INVESTIGATIONS ON THE LEPIDOPTERA
OF NEWFOUNDLAND

I. MACROLEPIDOPTERA

BY

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1. Introduction.

In the summer of 1949 the author had an opportunity to make investigations on the Lepidoptera of Newfoundland for a period of three months (June-August), taking part in a Finnish-Swedish biological expedition to the island. This expedition was entirely supported by the Arctic Institute of North America. Grateful acknowledgements are due to this institution for the grants which made the field-work possible. Sincerest thanks are also due to the other members of the expedition, Professor Carl H. Lindroth, Dr. Ernst Palmén, and Professor Risto Tuomikoski, for their assistance in the collection work.

The present paper constitutes a list of the Macrolepidopteran species found by the author in Newfoundland, including ecological remarks on the species observed, and also notes of the time of appearance and the distribution of these. It is clear, however, that the field investigations of one summer cannot give any complete picture of the distribution of the various species in Newfoundland, especially in consideration of the short time for which Lepidoptera imagines are on the wing. In the present paper taxonomical remarks on some species found in Newfoundland are also included, as well as descriptions of new species of Macrolepidoptera.

Further papers will deal with the Microlepidoptera of the island, and with the Lepidopteran fauna of Newfoundland from ecological and zoogeographical points of view.

The places in Newfoundland visited in 1949 are shown on the map (fig. 1, black dots). In addition to the material of the 1949 expedition, some finds of Lepidoptera made by Lindroth in 1951 during his trip to Newfoundland...
Fig. 1. The places in Newfoundland visited in 1949 (black dots) and in 1951 (circles).

S. Nfld.
1. Port aux Basques
2. Rose Blanche
3. Grand Bruit
4. Cinq Cerf River
5. Burgeo
6. Grandy Brook
7. Rencontre W.
8. Pus through
9. St. Albans
10. Gaultois
11. Hermitage
12. Grand Bank
13. Terrenceville

W. Nfld.
14. Table Mountain
15. South Branch
16. Codroy Pond
17. Stephenville Crossing
18. Piccadilly
19. Spruce Brook
20. Corner Brook
21. Steady Brook
22. Pynn's Brook
23. Deer Lake
24. Lomond
25. Woody Point
26. Glenburnie
and Labrador are included in the present paper. These last-mentioned places are marked on the map with circles. The map also shows the division of the terrain which is used below.

The American literature relating to the Lepidoptera of Newfoundland seems very scant. As far as the author knows, the papers of DOS PASSOS (1935, 1936, 1943) are the only ones which summarize the Newfoundland species hitherto known. They deal only with the Rhopalocera. Earlier notices of butterflies from Newfoundland are by W. H. EDWARDS (1883), P. H. GOSSE (1883), GAMBLE GEDDES (1886), WINN (1914), and also the »Introductory Note» by I. A. BRUTON (1930) to P. H. GOSSE’s unpublished manuscript »Entomologia Terrae Novae», written in 1835. Separate notices of finds of Newfoundland moths are included in American periodicals (most of them in The Canadian Entomologist), but to the best of the author’s knowledge there is no summarizing paper. In FORBEs’ book »Lepidoptera of New York and neighboring States» (1948) the known Newfoundland finds of species of the groups treated (Geometridae, Sphingidae, Notodontidae and Lymantridae) are mentioned. The author has also had the opportunity to study the collection of P. STUWITZ, made in Newfoundland about 1850, which is kept in the Oslo Museum, Norway.

In consequence of the fact that very little is known about the Lepidoptera of Newfoundland it was but natural that the field-work in 1949 resulted in the discovery of many additional species from the island. Altogether 249 species of Macrolepidoptera were recorded.

In the determination of the species of some groups the author has received valuable help from Mr. C. F. DOS PASSOS (Rhopalocera), Dr. F. H. RINDGE (Geometridae) and Mr. D. C. FERGUSON (some Geometridae and Phalaenidae).
The nomenclature of the species in this survey is according to McDUNNOUGH's Check List (1938), when the author did not have a definite reason to diverge.

2. Check List of the Newfoundland Species.

In the Check List given below all the Macrolepidoptera species recorded in 1949 are noted. In addition the species mentioned in the literature as occurring in Newfoundland but not observed in 1949 are included. These species are preceded by a *.

\textit{Papilionidae}

Papilio polixenes brevicauda Saunders
P. glaucus canadensis Rotschild & Jordan

\textit{Pieridae}

Pieris rapae L.
P. napi frigida Scudder
*P. napi acadica Edwards
Colias eurytheme Boisd.
C. philodice Godart
C. interior laurentina Scudder
C. pelidne labadorensis Scudder

\textit{Danaidae}

* Danaus plexippus L.

\textit{Satyridae}

Coenonympha inornata mcisaaci dos Passos
*Oeneis jutta terraee-novae dos Passos
*O. polixenes Fabr.
*O. chryxus calais Scudder

\textit{Nymphalidae}

Speyeria atlantis canadensis dos Passos
Clossiana selene terraee-novae Holland
C. freija Thunb.
C. chariclea boisduvalii Dup.
*Melitaea harrisii Scudder
Phyciodes tharsos arctica dos Passos
Nymphalis antiopa L.
*N. j-album Bdv. & Lec.
N. milberti Godt.
Vanessa atalanta L.
V. cardui L.

\textit{Polygonia faunus Edw.}
*P. satyrus marsyas Edw.
P. progne Cram.

\textit{Lycaenidae}

Incisalia augustus helenae dos Passos
Lycaena dorcas Kirby
L. epixanthe amicetus Scudder
Plebeius idas aster Edw.
P. aquilo Boisduval
*Glaucopsyche lygdamus conperi Grt.
Lycaenopsis pseudargiolus lucia Kirby
*L. pseudargiolus marginata Edw.

\textit{Hesperiidae}

Carterocephalus palaemon Pall.
Hesperia comma borealis Lindsey
*Pyrgus centaureae Ramb.
Polites peckius Kirby

\textit{Sphingidae}

Sphinx kalmiae A. & S.
*S. canadensis Bdv.
Smerinthus jamaicensis geminatus Say.
Paonias excaecata A. & S.
Hemaris thysbe Fabr.
Celerio galii intermedia Kirby

\textit{Arctiidae}

Phragmatobia fuliginosa L.
Apantesis virgo L.
Diacrisia virginica Fabr.
Hyphantria textor Harr.
Parasemia parthenos Harr.
Agaristidae
Alypia octomaculata Fabr.
A. langtoni Couper

Phalaenidae
Panthera acronyctoides Wlk.
Acronycta americana Harr.
A. dactylina Grt.
A. lepusculina Gn.
A. grisea Wlk.
A. impressa Wlk.
Euxoa perpolita Morr.
E. ontario Smith
E. declarata decolor Morr.
E. redimicula Morr.
E. ochrogaster Gn.
Agrotis ypsilon Rott.
* A. musa Smith.
Actebia fennica Tausch.
Spaelotis clandestina Harr.
Eurois occulta L.
E. astricta Morr.
Ochropleura plecta L.
Peridroma margaritosa Haw.
Hemipanchobius monochromatea Morr.
Pseudospaelotis haruspica Grt.
Caradrina quadrangula Zett.
Chersotis juncta Grt.
Heptagrotis phyllophora Grt.
Diarsia rubifera Grt.
D. mendica dislocata Smith
D. jucunda Wlk.
Graphiphora c-nigrum L.
G. smithi Snell.
G. oblata Morr.
G. opacifrons Grt.
G. bicaernea Gn.
* Anomogyna speciosa mixta Wlk.
* A. perquiritata beddeki Hamp.
Anaplectoides pressus Grt.
A. prasina Schiff.
Protolampra rufitectus Morr.
Cryptocala acadiensis Beth.
Eueretagrotis perattenta Grt.
Abagrotis placida Grt.
Scotogramma trifoli Rott.
Polia imbrifera Gn.
* P. leomegra Smith
P. atlantica Grt.

P. nevadensis canadensis Smith
* P. frustata McD.
Lacinipolia olivacea Morr.
* Lasiestra leucocycla flanda Smith
Anarta melanopa Thunb.
Protorthodes lindrothi n.sp.
Pseudorthodes vecors Gn.
Nepheleodes emmedonia Cram.
Leucania commoides Gn.
L. unipuncta Haw.
L. pallens luteopallens Smith
Cucullia lucifuga intermedia Speyer
C. florea Gn.
Homohadena badistriga Grt.
Apharetra dentata Grt.
Graptoleia lepidu Lint.
* Xylena nupera Lint.
Platypodia anceps Stephe.
Mniotype ducta Grt.
M. ferida Smith
Brachionycha borealis Smith
Septis verbascoides Gn.
S. vultuosa Grt.
S. arctica Frr.
S. alia Gn.
S. indocilis Wlk.
S. baslinea finitima Gn.
Agroperina lateritia Hfn.
A. dubitans Wlk.
A. inficita Wlk.
Crymodes devastator Brace
* Trichoplexia exornata Moesch.
* Luperina passer Gn.
Eremobina claudens Wlk.
Helotropha reniformis Grt.
Apamea velata Wlk.
A. americana Speyer
Hydroecia micacea Rsp.
Euplexia benesimilis McD.
Phlogophora iris Gn.
P. periculosu Gn.
Euherrichia monetifera Gn.
Amphipyra pyramidoideas Gn.
A. tragopogonis L.
Andropolia contacta Wlk.
Hyppa xylinoides Gn.
Elaphria festivoides Gn.
Pyrhia umbra Hfn.
Erastria bellicula Hbn.
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E. albida Gn.
E. carneola Gn.
Nycteola frigidana Wlk.
Autographa falcifera Kirby
A. rectangula Kirby
A. alias Ottol.
A. altera Ottol.
A. octoscripta Grt.
A. epigaea Grt.
A. ampla Wlk.
A. selecta Wlk.
*A. brassicae Riley
*A. putnami Grt.
A. bimaculata Steph.
A. mappa G. & R.
*A. pseudogamma Grt.
A. flagellum Wlk.
Pseudeva purpurigera Wlk.
Chrysamympha formosa Grt.
Catocala unijuga Wlk.
C. briseis Edw.
*C. ilia normani Bartsch.
Caenurgina crassiwsula Haw.
Scolioptryx libatrix L.
Bomolocha bifugalis Wlk.
Rivula propinqualis Gn.
Lomanaltes edutalis Wlk.
Chytolita petrealis Grt.
Philometra metonalis Wlk.
Camptyochoila americalis Gn.
C. aemula Hbn.
Palthis angulalis Hbn.
Schrankia turfosalis Wocke

Notodontidae
Ichtyura apicalis Wlk.
Notodonta simplaria Graef.
N. stragula Grt.
Pheosa rimosas Pack.
Nadata gibbosa A. & S.
Schizura ipomeae Dhdly.
Gluphisia septentrionalis Wlk.

Liparidae
Notolophus antiqua L.
Stilpnotia sallicis L.

Thyatiridae
Habrosyne scripta Gosse
Pseudothyatira cynamophoroides Gn.

Drepanidae
Eudellinia herminiata Gn.
Oreta rosea Wlk.
Drepana arcuata Wlk.

Geometridae
Mesotheca incertata Wlk.
Scopula frigidaria Moesch.
S. junctaria Wlk.
Cosymbia pendulinaria Gn.
Carisia paludata thaxteri Swett.
Acaasis viridata Pack.
Nyctobia limitaria Wlk.
Cladara atroliturata Wlk.
Neodezia albovittata Gn.
*Oporophtera bruceata Hlst.
*Oporinia autumnata Gn.
*Calocalpe undulata L.
Eupithecia palpata Pack.
E. castigata Hbn.
E. albipunctata Wlk.
E. lariciata luteata Pack.
E. nimbicolor Hlst.
E. stratonata Pack.
E. grata Taylor
E. russeliata Swett.
E. coagulata Gn.
E. geminata Pack.
E. perfusca youngata Taylor
E. albicapitata Pack.
E. mutata Pearssall
E. anticaria Wlk.
Horisme intestinata Gn.
Eustroma nubilata Pack.
Lygris propulsata Wlk.
L. serrataria B. & McD.
L. explanata Wlk.
L. destinata Moesch.
Dysstroma truncata Hfn.
D. citrata L.
D. brunneata Pack.
D. hersiliata cervinifascia Wlk.
Hydriomena divisaria Wlk.
H. ruberata Frr.
Xantorhoe munitata Hbn.
X. ferrugata Cl.
X. abrasaria conretata Wlk.
X. algidata Moesch.
X. iduata Gn.
Perconoptilota obstipata Fabr.
P. evansi McD.
Entephria aurata Pack.
Mesoleuca ruficillata Gn.
Epirrhoe alternata Müll.
Spargania magnoliata Gn.
S. luctuata obductata Moesch.
Euphlyia unangulata intermedia Gn.
E. multiferata Wlk.
Eulype hastata L.
Perizoma basaliata Wlk.
Venusia cambrica Curt.
V. comptaria Wlk.
Hydrelia inornata Hlst.
H. terrae-novae n.sp.
H. albifera Wlk.
Bapta semiclarata Wlk.
*B. vestaliata Gn.
B. glomeraria Grt.
Dellinia eurythemaria Gn.
Isturgia truncataria Wlk.
Semiothisa granitata Gn.
S. sexmaculata Pack.
*S. neptaria trifasciata Pack.
Itame bitactata Wlk.
I. sulphurea Pack.
I. occiduaria andersoni Swett.
I. fulvaria Vill.
*I. subcessaria Wlk.
Eufidonia discospilata Wlk.
Paraphia piniata Pack.
Protoboarmia porcelaria indicatoria Wlk.
Anacamptodes larvaria Gn.
Amphidasis cognataria Gn.
Campaea perlata Gn.
*Xanthotype urticata Swett.
Homochlodes fritillaria Gn.
Anagoga occiduaria Gn.
Metarranthis duaria septentrionaria B. & McD.
Hyperetis amicaria nepiasaria Wlk.
*Pero honestarius Wlk.
P. morrisonarius Hy. Edw.
Caripeta divisata Wlk.
Ellopia fiscellaria Gn.
Sicya macularia Harr.
Prochoerodes transversata Dru.

3. Taxonomical Remarks and Descriptions of New Species.

The common and closely allied species of Newfoundland and Europe.

The North American continent, and especially its northern parts, offer biologists from the North of Europe a rewarding field of labour. The likenesses between the flora and fauna of the palearctic and nearctic regions has a historical and biogeographical basis, and a biologist familiar with the state of things in the North of Europe feels at home in the North American milieu. On the other hand the differences are just big enough to stimulate research.

The floristic and faunistic likeness between the two regions is particularly accentuated by the existence of common, or very closely related forms. This is also the case as regards the Lepidoptera. In the North American Lepidoptera fauna, a group of species common to Northern and Central Europe forms an element of no small importance. Most of these species have a circumpolar distribution from Western Europe through the North of Russia and Siberia to Alaska and Canada. The fact that the distributions of some of them seem to show gaps (especially in East Siberia) may perhaps in most cases be looked upon as a result of imperfect knowledge.
The existence of a biogeographically important land connection between Alaska and Northeastern Asia in the late Quarternary Age means that in North America (especially in its easternmost parts) and in Europe the circumpolar species are found at the extremes of their ranges. This is particularly to be observed when comparing Western Europe with the geographically most closely situated part of North America, Newfoundland. It is thus to be presumed that the process of differentiation in these originally circumpolar species is most clearly displayed in a comparison between populations from the periphereal territories, viz. Eastern North America and Western Europe. It is, therefore, often debatable whether North American species of Lepidoptera may be considered identical with the corresponding European species or not. In many cases the problem can be definitely solved only after systematic examinations of a vast material from the whole circumpolar range. And even then differences of opinion may arise, owing to a broad or narrow understanding of the determination of the species.

It seems to me as if sufficient attention has not been paid to a comparison between the identical and the closely related species in North America and Eurasia (Packard 1876, 1895; Grote 1886). In my investigations on the Lepidopteran fauna of Newfoundland, I have tried to contribute to the solution of this problem as far as concerns those Lepidopteran species in the fauna of Newfoundland that have identical or nearly related counterparts in the North of Europe. In all dubious cases the comparison treated below is based upon genital investigations.

*Pieris napi* L.

This circumpolar species shows an equally strong tendency to split into subspecies in North America and in Europe. In the material from Newfoundland the species was represented by ssp. *frigida* Scudder. All specimens are males. They mostly resemble the ssp. *adalwinda* Fruhst., which is found in Northern Scandinavia, but the upper side of their wings is pure white, without any trace of black markings.

*Pieris rapae* L.

The species has been introduced in recent times into America, where it has spread all over the continent. The specimens of my collection from Newfoundland are exactly similar to those in the North of Europe.

*Clossiana selene* Schiff.

In North America this species was for a long time called *myrina* Cram., but was proved by dos Passos and Grey (1945) to be identical with the palearctic *selene*. The specimens from Newfoundland belonging to the subspecies *terrae-novae* Holland differ considerably from the European ones, particularly in the diffused dark cinnamon-brown colour on the lower side of the hind wings.
Clossiana freija Thunb.

The species is holarctic. The identity of the North American form with the European nominate form has been pointed out by Dos Passos and Grey (1945). In North America the species shows a not very marked tendency to subspeciation (Klots 1951).

Clossiana chariclea Schneid.

This species also has a holarctic distribution. It is hardly yet definitely settled whether the ssp. boisduvalii Dup. existing in Newfoundland actually belongs to chariclea or perhaps to rossica Henning (Dos Passos and Grey 1945) — which in that case is also holarctic. It seems possible to me that chariclea and rossica are synonyms.

Nymphalis antiopa L., Vanessa atalanta L. and Vanessa cardui L. are all widely distributed, both in the Old and the New World. No obvious differences between Newfoundland and European specimens can be found.

Plebeius scudderi Edw.

In the American literature of recent years this species is called argyrognomon (for example Nabokov 1952). The race aster, occurring in Newfoundland, differs considerably in habitus from the North European idas L. (argyrognomon Bergstr.), above all in the fact that the lower side of the wings are considerably darker grey and the reddish-yellow spots much smaller than those of idas.

An examination of the male genitalia has, however, shown that the American form is to be considered as belonging to the same species as the palearctic ones (figs. 2 and 3). The race in Newfoundland is therefore to be called idas ssp. aster Edw.

Plebeius aquilo Bdv.

This species, which is widely distributed in arctic North America, shows a strong likeness in its habitus to P. glandon Prun. (rusticus Edw.) found in Europe in the Alps, in Asia, and in the mountain regions of North Scandinavia (ssp. aquilinus Stgr.). There are, however, small differences between glandon and aquilo as regards the shape of the male genitalia (mainly in the tip of

Fig. 2. Plebeius idas aster Edw. (Newfoundland), left valve.
Fig. 3. Plebeius idas L. (Finland), left valve.
Fig. 4. Plebeius glandon aquilinus Stgr. (Finland), left valve.
Fig. 5. Plebeius aquilo Bdv. (Newfoundland), left valve.
the valve, figs. 4 and 5), and it is therefore reasonable to regard them as two different species until more material from Eastern Asia can be studied.

*Carterocephalus palaemon* Pall.

In the American literature of an earlier date (for example HOLLAND 1899) the species is called *mandan* Edw. There is, however, no doubt of its identity with the palearctic *palaemon*.

*Hesperia comma* L.

The North American species *manitoba* Scudder (HOLLAND 1899) has been proved to be the same species as the palearctic *comma*. It appears in the New World in several different races, of which the ssp. *borealis* Lindsey was found in Newfoundland. This last-mentioned subspecies is considerably darker brown than the North European form, the nominate form.

*Celerio galii* Rott.

The species has a circumpolar distribution and is represented in America by the ssp. *intermedia* Kby.

*Phragmatobia fuliginosa* L.

With some hesitation McDUNNOUGH (1938) calls the North American species *fuliginosa*. In my opinion there is, however, no doubt about the identity. In habitus the Newfoundland race resembles intermediary forms between the nominate form and the Scandinavian ssp. *borealis* Stgr.

*Agrotis ypsilon* Rott.

There are no differences between the American and the European specimens of this widely distributed species.

*Actebia fennica* Tausch.

This species, rare in the North of Europe, is common in some areas in the northern parts of North America. In Newfoundland it appeared rather abundantly and corresponds in habitus to the form existing in Finland.

*Spaelotis clandestina* Harr.

The species *suecica* Auriv., which is found in Finland, Scandinavia and Russia, is apparently a subspecies of the North American *clandestina* (*unicolor* Wlk.). The male genitalia are identical.

*Eurois occulta* L.

The species has a circumpolar range. No differences between specimens from Newfoundland and Finland can be established.

*Ochropleura plecta* L.

The race occurring in Newfoundland is somewhat larger than the North European ones, but in other respects there is complete conformity as regards wing-markings and genitalia.

*Peridroma margaritosa* Haw.

The species is widespread both in the Old and the New World and seems to vary only slightly.
Caradrina quadrangula Zett.

The quadrangula found in the east of Canada, Labrador, Greenland and Iceland very closely resembles the European simulans Hfn. in habitus, a fact which was also pointed out by McDunnough (1928, p. 50). An examination of the male genitalia (Zetterstedt's type specimen from Greenland, quadrangula from Newfoundland and simulans from Finland) shows that the species are clearly different, although very closely allied (figs. 6, 7 and 8). The valve is of largely the same shape, but in quadrangula the ampulla-process in the sacculus ends in three short protuberances, in simulans in two rather long ones. The greatest differences are shown by the aedeagus, which in simulans is richly supplied with cornuti, lacking altogether in quadrangula.

Diarsia dislocata Sm.

In the material from Newfoundland there are a long series of three closely related Diarsia species. One of these, which I have determined as dislocata, is in my opinion identical with the European mendica Fabr. (festiva Schiff.). The North American form is exceedingly variable as regards the colour of the wings and the markings, just as is its European counterpart. I cannot find any differences in the male genitalia worth mentioning (figs. 9 and 10).

The other species, which I have called jucunda Wlk., is undoubtedly very close related to mendica dislocata, but the genitalia still show small constant differences in the shape of the valve (fig. 11).

The third species of Diarsia I have determined as rubifera Grt. The valve of the male genitalia is shown in fig. 12. The genitalia correspond to those in cynica Sm. reproduced by McDunnough (1928, p. 53). McDunnough also suggests that cynica and rubifera are synonyms.

Fig. 6. Caradrina simulans Hfn. (Finland), right valve and aedeagus.
Fig. 7. Caradrina quadrangula Zett. (Newfoundland), right valve and aedeagus.
Fig. 8. Caradrina quadrangula Zett. (holotype, Greenland), right valve and aedeagus.

Fig. 9. Diarsia mendica dislocata Sm. (Newfoundland), right valve.
Fig. 10. Diarsia mendica Fabr. (Finland), right valve.
Fig. 11. Diarsia jucunda Wlk. (Newfoundland), right valve.
Fig. 12. Diarsia rubifera Grt. (Newfoundland), right valve.
Graphiphora c-nigrum L.

The species has a circumpolar distribution and shows only slight variations. The specimens from Newfoundland correspond completely with the North European ones.

Graphiphora smithi Snell.

