THE FOREST INSECT SURVEY OF MAINE

A List of Those Insects Collected and Recorded Through the Activities of the Division of Entomology, Maine Forest Service, Maine Department of Conservation

ORDER HYMENOPTERA

Sawflies, Woodwasps, Parasitic Wasps, Bees, Ants, Wasps, and Others

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DEPARTMENT OF CONSERVATION
Augusta, Maine
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Introduction

Serious concern for the nature of the forest insect community as a whole began to develop following a devastating outbreak of the spruce budworm in spruce-fir areas of the state from 1910 to 1919. A position of State Forest Entomologist was created in 1921 to monitor forest insect problems throughout the state. From 1921 to 1940 most of the effort was directed at evaluation and biological control of native and introduced pests of arborvitae, birch, spruce, and fir. Although some general field work was conducted during this period, it wasn't until 1941 that an organized survey program was established. From 1941 to the present there has been an increased effort to determine the nature of the forest insect community and its impact on the health of the forest resource. Out of this effort evolved a large volume of collection records, field observations and collected specimens which now serve as a core for forest insect work. The extensive insect collection and identification record file which served as a basis for this list is housed in the Entomology Laboratory, 50 Hospital Street, Augusta, Maine 04330. Although some phases of the forest insect survey work have been included in published reports, the bulk of the insect records have remained simply on file at the entomology laboratory. An attempt to summarize the results was begun in the early 1960's, but was not completed. This section on the Hymenoptera is the first to be brought up to date and printed for distribution. Other orders will be printed and distributed as soon as they are completed. As soon as all orders have been completed and reviewed, a comprehensive survey history and list will be published.

It should be understood at this point that the intent is not to compile a comprehensive literature review nor to give readers the impression that this is a definitive State List. It is not. It is simply to make available the wealth of records which have been accumulating since 1921. While most of these records should be accurate and many specimens have been identified by specialists, there are undoubtedly errors yet to be corrected. It is hoped that this list will be useful to forest managers and entomologists alike and suggestions for improvement and corrections are eagerly sought. Gratitude should be extended to all those workers in the Maine Forest Service who contributed to the survey and made this list possible. Our thanks also go to the many specialists who provided the identifications and made helpful suggestions. A list of acknowledgements will be included in an introductory section that will follow the completion of the list.
Use of This List

In compiling this list an attempt was made to make entries as brief as possible, but to do so required the use of code numbers and letters. To facilitate interpretation of these entries the following hypothetical example is given with an explanation for the codes used:


Explanation

*D1555 The first letter in each entry refers to the reference source for the species and the number following refers to the location of the species within the reference. An asterisk has been placed before each entry in this list which has a representative specimen(s) in our collection. Other records usually refer to specimens kept by specialists following identification.


C = W. Leng, et. al. 1920, 1927, 1933, and 1948. Catalogue of the Coleoptera of America, North of Mexico. Mount Vernon, N. Y. J. D. Sherman, Jr. Original Catalog plus 5 supplements. The number following refers to the particular number assigned to the species given. A (+) means that the species is not listed but most likely follows the number given.

H = K. V. Krombein, et. al. 1979. Catalog of Hymenoptera in America North of Mexico. Washington, D.C. Smithsonian Institute Press. 3 vols. The number following refers to the page on which the species is listed.

L = J. McDunnough. 1938 and 1939. Check List of the Lepidoptera of Canada and the United States of America. Memoirs of the Southern California Academy of Sciences, Vol. 1 and Vol. 2, Part I. The number following refers to the particular number assigned to the species given. A (+) means that the species is not listed but most likely follows the number given.

*Genus species (Author) - The species citation is most often that used in the reference source. In some cases a newer or more common name has been substituted to avoid confusion. The author's name may or may not be abbreviated.

Introduced - The use of the word introduced applies only where we have knowledge of a definite introduction of the species into Maine.

