoky on outer side and with a well-developed ventro-apical tuft; third joint slightly rough scaled. Antennae white, strongly ringed with brown; basal joint broad, roughly scaled with white and with indications of a slight terminal tuft. Head and thorax white, at times very faintly tinged with ochreous. Primaries white at base, becoming gradually and rather variably

suffused in the outer two-thirds of wing with light ochreous brown, a color that is predominant at the apex and continued over the apical fringes; the white color is continued narrowly along costa to beyond the middle. Fringes along inner margin of wing paler than apical ones. Secondaries pale smoky with light ochreous fringes, deepening at times considerably at apex of wing and along costal margin. Expanse: 9–11 mm.

**FEMALE GENITALIA:** (Based on a paratype in the American Museum of Natural History). Very similar to those of *kalmiella* McDunnough. Genital plate hemispherical, somewhat broader than high; caudal margin with a small rounded, median excavation, the sides of which are furnished with scattered setae. Ostium situated on the median cephalic margin of plate, broad, rounded, with deep lateral pockets on each side formed by invagination of segment IX. The initial portion of the ductus is a broad chitinous tube, directed slightly to the left; this is followed by a somewhat shorter, spiculate portion, directed to the right. Beyond this the ductus is membranous and somewhat twisted, at first broader



FIGS. 1–5. *Coleophora* cases. 1. *C. peregrinaevorella*, new species. 2, 3. *C. multicristatella*, new species. 4, 5. *C. paludicola* McDunnough.

and bulbous, then narrowing and faintly spiculate, this section giving rise to the ductus seminalis. The final section is short, thin, and entirely membranous and enters the oval membranous bursa at its upper end. The bursa contains a large, anchor-shaped signum as in *kalmiella*.

**LARVAL CASE:** Very similar to that of *cretaticostella* Clemens on blackberry, being of the holster type. The cases were first observed in June, 1951, the larvae feeding on the young leaves of *Comptonia*; they soon settled down for pupation, and the adults emerged in late June or early

July. From further observations later in the year it is evident that the larval period extends over two years. In mid July freshly made, full-sized cases were found for a short period on the upper side of the leaves, being very conspicuous owing to their bright red-brown coloration. In confinement little feeding was observed, and the larvae appeared to settle down to a period of estivation. In nature they evidently concealed themselves very effectually, as no further cases could be found until October when numbers suddenly appeared again, feeding from the under sides of the leaves. Feeding continued in confinement well into November and until the frosts killed the foliage, when hibernation commenced. In the following spring the few larvae that remained alive crawled around for a short time and then attached themselves to twigs or to the sides of the container, evincing no further desire for food, although fresh young leaves were offered. A few adults emerged in mid June but, owing to heavy mortality during hibernation and also to parasitism, the emergence was not satisfactory. Whether or not in nature some larvae require no further food in spring cannot be determined, but undoubtedly certain larvae feed for a short time before pupation. The whole life cycle is very similar to that of *kalmiella* which goes through the same period of estivation, feeding in late fall and normally again in the first days of spring for a short time as the *Kalmia* leaves remain on the bushes during the winter. In 1953 only two emergences occurred from larvae collected in late fall of 1952, the mortality during hibernation being, as usual, heavy. From about a dozen cases collected in spring of 1953 only a single female was secured, the remainder being parasitized.

HOLOTYPE: Female, Halifax, Nova Scotia, June 11, 1952 (J. McDunnough), bred from holster case on *Comptonia peregrina* Linnaeus (Coulter). Deposited in the Canadian National Collection.

PARATYPES: Seven females, bred from the same food plant at Halifax and dated June 28, 1951, July 5 and 8, 1951, June 10 and 19, 1952, and June 10 and 11, 1953. Two of these are deposited in the American Museum of Natural History; the remainder, for the present, are in the author's collection.