This species, which was extremely abundant in Newfoundland, very closely resembles the European baja Fabr. in habitus. McDUNNOUGH (1928, p. 55) points out, however, that they are not synonyms, a fact which can also be seen from the illustrations of the valve (figs. 13 and 14).

Graphiphora opacifrons Grt.

As regards colour and wing-markings the North American opacifrons corresponds to the North European subrosea subcoerulea Stgr. The latter, however, has a somewhat greater wing-expanse. Even their habitats are of the same kinds: open peatbogs with a scrub vegetation. An examination of the male genitalia, however, shows small, but clearly visible dissimilarities on the valve as well as in the aedeagus (figs. 15 and 16).

Anaplectoides prasina Schiff.

No differences between the European and the Newfoundland specimens can be established.

Scotogramma trifolii Rott.

In spite of rather marked dissimilarities as regards habitus the North American and European races undoubtedly belong to the same species.

Anarta melanopa Thumb.

Specimens from Newfoundland and other parts of Eastern North America which I have investigated correspond completely to the type form described from Northern Europe. Consequently the species is holarctic, like the rest of the Anarta and Sympsisitis from the Far North.

Leucania luteopallens Sm.

In my material from Newfoundland are included series of the species referred to in the North American literature as luteopallens. My specimens
from Newfoundland exactly resemble the European *pallens* L., and as I have not been able to find any constant differences in the male genitalia (figs. 17 and 18), I do not hesitate to record *luteopallens* as a nearctic subspecies of *pallens*.

**Cucullia intermedia** Speyer

The genitalia of the male of the American *intermedia* are just like those of the palearctic *lucifuga* Schiff. The females of my series from Newfoundland are completely like the females in the North European *lucifuga* ssp. *obscura* Lenz. The hindwings of the *intermedia* males are somewhat darker than those of the *lucifuga obscura*. With regard to the identity of the male genitalia I am inclined to consider *intermedia* as a race of *lucifuga*, which extends from Europe to the east of Asia.

**Septis indocilis** Wlk.

The species is undoubtedly closely related to the palearctic *obscura* Haw. (*gemina* Hb.), especially the form *remissa* Hb. Forbes (1926) also records *indocilis* as a subspecies of *remissa*, whereas McDunnough (1938), for instance, counts *indocilis* as an independent species. As I have only one female specimen in my collection, I have not been able to form a definite opinion on this matter.

**Septis finitima** Gn.

In Holland's Moth Book (1934) this species is called *basilinea* Fabr., and is consequently considered identical with the species abundant in the palearctic region. In papers of later date (for instance, McDunnough 1938) *finitima* is mentioned as a separate species. The reason for accor-
ding *finitima* specific rank are unknown to me. The genitalia of the male specimens from Newfoundland are so like the corresponding organs in the specimens of *basilinea* in the Northern Europe, that I do not hesitate to classify *finitima* and *basilinea* as synonyms (figs. 21 and 22).

*Agroperina lateritia* Hufn.

The specimens from Newfoundland show a complete resemblance to those of Northern Europe.

*Apamea americana* Speyer

In the American literature of an earlier date this species is called *nictitans* Bkh. (= *oculea* L.). The palearctic *nictitans*, however, as was first shown by Burrows (1911), has been found to comprise four different species, none of which is identical with *americana*. Both in habitus and with regard to the male genitalia the North American species *americana* resembles most closely the palearctic *fucosa* Frr. (*paludis* Tutt.).

*Hydroecia micacea* Esp.

In Northern Europe there exists a recently described species of *Hydroecia, nordstroemi* Horke, which has previously been confused with *micacea*. In habitus these two species are very like each other. Investigations on the genitalia have shown that the species found in Newfoundland is the true *micacea*.

*Euplexia benesimilis* McD.

McDunnough has pointed out that this species is not identical with the palearctic *lucipara* L. The male genitalia show obvious differences, in spite of the fact that the colour and wing-markings are exactly alike in these two species.

*Amphipyra tragopogonis* L.

No obvious dissimilarities exist between European and North American specimens.

*Hyppa xylinoides* Gn.

There is a great resemblance between *xylinoides* and the palearctic *rectilinea* Esp., both in habitus and regarding the male genitalia. That these are two separate species is clearly seen from figs. 23 and 24, which show the shape of the valve in the two species.

*Pyrrhia umbra* Hfn.

The specimen I collected in Newfoundland is a typical *umbra*, and there is no doubt about the existence of this palearctic species in North America.

*Nycteola frigidana* Wlk.

The North American species of the genus *Nycteola* (*Sarrothrips*) has previously been called *rewayana* Scop. The form occurring in Newfoundland corresponds better,
however, with the palearctic *degenerana* Hbn. and its larva fed on willow, like that of *degenerana* (the larva of *revayana* is oak-feeding). An investigation of the genitalia showed, however, that the Newfoundland species was not *degenerana*. Later I happened to get hold of a paper by McDUNNOUGH (1943), from which I learnt that according to him *revayana* is not met with at all in North America, but, on the other hand, there exist three other species, all of them typically North American. The species occurring in Newfoundland is what McDUNNOUGH calls *frigidana*.

*Scoliopteryx libatrix* L.

The species is very widespread, both in the Old and the New World. The specimens from Newfoundland differ in no respect from those in Europe.

**Schrankia turfosalis** Wocke

A common moth in Newfoundland was a small hyphenid, quite like the *Schrankia turfosalis* found on North European peat-bogs. Mr. D. C. FERGUSON, who has kept specimens for examination, has informed me in a letter that he has quite recently described the same species as a species of the genus *Hypenodes* in a paper that was then (1953) in manuscript form. When subsequently, however, I made slides of the genitalia of a series from Newfoundland, I found that this species is in reality identical with the North European *turfosalis*.

**Notodonta simplaria** Graef.

The species is one corresponding to the palearctic *tritophus* Esp. and can hardly be separated from the latter at the larval stage. At the imago stage they are clearly separated; *simplaria* has considerably darker and more monotonous forewings than *tritophus*.

**Gluphisia septentrionalis** Wlk.

The species is closely related to the palearctic *crenata* Esp., a fact which is also pointed out by PACKARD (1895) and FORBES (1948). The larva of *septentrionalis* corresponds completely with *crenata* regarding the habitus and manner of living. I have not had the opportunity to examine imagines of *septentrionalis*, as the pupae had not emerged. According to FRANZ (1953) *septentrionalis* is a nearctic race of the palearctic *crenata*.

**Notolophus antiqua** L.

In Newfoundland I found this species, which is common throughout the palearctic region. The larva of the American race differs from the European one in that the hairtufts on the front end of the body are considerably shorter. In the imago stage the differences are slight.

**Stilpnotia salicis** L.

The species has probably been introduced on the Atlantic coast of North
America (Forbes 1948). The specimens from Newfoundland show no differences in comparison with those from Northern Europe.

*Scopula frigidaria* Moesch.

This species, described from Labrador, was common in Newfoundland. In the Far North of Finland, Norway and Northern Russia the subspecies *schöyeni* Sp. Schn. of *frigidaria* occurs. The North American nominate form is considerably bigger, lighter in colour and more clearly marked than the palearctic *schöyeni*.

*Cosymbia pendulinaria* Gn.

A nearctic counterpart of the palearctic *albipunctata* Hfn. (*pendularia* auct.). The species are undoubtedly very closely related, but are still clearly separable by the shape of the male genitalia.

*Carsia paludata* Thunb.

The species is holarctic in its distribution. In North America, as in Europe, it shows a strong tendency to split into rather definitely separated subspecies. The Newfoundland race (*thaxteri* Swett) is entirely unicoloured with a smooth rosy tinge on the fore- and hindwings.

*Eupithecia castigata* Hbn and *albipunctata* Haw.

These two species which are common in the palearctic region, are also widespread in North America (McDunnough 1949). With regard to the shape of the genitalia there is complete conformity between the European and the Newfoundland specimens.

*Eupithecia luteata* Pack.

As McDunnough (1949) points out, this species is very closely allied to the palearctic *lariciata* Frr. Specimens of *lariciata* from Finland correspond completely to the *luteata* specimens from Newfoundland as regards the shape of the genitalia. In habitus *lariciata* and *luteata* differ mainly in the expanded yellowish tone on the forewings of the latter. I am, however, inclined to regard *lariciata* and *luteata* as synonyms.

*Eupithecia geminata* Pack.

As was pointed out by McDunnough (1949), the American *geminata* is very close to the palearctic *absinthiata* Cl. After an examination of the genitalia of my material from Newfoundland I am inclined to regard *geminata* as a separate species, because the spines of the bursa are far stronger in the North European *absinthiata* than in *geminata*.

*Eupithecia albicapitata* Pack. and *mutata* Pearsall.

These species are American vicariants of the palearctic *bilunulata* Zett. and *pini* Retz., and they are undoubtedly extremely closely allied to the latter. McDunnough (1949) has explained in detail why he regards the American species as different from their European counterparts. As my material of the two species from Newfoundland is rather poor a comparison of series
with European material has not been possible. I follow McDunnough and regard *albicapitata* and *mutata* as good species.

*Lygris propulsata* Wlk.

In habitus the species resembles the palearctic *populata* L. The shape of the male genitalia shows, however, that the two species are clearly different (figs. 27 and 28).

*Dysstroma truncata* Hfn. and *citrata* L.

These two closely related palearctic species have also been found in North America (McDunnough 1946, Forbes 1948) and thus have a circumpolar distribution. Both were found in Newfoundland.

*Xantorhoe munitata* Hbn.

A common species in Newfoundland, very variable in colour. The male genitalia completely correspond to those of North European specimens.

*Xantorhoe ferrugata* Cl.

The Newfoundland specimens of this circumpolar species show a complete uniformity with those in Northern Europe.

*Xantorhoe abrasaria* H.S.

This holarctic species is represented in North America by the subspecies *congretata* Wlk., which as regards the habitus differs somewhat from the European nominate form. In the shape of the male genitalia there are no differences.

![Fig. 27. *Lygris propulsata* Wlk. (Newfoundland), right valve.](image1)
![Fig. 28. *Lygris populata* L. (Finland), right valve.](image2)
![Fig. 29. *Euphysia unangulata* Hw. (Finland), left valve.](image3)
![Fig. 30. *Euphysia unangulata* intermedi* Gn. (Newfoundland), left valve.](image4)

*Percnptilota obstipata* Fabr.

The species is almost cosmopolitan. The specimens collected in Newfoundland exactly resemble the European ones.

*Epirrhoe alternata* Mull.

Even this species has a circumpolar distribution, and the North American specimens in my collection show a complete correspondence with the European ones.

*Spargania luctuata* Schiff.

This palearctic species is represented in North America by *obductata* Moesch., a race somewhat divergent in habitus, but which as regards the male genitalia, is in conformity with *luctuata*. 
Euphyia unangulata Hw.

Forbes (1948) regards the North American intermedia Gn. as a good species; McDunnough (1948) as a subspecies of the palearctic unangulata. In habitus intermedia and unangulata are undoubtedly very different. In unangulata the median area of the forewings is greyish-brown, in intermedia bright ruddy-brown; unangulata has a broad white zone between the postmedial and basal line, while in intermedia the same part is shady brown with quite a narrow greyish-white bar postmedially. The hindwings of unangulata are snow white, of intermedia brownish-grey. The shape of the male genitalia are, however, alike (figs. 29 and 30), and I do not, therefore, hesitate to classify intermedia as an American form of unangulata.

Ettlype hastata L.

In spite of a strong individual variation in colour and wing-markings the specimens from Newfoundland undoubtedly belong to the same species as the European ones.

Venusia cambrica Curt.
The species has a circumpolar distribution and seems to vary only slightly with regard to colour, markings and size.

Anagoga occiduaria Wlk.

McDunnough (1938) regards this species as pulveraria, a species which is widespread in the palearctic region. Forbes (1948) calls the American form occiduaria. I have made slides of the genitalia, from which it is seen that occiduaria and pulveraria are two separate species (figs. 31 and 32).

Itame pulvaria Vill.
The North American race of this species, spread over the palearctic region, completely corresponds in its habitus with the race common in Northern Europe.

Descriptions of new species.

Protorthodes lindrothi n.sp.

Male antennae bipectinate. Eyes hairy. Thoracic vestiture mostly composed of coarse hairs. Forewings grey-brown to dark-brown, rather narrow. Basal line black, distinct only in the costal portion of the wing. Antemedial line whitish, shaded on the outer margin with a narrow black stripe, runs in a curve outwards close to the basal margin of the orbicular and from this spot perpendicularly to the inner margin of the wing. Postmedial line whitish with a black inner margin, it forms a distinct white spot close to the costa.
between the reniform and the costal margin of the wing. Postmedial line runs from the costa close to the outer margin of the reniform, around it and then straight to the inner margin of the wing. An obscure median shadow from the costa crosses the reniform and then runs along the pm. line to the inner margin. Orbicular and reniform prominent, black-filled with distinct fine yellow-white margins. In the subterminal area fine black spots on the veins in the inner part of the wing. Subterminal line remarkable straight, yellow-white with a reddish basal margin. A fine yellow terminal line, with small black dots on the veins. Fringes brown with a whitish line. Secondaries greyish-brown, darker in the terminal parts, with a darker, suffused, discal dot. Expanse 28 mm.


Fig. 33. Male genitalia of Protorthodes lindrothi n.sp.
Fig. 34. Female genitalia of Hydrelia terrae-novae n.sp.
Fig. 35. Bursa of Hydrelia inornata Hlst.

The types are to be deposited in the Canadian National Collection, Ottawa.

Belongs to the oviduca group according to genitalia (McDUNNOUGH 1943, p. 51—52) (fig. 33). It shows a resemblance to the species oviduca Gn., melanopis Hamp. and orobia Harv. The new species is, however, distinct in habitus and as regard the genitalia also it differs from oviduca and melanopis.

Hydrelia terrae-novae n.sp.

Head white-grey. Forewings white, powdered with fine grey scales. All lines greyish-brown. The basal line very indistinct. A grey spot on the costa in the middle between the basal and antemedial lines. The antemedial line double dark with white filling, the outer line stronger. A minute dark discal spot close to the postmedial line, which line is also double and white filled, with the outer line suffused. The subterminal line is formed of a series of
dark spots on the veins. Terminal line brown. Fringes whitish. Secondaries pure white with a brown terminal line. Expanse 19 mm.

Paratype — ♀, Eddies Cove W., Northwest Newfoundland, July 30, 1949, in spruce wood.

The female genitalia are shown in fig. 34. The species is allied to the *inornata* Hulst., but it is much lighter in colour, different in the wing markings and as regards the female genitalia (fig. 35).

The type is to be deposited in the Canadian National Collection, Ottawa.

4. A Survey of the Newfoundland Species.

*Papilionidae*

*Papilio polixenes* ssp. *brevicauda* Saunders

**Distribution:** Extends across Canada from the Maritime Provinces to the Rocky Mountains, south over the entire continent to the Gulf States and Arizona. The subspecies *brevicauda* occurs on the coasts of the Gulf of St. Lawrence, and it is known to fly quite abundantly in Newfoundland (Holland 1899, Seitz 1924, Dos Passos 1935).

**Finds from Newfoundland:**

- **S. Nfld.:** Rencontre West (June 20, 1949), Burgeo, Grandy Brook (June 24, 1949), Port aux Basques (June 28, 30, 1949).
- **W. Nfld.:** Table Mountain (June 29, 1949), South Branch (July 2, 1949), Spruce Brook (July 8, 1949), Lomond (July 13—15, 1949), Glenburnie (July 18—19, 1949), Woody Point (July 17, 1949).
- **NW. Nfld.:** Doctors Hill (July 29, 1949), Doctors Brook (July 31, 1949), Cooks Harbour (July 16, 1949), Pistolet Bay (July 20, 1949), Cow Head (larvae, August 10, 1949).
- **NE. Nfld.:** Hampden (July 24, 1951).
- **E. Nfld.:** Gambo (larvae, August 26, 1949).

Find from Newfoundland reported by Dos Passos (1935): W. Nfld.: Doyles Station, June 12—July 18, 1934 (McIsaac). Bruton reports the species from SE. Nfld.: Carbonear, found by Gosse.

From the finds mentioned it is seen that this species has a very wide distribution in Newfoundland, from the south coast to the northwesternmost peninsula, and from the west coast to the east coast. It was not found in the interior of the island or on the Avalon peninsula. A few specimens of the species were observed on the south coast in the river valleys. Along the west coast the butterfly was rather scarce in woodland at lower levels, but it was seen at several localities flying very abundantly round the highest mountain tops of Long Range (for example in South Branch, Lomond, Killed Evil). Larvae were found in August on *Heracleum* in the west, and also very abundantly on *Ligusticum* on the seashore at Gambo on the east coast.


**Distribution:** General throughout Canada and the United States, extending westward to the Pacific regions of both countries. The subspecies *canadensis* occurs in the northern parts of the continent from Newfoundland (Seitz 1924, Dos Passos 1935) to Alaska (Freeman 1949).
Finds from Newfoundland:
S.Nfld.: Rencontre West (June 20, 1949).
W.Nfld.: South Branch (July 2—5, 1949), Codroy Pond (July 5, 1949), Table Mountain (June 29, 1949), Spruce Brook (July 9, 1949), Lomond (July 15, 1949), Woody Point (July 16—20, 1949), Glenburnie (July 19, 1949), Deer Lake (July 1951), Corner Brook (larvae, August 15, 1949).
NE.Nfld.: Fogo Island, Seldom (1951), Lewisport (1951), Springdale (1951)
E.Nfld.: Gambo (larvae, August 26—27, 1949), Clarencille (July, 1949)
Find from Newfoundland reported by DOS PASSOS (1935): W.Nfld.: Doyle Station, June 13—July 20, 1934 (McISAAC). Found at Carbonear, SE.Nfld., by GOSSE (BRUTON 1930)
The species seems to occur all over the island with the exception of the northwestern peninsula. The northernmost find on the west coast is at Woody Point. The butterfly was fairly abundant in W. Newfoundland, being on the wing in July in valleys with a rich vegetation of broad-leaved trees and bushes. In contrast to the preceding species it was very scarce in the mountains. The larvae were common at several localities in August, feeding on Amelanchier and Populus tremuloides.

Pieridae

*Pieris rapae* L.

**Distribution**: Introduced in Quebec about 1860. Since that date the species has spread all over the continent from the Atlantic to the Pacific. The species has formerly been recorded from Newfoundland (DOS PASSOS 1935).

Finds from Newfoundland:
S.Nfld.: Burgeo (June 20—27, 1949), Grand Bank (1951), Terrenceville (1951), Port Rexton (1951)
W.Nfld.: Corner Brook (July 9—12, August 14—15, 1949), Pasadena (July 12, 1949), Deer Lake (July 12, 1949), Woody Point (July 16—20, 1949).
NW.Nfld.: Eddies Cove W. (July 28—30, 1949)
C.Nfld.: Kittys Brook (August 17, 1949), Millertown Jct. (August 22, 1949), Gander (September 1, 1949), Millertown (1951)
NE.Nfld.: Springdale (June 20, 1951), Fogo Island, Seldom (1951), Twillingate (1951)
SE.Nfld.: St. John's (June 4, 1949), Waterford Bridge (June 5, 1949)

Observed all over Newfoundland and occurred abundantly, but only in the cities and villages and in the immediate surroundings of human settlements. The butterfly was on the wing throughout the summer; the first specimens were observed in the beginning of June, the last in the beginning of September.

*Pieris napi* L. ssp. *frigida* Scudder.

**Distribution**: The species ranges (in races) from the Atlantic to the Pacific and from Alaska to the Gulf States. The subspecies *acadica* Edwards has formerly been recorded from Newfoundland (HOLLAND 1899, DOS PASSOS 1935). The subspecies *frigida* is known from Labrador (McDUNNOUGH 1928).

Find from Newfoundland:
NW.Nfld: Doctors Brook (July 31, 1949).

Found at Carbonear, SE.Nfld., by GOSSE (BRUTON 1930).
Only found in one locality where it was common on the sandy shore of the Gulf of St. Lawrence. The distribution of this species was accordingly quite different from that of *Pieris rapae*; it did not occur at all in the neighbourhood of human settlements.

**Colias eurytheme** Boisduval

Distribution: This *Colias* species exists from the Atlantic to the Pacific and is the only *Colias* species which geographically covers the whole of the United States. The northernmost known localities are just north of the border between Canada and the United States, though migratory individuals have been collected on Hudson Bay. No previous records from Newfoundland (Hovanitz 1950).

Find from Newfoundland:
W.Nfld.: Lomond (July 15, 1949)

One specimen, a male, found. This find is, as far as I know, the northernmost of those in eastern North America. This species is more migratory than others of the genus, and the find in Newfoundland perhaps represents a migration.

**Colias philodice** Godart

Distribution: The range of this species covers the plains and mountains from the tree line of the north to the tropical areas of the south, and extends from Alaska and the Hudson Bay area to the northern limit of the Gulf States. Recorded from Newfoundland (Dos Passos 1935, Hovanitz 1950).

Finds from Newfoundland:
S.Nfld.: Burgeo (June 21, 1949)
W.Nfld.: Deer Lake (July 12, August 18, 1949), Pasadena (July 12, 1949), Pynns Brook (July 12, 1949)

According to Dos Passos (1935) found in W.Nfld.: Doyle's station, July 9, 1934, by McIsaac.

A single, very worn specimen (a female) was observed in Burgeo on the south coast of the island. In the neighbourhood of Deer Lake the species was quite numerous in the middle of July, and a few specimens were also seen in August.

**Colias interior** Scudder ssp. *laurentina* Scudder.

Distribution: This form ranges from the Gulf of St. Lawrence through New England, upper New York, Ontario, upper Michigan, Wisconsin, Minnesota, Southern Manitoba, Saskatchewan, Alberta, British Columbia, Western Montana, Northern Idaho, and Eastern Washington to the Cascade Mountains (Hovanitz 1950).

The subspecies *laurentina* previously recorded from Newfoundland (Dos Passos 1935).

Finds from Newfoundland:
W.Nfld.: Woody Point (July 17—20, 1949), Glenburnie (July 18—19, 1949), Corner Brook (August 14—17, 1949).

According to Dos Passos (1935) found in W.Nfld.: Doyle's Station, July 9—August 8, 1934 by McIsaac.

This species occurred only in the western and central parts of the island. In some places, however, it was very abundant, especially at Woody Point on gravel hillside with *Kalmia* vegetation, and on dry meadows in Kittys Brook and Millertown Junction.

**Colias pelidne** Bdv. & Lec. ssp. *labradorensis* Scudder

Distribution: An eastern arctic species which extends from Newfoundland and Labrador westward at least to the northern Rocky Mountains. The subspecies *labra-
dorensis occupies Baffin Island, and the shores of Labrador and Northwest Newfoundland.

Finds from Newfoundland:
S.Nfld.: Port aux Basques (July 1, 1949)

This form was the only species of the genus Colias observed in the northwestern peninsula of Newfoundland. The butterfly was common at higher levels on the Long Range mountains (for example on Doctors Hill), in the valleys with flowering Kalmia, but it occurred at lower levels also, on the coastal tundra by Flowers Cove and St. John Island. In the south of Newfoundland the species was found at Port aux Basques, flying abundantly on the low coastal mountains with tundra vegetation.

