

Hypeninea*Pangrapta* Hbn.3650 *P. decoralis* Hbn.

Seems to occur commonly everywhere. Many records north-eastward to Cape Canso and Baddeck. May 31 - August 7.

Metalectra Hbn.3652 *M. quadrisignata* Wlk.

Digby through the Annapolis Valley and Mount Uniacke to the Halifax area, and northward at Bass River, Lakelands and Glenville, Cumberland County, and Baddeck. June 16 - August 18. Moderately common at light and bait. Highly variable in size and maculation.

Spargaloma Grt.3684 *S. sexpunctata* Grt.

Annapolis Royal, South Milford, Auburn, Coldbrook, Centreville. June 4 - July 27, at light. Scarce, and seemingly confined to the Annapolis Valley region.

Bomolocha Hbn.3688 *B. baltimoralis* Gn.

Digby and White Point Beach to Pietou and Baddeck. June 12 - August 30. Often common at light; occasionally at bait. Larva on maple.

3689 *B. bijugalis* Wlk.

Walker, Cat. Lep. Het. Brit. Mus., pt. 16, p. 32, 1858.

Type locality: Nova Scotia.

Armdale, MacNab's Island, Petite Riviere, Truro, Glenville. July 1 - August 8. Rare.

3690 *B. palparia* Wlk.

Lequille, July 22, 1946, a male; Coldbrook, July 27, 1950, a female. Rare.

3698 *B. toreuta* Grt.

Mount Uniacke, July 6, 1950, one male at light. This is possibly only the male of *B. bijugalis*, since only females of the latter are known, and no one has ever seen a female *toreuta*.

3701 *B. citata* Grt. (*minualis* Gn?). Plate XI, Figure 13.

Armdale, October 18, 19, 1947. Two specimens at light.

Lomanalles Grt.3703 *L. eductalis* Wlk.

Digby and White Point Beach north to Baddeck. Generally distributed and often common at light. June 4 - August 10. Larva slender, bright translucent green, with faint, broken addorsal and dorso-lateral lines and minute tubercles from which emerge short, stiff hairs; common on alder.

Plathypena Grt.3705 *P. scabra* Fbr.

Armdale, MacNab's Island, Lake Rossignol. August 2 - November 9, at light and flying by day. Locally common, especially in late September and October. Larva on herbaceous legumes.

Hypena Schrank.3706 *H. humuli* Harr.

Wolfville, Waverley, Armdale, MacNab's Island, Baddeck. June 14 - October 15. Bred from slender green larvae on *Humulus* at Wolfville.

Rivulinae

Dyspyralis Warr.3716 *D. illocata* Warr.

Acaciaville, July 26, 1949; Lequille, July 25, 1949, quite common at bait in the oak woods; Coldbrook, July 27, 1950; Centreville, July 22, 23, 1949, at bait; Mount Uniacke, August 11, 1950. Seemingly local and mostly in the Annapolis Valley region.

Hypenodes Doubleday (*Menopsimus* Dyar, in part).3728, 1 *H. fractilinea* Sm.

South Milford, Annapolis, Auburn, Mount Uniacke, vicinity of Halifax, Glenville. June 16 - August 27, at light. Locally common, occurring most frequently in dry, mixed woodland.

3728, 2 *Hypenodes* n. sp. (in MS)

Smaller and better marked than *fractilinea*, and grayer in coloring. Occurs only in bogs or where heathy, acid soil conditions prevail, and is the commonest *Hypenodes* in this region. This may be the smallest Phalaenid species in North America, with an average expanse of only one centimeter. Taken near Lake Rossignol, Mount Uniacke, Waverley, Herring Cove and on bogs in the Prospect Road area near Halifax. June 22 - September 7, at light.

3728, 3 *Hypenodes* n. sp. (in MS)

This is a larger species about the size of *caducus* Dyar, and very dark, the coloring in fresh individuals being very nearly a dull black. June 17 - September 2, at Annapolis, Aylesford, Lake Rossignol, Auburn, Waverley, Glenville and Baddeck. Seems to prefer bogs and cat-tail marshes, although scattered specimens have been taken in other environments.

3728,4 *Hypenodes* n. sp. (in MS)

This is the most distinctive species of *Hypenodes*. It is about the size of *fractilinea*, but has a dark brown median band that contrasts sharply with the paler areas of the wing. Also, the outer boundary of the dark median shade is strongly curved, not straight as in *fractilinea*. Mount Uniacke, Waverley, Halifax watershed area, Prospect Road bog, Herring Cove, West Northfield, Lunenburg County. July 10 - August 18, at light. Another acid bog species, frequenting much the same habitat as 3728,2 but, like that species, turning up occasionally elsewhere. Sometimes common, but highly localized, even within the bogs.

Parahypenodes B. & McD.3729 *P. quadralis* B. & McD. Plate XI, Figure 14.

Lequille and the Halifax watershed area. July 25 - August 31, at light and bait. Scarce.

Rivula Gn.3732 *R. propinqualis* Gn.

White Point Beach, Digby, Deep Brook north to Pictou County, but presumably general. July 12 - September 2, at light. Plentiful.

Herminiinae*Epizeuxis* Hbn.3734 *E. americalis* Gn.

Occurs everywhere, including Cape Breton. July 4 - September 11, at light and bait.

3735 *E. aemula* Hbn.

White Point Beach, South Milford, Lequille to Waverley and Arm-dale, and at Glenville, Cumberland County. Common in the southern portions of the province, especially the Annapolis Valley. July 4 - August 24.

— *Epizeuxis* sp. Plate XI, Figures 15 & 16.

Close to *aemula* but averaging smaller, and with paler hindwings and often darker forewings. It usually, though not always, has an ochreous orange filling in the reniform, rather than the pale yellow common in *aemula*. Digby, Lequille, through the Annapolis Valley and Mount Uniacke to Halifax, and northward at Bass River and Three Brooks. July 14 - August 23, at light and bait.

Newfoundland, Cape Breton and northern New Brunswick have a darker northern race in which the primaries are strongly suffused with blackish scaling. Baddeck, July 14 - August 8.

This species seems to have a definite connection with spruce, since it has been bred repeatedly from larvae beaten from these conifers by the Canadian Forest Insect Survey. The larvae may feed, at least in part, on lichens growing on the spruce trees.

3737 *E. rotundalis* Wlk. Plate XI, Figure 17.

Acaciaville, Lequille, Mount Uniacke, Waverley, Armdale, West Northfield, Lunenburg County, White Point Beach. July 15 - August 20, at light and bait. Not as common as the following species.

3739 *E. julia* B. & McD. Plate XI, Figure 18.

Lequille, Lawrenceetown, Coldbrook, Centreville, Armdale and Glenville. July 12 - 30. Abundant at bait in the Annapolis Valley and Cumberland County, scarcer elsewhere.

In the B. & McD. "Contributions", Vol. 4, No. 2, pl. XVIII, the explanations of Figures 11 and 13 are reversed. Figure 11 is *julia*, not *forbesi*.

3740 *E. diminuendis* B. & McD.

Lequille, Auburn, Coldbrook, Centreville, Petite Riviere, Glenville. June 20 - July 29, at light and more frequently bait. Common where it occurs, but seems totally absent in the vicinity of Halifax.

3742 *E. laurenti* Sm. Plate XI, Figure 19.

Armdale, August 1, 1945, August 21, 1948; Waverley, July 21, 1950 (2). At bait in mixed forest. Described from North Carolina, and before its discovery in a limited area of western New York was considered distinctly southern. Its occurrence in Nova Scotia is therefore surprising.

3746 *E. lubricalis* Gey.

White Point Beach, Lake Rossignol and Digby to Glenville and Three Brooks. July 20 - August 21, at bait. Scarce.

Phalaenophana Grt.3750 *P. pyramusalis* Wlk.

Lequille, South Milford, Petite Riviere to Baddeck. July 9 - July 26.
Common at light in dry, mixed woodland.

Zanclognatha Led.3752 *Z. lituralis* Hbn.

Waverley, Armdale, Bass River, Colchester County, Glenville,
Cumberland County. July 15 - 29, at bait. Scarce.

3753 *Z. theralis* Wlk.

Walker, Cat. Lep. Het. Brit. Mus., pt. 19, p. 855, 1859.

Type locality: Nova Scotia.

White Point Beach, West Northfield, Lunenburg County, Armdale,
Halifax watershed area, Shad Bay, Mount Uniacke, Baddeck. July 6 -
August 10, at light. In boggy country and, more rarely, in dry woods.

3756 *Z. laevigata* Grt.

Acaciaville, July 26, 1949. Four specimens at light in beech woods.
Point pleasant Park, Halifax, July 25, 1953.

3759 *Z. pedipilalis* Gn. Plate XI, Figure 20.

Cole Harbour, Halifax County, July 23, 1951. Two specimens at
light (W. Harrington).

3760 *Z. protumnusalis* Wlk.

Acaciaville, Lequille, Lake Rossignol to Baddeck and Cheticamp.
July 2 - August 12. Seemingly general, but never abundant like *jacchusalis*.

3762 *Z. cruralis* Gn.

Digby, Annapolis, Lawrencetown to the vicinity of Halifax, Cole
Harbour and in dry mixed forest in the Cheticamp River valley. June
12 - August 20, at light and bait. Locally common.

3763 *Z. jacchusalis* Wlk.

Occurs commonly in wooded localities everywhere, including Cape
Breton. July 10 - September 7, at light and bait.

There has been some confusion in identity between this species and
ochreipennis Grt., and the determination of *jacchusalis* is still somewhat
uncertain. Nevertheless, Walker included two Nova Scotian specimens
in his series of that species when he described it, although the actual
type came from the United States, perhaps from Trenton Falls, N. Y.

Chytolita Grt.3767 *C. petrealis* Grt.

Lequille and South Milford to Armdale, Waverley, Great Village
B addeck. June 12 - July 18, at light. Common.

Philometra Grt.3770 *P. metonalis* Wlk.

Widely distributed north at least to French Mountain, Inverness County, but never very common. June 29 - August 14, at light.

3772 *P. hanhami* Sm. Plate XI, Figure 21.

Acaciaville, Lequille, Centreville, Mount Uniacke, Halifax watershed area. July 19 - August 21, at light. Occurs very sparingly in a variety of habitats, ranging from sphagnum bogs to dry, deciduous forest.

Hormisa Wlk.3773 *H. absorptalis* Wlk.

White Point Beach, Lequille, to Oxford, Cumberland County, Bass River, Parrsboro, Stellarton and Baddeck. Presumably general. June 30 - August 4, at light and flushed by day from low vegetation, chiefly in marshy situations.

3776 *H. orciferalis* Wlk.

White Point Beach, Acaciaville, Mount Uniacke bogs, Armdale, Bass River. July 15 - 26, at light. Infrequent.

Renia Gn.3789 *R. flavipunctalis* Geyer

White Point Beach and Digby north to Glenville and Baddeck. July 7 - August 22, at light. Locally common in deciduous woods, but seems to avoid the Halifax area.

3793 *R. sobrialis* Wlk.

Walker, Cat. Lep. Het. Brit. Mus., pt. 16, p. 228, 1858.

Type locality: Nova Scotia.

Generally distributed and more plentiful than *flavipunctalis*, and more inclined to be an acid soil species. July 7 - August 20. Very common in the coniferous forest and bog country near Halifax.

Bleptina Gn.3797 *B. caradrinalis* Gn.

Generally distributed and common on the mainland; no records for Cape Breton but almost certainly should occur there. Seems to require no special habitat as far as the adults are concerned. June 22 - August 9.

Palthis Hbn.3807 *P. angulalis* Hbn.

Digby, Lequille, Lake LaRose, Annapolis County to the vicinity of Halifax, Cole Harbour, Mount Uniacke, and Stellarton. June 5 - July 31, at light. Widely distributed but not common.

NONODONTIDAE

(Forbes and Franclemont arrangement)

Melalophinae*Melalopha* Hbn.3822 *M. apicalis* Wlk.

Digby, Annapolis, Petite Riviere, vicinity of Halifax, Great Village, Three Brooks, Baddeck. May 28 - July 26. Evidently single brooded. Bred from a larva on willow.

3826 *M. strigosa* Grt.

Acaciaville, South Milford, Annapolis, Auburn, vicinity of Halifax, Bass River, Three Brooks, Baddeck. June 11 - July 17, at light. Sometimes common in or near groves of aspen, the larval food plant.

3827 *M. albosigma* Fitch

Generally distributed and usually the commonest species of *Melalopha*. Two broods: May 9 - July 31, and July 30 - September 3. The pale spring form (possibly var. *specifica* Dyar) abundant in deciduous woods near Halifax. Summer form scarcer, indicating only a partial second generation. A second brood specimen bred from a larva on aspen at Londonderry, Colchester County.

Phalerinae*Datana* Wlk.3829 *D. ministra* Dru.

Acaciaville and White Point Beach through the Annapolis Valley and Halifax County to Great Village, Pictou and Baddeck. Probably everywhere. June 12 - August 4. Very plentiful, the larvae feeding mostly on oak and apple. Nova Scotian specimens vary greatly and tend to have a more granulate appearance than is normal farther south.

3830 *D. angusii* G. & R.

Annapolis Royal, Armdale, Great Village, Baddeck. June 14 - August 10. These are redder than normal *angusii* and may not really be conspecific; yet in series they seem distinguishable from our other species. In the absence of walnut and hickory *angusii* probably has an alternative food plant.

3831 *D. drexeli* Hy. Edw.

Several larval colonies on *Hamamelis* at Lowe's Landing, Lake Rossignol, August 23, 1951. Pupae from these failed to survive overwintering, so no reared adults are available for study. A series of males

taken at Auburn, June 30, 1951 probably belong here, but some of them run very close to *major*. *Drexeli* is most commonly known as a *Vaccinium* feeder.

3832 *D. major* G. & R. Plate XIII, Figure 1.

Annapolis, Armdale, Shad Bay, Waverley, Mount Uniacke, Great Village, Baddeck. June 28 - July 27, at light. Determined by the male genitalia, on comparison with the figures given by Forbes. No larvae seen. Farther south *major* feeds on *Andromeda* (*Neopieris mariana*) and highbush blueberry (*V. corymbosum*).

Notodontinae

Gluphisia Bdv.

(3939) *G. septentrionis* Wlk.

Generally distributed and common, but never seen in such abundance as *G. avimacula*. May 31 - August 13. Larva on aspen.

(3940) *G. lintneri* Grt. Plate XII, Figure 4.

Debert, Colchester County, May 19, 1952 (W. Harrington), and another specimen in the C. B. Hills collection from Stellarton, without date. In areas where it is better known, *lintneri* flies earlier in the spring than *avimacula*, although their flight periods do overlap. Presumably an aspen feeder.

(3940,1) *G. avimacula* Hudson. Plate XII, Figure 3 and Plate XIII, Figure 4.

Lake Kejimukujik, Smith's Cove, Auburn, Coldbrook, Centreville, Mount Uniacke, vicinity of Halifax, Glenholme, Pictou, in stands of poplar. May 22 - July 3. One of the commonest Notodonts. I have seen almost one hundred specimens of this species come to light in one evening (Centreville).

The striking gray and black form *slossoniae* Pack. occurring along with the normal form at Armdale, Mount Uniacke, Lakeview, Halifax County, Centreville, Bridgewater, Smith's Cove and Lake Kejimukujik, but much scarcer. Both males and females of *slossoniae* occur.

The early stages of *avimacula* are unknown, but the adults are invariably associated with aspen.

Nadata Wlk.(3857) *N. gibbosa* A. & S.

Generally distributed and moderately common. June 17 - August 7. Bred from larvae on oak and birch, and a larva seen feeding on *Acer platanoides*.

Lophodonta Pack.(3854) *L. angulosa* A. & S.

South Milford, Lequille, Round Hill, Centreville, Bedford, Armdale, Prospect Road area, Petite Riviere. June 12 - August 10. Scarce, except in the oak woods of the southern counties. Bred *ex ovo* on oak from a female taken at Centreville.

(3853) *L. ferruginea* Pack.

White Point Beach, South Milford and Lequille to Northumberland Strait and in Cape Breton to the Cheticamp River. Common and apparently general. May 31 - August 5. Larva on birch.

Peridea Stephens(3849) *P. basitriens* Wlk.

Acaciaville, Annapolis Royal, Mount Uniacke, Glenholme, Great Village. June 29 - August 28. Usually quite scarce, although Mr. Hall took it commonly at Great Village. Early stages unknown. I tried in vain to get young larvae started on almost every likely tree or plant I could think of, including even ferns, since Mr. D. J. Lennox of Jefferson, N. H., reared one from a larva that he thought had been feeding on *Dennstaedtia* (Hay-Scented Fern).

Odontosia Hbn.(3847) *O. elegans* Strecker

Annapolis, Greenwood, Armdale, Glenville, Three Brooks. June 12 - July 29, at light. Scarce and local. A number came to my lights on a warm, rainy night at Glenville, July 8, 1950. Reared on poplar (Franclemont).

Pheosia Hbn.(3851) *P. rimosa* Pack.

Generally distributed and plentiful in some localities. Fluctuates greatly in numbers from one season to another. Mostly in August, some in July; once as early as June 3, and a straggler as late as Sep-

tember 24. The mauve colored larva, with small, black, SpHINGID-like caudal horn, on poplar and willow in late summer.

Notodonta Ochs.

(3850) *N. simplaria* Graef Plate XIII, Figure 3.

Annapolis Royal, July 31, 1946; Lake Rossignol, August 20, 1951; Centreville, June 4, 1949. Rare. Larva on poplar (Franclemont).

(3843) *N. stragula* Grote

Digby, Annapolis, Round Hill, Waverley, MacNab's Island, Cole Harbour, Truro, Stellarton. June 13 - July 26. Bred from larvae on willow at Smith's Cove, Digby County and Mount Uniacke.

Nerice Wlk.

(3858) *N. bidentata* Wlk.

Great Village, Colchester County, at light. No date (A. D. Hall). Larva on elm.

Symmerista Hbn.

— *S. leucitys* Franclemont. Plate XII, Figure 6.

Acaciaville, Lequille, MacNab's Island, Rockingham, Stellarton, Baddeck. June 15 - July 26. Locally common. Determined by the larvae and male genitalia. Bred from larvae on maple at Annapolis.

(3859) *S. albifrons* A. & S. Plate XII, Figure 5.

Lequille, Armdale, MacNab's Island, Stellarton. June 15 - July 2. Scarce. Five specimens only, although evidently seen from Nova Scotia by Franclemont (Can. Ent., Vol. 78, p. 100) Determined by genitalia. An oak feeder.

— *S. canicosta* Franclemont Plate XII, Figure 7.

Lequille, Mount Uniacke, and Armdale, MacNab's Island, St. Margaret's Bay and Mason's Point, Halifax County. June 22 - August 2. Records in the Canadian National Collection from White Point Beach and Baddeck probably also belong here, but I have not seen the specimens. This is our commonest *Symmerista*. Bred at Annapolis from larvae on English oak. Larva also reported on maple and beech.

Dasylophia Pack.

(3881) *D. thyatiroides* Wlk.

Round Hill, July 10, 1940, July 11, 1939; Great Village, 1945.
Rare. Food plant not definitely known, but might be *Robinia*.

Hyparpax Hbn.

(3865) *H. aurora* A. & S.

Truro, July 11, 1927. One female, in the Canadian National Collection. Larva on oak.

Oligocentria H.-S.

(3912) *O. lignicolor* Wlk.

Acaciaville, Annapolis, Wolfville, Bedford, Armdale, Peggy's Cove. Common in the southern counties. June 29 - August 25. Larva on oak, beech, birch.

Schizura Dbldy.

(3927) *S. leptinoides* Grt.

Annapolis Royal, July 17, 1931; Lequille, July 27, 1946; Great Village, 1945 (two); Glenville, July 12, 1949; Stellarton, no date. Rare. Nova Scotian specimens are smaller and paler than normal. Larva on oak and probably other trees.

(3919) *S. semirufescens* Wlk.

White Point Beach and Acaciaville to Glenville and Three Brooks. Often quite common. July 3 - August 17. Larva on willow and birch.

(3921) *S. concinna* A. & S.

Moths taken at Round Hill, White Point Beach, Stellarton and Baddeck, June 1 - July 25, at light. Decidedly rare as an adult, much commoner as a larva (the red-humped apple worm). Colonies of larvae on willow, poplar, apple and bayberry at Smith's Cove, Digby Co., Mount Uniacke, Sackville, Meagher's Grant, Halifax County and Three Brooks, Pictou County. I have tried repeatedly to rear the species through without success. In the fall the larva makes a thin, tough cocoon among dead leaves and other debris on the ground and then hibernates, without actually shedding its larval skin until the spring. Larvae in this state are not overwintered easily, and tend to die during the winter, or else do not have enough strength left in the spring to shed their skins, and soon succumb. Mr. D. J. Lennox of Jefferson, N. H. successfully reared *concinna* in 1952, and the Canadian Forest Insect Survey has bred it through a number of times.

(3924) *S. unicornis* A. & S.

White Point Beach, Petite Riviere and Digby north to Glenville and Baddeck. Common and probably present everywhere. May 31 - August 23. Larva green and brown, with a large thoracic horn-like hump; on willow and cherry. A rather general feeder.

(3920) *S. ipomoeae* Dbldy.

Generally distributed and moderately common. June 29 - August 14. *Ipomoeae* and form *cinereofrons* Pack. in equal numbers, form *telifer* Grt. present but much scarcer. Larva a general feeder on the common deciduous trees.

(3923) *S. badia* Pack.

Generally distributed, including Cape Breton. June 5 - August 14. Common. Larvae in Nova Scotia on *Viburnum cassinoides*.

Heterocampa Dbldy.(3905) *H. manteo* Dbldy.

Acaciaville, Granville Ferry, Lequille, Truro, Baddeck and various localities in Halifax County. June 29 - August 25. I have found *manteo* common only in beech and oak woods, although elsewhere the larva has also been reported on birch and other trees.

(3908) *H. bilineata* Pack.

Round Hill, Great Village and Baddeck. June 10 - August 22. Rare, except at Great Village where scores of specimens were taken at light by the late Mr. A. D. Hall. Larva on elm.

(3906) *H. biundata* Wlk.

Acaciaville, Lequille, White Point Beach, Petite Riviere, vicinity of Halifax, Glenville, Baddeck. June 8 - August 4. Not uncommon. Larva on maple.

3907 *H. guttivilta* Wlk. Plate XIII, Figure 5.

Walker, Cat. Lep. Het. Brit. Mus., pt. 5, p. 992, 1855.
Type locality: Nova Scotia.

Annapolis and vicinity, Round Hill, Lake Kejimukujik, Coldbrook, Halifax and vicinity, Cumberland County (Hall), Baddeck. May 29 - July 16, mostly in June. The commonest *Heterocampa*. Larvae found on beech, choke cherry and sugar maple were probably this. A general feeder on deciduous trees.