REMARKS: As yet no male of the species has been secured, and the descriptions of adult maculation and genitalia are based on the female sex. It is possible that specimens of this species were bred at Ottawa from cases on sweet fern, secured in the vicinity of this city. These specimens, the author believes, were tentatively determined by C. Heinrich of the United States National Museum as *gaylussaciella* Heinrich, but the description of the case of this species as given in Forbes (1923, Cornell Univ. Agr. Exp. Sta. Mem., no. 68, p. 212) does not match at

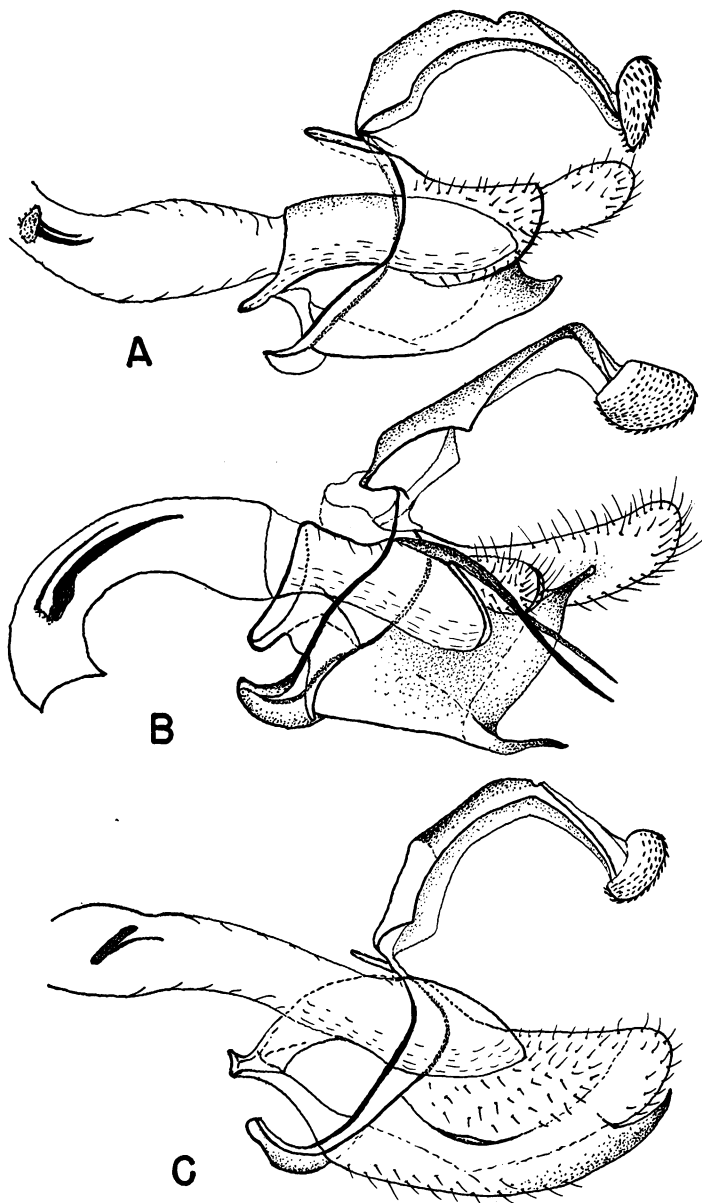


FIG. 6. Male genitalia of *Coleophora*. A. *C. multicristatella*, new species, paratype. B. *C. bispinatella*, new species, paratype. C. *C. paludicola* McDunnough.

all the type of case formed by the species now under discussion, and no other name appears available; hence the description as a new species.

*Coleophora multicristatella*, new species

Figures 2, 3, 6A, 7B

Labial palpi thin, porrect or slightly upcurved, black, paler at extreme base, scaling closely appressed with no obvious tuft on second joint; third joint long and pointed apically. Antennae evenly thin, black with approximately the apical sixth white; basal joint somewhat thickened with appressed scaling but without obvious tuft. Head, thorax, abdomen, and primaries shining metallic, the latter frequently with a decided purplish tinge. Secondaries with fringes deep smoky. Legs blackish, paler inwardly; hind tibiae sparsely clothed with long hairs. Expanse: 9–10 mm.

The species would apparently be best placed in the *cretaticostella-kalmiella* section of the genus.

MALE GENITALIA: (Based on a paratype in the American Museum of Natural History.) Quite small. Saccus concave, short, the ventral margin terminating in a short, bluntly pointed, slightly incurved projection, the dorsal edge short and attached at base to the large, well-chitinized valvula; the distal edge of this section is rounded and projects beyond its junction with the dorsal edge of the saccus, leaving a small rounded excavation between the two parts. Clasper narrow and thinly membranous, attached to the costal portion of the valvula and projecting well beyond saccus. Aedeagus short, cylindrical, membranous. Vesica armed with a thin, short, somewhat curved spine and a still thinner and shorter one immediately dorsad of same. Gnathos small, upright, projected upward well beyond its attachment to the tegumen.