Danaidae

Danaus plexippus L.

This widespread migratory species has been reported from W. Newfoundland: Doyles Station by dos Passos (1935), collected by McIsaac on August 8, 1934. In the summer of 1949 one specimen was observed at St. John's (The Lepidopterists' News 1949).

Satyridae

Coenonympha inornata Edw. ssp. mcisaaci dos Passos

Distribution: Extends (in races) from Newfoundland throughout Canada to British Columbia, south to Minnesota (McDunnough 1928). The subspecies mcisaaci described from southwestern Newfoundland (dos Passos 1935).

Finds from Newfoundland:
S.Nfld.: Burgeo, Grandy Brook (June 25, 1949), Port aux Basques (June 28, 1949)
W.Nfld.: South Branch (July 2—4, 1949), Stephenville Crossing (July 5—6, 1949)

Piccadilly (July 7, 1949), Spruce Brook (July 8—9, 1949), Deer Lake (July 12, 1949), Lomond (July 13—15, 1949) Woody Point (July 16—20, 1949)

NW.Nfld.: Flowers Cove (July 25, 1949), St. Barbe (July 26, 1949), Eddies Cove W. (July 28, 1949)

 Previously found at SE.Nfld., Carbonear (GossE) and at Doyles St. (McIsaac).

A very common species in Newfoundland, on the wing from the end of June to the end of July (in the north). The most favoured localities were flourishing meadows in the cultivated areas, but the butterfly was also abundant on bogs and on marshy ground in woodlands at lower levels.

Oeneis jutta Hbn. ssp. terrae-novae dos Passos

The subspecies terrae-novae is described by dos Passos (1935) from a series collected by McIsaac at Doyles Station in western Newfoundland (June 23—August 3, 1934)

In 1949 I did not observe the species at all, though I looked for it on peat-bogs in all the areas visited in Newfoundland.

Oeneis polixenes Fabr.

Not recorded in 1949. I have, however, two specimens from the collection of dos Passos, taken on N. E. Belle Isle, a minor island north of the northwestern peninsula of Newfoundland, on July 5—6, 1937. In 1951 Lindroth collected a few specimens at L'Anse au Loup on the adjacent Labrador coast.
Oeneis chryxus Dbdly. & Hew. ssp. calais Scudder
Reported from Newfoundland by Bruton (1930) and Dos Passos (1935), found at Carbonear, SE.Nfld., by Gosse.

Nymphalidae

Speyeria atlantis Edw. ssp. canadensis dos Passos
Distribution: Extends across Canada from the Maritime Provinces to British Columbia, Alberta, Saskatchewan, and the NW. Territory. In the United States it extends from the Atlantic to Arizona and California. The subspecies atlantis was described from specimens taken in western Newfoundland (Dos Passos 1935). It occurs also in Labrador (Dos Passos 1947).

Find from Newfoundland:
W.Nfld.: Lomond (July 15, 1949)
Dos Passos (1935) reports the following finds: W.Nfld.: Doyles Station (July 20—August 18, 1934, McIsaac) and Lomond (July 21, 1934, Brooks)

All the finds are concentrated along the western coast of Newfoundland. In this part of the island the species was quite abundant, especially in damp woodland glades with rich vegetation.

Clossiana selene Schiff. ssp. terrae-novae Holland

Find from Newfoundland:
S.Nfld.: Port aux Basques (June 30, 1949)
W.Nfld.: Table Mountain (June 29, 1949), South Branch (July 2—4, 1949), Stephenville Crossing (July 5—6, 1949), Spruce Brook (July 9, 1949), Lomond (July 15, 1949)
NW.Nfld.: Cow Head (August 7—12, 1949), Eddies Cove W. (July 28—30, 1949), Doctors Brook (July 31, 1949), Flowers Cove (July 25, 1949)
C.Nfld.: Kittys Brook (August 17—18, 1949), Millertown (1951)
Find from Newfoundland reported by Dos Passos (1935): W.Nfld., Doyles St., June 23—September 2, 1934 (McIsaac).

One of the commonest butterflies in Newfoundland. During the time of its appearance noticed in most of the places investigated. The localities of the species were dry and wet meadows, wet hillsides with rich vegetation, bogs and mountain valleys.

Clossiana freija Thunb.
Distribution: This holarctic species has a wide range: Scandinavia, northern Russia, Siberia, through Alaska and Canada to Labrador and Newfoundland, occurring also upon the highest summits of the Rocky Mountains as far south as Colorado. Formerly recorded from Newfoundland (Dos Passos 1935).

Find from Newfoundland:
S.Nfld.: Burgeo (June 21, 1949)

Only one specimen noted, flying on the coastal tundra, some miles east of the settlement of Burgeo.
**Clossiana chariclea** Schneid. ssp. **boisduvalii** Dup.

**Distribution**: A holarctic species. Extends across arctic and boreal North America from British Columbia to the Atlantic, ranging southward along the Rocky Mountains and Alleghanies. Reported from Newfoundland by **Seitz** (1924).

**Find from Newfoundland**: S.Nfld.: Terrenceville (1951)

Of this species, too, I have only a single specimen from Newfoundland, captured by **Lindroth** in 1951, in a coniferous swampy wood near the south coast of the island.

**Melitaea harrisii** Scudder

According to **Geddes** (1886) and **DOS PASSOS** (1935) formerly recorded from Newfoundland, although not observed in 1949.

**Phyciodes tharos** Dru. ssp. **arctica** dos Passos

**Distribution**: Extends all over North America from Slave River and southern Labrador to Texas and Florida. The subspecies **arctica** described from a series from western Newfoundland (DOS PASSOS 1935).

**Finds from Newfoundland**: W.Nfld.: Steady Brook (July 10, 1949), Deer Lake (July 12, 1949), Lomond (July 15, 1949)

DOS PASSOS (1935) reports the following finds: W.Nfld., Doyle's Station, July 11, 1934 (McIsaac), Crables, July 26, 1922 (Hall), Table Mountain, Port au Port, July 29, 1922 (Hall), Springdale, July 20, 1927 (Jenness), Stoney Brook, July 15, 1934 (Brook), Lomond, July 21, 1934 (Brook).

The species was found only in the central parts of the west coast area, where it was moderately abundant, although somewhat local. Its favourite habitats were wet glades with rich vegetation in woods with foliferous threes and bushes. The species was most numerous at Lomond.

**Nymphalis antiopa** L.

**Distribution**: A circumpolar species. In North America it is generally distributed all over the continent. Previously recorded from Newfoundland (DOS PASSOS 1935).

**Finds from Newfoundland**: W.Nfld.: Corner Brook (July 10, 1949) Lomond (July 13, 1949)

C.Nfld.: Gaff Topsail (larvae, August 20, 1949), Glenwood (larvae, August 23—24, 1949), Gander (larvae, September 1, 1949)

E.Nfld.: Gambo (larvae, August 25—26, 1949)

Find from Newfoundland mentioned by DOS PASSOS (1935): Doyle's Station, June 12—August 3, 1934 (McIsaac). Found at Carbonear, SE, Nfld., by **Gosse** (Bruten 1930).

Probably a widespread species in Newfoundland, although, in consequence of its occurrence in the spring and autumn, only observed at few of the places visited. The larvae were very abundant in August on **Salix** in the interior parts of the island.

**Nymphalis j-album** Bdv. & Lee.

According to **DOS PASSOS** (1935) this species is known to have been collected in Newfoundland.

**Nymphalis milberti** Godt.

**Distribution**: Extends from Newfoundland (Holland 1899, DOS PASSOS 1935) and Nova Scotia southward to Virginia and westward to the Pacific.
Finds from Newfoundland:
S.Nfld.: Grand Bruit (June 19, 1949), Port Rexton (1951)
W.Nfld.: Woody Point (larvae, July 21, 1949), Deer Lake (1951)
NW.Nfld.: Doctors Brook (July 31, 1949), Cow Head (August 10—12, 1949)
C.Nfld.: Glenwood (August 23, 1949), Millertown (June 14, 1951), Grand Falls (1951)
SE.Nfld.: Cape Broyle (June 7, 1949), Holyrood (June 10, 1949)
NE.Nfld.: La Scie (June 18, 1951)

Find from Newfoundland reported by DOS PASSOS (1935): Doyles Station, June 9—August 3, 1934 (McIsaac). Found at Carbonear, SE.Nfld., by Gosse (Bruton 1930).

The finds from all parts of Newfoundland seem to indicate that this species occurs all over the island. The butterfly was not uncommon in the neighbourhood of human settlements in June, and a second brood appeared in August. Larvae were observed on Urtica.

Vanessa atalanta L.

Distribution: This species has a very wide range, extending throughout North America, northern Asia, to Europe and North Africa. Formerly recorded from Newfoundland (DOS PASSOS 1935).

Finds from Newfoundland:
S.Nfld.: Grand Bruit (June 13—19, 1949), Rencontre West (June 16, 1949), Pushtrough (June 23, 1949), Pass Island (June 25, 1949), Port aux Basques (June 28—July 2, 1949)
C.Nfld.: Glenwood (August 23—24, 1949)
NW.Nfld.: St. Barbe (July 26, 1949)
SE.Nfld.: Holyrood (June 10, 1949)
E.Nfld.: Gambo (August 25—27, 1949)


This migratory species occurred quite abundantly in Newfoundland in 1949 together with Vanessa cardui. In June the butterfly was observed by Holyrood on the Avalon peninsula. Numerous specimens were also noticed on the tundra of the south coast and on the coastal hills with Rhododendron and Kalmia vegetation. In August a second brood appeared, and the species was then noticed in the central and eastern parts of the country visited at that time.

Vanessa cardui L.

Distribution: The species is found in all parts of the temperate regions of the earth and in many tropical areas. In North America it is distributed over the entire continent, but it is very sporadic in its appearance.

Finds from Newfoundland:
S.Nfld.: Grand Bruit (June 13—19, 1949), Cinq Cerf River (June 14—16, 1949), Burgeo (June 21—22, 1949), Rencontre West (June 20, 1949), Port aux Basques (June 28—July 2, 1949), Grand Bank (1951).

W.Nfld.: South Branch (July 2—4, 1949), Table Mountain (June 29, 1949), Stephenville Crossing (July 5—6, 1949), Piccadilly (July 7, 1949), Corner Brook (July 12, 1949), Deer Lake (July 12, 1949), Lomond (July 13—15, 1949), Woody Point (July 16—21, 1949), Glenburnie (July 18—19, 1949).

NW.Nfld.: Daniels Harbour (July 22—23, 1949), Cow Head (August 7—11, 1949), Port au Choix (August 3—5, 1949), Eddies Cove W. (July 28—31, 1949),
Doctors Brook (July 31, 1949), St. Barbe (July 26, 1949), Flowers Cove (July 25—26, 1949), Cooks Harbour (July 16, 1949)


E.Nfld.: Gambo (August 25—27, 1949)

SE.Nfld.: St. John's (June 4, August 28—30, 1949), Holyrood (June 10, 1949).

Find reported by DOS PASSOS (1935): W.Nfld., Doyles Station, August 23, 1934 (McISAC). Found at Carbonear, SE.Nfld., by GOSSE (BRUTON 1930).

The species made a mass appearance in Newfoundland in 1949 as well as in other parts of North America (The Lepidopterists' News 1949). It was the commonest of all Macrolepidoptera species observed, and was noted as very abundant in all places visited, all over the island. The larvae were very abundant on Circium in July and August. The butterfly appeared in all kinds of localities at lower levels as well as on the tops of the highest mountains. In 1951 only a single specimen was observed.

*Polygonia faunus* Edwards

**Distribution:** From eastern Canada and New England to South Carolina, Minnesota and Michigan, west to the Pacific. Previously recorded from Newfoundland (DOS PASSOS 1935).

**Find from Newfoundland:**

E.Nfld.: Gambo (August 27, 1949)

Find reported by DOS PASSOS (1935): W.Nfld., Doyles Station, June 18—23, September 7, 1934 (McISAC). Also GEDDES (1886) reports the species from Newfoundland.

Three specimens were captured at Gambo, where the butterfly was fairly abundant on hillsides with thick bush vegetation.


No record in 1949. DOS PASSOS (1935) reports the following finds: W.Nfld., Doyles Station, June 23, August 23, 1934 (McISAC).

*Polygonia progne* Cram.

**Distribution:** Extends from Nova Scotia westward to the Pacific and eastern Siberia, southward to North Carolina, Missouri and Illinois. No previous record from Newfoundland.

**Find from Newfoundland:**

W.Nfld.: Corner Brook (August 17, 1949)

I have a single specimen, found on a hillside southeast of the town. According to DOS PASSOS the Newfoundland race seems to be a well-marked subspecies, hitherto undescribed. More material, however, would be needed for a description.

*Lycaenidae*

*Incisalia augustus* Kby. ssp. *heleane* dos Passos

**Distribution:** The species extends from New England and eastern Canada westward to northern Manitoba, southward at least to North Carolina. DOS PASSOS (1936) reports the species from Newfoundland.

**Finds from Newfoundland:**

S.Nfld.: Cinq Cerf River (June 17, 1949)

C. Nfld.: Gander (June 2, 1949)

SE.Nfld.: St. John's, South Side Hill (June 4, 1949), Holyrood (June 10, 1949)
Newfoundland record according to DOS PASSOS (1936): Doyle’s Station, June 6—19, 1935 (McIsaac)

A spring species, observed during the early part of June. At Gander the butterfly occurred on small Myrica bogs, at St. John’s and Holyrood on the tundra-like tops of the higher mountains. In the south the species was observed on the wet coastal tundra at the mouth of Cinq Cerf River.

Lycaena dorcas Kirby

Distribution: A northern species, which extends across Canada to Alaska (Yukon), south to the northern Atlantic States and Michigan. Formerly recorded from Newfoundland (DOS PASSOS 1936).

Finds from Newfoundland:
W.Nfld.: Corner Brook (August 14—17, 1949)
NW.Nfld.: Cow Head (August 10—11, 1949)
C.Nfld.: Kittys Brook (August 17—18, 1949), Millertown Junction (August 20—21, 1949)
SE.Nfld.: Come-by-Chance (August 27, 1949)

Newfoundland record according to DOS PASSOS: Doyle’s Station, August 3—25, 1935 (McIsaac)

Not uncommon in August in the places mentioned above. The most favourable localities of the species were bogs with a rich vegetation of Myrica, Camaedaphne and Potentilla fruticosa. The species also occurred on drier hillsides with a rich bush vegetation of Viburnum, Amelanchier, Corylus, Cornus, Sambucus, etc.

Lycaena epixantha Bdv. & Lec. ssp. amicetus Scudder

Distribution: Extends from Newfoundland to British Columbia, south to Minnesota, Michigan and the New England states. The subspecies amicetus previously recorded from Newfoundland (HOLLAND 1899, SEITZ 1924).

Finds from Newfoundland:
NW.Nfld.: St. Barbe (July 26, 1949), Doctors Brook (July 31, 1949), Eddies Cove W. (July 28—30, 1949), Cow Head (August 10, 1949)
C.Nfld.: Gaff Topsail (August 19, 1949)

BRUTON (1930) reports the species from Carbonear, SE.Nfld., found by GOSSE.

This species replaced the preceding species in the northwest of the island and at higher altitudes in the central parts (Gaff Topsail). At Cow Head both species occurred, but not in the same localities. Lycaena epixantha was seen on bogs of the same type as those on which dorcas occurred, but it appeared somewhat earlier; the first specimen was noted at the end of July.

Plebeius idas L. ssp. aster Edw.

Distribution: General throughout Canada and northern United States, west to Alaska. The ssp. aster was described from a series from Cape Race region of southern Avalon Peninsula, Newfoundland, and occurs in Newfoundland, eastern Labrador and south of the Gulf of St. Lawrence (FREEMAN 1943).

Finds from Newfoundland:
W.Nfld.: Lomond (July 15, 1949)

The Cape Race series, mentioned above was collected by T. L. MEAD.

Found at Carbonear, SE.Nfld., by GOSSE (BRUTON 1930).

This species occurred quite commonly on Kalmia bogs at Eddies Cove W. and St.
John Island. In the other localities mentioned above it was scarcer, and only few specimens were captured, all on peat-bogs.

Plebeius aquilo Boisduval

Distribution: Extends throughout the arctic zone from Newfoundland (previously finds reported by dos Passos 1935) and Labrador to the Pacific. The species occurs also on the Rocky Mountains as far south as California and Arizona.

Finds from Newfoundland:
S.Nfld.: Port aux Basques (July 1, 1949)
W.Nfld.: South Branch (July 2, 1949), Steady Brook (July 10, 1949), Lomond (July 13, 1949)
NW.Nfld.: Doctors Hill (July 29, 1949)

An arctic species, which occurred in the Long Range mountains along the west coast of Newfoundland. The northernmost locality where it was found was Doctors Hill, the southernmost the mountains near Port aux Basques. It occurred only above the tree line on the bare, wind-swept tops of the higher mountains. In all the localities mentioned above the butterfly appeared in considerable numbers.

Glaucopsyche lygdamus Ddly. ssp. couperi Grt.

According to Holland (1899), Seitz (1924) and Dos Passos (1935) recorded from Newfoundland (Carbonear, SE.Nfld., found by Gosse), but it was not noticed in 1949. The subspecies couperi is found in Newfoundland, Labrador, Anticosti and the boreal areas of eastern Canada.

Lycaenopsis pseudargiolus Bdv. & Lec. ssp. lucia Kirby

Distribution: Widespread (in races) over almost the whole of Canada and the United States. The subspecies lucia, and f. marginata Edw. have been reported from Newfoundland (Dos Passos 1935).

Finds from Newfoundland:
S.Nfld.: Grand Bruit (June 14—19, 1949), Cinq Cerf River (June 14—17, 1949), Burgeo (June 21, 1949), Grandy Brook (June 22—25, 1949), Port aux Basques (June 28—July 1, 1949)
W.Nfld.: South Branch (July 2—4, 1949), Table Mountain (June 29, 1949) Piccadilly (July 7, 1949), Spruce Brook (July 8—9, 1949), Corner Brook (July 10—12, 1949), Steady Brook (July 10, 1949), Lomond (July 12—15, 1949)
C. Nfld.: Gander (June 2, 1949)
SE.Nfld.: St. John's (June 4—6, 1949), Cape Broyle (June 7, 1949), Holyrood (June 10, 1949)

Finds from Newfoundland reported by Dos Passos: lucia Kirby, Doyles Station, June 12—July 18, 1934; marginata Edw., same locality, June 12—July 8, 1934 (McIsaac)

A very common species, on the wing in the beginning of the summer, and noted in almost all places visited until the middle of July. It appeared in different kinds of localities, the most favoured habitats being thick bushes with Amelanchier, Cornus, Alnus crispa, etc., on the hillsides.

Hesperiidae

Carterocephalus palaemon Pall.

Distribution: South Labrador to the White Mountains and Airondacks, west to Vancouver Island and Alaska, north of the Great Lakes. Extends throughout Siberia
and northern Russia to Scandinavia. Previously reported from Newfoundland (Dos Passos 1935).

Find from Newfoundland:
W.Nfld.: Spruce Brook (July 9, 1949)

Also found at Doyles Station, July 8, 1934, by McIsaac (Dos Passos, 1935)

In 1949 I captured only one specimen. It occurred on a little marsh in a rich Acer grove near the shore of St. Georges Lake.

_Hesperia comma_ L. ssp. _borealis_ Lindsey.

_Distribution_: Extends in races across the entire continent in Canada and northern United States; occurs also in Colorado and California. A circumpolar species. No previous record from Newfoundland.

Find from Newfoundland:
NW.Nfld.: St. Barbe (July 26, 1949), St. John Island (August 3, 1949)

The two localities where the species was noted are situated in the northwesternmost part of the island, on the strait between Labrador and Newfoundland. The habitats of the butterfly were marshes with rich vegetation. At St. Barbe three males were captured, on St. John Island one female.

_Polites peckius_ Kirby

_Distribution_: Eastern Canada and northern Atlantic States, west to Kansas, Iowa and Illinois. Formerly reported from Newfoundland (Dos Passos 1935).

Find from Newfoundland:
W.Nfld.: South Branch (July 3—4, 1949), Deer Lake (July 12, 1949), Woody Point (July 16—19, 1949)

Find from Newfoundland reported by Dos Passos (1935): Doyles St., July 10—27, 1934 (McIsaac)

In the localities in the western part of Newfoundland where the species was observed, it appeared rather sparsely on flourishing, dryish meadows in the surroundings of villages and farms.

_Pyrus centaureae_ Ramb.

This holarctic species, which occurs all over northern North America and on the higher mountains southward, has been reported from Newfoundland (Dos Passos 1935).

_Sphinx kalmiae_ A. & S.

_Distribution_: Extends from Nova Scotia and Quebec to Georgia, Wisconsin and Missouri (Forbes 1948). No previous record from Newfoundland.

Find from Newfoundland:
W.Nfld.: Stephenville Crossing (July 6—7, 1949), Corner Brook (July 9—11, 1949), Lomond (July 14, 1949)
NW.Nfld.: Cow Head (Pupa, August 18, 1949)
C.Nfld.: Gander (larvae, August 31—September 1, 1949)
E.Nfld.: Gambo (larvae, August 25, 1949)

This hawkmoth was not uncommon in July in the localities in W. Newfoundland mentioned above. It was found hovering on _Iris versicolor_ and _Digitalis_ and in the town of Corner Brook round the street-lamps. In the latter half of August it occurred in the larval stage, feeding on _Betula_ in some places in the eastern and central parts of the country.
Sphinx canadensis Bdv.
According to Forbes (1948) this species has been reported from Newfoundland.

Smerinthus jamaicensis Drury f. geminatus Say.
Distribution: From Newfoundland to Georgia, British Columbia and Arizona (Forbes 1948).

Finds from Newfoundland:
W.Nfld.: Corner Brook (July 11, 1949)
C.Nfld.: Kittys Brook (larvae, August 17-18, 1949), Gaff Topsail (larvae, August 20, 1949), Millertown Junction (larvae, August 21-22, 1949), Glenwood (larvae, August 23-24, 1949), Gander (larvae, August 31-September 1, 1949), Badger (June 23, 1951)
E.Nfld.: Gambo (larvae, August 27, 1949)

Of the imago only one specimen was found in 1949, on a lamp in the town of Corner Brook. In 1951 Lindroth captured one dead moth at Badger. The caterpillar was quite common in August 1949. It fed on Salix and Populus and occurred in many places in large numbers on small bushes.

Paonias excaecata A. & S.
Distribution: Nova Scotia and Ontario, south to Florida and west to the Mississippi Valley; a darker race in Manitoba and a paler one in the Southwest (Forbes 1948).

Finds from Newfoundland:
W.Nfld.: Corner Brook (larvae, August 15, 1949)

Found in the larval stage only. The caterpillars occurred on small Amelanchier bushes in the Corner Brook valley.

Hemaris thybe Fabr.
Distribution: The species extends from Newfoundland to Florida, westward (in races) to Illinois and Kansas. Formerly recorded from Newfoundland (Forbes 1948).