(3902a) *H. umbrata pulverea* G. & R.

White Point Beach, Acaciaville, South Milford, Round Hill, Lawrenceetown, Mount Uniacke, Shad Bay, Prospect Road, Halifax County. June 15 - August 2. Rare. Reared *ex ovo* on oak and white birch.

(3891) *H. obliqua* Paek. Plate XIII, Figure 2.

South Milford, Lequille, Round Hill, White Point Beach, Truro. July 6 - August 8. A fine series from the Annapolis County localities. Bred from larvae on oak (*Quercus borealis*) at Lequille.

Macrurocampa Dyar

(3910) *M. marthesia* Cram.

Chignecto Mines, Cumberland County, August 17, 1932 (H. G. Payne). The only Nova Scotian specimen seen. Larva on oak and maple.

Cerurinae

Cerura Schrank

(3934) *C. occidentalis* Lint.

White Point Beach, Lequille, Granville Ferry, Round Hill, Centreville, Armdale. Shad Bay, MacNab's Island, Stellarton, Baddeck. July 5 - August 2. Widely distributed but scarce, most of the records being just single specimens. Larva on willow.

(3935) *C. cinerea* Wlk.

Round Hill, July 8, 1940; Lawrenceetown, July 14, 1945; Auburn, June 30, 1951; Armdale, July 1, 1948; Glenholme, June 26, 1952. Rare. Larva on poplar and willow.

(3938c) *C. scolopendrina aquilonaris* Lint. Plate XIII, Figure 6.

Here in the north-east the line of separation between *scolopendrina* and *modesta* is obscure. The adults, at least, run extremely close, and when the specimens have gone greasy, or are even slightly worn, it is often virtually impossible to name them satisfactorily. The specimens I have chosen to place here average larger, and are always whiter than *modesta*, lacking most of the smoky cast in the white areas of the primaries supposedly characteristic of that species. Acaciaville, Lequille, Round Hill, Centreville, Mount Uniacke, vicinity of Halifax, Cole Harbour, Stellarton and Baddeck. July 15 - August 16. Food plant probably willow.

(3937) *C. modesta* Hudson

Many records from White Point Beach and Deerfield, Yarmouth County north to Three Brooks and Baddeck. June 20 - August 12. Commoner than *scolopendrina*. Bred from larvae on willow (McDunnough).

LIPARIDAE

Orgyia Ochs. (*Notolophus* Germar)3943 *O. antiqua nova* Fitch

Digby, White Point Beach, Halifax, Debert, Parrsboro. August 27 - September 29, flying by day. Fluctuates greatly in numbers. Several years ago this species and *leucostigma* were about equally responsible for the defoliation of linden, Norway maple, elm and other shade trees in Halifax, but since then *antiqua* has become quite rare.

3948 *O. leucostigma* A. & S.

Various localities from White Point Beach, Lake Rossignol and Digby northward. No doubt general. August 18 - October 9, at light. Appears to be mainly nocturnal. The larvae feed on almost any tree or shrub, including conifers. The females of *Notolophus* are wingless.

Dasychira Hbn. (*Parorgyia* Pack.)3954 *D. vagans* B. & McD. Plate XIII, Figures 9 and 10.

A very dark race. Lequille, Round Hill, Waverley, Shad Bay, Herring Cove, Great Village, Glenville. July 12 - August 22. Probably a general feeder on deciduous trees.

3955 *D. dorsipennata* B. & McD. Plate XIII, Figure 8.

French Village, Halifax County, a specimen bred from a larva on birch, pupating and emerging in September, 1952. A specimen taken at Auburn, June 30, 1951 is probably also referable to *dorsipennata*. The species of this genus ordinarily hibernate as partly grown larvae.

3961 *D. plagiata* Wlk. Plate XIII, Figure 7, normal form.

White Point Beach, Lake Rossignol and Lequille to Baddeck. July 3 - August 26. Common in coniferous areas. Larva on pine, spruce and fir.

In the Annapolis Valley region there occurs, in company with normal *plagiata*, a form that seems separable, and may eventually prove to be another species. It averages a little larger and is not so brown, presenting a paler, grayer, less contrasty appearance, and the lines are more diffuse. The t.p. line is straighter, tending less to make a sweeping curve around the reniform, which is white or grayish, never brown—or ochreous-tinged as in *plagiata*. Acaciaville, Lequille, Centreville (a long series) July 22 - 26.

Stilpnotia Westwood

3966 *S. salicis* Linn. The Satin Moth.

Annapolis, Lawrencetown, Amherst, Baddeck and the vicinity of Halifax. July 10 - August 6, at light. Larvae occasionally in sufficient numbers in June and early July to defoliate the introduced white poplar (*Populus alba*). Introduced from Europe.

Nygmia Hbn.

3967 *N. phaeorrhoea* Donovan. Brown-tail Moth.

The first known occurrence of this notorious pest in Nova Scotia was a specimen taken at Digby, July 14, 1905, by Mr. John Russell (the specimen is in the Nova Scotia Museum of Science collection). In the years following it increased rapidly and became a serious threat to the fruit growers of the Annapolis Valley until, through the systematic collecting of larval nests, and universal spraying of orchards at the proper season, it was reduced to negligible numbers. There are no records at all for the thirties, but in the decade just past a few males came to light at Armdale, July 24, 1944, and Lawrencetown, Annapolis County, July 10, 1944. Older specimens seen from Deerfield, Yarmouth County, Bear River, localities in Annapolis and Kings counties, Truro, Stellarton and MacNab's Island. July 15 - August 14, 1910, 1913 and 1922.

LASIOCAMPIDAE

Tolyte Hbn.

3978 *T. velleda* Stoll.

Round Hill, September 15, 1939, September 21, 1938, October 10, 1936, at light. Larva reported on various deciduous trees.

3987 *T. laricis* Fitch

Digby, Round Hill, Auburn, Grand Pré, Mount Uniacke, Armdale, Peggy's Cove, MacNab's Island, Truro, Debert. August 15 - October 4. Males often common at light, but only one female seen. Larva not confined to larch, judging by the records of the Canadian Forest Insect Survey, but rather a general feeder on conifers.

Malacosoma Hbn.3989 *M. americana* Fabr. Orchard Tent Caterpillar

Deerfield, Yarmouth County, Digby, Lawrencetown, Centreville, Armdale, MacNab's Island, Truro, Stellarton, Three Brooks. July 10 - 29, the larvae feeding up in May and June. Common locally and sometimes a pest of fruit trees, but rarely as abundant as the following.

3997 *M. disstria* Hbn. Forest Tent Caterpillar.

Including form *thoracicoides* N. & D. Generally distributed throughout the area, including Cape Breton. June 18 - August 9 at light, sometimes in extreme abundance. A serious pest of forest and shade trees generally, but showing a distinct preference for oak and aspen. A major outbreak of the nineteen forties had its starting point at Brickton, Annapolis County, and whole stands of woodland extending for miles along the main highway were completely defoliated. Fortunately *Malacosoma* is heavily parasitized, such outbreaks rarely surviving longer than two years in a given locality. The centres of population density in these colonies keep moving from year to year, and the species is constantly disappearing where it was formerly abundant and invading new territory where it had scarcely been seen for years.

Epicnaptera Ramb.3999 *E. americana* Harr.

General from Digby and Lake Kejimukujik northward to Truro and Stellarton. Not seen from Cape Breton but presumably present there. May 22 - July 11. Varies in coloration from pale bluish-gray to a deep reddish or purplish brown. Bred from larvae on white birch and alder. Also feeds on poplar and other trees.

THYATIRIDAE

Habrosyne Hbn.4004 *H. scripta* Gosse

Generally distributed and common. June 5 - August 16, at light and bait. The larva has been reported on *Rubus* and other Rosaceae.

Pseudothyatira Grt.4007 *P. cymatophoroides* Gn.

In numerous localities from Digby and White Point Beach to Baddeck, the form *expultrix* Grt. being somewhat commoner than the type form. June 27 - August 15, at light and bait. Bred from a larva on birch, but probably a rather general feeder.

DREPANIDAE

Eudeilinea Pack.4017 *E. herminiata* Gn.

Annapolis Royal, June 13, 1949, July 24, 1946; Cheticamp River Valley, July 2, 1949. Rare. Larva on shrubby species of *Cornus*.

Oreta Wlk.4019 *O. rosea* Wlk.

Walker, Cat. Lep. Het. Brit. Mus., pt. 5, p. 1164, 1855.

Type locality: Nova Scotia.

Common in suitable areas throughout, including in smaller numbers the form without the yellow bands, *irrorata* Pack. June 7 - August 28, with stragglers as late as October 10 and November 3. Larvae sometimes plentiful on *Viburnum cassinoides*.

Drepana Schrank4020 *D. arcuata* Wlk.

Walker, Cat. Lep. Het. Brit. Mus., pt. 5, p. 1164, 1855.

Type locality: Nova Scotia.

White Point Beach and Digby to French Mountain, Inverness County. Common. Two broods: May 19 - July 22 and July 26 - August 28. Larva on birch and alder.

4021 *D. bilineata* Pack.

Numerous localities from White Point Beach, Lake Kejimukujik, Acaciaville and Digby to Truro, Stellarton, and in Cape Breton at French Mountain, Inverness County. Always a common species at light in the woods near Halifax. Two broods: May 9 - July 23 and July 17 - August 28. The pale, yellow-brown summer generation has been given the form name *levis* Hudson. Larva on birch.

GEOMETRIDAE

*Brephinae**Brephos* Zinck4023 *B. infans* Moesch.

Greenfield, Queens County, Coldbrook, Armdale, MacNab's Island, Debert. April 1 - May 16. Abundant in the vicinity of Halifax from 1943 to 1945, then becoming very scarce until 1950-52 when it again appeared in numbers, although not as commonly as before. *Infans* flies on warm, sunny afternoons in early spring and is very local. The moths are strong flyers but seem to limit themselves to certain areas where they follow a regular flight pattern, perhaps across a sunny clearing in birch woods on a southern slope, or through open, scrubby woods. They are not easily captured. The food plant is birch.

Oenochrominae*Alsophila* Hbn.

4026 *A. pometaria* Harr. The Fall Canker-worm.

Frequently a troublesome pest of shade and fruit trees, at least in the counties of Halifax, Lunenburg, Queens, and in the Annapolis Valley region from Windsor to Annapolis Royal. Also seen from Digby and Stellarton. Adults October 30 - December 5, and once taken flying in the woods on January 1, 1949. A general feeder on deciduous trees.

Geometrinae*Nemoria* Hbn.

4048 *N. mimosaria* Gn.

Generally distributed and common, at least to Baddeck and Cheticamp. June 2 - August 8, mostly in June. Bred from larvae on willow, alder, sweet fern and larch.

4049 *N. rubrifrontaria* Pack.

Common all through the southern part of the province northward to Colchester and Pictou counties. Probably present wherever the food plant grows. June 4 - July 25, at light. Bred many times from larvae on sweet fern, and once from *Myrica gale*. The remarkable larva, closely resembling that of *mimosaria*, is scarcely distinguishable from a brown, withered sweet fern leaf.

Synchlora Gn.

4070 *S. aerata* Fabr.

White Point Beach, South Milford, Auburn, Mount Uniacke, vicinity of Halifax, Glenville, Baddeck. June 30 - August 4, at light. Locally common. Bred from a larva on *Gaylussacia*.

4074 *S. rubrifrontaria* Pack.

From approximately the same localities as the last but a little scarcer. July 8 - August 14. Early stages not known.

Chlorissa Steph.

4087 *C. pistaciaria* Gn.

Annapolis, Auburn, Mount Uniacke, Armdale, Prospect Road area, Halifax County, Debert. June 5 - July 2. Locally common. Often flushed by day on bogs and barrens where it flies in company with *Mesothea incertata*. Occasionally comes to light in dry woodland. Males dark olive green later fading to ochreous orange above; always

orange beneath. Fringes orange or brown, sometimes pinkish, Females olive green above, paler green beneath, with fringes concolorous. Larva has been reported on oak, ironwood and basswood.

Mesothea Warr.

4089 *M. incertata* Wlk.

Digby, Aylesford, Wolfville, Mount Uniacke, Three Brooks, Pictou County, and in many spots about Halifax. May 9 - June 13, usually by day. Moths deep, blue-green on emerging, soon fading to buff yellow. Bred from larvae on willow (twice) and sweet fern, although the moths are commonest on blueberry barrens and bogs, where the normal food plant is thought to be *Vaccinium*.

Chlorochlamys Hulst

4095 *C. chloroleucaria* Gn.

Three Brooks, Pictou County, July 25, 1943, one specimen. A fine series at light near the salmon pools, Cheticamp River, Inverness County, July 2, 1949. Larva on blackberry (Forbes).

Sterrhinae

Scopula Schrank

4140 *S. cacuminaria* Morr.

Lequille, Round Hill, Coldbrook, Baddeck. July 9 - 26. Rare and local. Larva will eat lettuce (Franclemont).

4143 *S. junctaria* Wlk. (*quadri-lineata* Paek.) Plate XIV, Figure 1.

For the application of the names *junctaria* and *persimilis*, see McDunnough, Can. Ent., Vol. LXXI, p. 188, 1939.

Clementsvalle, South Milford, Lawrencetown, Mount Uniacke, Armdale, Stellarton. June 22 - August 2. Not common.

4148 *S. persimilis* Hlst. (*junctaria* Wlk.) Plate XIV, Figure 2.

White Point Beach, Petite Riviere, Acaciaville, South Milford, Annapolis, Mount Uniacke, Waverley, Armdale, Bass River, Parrsboro, Baddeck. June 22 - July 24. Seems commoner than *junctaria*.

4149 *S. enucleata* Gn.

Specimens seen from most of the localities where collecting has been done. June 15 - August 23. Common. Includes forms *adornata* Prout, *mensurata* Wlk. and *relevata* Swett. The larva has been reported on wild cherry.

4158 *S. inductata sobria* Wlk. Plate XIV, Figure 3.

Barrington Passage to Baddeck. Probably everywhere. June 13 - September 12, at light and flushed by day. Essentially a species of bogs and barrens, although sometimes occurring elsewhere. Larva possibly a general feeder on low plants.

Sterrhæ Hbn.4195 *S. rotundopennata* Pack. Plate XIV, Figure 4.

South Milford, June 27, 29; Mount Uniacke, June 22; Bog, Prospect Road, Halifax County, June 19, July 3; Ship Harbour, June 24. All in 1951. Locally common, but apparently overlooked previously. Flushed from low shrubby bordering woods; a few at light.

Pleuroprucha Moesch.4206 *P. insulsaria* Gn.

Acaciaville, July 26, 1949; Armdale, June 30, July 8, 1945, July 6, 1947, at light. Rare. Larva reported on oak, *Solidago* and *Celastrus* (Forbes). Rupert reports willow as a food plant, the young larvae feeding in the catkins.

Cosymbia Hbn.4211 *C. pendulinaria* Gn.

Plentiful everywhere from White Point Beach, Petite Riviere, and South Milford to Baddeck. Apparently two broods overlapping, May 20 - September 1. Reared several times from birch and once from bayberry, but the favourite food in this region appears to be sweet fern. The pretty green and black angulate pupa resembles a *Papilio* or Pierid chrysalis in being supported in the same manner by a girdle of silk.

Larentiinae

Carsia Hbn.4213c *C. paludata thaxteri* Swett Plate XIV, Figure 5.

Herring Cove, bog on Prospect Road, Mount Uniacke, Canso, Mountains above Pleasant Bay, Inverness County, Baddeck. June 18 - August 17, usually flushed by day. A few at light. Frequents.

mall, wet, sphagnous bogs and wet margins or pockets of larger bogs. Varies from bluish-gray to pinkish, but smaller and not so well marked as *boreata* Pack. Larva in Europe on *Vaccinium*.

Acasis Duponchel

4221 *A. viridata* Pack. Plate XIV, Figure 6.

Auburn, Coldbrook, Centreville, White Point Beach, Mount Uniacke, Peggy's Cove, Cole Harbour, Parrsboro, Baddeck, and in various localities near Halifax. May 9 - July 3, at light. Bred several times from stout, sluggish larvae in slight webs in the fruiting cymes of *Viburnum cassinoides*. The moth is never common.

Nyctobia Hulst

4223 *N. limitaria* Wlk. Plate XIV, Figures 8 and 9.

Numerous localities from Caledonia, Lake Kejimukujik, Digby and Round Hill to Mount Uniacke, Debert, Stellarton and Cole Harbour. Probably in coniferous woods throughout. April 16 - June 22. Larva on spruce, fir and hemlock. Extremely variable but probably all the one species. It is doubtful if *anguilineata* G. & R. occurs here.

4225 *N. atroliturata* Wlk. Plate XIV, Figure 7.

Walker, Cat. Lep. Het. Brit. Mus., pt. 26, p. 1710, 1862.
Type locality: Nova Scotia.

Digby, Lake Kejimukujik, Greenwood, Mount Uniacke, Waverley, Armdale, MacNab's Island. April 19 - June 13. Scarce.

Lobophora Curtis

4226 *L. nivigerata* Wlk.

Generally distributed and often common. May 19 - July 29, at light. Larva on poplar (Canadian Forest Insect Survey).

Heterophleps H.-S.

4233 *H. triguttaria* H.-S.

Near Portapique, Colchester County, July 17, 1948 (two); Centreville, July 22, 1949. Rare. Larva on maple (Forbes).

Trichodezia Warren4235 *T. albovittata* Gn.

White Point Beach, South Milford, Coldbrook, MacNab's Island, Gay's River, Three Brooks, Baddeck and Isle Haute, off Cape Chignecto. May 26 - August 19, with no apparent break. The moth is diurnal and frequents rich, damp woodland or partly shaded stream margins with abundant herbaceous vegetation, such as violets, grasses and meadow rue.

Operophtera Hbn.4239 *O. bruceata* Hulst Plate XIV, Figure 10.

Digby; not common; November (Russell), as recorded in the catalogue of 1909. Presumably that was before the introduction or widespread dispersion of *brumata*, and it therefore seems safe to assume that Russell really took *bruceata* and not the European species. More recently Walter Harrington found *bruceata* occurring commonly at Glenholme and Debert, Colchester County, November 1 - 13, 1951-52, and one of these is figured. The species is thought to feed on Rosaceous trees.

— *O. brumata* L. Winter Moth.

First recognized as occurring here in 1949, this European species has become thoroughly established and is spreading rapidly. It now has a foothold in the southern coastal district from Hebron, Yarmouth County to Cole Harbour, Halifax County, and in Lunenburg and Queens counties penetrates inland almost to Annapolis County. It also occurs at Windsor. The greatest concentration of *brumata* is in the counties of Lunenburg and Queens where, in Bridgewater and Liverpool, it is a serious pest of shade trees including oak, maple, elm and linden, as well as the fruit trees. The point of introduction seems to have been somewhere in this south shore area, since not until 1947 or 1948 was *brumata* first noticed at Halifax. While still relatively uncommon there it was mistaken by the author for *O. bruceata*.

The adults occur from October 23 to December 19. The larvae hatch as soon as the leaves appear in the spring, and have nearly all pupated by the last week of June—about a week earlier than *Alsophila pomataria*, which often occurs together with *brumata* in infestations.

Epirrita Hbn.4243a *E. autumnata henshawi* Swett

Digby, Maitland Bridge, Armdale, Cole Harbour, Wellington, Halifax County, Inverness County, Baddeck. October 1 - 21, at light.

Scarce. Female not wingless. On this continent there are reports of the larva on hemlock and larch.

Triplosa Steph.

4244 *T. affirmaria* Wlk.

Mount Uniacke, August 28, 1949; MacNab's Island, September 13, 1909; Glenholme, April 29, May 19, 1952; Chignecto, 1938; Smith's Cove, Digby Co., May 17, 1953. Rare. Larva of the European species on *Rhamnus* and wild plum.

Calocalpe Hbn.

4247 *C. undulata* Hbn.

Acaciaville to Glenville and eastward to Baddeck. Evidently general. June 19 - August 12. Moderately common. Larvae gregarious and tying up terminal shoots of *Prunus serotina* (southern Nova Scotia); otherwise solitary on *Rhodora* (Halifax), on willow (Gaspé) and Azalea (Martha's Vineyard). It remains questionable whether more than one species is involved.

Eupithecia Curtis

The arrangement and nomenclature follows Dr. McDunnough's recent Revision of *Eupithecia* (see bibliography). Most of the determinations also are his.

(4287) *E. palpata* Pack. Plate XIV, Figure 13.

Acaciaville, Annapolis and Lake Kejumukujik to Halifax and Mount Uniacke, and farther north at Baddeck. May 8 - July 5. The normal, uniformly dark brown form bred from larvae on *Pinus strobus*. Another form, doubtfully conspecific, has a contrastingly reddish-brown median area, occurs in similar numbers and feeds on spruce. Although only three specimens emerged, the test of rearing *ex ovo* suggests that it may be distinct from both *palpata* and *transcanadata*. This spruce feeding form seems to have the genitalia of *palpata*.

(4287,1) *E. transcanadata* MacKay Plate XIV, Figure 14.

Margaret R. MacKay, Can. Ent., Vol. 83, p. 77, 1951.

Types from Kootenay District, B. C.

Acaciaville, South Milford, Lequille, Isle Haute, Bay of Fundy, Centreville, Mount Uniacke, Peggy's Cove, Parrsboro, Baddeck, Cheti-

camp, and in several places near Halifax. June 2 - July 9. Just as common as *palpata* in most localities. Bred several times from larvae on balsam fir.

Palpata and *transcanadata* are not always easily separated, but part of our material fits fairly well the description of *transcanadata* in maculation, genitalia and/or larval habits. Such specimens are tentatively set aside under this name.

(4288a) *E. columbiata erpata* Pears.

White Point Beach, South Milford, Bridgewater, Mount Uniacke, Armdale, Waverley, Lakeview, Parrsboro. May 21 - July 18, mostly in May and early June. Very local. Choke cherry has been reported as a food plant.

(4266) *E. miserulata* Grt.

Armdale, September 7, 1948, one female. Three bred in late August, 1953 from larvae on *Thalictrum* at White Point Beach (McDunnough). Recorded food plants: *Eupatorium*, *Aster*, *Ptelea* and Oxeye Daisy.

(4267a) *E. misturata frostiata* Swett

Bridgewater, Mount Uniacke, Armdale, Halifax watershed area, Rockingham. Two broods: May 9 - June 16 and August 11 (several). Scarce. It has been reared from larch in the Ottawa region.

(4276) *E. castigata* Hbn.

Generally distributed. Taken in many places, including Baddeck and Cheticamp in Cape Breton. June 3 - July 19. One of the commonest *Eupithecias*. Bred April 7, 1951 from a larva on alder at Sackville, Halifax County.

(4279) *E. albipunctata* Haw. Plate XIV, Figure 15.