FEMALE GENITALIA: (Based on a paratype in the American Museum of Natural History.) Genital plate considerably broader than high, the two lobes widely separated in the median section, with a few setae attached to their margins; at their bases laterally they show slight depressions which may be considered as incipient pockets. Ostium raised considerably above the cephalic edge of the genital plate, forming a circular tube, well chitinized for a short distance. The initial section of the ductus bursae is short and membranous, followed by a short, strongly spiculate section formed of two lobes, narrowly separated medially. This is followed by a rather broad membranous section which soon narrows into a twisted tube, the proximal section of which is very finely but fairly strongly spiculate and gives rise to the ductus seminalis; the balance of the tube shows only weak spiculation. The bursa is oval, mem-

branous, its signum consisting of a large spine arising from a long lunate base with pointed ends.

LARVAL CASE: Very striking, of the holster type. Dorsal edge furnished with three or four triangular crests, representing additions made from

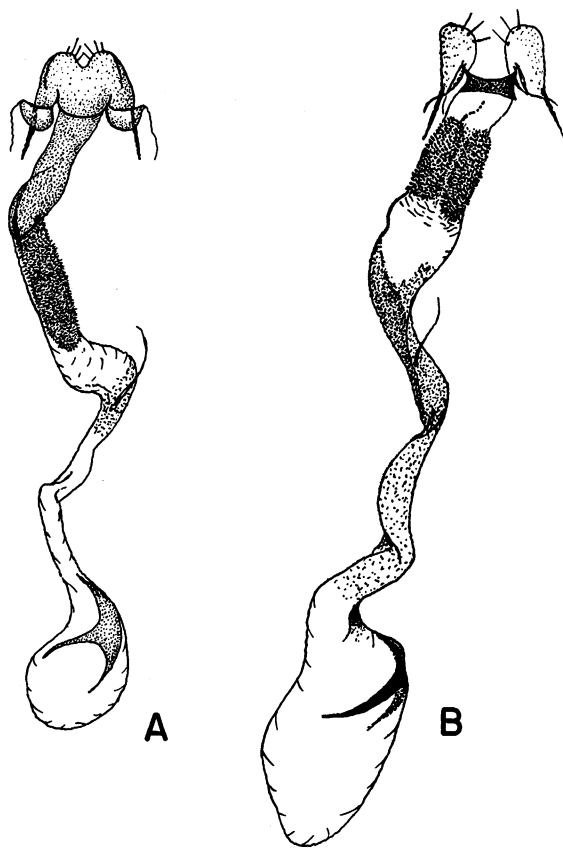


FIG. 7. Female genitalia of *Coleophora*. A. *C. peregrinaevorella*, new species, paratype. B. *C. multicristatella*, new species, paratype.

time to time to the original small, curved, initial case. These crests increase in size towards the mouth-end of the case, the final one being very prominent.

HOLOTYPE: Male, Point Pleasant Park, Halifax, Nova Scotia, May 24, 1952 (reared from case on *Gaylussacia*), in the Canadian National Collection.



ALLOTYPE: Female, same data but May 22, in the American Museum of Natural History.

PARATYPES: Six males, three females, same locality, May 21, 22, 24, June 1, 1952 (cases on *Gaylussacia*). One male, three females, same locality, May 22, 24, 25, 1952 (cases on *Rhodora*). In the American Museum of Natural History, the Canadian National Collection, and author's collection.

REMARKS: The mature cases were first observed in the late fall of 1950 on *Gaylussacia*, attached to the under side of the leaves which were mined in the usual fashion by the larva, leaving a fairly conspicuous blotch on the surface; of the few collected none survived the winter. In 1951 similar cases were found on *Rhodora* about mid July; these were still immature, but the final addition was cut from the leaf in early August, and after feeding for a short period the larvae settled down for hibernation. In spite of continued searching no cases on *Gaylussacia* were observed until mid September, when fully completed cases suddenly appeared in considerable numbers; feeding continued at intervals throughout September and October, and even in early November an occasional specimen could be secured. After hibernation no further feeding occurred in the spring, and the adults emerged over a very short period during the latter part of May, both from the *Gaylussacia* and the *Rhodora* feeders. In 1952 the cases appeared to be entirely absent on *Gaylussacia*, and only two were discovered on *Rhodora*. It is evident that the larval period extends over two years, the first hibernation occurring when the cases are quite small, probably in the first or second instar; the larvae apparently remain well concealed during this early period. Such a two-year cycle appears to be fairly general in larvae with so-called holster cases ("Puppensäcke" of German entomologists).