Finds from Newfoundland:
W.Nfld.: Woody Point (July 18-20, 1949)
C.Nfld.: Glenwood (larvae, August 23, 1949)
E.Nfld.: Gambo (larvae, August 27, 1949)

Three specimens were captured, flying on gravel hillsides near the village of Woody Point. They visited the flowers of Kalmia angustifolia, a plant which grew frequently in the locality mentioned. The caterpillar feeding on Viburnum cassinoides and V. edule, was not uncommon at Glenwood and Gambo.

Celerio galii Rott. ssp. intermedia Kby.
Distribution: Extends from Labrador to Georgia, Vancouver Island and California (Forbes 1948).

Finds from Newfoundland:
NW.Nfld.: Doctors Brook (larvae, July 31, 1949)
C.Nfld.: Glenwood (larva, August 23, 1949)

Larvae were noticed in the two localities mentioned above. They were feeding on Chamaenerium and Epilobium.

Arctiidae

Phragmatobia fuliginosa L.
Distribution: A circumpolar species. In North America it extends from the Atlantic westward throughout Canada at least to the Rocky Mountains, southward
along the Appalachian Mountains into the Carolinas. It is also found ranging southward along the Rocky Mountains.

*Find from Newfoundland:*

W. Nfld.: Lomond (July 13, 1949)

Only one specimen was observed, found on the summit of the 2000 feet high mountain Killed Evil at Lomond.

*Apantesis virgo* L.

*Distribution:* The species occurs in the northern Atlantic States and eastern Canada.

*Find from Newfoundland:*

NW. Nfld.: Cow Head (August 9, 1949)

One specimen found during a hard S.W. storm among a great number of seaborne insects on the sandy shore north of the village mentioned above.

*Diacrisia virginica* Fabr.

*Distribution:* The species has a wide range in North America, extending from Nova Scotia to Vancouver and Mexico.

*Finds from Newfoundland:*

S. Nfld.: Port aux Basques (June 29—July 1, 1949)

W. Nfld.: South Branch (July 4, 1949), Stephenville Crossing (July 6, 1949), Corner Brook (July 9—11, August 15, 1949)

NW. Nfld.: Cow Head (larvae, August 10, 1949), Eddies Cove W. (larvae, July 28, 1949)

This species was rather common. The majority of my specimens are from Corner Brook, where they were numerous, flying round the street-lamps. The caterpillars were not scarce in August.

*Hyphantria textor* Harr.

*Distribution:* The species extends from Canada to the Gulf of Mexico, and from Nova Scotia to California.

*Finds from Newfoundland:*

S. Nfld.: Port aux Basques (July 1, 1949)

I have two specimens of this in North America widely spread species, both of them caught at night on lamps in the village mentioned above.

*Parasemia parthenos* Harr.

*Distribution:* The species ranges from Nova Scotia and the valley of the St. Lawrence westward to Manitoba, and southward to the northern Atlantic States.

*Finds from Newfoundland:*

W. Nfld.: Corner Brook (July 11, 1949)

One specimen of this pretty moth, a female, was captured at Corner Brook, flying round a street-lamp at night.

*Agaristidae*

*Alypia octomaculata* Fabr.

*Distribution:* Extends from eastern Canada and the northern Atlantic States westward beyond the Mississippi.

*Finds from Newfoundland:*

S. Nfld.: Burgeo, Grandy Brook (June 24—25, 1949)

This *Alypia* species, which is very common in eastern North America, occurred on small grass-grown gravel islands in the mouth of the river Grandy Brook. The moths flew very rapidly in the bright sunshine, and it was very difficult to capture them. I
also saw several *Alypias* in different places along the west coast of Newfoundland, from South Branch in the south to Lomond in the north. I did not succeed in catching them, so I cannot be sure if they were specimens of *octomaculata* or, perhaps, of the following species.

*Alypias langtoni* Couper

*Distribution*: The species extends from eastern Canada and the northern Atlantic States westward to California, British Columbia and Alaska.

*Find from Newfoundland*:

W.Nfld.: Spruce Brook (July 9, 1949)

One specimen belonging to this species, I captured on a wet meadow in a maple grove near the settlement of Spruce Brook, on the shore of St. Georges Lake. In the same place I saw several *Alypias* flying rapidly in the sunshine.

*Phalaenidae*

*Panthaca acronyctoides* Wlk.

*Distribution*: Extends from eastern Canada, Maine and New York west to Vancouver, south to Massachusetts, Minnesota and Wisconsin (SMITH & DYAR 1898).

*Find from Newfoundland*:

W.Nfld.: Woody Point (July 20, 1949)

Of this species I have only one specimen, which was captured on a little larch attacked by aphids.

*Acronycta americana* Harr.

*Distribution*: From Canada and the Atlantic States, west to Texas and Salt Lake City (SMITH & DYAR 1898).

*Finds from Newfoundland*:

W.Nfld.: Corner Brook (August 15, 1949)

NW.Nfld.: Daniels Harbour (July 22, 1949)

I have two specimens of this large *Acronycta* species in my collection from Newfoundland in 1949. The specimen from Corner Brook was captured at night on a street-lamp in the town, the other one, from Daniels Harbour, settled on the ground on an open peat-bog.

*Acronycta dactylina* Grt.

*Distribution*: Extends from the eastern parts of Canada and the United States westward to Colorado.

*Finds from Newfoundland*:

W.Nfld.: Stephenville Crossing (July 7, 1949)

One specimen captured with a sugar-bait on a wet meadow by Harrys River some miles to the east of the village mentioned.

*Acronycta lepusculina* Gn.

*Distribution*: The species ranges all over the North American continent from eastern Canada and the Atlantic States to the Pacific.

*Finds from Newfoundland*:

C.Nfld.: Glenwood (larvae, August 22—24, 1949)

Found only in the larval stage. The caterpillar, feeding on *Ailmus*, was noted in several specimens on the shore of Gander River by Glenwood. The majority of the larvae were attacked by parasites.

*Acronycta grisea* Wlk.

*Distribution*: Canada, southward to Georgia, west to Montana and British Columbia.
Find from Newfoundland:
S.Nfld.: Port aux Basques (June 29, 1949)
One male specimen found indoors on a window in the village of Channel.

_Acronycta impressa_ Wlk.
_Distribution_: Canada and the United States west to the Rocky Mountains.

Find from Newfoundland:
S.Nfld.: Burgeo, Grandy Brook (June 22, 1949), Port aux Basques (June 29—July 1, 1949)
W.Nfld.: South Branch (July 2—4, 1949), Corner Brook (larvae, August 14, 1949)
NW.Nfld.: Cow Head (larvae, August 7—10, 1949)
C.Nfld.: Kittys Brook (larvae, August 17, 1949), Millertown Junction (larvae, August 22, 1949), Glenwood (larvae, August 22—24, 1949)
E.Nfld.: Gambo (larvae, August 26, 1949)

_Acronycta impressa_ was the commonest _Acronycta_ species in Newfoundland, and it is apparently widely distributed throughout the island. The imago was not uncommon in the southwestern parts of the country in June and July, and occurred in very different kinds of localities, on the coastal tundra as well as in cultivated areas. The larvae were observed in most of the localities visited during the end of the summer.

_Euxoa perpolita_ Morr.

Find from Newfoundland:
C.Nfld.: Millertown Junction (August 21, 1949)
One specimen was captured in a dry meadow near the railway station, Millertown Junction.

_Euxoa ontario_ Smith

Find from Newfoundland:
C.Nfld.: Kittys Brook (August 18, 1949)
E.Nfld.: Gambo (August 26, 1949)
SE.Nfld.: St. John’s (August 28, 1949)
At St. John’s the species occurred abundantly, visiting the flowers of _Senecio jacobea_ in brook valleys on the outskirts of the town. At other places the moth was scarce.

_Euxoa declarata_ Wlk. ssp. _decolor_ Morr.
_Distribution_: Very general throughout the northeastern United States. In Canada it extends from the Maritime Provinces to Manitoba and Saskatchewan (MCDUNNOUGH 1950).

Find from Newfoundland:
C.Nfld.: Gander (September 1, 1949), Kittys Brook (August 17, 1949)
I have only two specimens of this species. One of them was captured under a stone on the shore of Gander Lake, the other on a dry meadow by the railway station at Kittys Brook.

_Euxoa redivicula_ Morr.
**Euxoa ochrogaster** Gn.

**Distribution:** General throughout the northern and eastern United States and Canada, extending westward to the Pacific regions of both countries (McDunnough 1950).

**Finds from Newfoundland:**
- W.Nfld.: Deer Lake (July 12, 1949)
  - One male specimen, which I have determined as belonging to this species was captured on a sandy area between the village of Deer Lake and the lake with same name.

**Luxoa ochrogastrera** Gn.

**Distribution:** General throughout the northern and eastern United States and Canada, extending westward to the Pacific regions of both countries (McDunnough 1950).

**Finds from Newfoundland:**
- W.Nfld.: Corner Brook (August 15—16, 1949)
- C.Nfld.: Millertown Junction (August 20, 1949)
- SE.Nfld.: St. John's (August 28—30, 1949)
  - From the surroundings of St. John’s, where this moth occurred very frequently on the flowers of *Senecio jacobea*, I have a long series of specimens, which vary very much in colour. Most of them have darkbrown forewings with a pale yellow orbicular and reniform spot and costal stripe, but there are also almost unicoloured specimens, the groundcolour of which fluctuates from yellow-brown to black-grey. — At Corner Brook, also, the species was fairly common, visiting flowers in the brook valleys near the town.

**Agrotis ypsilon** Rott.

**Distribution:** This species has a very wide distribution in the Old and the New World. In North America it occurs everywhere in Canada and the United States (Holland 1934).

**Finds from Newfoundland:**
- S.Nfld.: Burgeo, Grandy Brook (June 23, 1949), Port aux Basques (July 1, 1949)
- W.Nfld.: South Branch (July 2, 1949), Corner Brook (August 15, 1949), Lomond (July 14, 1949), Woody Point (July 19—20, 1949).
- NW.Nfld.: Cow Head (August 8—11, 1943), Port au Choix (August 3—4, 1949), Flowers Cove (July 25, 1949)
- C.Nfld.: Millertown Junction (August 20, 1949)
  - A few hibernated specimens were noted in June and July at several localities along the south and west coast of the island. From the first days of August onwards a new brood appeared, and after that time the moth was very frequently seen on flowers and sugar-baits in the northwestern and central parts of Newfoundland.

**Agrotis musa** Sm.

According to Draudt (in Seitz 1924) this species has been recorded from Newfoundland.

**Actebia fennica** Tausch.

**Distribution:** A circumpolar species. It extends from the Atlantic through Canada and the northern United States to the Pacific and Alaska.

**Finds from Newfoundland:**
  - All my specimens are from the northwestern peninsula of Newfoundland. Especially at Port au Choix the species was fairly common, visiting sugar-baits.

**Spaelotis clandestina** Harr.

**Distribution:** The species has a wide range in North America, from Greenland, eastern Canada and the northern Atlantic States westward to the Rocky Mountains.

**Finds from Newfoundland:**
- C.Nfld.: Gander (June 2, 1949)
  - One dead specimen was found indoors at Gander.
Harry Krogerus: The Lepidoptera of Newfoundland

Eurois occulta L.
Distribution: A circumpolar species. In North America it extends from Greenland and the eastern parts of Canada and the United States westward at least to Colorado.

Finds from Newfoundland:
W.Nfld.: South Branch (July 3—4, 1949), Corner Brook (August 15, 1949)
NW.Nfld.: Cow Head (August 7—11, 1949), Port au Choix (August 3—5, 1949), Eddies Cove W. (July 28—30, 1949)
C.Nfld.: Millertown Junction (August 20, 1949)

A common species in Newfoundland, especially in the northwestern parts of the island.

Eurois astricta Morr.
Distribution: The species extends from Canada and the northern Atlantic States westward to the Rocky Mountains and Colorado.

Finds from Newfoundland:
W.Nfld.: Corner Brook (August 14—15, 1949)
NW.Nfld.: Cow Head (August 7—12, 1949), Port au Choix (August 3—5, 1949), Eddies Cove W. (July 30, 1949)
C.Nfld.: Kittys Brook (August 17—18, 1949), Millertown Junction (August 20, 1949), Glenwood (August 22—24, 1949)
E.Nfld.: Gambo (August 27, 1949)

Eurois astricta was one of the commonest moths on the sugar-baits in August. It occurred frequently in almost all localities visited at that time. At Kittys Brook the moth was especially numerous; about two hundred specimens visited the baits during one night.

Ochropleura plecta L.
Distribution: The species is circumpolar in its distribution. It has a wide range in Canada and extends in the United States from the Atlantic States westward to Texas.

Finds from Newfoundland:
W.Nfld.: South Branch (July 3, 1949), Stephenville Crossing (July 7, 1949), Woody Point (July 17—19, 1949)
NW.Nfld.: Eddies Cove W. (July 28, 1949), Port au Choix (August 5, 1949)

Previously reported from Carbonear, SE.Nfld., by Gosse (BRUTON 1930).

This little species was rather scarce, and it was found only along the west coast of the island. All specimens were captured on sugar-baits.

Peridroma margaritosa Haw.
Distribution: The species has a very wide distribution on the earth. In North America it is universally distributed throughout the United States and southern Canada.

Finds from Newfoundland:
W.Nfld.: Stephenville Crossing (July 7, 1949)

A single specimen of this migratory species was captured by Harrys River near the village of Stephenville Crossing. The moth visited the flowers of Iris versicolor.

Hemipachnobia monocromatea Morr.
Distribution: Extends from Labrador westward at least to Alberta, southward to the northern Atlantic States.

Finds from Newfoundland:
S.Nfld.: Burgeo, Grandy Brook (June 25, 1949)
W.Nfld.: Lomond (July 15, 1949), Woody Point (July 17, 1949)
From Burgeo I have a male specimen in my collection, from Lomond and Woody Point together three females. They were all found on marshes, flying in the sunshine.

**Pseudospaletis haruspica** Grt.

*Distribution*: The species has a wide range in North America, extending from the Atlantic to the Pacific in Canada and the United States.

*Find s from Newfoundland:*
- NW.Nfld.: Cow Head (August 8, 1949)
- C.Nfld.: Kittys Brook (August 18, 1949), Glenwood (August 23, 1949)

I have altogether eight specimens of this species from the localities mentioned above. They were all captured on sugar-baits.

**Caradrina quadrangula** Zett.


*Find s from Newfoundland:*
- NW.Nfld.: Port au Choix (August 5, 1949), Cow Head (August 8, 1949)
- NE.Nfld.: Fogo Island, Tilting (June 29, 1951)

Only three specimens recorded from Newfoundland, all from the northern parts of the island.

**Chersotis juncta** Grt.

*Distribution*: From the Atlantic throughout Canada and the northern United States westward to the Rocky Mountains.

*Find s from Newfoundland:*
- W.Nfld.: Corner Brook (August 14, 1949)
- NW.Nfld.: Cow Head (August 11, 1949)

At Cow Head I captured only one specimen, which was taken at night on *Chamaenerium angustifolium*. At Corner Brook the species was more numerous on the same plant.

**Heptagrotis phyllophora** Grt.

*Distribution*: The species occurs in the eastern parts of Canada, extending southward to New York.

*Find s from Newfoundland:*
- W.Nfld.: Woody Point (July 16—17, 1949)

Found at one locality only, some miles south of the village of Woody Point. The moth was common in a wet *Picea mariana* wood on a hillside, visiting the flowers of *Kalmia angustifolia*.

**Diarsia rubifera** Grt.

*Distribution*: The species is known from the eastern parts of Canada and from the northeastern portions of the United States.

*Find s from Newfoundland:*
- W.Nfld.: Corner Brook (August 14—15, 1949)
- NW.Nfld.: Cow Head (August 10, 1949)
- C.Nfld.: Kittys Brook (August 17—18, 1949), Millertown Junction (August 20, 1949)
- E.Nfld.: Gambo (August 27, 1949)

A late species, which was very common in some localities in the western and central parts of the island (Corner Brook, Kittys Brook) visited in the middle of August. The moths visited sugar-baits but were also captured with a lamp.
Diarsia mendica Fabr. ssp. dislocata Sm.

Distribution: The distribution of this species in North America seems to be somewhat uncertain. SEITZ (1924) reports finds from eastern Canada, but it is possible that the species has a more wide range through the boreal parts of the country.

Finds from Newfoundland:
NW.Nfld.: Eddies Cove W. (July 28–30, 1949), Port au Choix (August 3–5, 1949)

This Diarsia species was quite common in the northwesternmost parts of the island, and occurred some weeks earlier than the preceding species; the first specimens occurred in the last days of July. The favourite localities were open glades in sprucewoods, where the moth was numerous on sugar-baits.

Diarsia jucunda Wlk.

Distribution: Eastern and central parts of Canada, extending southward to the middle Atlantic States.

Finds from Newfoundland:
W.Nfld.: Lomond (July 14–15, 1949)
NW.Nfld.: Port au Choix (August 5, 1949)

Some few specimens were captured on sugar-baits in the localities mentioned above.

They occurred all in wet Picea mariana woods.

Graphiphora c-nigrum L.

Distribution: This circumpolar species has a wide range in North America, extending throughout Canada and the United States from the Atlantic to the Pacific.

Finds from Newfoundland:
W.Nfld.: Corner Brook (August 14–15, 1949)
NW.Nfld.: Cow Head (August 7–8, 1949), Port au Choix (August 3–5, 1949)
SE.Nfld.: St. John's (August 30, 1949)

Not a very common species in Newfoundland in 1949. It seems, however, to occur all over the island.

Graphiphora smithi Snell.

Distribution: Extends from Nova Scotia and the Atlantic States throughout the entire continent to British Columbia and Montana.

Finds from Newfoundland:
W.Nfld.: Corner Brook (August 14–16, 1949)
NW.Nfld.: Cow Head (August 7–12, 1949), Port au Choix (August 3–5, 1949), Cooks Harbour (ex pupa, July 27, 1949)
E.Nfld.: Gambo (August 26–27, 1949)
SE.Nfld.: Come-by-Chance (August 27, 1949), St. John's (August 28–30, 1949)

The commonest Phalaenidae species in Newfoundland. It occurred with very high abundance in almost every place visited in August, from the extreme north to the Avalon Peninsula in the southeast. The moth sometimes fairly swarmed at the sugar-baits, but it also visited flowers and was attracted to light.

Graphiphora oblata Morr.

Distribution: The species extends from the eastern parts of Canada and the northern Atlantic States westward through the continent to California, Montana and British Columbia.

Finds from Newfoundland:
NW.Nfld.: Port au Choix (August 4–5, 1949)
Only two specimens of this pretty species were captured, both on sugar-baits in a swampy sprucewood at Port au Choix.

*Graphiphora opacifrons* Grt.

**Distribution:** The species occurs in the eastern parts of Canada and the United States.

**Finds from Newfoundland:**
- NW.Nfld.: Cow Head (August 11, 1949)
- C.Nfld.: Millertown Junction (August 21, 1949)
- SE.Nfld.: Come-by-Chance (August 27, 1949)

*Graphiphora opacifrons* occurred in Newfoundland on open peat-bogs, in conformity with the corresponding European species *subrosea*. It was, however, scarce and only five specimens were found.

*Graphiphora bicarnea* Gn.

**Distribution:** The species has a wide distribution in North America extending from the Atlantic westward to Colorado.

**Finds from Newfoundland:**
- W.Nfld.: Corner Brook (August 11-15, 1949)
- NW.Nfld.: Cow Head (August 11, 1949), St. John Island (August 3, 1949)
- C.Nfld.: Glenwood (August 23, 1949)

This species was not scarce in August, although it did not visit the sugar-baits, in contrast to the other species of this genus. It was most numerous in Corner Brook, swarming round the street-lamps.

*Anomogyna speciosa* Hbn. ssp. *mixta* Wlk.

According to Seitz (1924) this species has been reported from Newfoundland. In 1949 I did not observe it; in July 1951, however, Lindroth captured one specimen at Lanse au Lope on the adjacent Labrador coast.


The species has formerly been reported from Newfoundland (Seitz 1924). Not found in 1949.

*Anaplectoides pressus* Grt.

**Distribution:** The species extends from the Atlantic throughout the eastern and central parts of Canada and the United States westward to the Rocky Mountains.

**Finds from Newfoundland:**
- NW.Nfld.: Eddies Cove W. (July 30, 1949), Port au Choix (August 3-5, 1949)

All specimens in my collection of 1949 were captured with sugar-baits in dark *Picea mariana—Abies balsamea* woods on marshy ground.

*Anaplectoides prasina* Schiff.

**Distribution:** A circumpolar species. In North America it has a wide range from the Atlantic to the Pacific throughout the northern United States and Canada.

**Finds from Newfoundland:**
- NW.Nfld.: Eddies Cove W. (July 30, 1949), Port au Choix (August 3-5, 1949)

This species I noted from the northwesternmost parts of Newfoundland only. It was scarce in the surroundings of the villages mentioned above.

*Protolampra rufipectus* Morr.

**Distribution:** Extends from the eastern parts of Canada and the United States westward to California, Arizona and Montana.
Finds from Newfoundland:

C.Nfld.: Kittys Brook (August 18, 1949), Glenwood (August 22, 1949)

Observed in two localities only. From Glenwood I have only one specimen; at Kittys Brook, however, the moths were numerous on the sugar-baits along the railway-line near the station.

*Cryptocala acadiensis* Beth.

**Distribution:** Extends from eastern Canada westward at least to Montana, southward to the middle Atlantic States.

Finds from Newfoundland:

NW.Nfld.: Cow Head (August 7, 1949)

In the collection of P. Stuwigz there are four specimens of this species from Newfoundland.

In 1949 one specimen was captured on *Chamaenerium angustifolium* on the sand-dunes some miles north of the village of Cow Head.

*Euretagrotis peraltenta* Grt.

**Distribution:** Extends from the Atlantic throughout southern Canada and the northern United States westward to the Rocky Mountains.

Finds from Newfoundland:

W.Nfld.: Corner Brook (July 11, August 14, 1949), Lomond (July 14, 1949)

NW.Nfld.: Cow Head (August 8, 1949), Eddies Cove W. (July 30, 1949)

All the finds are on the west coast of the island. The species was scarce in this area, occurring mostly in woods with rich vegetation.

*Abagrotis placida* Grt.

**Distribution:** General throughout Canada and the United States from the eastern Maritime Provinces to New Mexico, California and Montana.

Finds from Newfoundland:

W.Nfld.: Kittys Brook (August 17—18, 1949), Gander (September 1, 1949)

The species was scarce; in all, six specimens were noticed in 1949, all captured on light and sugar-baits.

*Scotogramma trifolii* Rott.

**Distribution:** A circumpolar species, which has a very wide distribution in North America, extending from the Atlantic to the Pacific.

Finds from Newfoundland:

W.Nfld.: South Branch (July 4, 1949)

One specimen, which belongs to the var. *albifusa* Wlk., was captured at South Branch, flying at night on the meadows on the shore of Codroy River.

*Polia imbrifera* Gn.