White Point Beach, July 5, 1937; Prospect Road, Halifax County, July 2, 1951; Cheticamp River Valley, July 2, 1949. Bred from a larva feeding on the fruit of *Viburnum cassinoides* at White Point Beach (McDunnough). On *Heracleum lanatum* in B. C.

(4283) *E. luteata* Pack.

From South Milford through the Annapolis Valley region and Mount Uniacke to the vicinity of Halifax, and at Lake Kejimukujik, Caledonia, Baddeck, and on Isle Haute, off Cape Chignecto. Probably in coniferous forest everywhere. May 16 - June 30. Larva on spruce, fir, hemlock and larch.

(4280) *E. fletcherata* Tayl.

Acaciaville, Lake Rossignol, Mount Uniacke and scattered localities in Halifax County. Two broods: June 6-27 and July 26-September 3.

Bred April 9, 1951 from a larva feeding on flowers of *Prenanthes trifoliolata* at Purcell's Cove, Halifax County. Previous reports of larvae feeding on spruce and larch suggest that it is a very general feeder.

(4282) *E. bradorata* McD.

White Point Beach, July 21, 1934; Centreville, June 2, 1951; Mount Uniacke, June 15, 1950; Prospect Road area, July 3, 12, 1951; Baddeck, June 29, 1947. Reared from a pupa found on white spruce by the Canadian Insect Survey.

(4320) *E. arceuthata taylorata* Swett Plate XIV, Figure 16.

Apparently not normal *taylorata* but closer to it than anything else. Coldbrook, June 5, 1949; Centreville, June 2, 1951; Aldershot, June 4, 1952 (eleven specimens); Peggy's Cove, July 8, 1951. Always at light near extensive patches of *Juniperus communis*, the probable food plant.

(4319a) *E. satyrata fumata* Tayl.

Lequille, White Point Beach, Mount Uniacke, vicinity of Halifax, Parrsboro, Baddeck, Cheticamp. June 8 - July 15, and August 23. Bred (McDunnough and Ferguson) from larvae in flower heads of *Aralia hispida*, *Thalictrum*, *Viburnum cassinoides*, *Chelone glabra* and *Spiraea latifolia*.

(4332) *E. nimbicolor* Hlst. Plate XIV, Figure 17.

Mount Uniacke bogs, June 7 and 15; Halifax watershed area, May 31, 1952; Bog, Prospect Road. June 19, 1951, June 18, 1952; Peggy's Cove, June 22, 1952. Locally common in bogs. Life history unknown.

(4324) *E. strattonata* Pack.

Annapolis, South Milford, Round Hill, Auburn, Mount Uniacke, Sackville, Halifax watershed area. June 6 - July 19. Usually uncommon. Bred from a larva on alder at Sackville, and reported on *Spiraea*.

(4326) *E. grata* Taylor

A single female was taken by Dr. McDunnough at Baddeck Forks. Cape Breton in July, 1936.

(4323) *E. russeliata* Swett

This is the commonest *Eupithecia* everywhere in Nova Scotia. June 4 - August 17. Most abundant in heathy or acid bog areas or in spruce forest. A number of specimens reared at Halifax from larvae on *Kalmia angustifolia* and *Rhododendron canadense*.

- (4330) *E. fumosa* Hlst. (*E. coagulata* Auct., nec Guenée.) Plate XIV, Figure 18.

Acaciaville, Digby County, June 15, 1949. Larva reported on currant in Manitoba.

- (4331) *E. coagulata* Gn. (*E. geminata* Pack.)

Lequille, Round Hill, Aylesford, White Point Beach, Bridgewater, Armdale, Mount Uniacke, Stellarton. July 18 - September 4. Often present but never very common. Large *Eupithecia* larvae, presumably of *geminata*, on *Aster* and *Solidago* in October at Halifax.

- (4333) *E. gelidata* Moesch. Plate XIV, Figure 19.

White Point Beach, July 29 - August 11, 1934-35 (McDunnough); Bog on the Prospect Road, Halifax County, July 2 - August 11, 1951; Peggy's Cove, August 20, 1952, at light. A boreal species occurring in the bogs. Supposed to have been bred from a larva on birch in Victoria County (Canadian Forest Insect Survey).

- (4335a) *E. perfusca youngata* Tayl.

White Point Beach, Armdale, Mount Uniacke, Baddeck. June 26 - August 14. Locally common. Nothing is known of the early stages.

- (4348) *E. filmata* Pears. Plate XIV, Figure 20.

MacNab's Island, Point Pleasant Park, Rockingham and other localities near Halifax, and at Aldershot, Kings County and Caledonia, Queens County in spruce and hemlock woods. April 23 - May 21. Larva on spruce, fir and hemlock.

- (4346) *E. annulata* Hulst.

A single specimen, very large for *filmata*, may belong under this name. MacNab's Island, April 29, 1906. Supposed to feed on spruce and *Pseudotsuga*.

- (4342a) *E. sobrinata interruptofasciata* Pack.

White Point Beach, Lake Rossignol, Aylesford, Coldbrook, Centreville, Mount Uniacke, Peggy's Cove, Armdale, Cole Harbour. August 23 - October 16, at light. Locally common. Hundreds came to the gasoline lanterns on the barrens near Peggy's Cove. Larva on *Juniperus communis*.

(4366) *E. albicapitata* Pack. Plate XIV, Figure 21.

South Milford, MacNab's Island, Point Pleasant Park (Halifax), Baddeck. June 14 - 30. Very local. Taken in series at South Milford, where the moths were flushed by day in one very restricted area along a road through mixed spruce, fir and pine woods. "Probably will be found to feed in pine cones or *Chermes* galls on conifers as does its European relative" (McDunnough).

(4367) *E. mutata* Pears.

Digby, South Milford, White Point Beach, Baddeck, Margaree Harbour. June 19 - July 15. Scarce. No breeding records known, but presumably the larvae will be found feeding in the young cones of various conifers (McDunnough).

(4389) *E. anticaria* Wlk. Plate XIV, Figure 23.

Walker, 1856. Cat. Lep. Het. Brit. Mus., pt. 24, p. 1241, 1862.
Type locality: Nova Scotia.

Many records from Digby and White Point Beach north to Pietou, Guysborough and Baddeck. June 7 - August 7. Moderately common. The slender green larva with bright scarlet lateral stripe often found feeding in the flower heads of *Spiraea latifolia*. It is quite unlike all other known *Eupithecia* larvae in this area.

4383 *E. ravocostaliata* Pack. Plate XIV, Figure 22.

Mount Uniacke, bred April 10, 1952 from a larva on *Viburnum cassinoides*. Another record from Great Village, without date, determined for Mr. Hall by Dr. T. N. Freeman.

Horisme Hbn.4393 *H. intestinata* Gn.

Acaciaville, Lequille, Coldbrook, Centreville, Bridgewater, MacNab's Island, Baddeck. June 16 - August 8. Locally common, although unaccountably absent in many localities.

Eustroma Hbn.4398 *E. semiatrata* Hlst.

For usage of the name *semiatrata* see McDunnough, Can. Ent., Vol. 75, p. 211.

White Point Beach, Digby, MacNab's Island, Baddeck. July 18 - August 20. Rather common at light on a beech and spruce covered hillside near Baddeck, but otherwise rare, Larva reported on *Epilobium* in British Columbia. (Dyar).

Lygris Hbn.

4401 *L. diversilineata* Hbn. Lesser Grape Vine Looper.

Annapolis, Lequille, Halifax, Debert. August 16 - September 15. Bred from a larva on *Ampelopsis*.

4401,1 *L. gracilineata* Gn. Greater Grape Vine Looper.

Bridgewater, Armdale, MacNab's Island, Great Village, Baddeck. July 28 - October 8, mostly in September. Commoner than the last. Supposed, like *diversilineata*, to feed on grape and Virginia creeper.

4402 *L. propulsata* Wlk. Plate XV, Figure 2.

Shad Bay, Halifax County, July 27, 29, 1952; Baddeck, July 22, 1938; North Mountain, August 2, 1953; outer end of Crescent Beach, July 19, 1953. Probably a willow feeder.

4403 *L. testata* Linn.

Lequille, Round Hill, Auburn, Aylesford, Coldbrook, Mount Uniacke, Waverley, French Village, Armdale, Sackville, Cole Harbour, Debert, Great Village, Stellarton. August 3 - September 29, at light. Locally common. Larva in Europe on willow and poplar. Here it always seems associated with willow, rather than poplar, although it has not been reared.

4405,1 *L. flavibrunneata* McD., form *unicolorata* McD. Plate XV, Figure 1.

McDunnough, Can. Ent., Vol. 75, p. 214.

Annapolis Royal, August 20, 1924; Round Hill, August 11, 1935. Rare in the east. These specimens agree quite well with the type of *unicolorata* from Lloydminster, Alta. The example figured is from Dorchester, N. B., since the Nova Scotian specimens are in poor condition.

4406 *L. explanata* Wlk. Plate XV, Figure 3.

White Point Beach to Baddeck, and common everywhere. July 20 - August 31. The name *cunigerata* Walker (Cat. Lep. Het. Brit. Mus.,

pt. 26, p. 1726. Type locality: Nova Scotia) can be used in a racial sense for material from this region. Early stages apparently unknown.

4408 *L. serrataria* B. & McD.

Deerfield, Yarmouth County and White Point Beach to Glenville, Cumberland County and Baddeck. July 23-August 14. Occasionally common, but in general scarcer and much more local than *explanata*. Early stages unknown.

Diactinia Warren

4410 *D. silaceata* Hbn.

White Point Beach and Digby to Isle Haute off Cape Chignecto, Great Village and Stellarton. Probably quite general. Two broods: May 29 - June 30 and July 26 - September 5. Always occurs sparingly, never in abundance. Larva reported on *Epilobium* and *Impatiens*.

Plemyria Hbn.

4412 *P. georgii* Hulst Plate XIV, Figure 11.

Lequille, Halifax watershed area, Sackville, Debert, Great Village. August 7 - September 6, at light. Scarce and very local. A female bred from alder at Smith's Cove, Digby County (McDunnough).

Dysstroma Hbn.

4413,1 *D. walkerata* Pears.

Baddeck, French Mountain, Inverness County, Glenholme, Halifax watershed area and most frequently on a bog on the Prospect Road, Halifax County. June 30 - July 13. Scarce. Specimens from Cape Breton are normal *walkerata*, but the population occupying southern Nova Scotia is an unnamed race tending towards melanism and reduction or even absence of the orange antemedial and postmedial shades.

4413,2 *D. infuscata* Tengstrom

For the only other published record of this species in North America, see McDunnough, Can. Ent., Vol. 78, p. 77, 1946 (Cameron Bay, Great Bear Lake, N.W.T., July 14).

Nine Nova Scotian specimens agree very well in maculation and genitalia with the single specimen in the Canadian National Collection from Great Bear Lake, but it is still doubtful if these North American examples are really referable to *infuscata*. Baddeck, July 4, 1949; Armdale, July 18, 1949; bog on the Prospect Road, Halifax County,

July 2, 3, 1951; Shad Bay, July 27, 1952. Mostly in bogs or boggy spruce forest. I have taken the same species at the Halfway House on Mount Washington, N. H. and at three thousand feet in Jefferson Notch, N. H.

4416 *D. citrata* Linn.

Generally distributed and often quite common. Not seen from Cape Breton but probably missed through inadequate late summer collecting there. August 10 - October 12, at light and bait. The larva in Europe is a general feeder on low plants.

4420 *D. hersiliata* Gn.

Digby, July 22, 1907; Baddeck, August 5, 1948, one worn specimen of variety *cervinifascia* Wlk. Rare. Much commoner northward in New Brunswick, especially as *cervinifascia*.

Thera Stephens

4431 *T. contracta* Paek.

Digby, August 16, September 19, 1907; Acaciaville, July 26, 1949 (two); Round Hill, September 20, 1938; Aylesford, Centreville, Kentville, September 12 - 13, 1951; and in enormous numbers at Peggy's Cove, August 18-20, 1952. Local. Larva on *Juniperus communis*.

4431,1 *T. juniperata* L. (*procteri* Brow.) Plate XIV, Figure 12

Halifax and vicinity, and Sackville, Halifax County, October 19 - November 5, at light. Larvae may be swept or beaten in great numbers from *Juniperus communis* at Halifax in June and July. Bred moths began emerging August 25, continuing well into September. *Juniperata* was probably introduced from Europe accidentally, although it now occurs in Maine, Nova Scotia and Ontario. It was first taken at Halifax in October, 1945.

Hydriomena Hbn.

The eastern species of this genus, particularly those of the difficult *divisaria-frigidata* and *pluviata-transfigurata* groups, have been greatly muddled in most collections. At the time of writing, these are the subject of careful investigation by Dr. McDunnough in preparation for a new revision of the North American species, and his ideas of our Nova Scotian fauna, as far as discretion allows, result in the following treatment.

- 4465 *H. furcata* Thun., new race in manuscript (McDunnough).
Plate XV, Figure 4.

On the coastal barrens near Peggy's Cove, Halifax County, August 18, 20, 1952. Eight specimens at light. Normally on willow in Europe, but in the absence of willow is supposed to take to *Vaccinium* and other heath plants. This may be the case at Peggy's Cove, where there is little or no willow. Taken there again, August 30, 1953.

- 4476 *H. frigidata* Wlk. Plate XV, Figure 5.

Walker, Cat. Lep. Het. Brit. Mus., pt. 26, p. 1729, 1862.

Type locality: Nova Scotia.

See also McDunnough, American Museum Novitates, No. 1535, Nov. 8, 1951.

Barrington Passage, South Milford, Annapolis, Auburn, Isle Haute, off Cape Chignecto, Mount Uniacke, Armdale, Halifax, MacNab's Island, Cole Harbour, Port Wallis, Baddeck. June 6 - July 21. Localized in spruce and fir woods, these trees apparently constituting the host plants of the larvae. There is a uniformly black, melanic male, probably belonging here, from Point Pleasant Park, Halifax.

Frigidata may be only a pinkish-brown race of *divisaria* occupying southern Nova Scotia, but is being kept separate for the present. It is extremely variable in size and coloration.

- 4477,1 *H. transfigurata* Swett Plate XV, Figure 6.

Annapolis Royal, June 29, 1946; Lequille, June 13 - 14, 1949; Round Hill, two specimens in the Canadian National Collection taken in late May. A total of only six specimens seen. The Lequille specimens came to light in oak and pine woods. There is a record of *transfigurata* being bred from a larva on pine.

- 4478 *H. perfracta* Swett

Acaciaville, Annapolis, Greenwood, Auburn, Waverley, Lakeview, Halifax County, Armdale, Debert, Chignecto, Baddeck. May 22 - July, at light. Scarce. Apparently a poplar feeder.

- 4484 *H. divisaria* Wlk.

South Milford, Parrsboro, Three Brooks, Baddeck. June 21 - July 17. Mainly in northern Nova Scotia where it connects up with

the population of adjacent New Brunswick. These specimens are not a perfect match for typical *divisaria* from Quebec, but are reasonably close. Larva on spruce and fir.

4485 *H. renunciata* Wlk.

White Point Beach to Dorchester, N. B. and eastward to Cheticamp, Baddeck and Cape North. The commonest *Hydriomena*. May 16 - August 18. Bred from alder near Halifax. Larva stout, sluggish, smooth-skinned, pale pinkish-brown with diffuse dorsal, addorsal and sub-dorsal lines of a darker shade; in a shelter formed by tying the leaves together.

4492 *H. ruberata* Frey.

Smith's Cove, Annapolis, Auburn, Coldbrook, Centreville, Aldershot, Bridgewater, Mount Uniacke, Waverley, Glenholme, Stellarton. May 17 - July 4. Locally common, once outnumbering even *renunciata* at light in the Centreville locality. Included in lesser numbers is form *variegata* Prout. Larva on willow.

Xanthorhoe Hbn.

4509 *X. lacustrata* Gn.

White Point Beach, Lequille, Aldershot, Centreville, Armdale, Bass River, Baddeck. May 3 - August 25, probably as two broods. Often abundant. Larva on *Impatiens* (Dyar).

4511a *X. designata emendata* Pears.

Acaciaville, Annapolis, Coldbrook, Centreville, Windsor, Armdale, MacNab's Island, Glenholme, Baddeck. Two broods: May 15 - July 2 and July 23 - August 27. Well distributed and common. Larvae have been reared on sweet alyssum. The closely allied *X. gynandrata* Pears. does not seem to occur here.

4513 *X. munitata* Hbn. Plate XV, Figure 8.

Centreville, Mount Uniacke, Parrsboro, Three Brooks, Stellarton, Baddeck, French Mountain, Inverness County. July 6 - August 11, at light on bogs, and in dry, partly coniferous woodland. Scarce and probably near the southern limit of its range. Larva in Europe on various low plants.

4516 *X. ferrugata* Clerk

Digby, Caledonia and White Point Beach north to localities in the counties of Cumberland, Pictou, Victoria and Inverness. Well distributed and moderately common everywhere, especially as form *uniden-*

aria Haw. with the black median area rather than the reddish-brown of the typical form. May 8 - August 25, probably as two overlapping broods. Larva on various low plants.

4527 *X. iduata* Gn.

Digby, South Milford, Mount Uniacke, Waverley, Peggy's Cove, Armdale, MacNab's Island, Ship Harbour, Bass River, Baddeck, French Mountain, Inverness County. June 22 - July 26, at light. Always in or near woods.

4530a *X. abrasaria congregata* Wlk. Plate XV, Figure 7.

South Milford, Mount Uniacke, Waverley, Armdale, MacNab's Island, Bass River, Londonderry, Stellarton, Baddeck, French Mountain, Inverness County. June 26 - August 4. A Hudsonian species always occurring in spruce forest, although the larvae may not be conifer feeders. These specimens agree fairly well with topotypical *congregata* from Newfoundland.

Percnoptilota Hulst

4535 *P. obstipata* Fabr.

Digby through the Annapolis Valley and Mount Uniacke to the vicinity of Halifax, and from various Colechester County localities and Baddeck. Probably everywhere. April 2 - October 3 without a break. Apparently a succession of broods through the summer, and then possibly hibernating as an adult. On *Polygonum* and other low plants (Forbes.)

4536 *P. evansi* McD. Plate XV, Figure 9.

Baddeck, June 29, 1947, two specimens at light. Taken at the edge of an open pasture about two miles from Baddeck along the road to Whycomomagh. Also seen (without date labels) in the A. D. Hall collection from Great Village. A rare species.

Entephria Hbn.

4540 *E. aurata* Pack.

Shad Bay, Halifax County, July 27, 1952, a worn male at light. Near West Dover, Halifax County, July 11, 14, 1953, at light. A specimen in the C. B. Hills collection from Stellarton bears the date June 21, 1922, and another, very worn, is without date.

Mesoleuca Hbn.4546 *M. ruficollata* Gn.

South Milford, Annapolis, Round Hill, Greenwood, Isle Haute, Armdale, MacNab's Island, Stellarton, Baddeck. June 5 - August 2. Occurs sparingly, most captures being just single specimens. Larva on birch (J. B. Smith).

Epirrhoe Hbn.4551 *E. alternata* Müller

Digby, Annapolis, Aylesford, Coldbrook, Centreville, Grand Pré, Mount Uniacke, MacNab's Island, Cole Harbour, Bass River, Baddeck, Lake Ainslie, Inverness County. June 5 - August 28. At light, and flushed from marshy meadow vegetation by day. Locally common. Larva on *Galium*.

Spargania Gn.4555 *S. magnoliata* Gn.

White Point Beach, Petite Riviere, Digby, Lequille, Bridgetown, Centreville, MacNab's Island, Debert, Parrsboro, Stellarton, Baddeck, June 2 - September 2. Bred from *Oenothera* at Petite Riviere (McDunnough). Also reported on *Epilobium*.

Euphyia Hbn.4558a *E. unangulata intermediata* Gn.

Generally distributed and common. Records from White Point Beach to Stellarton and eastward to St. Peter's and Cheticamp. May 21 - August 28. On Caryophyllaceae (Forbes).

4559 *E. centrostrigaria* Woll.

Round Hill, Aylesford, Peggy's Cove, MacNab's Island, Armdale. June 8, July 10, and September 2 - November 2. Rather rare. Larva has been reported on *Polygonum*.

4561 *E. multiferata* Wlk.

Digby, South Milford, Lake Kejimukujik, Bridgewater, Centreville, Mount Uniacke, vicinity of Halifax. May 25 - July 21. Moderately common at light in mixed deciduous forest. Larva on *Epilobium* in British Columbia (Dyar).

Camplogramma Stephens4572 *C. stellata* Gn.

Armdale, September 6, 1945, at light. Native to tropical and subtropical America but straying northward. Larva on *Pisonia aculeata* (Nyctaginaceae) in Florida (Forbes).

Eulype Hbn.

4573 *E. hastata* L. Plate XV, Figure 10, *gothicata*.

White Point Beach and South Milford to Stellarton, and eastward to Cape Canso, Baddeck and French Mountain, Inverness County. June 5 - July 17. Quite common some seasons, flying by day. Most frequently as variety *gothicata* Gn., with white band on forewing only, especially on Cape Breton where all examples taken were of this variety. Bred from larvae on white birch and alder.

4574 *E. subhastata* Nolc. Plate XV, Figure 11.

Ketch Harbour and Peggy's Cove, Halifax County, vicinity of Halifax, Mount Uniacke bogs, Baddeck, French Mountain, Inverness County. June 7 - July 21, flying by day. Abundant on bogs and coastal barrens flying about *Myrica gale* and *M. pennsylvanica*, on which the larvae make conspicuous shelters by tying the leaves together. Most specimens are well marked with white, unlike race *stygiata* McD. from the Gaspé.

Perizoma Hbn.

4575 *P. basaliata* Wlk.

Digby, White Point Beach, Annapolis, Mount Uniacke, Parrsboro. Baddeck and general through Halifax County. July 21 - August 20, always in or near woods. Early stages unknown.

Earophila Gumpfenberg

4587 *E. vasilata* Gn.

Lake Kejimukujik, Caledonia, Bridgewater, Smith's Cove, Isle Haute, Wolfville, Halifax and vicinity, Mount Uniacke, Cole Harbour, Three Brooks, Pictou County. April 11 - July 7, but mostly in April and May. Includes form *niveifasciata* Hlst.

Venusia Curtis

4589 *V. cambrica* Curt.

White Point Beach, Armdale, MacNab's Island, Parrsboro, Isle Haute, Stellarton, French Mountain, Inverness County. June 5 - August 12. Not generally common, but may be found in greater numbers in northern Cape Breton. Essentially a species of the boreal forest, occurring in great abundance in the interior of the Gaspé, and above three thousand feet in the White Mountains. Larva on mountain ash.

4592 *V. comptaria* Wlk. Plate XIV, Figure 24.

Walker, Lep. Het. Brit. Mus., pt. 21, p. 406, 1860.
Type locality, Nova Scotia.