Common name - Only names in common usage have been cited in this list.
Bangor(S) and T10 SD (E) - These refer to minor civil divisions of the state in which the species has been collected (see map following). For convenience in locating these points, the state was divided into four geographical areas; S = South, E = East, N = North and W = West (see map). Whenever a term such as Southern is used, it generally means that area marked "S" on the map. In some cases a term such as "southern half of the State" is used and in this case it should be interpreted literally and would include areas "S," "E" and the lower part of "W." In a few cases no collection point could be determined, but if it was definitely from the state, MAINE was given as an entry.

January and February - This refers to the month(s) in which the species was collected. Unless otherwise stated, this always refers to the adult stage. Where only one record is available, the year of collection may also be included.

Collected from Fir - This should be self explanatory. It should be pointed out, however, that simply because an insect was collected from fir does not necessarily mean that it fed on that host.

Reared from *Genus species* (Author) (L 1095). Reared from means just that and indicates a definite host relationship. If the species cited (D 1555 in our example) is a parasite, then this portion of the entry refers to another insect. In the case of parasites or their hosts a code number follows (L 1095). This code refers to the particular placement of the parasite or host elsewhere in our list.

In the case of some insects where more extensive studies were conducted, we have included sections on life cycle, history, division references, and lists of the natural enemies recorded from Maine following the basic citation.

Additional information may make some entries more lengthy, but basically the interpretation is the same. When the list is completed, the cross referencing system will be more useful. Plant names given in the list will also be summarized in the completed list along with the appropriate scientific names.
Order HYMENOPTERA

Sawflies, Woodwasps, Parasitic Wasps, Bees, Ants, Wasps, and Others

This large order contains many of our more important tree pests as well as the largest number of natural enemies of other insects. The order is generally divided into two suborders, Symphyta and Apocrita. Most of the tree pests such as the sawflies, woodwasps, and hornet-tails fall into the Symphyta which comprises the first group to be discussed. Parasitic species and others such as the ants, bees, and wasps fall into the Apocrita or second group to be discussed. The only forest pests found in Maine which fall into the Apocrita are the: seed chalcids (Torymidae and Eurytomidae); gall wasps (Cynipidae); and leaf cutting bees (Megachilidae). Due to the complexity of the order, the lack of larval keys in most groups, and the parasitic habits of larvae of many species, a greater proportion of rearings have been necessitated for the Hymenoptera than all other groups except for the Lepidoptera. For this reason our records for this order are fairly extensive and should have greater practical value.

The order and nomenclature for the species presented in this list follows that given in the Catalog of Hymenoptera in America North of Mexico by K. V. Krombein, et al. (1979. Washington D.C. Smithsonian Institute Press. 3 volumes). The reference number assigned to each species simply refers to the page in this catalog on which the species is listed. For this reason there may be several species bearing the same number.

Although published accounts of many species occur widely in the literature, there is no list which includes the family as a whole for Maine. The Procter list for Mt. Desert perhaps comes closest to a state list. As we do not intend to make this list a literature review, we will restrict all entries to our records alone.

Identification of species of Hymenoptera has often been difficult to acquire and adults and often host records are needed to aid in completing the determinations. There are also frequent disagreements between specialists as to the proper nomenclature. The problem is further complicated by the presence of a number of introduced species. Where a species is known to have been introduced, this will be stated after the species name in the entry. Most of the species included in this list are from specimens identified or verified by specialists at the USNM or the CNC. Unfortunately many specimens sent for identification were retained by the specialists leaving us with only written records. An asterisk (*) has been placed before each entry in this list which has a representative specimen(s) in our collection. As much work needs to be done to clarify the taxonomic placement of many of our Hymenoptera, changes and additions will undoubtedly be made in future revisions. In some cases the nomenclature for a species has changed so much since the determination was made, that we had to make the placement in our list according to our best judgement. This may make some citations awkward and difficult to assess. It is therefore imperative that anyone using our records allow some latitude in interpreting what has been recorded. For technical articles it might be wise for specialists to secure a verification
from our collection before any restatement of records is made to insure the highest degree of accuracy.