**Distribution:** Eastern Canada, extending through the northeastern and central parts of the United States to Colorado.

Finds from Newfoundland:

NW.Nfld.: Cow Head (August 7—11, 1949)

One specimen in the collection of P. Stuwigz from Newfoundland.

This large *Polia* species appeared in 1949 only at Cow Head in the middle of the west coast. It was found on sandy areas, and captured on flowers of *Chamaenerium angustifolium* and by sugaring.
Polia leomegra Sm.

According to Draudt (in Seitz 1924) this species has been reported from Newfoundland.

Polia atlantica Grt.

Distribution: The species occurs in eastern Canada and the United States, extending southward to Virginia and westward to the Rocky Mountains.

Find from Newfoundland:
W.Nfld.: Stephenville Crossing (July 6, 1949), Woody Point (July 16, 1949)
NW.Nfld.: Eddies Cove W. (July 28-30, 1949)

In the western parts of the island this moth occurred in cultivated areas in the surroundings of villages. At Eddies Cove W. farther to the northwest it was observed in woodlands, where it was attracted to sugar-baits. The species was, however, rather scarce in 1949.

Polia nevadae Grt. ssp. canadense Sm.

Distribution: The species extends from the Maritime Provinces of eastern Canada and the United States westward to the Pacific. The subspecies canadense ranges throughout Canada from the Atlantic to British Columbia.

Find from Newfoundland:
W.Nfld.: Corner Brook (July 11, 1949)

Only one specimen was noticed near Corner Brook in a maple wood. It was captured on a sugar-bait.

Polia frustata McD.

This species has been described by McDunnough (1946, p. 32) from four specimens that emerged from larvae taken in Newfoundland (W.Nfld.: Humber and NE.Nfld.: White Bay). According to McDunnough the species seems to be very closely related to the European glauca.

Lacinipolia olivacea Morr.

Distribution: Southern Canada, and the United States, southward to Florida, westward to California.

Find from Newfoundland:
W.Nfld.: Corner Brook (August 14—16, 1949)
NW.Nfld.: Cow Head (August 7—12, 1949)
C.Nfld.: Kittys Brook (August 17—18, 1949), Glenwood (August 22, 1949)

This highly variable little species occurred very frequently on sand-dunes at Cow Head. It was numerous on the flowers of Chamaenerion angustifolium as well as on sugar-baits. In the other localities mentioned above the moth was somewhat scarcer, although not uncommon.

Lasistes leycocycla Staud. ssp. flanda Sm.

According to Draudt (Seitz 1924) this holarctic species has been reported from Newfoundland.

Anarta melanopa Thunb.

Distribution: A holarctic species. It occurs in the entire Arctic North America, ranging southward along the highest mountains.

Find from Newfoundland:
S.Nfld.: Grand Bruit (June 18, 1949)
NW.Nfld.: Port au Choix (larvae, August 4, 1949)
This was the only species of the arctic genus *Arctia* that I noticed in 1949. One specimen was captured on the tundra by the village of Grand Bruit, on the south coast, at low level some hundred yards from the shore. At Port au Choix in the northwestern part of the island the larvae fed on *Dryas integrifolia*, where this plant grew on open limestone fields by the seashore.

*Protorthodes lindrothi* n.sp.

**Finds from Newfoundland:**
- C.Nfld.: Glenwood (larva, August 23, 1949), Badger (June 22—23, 1951)
- In 1949 I found this species in the larval stage only. From 1951 I have a series of five specimens collected by LINDROTH at Badger. The moths were captured in the surroundings of a wet meadow on the shore of a river.

*Pseudorthodes vecors* Gn.

**Distribution:** Extends from eastern Canada and the New England States westward to the Mississippi.

**Finds from Newfoundland:**
- W.Nfld.: South Branch (July 2—4, 1949)
- This species was found in the surroundings of the village of South Branch, flying at night on riverside meadows of Codroy River. Altogether, five specimens were captured.

*Nephelodes emmedonia* Cram.

**Distribution:** The species extends from eastern Canada southward to Virginia and westward at least to the northern Mississippi States.

**Finds from Newfoundland:**
- NW.Nfld.: Cooks Harbour (ex pupa, August 23, 1949)
- C.Nfld.: Glenwood (August 22—23, 1949)
- E.Nfld.: Gambo (August 26, 1949)
- SE.Nfld.: Come-by-Chance (August 27, 1949), St. John's (August 28—31, 1949)
- A late species. The first specimens occurred during the last week of August, and at this time the moth was very common in several places in the eastern part of the island. The find of the larva from the northwesternmost peninsula seems to indicate that the species is widespread over Newfoundland. The moths flew to light and they also visited flowers, esp. *Senecio jacobea*.

*Leucania commoides* Gn.

**Distribution:** General throughout the entire North American continent from the Atlantic to the Pacific.

**Finds from Newfoundland:**
- W.Nfld.: South Branch (July 2—4, 1949), Stephenville Crossing (July 6, 1949), Woody Point (July 17, 1949)
- The species was found in cultivated areas only, and was quite common flying on meadows and fields.

*Leucania unipuncta* Haw.

**Distribution:** This species, which is widespread in the Old and the New World, is in North America found from Canada to Texas and from the Atlantic to the Rocky Mountains.

**Finds from Newfoundland:**
- S.Nfld.: Grand Bruit (June 19, 1949), Burgeo (June 24, 1949), Port aux Basques (June 28—July 1, 1949), Pushthrough (June 24, 1949), Milltown (June 26, 1949), Hermitage (June 26, 1949)
The moth was very common during the latter half of June in most of the localities visited along the south coast and in the southwestern part of the island. Especially at Port aux Basques the moths occurred frequently, and they were found in all kinds of localities. They were most numerous on small marshes between the summits of the coastal mountains and they were observed visiting *Eriophorum* (which was, perhaps, attacked by Aphids) in big swarms. After the first days of July the moths disappeared, but a new brood appeared again in August.

*Leucania pallens* L. ssp. *luteopallens* Sm.

**Distribution:** The species has a wide range in North America, extending from the Maritime Provinces of Canada southward to the Gulf of Mexico and westward to the Pacific.

**Finds from Newfoundland:**
W.Nfld.: Corner Brook (August 14, 1949)
NW.Nfld.: Cow Head (August 11, 1949)

In the former locality mentioned above the species was scarce, in the latter abundant. All the specimens were captured on the flowers of *Chamaenerion angustifolium*.

*Cucullia lucifuga* Schiff. ssp. *intermedia* Speyer

**Distribution:** Occurs in the eastern and central parts of southern Canada and the northern United States, extending westward to the Rocky Mountains.

**Finds from Newfoundland:**
W.Nfld.: Stephenville Crossing (July 7, 1949), Spruce Brook (July 8, 1949), Corner Brook (July 11, 1949) Woody Point (July 17, 1949)
NW.Nfld.: Eddies Cove W. (July 28, 1949), Port au Choix (August 5, 1949)

From the above it is clear that this species occurred in several localities along the west coast of Newfoundland. It was not, however, common. The most favoured localities were the flourishing meadows in the surroundings of villages and farms.

*Cucullia florea* Gn.

**Distribution:** Extends from eastern Canada and the Atlantic States westward to Montana and Colorado.

**Finds from Newfoundland:**
W.Nfld.: Spruce Brook (July 8, 1949)

I captured a single specimen of this *Cucullia* species at Spruce Brook where it was flying in an open glade in an *Acer spicatum* wood.

*Homohadena badistriga* Grt.

**Distribution:** The species has a wide range, extending from the Atlantic regions of Canada and the United States westward to Texas, Kansas and Colorado.

**Finds from Newfoundland:**
C.Nfld.: Millertown Junction (August 21, 1949)

I have only one specimen of this species from 1949. The moth was found under a stone on the shore of a little pond near the station at Millertown Junction.

*Apharetra dentata* Grt.

**Distribution:** Eastern and central Canada and the northern United States, westward at least to Alberta.
Find from Newfoundland:
C.Nfld.: Glenwood (August 23, 1949)
One female specimen found flying in the bush thickets on the shore of Gander River.

*Graptolita leptida* Lintner
Distribution: Canada, New England States, Northern New York (Smith 1900—01).

Find from Newfoundland:
E.Nfld.: Gambo (August 27, 1949)
The species was noticed at Gambo only, where the moth was attracted to sugar-baits on hills overgrown with bushes west of the village.

*Xylena nupera* Lintner
Reported from Carbonear, SE.Nfld., by Bruton (1930, found by Gosse).

*Platypolia aniceps* Steph.
Distribution: Occurs in eastern Canada ranging southward to the northern Atlantic States.

Find from Newfoundland:
C.Nfld.: Gander (September 1, 1949)
I have only one specimen of this late-flying species. It was captured on a lamp by the airport at Gander.

*Mniotype ducta* Grt.
Distribution: The species occurs in eastern Canada (Quebec, Nova Scotia) (McDunnough, 1946, p. 33) and in the New England States.

Find from Newfoundland:
NW.Nfld.: Eddies Cove W. (July 30, 1949), Port au Choix (August 3—5, 1949), Cow Head (August 7—9, 1949)
This species, which was noted in the northwestern part of Newfoundland only, was not uncommon on sugar-baits during the first week of August.

*Mniotype ferida* Sm.
Distribution: The description of this species is based on females from Newfoundland (McDunnough 1946, p. 33). It is also known from Hopedale, Labrador.

Find from Newfoundland:
NW.Nfld.: Port au Choix (August 3, 1949)
In my collection from 1949 there are three specimens which I have determined as belonging to this species. They were captured by sugaring at Port au Choix, on a peat-bog with *Picea mariana* on the peninsula west of the village.

*Brachionycha borealis* Sm.
Distribution: Eastern Canada, extending southward to Pennsylvania.

Find from Newfoundland:
C.Nfld.: Gander (larvae, September 1, 1949)
E.Nfld.: Gambo (larvae, August 26—27, 1949)
The characteristic caterpillar of this moth (which was very like that of the European *nubeculosa*) occurred on small birches at Gambo and Gander. Since the moth occurs early in the spring, it was not found in 1949 in the imago stage.

*Septis verbascoides* Gn.
Distribution: The species occurs in eastern Canada and in the northern and middle Atlantic States.
Finds from Newfoundland:

NW.Nfld.: Eddies Cove W. (July 30, 1949), Cow Head (August 8, 1949)
I have in my collection from 1949 four specimens of this species, all captured on the west coast and all on sugar-baits.

Septis vultuosa Grt.
Finds from Newfoundland:
NW.Nfld.: Eddies Cove W. (July 28, 1949), Port au Choix (August 4—5, 1949)
The species, which is the species corresponding to the European ruea, was noted in the northwesternmost part of Newfoundland only. There, however, it was fairly common, flying in open places in spruce woods, and visiting flowers and sugar-baits.

Septis arctica Frr.
Distribution: The species has a wide range in North America, extending from Labrador and the eastern parts of Canada and the United States westward to Colorado, California, Washington and Montana.
Finds from Newfoundland:
S.Nfld.: Grand Bruit (ex pupa, July 1, 1949)
W.Nfld.: Corner Brook (August 14-16, 1949)
NW.Nfld.: Cow Head (August 8—10, 1949), Port au Choix (August 3—5, 1949)
C.Nfld.: Kittys Brook (August 18, 1949)
A common species in Newfoundland, which seems to be widely distributed over the island. The species occurred in very different kinds of localities. One pupa was found on the coastal tundra in the south. The moths were abundant in spruce woods and on peat-bogs as well as in the cities and villages, where they were attracted to light. The species was most numerous at Port au Choix on the northwestern peninsula.

Septis alia Gn.
Distribution: Widely distributed in North America, extending from Labrador and the Atlantic to the Pacific.
Finds from Newfoundland:
W.Nfld.: Woody Point (July 16, 1949)
NW.Nfld.: Eddies Cove W. (July 30, 1949)
This moth was taken in cultivated areas only, on the fields round the settlements mentioned above. The species was not abundant.

Septis indocilis Wlk.
Distribution: Eastern Canada and the northern Atlantic States, extending southward to New York, westward to the Rocky Mountains.
Finds from Newfoundland:
NW.Nfld.: Eddies Cove W. (July 28, 1949)
A single specimen of this Septis species was recorded. It occurred in an open coniferous wood near the sea shore of the village mentioned.

Septis basilinea Fabr. ssp. finitima Gn.
Distribution: A circumpolar species, which in North America occurs throughout the entire continent from the Atlantic to the Pacific.
Finds from Newfoundland:
W.Nfld.: Woody Point (July 16, 1949)
NW.Nfld.: Port au Choix (August 3, 1949)
Harry Krogerus: The Lepidoptera of Newfoundland

NE.Nfld.: Lewisporte (June 15, 1951)

The North American race *finitima* occurred in cultivated areas in conformity with the European form. All specimens were captured on flowers.

*Agroperina lateralita* Hfn.

**Distribution:** A circumpolar species. In North America it is generally distributed throughout Canada and the United States.

**Finds from Newfoundland:**
- W.Nfld.: Woody Point (July 16—20, 1949)
- NW.Nfld.: Doctors Brook (July 31, 1949)

This common European species appears to be rather scarce in Newfoundland. As in Europe it occurred most commonly on cultivated fields in the surroundings of human settlements. The majority of my specimens are from Woody Point.

*Agroperina dubitans* Wlk.

**Distribution:** General throughout the continent, from Labrador to British Columbia and from the Atlantic States to California.

**Finds from Newfoundland:**
- W.Nfld.: Corner Brook (August 14—16, 1949)
- NW.Nfld.: Cow Head (August 7—12, 1949), Port au Choix (August 3—5, 1949), Eddies Cove W. (July 28—30, 1949), St. Anthony (ex pupa, August 8, 1949)
- C.Nfld.: Kittys Brook (August 17—18, 1949), Millertown Junction (August 20—21, 1949)
- E.Nfld.: Gambo (August 27, 1949)
- SE.Nfld.: St. John's (August 28—30, 1949)

Previously reported from Carbonear, SE.Nfld., found by Goss (BRUTON 1930)

Next to *Graphiphora smithi*, *Agroperina dubitans* was the most frequent *Phalaenidae* species in Newfoundland in 1949. The first specimens appeared in the last days of July and from that time until the end of August the species was very numerous in almost every locality visited. The moths swarmed on sugar-baits, but they were also attracted to light and to the flowers of *Tilia*, in the town of Corner Brook.

*Agroperina inficita* Wlk.

**Distribution:** The species is northern in its distribution and occurs in eastern Canada, extending from Newfoundland and Nova Scotia to Quebec.

**Finds from Newfoundland:**
- W.Nfld.: Corner Brook (August 15, 1949)
- NW.Nfld.: Cow Head (August 7—11, 1949), Port au Choix (August 3—5, 1949), St. Barbe (ex pupa, August 8, 1949)
- C.Nfld.: Kittys Brook (August 18, 1949)
- E.Nfld.: Gambo (August 27, 1949)

**Draudt** (in SEITZ, 1924) reports the species from Newfoundland.

This species occurred together with *Agroperina dubitans*, at the same time and in the same kinds of localities. *A. inficita* was, however, less abundant, although not at all scarce. The ground colour of the forewings varies from pale grey-yellow to dark red-yellow. This species was most numerous at Cow Head on sugar-baits.

*Crymodes devastator* Brace

**Distribution:** General throughout the entire North American continent, from
the Maritime Provinces in eastern Canada westward to British Columbia and Alaska, and from the Atlantic States to California.

Finds from Newfoundland:
W. Nfld.: Corner Brook (August 14—16, 1949)
NW. Nfld.: Cow Head (August 7—11, 1949), Port au Choix (August 3, 1949), Port Saunders (August 6, 1949), Eddies Cove W. (July 30, 1949), St. Anthony (ex pupa, August 6, 1949)

The species was common along the west coast of Newfoundland, where it occurred at several places on the grass meadows near the villages as well as on the seashore under stones. It also visited sugar-baits.

*Trichoplexia exornata* Moesch.

*Draudt* (in *Seitz*, 1924) reports the species from Newfoundland.

*Luperina passer* Gn.

This species, which is widely distributed in North America, has formerly been reported from Newfoundland (*Draudt* in *Seitz*, 1924).

*Eremobina claudens* Wlk.

Distribution: Extends from Newfoundland and Nova Scotia westward to the Rocky Mountains, southward to the middle Atlantic States.

Finds from Newfoundland:
W. Nfld.: Corner Brook (August 14, 1949)
E. Nfld.: Gambo (August 27, 1949)

Formerly reported from Carbonear, SE. Nfld., found by Goss*E* (Bruton 1930).

From the former place I have only one specimen, which was found on an aphid-attacked *Angelica* in a brook valley. At Gambo the species occurred very frequently, and I have a long series of specimens which were all captured with a lamp.

*Helotropha reniformis* Grt.

Distribution: Extends from the Atlantic regions of Canada and the United States westward to Montana.

Finds from Newfoundland:
NW. Nfld.: Eddies Cove W. (July 31, 1949), Port au Choix (August 3—5, 1949), Cow Head (August 7—11, 1949)
SE. Nfld.: St. John’s (August 28, 1949)

The finds of this species are concentrated in two different areas of the island: the northwesternmost part and the Avalon Peninsula in the southeast. In both these areas the species was not scarce, occurring on sugar-baits and at St. John’s also on the flowers of *Senecio jacobea*. It was also attracted to light.

*Apamea velata* Wlk.

Distribution: The species is distributed throughout the eastern parts of Canada and the United States.

Finds from Newfoundland:
W. Nfld.: Corner Brook (August 14—16, 1949)
E. Nfld.: Gambo (August 27, 1949)
SE. Nfld.: St. John’s (August 28—30, 1949)

This moth was very common in two places: in the towns of Corner Brook and St. John’s. In the former town it occurred frequently on the limetree flowers in the parks, in the latter on the flowers of *Senecio jacobea* in a brook valley. At Gambo some specimens were captured on a lamp.
Apamea americana Spyer

Distribution: Widely distributed, extending from the Atlantic westward to California and Colorado.

Find in Newfoundland:
C.Nfld.: Kittys Brook (August 17, 1949), Glenwood (August 23, 1949)
E.Nfld.: Gambo (August 27, 1949)
SE.Nfld.: St. John’s (August 28—30, 1949)

The species was most numerous at St. John’s, occurring on flowers in the town and its surroundings. The moth was also captured by sugaring and on light.

Hydrocia micacea Esp.

Distribution: The species occurs in eastern Canada and in the northern Atlantic States. It is, perhaps, introduced from Europe.

Find in Newfoundland:
W.Nfld.: Corner Brook (August 14, 1949)

One specimen of this European species was recorded, flying to a lamp in the town mentioned.

Euplexia benesimilis McD.

Distribution: The species occurs all over the United States and Canada, from the Atlantic westward to Alberta and Montana.

Find in Newfoundland:
S.Nfld.: Burgeo, Grandy Brook (June 22, 1949)
W.Nfld.: Table Mountain (June 29, 1949)

NW.Nfld.: Eddies Cove W. (July 28—31, 1949), Port au Choix (August 4, 1949)

The first specimens of this species, which were found on the tundra-like south coast, occurred as early as the latter half of June. The majority of my specimens, however, originate from the northwestern peninsula, where the species was found in the last days of July and in August, frequently visiting sugar-baits in glades in coniferous woods.

Phlogophora iris Gn.

Distribution: Eastern Canada and the northern Atlantic States, extending southward to southern New York.

Find from Newfoundland:
W.Nfld.: Woody Point (July 16, 1949)

One specimen was taken on the flowers of Kalmia angustifolia in a wet Picea mariana wood on the hills west of the village of Woody Point.

Phlogophora periculoa Gn.

Distribution: A very common species in North America, which is generally distributed from the Atlantic to the Pacific throughout Canada and the United States.

Find from Newfoundland:
W.Nfld.: Corner Brook (August 14—16, 1949)
NW.Nfld.: Cow Head (August 7—11, 1949), Port au Choix (August 3—5, 1949), Eddies Cove W. (July 28—30, 1949)
C.Nfld.: Kittys Brook (August 17—18, 1949), Millertown Junction (August 20, 1949), Glenwood (August 23, 1949)
E.Nfld.: Gambo (August 27, 1949)

Reported from Newfoundland by Draudt (in Seitz 1924)

The species was common in August in most places visited during this month. It was a rather frequent moth on the sugar-baits, and was found in very different kinds of localities. A few of the specimens belong to the aberrant form v.-brunnea.
Euherrichia monetifera Gn.

Distribution: The species is distributed from southern Canada to Florida.

Find from Newfoundland:
W.Nfld.: Stephenville Crossing (July 6, 1949)

A single specimen of this very pretty moth was found under a stone in a spruce wood by the mouth of Harry's River.

Amphipyra pyramidoides Gn.

Distribution: General throughout southern Canada and the United States from the Atlantic to the Pacific.

Find from Newfoundland:
C.Nfld.: Kittys Brook (August 18, 1949)

This common American species was apparently scarce in Newfoundland, for only one specimen was recorded in 1949. This moth I captured by sugaring near the railway station at Kittys Brook.

Amphipyra tragopogonis L.

Distribution: A circumpolar species. In North America it has a wide range in southern Canada and the northern United States.

Find from Newfoundland:
W.Nfld.: Corner Brook (August 15—16, 1949)
E.Nfld.: Gambo (August 27, 1949)
SE.Nfld.: St. John's (August 28—30, 1949)

In all, six specimens of this species were recorded from Newfoundland in 1949. Most of them were attracted to lamps in the settlements mentioned.

Andropolia contacta Wlk.

Distribution: Extends from the Maritime Provinces of Canada and the middle Atlantic States westward to the Rocky Mountains (Montana).

Find from Newfoundland:
C.Nfld.: Gander (September 1, 1949)
E.Nfld.: Gambo (August 27, 1949)

The species appeared late in August and was quite frequent during the end of my sojourn in Newfoundland in 1949. All the specimens in my collection were captured on lamps, and the most of them are from the surroundings of Gander Airport.

Hyppa xylinoides Gn.

Distribution: Extends from eastern Canada westward to British Columbia, southward on the Atlantic coast to southern New York. It is very closely related to the palearctic rectilinea.

Find from Newfoundland:
W.Nfld.: Woody Point (July 17, 1949), Glenburnie (July 18, 1949)
NW.Nfld.: Cow Head (August 7, 1949), Port au Choix (August 3—5, 1949), Eddies Cove W. (July 28—30, 1949)

Previously reported from Carbonear, SE.Nfld., found by Gosse (Bruton 1930).

This species was a native of the dark, swampy woods with black spruce and balsam fir. Especially in the northwesternmost parts of the island it was rather common, and the bulk of my specimens originate from Eddies Cove W. and Port au Choix. Most of the specimens were captured by sugaring.
Elaphria festioides Gn.

Distribution: The species has a wide range, extending from southern Canada southward to Florida, westward to Texas.

Finds from Newfoundland:
W.Nfld.: South Branch (July 4, 1949)

Of this little species I have a series (five males and one female) from a place about three miles north of the railway-station at South Branch in the Codroy valley. The moths were flying on the margin of a great open peat-bog in the sunshine in the afternoon, among a vegetation of bushes and small spruces. Habitually the specimens differ rather much from specimens from the eastern United States, and it is possible that the Newfoundland specimens belong to an undescribed species.