Caledonia, Bridgewater, Wolfville, Aldershot, Debert, Mount Uniacke, Waverley, vicinity of Halifax. April 3 - June 8. A common early spring species. No reference to the early stages found.

Hydrelia Hbn.4595 *H. condensata* Wlk. (*lucata* Gn.)

Nova Scotian material seemingly agrees with that species commonly referred to by these names. Digby, Annapolis, South Milford, Auburn, Mount Uniacke, Waverley, Armdale, Debert, Glenville, Baddeck. June 6 - August 4. Probably just as common as the following.

4596 *H. inornata* Hlst.

Digby, South Milford, Coldbrook, Petite Riviere, Mount Uniacke, Armdale, MacNab's Island, Bass River, Baddeck. June 18 - August 11. Locally common in wooded localities.

4597 *H. albifera* Wlk.

Baddeck, June 22, 1934 (McDunnough); North Mountain, August 3, 1953. Commoner in northern New Brunswick.

Eudule Hbn.4599 *E. mendica* Wlk.

Digby, White Point Beach, South Milford, Karsdale and Lequille, Annapolis County, Mount Uniacke, Armdale, Bass River, Parrsboro, Stellarton, Three Brooks. June 27 - August 11, at light and flushed by day. A characteristic species of moist woods where there is abundant herbaceous vegetation growing in semi-shade. The larvae are known to feed on violets, *Viola* spp. (Rupert), and there is also a report of them being reared on maple (McDunnough).

Ennominae*Bapta* Stephens4605 *B. semiclarata* Wlk.

Colpton, Lunenburg County, Halifax, MacNab's Island, Big Indian Lake, Purcell's Cove and Fall River, Halifax County, Parrsboro. May 15 - July 7. Locally common, flying by day. Larva on cherry and probably other Rosaceous trees.

4606 *B. vestaliata* Gn.

Taken in various Halifax County localities and at Annapolis Royal, but probably present everywhere. June 1 - July 14, mostly at light. Common. Bred from larvae on mountain ash and plum. Reported also on hawthorn, cherry and apple.

4608 *B. glomeraria* Grt. Plate XV, Figure 12.

Digby, Smith's Cove, Caledonia, Wolfville, Mount Uniacke, Armadale, MacNab's Island. May 7 - June 9, at light. Locally common, but easily overlooked because of its early emergence and short flight period. Larvae being reared *ex ovo* are translucent blue-green with thin whitish dorsal and lateral lines and yellow-green heads. They eat *Prunus* and *Crataegus*, but seem to prefer the latter.

Deilinea Hbn.4612 *D. variolaria* Gn.

Records from Acaciaville, Digby County north to Stellarton. Often common at light, and probably more widely distributed than the available records indicate. June 5 - August 12. Larva on poplar and willow.

4614 *D. erythemaria* Gn.

Acaciaville and South Milford to Pictou County and Baddeck. June 1 - August 4. Commoner than *variolaria*. Bred repeatedly from larvae on willow, and reported on *Populus tremuloides* (Rupert).

Isturgia Hbn.4658 *I. truncataria* Wlk.

A common species characteristic of bogs throughout, including Cape Breton. May 17 - July 13. Entirely diurnal. Larva on *Arctostaphylos* in Colorado (Dyar).

Philobia Dup.4664 *P. ulsterata* Pears.

White Point Beach, Acaciaville, Auburn, vicinity of Halifax, Parrsboro, Glenville, Baddeck. June 6 - July 31. Often plentiful and just as common as the following species in some localities. There is one report of it being reared from a larva on maple.

4665 *P. aemulataria* Wlk.

Generally distributed and common. June 6 - July 22. Reared from larvae on maple by the Canadian Forest Insect Survey.

Semiothisa Hbn.4670 *S. minorata* Pack.

White Point Beach, South Milford, Annapolis, Centreville, Mount Uniacke, Armdale. May 25 - August 10. Locally common. Larva on pine.

4671 *S. bisignata* Wlk.

Scattered localities in the counties of Annapolis, Queens, Lunenburg, Kings, Halifax and Victoria. May 22 - August 19. Common in pine woods. Bred from larvae on white pine.

4673 *S. bicolorata* Fabr.

Glenville, Cumberland County, July 12, 1949. One male at light. This specimen appears to agree with material of *bicolorata* taken in an area of jack pine near Caraquet, N. B. There is an extensive stand of this pine near the Glenville locality, and it seems likely that *bicolorata* is associated with the hard pines (*Pinus banksiana*, *P. rigida*, etc.) rather than white pine.

4674 *S. distribuaria* Hbn. Plate XV, Figure 13.

Armdale, July 9, 1945. One female at light. Probably also on hard pines only.

4680,1 *S. dispuncta* Wlk.

Almost certainly not conspecific with *granitata*, which is more southern. Common in coniferous woods everywhere from White Point Beach to Cape North. May 31 - August 25, probably all one brood. Larva on spruce, balsam fir, larch, hemlock and white pine. A well marked pine feeding form with whiter ground color is placed here pending further study. A series of strikingly black melanic specimens, probably of the pine feeder, taken at Armdale, June 5-August 8.

There is still another form, perhaps a good species, of smaller size, very pale ground color, and with the t. p. line regular and almost straight, except where it angles inward to meet the costa. Although no data on the early stages is available, this form seems to be associated with hemlock. It emerges early in the spring and is single brooded in Nova Scotia, double brooded in western New York. Taken at Lequille, Auburn, Bridgewater, Rockingham. May 28 - June 16. A female from Glenville, July 12, 1950, looks the same.

4681 *S. oweni* Swett Plate XV, Figure 14.

Acaciaville, Round Hill, Mount Uniacke, Waverley, Armdale, Truro, Glenholme, Baddeck, French Mountain, Inverness County. June 1 - July 26, at light. Not uncommon in boggy areas or larch swamps, Reared *ex ovo* on larch, and true *oweni* probably feeds on that tree only.

4682 *S. perplexa* McD. Plate XV, Figure 15.

A series of specimens representing this species and compared with the types at Ottawa were taken in an extensive boggy area of black spruce, larch and jack pine near Dorchester, N. B., July 17, 1950, and eggs laid by one of the females produced larvae that were reared on larch. These were taken in the same locality occupied by the colony of *Boloria titania grandis*. A single male *Semiothisa* taken at Glenville, Cumberland County, July 12, 1949 agrees with the Dorchester material and apparently belongs to the same species. The two localities are only twenty-five miles apart.

Perplexa, described from British Columbia, resembles *dispuncta*, but may be separated by its larger size (28 mm), darker ground color and well defined transverse lines in the male. On larval characters it is a good species.

4687 *S. sexmaculata* Pack.

Present in suitable locations everywhere and locally common. May 31 - August 31. Larvae in two very different color forms—green with whitish or yellow stripes, and mottled brown and black—on larch.

4725a *S. neptaria trifasciata* Pack.

Round Hill, June 6 - 10 and July 28, 1935; Aldershot pine barrens, May 9, 1949. Scarce, and seems limited to the Annapolis Valley region. Larva of the British Columbia race reported on poplar, willow and alder.

4726 *S. mellistrigata* Grt. Plate XV, Figure 16.

Acaciaville, June 29, 1951; Round Hill, August 5, 1938; Auburn, June 30, 1951; Coldbrook, June 5, 1949; Debert, June 20, August 4, 1952; Three Brooks, Pictou County, bred February 11, 1945 from a larva on willow. Commoner than *neptaria*, but most of the captures were single specimens.

4738 *S. gnophosaria* Gn. Plate XV, Figure 17.

Lequille, July 24, 1949, at light. One male in good condition. This extends eastward considerably the known range of *gnophosaria*. Larva reported on willow.

Itame Hbn.

(4663) *I. (Physostegania) pustularia* Gn.

Lake Rossignol to Baddeck. Apparently common everywhere. July 20 - September 10. Larva on maple.

4749a *I. andersoni* Swett

Auburn, Kings County, Glenville, Cumberland County, Baddeck. June 30 - August 2, at light. Abundant all through north-eastern New Brunswick but local in Nova Scotia. Moderately common at Glenville and well established on the heathy barrens of the central Annapolis Valley. Bred from a larva on *Vaccinium* at Coldbrook, Kings County, and bred in series from larvae on the same plant in the Ottawa region (McDunnough).

4751 *I. sulphurea* Pack.

White Point Beach, Bridgetown, Round Hill, Petite Riviere, Mount Uniacke, Stellarton, Guysborough. July 6 - August 18, and a worn male on September 7. Mostly flushed by day in the wet bog margins shared by such species as *Carsia paludata* and *Eulype subhastata*. Supposedly a cranberry feeder, but I reared a number from larvae feeding on *Myrica gale* on the Mount Uniacke bogs.

4752 *I. fulvaria* Vill.

Digby and South Milford to Glenville, Guysborough and Baddeck. June 7 - July 19, at light and flying by day. Moderately common. Larva reported on *Vaccinium*.

4754 *I. subcessaria* Wlk.

Bridgetown, August 12, 1912. In the Canadian National Collection.

4759 *I. anataria* Swett

Coldbrook, Centreville, Petite Riviere, Armdale, Glenville, Stellarton, Baddeck. June 28 - August 10. A common mid-summer species. There is one report of the larva on birch (Canadian Forest Insect Survey).

4771 *I. bitactata* Wlk. Plate XV, Figure 19.

Digby, July 22, 1905; MacNab's Island, July 30, 1906; Stellarton, no date. Rare. Early stages unknown.

(4797a) *I. (Dysmigia) loricaria julia* Hlst.

Glenville, Cumberland County, July 12, 1949; Baddeck, July 20. Abundant in North Eastern New Brunswick, and seems to penetrate only the northern portions of Nova Scotia. It has been reared from larvae found on poplar in the spring (Lennox, Bruggemann). Female with wings rudimentary but otherwise the species is a normal *Itame*.

Eumacaria Pack.4774 *E. latiferrugata* Wlk. Plate XVI, Figure 3.

Round Hill, June 23, July 29; Centreville, July 23, 1949; Armdale, June 30, 1945; Debert, June 20, 23, 1952. Scarce. Larva reported on apple, plum and wild cherry (Forbes).

Protitame McD.4785 *P. virginialis* Hlst.

Annapolis to Halifax, and northward at Bass River, Lakelands, Cumberland County, and Baddeck. June 2 - August 27. Common at light in groves of aspen. Larva on *Populus tremuloides* and *grandidentata* (Rupert).

Hesperumia Pack.4801 *H. sulphuraria* Pack.

Centreville, Mount Uniacke, Fall River, Armdale, Herring Cove, Shad Bay, Cole Harbour, Glenville and reported also from Cape Breton. July 26 - August 17. Locally common. Farther west and south the food plant is *Ceanothus*, which in Nova Scotia is absent. I suspect that it is feeding on *Gaylussacia*.

Ematurga Lederer4802 *E. amitaria* Gn.

Generally distributed and common, at least to Terre Noire, Inverness County. May 13 - July 29, flying by day on bogs and blueberry barrens. Supposed to be a general feeder on bog shrubs, including cranberry.

Eufidonia Pack.4803a *E. notataria convergaria* Wlk.

Digby, South Milford, Auburn, Aldershot, Caledonia, Centreville, Mount Uniacke, Fall River, vicinity of Halifax, Glenville. May 16 - July 23. Locally common. Larva mostly on white pine, perhaps on hemlock and other conifers.

4804 *E. discospilata* Wlk.

White Point Beach to Cape Canso and Baddeck. Generally distributed, and always present on bogs, heaths and barrens. May 31 - August 10, flying by day. Bred from Larvae on *Comptonia* and *Kalmia* in Nova Scotia; *Spiraea* in New Hampshire (Rupert). Otherwise reported on blueberry, laurel and white birch (Forbes).

Orthofidonia Pack.4805 *O. tinctaria* Wlk. Plate XV. Figure 20.

This is the small, dark species without yellowish or greenish tints. It is commoner and much less local than *flavivenata*, emerges a week or so later, and has a longer flight period. Nova Scotian specimens agree well with Walker's type in the Canadian National Collection.

Digby, White Point Beach, Lake Kejimukujik, Caledonia, Mount Uniacke, Waverley, vicinity of Halifax. May 16 - July 13. Larvae reared from the egg would eat nothing but *Viburnum cassinoides* and *alnifolium*. Larva pale green, smooth skinned, with broad lateral brown stripe on the head produced posteriorly onto the prothorax. Pink dorsal stripe, broadening on the last four segments, and finally coloring the lateral sides of the last pair of abdominal legs. The pupal cremaster is stout with a convoluted surface, and tapers abruptly to a pointed terminal process. It is without hooks.

4805a *O. flavivenata* Hulst. Plate XV, Figure 21.

This is a distinct species of larger size, bright yellow veining on the primaries, and with a greenish-yellow tint to the maculation generally. It occurs locally early in the spring in mixed deciduous-coniferous forest, and flies for a relatively brief period. Aldershot, Mount Uniacke, Waverley, Armdale, MacNab's Island, Cole Harbour. May 7 - June 10, but usually gone by June 1, otherwise known only from Quebec (the type), Bar Harbour, Me. (Brower) and Horseheads, N. Y. in April (Rupert). Probably in other collections but confused with *tinctaria*. Early stages unknown.

Hypagyrtis Hbn.*(Paraphia* Gn.)4809 *H. subatomaria* Wood

Despite great variability, including melanics, all Nova Scotian examples of this complex, involving the names *subatomaria*, *nubecularia*

Gn. and *triplicipunctaria* Fitch probably belong to but one species, and the name *subatomaria* is chosen only because it seems to have been most commonly applied, possibly in error. The species occurring here is the common northern *Hypagyrtis* with light brown scaling in the outer third of the wing beyond the t.p. line. It occurs commonly from Nova Scotia to Ontario and western New York.

Digby, South Milford and White Point Beach to Glenville, Stellarton and Baddeck. June 23 - August 1, at light. Females rare. Bred at Halifax from larvae found on *Amelanchier* and *Cornus* in the spring. Another larva on alder in the fall hibernated and produced a moth June 11.

4811 *H. piniata* Pack.

Common in coniferous woods from White Point Beach to Glenville, Cape George, and localities in Inverness and Cape Breton Counties. June 19 - August 18. Occasional melanics occur. Larva a general feeder on conifers.

Melanolophia Hulst

4856 *M. canadaria* Gn.

Digby, South Milford, Lake Kejimukujik, Auburn, Centreville, Mount Uniacke, vicinity of Halifax, Baddeck. May 20 - July 7. Not as common as *signataria*. Larvae do well on basswood and maple, and apparently are general feeders on deciduous trees.

4857 *M. signataria* Wlk. Plate XVI, Figure 1.

Walker, Lep. Het. Brit. Mus., pt. 21, p. 350, 1860.
Type locality: Nova Scotia.

Seen from most localities in southern Nova Scotia where spring collecting has been done, and northward at Isle Haute, and in Colchester and Pictou Counties. May 2 - July 6. Often abundant at light in deciduous woods. Feeding habits similar to *canadaria*. Larvae reared *ex ovo* on *Tilia* but moths never emerge.

Protoarmia McD.

4875a *P. porcelaria indicataria* Wlk.

Generally distributed and usually abundant in coniferous areas. June 8 - August 10. Bred at Caledonia June 7 from a larva collected on balsam fir May 16. A general feeder on conifers.

Glena Hulst4882 *G. cognataria* Hbn.

Round Hill, Auburn, Coldbrook, Mount Uniacke, Armdale, Peggy's Cove, MacNab's Island, Glenville. June 5 - August 18, at light. Essentially a species of bogs and blueberry barrens. Early stages unknown.

Anavitrinella McD.4908 *A. pampinaria* Gn. Plate XVI, Figure 4, *erosiata*.

Common and general from Digby and White Point Beach to Baddeck. June 4 - August 31. About fifty per cent are referable to the variety *erosiata* Wlk., with prominent black shading along the t.p. and t.a. lines. Bred from *Rumex* sp. (Rupert).

Anacamptodes McD.4912 *A. larvaria* Gn.

White Point Beach to Baddeck. Apparently general. June 16 - August 22. Common. Larva on poplar, willow and perhaps other deciduous trees.

4916 *A. ephyraria* Wlk. Plate XVI, Figure 16.

Walker, Lep. Het. Brit. Mus., pt. 21, p. 349, 1860.
Type locality: Nova Scotia.

Under this name and *expressaria* Wlk., also described from Nova Scotia but relegated to the synonymy, there are six specimens from Lieut. Redman's collection in the British Museum. I figure the type of *ephyraria*. No other Nova Scotian specimens are known, and it is unfortunate that the exact locality where the types were collected is unknown, the specimens simply bearing the label "N. Scotia, Redman". The few reports of the food plants of *ephyraria* are rather conflicting, hemlock, wild cherry, birch and elm all being mentioned.

4917 *A. humaria* Gn. Plate XVI, Figure 5.

Mount Uniacke bog, June 15, 17, 1950. A long series of males at light. Auburn, June 5, 1952 (one). Larva a general feeder on deciduous plants (Forbes).

4918 *A. vellivolata* Hulst Plate XVI, Figure 6.

Lequille, June 14, 16, 1949; Waverley, June 1, 1952. Bred from a larva on white spruce in Colchester County (Canadian Forest Insect Survey), but usually considered a pine feeder.

Aethalura McD.

4945 *A. anticaria* Wlk. Plate XV, Figure 18.

Walker, Lep. Het. Brit. Mus., pt. 21, p. 404, 1860.
Type locality: Nova Scotia.

Digby, Lake Kejimukujik and Bridgewater to Stellarton. Probably everywhere. May 2 - June 26, in deciduous woods. Common. Larva on birch.

Ectropis Hbn.

4946 *E. crepuscularia* Schiff.

Digby, Lake Kejimukujik, Annapolis, Mount Uniacke, Halifax, Baddeck, including form *abrazaria* Wlk. (Lep. Het. Brit. Mus., pt. 21, p. 403, 1860. Type locality: Nova Scotia.). April 22 - July 2. A very common spring species. The larva is a very general feeder on both deciduous and coniferous trees.

Nacophora Hulst

4953 *N. quernaria* A. & S.

Digby, Acaciaville, Annapolis, Round Hill, vicinity of Halifax, Baddeck. June 4 - 30. Bred at Annapolis from English oak (*Quercus robur*). Most commonly an oak feeder but has been reported from birch.

Phigalia Duponchel

4958 *P. titea* Cram.

Annapolis, Armdale, MacNab's Island. March 29-April 27, at light. Scarce and sporadic. Missed most seasons because of bad weather during its early flight period. A very general feeder on deciduous trees.

Erannis Hbn.

4964 *E. tiliaria* Harr.

Armdale, MacNab's Island, Glenholme, Stellarton. Probably more widely distributed but missed because of its late emergence. October

21 - November 15. Males at light; the wingless females on tree trunks. Larva on birch, *Amelanchier*, *Prunus* and various other trees in the spring. A general feeder.

Lycia Hbn.

4966 *L. ursaria* Wlk.

Glenholme, Colchester County, May 25, 1952 (W. Harrington); Mount Uniacke, May 20, 1952, at light. Rare. A larva on willow at Dorchester, N. B. The species is a general feeder on deciduous trees.

Biston Leach (*Amphidasis* Tr.)

4968 *A. cognataria* Gn.

White Point Beach and Annapolis to Pictou County. Presumably general. June 6 - August 4. Often abundant at light. Larva a general feeder on deciduous trees, perhaps most commonly seen on willow.

Euchlaena Hbn.

4995,1 *E. muzaria* Wlk.

Many records from Deerfield, Yarmouth County and White Point Beach to Baddeck and Cheticamp. June 23 - August 10. Usually the commonest species of *Euchlaena*. Larvae will eat choke cherry (Rupert).

4996 *E. effecta* Wlk.

Glenville, Cumberland County, July 8, 12 and 29; Baddeck, July 21. Local, and seems to be in the northern counties only. Common in north-eastern New Brunswick. The caterpillar eats wild cherry (Forbes).

4997 *E. johnsonaria* Fitch

Deerfield, Yarmouth County, through the Annapolis Valley where it is common, and at White Point Beach and Petite Riviere. Unlike *effecta*, this species seems confined to southern localities. June 30 - July 26. Larva on *Crataegus* (Rupert) and oak (Forbes). Also reported on ash, birch and elm.

5000 *E. vinulentaria* G. & R.

Acaciaville, Lequille, Auburn, Aylesford, Centreville, Truro, Mount Uniacke bogs, Peggy's Cove, vicinity of Halifax, Stellarton, Baddeck. June 30 - August 12. Essentially a species of bogs and heaths, where it is sometimes very abundant. Early stages unknown, but from its habitat I should guess that it feeds on *Vaccinium* or some other heath plant.

5002 *E. marginaria* Minot

Annapolis, Auburn, Coldbrook, Centreville, Aldershot, Mount Uniacke, Windsor Junction, Armdale. June 4 - July 1. The earliest species of *Euchlaena* to appear in the spring. Locally common in deciduous woods. Larvae reared almost to maturity on *Amelanchier*, then hibernated.

5006 *E. irraria* B. & McD.

Annapolis, South Milford, Round Hill, Stellarton, Glenville, vicinity of Halifax. Often abundant in oak woods, scarcer elsewhere. June 17 - July 16. Nearly all Nova Scotian examples have a diffuse, but broad and contrasting dark shade beyond the postmedial line on both wings. Larva normally on oak, but will eat *Acer saccharum* (Rupert).

Xanthotype Warren5007 *X. sospeta* Dru.

Truro, June 27, 1937, July 27, 1943 (Payne collection); Glenville, Cumberland County, July 8, 1950, July 12, 1949; also a specimen from Stellarton in the Hills collection that seems to belong here. Scarce. A general feeder on low plants; also on *Cornus*.

5010 *X. urticaria* Swett

Almost everywhere from Barrington Passage to Baddeck. June 23 - August 26. Bred from larvae on *Nepeta*, *Solidago*, and from a pupa on alder. Also reported on *Cornus stolonifera* (Rupert). Hibernates as a partly grown larva.

Epirrhanthis Hbn. (*Spodolepis* Hlst.)5012 *E. substriataria* Hulst Plate XVI, Figure 2.

Centreville, May 9, 1950; Waverley, May 20, 1951; Debert, May 10, 1953; Stellarton, no date. Rare. Larva of the European species feeds on poplar.

Campaea Lamarck5015 *C. perlata* Gn.

White Point Beach and Annapolis to Pictou County, but probably much more general. June 22 - August 31. Common. The somewhat smaller second generation very plentiful at Lake Rossignol, August 24, 1951. Larva reported from a wide variety of deciduous trees. Bred on *Fraxinus americana* (Rupert), and from a larva on wild rose at Halifax.

Gueneria Pack.5016 *G. basiaris* Wlk.

Lequille, Lake Kejimukujik, Centreville, Mount Uniacke, Waverley, Armdale, Three Brooks, Baddeck. May 21 - July 1, at light and flushed by day. Locally common about patches of ferns in shady places. Larva on *Dryopteris novaboracensis* (Franelemont).