#### *Coleophora zelleriella* Chambers

*Coleophora zelleriella* CHAMBERS (*nec* Heinemann), 1874, Canadian Ent., vol. 6, p. 128. HEINRICH, in Forbes, 1923, Cornell Univ. Agr. Exp. Sta. Mem., no. 68, pp. 206, 208. MCDUNNOUGH, "1944" [1945], Canadian Ent., vol. 76, p. 237.

This species has never been properly identified, and the type has apparently been lost. The name proves to be a homonym of the European *zelleriella* Heinemann which, according to information kindly furnished by Dr. F. H. Rindge, was described in 1854 in the Breslau Zeitschrift für Entomologie (p. 5), as listed in the Staudinger and Rebel "Catalog" (1901). This disposes very satisfactorily of a name applied to a North American species which it has been impossible to identify correctly from the author's brief description.

*Coleophora paludicola* McDunnough

Figures 4, 5, 6C

*Coleophora paludicola* McDUNNOUGH, "1945" [1946], Canadian Ent., vol. 77, p. 147, fig. 3.

The species was described from a single female in the Canadian National Collection taken in the vicinity of Blackburn station on the edge of the vast peat bog about 12 miles east of Ottawa known as the Mer Bleue.

The very curious larval case of this species has now been found in Point Pleasant Park, Halifax, on both sweet fern and bayberry, but most commonly on the latter plant. As bayberry is unknown in the Ottawa region, the type specimen evidently originated from a larva feeding on sweet fern, of which there was a good growth in the vicinity of the type locality, although possibly now destroyed by bush fires. In spite of the number of cases collected both in 1950 and 1951, only two males and an immature female have so far been secured from the bayberry feeders and two females from the sweet fern ones. This was partly due to heavy parasitism but also to difficulty in hibernating the larvae successfully. Genital slides of females reared from both food plants agreed with one another and also with the drawing given with the original description. Judging by the rather inadequate figures of the genitalia given by Hackman in his work on the Coleophoridae of Finland (1945, Notulae Ent., vol. 25, pp. 26, 27, pl. 2, fig. 13, pl. 4, fig. 42) the species appear to be closely related to the European *siccifolia* Stainton and *uliginosella* Glitz. The food plants and the methods of forming the cases differ, however, from those of our North American species.

The larva evidently hibernates in an early stage in a short case, dorsoventrally flattened in contradistinction to the laterally compressed case of a cigar-case bearer of the *betulivora* group, also found on bayberry; the case lies almost flat on the leaf. About mid July the final case is formed, the small case being attached to the edge of a bayberry leaf and the larva proceeding to mine a large, rather semicircular portion. This process occupies several days, following which the entire mined section is detached from the leaf, leaving the old case attached to the leaf edge. The larva occupies a somewhat raised tube at the outer edge of the mined section, the remainder, as it dries, curling dorsad; the whole thus simulates very closely a piece of dried leaf. So close is this resemblance that the first case found, which was attached to the base of a leaf stalk, was thought to be just this; only after a more careful examination was its true nature revealed. Owing to the fact that a comparatively

large section of the bayberry leaf is cut out, the presence of the larva in the near vicinity is readily indicated; feeding is carried on until early fall, the case being attached to the under side of a leaf. Later the cases disappear from the leaves, the larvae evidently crawling down the stems to attach themselves in a suitable place for hibernation; at this time they are very difficult to discover. No further feeding occurs in spring, and the moths emerge in early June.

The above record was made from cases on bayberry. Only half a dozen cases were found on sweet fern in 1951, and these were taken, while the larva was still feeding, quite late in the fall. The sweet fern cases, because of the different nature of the leaf, are somewhat smaller than those on bayberry but still show the partly curled nature of the outer section. No cases on this plant could be found in 1952. Photographs of the bayberry cases in various positions are given (figs. 4, 5) and a detailed description of the undescribed male genitalia from a specimen in the author's collection follows.