Pyrrhia umbra Hufn.

Distribution: A circumpolar species. In North America it is found throughout the northern United States and southern Canada.

Finds from Newfoundland:
W.Nfld.: South Branch (July 2, 1949)

One male specimen in my collection from 1949. The moth was taken among the dense vegetation on the shore of Codroy River, South Branch.

Eras tria bellicula Hbn.

Distribution: Extends from eastern and central Canada southward to New York, westward to Colorado.

Finds from Newfoundland:
NW.Nfld.: Eddies Cove W. (July 28, 1949)

One specimen found in 1949. The moth was taken on the edge of an open peat-bog with Kalmia vegetation.

Eras tria albidula Gn.

Distribution: Extends from Newfoundland, eastern Canada and the Atlantic States westward to the Pacific.

Finds from Newfoundland:
S.Nfld.: Cinq Cerf River (June 14—17, 1949), Grand Bruit (June 18, 1949), Burgeo, Grandy Brook (June 22—23, 1949), Port aux Basques (June 28—July 1, 1949)
W.Nfld.: South Branch (July 2—4, 1949), Stephenville Crossing (July 5—7, 1949), Piccadilly (July 7, 1949), Steady Brook (July 10, 1949), Lomond (July 14, 1949), Woody Point (July 16, 1949)

Previously recorded from Newfoundland (DRAUDT, in SEITZ 1924)

A very common species in late June and early July, which was noticed in almost every place visited at that time. Its habitats were brook and river valleys with dense bush vegetation of Alinus, Amelanchier, Cornus, etc., and the bush and hardwood thickets on the margins of cultivated fields.

Eras tria carneola Gn.

Distribution: Eastern Canada, extending southward to New York, westward to Illinois (DRAUDT, in SEITZ 1924).

Finds from Newfoundland:
W.Nfld.: South Branch (July 2, 1949).

This moth was noticed at South Branch only, where it occurred on cultivated fields and in thickets around the Codroy River.
Nycteola frigidana Wlk.

Distribution: Occurs across the entire Dominion of Canada (Nova Scotia, Quebec, Ontario, Manitoba, Alberta, British Columbia) (McDunough 1943, p. 61), and also in the northern parts of the United States.

Finds from Newfoundland:
W.Nfld.: Corner Brook (larvae, August 16, 1949)

On small Salix bushes on the verges of a road about seven miles south of Corner Brook I found a lot of caterpillars of this species. The imagines emerged in September 1949.

Autographa falcifera Kby.

Distribution: The species occurs in the eastern and central parts of Canada and the United States.

Finds from Newfoundland:
S.Nfld.: Port aux Basques (June 28–30, 1949)
W.Nfld.: South Branch (July 3, 1949)

All my specimens of this Autographa species originate from the southwestern corner of Newfoundland, and they are all worn and had evidently flown much. At Port aux Basques they appeared on the low coastal hills with tundra vegetation, at South Branch on the open fields by the railway-line.

Autographa rectangula Kby.

Distribution: Extends across the entire Canada from Nova Scotia to British Columbia, southward to the middle United States.

Finds from Newfoundland:
W.Nfld.: Corner Brook (August 14, 1949)
NW.Nfld.: Cow Head (August 7–12, 1949)
E.Nfld.: Gambo (August 27, 1949)

Autographa rectangula occurred frequently in Newfoundland from the first week of August onwards, and was distributed over the island from the west coast to the east coast. The species was observed flying in the sunshine as well as at night in all kinds of localities: sandy areas along the western shore, dry flourishing fields and meadows, wet open glades in spruce woods and among the thickets along the rivers. The favourite flowers visited by the moths at night were those of Chamaenerium angustifolium, whereas during the day-time the most visited flowers were Cirsium, Sanguisorba canadense, Aster, Solidago and Eupatorium.

Autographa alias Ottol.


Finds from Newfoundland:
NW.Nfld.: Port au Choix (August 5, 1949), Cow Head (August 7–12, 1949)
C.Nfld.: Kittys Brook (August 17–18, 1949), Gander (September 1, 1949)
E.Nfld.: Gambo (August 26–27, 1949)
SE.Nfld.: Come-by-Chance (August 27, 1949), St. John’s (ex pupa, July 3, 1949), Portugal Cove (ex pupa, July 2, 1949)

Specimens of the genus Autographa which in their general habit look like the European species interrogationis L. were very abundant in August. A revision of the collection of these, based upon studies of the genitalia, revealed that three different species are to
be distinguished. Of these three, the species which I have called alias (the determination verified by Mr. D. C. Ferguson, Halifax) most nearly resembles the preceding species rectangula in its general habit and as regards the genitalia. It also occurred together with rectangula at the same time and in similar localities.

**Autographa altera** Ottol.
**Distribution:** The species occurs in the central and eastern parts of Canada and in the northern Atlantic States of the United States.

**Finds from Newfoundland:**
NW.Nfld.: Cow Head (August 7–8, 1949)

I have two female specimens, captured on the flowers of *Chamaenerium angustifolium*, which I have with some hesitation determined as belonging to *altera*. They show an evident similarity with the European *interrogationis*, but the genitals show that they are not identical with this.

**Autographa octoscripta** Grt.
**Distribution:** Extends across the entire continent from eastern Canada to Alaska, ranging southward to Washington and the middle Atlantic States.

**Finds from Newfoundland:**
W.Nfld.: Corner Brook (August 14–15, 1949)
C.Nfld.: Kittys Brook (August 17–18, 1949)

This species appeared somewhat earlier than the two preceding species, at the end of July. It had also disappeared by the middle of August. It was, however quite as common as the species *alia*, and likewise flew in the sunshine as well as at night. All my specimens were captured on flowers; the most visited were *Chamaenerium angustifolium* and also *Circium* and other *Compositae*.

**Autographa epigaea** Grt.
**Distribution:** The species occurs in southern Canada and in the Atlantic States (Massachusetts, New York) and extends westward as far as to Colorado.

**Finds from Newfoundland:**
NW.Nfld.: Cow Head (August 8, 1949)

This large, well-marked species was common during the latter half of August. The moths were flying in bright sunshine in very different kinds of habitats, but mostly in areas where flowering *Solidago, Aster, Eupatorium* and other *Compositae* were plentiful.

**Autographa ampla** Wlk.
**Distribution:** Extends across Canada from the Maritime Provinces to British Columbia. Occurs also in the eastern and northern States of the United States.

**Finds from Newfoundland:**
W.Nfld.: Corner Brook (August 14–15, 1949)

In 1949 I found only two male specimens of this pretty species. They were both captured at night on *Chamaenerium angustifolium* flowers on the hillsides east of the town of Corner Brook.
Autographa selecta Wlk.

Distribution: Extends throughout the entire Canada and the northern United States from the Atlantic to the Pacific.

Finds from Newfoundland:
NW.Nfld.: Port au Choix (August 3—5, 1949), Cow Head (August 7—11, 1949)
C.Nfld.: Kittys Brook (August 18, 1949)
E.Nfld.: Gambo (August 27, 1949)

I collected in all ten specimens of Autographa selecta. The species was most numerous in the above places in the northwestern peninsula. The bulk of the specimens were taken on Chamaenerium angustifolium flowers.

Autographa brassicae Riley.

According to BRUTON (1930) this species has been found at Carbonear, SE.Nfld., by GOSSE.

Autographa putnami Grt.

According to BRUTON (1930) found at Carbonear, SE.Nfld., by GOSSE.

Autographa bimaculata Steph.

Distribution: Extends from the Atlantic regions of Canada and the United States westward to the Rocky Mountains and New Mexico.

Finds from Newfoundland:
W.Nfld.: Corner Brook (August 14—16, 1949)
NW.Nfld.: Cow Head (August 7—12, 1949)
E.Nfld.: Gambo (August 27, 1949)

Previously reported from Carbonear, SE.Nfld., found by GOSSE (BRUTON 1930).

This characteristic Autographa species seems to be widespread over the island. It occurred quite commonly in August, and was seen visiting almost all kinds of flowers, flying in the sunshine as well as at night.

Autographa mappa G. & R.

Distribution: Occurs in eastern and central Canada and in the northeastern United States.

Finds from Newfoundland:
NW.Nfld.: Port au Choix (August 5, 1949)
C.Nfld.: Kittys Brook (August 18, 1949)

Two specimens recorded. One of them was taken on Chamaenerium angustifolium flowers in the village of Port au Choix, the other in a maple grove near the railway-station at Kittys Brook.

Autographa pseudogamma Grt.

The form freya Strand. of this species has been reported from Newfoundland (DRAUDT, in SEITZ 1924).

Autographa flagellum Wlk.

Distribution: The species ranges from Quebec across the eastern and central parts of Canada to Alberta.

Finds from Newfoundland:
NW.Nfld.: Eddies Cove W. (July 30, 1949), St. John Island (August 3, 1949), Cow Head (August 7, 1949)
All my specimens originate from the west coast area. The species occurred on peat-bogs with *Kalmia* vegetation and in the sand-dune areas on the shore of Strait of Belle Isle, where the moths visited the flowers of *Chamaenerium angustifolium*.

*Pseudeva purpurigera* Wlk.

**Distribution:** The species ranges from eastern Canada and New England westward to Colorado and New Mexico.

**Finds from Newfoundland:**
C.Nfld.: Kittys Brook (August 18, 1949), Glenwood (August 22--23, 1949)

This species was a native of habitats with thickets with rich ground vegetation. In all I collected only four specimens and they were all flying at night.

*Chrysanympnpha formosa* Gt.

**Distribution:** So far I know this species has been found in the northern Atlantic States only (Maine, Massachusetts, New York, New Jersey).

**Find from Newfoundland:**
C.Nfld.: Kittys Brook (August 18, 1949)

My collection contains only one specimen of this characteristic pretty species. It was taken in a rich grove by Kittys Brook, where *Diervilla* was the dominant plant among the ground vegetation.

*Catocala unijuga* Wlk.

**Distribution:** A widely distributed species, the range of which is northern, extending from eastern Canada and New England through Canada to the Northwest Territory and through the central United States to Colorado.

**Finds from Newfoundland:**
NW.Nfld.: Doctors Brook (July 31, 1949), Port au Choix (August 3, 1949), Cow Head (August 7, 1949)

The first find mentioned was of a male, which, remarkably, was taken flying in the sunshine on a meadow at the mouth of Doctors Brook. From each of the other two places I have one female specimen. They were both taken by sugaring in spruce woods.

*Catocala briseis* Edw.

**Distribution:** The species ranges from Newfoundland, Nova Scotia and the New England States westward to Illinois, Michigan, Wisconsin, Colorado, British Columbia and Mackenzie River (60°).

**Finds from Newfoundland:**
NW.Nfld.: Cow Head (August 8, 1949)

Previously reported from Newfoundland by Draudt (in Seitz 1924.)

One specimen captured by sugaring in a sandy conifer wood north of the village of Cow Head.

*Catocala ilia* Cram. form *normani* Bartsch

This species, which has a wide range in North America, has been reported from Newfoundland (Draudt, in Seitz 1924).

*Caenurgina crassiuscula* Haw.

**Distribution:** General across the North American continent from the Atlantic to Mexico.

**Finds from Newfoundland:**
S.Nfld.: Cinq Cerf River (June 17, 1949), Grand Bruit (June 19, 1949), Burgeo (June 21, 1949), Grandy Brook (June 24, 1949)
This species appeared in June in several places on the tundra-like areas along the south coast of the island. It was not, however, common. The moths were caught during the daytime, flying in the sunshine. In early August two specimens were recorded from the northwestern peninsula, both occurring on peat-bogs.

Scoliopteryx libatrix L.

**Distribution:** The species has a world-wide distribution and occurs in North America all over the continent.

**Finds from Newfoundland:**

W.Nfld.: South Branch (July 4, 1949), Corner Brook (July 11, 1949, larvae August 14—16, 1949)

C.Nfld.: Glenwood (August 22, 1949)

E.Nfld.: Gambo (August 27, 1949)

Hibernated specimens appeared on sugar-baits in early July. In the middle of August I took some full-grown larvae on willows by Corner Brook (they emerged in late August) During the last week of August the moth appeared again, and was not uncommon in areas with *Salix* thickets.

**Bomolocha bijugalis** Wlk.

**Distribution:** Extends from Canada to Florida and westward to the Rocky Mountains (HOLLAND 1934).

**Finds from Newfoundland:**

W.Nfld.: Corner Brook (July 11, 1949), Lomond (July 14, 1949), Glenburnie (July 18—19, 1949)

The habitats of this species, of which I have only four specimens, were shady, somewhat wet spruce woods with rich ground vegetation.

**Rivula propinqualis** Gn.

**Distribution:** Extends from the Atlantic States and Nova Scotia westward to Texas and the Rocky Mountains (HOLLAND 1934).

**Finds from Newfoundland:**

W.Nfld.: Corner Brook (July 9, 1949), Lomond (July 14—15, 1949), Woody Point (July 16—17, 1949), Glenburnie (July 18—19, 1949)

NW.Nfld.: Eddies Cove W. (July 28—30, 1949), Doctors Brook (July 31, 1949), Cow Head (August 7, 1949)

This little species was common in several places investigated along the west coast of Newfoundland. The moths flew in areas with wet ground and rich ground vegetation in thickets and deciduous woods, as well as in dark spruce woods.

**Lomanaltes eductalis** Wlk.

**Distribution:** Nova Scotia to Minnesota and southward to New York and Pennsylvania.

**Finds from Newfoundland:**

W.Nfld.: South Branch (July 2, 1949), Stephenville Crossing (July 7, 1949), Woody Point (July 17, 1949)

This species was scarce in Newfoundland, and was noticed in the climatically most favourable area only. It was a native of the hardwood thickets around wet fields on the shore of the rivers.

**Chytolita petrealis** Grt.

**Distribution:** The species is distributed over the eastern parts of Canada and the United States.
Finds from Newfoundland:
W.Nfld.: Stephenville Crossing (July 7, 1949), Corner Brook (July 9—11, 1949), Lomond (July 14—15, 1949), Woody Point (July 17, 1949)

The distribution of this species in Newfoundland was much the same as that of the preceding. It was a native of bush thickets and maple groves with somewhat wet ground.

*Philometra metonalis* Wlk.

Distribution: Extends from Nova Scotia and the region of Hudson Bay to Virginia and westward to Illinois (Holland 1934).

Finds from Newfoundland:
W.Nfld.: Corner Brook (August 14, 1949), Lomond (July 15, 1949), Glenburnie (July 18—19, 1949)

This species occurred in luxuriant, damp woods with black spruce and balsam fir. At Lomond it was numerous.

*Camptlochila americalis* Gn.

Distribution: The range of this species is from Canada to Texas east of the Rocky Mountains. It is common in the Appalachian subregion (Holland 1934).

Finds from Newfoundland:
W.Nfld.: Woody Point (July 19, 1949)

One specimen found on the slopes of the Table Mountain, flying in a wet *Larix* wood.

*Camptlochila aemula* Hbn.

Distribution: The species formerly called *aemula* has been divided into several species, the range of which are uncertain. Mr. D. C. Ferguson has examined my specimens from Newfoundland, and according to him they belong to *consisa* Wlk. or to an undescribed species.

Finds from Newfoundland:
NW.Nfld.: Eddies Cove W. (July 28—30, 1949)

Five specimens of this species were noticed, all on sugar-baits in a wet black spruce wood some miles east of the village mentioned.

*Palthis angulalis* Hbn.

Distribution: The species occurs in eastern and central parts of Canada and the United States, extending southward to the Gulf of Mexico.

Finds from Newfoundland:
W.Nfld.: South Branch (July 3, 1949), Corner Brook (July 11, 1949), Steady Brook (July 10, 1949), Lomond (July 14—15, 1949)

NW.Nfld.: Eddies Cove W. (July 28, 1949), Port au Choix (August 3, 1949)

This well known species was an inhabitant of leafy thickets with *Cornus, Amelanchier, Viburnum, Alnus*, etc., on somewhat wet ground.

*Schrankia turfosalis* Wocke.

Distribution: No previous records of this palearctic species from North America. It has a wide range across the northern parts of Europe and Asia, occurring on peat-bogs.

Finds from Newfoundland:
W.Nfld.: Corner Brook (July 11, 1949), Lomond (July 14, 1949), Woody Point (July 19, 1949), Glenburnie (July 18—19, 1949)

NW.Nfld.: Daniels Harbour (July 22—23, 1949), Eddies Cove W. (July 28—August 2, 1949)

C.Nfld.: Kittys Brook (August 17—18, 1949)
This smallest Hypenidae species occurred frequently in wet localities; especially on open peat-bogs with *Kalmia*, *Ledum*, *Cameadaphne* and other ericaceous plants, but also on wet meadows with *Carices* and *Eriophora*.

**Notodontidae**

*Ichtyura apicalis* Wlk.

**Distribution:** Montreal, Quebec to the Pacific, south to Mexico (FORBES 1948).

**Finds from Newfoundland:**
- W.Nfld.: Corner Brook (larvae, August 16, 1949)
- C.Nfld.: Kittys Brook (larvae, August 17—19, 1949), Millertown Junction (larvae, August 22, 1949), Glenwood (larvae, August 23—24, 1949), Gander (larvae, September 1, 1949)
- E.Nfld.: Gambo (larvae, August 26—27, 1949)

The caterpillar of this species frequently occurred on *Salix* in all the localities mentioned above.

*Notodonta simplaria* Graef.

**Distribution:** Canada, extending southward to central New York, westward to British Columbia (FORBES 1948).

**Finds from Newfoundland:**
- C.Nfld.: Millertown Junction (larvae, August 21—22, 1949), Glenwood (larvae, August 23—24, 1949), Gander (larvae, August 31—September 1, 1949)

The species was noted only in the central parts of the island, where the caterpillars fed on *Populus tremuloides*.

*Notodonta stragula* Grote

**Distribution:** Montreal, Quebec, to New Jersey and Pennsylvania, west in races to California.

**Finds from Newfoundland:**
- C.Nfld.: Glenwood (larvae, August 24, 1949)

The larvae of this species were found at Glenwood feeding on willow.

*Phesia rimos* Pack.

**Distribution:** Nova Scotia to Mattagami River, Ontario, south to North Carolina, west to California (FORBES 1948).

**Finds from Newfoundland:**
- W.Nfld.: Corner Brook (larvae, August 14, 1949)
- C.Nfld.: Kittys Brook (larvae, August 18—19, 1949), Gaff Topsail (larvae, August 20, 1949), Millertown Junction (larvae, August 21—22, 1949), Glenwood (larvae, August 23—24, 1949), Gander (larvae, August 31—September 1, 1949)

I did not notice the imago at all, although the caterpillar occurred frequently in most of the localities visited during the later half of August. The majority of the larvae were feeding on *Salix*, but they were found on *Populus tremuloides* also.

*Nadata gibbosa* A. & S.

**Distribution:** Nova Scotia and Quebec to Florida, west to California and British Columbia (FORBES 1948, McDUNNOUGH 1927).

**Finds from Newfoundland:**
- C.Nfld.: Glenwood (larvae, August 23, 1949), Gander (larvae, August 31—September 1, 1949)
E.Nfld.: Gambo (larvae, August 26—27, 1949)

Found in the larval stage only. Some caterpillars were feeding on Amelanchier, the majority, however, on small birches on peat-bogs. At Gambo the species was very abundant.

Schizura ipomeae Dbldy.

Distribution: Generally distributed throughout the United States and southern Canada.

Finds from Newfoundland:
W.Nfld.: Corner Brook (larvae, August 15, 1949)
C.Nfld.: Glenwood (larvae, August 23, 1949)

The characteristic caterpillar of this species, figured by PACKARD (1895), was found feeding on Amelanchier in the two localities mentioned above.

Gluphisia septentrionalis Wlk.

Distribution: Nova Scotia to Hudson Bay, south to Georgia and west in races to the Pacific (FORBES 1948).

Finds from Newfoundland:
C.Nfld.: Millertown Junction (larvae, August 22, 1949), Gander (larvae, August 31—September 1, 1949)

At the former locality mentioned above five larvae were observed on small Populus tremuloides bushes. At Gander the caterpillars were numerous on poplar in the surroundings of the airport.

Liparidae

Notolophus antiqua L.


Finds from Newfoundland:
W.Nfld.: South Branch (larvae, July 2—4, 1949), Corner Brook (larvae, July 11, 1949), Spruce Brook (larvae, July 9, 1949), Steady Brook (larvae, July 10, 1949), Lomond (larvae, July 13—15, 1949), Glenwood (larvae, July 18—19, 1949)
C.Nfld.: Gander (September 1, 1949)

Previously reported from Carbonar, SE.Nfld., found by GOSSE (BRUTON 1930)

The caterpillars of this species were very common in July, feeding on various shrubs. At Lomond and Glenburnie the larvae were extremely numerous. In consequence of the late time of appearance of the moth, only a few specimens of the imago were noted.

Stilpnotia salicis L.

Distribution: The species is introduced on the Atlantic coast, where it extends from Nova Scotia to New England. It occurs also in British Columbia (FORBES 1948).

Finds from Newfoundland:
W.Nfld.: Corner Brook (August 16, 1949)
NW.Nfld.: Cow Head (August 9—10, 1949)

One specimen was taken on a street-lamp in the town of Corner Brook. From Cow Head I have two specimens, one of them captured in a wet Larix wood, the other on a sandy shore near the mouth of Stanford River, among other insects drifting in the sea.

Thyatiridae

Habrosyne scripta Gosse

Distribution: New Jersey to Alberta, north to Gaspé and Alaska (FORBES 1923).
Finds from Newfoundland:
NW.Nfld.: Eddies Cove W. (July 28—30, 1949), Port au Choix (August 3, 1949)

All specimens were taken in open spruce woods by the "sugaring" method. At Eddies Cove W. the species was quite common.

*Pseudothyatira cymatophoroides* Gn.

**Distribution:** Generally distributed across Canada and the northern United States from the Atlantic to the Pacific.

**Finds from Newfoundland:**
W.Nfld.: Corner Brook (July 11, 1949), Lomond (July 14, 1949)

Only two specimens found. One of them I captured on a sugar-bait in the maple thickets east of Corner Brook. The other was found in a swampy spruce wood at Lomond.

_Drepanidae_

*Eudeilinia herminiata* Gn.

**Distribution:** The species is generally distributed over the most of southern Canada and the northern United States.

**Finds from Newfoundland:**
W.Nfld.: Corner Brook (July 11, 1949)

This little species was common in the surroundings of the town of Corner Brook, where it occurred on the hillsides in thickets and leafy woods, including *Corylus, Acer, Amelanchier, Cornus, Salix* etc.

*Oreta rosea* Wlk.

**Distribution:** Occurs in eastern Canada, extending southward to Connecticut, Ohio and New Jersey.

**Finds from Newfoundland:**
W.Nfld.: Corner Brook (July 11, 1949)

One male specimen found in a maple wood with dense bush vegetation on a hillside east of the town of Corner Brook.

_Drepana arcuata* Wlk.