Homochlodes Hulst5022 *H. fritillaria* Gn.

Through the Annapolis Valley and Mount Uniacke to Halifax, and at Lake Kejimukujik, Petite Riviere, Bridgewater and Isle Haute, off Cape Chignecto. Probably everywhere. May 8 - July 15, at light. Common. Larva on bracken fern, *Pteridium aquilinum* (Rupert).

Lozogramma Stephens

L. R. Rupert, Notes on the Group of Genera Including *Lozogramma* Stephens and its Allies, Proc. Ent. Soc. Wash., Vol. 51, No. 4, pp. 137-151, 1949.

5025 *L. subaequaria* Wlk.

Caledonia, Greenwood, Mount Uniacke, Isle Haute, Stellarton, Baddeck and near Halifax. May 3 - June 30. Very common in partly shaded marshy spots and wet woods. Larva on bracken fern (Rupert).

Tacparia Wlk.5023 *T. deterrenta* Gn.

Digby, Auburn, Aylesford, Centreville, Bridgewater, vicinity of Halifax, Debert. May 10 - June 28. Not generally as common as *subaequaria*. The usual food plant is apparently alder (Rupert).

5024 *T. zalissaria* Wlk. (*atropunctata* Pack.) Plate XVI, Figure 7.

Digby, Annapolis, South Milford, Round Hill, Auburn, Coldbrook, Aldershot, Mount Uniacke, Armdale, MacNab's Island, Peggy's Cove, Port Wallis. May 25 - July 9, at light. Sometimes common, but very local. Larvae reared from the egg on *Myrica gale* refused all other foods offered. Possibly also on *Comptonia*, as the moths were numerous about extensive patches of this plant at Coldbrook.

Cepphis Hbn. (*Priocycla* Gn.)5028 *C. armataria* H.-S.

South Milford, Armdale, MacNab's Island, Mount Uniacke. Locally common. June 7 - July 21. Bred from Larvæ on sweet fern. Otherwise reported on *Ribes*, birch and maple.

5029 *C. decoloraria* Hulst Plate XVI, Figure 9.

Lequille, South Milford, White Point Beach, Armdale and vicinity. June 10 - July 22. Much scarcer than *armataria*. Bred *ex ovo* on blackberry (*Rubus allegheniensis*), which the young larvæ seemed to prefer to raspberry, although they would eat both.

Plagodis Hbn.5030 *P. serinaria* H.-S.

Annapolis, Lake Kejimukujik, Centreville, Mount Uniacke, vicinity of Halifax. May 29 - July 1. Often abundant at light in deciduous or mixed woods. I bred it *ex ovo* on *Betula papyrifera*, and in New York it has been reared on *Tilia* and *Prunus serotina* (Rupert).

5031 *P. kuetzingi* Grt. Plate XVI, Figure 10.

Annapolis Royal, Lequille, Round Hill, Lawrencetown. Apparently in the Annapolis Valley only. June 11 - July 12, and once on August 28. Reared at Annapolis on ash, the only food the larvæ would accept.

Although the more familiar name *nigrescaria* Hulst has long been used for this species, *kuetzingi* of Grote appears to have legal priority, and in using it I follow Rupert's recent *Plagodis* revision (Jour. N.Y. Ent. Soc., Vol. LVII, p. 24, 1949).

5038 *P. alcoolaria* Gn.

Annapolis, South Milford, Coldbrook, Centreville, Rockingham, Armdale. June 3 - July 9. Often moderately common in deciduous forest. Bred at Armdale from a larva on white birch. Also reported on oak, beech and basswood.

5040a *P. phlogosaria iris* Rupert Plate XVI, Figure 11.

Rupert, Jour. N. Y. Ent. Soc., Vol. LVII, p. 31, 1949.
Type locality: Armdale, Halifax County, N. S.

This race is single brooded and corresponds to the richly colored spring generation *keutzingaria* Pack. of the eastern United States, but goes a step further in the intensity of coloring.

Quite general and often common in deciduous or mixed forest through southern Nova Scotia from Annapolis and Queens to Halifax County, and northward at Isle Haute and Baddeck. May 29 - July 20. In 1951 I reared *iris ex ovo* on white birch, attempting to force through a second brood, but the adults did not emerge until the following spring.

Anagoga Hbn.

5042 *A. occiduaria* Wlk.

Acaciaville, South Milford, Coldbrook, Mount Uniacke, vicinity of Halifax, Isle Haute, Baddeck. May 31 - July 29. A common spring and early summer species of wooded areas. Bred from *Viburnum cassinoides*, but probably a rather general feeder.

Hyperetis Gn.

5043,1 *H. alienaria* H.-S.

Widely distributed. Records from Lake Kejimukujik and South Milford north to Cheticamp and Ingonish. May 29 - July 21. They include a high percentage of form *exsinuaria* Gn. Beech, hawthorn, wild cherry and ash have been reported as food plants.

5043,2 *H. nepiasaria* Wlk. Plate XVI, Figure 8.

Walker, Lep. Het. Brit. Mus., pt. 22, p. 146, 1860.
Type locality: Nova Scotia.

Widely distributed and often very common where found. Barrington Passage, Shelburne and White Point Beach to Glenville, Stellarton and Baddeck. May 30 - July 30, mostly at light. Essentially a species of acid soil conditions, such as bogs, heaths and scrubby woodland in granitic areas. Bred a number of times from larvae on *Kalmia angustifolia*.

Nematocampa Gn.

5044 *N. filamentaria* Gn.

Digby, White Point Beach, Centreville, Armdale, Glenville, Stellarton, French Mountain, Inverness County, July 22 - August 31. Sometimes common. Larva on *Amelanchier* and *Crataegus* (Rupert), and

reported on various other deciduous trees by the Canadian Forest Insect Survey. Commonly feeds on herbaceous plants according to Dr. Forbes.

Metarranthis Warren

5046 *M. hypochraria* H.-S.

The name *hypochraria* might really belong to 5046,2, but this is the species to which it has been applied most commonly for many years. Until the matter is finally settled, I am using the names as applied in Mr. Laurence R. Rupert's *Metarranthis* revision of 1943 (Jour. N.Y. Ent. Soc., Vol. LI, pp. 133-159).

Records from most localities, including Cape Breton. June 1 - July 12. Often plentiful. The larvae do very well on choke cherry (Rupert).

5046,1 *M. lateritiaria* Gn. Plate XVI, Figure 13.

Annapolis Royal and Lequille, June 16 - 29. Scarce. Early stages unknown.

5046,2 *M. broweri* Rupert Plate XVI, Figure 14.

Perhaps the same as both *hypochraria* H.-S. and *indeclinata* Wlk.

Acaciaville, Annapolis, South Milford, Centreville, Mount Uniacke, and widely distributed but scarce in the neighbourhood of Halifax. June 2 - July 7. Much less common than *hypochraria*. Reared from the egg on *Vaccinium* (McDunnough) and *Prunus virginiana* (Ferguson), the latter producing larger specimens. Nova Scotian examples belong to a small, dark northern race otherwise seen only from the vicinity of Montreal.

5050 *M. duaria* Gn.

Barrington Passage and Annapolis to Stellarton, Pictou County, but probably also elsewhere in the northern counties. May 16 - July 15. The commonest *Metarranthis*. Over fifty percent have the deep red-brown shade before the t.p. line, and are hence referable to the variety *septentrionaria* B. & McD. (which might fall to *panisaria* Wlk.). Larvae reared on blueberry, but they perhaps do better on basswood and choke cherry.

5050,1 *M. franclemonti* Rupert Plate XVI, Figure 15.

Perhaps the same as *amyrisaria* Wlk.

South Milford, Auburn, Centreville, Bridgewater, Mount Uniacke, Halifax and vicinity. May 26 - July 1. Locally common in the same habitat as *duaria*, but never quite as plentiful as that species. Bred *ex ovo* on blueberry and *Tilia glabra*, doing quite well on both. Also reared on choke cherry (Rupert).

5052 *M. obfirmaria* Hbn.

Greenwood, Mount Uniacke, Armdale, Spryfield, Halifax, Dartmouth, Baddeck. May 31 - July 10. In this region at least, *obfirmaria* is a thoroughly specialized bog and heath dweller, having even assumed the diurnal habits characteristic of so many bog species. Unlike all the other species of the genus, I have never taken this one at light, but have always flushed and netted it by day. Presumably the larva feeds normally on *Vaccinium* or some other heath plant, but Rupert successfully reared it on choke cherry.

Metanema Gn.5054 *M. inatomaria* Gn.

Lawrencetown, Armdale, MacNab's Island, Mason's Point, Halifax County, Stellarton, Three Brooks, Baddeck. July 8 - August 2. Locally common at light in dry woodland. Larva on aspen.

5055 *M. determinata* Wlk.

Widely distributed but not as common as *inatomaria*. White Point Beach and Digby to Glenville, Stellarton and Baddeck. June 4 - August 17. Bred from a larva on willow at Mount Uniacke. The pupa is peculiar in being decidedly flattened dorso-ventrally—a character evidently shared with *inatomaria*.

Selenia Hbn.5057 *S. alciphearia* Wlk.

Annapolis, Centreville, Mount Uniacke, Waverley, Armdale, MacNab's Island. May 7 - June 13. Rather common but local, and easily overlooked because of its early emergence. Broods reared from two females fed freely on both *Betula papyrifera* and *Acer rubrum*.

5058 *S. kentaria* G. & R.

Annapolis, Lake Kejimukujik, Caledonia, Coldbrook, Bridgewater, Armdale, Waverley, MacNab's Island, Windsor Junction, Halifax

County. May 9 - June 28. Much scarcer than *alciphearia* but perhaps not so local. Larva reported on birch, maple, basswood and beech. As with the other *Selenia*, there is no evidence of a second generation in this area.

Ennomos Tr.

5059 *E. subsignarius* Hbn.

Halifax, August 22, 1923; MacNab's Island, August 9, 1906. Rare. Bred from *Acer saccharum* (Rupert), and reported on many other deciduous trees.

(5170) *E. magnarius* Gn. (*Deuteronomos magnarius* Gn.)

From Annapolis Royal through the Annapolis Valley to Halifax County and northward at Stellarton. Probably throughout. August 12 - October 15. Often abundant at light. A general feeder on deciduous trees.

Pero H.-S.

5072 *P. honestarius* Wlk.

White Point Beach and Digby to Baddeck. Apparently common throughout. June 4 - July 21. Larva on *Prunus virginiana* (Rupert).

5080 *P. morrisonarius* Hy. Edw.

Similarly widespread, and often commoner than the preceding. May 27 - July 21. Quite variable, some examples coming very close to *marmoratus*, yet by genitalia seem to belong here. Larva on hemlock and probably other conifers.

Cingilia Wlk.

5109 *C. canosaria* Wlk. (*Nepytia canosaria* Wlk.). Plate XVI, Figure 12.

Walker, Lep. Het. Brit. Mus., pt. 26, p. 1674, 1862.
Type locality: Nova Scotia.

Digby, Lake Rossignol, Kentville, Mount Uniacke, and everywhere in Halifax County. Probably throughout. August 11 - October 10. A general feeder on conifers.

(5152) *C. catenaria* Dru.

White Point Beach, Annapolis, Bridgetown, Aylesford, Wellington, Armdale, MacNab's Island, Peggy's Cove. September 5 - October 11, at light and flying by day. The larvae show a distinct preference for *Myrica*, both bayberry and sweet gale, hence the species is frequently common in bogs and sea-shore localities. Bred once from willow.

Many, or perhaps most of the specimens are of the dark, sooty, gray-brown variety *rubiferaria* Swett.

Caripeta Wlk.5125 *C. divisata* Wlk.

Walker, Lep. Het. Brit. Mus., pt. 26, p. 1525, 1862.
Type locality: Nova Scotia.

White Point Beach to Baddeck and Cheticamp. Present everywhere in coniferous areas. June 24 - August 5. Larva on conifers, especially hemlock, spruce and balsam fir.

Two different melanic aberrations occur; one of these is *nigraria* Forbes and another, rarer and apparently unnamed, has the primaries uniformly black except for contrastingly white t.p. and t.a. lines and discal spot.

5126 *C. piniata* Pack.

Annapolis, South Milford, Aldershot, Mount Uniacke, Mason's Point, Halifax County. June 4 - July 9, at light. Occasionally common, but local. Bred from larvae on white pine.

5128 *C. angustiorata* Wlk. Plate XVI, Figure 17.

Walker, Lep. Het. Brit. Mus., pt. 26, p. 1524, 1862.
Type locality: Nova Scotia.

White Point Beach, Lake Rossignol, Petite Riviere, West Northfield, Lunenburg County, Centreville, Kentville, vicinity of Halifax, Stellarton. July 1 - August 23. Usually commoner than *piniata*. Larva on white pine.

Lambdina Capps5143 *L. athasaria* Wlk.

Acaciaville, Digby, Annapolis, Lake Kejimukujik, Bridgewater, Rockingham, Halifax County. May 28 - June 22, at light in hemlock woods. Locally common. Reported on *Quercus alba* in western New York (Rupert) but in the Nova Scotian localities there is often no oak present, although there is usually some beech. If it is a conifer feeder the food is certainly hemlock.

(5146) *L. fiscellaria* Gn.

Abundant from Queens and Annapolis north to Cumberland and Pictou counties. Probably everywhere. August 24 - October 10. Larva commonly feeding on spruce, fir and hemlock, and bred once from a larva on red oak at Armdale.

Besma Capps5144 *B. endropiaria* G. & R.

Digby, South Milford, Annapolis, vicinity of Halifax, Baddeck, Cheticamp. June 10 - July 2. Moderately common. Reared on *Acer saccharum* (Rupert).

5145 *B. quercivoraria* Gn.

White Point Beach, South Milford, Annapolis, vicinity of Halifax, Baddeck, French Mountain, Inverness County. June 10 - July 25, and once on August 20. Moderately common in beech and oak woods. Reared on *Quercus alba* and *Fagus grandifolia* (Rupert).

Sicya Gn.5161 *S. macularia* Harr.

Most localities from White Point Beach to Cumberland and Pictou counties, and at Baddeck. July 20 - August 28, at light. Locally common. The larva has been reported on *Spiraea*, *Ceanothus* and ash.

Apicia Gn.5184 *A. confusaria* Hbn.

Digby, Annapolis Royal, Lawrencetown, Annapolis County. July 6-15. Often very common where found. Larva reported on *Solidago* and other Compositae.

Tetracis Gn.5197 *T. crocallata* Gn.

Generally distributed and very common all through southern Nova Scotia to Northumberland Strait. No Cape Breton records but is certainly to be expected there. May 24 - July 19. Bred from a larva on alder, and reported on *Rhus typhina*.

Nova Scotian material belongs to a northern race that averages rather small, lacks the brown line on the secondaries and is uniformly dusted with brown scales. According to Dr. Forbes this is not *aspilata* Gn.

5198 *T. cacheziata* Gn. (*T. lorata* Grt.)

Digby, South Milford, White Point Beach, Petite Riviere, vicinity of Halifax, Isle Haute. June 11 - July 4. Often very plentiful. A very general feeder on trees and shrubs. I bred it from larvae on *Comptonia* and *Kalmia angustifolia*.

Abbottana Hulst

5199 *A. clemataria* A. & S.

White Point Beach, Caledonia, South Milford, Centreville, Halifax and vicinity. May 15 - June 28. Often abundant at light in deciduous woods. A general feeder on deciduous trees. Bred from blueberry (McDunnough).

Antepione Pack.

5200 *A. thisoaria* Gn.

A well defined northern bog and heath dwelling race, somewhat smaller than normal and including specimens varying from solid brown to yellow all within the one brood.

Annapolis, South Milford, Round Hill, Auburn, Coldbrook, Mount Uniacke, Armdale, Purcell's Cove, Peggy's Cove and other Halifax County localities, Debert, Baddeck. June 5 - July 9, at light. Single brooded. Often abundant on bogs, and on pine barrens of the Annapolis Valley. Very rare elsewhere. Seemingly a rather general feeder on deciduous trees farther south; probably more specialized here.

Prochoerodes Wlk.

5211 *P. transversata* Dru.

Annapolis, Lake Rossignol, White Point Beach, Mount Uniacke, Wellington, Armdale, MacNab's Island, Peggy's Cove, Truro, Stellarton. Probably everywhere. August 14 - October 28. Abundant at light and sometimes bait. A very general feeder. Bred from choke cherry at Annapolis.

EPIPLEMIDAE

Callizzia Pack.

5223 *C. amorata* Pack.

Digby, Acaciaville, Lequille, Mount Uniacke, Waverley, Armdale, Bass River, Baddeck. Widely distributed but occurs sparingly. June 15 - August 5, at light. Little is known about the early stages, but Forbes records the larva from *Lonicera dioica*.

**ILLUSTRATIONS OF RARE AND TYPICAL LEPIDOPTERA
FROM NOVA SCOTIA**

All photographs by the author, except those of types in the Canadian National Collection, which were received through the courtesy of the Systematic Unit, Division of Entomology, Ottawa. The photograph of the type of *Anacamptodes ephyraria* Wlk. was kindly furnished by Mr. D. S. Fletcher, Dept. of Entomology, British Museum (Natural History).

PLATE I

1. *Papilio breviceauda bretonensis* McD. ♂. Holotype.
2. *Speyeria cybele novascotiae* McD. ♂. Holotype, underside.
3. *Boloria titania grandis* B. & McD. ♂. Parrsboro, August 12, 1949.
4. The same, underside.

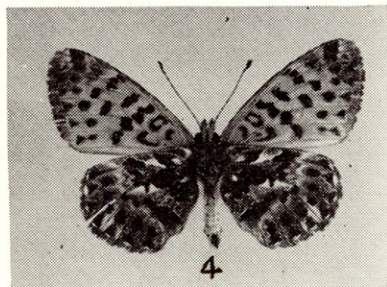
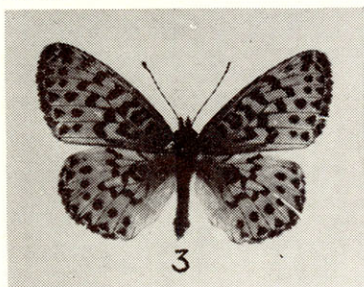
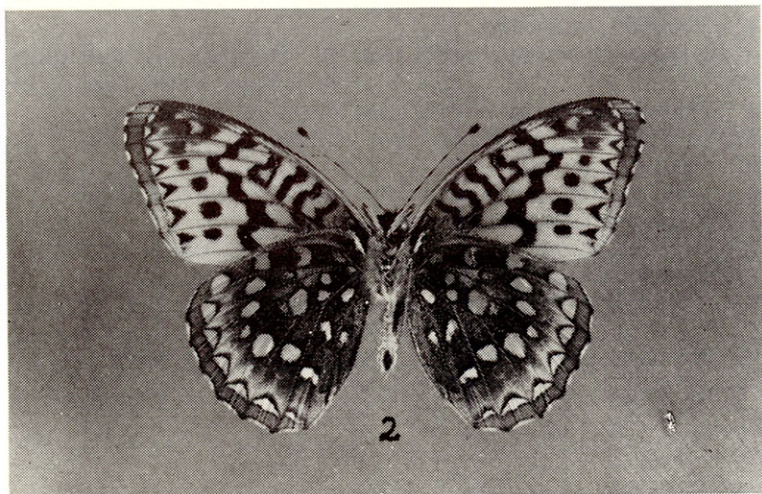
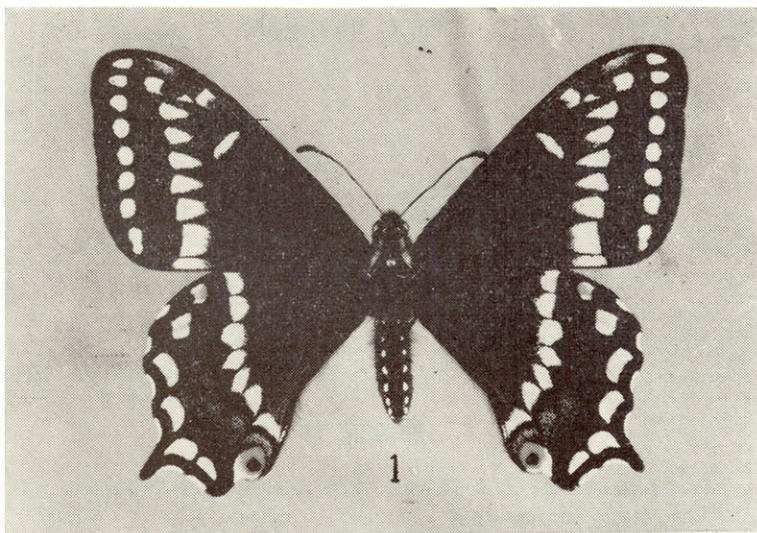


PLATE II

1. *Incisalia henrici* G. & R. ♀. Armdale, June 6, 1943.
2. The same, underside.
3. *Erora laeta* Edw. ♀. Armdale, May 14, 1944.
4. The same, underside.
5. *Lycaena epixanthe phaedra* Hall ♂. Herring Cove, July 21, 1950.
6. " " " " ♂. Terre Noire, July 6, 1949.
7. *Feniseca tarquinius nova-scotiae* McD. ♂. Holotype.
8. *Lycaeides argyrognomon empetri* Frmn. ♂. Holotype.
9. The same, underside.
10. *Glaucopsyche lygdamus mildredae* Cherm. ♂. Holotype.
11. The same, underside.
12. *Hesperia laurentina* Lyman ♂. Parrsboro, August 12, 1949.
13. The same, underside.
14. *Amblyscirtes hegon* Seud. ♂. Annapolis Royal, June 12, 1949.
15. " " " " ♂. underside. Fall River, June 12, '06.
16. *Sphinx luscitiosa* Clem. ♀. Armdale, July 19, 1945.