There are 856 entries (species or equivalent) in this list. These are broken down as follows:

<table>
<thead>
<tr>
<th>Suborder</th>
<th>No. entries</th>
<th>No. genera</th>
<th>No. families</th>
<th>No. introduced</th>
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</thead>
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<tr>
<td>Symphyta</td>
<td>167</td>
<td>68</td>
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<td>Apocrita</td>
<td>689</td>
<td>358</td>
<td>43</td>
<td>9</td>
</tr>
<tr>
<td>Totals</td>
<td>856</td>
<td>426</td>
<td>53</td>
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In addition we have a considerable number of unidentified specimens in our pro tem material. This could easily result in another 50 to 100 species being added to this list at some future date.

The Order Hymenoptera contains our official STATE INSECT, the Honey Bee (Apis mellifera L. H. 2208).
Suborder SYMPHYTA

Family XYELIDAE
H7 Xyela sp. Pine Catkin Sawfly. Central and Southern Maine (S). Larvae are often collected as they feed on male catkins of white pine in late May and early June. The yellowish larvae frequently drop to the ground beneath white pine in large numbers literally covering the ground at the same time that trees are shedding pollen. Problems may not reappear the following year. This species does no actual harm to the trees but may reduce seed crops.


H8 X. obscura (Strobl). Bar Harbor (E) and Amherst (E). Collected from pitch pine.

*H9 Pleroneura brunneicornis Rohwer. Balsam Shoot Boring Sawfly. Statewide. Larva and Adult May and early June. Reared from balsam fir. This sawfly emerges when the balsam tips are actively expanding. During bright sunny periods adult females deposit their eggs in the new tips. The eggs hatch quickly and the larvae mine out the new growth. Larvae mature rapidly and before the shoot hardens, fall out and enter the soil where they remain as a prepupa for one or two years. Some seasons in some areas rapidly growing young firs have many killed brown tips on them. Infested fir tips are usually blunt or flattened. They often turn brown and resemble frost injury later in June.

Family PAMPHILIIDAE

*H11 Cephalcia sp. Statewide. Collected from spruce or fir.


*H11 C. fascipennis (Cress.). Orangestriped False Webworm. Statewide. Larva - July and August; Adult - May and June. Collected from spruce, pitch pine, and balsam fir (Larvae feed on spruces).

*H11 C. fulviceps (Rohwer). Greenville (W), Mt. Vernon (S), and Belgrade (S). Larva July through September. Reared from red pine.


*H11 C. provancheri (Huard). Statewide. Larva - July and August; Adult - July. Collected from balsam fir, spruce, and red oak (Larvae feed on spruces).
PAMPHILIIDAE

*H11  *C. semidea* (Cress.). Statewide. Larva - July through September; Adult - June and July. Collected from balsam fir, spruce, and blue spruce (Larvae feed on spruces).


*H13  *A. luteomaculata* (Cress.). Southern half of the State. April through August. Collected from hemlock and fir. Reared from white pine.

*H13  *A. maculiventris* (Nort.). Statewide. Larva - July through August; Adult - June and July. Reared from spruce and balsam fir.


*H14  *Pamphilius* spp. Statewide. Collected from various hosts at various times during the summer field season.

Parasites (Reared from larvae in this genus):

Hymenoptera:

- *Homaspis* n. sp. (H 583)
- *Notopygus* n. sp. (H 582)
- *Xenoschesis* n. sp. (H 582)

Diptera:

- *Aplomya fronto* Coq. (D 1097)
- *Siphona geniculata* (DeGeer) (D 1064)
- *Chaetophlepsis semiothisae* Brooks (D 1016)

*H15  *P. luteicornis* (Nort.). Gorham (S), Scarborough (S), and Berwick (S). June and July. Collected from red oak.

PAMPHILIIDAE

*H16 P. ocreatus (Say). T1 R7 (N), Haynesville (E), and T5 R9 (N). June. Collected from fir and spruce.


*H16 P. rufofasciatus (Nort.). T3 ND (E), Topsfield (E), T5 R10 (N), and T17 R13 (N). June and July. Collected from fir and spruce.