**Distribution:** Extends across Canada from the Maritime Provinces to British Columbia, southward to Pennsylvania and Indiana.

**Finds from Newfoundland:**
W.Nfld.: South Branch (July 4, 1949), Corner Brook (larvae, August 15, 1949)
NW.Nfld.: Eddies Cove W. (July 28, 1949), Pistolet Bay (July 15, 1949)
C.Nfld.: Glenwood (larvae, August 23, 1949)

I have three specimens of this species, all males. The moths occurred in woodlands with rich vegetation of broad-leaved trees and bushes. The larva, feeding on alder, was found in August.

_Geometridae_

*Mesotea incertata* Wlk.

**Distribution:** Newfoundland to Saskatchewan, commonly south to Pennsylvania (FORBES 1948).

**Finds from Newfoundland:**
S.Nfld.: Grand Bruit (June 14—19, 1949), Cinq Cerf River (June 14—17, 1949), Burgeo (June 21, 1949), Grandy Brook (June 22—25, 1949), Port aux Basques (June 28—July 1, 1949)
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W.Nfld.: Table Mountain (June 29, 1949)
SE.Nfld.: St. John's (June 3—5, 1949), Cape Broyle (June 7, 1949), Holyrood (June 10—11, 1949)

One of the commonest moths in Newfoundland in June. It occurred very frequently in tundra-like habitats; near St. John's on the summits of the hills, in all the higher mountains visited in the Avalon Peninsula, and on the coastal tundra along the south coast. The last, very worn specimens were seen in the first days of July and the species was therefore not recorded on the Long Range Mountains north of Table Mountain, which I visited later in July.

*Scopula frigidaria* Moesch.
**Distribution:** Labrador and Newfoundland to northern Quebec and west to Yukon; not found in temperate Canada (Forbes 1948).

**Finds from Newfoundland:**
- W.Nfld.: South Branch (July 4, 1949), Piccadilly (July 7, 1949), Steady Brook (July 10, 1949)

The finds are distributed along the west coast of Newfoundland from South Branch in the southwest to St. Barbe far in the northwest. The species occurred at lower levels as well as on the slopes of the higher mountains of the Long Range. The bulk of the specimens collected were taken in mixed woods with rich ground vegetation.

*Scopula junctaria* Wlk.
**Distribution:** Extends from Newfoundland southward to New York, westward to Alberta (Forbes 1948).

**Finds from Newfoundland:**
- W.Nfld.: South Branch (July 2—4, 1949), Piccadilly (July 7, 1949), Corner Brook (July 9—11, 1949), Lomond (July 15, 1949)

Formerly reported from Newfoundland (Forbes 1948).

My collection of 1949 contains thirteen specimens of this *Scopula* species. They were all taken in areas with deciduous trees and bushes, on hillsides and on the borders of cultivated fields.

*Cosymbia pendulinaria* Gn.
**Distribution:** Nova Scotia to Minaki, Ontario, south to Tennessee, west to British Columbia (Forbes 1948).

**Finds from Newfoundland:**
- S.Nfld.: Grand Bruit (June 14, 1949), Burgeo, Grandy Brook (June 22—24, 1949), Rose Blanche (June 27, 1949), Port aux Basques (June 28—29, 1949)
- W.Nfld.: Corner Brook (July 11, 1949), Lomond (July 14, 1949), Woody Point (July 16—17, 1949), Glenburnie (July 18—19, 1949)
- NW.Nfld.: Eddies Cove W. (July 30, 1949)

The species was common on moorlands of the south coast tundra, but it was also found in thickets and in conifer woodlands at lower level along the west coast.

*Carisia paludata* Thunb. ssp. *thaxteri* Swett.
**Distribution:** A circumpolar species. In North America it extends across the entire Canada from Nova Scotia to British Columbia. The form *thaxteri* is known from Bradore Bay, Quebec, and Cape Breton Id. (Forbes 1948).
Finds from Newfoundland:

C.Nfld.: Gaff Topsail (August 19, 1949)
SE.Nfld.: Come-by-Chance (August 27, 1949)

Noticed in two places only: on the open high plateau near the railway-station of Gaff Topsail, flying on wet Carex bogs, and near Come-by-Chance on the isthmus to the Avalon Peninsula, where the moth was flying on a peat-bog with Kalmia and Ledum Acasis viridata Pack.

Distribution: Nova Scotia and Quebec to Virginia and British Columbia (FORBES 1948).

Find from Newfoundland:

S.Nfld.: Burgeo, Grandy Brook (June 22, 1949)

Only one specimen noticed. It was taken on the margin of a thicket with black spruce and bushes in the valley of a small brook flowing through an open moorland.

Nyctobia limitaria Wlk.

Distribution: Nova Scotia and Quebec to Pennsylvania, a larger race on the Pacific coast (FORBES 1948).

Find from Newfoundland:

C.Nfld.: Gander (June 2, 1949)

This early spring species was captured on a birch-trunk on the shore of the lake called Deadmans Pond near Gander Airport.

Cladara atroliterata Wlk.

Distribution: Quebec to New Jersey, western Ontario and Texas, a race in Alberta and British Columbia (FORBES 1948).

Find from Newfoundland:

C.Nfld.: Gander (June 2, 1949)

One specimen found resting on a spruce trunk in a very thick black spruce wood.

Neodezia albovittata Gn.

Distribution: Extends from Gaspé and Quebec southward to North Carolina westward to the Pacific (FORBES 1948).

Find from Newfoundland:

S.Nfld.: Port aux Basques (June 28—July 1, 1949)

W.Nfld.: Table Mountain (June 29, 1949), South Branch (July 2—4, 1949), Stephenville Crossing (July 5—7, 1949), Piccadilly (July 7, 1949), Spruce Brook (July 8—9, 1949), Steady Brook (July 10, 1949), Lomond (July 13—15, 1949), Glenburnie (July 18—19, 1949)

NW.Nfld.: St. Barbe (July 26, 1949), Eddies Cove W. (July 28, 1949)

A common species in Newfoundland. After its first appearance in the last days of June, it was found in almost every place visited along the west coast until the end of July. It occurred frequently in some types of localities, especially in wet spruce woods with rich vegetation, and in small brook valleys on the mountains, where balsam and black spruce thickets constituted the main vegetation. The moths flew in the sunshine.

Oporophyllum bruceata Hlst.

According to BRUTON (1930) found at Carbonear, SE. Nfld., by GOSSE.

Oporinia autumnata Gn.

This circumpolar species, which has a wide range in North America from the Atlantic to the Pacific right across Canada, has been reported from Newfoundland (FORBES 1948).
Calocalpe undulata L.
According to Bruton (1930) found at Carbonear, SE.Nfld., by Gosse.

Eupithecia palpata Packard
Distribution: General throughout the eastern United States and Canada, extending southward at least as far as North Carolina (McDunnohugh 1949).
Finds from Newfoundland:
S.Nfld.: Burgeo, Grandy Brook (June 25, 1949)
W.Nfld.: South Branch (July 2-3, 1949), Stephenville Crossing (July 6, 1949)
NW.Nfld.: Daniels Harbour (July 22—23, 1949)

This species was somewhat local. In the places mentioned above it occurred frequently in spruce woods with black spruce, balsam and tamarack.

Eupithecia castigata Hb.
Distribution: A circumpolar species. Generally distributed in North America, across the northern half of the continent, extending down the Pacific coast into Oregon and presumably California (McDunnohugh 1949).
Finds from Newfoundland:
W.Nfld.: Woody Point (July 16, 1949)
NW.Nfld.: Eddies Cove W. (July 28—August 3, 1949), St. Barbe (July 26, 1949)

Of this common European species I have four specimens in my collection from Newfoundland, all captured on meadows and open glades in woodlands.

Eupithecia albipunctata Haw.
Finds from Newfoundland:
W.Nfld.: Corner Brook (July 11, 1949)
NW.Nfld.: Flowers Cove (July 25, 1949), Port au Choix (August 5, 1949)

Three specimens, all females, were recorded on the flowers of Chamaenerium angustifolium.

Eupithecia lariciata Frr. ssp. luteata Packard
Finds from Newfoundland:
S.Nfld.: Burgeo, Grandy Brook (June 24, 1949)
W.Nfld.: South Branch (July 3, 1949), Stephenville Crossing (July 6, 1949), Woody Point (July 17, 1949)

The species occurred in spruce woods together with E. palpata, but was much scarcer than the latter.

Eupithecia nimbicolor Hulst.
Distribution: A Rocky Mountain species which ranges eastward to Ontario, Quebec and Maine (McDunnohugh 1949).
Finds from Newfoundland:
S.Nfld.: Cinq Cerf River (June 14, 1949), Burgeo, Grandy Brook (June 24, 1949)

Found only in the south coast area, where it occurred on bogs and moorlands of the tundra. The bulk of the specimens were found resting on stones on the low coastal hills.
Eupithecia strattonata Packard

Distribution: Widespread over the New England and north Atlantic states, extending westward to Michigan and throughout eastern Canada (McDunnough 1949).

Finds from Newfoundland:
S.Nfld.: Port aux Basques (July 1, 1949)
W.Nfld.: Woody Point (July 16, 1949)

Two specimens, both males, recorded. One of them was captured on the top of the mountain near Port aux Basques, the other on the slopes of Table Mountain west of Bonne Bay.

Eupithecia grata Taylor

Distribution: Eastern Canada, possibly extending to the western provinces (McDunnough 1949).

Finds from Newfoundland:
S.Nfld.: Port aux Basques (June 28, 1949)

Only one female specimen noticed. It was captured in a brook valley with rich vegetation on the coastal mountains by Port aux Basques.

Eupithecia russeliata Swett

Distribution: Eastern United States and Canada (McDunnough 1949).

Finds from Newfoundland:
S.Nfld.: Grand Bruit (June 19, 1949), Burgeo, Grandy Brook (June 24, 1949), Port aux Basques (June 29—July 1, 1949)
W.Nfld.: Woody Point (July 17, 1949)

This spruce-eating species was found in several places along the south coast, occurring in spruce and balsam thickets in the brook valleys.

Eupithecia coagulata Gn.

Distribution: Widespread, extending from the eastern United States and Canada across the continent to British Columbia and Colorado (McDunnough 1949).

Finds from Newfoundland:
W.Nfld.: Lomond (July 14, 1949)
NW.Nfld.: Eddies Cove W. (July 28, 1949), Port au Choix (August 3, 1949)

This Eupithecia species seemed to be an inhabitant of somewhat wet conifer woods with rich ground vegetation of bushes and leaf trees. All specimens were captured on flowers.

Eupithecia geminata Packard

Distribution: Very widespread, occurring in many states east of the prairies and extending across Canada from the Atlantic to the Pacific. Found also in California and Arizona (McDunnough 1949).

Finds from Newfoundland:
S.Nfld.: Port aux Basques (ex pupa, July 10, 1949)
W.Nfld.: Corner Brook (August 14, 1949)
NW.Nfld.: Eddies Cove W. (July 28—30, 1949)
C.Nfld.: Glenwood (August 23, 1949)

The species was widely distributed in Newfoundland, and not at all scarce in dry localities. Most of the specimens were captured on flowers at night.

Eupithecia perfusca Hulst. ssp. youngata Taylor

Distribution: Widespread throughout Ontario, Quebec, and the Maritime

**Finds from Newfoundland:**

W.Nfld.: Corner Brook (July 11, 1949), Steady Brook (July 10, 1949), Woody Point (July 16—19, 1949)

NW.Nfld.: Eddies Cove W. (July 28, 1949)

The commonest *Eupithecia* species in Newfoundland in 1949, of which I have a long series, especially from the Woody Point area. It occurred in very different kinds of localities, but was most numerous in open marshy woodlands with tamarack and spruce.

*Eupithecia albicapitata* Packard

**Distribution:** A northern species, occurring in the mountainous district of New York and the New England states and across the Dominion of Canada from the Atlantic to the Pacific (McDUNNOUGH 1949).

**Finds from Newfoundland:**

W.Nfld.: Stephenville Crossing (July 6, 1949), Glenburnie (July 18—19, 1949)

A species which seems to be very closely allied to the European *bilunulata*. In my collection there are three male specimens from Newfoundland, all found resting on spruce trunks.

*Eupithecia mutata* Pearsall

**Distribution:** Northern Atlantic and New England states, extending in Canada from Nova Scotia westward to Ontario (McDUNNOUGH 1949).

**Finds from Newfoundland:**

W.Nfld.: Stephenville Crossing (July 5, 1949), Glenburnie (July 18—19, 1949)

Occurred together with the preceding species in habitats of the same type of situation: dark, wet spruce woods with rich ground vegetation. The species is very closely allied to the European *pini*.

*Eupithecia anticaria* Wlk.

**Distribution:** Extends in Canada from Nova Scotia westward to the Rocky Mountains; occurs also in the northern Atlantic states and in Arizona (McDUNNOUGH 1949).

**Finds from Newfoundland:**

S.Nfld.: Cinq Cerf River (June 14, 1949)

W.Nfld.: Woody Point (July 17, 1949)

This well-marked species was noticed in two places only: on a wet bog in a spruce wood on the shore of Cinq Cerf River, and on the open, wind-swept stonefield on the top of Table Mountain south of the village of Woody Point.

*Horisme intestinata* Gn.

**Distribution:** Quebec to Florida, west to British Columbia (FORBES 1948).

**Finds from Newfoundland:**

NW.Nfld.: Eddies Cove W. (July 30, 1949)

One specimen found in a black spruce wood on the outskirts of the village of Eddies Cove W.

*Eu stroma nubilata* Packard

**Distribution:** Nova Scotia and Quebec, south to New York, west to British Columbia and California (FORBES 1948).

**Finds from Newfoundland:**

NW.Nfld.: Port au Choix (August 3, 1949), Cow Head (August 8, 1949)
Only two specimens recorded in 1949, both from the northwesternmost part of the island, and both captured at night flying in spruce woods on marshy ground.

*Lygris propulsata* Wlk.

**Distribution:** Nova Scotia and Quebec, extending southward to Pennsylvania, westward to the Pacific (FORBES 1948).  
**Finds from Newfoundland:**  
W.Nfld.: Corner Brook (August 14—16, 1949)  
NW.Nfld.: Port au Choix (August 4—5, 1949), Cow Head (August 11, 1949)  
C.Nfld.: Kittys Brook (August 17, 1949)  
Previously reported from Carbonear, SE.Nfld., found by GOSSE (BRUTON 1930)

The species was rather scarce in the above places, with the exception of Corner Brook, where it occurred quite frequently in spruce woods with *Vaccinium* dominant in the ground vegetation.

*Lygris serrata*ria B. & McD.

**Distribution:** New Hampshire, Nova Scotia, Quebec and Ontario (FORBES 1948).  
**Finds from Newfoundland:**  
C.Nfld.: Kittys Brook (August 17, 1949)  
I have two specimens of this *Lygris* species in my collection of 1949. They were both captured in a *Salix* thicket close to the railway-line by Kittys Brook, flying in the evening.

*Lygris explanata* Wlk.

**Distribution:** Southern Labrador and Mattagami River, Ontario to Vancouver Island, south to Massachusetts (FORBES 1948).  
**Finds from Newfoundland:**  
W.Nfld.: Woody Point (July 17, 1949)  
Four specimens recorded, all in swampy woods. They differ from one another considerably as regards the colour of the median band of the primaries; this band varies from dark brown to pale grey, the latter not much darker than the colour of the sub-terminal area. The male genitalia show that they all belong to the same species.

*Lygris destituta* Moesch.

**Distribution:** Labrador to White Mountains, New Hampshire, west to California (FORBES 1948).  
**Finds from Newfoundland:**  
W.Nfld.: Woody Point (July 16, 1949), Corner Brook (August 16, 1949)  
NW.Nfld.: Port au Choix (August 3, 1949)  
Five specimens noticed, three of them from the last-mentioned place. The moth occurred in rather wet localities; on small bogs in black spruce woods.

*Dysstroma truncata* Hufn.

**Distribution:** Extends from Labrador westward across Canada to Yukon, southward to North Carolina. A circumpolar species.  
**Finds from Newfoundland:**  
W.Nfld.: Woody Point (July 17—20, 1949)  
Found only in the Woody Point area, where it occurred in swampy coniferous woods with high ground vegetation of *Kalmia angustifolia* and *Rhododendron canadense*. As in Europe, this species appeared in Newfoundland some weeks earlier than the allied species *citrata*.  


**Dysstroma citrata** L.

**Distribution:** This species occurs across the entire Dominion of Canada, extending southward to New York (McDunnough 1946).

**Finds from Newfoundland:**
- W.Nfld.: Corner Brook (August 14—16, 1949)
- NW.Nfld.: Eddies Cove W. (July 28—30, 1949), Port au Choix (August 3—5, 1949), Cow Head (August 11, 1949)
- C.Nfld.: Glenwood (August 22, 1949)
- E.Nfld.: Gambo (August 27, 1949)
- SE.Nfld.: St. John's (August 28, 1949)

A common species in Newfoundland in August. It occurred in very different types of localities, but most frequently in dark woodlands. The moths were also attracted to light and sugar-baits, and they were noticed on *Chamaenerium angustifolium* flowers.

**Dysstroma brunnneata** Packard

**Distribution:** Extends from Maine and Newfoundland westward to Alaska (Forbes 1948).

**Finds from Newfoundland:**
- NW.Nfld.: Eddies Cove W. (July 18—August 1, 1949), Port au Choix (August 4, 1949)
- Previously reported from Newfoundland by Forbes (1948).

This species was noticed in the northwesternmost area of Newfoundland only. It was a native of conifer woods with balsam fir and black spruce. One of my specimens is a very curious colour variant with white ground colour on the primaries and a distinct dark brown median band.

**Dysstroma hersiliata** Gn. ssp. *cervinifascia* Wlk.

**Distribution:** Extends across Canada from the Atlantic to the Pacific, southward to Pennsylvania (Forbes 1948).

**Finds from Newfoundland:**
- NW.Nfld.: Port au Choix (August 3—5, 1949)
- Previously reported from Carbonear, SE.Nfld., found by Gossé (Bruton 1930).

Recorded only from the same area as the preceding species. It was also a spruce wood species; its habitats were, however, wetter than those of *brunnneata*.

**Hydriomena divisaria** Wlk.

**Distribution:** Newfoundland and Nova Scotia west to Manitoba, north to Laniel, Quebec, and Alonquin Park, Ontario. Extends southward to New York (Forbes 1948).

**Finds from Newfoundland:**
- W.Nfld.: South Branch (July 2, 1949), Lomond (July 15, 1949)
- Previously reported from Newfoundland (Forbes 1948).

This species occurred in thick spruce woods in the two localities mentioned above.

**Hydriomena ruberata** Fré.

**Distribution:** A circumpolar species. In North America it extends from Nova Scotia and the Atlantic states westward to the Pacific (Forbes 1948).

**Finds from Newfoundland:**
- W.Nfld.: South Branch (July 3, 1949), Stephenville Crossing (July 6, 1949)
- A scarce species, which was found in *Salix* thickets on the shores of Codroy River and Harry's River in the southwestern part of the island.
Xantorhoe munitata Hbn.

**Distribution**: A circumpolar species, widespread in Canada from the Atlantic to the Pacific.

**Finds from Newfoundland**:
- W.Nfld.: Stephenville Crossing (July 5–7, 1949), Lomond (July 13–15, 1949), Woody Point (July 17, 1949), Glenburnie (July 18–19, 1949)

A common species, which was noticed in several places in the west coast area. The first specimens appeared in the south in early July, and the last ones were recorded farther north at Cow Head in the middle of August. The most favourable localities for the species were wet meadows with willow thickets on the margins. The moth also occurred, however, in conifer woods, and was commonly seen resting on spruce trunks.

Xantorhoe ferrugata Cl.

**Distribution**: A circumpolar species. Occurs in North America in the entire Canada extending southward to Pennsylvania (FORBES 1948).

**Finds from Newfoundland**:
- S.Nfld.: Grand Bruit (June 17–19, 1949), Burgeo (June 22, 1949), Rose Blanche (June 27, 1949), Port aux Basques (June 28–30, 1949)
- W.Nfld.: Steady Brook (July 10, 1949), Lomond (July 13, 1949)
- NW.Nfld.: Doctors Brook (July 31, 1949)

Very common on the south coast tundra and in moorlands in the mountains near Port aux Basques. In places farther north only single specimens were taken; they flew on open meadows in the woodlands at a lower level.

Xantorhoe algidata Moeschler

**Distribution**: New York, New Hampshire, Quebec-Labrador, Labrador (Hopedale), Gaspé (FORBES 1948).

**Finds from Newfoundland**:
- W.Nfld.: Steady Brook (July 10, 1949)

One female specimen recorded in the thickets on the shore of Steady Brook by Humber River, some miles north of the city of Corner Brook.

Xantorhoe iduata Gn.

**Distribution**: Eastern and central parts of Canada extending southward to North Carolina.

**Finds from Newfoundland**:
- W.Nfld.: Glenburnie (July 18–19, 1949)

This species, corresponding to the European *fluctuata*, was a native of dark spruce woods and the thickets along the shores of the lakes.

Xantorhoe abrasaria H.S. ssp. congestata Wlk.

**Distribution**: A holarctic species. Distributed throughout arctic Canada, extending southward along the higher mountains to New Hampshire and New York.

**Finds from Newfoundland**:
- W.Nfld.: Woody Point (July 16–20, 1949)
- NW.Nfld.: Eddies Cove W. (July 28–30, 1949), Doctors Brook (July 31, 1949)
Xantorhoe abrasaria was quite abundant in all three places mentioned above. The species was, however, very local in its appearance. Its habitats were spruce woods with marshy ground; Kalminia angustifolia, Rhododendron canadense and Ledum groenlandicum were the dominant plants in localities of this kind.

Percnoptilota ostipata Fabr.
Distribution: World-wide in its distribution. In North America it is found over the entire continent from the Atlantic to the Pacific.

Find from Newfoundland:
W.Nfld.: South Branch (July 3, 1949), Woody Point (July 16, 1949)
NW.Nfld.: Eddies Cove W. (July 28, 1949)

Of this cosmopolitan species I captured three specimens in Newfoundland. They were all taken in cultivated areas, flying at night on open meadows.

Percnoptilota evansi McD.
Distribution: The species has been recorded from Ontario and Quebec only (FORBES 1948).

Find from Newfoundland:
W.Nfld.: Stephenville Crossing (July 7, 1949)

A single specimen was taken in a thicket with Salix, Alnus and other bushes on the shore of Harry's River, about two miles northeast of the village of Stephenville Crossing.

Entephria aurata Packard
Distribution: Northern Labrador to New Jersey, west to Colorado and Northwest Territory (FORBES 1948).

Find from Newfoundland:
NW.Nfld.: Port au Choix (August 5, 1949)

This species was recorded only at Port au Choix in the northwesternmost part of Newfoundland. The moth seems to be scarce, and I only succeeded in capturing two specimens of it, both in the same evening on the flowers of Chamaenerium angustifolium.

Mesoleuca ruficillata Gn.
Distribution: Quebec to North Carolina, west to British Columbia (FORBES 1948).