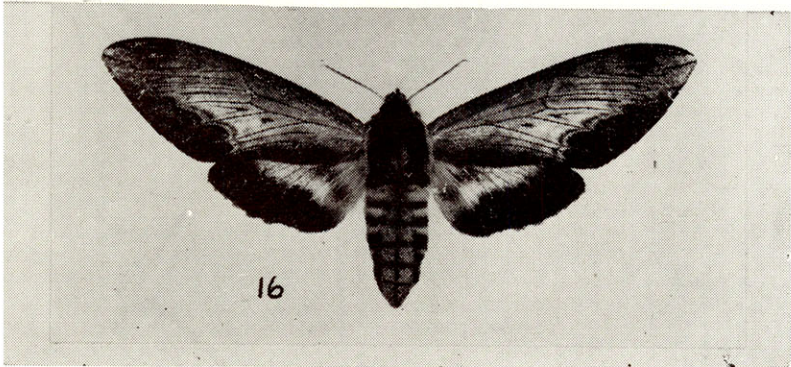
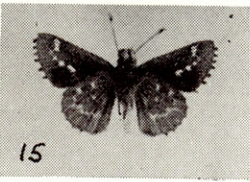
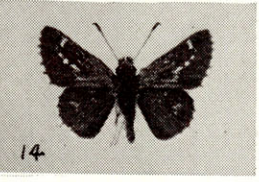
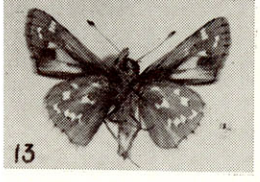
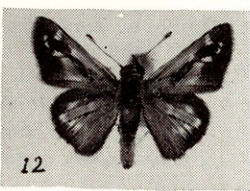
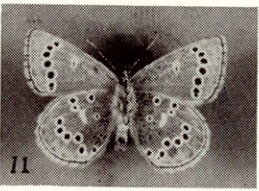
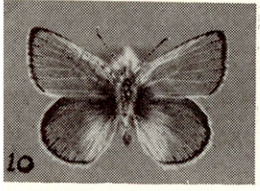
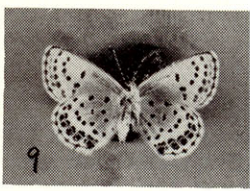
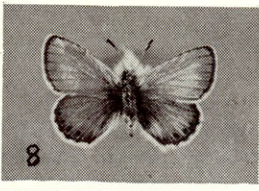
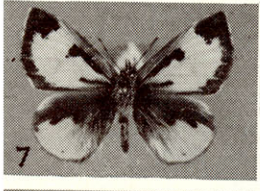
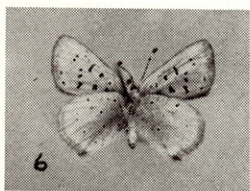
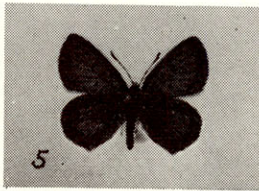
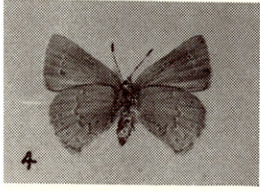
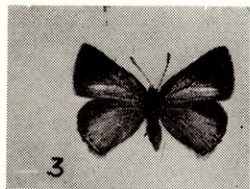
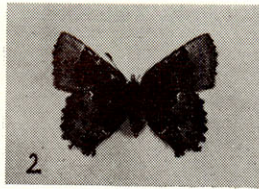
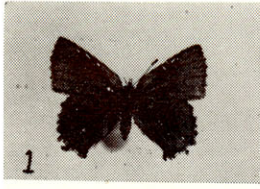


PLATE III

1. *Pholus fasciatus* Sulz. ♂. MacNab's Island, August 20, 1907.
2. *Celama triquetrana* Fitch ♂. Acaciaville, June 15, 1949.
3. *Sarbena minuscula* Zell. ♂. Lequille, June 23, 1950.
4. *Eubaphe lamae* Frmn., bred ♂. Bog on the Prospect Road, Halifax County.
5. *Hemaris gracilis* G. & R. ♂. Southampton, August 5, 1949.
6. *Apantesis doris minea* Sloss. ♂. Lequille, June 23, 1946.
7. ,, *celia* Saund. Bred ♂. Aldershot, Kings County.
8. *Phragmatobia assimilans* Wlk. ♂. Mount Uniacke, May 19, 1949.

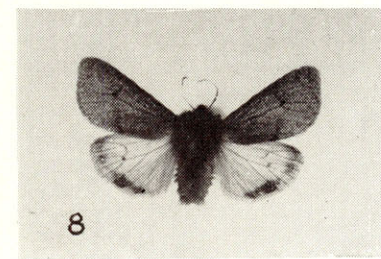
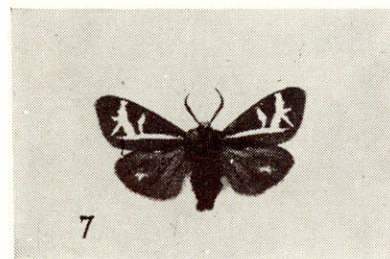
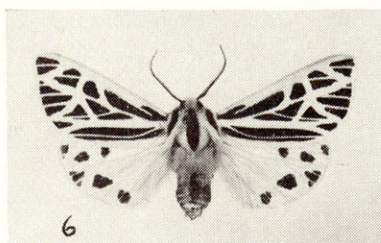
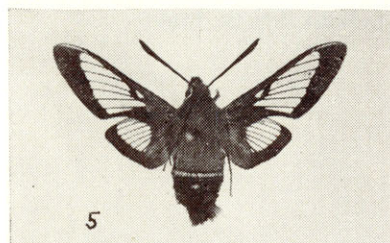
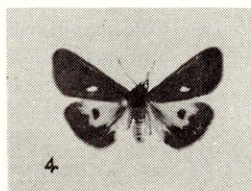
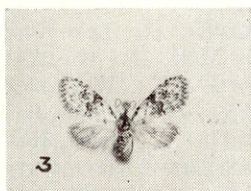
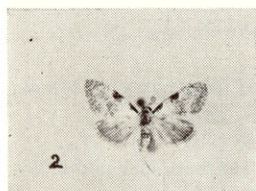
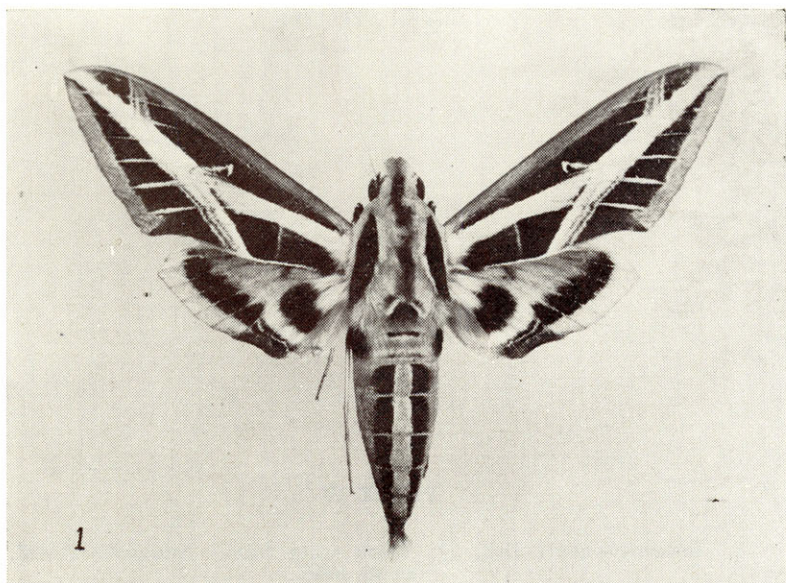


PLATE IV

1. *Estigmene acrea* Dru. ♂. Dark sooty form. Annapolis Royal, June 30, 1946.
2. ,, *prima* Sloss. ♂. Armdale, May 30, 1948.
3. *Colocasia flavicornis* Sm. ♂. Lake Kejimukujik, May 29, 1950.
4. *Panthea pallescens* McD. ♂. Holotype.
5. *Acronieta funeralis* G. & R. Wolfville, bred from larva on willow.
6. ,, *laetifica* Sm. ♂. Lequille, June 27, 1946.
7. ,, *furcifera* Gn. ♀. Digby, June 25, 1907.
8. ,, *lanceolaria* Grt. Granville Ferry, bred from larva on alder.
9. ,, *lobeliae* Gn. ♂. Lequille, July 28, 1946.
10. ,, *subochrea* Grt. ♀. Lequille, July 29, 1946.

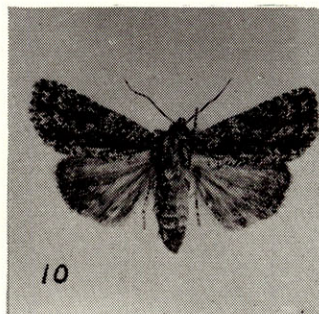
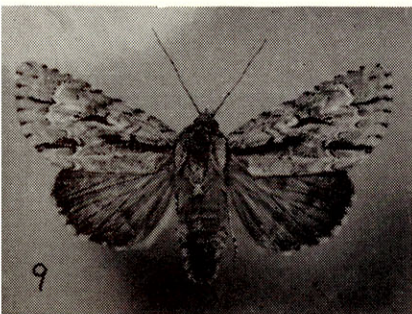
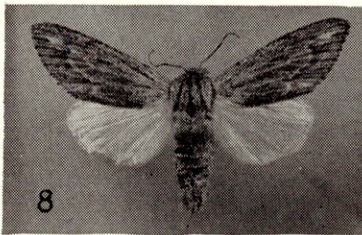
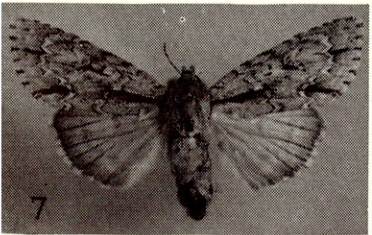
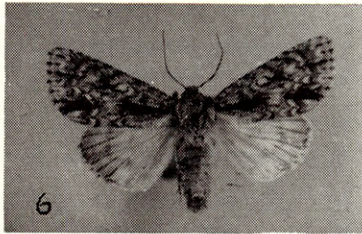
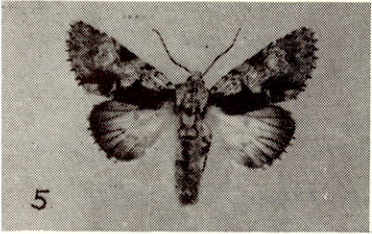
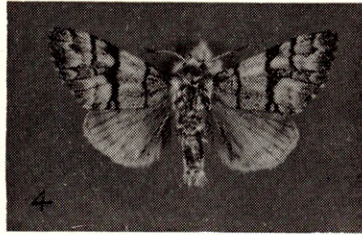
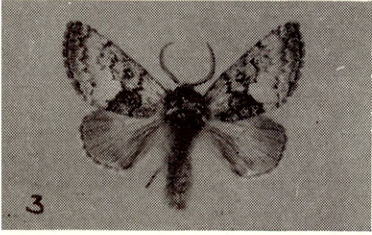
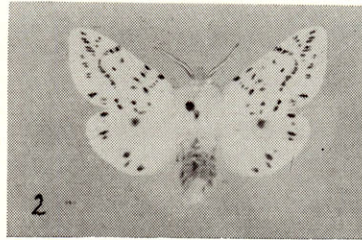
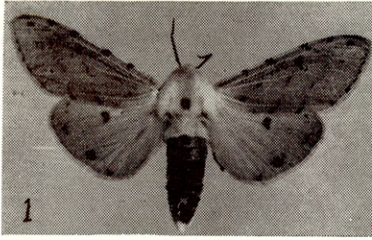


PLATE V

1. *Acrioneta afflicta* Grt. ♀. Lequille, June 26, 1946.
2. ,, *hamamelis* Gn. ♂. Annapolis Royal, bred from larva on oak.
3. ,, *inclara* Sm. ♀. Lequille, July 14, 1946.
4. *Euxoa detersa* Wlk. ♂. Topotypical. Peggy's Cove, September 20, 1952.
5. ,, *perpolita* Morr. ♂. Aylesford, September 2, 1951.
6. ,, *mimallonis* Grt. ♂. Shad Bay, July 29, 1952.
7. ,, *scholastica* McD. ♂. Armdale, July 31, 1950.
8. ,, *ontario vestitura* Sm. ♂. Armdale, August 9, 1948.
9. ,, *divergens* Wlk. ♂. Topotypical. Auburn, June 30, 1951.
10. ,, *tristicula* Morr. ♀. Annapolis Royal, June 27, 1930.
11. *Agrotis mollis* Wlk. ♀. Lequille, July 25, 1949.
12. ,, *gladiaria* Morr. ♂. Armdale, September 16, 1947.

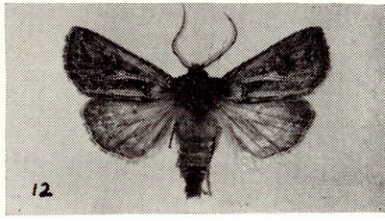
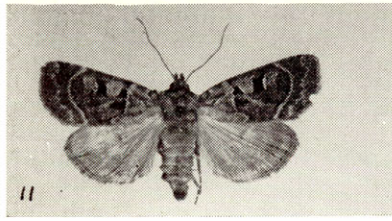
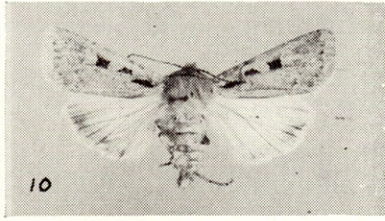
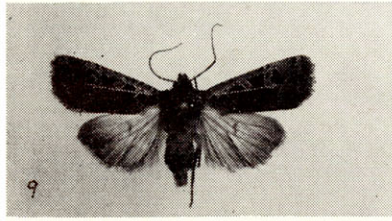
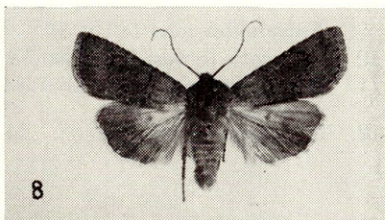
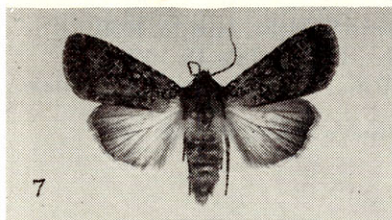
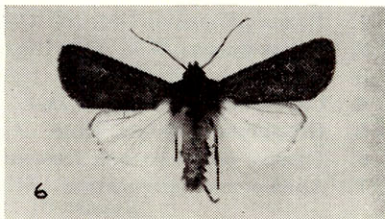
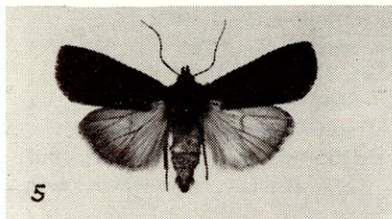
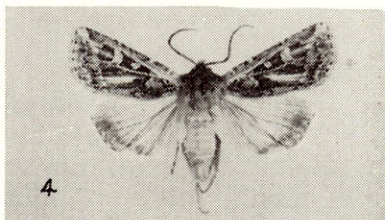
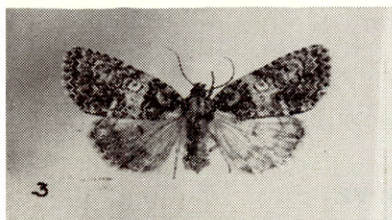
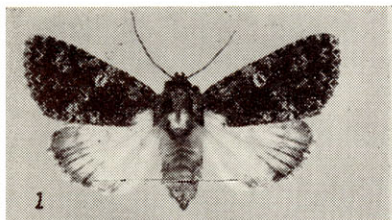


PLATE VI

1. *Euxoa albipennis* Grt. ♂. Auburn, September 1, 1951.
2. *Feltia ducens* Wlk. ♂. Lequille, August 25, 1946.
3. *Metalepsis fishi* Grt. ♂. Aldershot, May 11, 1950.
4. *Caradrina quadrangula* Zett. ♀. Shad Bay, July 29, 1952.
5. *Graphiphora oblata* Morr. ♂. Mount Uniacke, July 9, 1947.
6. *Diarsia pseudorosaria freemani* Hdwk. ♂. Digby, July 1, 1907.
7. *Anomogyna perquiritata* Morr. ♂. Halifax watershed area, August 10, 1950.
8. ,, *imperita* Hbn. ♂. Mount Uniacke, August 12, 1950.
9. *Aplectoides condita* Gn. ♂. Mount Uniacke, June 15, 1950.
10. *Euagrotis forbesi* Franclemont ♂. Debert, July 15, 1952.
11. *Scotogramma trifolii albifusa* Wlk. ♀. Topotypical. Armdale, August 15, 1950.
12. *Mamestra curialis* Sm. ♀. MacNab's Island, June 28, 1906.

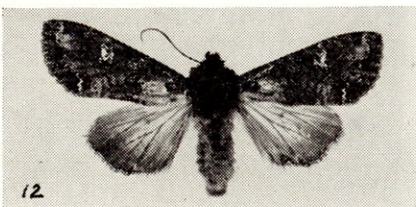
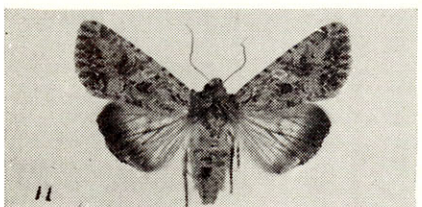
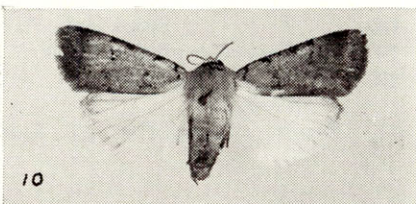
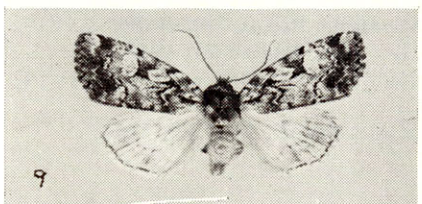
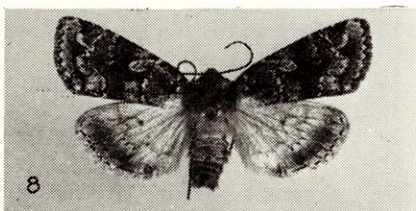
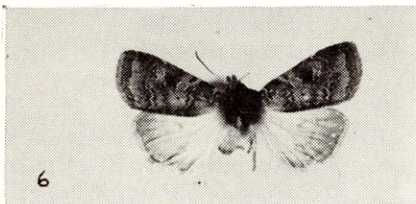
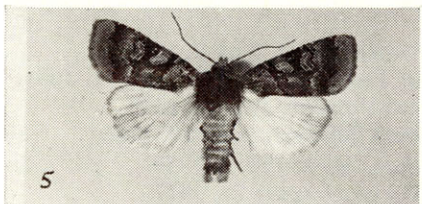
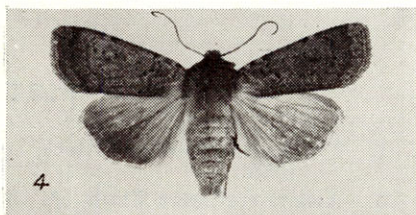
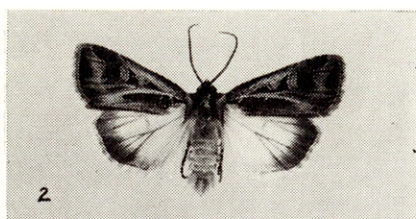
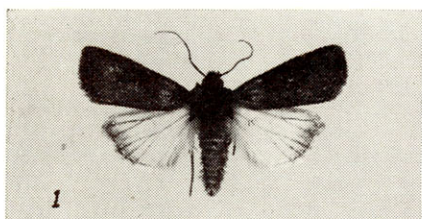


PLATE VII

1. *Cryptocala acadensis* Beth. ♀, topotypical. Armdale, August 10, 1950.
2. *Anarta cordigera* Thun. ♂. Bog, Prospect Road, June 9, 1951.
3. *Hemipachnobia monochromatea* Morr. ♂. Mount Uniacke, June 15, 1950.
4. *Polia rugosa* Morr. ♂. Bog, Prospect Road, July 2, 1951.
5. *Apharetra dentata* Grt. ♀. Bog, Prospect Road, August 11, 1951.
6. *Polia pulverulenta* Sm. ♂. Mount Uniacke, July 18, 1946.
7. *Leucania inermis* Forbes ♀. South Milford, June 23, 1950.
8. *Anathix puta* G. & R. ♂. Armdale, September 3, 1949.
9. *Oncocnemis piffardi* Wlk. ♂. Digby, August 28, 1937.
10. *Leucania scirpicola* Gn. ♂. Lequille, June 16, 1949.
11. *Oligia minuseula* form *grahami* Benj. ♂. Peggy's Cove, September 22, 1952.
12. *Hillia iris* Zett. ♂. Aylesford, October 3, 1950.
13. ,, ,, form *vigilans* Grt. ♂. Aylesford, September 10, 1952.
14. *Oligia tonsa* var.? ♂. Parrsboro, July 30, 1948.
15. ,, *semicana* Wlk. ♂. Halifax watershed area, August 10, 1950.
16. *Eremobina claudens* Wlk. ♂. Mount Uniacke, August 14, 1950.
17. *Spartiniphaga panatela* Sm. ♂. Mount Uniacke, June 22, 1951.
18. ,, *inops* Grt. ♂. Annapolis Royal, September 3, 1946.
19. *Hypocoena orphnina* Dyar ♂. Lequille, August 21, 1946.
20. ,, *inquinata* Gn. ♂. Halifax watershed area, August 14, 1950.
21. *Fagitana littera* Gn. ♀. Lake Kejimukujik, May 29, 1950.