*H16 P. vernalis Middlekauff. T27 ED (E) and Misery Twp. (W). June and July. Collected from fir.

Family PERGIDAE

*H19 Acordeleceera spp. Brunswick (S) and Canton (S). Larva - June through August; Adult - June. Reared from northern red oak.

*H19 A. dorsalis Say. Portland (S), Brunswick (S), and S. Berwick (S). Larva - July and August; Adult - May through August. Adults of this slug sawfly were collected as they were laying eggs on leaf edges of red oak in May. Collected from both red and white oak.

Family ARGIDAE

*H21 Arge clavicornis (Fab.). Statewide. Larva - July and August; Adult - May through August. Collected from cherry, fir, ash, spiraea, spruce, and red oak. Reared from willow.

*H21 A. caerulea (Dalla Torre.). Statewide. Larva - June through August; Adult - June. Collected from cherry, spruce, and fir. One adult reared from a larva collected on fir. The reared adult emerged in late April.


*H22 A. scpularis (Klug). Rangeley (W) and Scarborough (S). July. Parasites: Tetrastichus trisulcatus Prov. (H 1001).

H25 Schizocerella pilicornis (Holmgren). Dead River (W) and Augusta (S). Collected from purslane. Parasites: Ichneutidea proteroptoides Vier. (H 265).
Family CIMBICIDAE


Family DIPRIONIDAE

H29 Monoctelus sp. Bar Harbor (E) and Augusta (S). Reared from ground juniper. Parasites: Gelis urbanus (Brues) CH 410).

*H31 Neodiprion abbotii (Leach). Bar Harbor (E) and Cape Elizabeth (S). July. Collected from white pine. Reared from pitch pine, red pine, and white pine. Parasites: Spathimeigenia spinigera (D 1049); Spathimeigenia aurifrons Curran (D 1049); and Diplostichus lophyri (Tns.) (D 1053).

*H32 N. lecontei (Fitch). Redheaded Pine Sawfly. Southern zone (S). One collection from Rumford (W). Larva - July; Adult - June and August. Reared from pitch, jack, and red pines. Parasites: Diplostichus lophyri (Tns.) (D 1053).


*H33 N. pinusrigidae (Nort.). Bar Harbor (E), Cape Porpoise (S), Cape Elizabeth (S), Tremont (E), and Lebanon (S). Larva - July through October; Adult - May and June. Reared from pitch pine. One lot recorded from balsam fir and blue spruce may be in error.

*H33 N. rugifrons Middleton. Bridgeton (S). Larva August; Adult April and May. Reared from white pine.

*H33 N. pratti banksianae Rohwer. Jackpine Sawfly. Augusta (S) and Bar Harbor (E). Larva June and July; Adult September. Reared from jack pine and pitch pine.
DIPRIONIDAE

*H33* *N. pratti paradoxicus* Ross. Alfred (S), Augusta (S), and Bar Harbor (E). August through October. Reared from pitch and jack pines.


*H34* *N. virginiana* Rohwer. Bridgeton (S). 1946. Reared from white pine.

*H35* *Neodiprion* sp. (near abietis). Statewide. Collected throughout the summer season in the survey collections from spruce and fir.

**Parasites:**

Hymenoptera:

*Agrothereutes lophyri* (Nort.) (H 448)

*Pleolophus indistinctus* (Prov.) (H 443)

*Coccygomimus nudus* (Townes) (H 345)

*Delomerista* sp. (H 348)

*D. japonica diprionis* Cush. (H 349)

*Dibrachys* sp. (H 826)

*Endasys subclavatus* (Say) (H 418)

*Exenterus affinis* Rohwer (H 382)

*E. canadensis* Prov. (H 382)

*Lamachus* n. sp. (H 596)

*L. contortionis* Davis (H 596)

*L. lophyri* (Ashm.) (H 597)

*Mastrus aciculatus* (Prov.) (H 411)

*Protomicropilis facetosa* (Weed) (H 262)

*Glyptorhaestus* sp. (H 584)

Diptera:

*Bessa selecta* Meigen (D 1053)

*Spathimeigenia spinigera* Tnsd. (D 1049)
DIPRIONIDAE

*NH35 N. abietis (Harris). Balsam fir Sawfly. Statewide. Larva and Adult - June through August. Reared from balsam fir, spruce, red spruce, and blue spruce. Outbreaks: This insect generally remains at endemic levels throughout the state and larvae are easy to collect in small numbers nearly every year. A series of heavy but very localized and spotty outbreaks were, however, reported from the coastal towns of New Harbor, Pemaquid, Small Point, Georgetown, Popham, and nearby islands during the period from about 1940 and running through 1948. Balsam fir was the principal host and some tree mortality occurred. The pupal parasite *Dahlbominus fuscipennis* was released in 1943-44 to combat the problem and forty two percent parasitism of cocoons in the duff was achieved. No cocoons in the trees were parasitized.

**Parasites:**

*Hymenoptera:*

*Dahlbominus fuscipennis* Zett. (H 975)
*Exenterus canadensis* Prov. (H 382)
*Gelis tenellus* (Say) (H 409)
*Lamachus lophyri* (Ashm.) (H 597)
*Mastrus aciculatus* (Prov.) (H 411)
*Tritneptis diprionis* Gah. (H 825)

*Diptera:*

*Spathimeigenia spinigera* Tnsd. (D 1049)
*Diplostichus lophyri* (Tnsd.) (D 1053)

*NH35 N. nanulus nanulus* Schedl. Redpine Sawfly. Probably Statewide. The species is fairly common in southern and eastern Maine and has been reported as far north as Houlton. To date no collections have been made from western Maine (i.e. Eustis) or from the red pine stands along the St. John River. Larvae begin feeding from mid to late May and are present at least through late July. Adults have been collected from August through October. All collections have been from red pine. Reared from red pine.

Although individual trees have frequently been defoliated only one general infestation exists in our records. A red pine stand in Passadumkeag suffered significant defoliation from 1937 through 1944. As more red pine is planted this may become a more significant pest. Parasites: *Exenterus canadensis* Prov. (H 382); *Leschenaultia leucophrys* (Weide.) (D 1083).

*NH36 N. sertifer* (Geoff.). Introduced. European Pine Sawfly. No survey records for this species although it is listed from Maine in some literature reports.

DIPRIONIDAE


This species often causes significant defoliation of individual trees or small groups of trees but seldom has posed a serious threat to the forest. However, in 1981 a series of small outbreaks totalling over 100 acres was observed in the southern zone (S) in the area from LewistonAuburn to Augusta. Defoliation of white pine in some areas fell in the moderate to severe category. The larvae were also a nuisance in and around some homes.

Parasites:
Hymenoptera:
- *Euderus cushmani* (Crawf.) (H 987)
- *Hybrocytus phycidis* Ashm. (H 813)
- *Monodontomerus dentipes* (Dalm.) (H 761)

Diptera:
- *Spathimeigenia aurifrons* Curran (D 1049)

*H38* Gilpinia frutetorum (Fab.). Introduced. Acton (S), Berwick (S), Sanford (S), and Chelsea (S). Larva - August through October; Adult - July and August. Collected and reared from red pine. The first Maine record for this species was from Acton in 1967.


Life Cycle:
- Egg: Late May to early June (1st generation); Late July to early August (2nd generation)
- Larva: Early June through July (1st generation); August through September (2nd generation)
- Pupa: Overwinter; also in late July and from September on
- Adult: May and June (1st generation); late July and August (2nd generation)

Overlapping of generations occurs, therefore, all stages may be found throughout the summer season.

Hosts
All species of spruce in Maine are fed upon. This sawfly has also been collected commonly on fir.