Find from Newfoundland:
W.Nfld.: Glenburnie (July 18, 1949)

Previously reported from Carbonear, SE.Nfld., found by GOSSE (BRUTON 1930).

One specimen found resting on a spruce trunk, in a dark, somewhat swampy black spruce and balsam wood.

Epirrhoe alternata Müll.

Find from Newfoundland:
W.Nfld.: Glenburnie (July 19, 1949), Table Mountain (June 29, 1949)
NW.Nfld.: St. Barbe (July 26, 1949), Eddies Cove W. (July 28—30, 1949)

Epirrhoe alternata appeared most frequently far in the northwest, at St. Barbe and Eddies Cove W. The species occurred in Newfoundland in the same sort of habitats as in Northern Europe: on marshy ground in woods, in thickets on the shores of lakes, and on marshes; on the whole in places with rich ground vegetation.
Spargania magnoliata Gn.

Distribution: Newfoundland to North Carolina, west to the Pacific (FORBES 1948).

Finds from Newfoundland:
W.Nfld.: Corner Brook (July 9—11, August 14, 1949)
NW.Nfld.: Port au Choix (August 3, 1949)

Previously reported from Newfoundland (FORBES 1948)

At Corner Brook several specimens were captured in the middle of July. One month later newly emerged specimens were noticed in the same place — perhaps a second brood. The moth was found on marshy hillsides with shrubs of maple, cornel, Amelanchier, Corylus, etc. At Port au Choix one specimen was recorded on the flowers of Chamaenerium angustifolium.

Spargania luctuata Schiff. ssp. obductata Moesch.


Finds from Newfoundland:
W.Nfld.: Lomond (July 13—15, 1949)

This species was recorded at Lomond only, where three specimens were taken in conifer woods with Picea mariana and Abies balsamea on rather marshy ground.

Euphyia unangulata Haw. ssp. intermedia Gn.

Distribution: A circumpolar species. In North America it has a wide range from the Atlantic to the Pacific (FORBES 1948).

Finds from Newfoundland:
S.Nfld.: Port aux Basques (June 30, 1949)
W.Nfld.: Corner Brook (July 11, 1949)
NW.Nfld.: St. Barbe (July 26, 1949), Port au Choix (August 3—5, 1949), Cow Head (August 7, 1949)

At Port aux Basques this species was seen on small dry meadows in the sand-dune area on the seashore north of the village. At Corner Brook and also at St. Barbe farther north, I recorded it on marshy localities with bushes (Cornus, Amelanchier, Acer spicatum, etc.). The species also visited the flowers of Chamaenerium.

Euphyia multiferata Wlk.

Distribution: Nova Scotia, Quebec, extending southward to North Carolina, westward to the Pacific coast and to Yukon (FORBES 1948).

Finds from Newfoundland:
S.Nfld.: Grand Bruit (June 14—18, 1949), Burgeo, Grandy Brook (June 22, 1949), Port aux Basques (June 29, 1949)

Recorded only in the south coast area. The species occurred on moorlands in the low coastal mountains and on the tundra at sealevel. It was not, however, common; in all I took six specimens of it.

Eulype hastata L.

Distribution: A circumpolar species. Extends in North America from Eastern Canada southward to Pennsylvania and westward at least to Manitoba (FORBES 1948).

Finds from Newfoundland:
S.Nfld.: Grand Bruit (June 14—19, 1949), Port aux Basques (June 28—July 1, 1949).
W.Nfld.: Table Mountain (June 29, 1949), Stephenville Crossing (July 5, 1949), Lomond (July 13, 1949), Glenburnie (July 18, 1949)
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NW.Nfld.: Doctors Hill (July 29, 1949)
C.Nfld.: Victoria Lake (July, 1951)

Bruton (1930) reports the species from Carbonear, SE.Nfld., found by Gosse.

A widely distributed species in Newfoundland, which was, however, common only in the south coast area, where it appeared in the valleys between the coastal hills among thickets of Picea, Abies, Alnus crispa, Amelanchier and Rhododendron. Farther north, in the central and western parts of the island, single specimens were noticed, the majority of them in mixed woods on the slopes of the mountains. There are several different colour variants in my series from Newfoundland.

Perizoma basaliata Wlk.


Finds from Newfoundland:
W.Nfld.: Lomond (July 14, 1949), Woody Point (July 19, 1949), Glenburnie (July 18—19, 1949), Corner Brook (August 14, 1949)
NW.Nfld.: Eddies Cove W. (July 28—30, 1949), Port au Choix (August 3—5, 1949), Cow Head (August 11, 1949)

This species was not uncommon in the area along the west coast. It was a typical inhabitant of the dark conifer woods on somewhat marshy ground. The moths were seen flying at night, and resting on trunks during the day-time.

Venusia cambrica Curt.

Distribution: Newfoundland to Alaska, south to Massachusetts, Catskills Mountains and north California (Forbes 1948). Circumpolar.

Finds from Newfoundland:
W.Nfld.: Spruce Brook (July 8—9, 1949), Lomond (July 14, 1949), Glenburnie (July 18—19, 1949)
NW.Nfld.: Eddies Cove W. (July 30, 1949), Port au Choix (August 3, 1949)

Previously recorded from Newfoundland (Forbes 1948).

A scarce species in Newfoundland, which I found in rich maple groves in the places mentioned above along the west coast of the island. The majority of the moths were observed resting during the daytime on maple trunks.

Venusia comptaria Wlk.

Distribution: Nova Scotia and Gaspé, Quebec, south to the District of Columbia, west to Hymers, Ontario (Forbes 1948).

Finds from Newfoundland:
C.Nfld.: Gander (June 2, 1949)

Only one specimen recorded, found on a birch trunk on the shore of a lake near Gander Airport.

Hydrelia inornata Hlst.

Distribution: Nova Scotia and Mattagami River, Ontario, south to Virginia and Kentucky (Forbes 1948).

Finds from Newfoundland:
W.Nfld.: Steady Brook (July 10, 1949), Glenburnie (July 18—19, 1949)

Found only in two places; the moth was, however, abundant on each locality. By Steady Brook, some miles north of the town of Corner Brook, the species was noticed in mixed forests with rich bush vegetation. At Glenburnie it occurred in a swampy spruce wood, in which there was a low thick vegetation of maples and other small deciduous trees.
Hydrælia terrae-novae n.sp.

Distribution: So far known from Newfoundland only.

Find from Newfoundland:

NW. Nfld.: Eddies Cove W. (July 30, 1949)

One female specimen captured in a dark spruce wood close to the village of Eddies Cove W.

Hydrælia albifera Wlk.

Distribution: Newfoundland, Mattagami River, Ontario to Pennsylvania and west to eastern British Columbia (FORBES 1948).

Find from Newfoundland:

W. Nfld.: Table Mountain (June 29, 1949), South Branch (July 2, 1949), Spruce Brook (July 8—9, 1949), Corner Brook (July 9—11, 1949), Lomond (July 13, 1949), Glenburnie (July 18—19, 1949)

NW. Nfld.: St. Barbe (July 26, 1949), Eddies Cove W. (July 29, 1949), St. John Island (August 3, 1949)

Formerly reported from Newfoundland (FORBES 1948).

This species, which was on the wing from the last days of June (in the south), onwards to the first days of August (in the north), was an inhabitant of maple thickets on the slopes of the higher mountains as well as of maple woods on the lower hillsides and the brook valleys. It was fairly abundant in its typical habitats. The species seems to be closely allied to the European albulata.

Bapta semiclarata Wlk.

Distribution: Quebec to the Pacific, south to Virginia (FORBES 1948).

Find from Newfoundland:

C. Nfld.: Millertown (June 14, 1951)

SE. Nfld.: St. John’s (June 4, 1949), Holyrood (June 10, 1949)

In my collection of 1949 I have only two specimens of this early spring species, both from the Avalon Peninsula. One of them I captured on the top of South Side Hill near St. John’s, the other in Amelanchier thickets on the slope of a high mountain by Holyrood. In 1951 LINDROTH captured one specimen at Millertown.

Bapta vestaliata Gn.

According to BRUTON (1930) found at Carbonear, SE. Nfld., by GOSSE.

Bapta glomeraria Grt.

Distribution: New Brunswick and Montreal, Quebec, to Wisconsin, Alabama and Texas (FORBES 1948).

Find from Newfoundland:

SE. Nfld.: St. John’s (June 5, 1949)

One specimen, resting on a birch trunk, was found in a brook valley south of St. John’s. According to Dr. RINDGE the specimen appears to be a bit larger and darker than the specimens from the eastern states of U.S.A.

Deilinia eurythemaria Gn.

Distribution: Nova Scotia and Mattagami River, Ontario, south to Pennsylvania, west to the Pacific (FORBES 1948).

Find from Newfoundland:

NW. Nfld.: Cooks Harbour (July 19, 1949), Eddies Cove W. (July 28, 1949)

The species was scarce and occurred in black spruce forests, with rich ground vegetation (Acer spicatum, Viburnum, Heracleum, etc.).
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*Isturgia truncataria* Wlk.

*Distribution*: Newfoundland to Alaska, south to New Jersey (FORBES 1948).

*Finds from Newfoundland*:
- S.Nfld.: Cinq Cerf River (June 16, 1949), Grand Bruit (June 18, 1949)
- SE.Nfld.: Portugal Cove (June 6, 1949), St. John's (June 4, 1949)
  Previously reported from Newfoundland (FORBES 1948).

A peat-bog species, which occurred in early June in the woodlands of the Avalon Peninsula, and on the coastal tundra moorlands in the south of the island.

*Semiothisa granitata* Gn.

*Distribution*: Extends across the entire continent from the Atlantic to the Pacific in the conifer forest belt.

*Finds from Newfoundland*:
- S.Nfld.: Port aux Basques (June 30, 1949), Grand Bruit (June 17, 1949)
- W.Nfld.: South Branch (July 2—4, 1949), Stephenville Crossing (July 5—7, 1949), Piccadilly (July 7, 1949), Lomond (July 13—15, 1949), Glenburnie (July 18—19, 1949)
- SE.Nfld.: St. John's (June 5—13, 1949)

This inhabitant of the balsam forests was very common and apparently occurred all over the island.

*Semiothisa sexmaculata* Packard

*Distribution*: Labrador and Ungava to Great Slave Lake, south to central Massachusetts and New York, a race on the west coast (FORBES 1948).

*Finds from Newfoundland*:
- W.Nfld.: Corner Brook (July 11, 1949)

One rather worn specimen noticed in a foliiferous wood on a hillside near the town mentioned.

*Semiothisa neptaria* Gn. ssp. *trifasciata* Packard

Reported from Grand Lake, C. Newfoundland, by FORBES (1948).

*Itame bitactata* Wlk.

*Distribution*: Nova Scotia and Quebec to Pennsylvania, west to Saskatchewan and Great Bear Lake (FORBES 1948).

*Finds from Newfoundland*:
- NW.Nfld.: Cow Head (August 11, 1949)

I captured this moth on the flowers of *Chamaenerium angustifolium* on a road side going through a swampy spruce wood.

*Itame sulphurea* Pack.

*Distribution*: Labrador to Massachusetts, west to California (FORBES 1948).

*Finds from Newfoundland*:
- W.Nfld.: Woody Point (July 17, 1949), Corner Brook (August 16, 1949)
- NW.Nfld.: Eddies Cove W. (July 30, 1949), Doctors Hill (July 29, 1949)
- C.Nfld.: Gaff Topsail (August 19, 1949)

Previous records: Grand Lake and Spruce Brook, Newfoundland (MCDOUGAL 1924), Carbonear, SE.Nfld. (BRUTON 1930).

This *Itame* species was an inhabitant of localities with swampy ground in woodlands at lower level as well as of the higher mountains. It was most numerous on marshes with rich
vegetation of *Myrica, Camadaphne, Potentilla fruticosa* and *Salices*, but it also occurred on the margins of larger, open peat-bogs.

**Itame occiduaria** Pack. ssp. *andersoni* Swett.

**Distribution**: Western States, the typical race known east to Manitoba and Ontario.

The northern race *andersoni* extends east to Newfoundland (FORBES 1948).

**Finds from Newfoundland**:  
NW.Nfld.: St. John Island (August 3, 1949), Port au Choix (August 3, 1949)  
Previously reported from Newfoundland (FORBES 1948).

From St. John Island I have a long series of specimens which belong to this species. The moths occurred frequently on dry open limestone fields with a scattered vegetation of *Dryas integrifolia*, *Shepherdia canadense*, *Saxifraga aizoides* and *Juniperus horizontalis*. From Port au Choix I have some few specimens from a similar locality.

**Itame fulvaria** Vill.

**Distribution**: A circumpolar species. Distribution in North America: Newfoundland, Quebec, west to the Pacific, south to Massachusetts (FORBES 1948).

**Finds from Newfoundland**:  
W.Nfld.: Woody Point (July 16—20, 1949)  
NW.Nfld.: Eddies Cove W. (July 30, 1949)  
Previously reported from Newfoundland (FORBES 1948).

At Woody Point the species was very numerous on low gravel hills with a dense *Kalmia angustifolia* vegetation. From Eddies Cove W. I have only a few specimens, captured on the margin of a peat-bog with *Kalmia* as dominant plant.

**Itame subcessaria** Wlk.

According to BRUTON (1930) found at Carbonear, SE.Nfld., by GOSSE.

**Eufidonia discospilata** Wlk.

**Distribution**: A northern species, ranging from Newfoundland to British Columbia, southward to Massachusetts (FORBES 1948).

**Finds from Newfoundland**:  
S.Nfld.: Grand Bruit (June 19, 1949), Burgeo, Grandy Brook (June 24—25, 1949), Port aux Basques (June 28—July 1, 1949), Cinq Cerf River (June 17, 1949)  
W.Nfld.: South Branch (July 3—4, 1949), Steady Brook (July 10, 1949)  
SE.Nfld.: Cape Broyle (June 7, 1949), Holyrood (June 10, 1949)  
Previously reported from Newfoundland (FORBES 1948).

A common moth early in the summer. It was most numerous on moorlands on the south coast tundra, and on the low coastal mountains. It was also seen on higher mountains farther from the coast, and like many species of the coastal tundra, it appeared in the woodland also, on peat-bogs with *Kalmia, Rhododendron* and *Ledum* as dominant plants.

**Paraphia piniata** Packard

**Distribution**: Extends across Canada and the northern United States from the Atlantic to the Pacific (FORBES 1948).

**Finds from Newfoundland**:  
S.Nfld.: Grand Bruit (June 14, 1949)  
NE.Nfld.: Lewisporte (June 17, 1951)

Two specimens recorded, both in spruce thickets on open coastal moorlands.
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*Protoboarmia porcelaria* Gn. ssp. *indicataria* Wlk.

**Distribution:** Nova Scotia and Gaspé, Quebec to Vancouver Island, south to Texas and Florida (FORBES 1948). The ssp *indicataria* is northern in its range.

**Finds from Newfoundland:**
W.Nfld.: Corner Brook (July 11, 1949), Lomond (July 14—15, 1949), Woody Point (July 16—17, 1949), Glenburnie (July 18—19, 1949)

In my collection of 1949 I have a long series of specimens (males only) which all originate from the central parts of the west coast area. The species was a native of damp coniferous woods with *Acer spicatum*, *Viburnum cassinoides* and other bushes. The moth was frequently seen resting on spruce trunks.

*Anacamptodes larvaria* Gn.

**Distribution:** Nova Scotia to Mattagami River, Ontario, south to Atlanta, Georgia and west to Oregon (FORBES 1948).

**Finds from Newfoundland:**
W.Nfld.: Lomond (July 14, 1949), Glenburnie (July 18—19, 1949)

This species occurred in the same area and in localities with the same type of habitat as the preceding species. It was, however, considerably scarcer, and only six specimens were recorded.

*Amphidasis cognataria* Gn.

**Distribution:** Nova Scotia and Mattagami River, Ontario, to New Jersey, Pennsylvania and west to the Pacific. Occurs also in China and Japan (FORBES 1948).

**Finds from Newfoundland:**
NW.Nfld.: Cow Head (August 9, 1949)

A single, very worn male specimen found among other insects on the sandy shore north of the village of Cow Head, after a heavy southwesteरy storm.

*Campaea perlata* Gn.

**Distribution:** Newfoundland and Nova Scotia to North Carolina, west to Yukon and Arizona (FORBES 1948).

**Finds from Newfoundland:**
S.Nfld.: Burgeo (ex pupa, July 4, 1949)
W.Nfld.: Steady Brook (July 10, 1949), Corner Brook (July 11, August 16, 1949), Lomond (July 13—15, 1949), Woody Point (July 16—19, 1949)
NW.Nfld.: Eddies Cove W. (July 28—30, 1949), Port au Choix (August 5, 1949), Cow Head (August 7, 1949)

Formerly reported from Newfoundland (FORBES 1948).

This species was rather common in most of the above places, flying at night in bushy woodlands, and in the thickets on the margins of cultivated fields. It was also captured on the flowers of *Chamaenerium angustifolium* and some other plants.

*Xanthotype urticaea* Swett.

This species has been recorded from Newfoundland (FORBES 1948).

*Homochlodes fritillaria* Gn.

**Distribution:** Nova Scotia and Quebec to North Carolina, west to Wisconsin (FORBES 1948).

**Finds from Newfoundland:**
W.Nfld.: Stephenville Crossing (July 7, 1949)

Of this species I have three specimens, all captured in the same night among thickets on a wet meadow on the shore of Harry's River.
Anagoga occiduaria Wlk.

Distribution: Nova Scotia to Alaska, south to North Carolina and northern California (FORBES 1948).

Finds from Newfoundland:
S.Nfld.: Grand Bruit (June 17, 1949), Port aux Basques (June 29, 1949)

Two specimens, a male and a female, of this species were recorded, both flying in Alnus crispa thickets on the moorlands of the south coast of Newfoundland.

Metarrhinthis duaria Gn. ssp. septentrionaria B. & McD.

Distribution: Extends from New England westward to Washington and British Columbia (FORBES 1948).

Finds from Newfoundland:
S.Nfld.: Grand Bruit (June 18—19, 1949), Cinq Cerf River (June 14—17, 1949), Burgeo (June 24, 1949), Port aux Basques (June 28, 1949)

SE.Nfld: Cape Broyle (June 7, 1949)

All my ten specimens, which vary considerably in colour and wingmarkings, originate from the tundra-like areas in the immediate proximity of the seashore, on the south coast as well as on the east coast of the Avalon Peninsula.

Hyperetis amicaria H.S. ssp. nepiasaria Wlk.

Distribution: The subspecies nepiasaria occurs within the range of Kalmia and Rhododendron, from Nova Scotia and New Brunswick southward to New York, Michigan and North Carolina (FORBES 1948).

Finds from Newfoundland:
S.Nfld.: Grand Bruit (June 14—19, 1949), Burgeo (June 21, 1949), Grandy Brook (June 23—25, 1949), Port aux Basques (June 28—30, 1949)

W.Nfld.: South Branch (July 2—4, 1949), Piccadilly (July 7, 1949), Steady Brook (July 10, 1949)

The bulk of the specimens of this pretty species originate, like those of the preceding species, from moorlands of the south coast area. In these localities the moth was quite common. It also appeared, however, on bogs in the woodlands farther north.

Pero honestarius Wlk.

According to BRUTON (1930) found at Carbonear, SE.Nfld., by GOSSE.

Pero morrisonarius Hy. Edw.

Distribution: Nova Scotia and Mattagami River, Ontario, south to Virginia and west to the Pacific (FORBES 1948).

Finds from Newfoundland:
NW.Nfld.: Port au Choix (August 5, 1949)

I have one female specimen which I have with some hesitation identified as this species. It was taken on the flowers of Chamaenerium angustifolium.

Caripeta divisata Wlk.

Distribution: General from Newfoundland and Quebec to British Columbia and Florida (FORBES 1948).

Finds from Newfoundland:
NW.Nfld.: Eddies Cove W. (July 29—30, 1949), Doctors Brook (July 31, 1949), Port au Choix (August 4, 1949)

Previously reported from Newfoundland (FORBES 1948).

Recorded only from the northwesternmost part of Newfoundland, where it was scarce in dry balsam forests near the seashore. The specimens are very varying as regards the markings of the primaries.
**Ellopia jiscellaria** Gn.

**Distribution:** Extends from the Atlantic to the Pacific across Canada, southward to Florida.

**Finds from Newfoundland:**

- **W.Nfld.:** Lomond (larvae, July 13–15, 1949), Woody Point (larvae, July 16–19, 1949), Glenburnie (larvae, July 18–19, 1949)
- **NW.Nfld.:** Eddies Cove W. (larvae, July 28–30, 1949), Doctors Brook (larvae, July 31, 1949, ex pupa August 31, 1949)

Previously recorded from the Avalon Peninsula, Port aux Port peninsula, Gander Lake-area, Bonne Bay-area, Thwart Island (Department of Natural Resources, Forestry Information Circular No. 54, St. John's)

The larvae of this species were very destructive insects on balsam fir in several places in the west coast area in 1949. The most destructive attack which I saw in Newfoundland was by Doctors Brook far in the northwest. In this area nearly all the firs were destroyed over many square miles of territory. The caterpillars also attacked spruce and foliiferous trees in this heavily infested forest, which, seen from a distance, had a yellowish-red and scorched appearance.

**Sicyra macularia** Harr.

**Distribution:** Newfoundland to New Jersey, west in races to California (FORBES 1948).

**Finds from Newfoundland:**

- **C.Nfld.:** Kittys Brook (August 18, 1949), Glenwood (August 23, 1949)

Previously reported from Newfoundland (FORBES 1948).

Two specimens were recorded, both in maple groves with luxuriant vegetation.

**Prochoerodes transversata** Dru.

**Distribution:** Nova Scotia and Quebec, southward to Florida, westward to the Pacific (FORBES 1948).

**Finds from Newfoundland:**

- **W.Nfld.:** Corner Brook (August 14, 1949)
- **C.Nfld.:** Glenwood (August 23, 1949)
- **SE.Nfld.:** St. John's (August 28, 1949)

This late August species was not uncommon in foliiferous woods and copses in the above places, and seems to be widely distributed over the island.

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**Summary.**

The present paper constitutes the results of investigations on the Macrolepidoptera of Newfoundland in the summer of 1949. Altogether 249 species were recorded, many of which have not been reported from the island previously. Two new species, *Proorthodes lindrothi* n.sp., and *Hydrelia terrae-novae* n.sp. are described. One species, *Schrankia turfosalis* Wocke, has not been reported from North America before. In the author's view the following American species are identical with European species (the American name in parenthesis): *Plebeius idas* L. (*scudderi* Edw.), *Diarsia mendica* Fabr.
(dislocata Sm.), Leucania pallens L. (luteopallens Sm.), Cucullia lucifuga Schiff. (intermedia Speyer), Septis basilinea Fabr. (finitima Gn.), Eupithecia lariicata Fr. (luteata Pack.), Euphyia unangulata Haw. (intermedia Gn.). Anagoga pulvareia L., and occiduaria Tlk. are two different species.

Part 4 constitutes a survey of the Newfoundland species, with records of finds, ecological remarks and notes on distribution.

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