MALE GENITALIA: Saccus broad, curving apically dorsad along the outer edge of the clasper and terminating in a blunt point. Clasper short and broad, not projecting beyond apex of saccus. Valvula weak and poorly defined but apparently occupying a large basal section and with its lower edge showing a somewhat upcurved fold. Aedeagus chunky, curved ventrad in its apical half, unarmed. Vesica with a small chitinous strip from the base of which a thin spine projects. Gnathos upright.

*Coleophora bispinatella*, new species

Figure 6B

Palpi somewhat upturned, fairly long, second joint with small ventro-apical tuft; color largely whitish, second joint with darker line on outer side, third joint tinged with smoky ventrally. Antennae entirely white without dark rings; basal joint broad, rough haired. Head and thorax white. Abdomen dark with white anal tuft. Primaries pale ochreous without dark sprinkling but with the veins faintly marked in white; fringes light ochreous. Secondaries pale smoky with whitish fringes. Expanse: 8 mm.

MALE GENITALIA: (Based on paratype in author's collection.) Somewhat allied to those of *glissandella* McDunnough. Entire clasper strongly inwardly concave when viewed laterally. Saccus with ventral edge produced into a more or less straight, pointed process, slightly incurved at apex but not upturned as in *glissandella*; dorsal edge also with a pointed process, much as in *glissandella* and *glaucicolella* Wood but slightly curved inward apically. Clasper weakly membranous, produced well be-

yond apex of sacculus; valvula reduced, much as in *glissandella*, hairy, raised apically above surface of clasper. Aedeagus very characteristic, short, stubby, with two long, pointed spines projecting caudad from its dorsal surface and extending beyond the caudal edge of the sacculus. Below the inception of these spines the apical area of aedeagus is furnished on both sides with very thin, chitinous strips which have the appearance of small spines. Vesica armed with a long pointed spine arising from a chitinous base; dorsad of same and closely approximate to it is a shorter and extremely fine spine. Gnathos oval, projected caudad.

LARVAL CASE: Smooth, light ochreous, faintly streaked with darker color, tapering slightly towards apex and weakly trilobed; mouth opening deflected to almost 90 degrees ("mouth opening I" of European literature); length approximately 5 mm. The two type specimens emerged from a dozen or so cases collected in late fall of 1951 on *Juncus canadensis* J. Gay at Fletcher's Lake near Wellington, Halifax County, Nova Scotia. In 1952 and 1953 in spite of careful searching in the same locality no cases could be found.

HOLOTYPE: Male, Wellington, Nova Scotia, June 5, 1951 (bred from *Juncus canadensis*), in the Canadian National Collection.

PARATYPE: One male, same data, in author's collection.

#### GRACILLARIIDAE

*Gracillaria flavella* ELY: The larvae of this species are found commonly in early summer in Point Pleasant Park in the usual cones on bayberry, the typical food plant, as recorded by Ely (1915, *Insecutor Inscitiae Menstruus*, vol. 3, p. 56). A good series of adults of both sexes has been reared from such larvae. In the same area cones on sweet fern have produced imagoes of what is evidently *asplenifoliatella* Darlington (1949, *Trans. Amer. Ent. Soc.*, vol. 74, p. 184). Finally at White Point Beach, Queens County, Nova Scotia, a series of very similar appearing adults was bred in 1953 from cones on sweet gale (*Myrica gale* Linnaeus).

The close similarity of these three series of adults, in which the primaries show a more or less unicolorous red-brown tinge, has led to a fairly intensive study of the genitalia of both sexes. In this connection the author has been assisted by J. F. Gates Clarke of the United States National Museum who has kindly furnished a sketch of the male genitalia of Ely's holotype. In the male genitalia the general type of the organ is closely similar in all three series; the distal end of the aedeagus terminates on the left side in a curved chitinous hook; on the right distal edge is a thin chitinous bar with a variable number of small teeth in its proximal section. Besides this the vesica is furnished with a proximal cluster of closely appressed long spines and in the distal area a series of

small spines. At first it was thought that the number and arrangement of these latter spines could be used as a means of specific separation. Later, however, when more slides had been made, it was discovered that specimens of any one of the three series showed considerable differences from one another, both in the number and in the position of the aforesaid spines, and that consequently such a character was useless as a