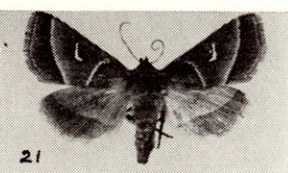
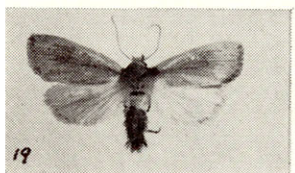
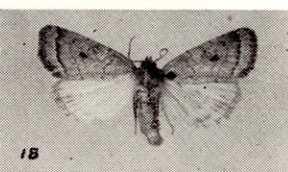
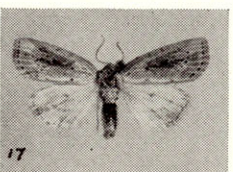
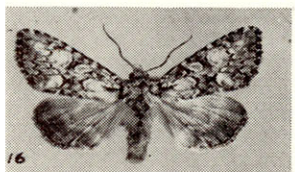
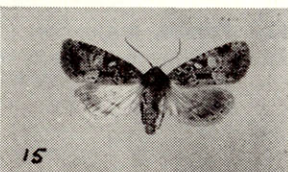
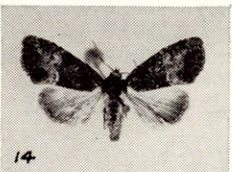
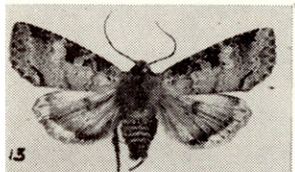
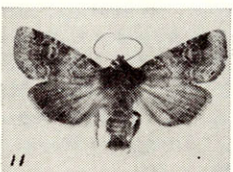
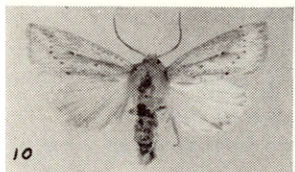
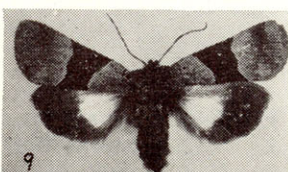
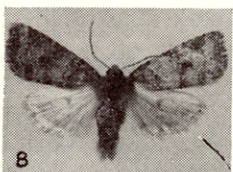
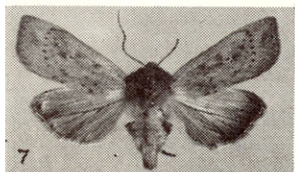
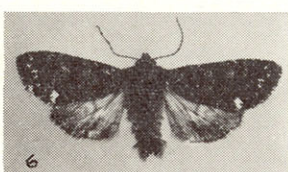
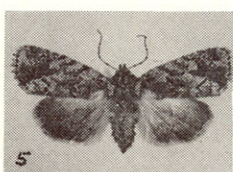
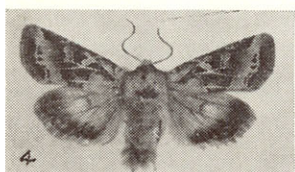
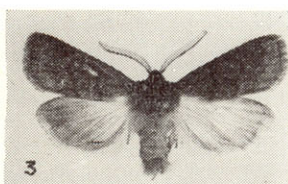
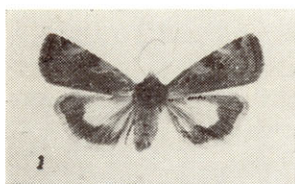


PLATE VIII

1. *Polia tacoma* Stkr. ♀. Aldershot, June 4, 1952.
2. „ *frustrata* McD. ♂. Mount Uniacke, June 7, 1950.
3. „ *ingravis* Sm. ♂. Mount Uniacke, June 7, 1948.
4. *Xylomyges dolosa* Grt. ♀. Waverley, May 22, 1949.
5. *Sideridis rosea* Harv. ♂. Aylesford, June 3, 1951.
6. „ *congermana* Morr. ♂. MacNab's Island, July 23, 1907.
7. *Orthosia rubescens* Wlk. ♂. Armdale, May 2, 1949.
8. *Adita chionanthi* A. & S. ♀. Digby, September 19, 1907.
9. *Cucullia florea* Gn. ♂. Annapolis Royal, bred from larva on *Aster umbellatus*.
10. „ *postera* Gn. ♂. Round Hill, July 21, 1938.
11. *Feralia major* Sm. ♂. Digby, 1933.
12. „ *eomstocki* Grt. ♂. Brown suffused form. Mount Uniacke May 20, 1952.

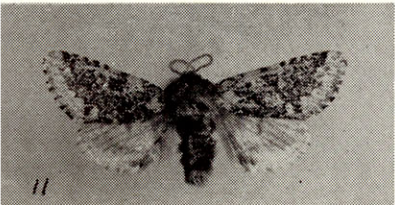
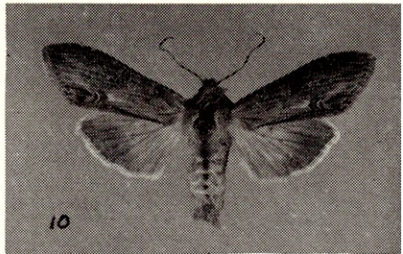
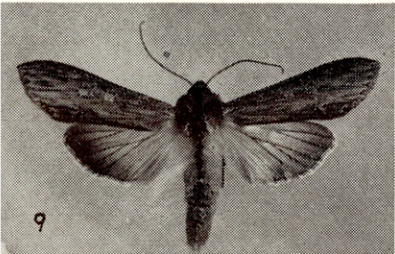
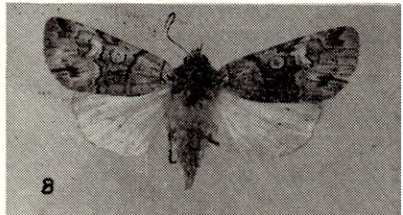
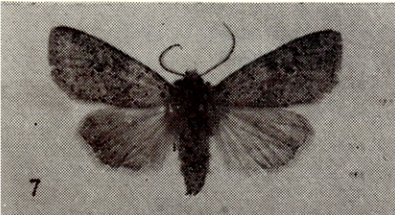
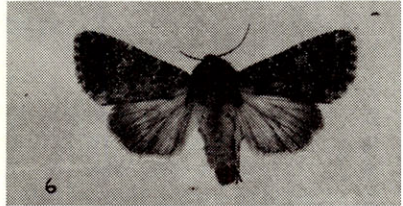
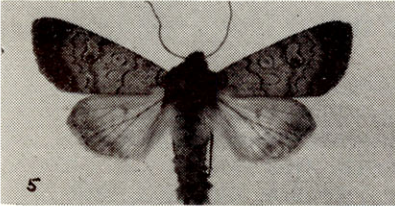
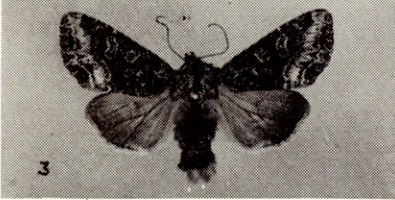
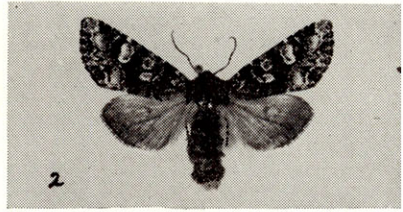
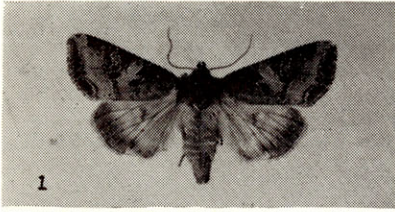


PLATE IX

1. *Lithophane baileyi* Grt. ♀. Wellington, October 9, 1950.
2. " *tepida* Grt. ♂. Peggy's Cove, September 20, 1952.
3. " *georgii* Grt. ♂. Centreville, October 2, 1950.
4. " *lepida* Lint. ♂. Armdale, April 13, 1945.
5. *Xylina thoracica* Put.—Cram. ♂. Armdale, October 1, 1950.
6. " *cineritia* Grt. ♂. Armdale, April 13, 1945.
7. *Xylotype acadia* B. & B. ♀. Armdale, September 3, 1949.
8. *Mniotype ducta* Grt. ♀. Digby, June 28, 1905.
9. *Fishea enthea* Grt. ♂. Debert, September 24, 1952.
10. *Septis apamiformis* Gn. ♀. Centreville, July 22, 1949.
11. " *mixta* Grt. ♀. Parrsboro, August 15, 1944.
12. " *plutonia* Grt. ♂. Valley of the Cheticamp River, July 2,
1949.

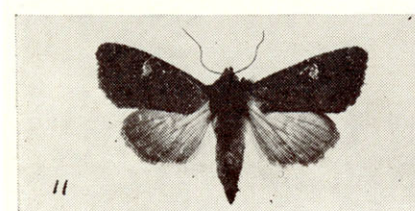
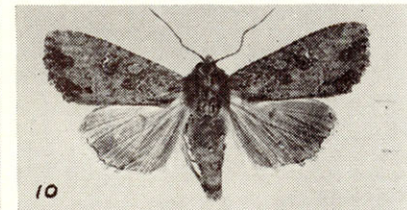
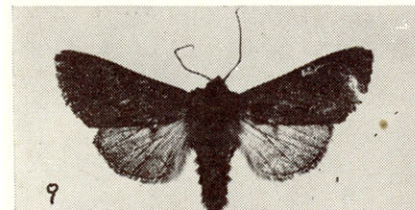
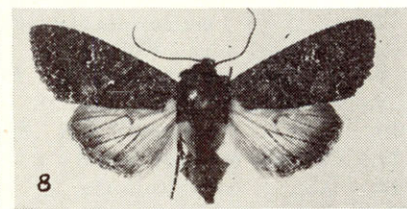
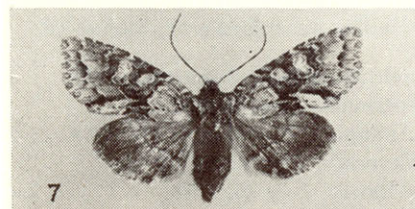
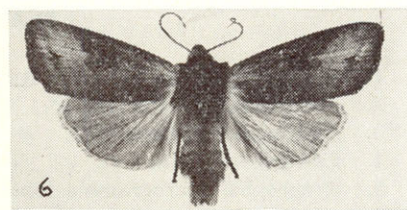
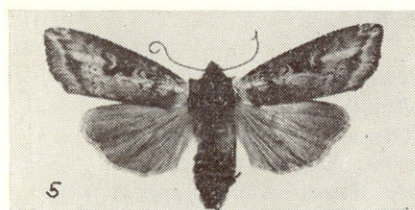
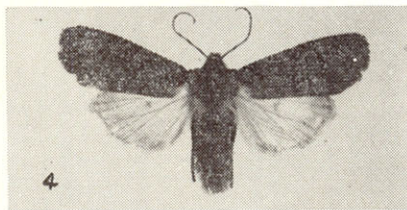
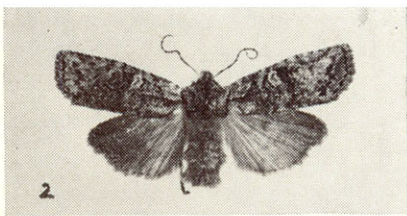
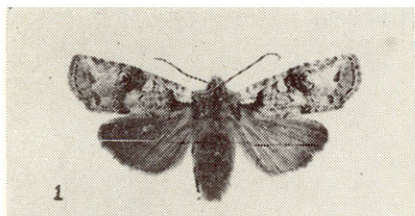


PLATE X

1. *Bombycia algens* Grt. ♀. Aylesford, September 2, 1951.
2. *Archanara subflava* Grt. ♂. Wolfville, August 12, 1945.
3. *Andropolia contacta* Wlk. ♂. Glenville, August 9, 1949.
4. *Enargia infumata* Grt. ♀. Glenville, August 11, 1949.
5. *Syngrapha microgramma* Hbn. ♂. Peggy's Cove, June 22, 1952.
6. " *altera variana* Ottol. ♂. Armdale, July 15, 1949.
7. " *octoscripta* Grt. ♂. Halifax watershed area, August 10, 1950.
8. " *surena* Grt. ♀. French Mountain, August 20, 1952.
9. *Autographa rubida* Ottol ♂. Centreville, June 2, 1951.
10. " *mappa* G. & R. ♂. Annapolis Royal, June 19, 1928.
11. *Catocala crataegi* Saund. ♀. Waverley, August 23, 1948.
12. " *connubialis* Gn. ♂. Coldbrook, July 23, 1949.

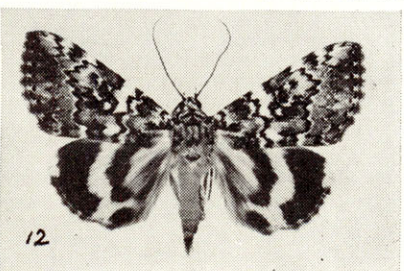
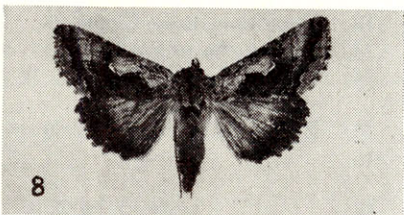
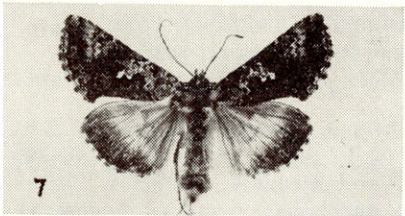
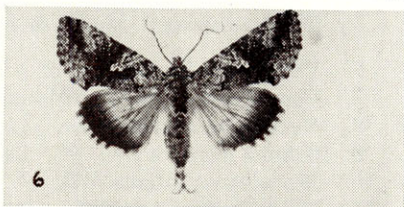
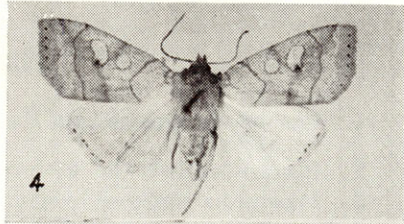
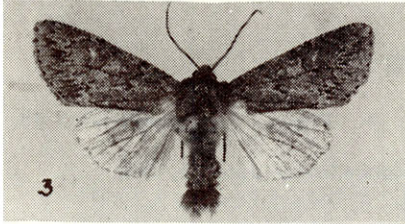
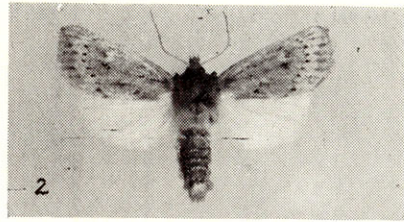
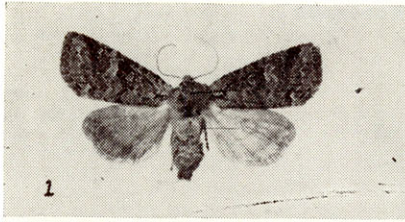


PLATE XI

1. *Papaipema appassionata* Harv. ♂. Peggy's Cove, September 18, 1952.
2. *Paectes oculatrix* Gn. ♀. Annapolis Royal, June 14, 1949.
3. *Papaipema eupatorii* Lyman ♂. Aylesford, October 3, 1950.
4. " *inquaesita* G. & R. ♂. Armdale, October 2, 1948.
5. *Elaphria georgei* Moore & Rawson ♂. Mount Uniacke, June 1, 1951.
6. *Papaipema frigida* Sm. ♂. Aylesford, October 3, 1950.
7. *Cerma cora* Hbn. ♀. Mount Uniacke, July 10, 1951.
8. *Eutricopsis nexilis* Morr. ♂. Sackville, May 20, 1951.
9. *Schinia nundina* Dru. ♂. Lawrence town, August 24, 1945.
10. *Marathyssa inficita* Wlk. ♂. Annapolis Royal, June 16, 1949.
11. *Nycteola frigidana* Wlk. ♀. Baddeck, bred from larva on willow.
12. *Pseudoplusia oo* Cram. ♀. Wellington, October 12, 1950.
13. *Bomolocha citata* Grt. ♂. Armdale, October 18, 1947.
14. *Parahypenodes quadralis* B. & McD. ♂. Halifax watershed area, August 31, 1950.
15. *Epizeuxis* sp. near *aemula* ♂. Mount Uniacke, August 18, 1950.
16. " " " " ♂. Dark variety from Cape Breton Island, Baddeck, August 4, 1950.
17. " *rotundalis* Wlk. ♀. underside. Armdale, August 11, 1948.
18. " *julia* B. & McD. ♀, underside. Glenville, July 29, 1948.
19. " *laurenti* Sm. ♂. Waverley, July 21, 1950.
20. *Zanolognatha pedipilalis* Gn. ♀. Cole Harbour, July 23, 1951.
21. *Philometra hanhami* Sm. ♂. Halifax watershed Area, August 14, 1950.

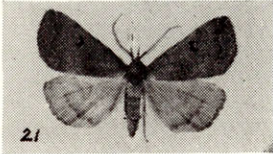
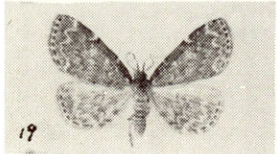
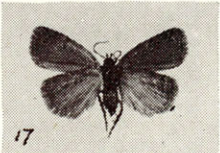
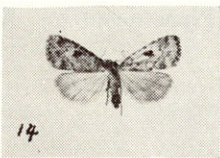
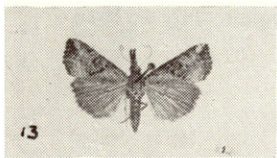
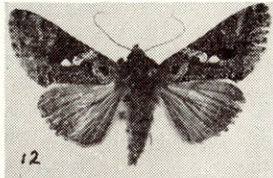
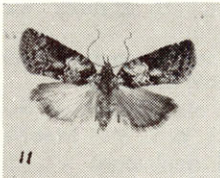
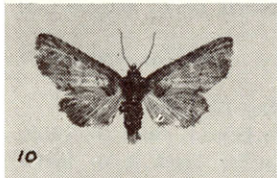
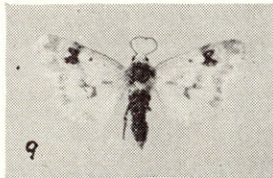
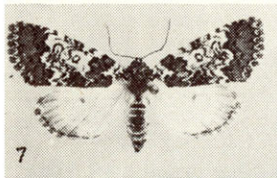
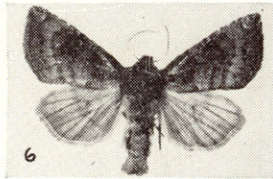
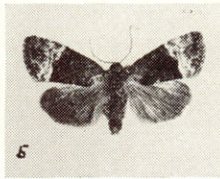
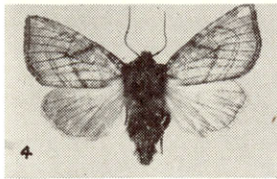
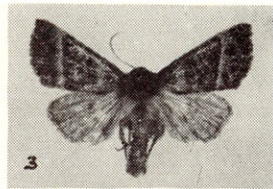
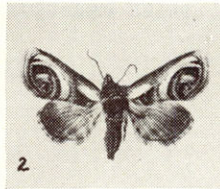
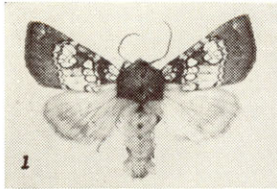


PLATE XII

1. *Catocala subnata* Grt. ♂. Fleming Glen, Halifax, August 13, 1944.
2. " *coccinata* Grt. ♂. Halifax watershed area, August 21, 1949.
3. *Gluphisia avimacula* form *slossoniae* Paek. ♂. Halifax watershed area, June 23, 1948.
4. " *lintneri* Grt. ♂. Debert, N. S., May 19, 1952.
5. *Symmerista albifrons* A. & S. ♂. MacNab's Island, June 30, 1908.
6. " *leucitys* Franclemont ♂. Lequille, bred from larva on maple.
7. " *canicosta* Franclemont ♂. Armdale, July 6, 1948.

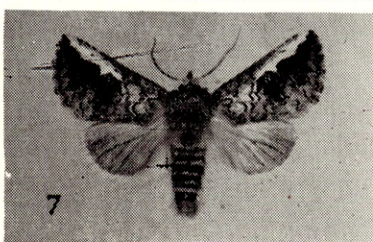
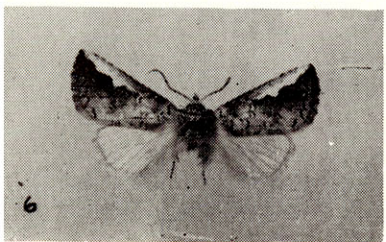
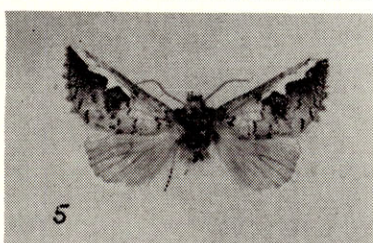
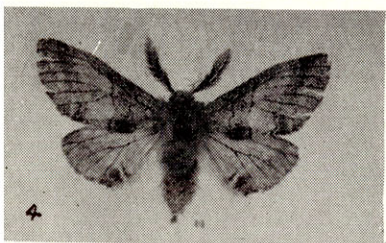
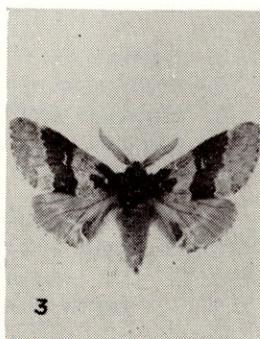
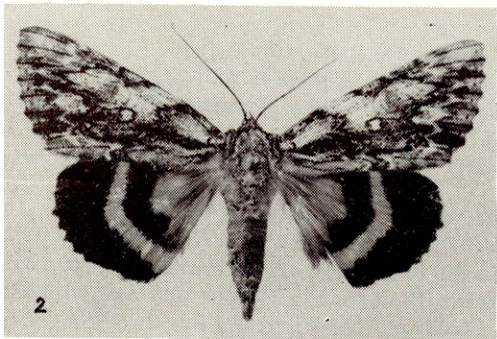


PLATE XIII

1. *Datana major* G. & R. ♀. Annapolis, July 7, 1946.
2. *Heterocampa obliqua* Pack. ♀. Annapolis, July 31, 1946.
3. *Notodonta simplaria* Graef ♂. Lake Rossignol, Aug. 20, 1951.
4. *Gluphisia avimacula* Hud. ♂. Armdale, June 22, 1948.
5. *Heterocampa guttivitta* Wlk. ♂. Topotypical. Armdale, June 20, 1948.
6. *Cerura scolopendrina* var. ♀. Bedford, July 24, 1944.
7. *Dasychira plagiata* Wlk. ♂. Halifax watershed, July 26, 1952.
8. ,, *dorsipennata* B. & McD. ♂. Auburn, June 30, 1951.
9. *vagans* B. & McD. Dark var. ♀. Centreville, July 26, 1950.
10. ,, ,, Dark var. ♂. Waverley, July 21, 1950.