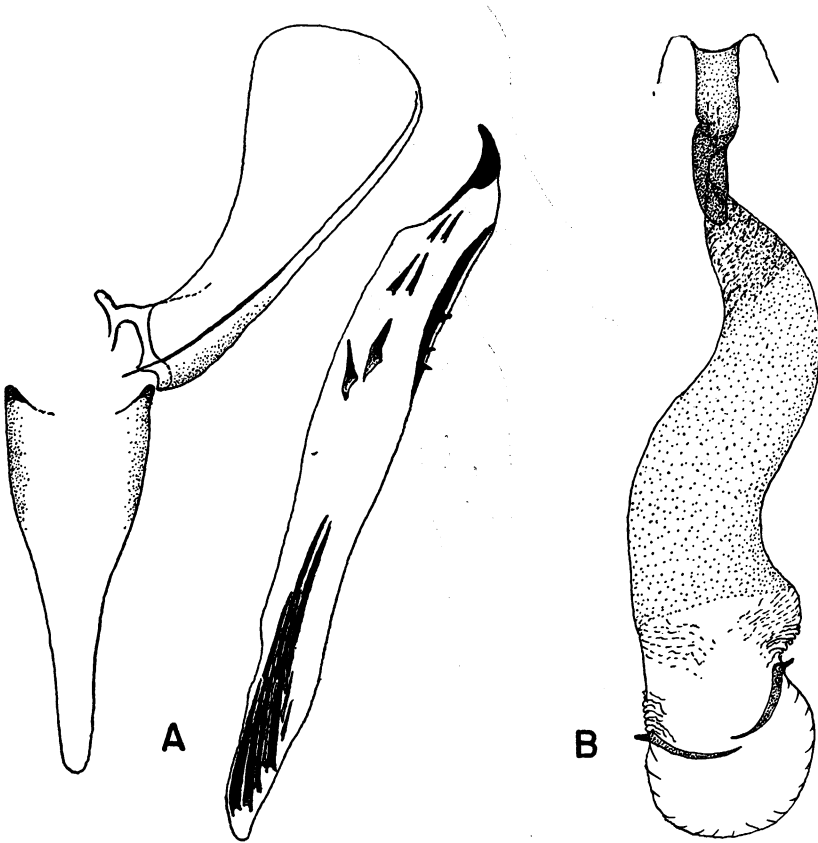


FIG. 8. Genitalia of *Gracillaria asplenifoliatella* Darlington. A. Male. B. Female.

means of differentiation. Figures are given (figs. 8A, 9A) of the organ in the sweet-gale feeder, here designated as *asplenifoliatella*, and in *flavella*, the bayberry feeder, and it might be pointed out that the arrangement of the distal spines in the sweet-gale feeder comes closer to Clarke's sketch of the arrangement in Ely's holotype than does that of the figured organ from an actual bayberry feeder. In the female genitalia the similarity is also extremely close, and the differences shown in the figures

(figs. 8B, 9B) are due more to the positions on the slides than to actual discrepancies. If, for instance, the organ of *asplenifoliatella* (fig. 8B) should be turned more to the right, the same breadth of the initial portion of the ductus bursae, with its origin of the ductus seminalis, would be noticeable. While the author is inclined to the view that all three series

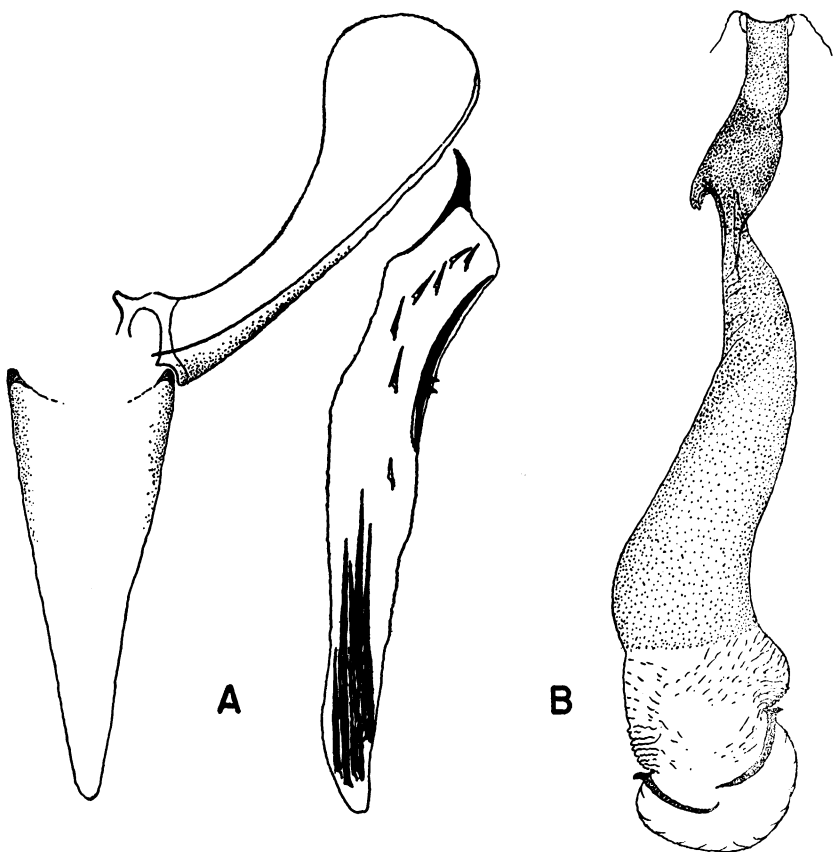


FIG. 9. Genitalia of *Gracillaria flavella* Ely. A. Male. B. Female.

belong to a single species, taking into consideration the close relationship of the food plants, he is unwilling, for the present, to place *asplenifoliatella* definitely in the synonymy of *flavella*; he does, however, consider that the sweet-gale feeder should be listed under the former name.

*Gracillaria rhodorella*, new species

Late in the fall of 1950 *Gracillaria* rolls which contained living larvae were collected in Point Pleasant Park on *Rhodora*. These larvae hiber-

nated within the rolls, and in the spring of 1951 three larvae which remained alive emerged without further feeding and spun the usual pale yellow cocoons on the sides of the container. Unfortunately the adults, although fully formed within the pupal shells, failed to emerge. From rolls collected in the fall of 1951 two adult females were secured in the spring of 1952. No rolls could be found in late 1952, and in 1953 only very few were secured as nearly all the *Rhodora* bushes, never very numerous, were destroyed, owing to misapplied, so-called cleaning-up operations in the park. As it is doubtful whether more material can be secured in this region, it seems advisable to name the species. According to Forbes' key to eastern *Gracillaria* (1923, Cornell Univ. Agr. Exp. Sta. Mem., no. 68, p. 169) the present species would fall under either *vacciniella* Ely or *belfrageella* Chambers, the former, as the name implies, a *Vaccinium* feeder in the larval stage, and the latter, described from Texan material, said to feed on *Cornus*. As most of the species of this genus are noted for their adherence to a single food plant, it seems hardly likely that a *Rhodora* feeder would prove identical with either of these species; hence the description. As regards the larva, it lives when young in a tentiform mine at the edge of a leaf, later leaving this to form a small role at the apex of a leaf. Quite late in the summer, when more fully grown, it leaves the first roll and forms a much larger one of globular appearance, and in this it hibernates, pupating, as already indicated, the following spring.

FEMALE: Palpi white, the apex of the third joint narrowly smoky brown. Front white with a faint yellowish tinge; vertex of head slightly more yellowish shaded with purplish brown behind the antennae which are ringed with black as usual. Thorax largely purple, the posterior portion golden. Forewings deep purple; base of inner margin golden; about mid costa is a large, triangular, golden patch, of which the blunt apex rests on the fold and the outer margin runs obliquely inward in contradistinction to the straight edge of *vacciniella* as stated by Forbes. There is a smaller, preapical, roughly triangular golden patch which in the holotype and one paratype is well separated from the larger one but in the other paratypes is connected with it by a narrow golden line along costa. Fringes deep smoky, cut by a somewhat darker line near base. Hind wings deep smoky. Abdomen dorsally smoky, beneath shining yellowish. Legs with basal joints dark as usual; tibiae and tarsi white with scarcely any indication of darker intersegmental bands. Expanse: 10 mm.

HOLOTYPE: Female, Halifax, Nova Scotia, May 12, 1952 (J. McDunnough), bred from *Rhodora*, deposited in the American Museum of Natural History.

PARATYPES: Three females, same data but May 14, 1952, and April 22, 1954, in author's collection.