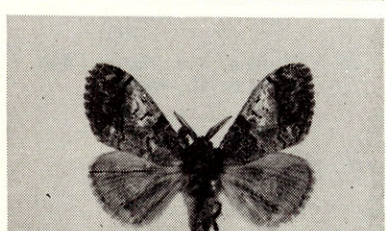
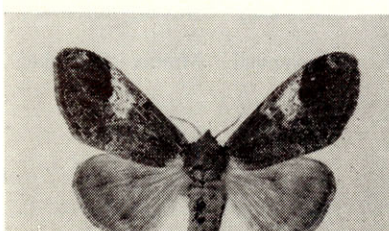
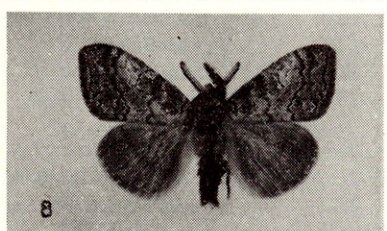
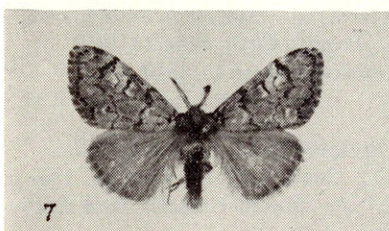
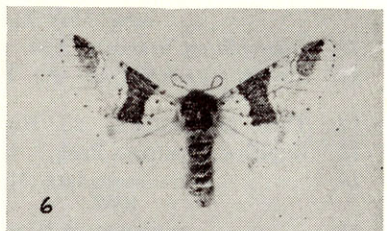
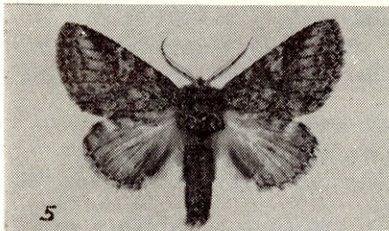
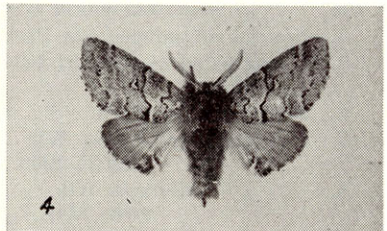
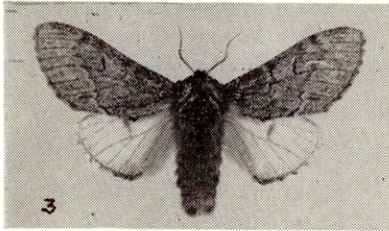
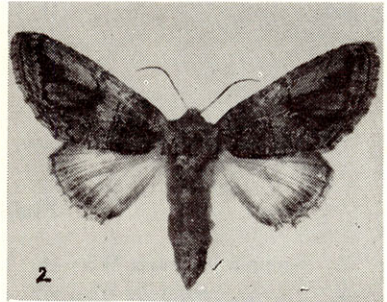
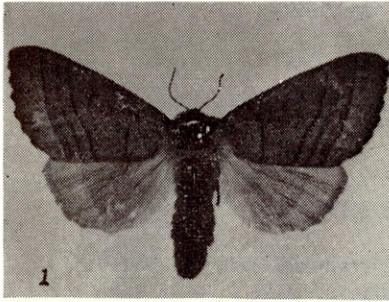


PLATE XIV

1. *Scopula junctaria* Wlk. ♂. Clementsvale, June 29, 1951.
2. „ *persimilis* Hlst. ♂. Mount Uniacke, June 22, 1951.
3. „ *inductata sobria* Wlk. ♂. South Milford, June 27, 1951.
4. *Sterrha rotundopennata* Pack. ♀. South Milford, June 27, 1951.
5. *Carsia paludata thaxteri* Swett ♀. Bog, Prospect Road, July 23, 1952.
6. *Acasis viridata* Pack. ♂. Halifax watershed area, May 9, 1951.
7. *Nyctobia atroliturata* Wlk. ♀. Topotypical Mount Uniacke, May 25, 1950.
8. „ *limitaria* Wlk. ♂. Dark variant Halifax watershed area, May 7, 1951.
9. „ *limitaria* Wlk. ♀. Pale variant. Halifax watershed area, May 25, 1952.
10. *Operophtera bruceata* Hlst. ♂. Glenholme, November 13, 1951.
11. *Plemyria georgii* Hlst. ♂. Halifax watershed area, August 31, 1950.
12. *Thera juniperata* L. ♀. Halifax, bred August 30, 1950.
13. *Eupithecia palpata* Pack. ♀. Lequille, June 22, 1950.
14. „ *transcanadata* MacKay ♀. Peggy's Cove, June 22, 1952.
15. „ *albipunctata* Haw. ♀. Cheticamp River, July 2, 1949..
16. „ *arceuthata taylorata* Swett ♂. Aldershot, June 4, 1952,
17. „ *nimbicolor* Hlst. ♀. Peggy's Cove, June 22, 1952.
18. „ *fumosa* Hlst. ♀. Acaciaville, June 15, 1949.
19. „ *gelidata* Moesch. ♂. Bog, Prospect Road, August 11 1951.
20. „ *filmata* Pears. ♂. Prospect Road, April 23, 1952.
21. „ *albicapitata* Pack. ♀. South Milford, June 27, 1951.
22. „ *ravocostaliata* Pack. ♂. Mount Uniacke, bred April 10, 1952.
23. „ *anticaria* Wlk. ♂. Topotypical. Auburn, June 30, 1951.
24. *Venusia comptaria* Wlk. ♂. Topotypical. Mount Uniacke, May 20, 1952.

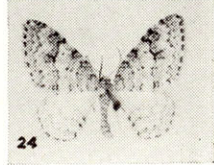
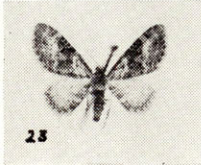
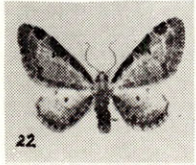
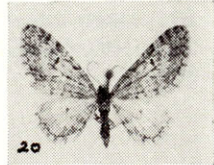
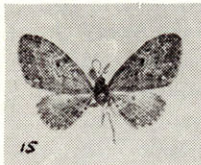
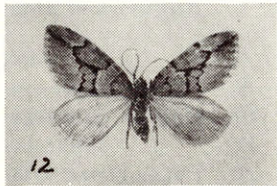
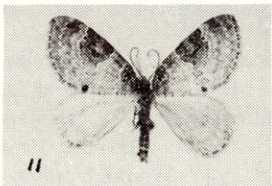
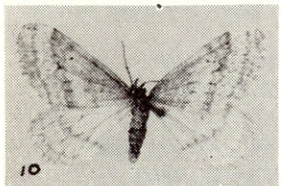
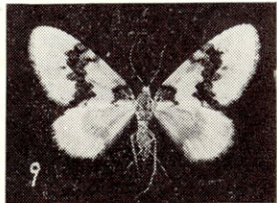
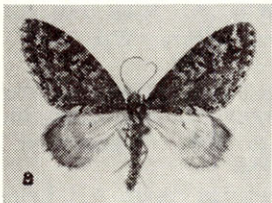
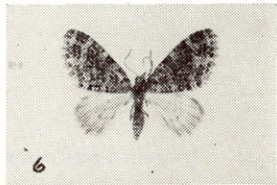
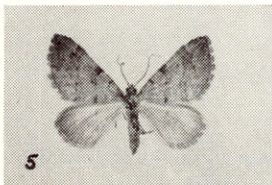
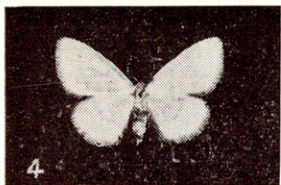
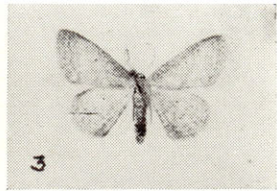
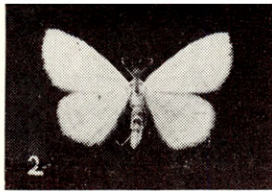
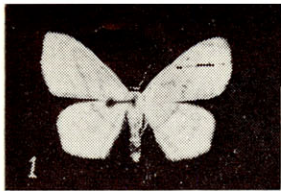


PLATE XV

1. *Lygris flavibrunneata unicolorata* McD. ♂. Dorchester, N. B. August 7, 1951.
2. „ *propulsata* Wlk. ♂. Shad Bay, July 27, 1952.
3. „ *explanata cunigerata* Wlk. ♂. Topotypical. Armdale, August 11, 1948.
4. *Hydriomena furcata* Thun. Holotype ♂ of new race in MS (McD.) Peggy's Cove, August 20, 1952.
5. „ *frigidata* Wlk. Topotypical. Port Wallis, June 21, 1952.
6. „ *transfigurata* Swett ♀. Lequille, June 13, 1949.
7. *Xanthorhoe abrasaria congregata* Wlk. ♂. Bog, Prospect Road, July 3, 1951.
8. „ *munitata* Hbn. ♂. Parrsboro, July 30, 1948.
9. *Perenoptilota evansi* McD. ♀. Baddeck, June 29, 1947.
10. *Eulype hastata gothicata* Gn. ♂. Baddeck, July 3, 1947.
11. „ *subhastata* Nolc. ♀. Mount Uniacke, June 26, 1948.
12. *Bapta glomeraria* Grt. ♂. Mount Uniacke, May 20, 1952.
13. *Semiothisa distribuararia* Hbn. ♀. Armdale, July 9, 1945.
14. „ *oweni* Swett ♂. Halifax watershed area, July 6, 1951.
15. „ *perplexa* McD. ♂. Glenville, July 12, 1949.
16. „ *mellistrigata* Grt. ♂. Coldbrook, July 27, 1950.
17. „ *gnophosaria* Gn. ♂. Lequille, July 24, 1949.
18. *Aethalura anticaria* Wlk. ♂. Topotypical. Waverley, May 22, 1950.
19. *Itame bitactata* Wlk. ♀. MacNab's Island, July 30, 1906.
20. *Orthofidonia tinctaria* Wlk. ♂. Armdale, May 27, 1948.
21. „ *flavivenata* Hlst. ♂. Waverley, May 22, 1950.

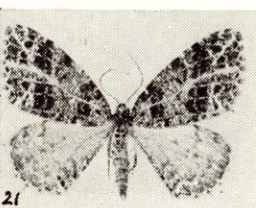
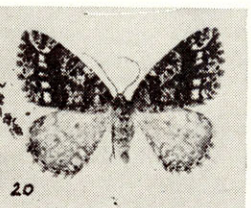
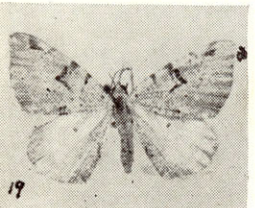
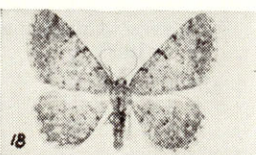
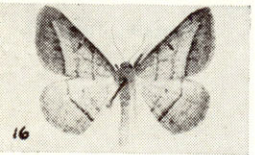
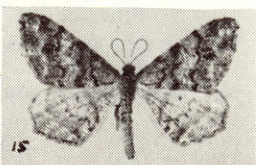
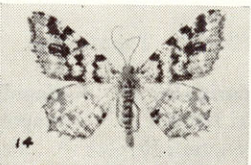
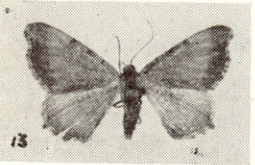
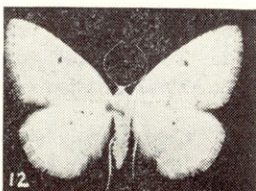
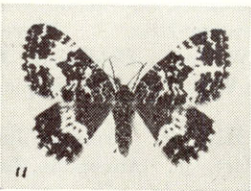
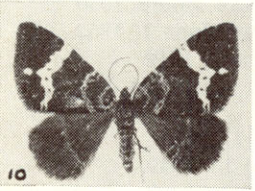
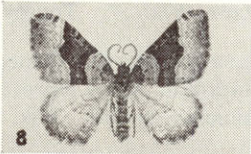
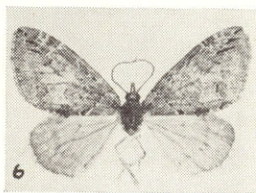
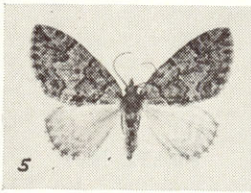
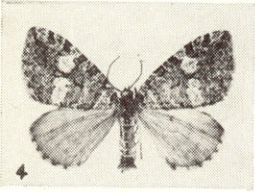
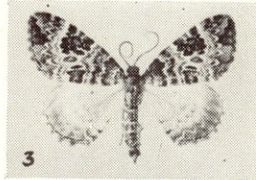
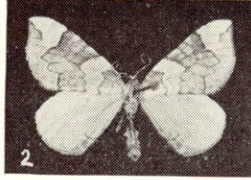
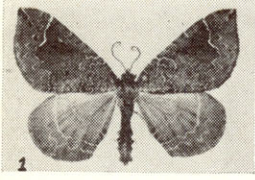
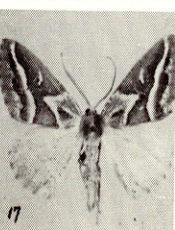
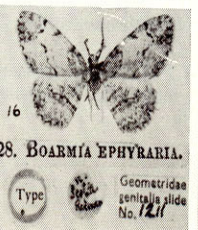
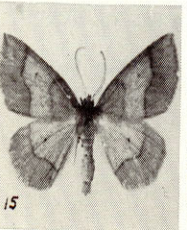
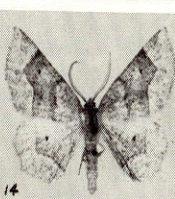
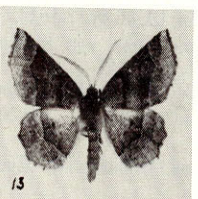
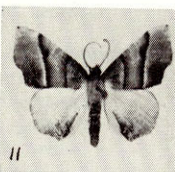
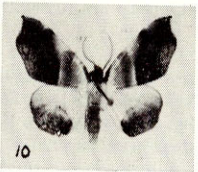
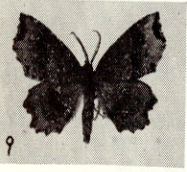
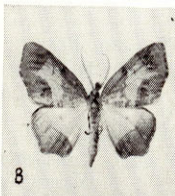
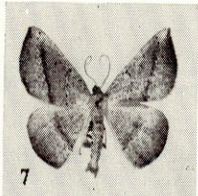
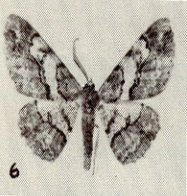
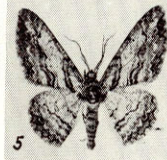
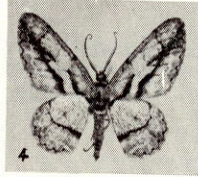
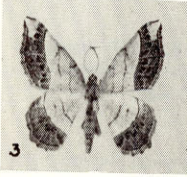
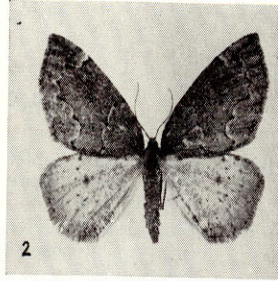
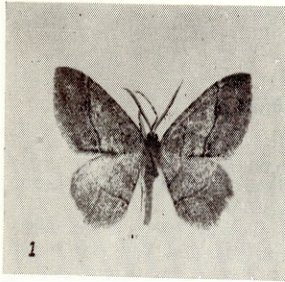



PLATE XVI

1. *Melanolophia signataria* Wlk. ♂. Topotypical. Caledonia, May 13, 1952.
2. *Epirrhanthis substriataria* Hlst. ♀. Centreville, May 9, 1950.
3. *Eumacaria latiferrugata* Wlk. ♀. Centreville, July 23, 1949.
4. *Anavitrinella pampinaria erosiata* Wlk. ♂. Mount Uniacke, June 22, 1951.
5. *Anacamptodes humaria* Gn. ♂. Mount Uniacke, June 7, 1950.
6. " *vellivolata* Hlst. ♂. Waverley, June 1, 1952.
7. *Tacparia zalissaria* Wlk. ♂. Coldbrook, June 5, 1949.
8. *Hyperetis nepiasaria* Wlk. ♂. Topotypical. Armdale, July 8, 1948.
9. *Cepphis decoloraria* Hlst. ♂. Armdale, July 1, 1948.
10. *Plagodis kuetzingi* Grt. ♂. Annapolis, June 13, 1949.
11. " *phlogosaria iris* Rupert, ♂ paratype. Armdale, June 23, 1947.
12. *Cingilia canosaria* Wlk. ♂. Topotypical. Lake Rossignol, August 24, 1951.
13. *Metarranthis lateritiaria* Gn. ♂. Annapolis, June 16, 1949.
14. " *broweri* Rupert ♂. Annapolis, June 11, 1949.
15. " *franclemonti* Rupert ♂. Port Wallis, June 10, 1952.
16. *Anacamptodes ephyraria* Wlk. Type, "Nova Scotia"
17. *Caripeta angustiorata* Wlk. ♂. Topotypical. Armdale, July 19, 1950.



28. BOARMIA EPHYRARIA.

Type  Geometridae genitalia slide No. 1211

BIBLIOGRAPHY

- BARNES, WILLIAM, and J. H. McDUNNOUGH.
 1913. The N. American Species of the Liparid Genus *Olene*. Contr. Nat. Hist. Lep. N. A., Vol. II, No. 2.
 1918. Illustrations of the North American Species of the Genus *Catocala*. Memoirs American Mus. Nat. Hist., New Series, Vol. III, Pt. I.
- CAPPS, HAHN W.
 1943. Some American Geometrid Moths of the Subfamily Ennominae heretofore associated with or closely Related to *Ellopia* Treitschke. Proc. U.S.N.M., Vol. 93, pp. 115-152.
- DOS PASSOS, C. F., and L. P. GREY.
 1947. Systematic Catalogue of *Speyeria*. American Museum Novitates, No. 1370.
- EDWARDS, HENRY.
 1889. Bibliographical Catalogue of the Described Transformations of North American Lepidoptera. Bull. U.S.N.M., No. 35.
- FORBES, W. T. M.
 1923. Lepidoptera of New York and Neighbouring States, Part I. Memoir 68, Cornell Univ. Agric. Exp. Sta.
 1948. Lepidoptera of New York and Neighbouring States, Part II. Memoir 274, Cornell Univ. Agric. Exp. Sta.
- FRANCLEMONT, JOHN G.
 1936. A New Generic Name (Lepidoptera; Euchromiidae). Entomological News, Vol. XLVII, p. 275.
 1939. The Usage of the Names *Epizeuxis* Hübner and *Zanclognatha* Lederer. Entomological News, Vol. L, pp. 108-109.
 1939. Revision of the American Species of the Genus *Enargia* Hübner. Can. Ent., Vol. LXXI, pp. 113-116.
 1941. *Gluphisia lintneri* Grote and Related Species. Can. Ent. Vol. LXXIII, pp. 92-94.
 1941. Notes on some Cuculliinae I. Ent. News, Vol. LII; pp. 201-205.
 1942. Notes on some Cuculliinae II. Ent. News, Vol. LIII, pp. 31-35, 63-66.
 1943. Notes on some Cuculliinae III. Ent. News, Vol. LIV, pp. 92-99.
 1946. A Revision of the Species of *Symmerista* Hübner Known to Occur North of the Mexican Border. Can. Ent., Vol. LXXVIII, pp. 96-103.
 1949. Review of W.T.M. Forbes' Lepidoptera of New York and Neighbouring States, Pt. II. Lepidopterist's News, Vol. III, No. 1, pp. 5-6.

1949. Synonymical Notes Relating to *Menopsimus caducus* Dyar Proc. Ent. Soc. Wash., Vol. 51, No. 2, pp. 74-75.
1952. Four Undescribed Moths from Eastern North America, with Notes on Closely Related Species. Bull. Brooklyn Ent. Soc., Vol. XLVII, pp. 123-137.
- HAMPSON, SIR GEORGE F.
1898-1926 Catalogue of the Lepidoptera Phalaenae in the British Museum. London.
- HARDWICK, D. F.
1950. A Study of the *Rosaria* Group of the Genus *Diarsia*: Can. Ent., Vol. LXXXII, p. 25.
- KIMBALL, CHARLES P., and FRANK MORTON JONES.
1943. The Lepidoptera of Nantucket and Martha's Vineyard Islands, Massachusetts. Nantucket Maria Mitchell Association, Vol. IV.
- KLOTS, ALEXANDER B.
1951. A Field Guide to the Butterflies of North America East of the Great Plains. Houghton Mifflin Company, Boston.
- MACKEY, MARGARET R.
1951. Species of *Eupithecia* Reared in the Forest Insect Survey in British Columbia. Can. Ent., Vol. LXXXIII, pp. 77-91.
- MCDUNNOUGH, JAMES H.
1938. Check List of the Lepidoptera of Canada and the United States of America, Part I. Memoir So. Calif. Acad. Sci., Vol. I.
1940. New North American Geometridae with Notes. Can. Ent., Vol. LXXII, pp. 90-103.
1940. Undescribed Species and Races of Phalaenidae. Can. Ent., Vol. LXXII, pp. 191-201.
1943. Phalaenid Notes and Descriptions. Can. Ent., Vol. LXXV, pp. 59-62.
1944. Revision of the North American Genera and Species of the Phalaenid Subfamily Plusiinae. Memoir So. Calif. Acad. Sci., Vol. II No. 2.
1946. New North American Phalaenidae with Notes. Can. Ent., Vol. LXXVIII, pp. 28-35.
1946. The Species of the *Truncata* Group of the Genus *Dysstroma*. Can. Ent., Vol. LXXVIII, pp. 71-78.
1949. Revision of the North American Species of the Genus *Eupithecia* Bull. American Mus. Nat. Hist., Vol. 93, Article 8.
1950. Species of *Euxoa* of Eastern North America, with Particular Reference to Genital Characters. Bull. American Mus. Nat. Hist., Vol. 95, Article 6.
1951. On the Identity of Two Eastern North American *Hydriomena* Species. American Museum Novitates, No. 1535.

- MORTON, B. R., and R. G. LEWIS.
1933. Native Trees of Canada. Canada Dept. of Mines and Resources Bull. 61. Revised Edition.
- NABOKOV, V.
1949. The Nearctic Members of the Genus *Lycaeides* Hübner. Bull. Mus. Comp. Zool., Harvard College, Vol. 101, No. 4.
- PACKARD, ALPHEUS SPRING
1876. A Monograph of the Geometrid Moths or Phalaenidae of the United States. In Hayden F. V., Report of the U. S. Geol. Surv. of the Territories. Washington, Vol. 10.
- PROUT, L. B.
1938. Suppl. IV to the Macrolepidoptera of the World (Seitz), 159.
- RINDGE, FREDERICK H.
1952. Taxonomic and Life History Notes on North American *Eupithecia*. American Museum Novitates, No. 1569.
- ROLAND, A. E.
1944-45 The Flora of Nova Scotia. Proc. N. S. Inst. Sci., Vol. XXI, Pt. 3.
- RUPERT, LAURENCE R.
1943. A Specific Revision of the Genus *Metarranthis*. Jour. N. Y. Ent. Soc., Vol. LI, pp. 133-159.
1949. A Revision of the North American Species of the Genus *Plagodis*. Jour. N. Y. Ent. Soc., Vol. LVII, pp. 19-49.
1949. Notes on the Group of Genera Including *Lozogramma* Stephens and its Allies. Proc. Ent. Soc. Wash., Vol. 51, No. 4, pp. 137-151.
- SCUDDER, SAMUEL H.
1889. The Butterflies of the Eastern United States and Canada, with Special Reference to New England. Cambridge, 3 Vols.
- SMITH, JOHN B.
1893. Catalogue of Noctuidae. Bull. 44, U.S.N.M.
1895. Revision of the Deltoid Moths. Bull. 48, U.S.N.M.
- SMITH, JOHN B., and HARRISON G. DYAR.
1899. A Revision of the Species of *Acronycta* (Ochsenheimer) and of Certain Allied Genera. Proc. U.S.N.M., Vol. 21, pp. 1-194.
- SPULER, ARNOLD.
1908. Die Schmetterlinge Europas. Stuttgart, 4 Vols.
- TRANSACTIONS OF THE NOVA SCOTIA INSTITUTE OF SCIENCE.
1864-1915. Various earlier papers on Nova Scotian Lepidoptera as quoted in the Introduction.
- WALKER, FRANCIS.
1854-64. Catalogue of the Lepidoptera Heterocera in the British Museum. London, Vols. 1-33.

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