History
First collected in Maine at Bar Harbor (S) in 1931. The second collection was made on the plateau of Mt. Katahdin in 1932 where a flight was also observed. This
DIPRIONIDAE

sawfly has been collected annually since that time and is present in at least low numbers in most collections from spruce. The first sign of noticeable feeding damage was reported from northern Maine in 1935. Infestation was generally spotty except for more general feeding in that area from the St. John River north and west. The sawfly spread rapidly and by 1939 moderate to heavy defoliation was observed throughout northern, central, and eastern Maine. Although defoliation was locally heavy only light tree mortality was reported. This was surprising in view of the widespread damage and mortality reported from Canada especially on the Gaspe Peninsula. Due to the potential for serious economic losses to Maine's valuable spruce crop an ambitious study of the species and possibilities for biological control was begun in 1935. Infestations by this insect spread and increased in severity through 1940 when the trend began to leveloff and decline. Since 1944 the problem has remained primarily endemic except for very local hot spots and a slight general rise and fall in the early 1950's. This sawfly showed an unusual trend of rapid dispersal and establishment of population equilibrium. It never really became the pest that it was expected to become. Whether or not this was due to the biological control effort may never be known.

Biological Control

One of the first widespread uses of biological control against a forest pest was developed for the European spruce sawfly in Maine and adjacent Canada in the early 1930's. Although a number of parasites were reared and released the most emphasis was placed on the use of the European pupal parasite *Dahlbominus (=Micropectron) fuscipennis*. The first limited releases of this parasite were made in T14 R6 (N) in 1935 using parasite stock from Canada. Further releases were made in 1936 and 1937. By 1938 an ambitious program to rear *D. fuscipennis* was begun in Maine at Orono in conjunction with the University. This program was expanded and moved to the new Entomology Laboratory in Augusta in 1939. Following the decline in abundance of the sawfly in the early 1940's, parasite rearing and releases were terminated in 1943. Approximately 227,691,615 *D. fuscipennis* parasites were released over the course of the program. The only other parasite reared and released in numbers was the pupal parasite *Pleolophus (=Microcryptus) basizonus*. Between 1935 and 1942 roughly 86,344 individuals of this parasite were released. Recovery of both parasites was made, however, only *D. fuscipennis* remains a viable influence. Some other parasites which were released but not recovered were:

Hymenoptera:

- *Exenterus abruptorius* (Thunb.) (H 381)
- *E. adpersus* Hartig (H 381)
- *E. amictorius* (Panzer) (H 382)
- *E. confusus* Kerrich (H 382)
- *Lophyroplectus oblongopunctatus* (Hartig) (H 590)
DIPRIONIDAE

Parasites

Large numbers of European spruce sawfly larvae and pupae have been reared over the years. As a result of these rearings many parasites have been recorded. The following is a list of the species found:

Hymenoptera:

- *Meteorus trachynotus* Vier. (H 285)
- *Itoplectis quadringulatus* (Prov.) (H 341)
- *Coccygomimus aequalis* (Prov.) (H 343)
- *C. nudus* (Townes) (H 345)
- *C. pedalis* (Cress.) (H 345)
- *Delomerista japonica diprionis* Cush. (H 349)
- *Gelis* sp. (H 403)
- *G. urbanus* Brues. (H 410)
- *Mastrus acicullatus* (Prov.) (H 411)
- *Endasys subclavatus* (Say) (H 418)
- *Cubocephalus* sp. (H 433)
- *Pleolophus basizonus* (Grav.) (H 442)
- *P. indistinctus* (Prov.) (H 443)
- *Agrothereutes abbreviator irridescens* (Cress.) (H 447)
- *A. Zophyri* (Nort.) (H 448)
- *Rubicundiella perturbatrix* Hein. (H 504)
- *Spilichneumon inconstans* (Cress.) (H 515)
- *S. subrujus* Cress. (H 515)
- *Mesoleius* sp. (H 600)
- *Synodites* sp. (H 603)
- *Campoetis* sp. (H 649)
- *Dahlbominus fuscipennis* Zett. (H 975)

Diptera:

- *Muscina assimilis* (Fallen) (D 909)
- *M. stabulans* Fallen (D 909)
- *Diplostichus lophyri* Tnsd. (D 1053)

Predators

Through observations in the field the following species were observed to feed on the European spruce sawfly in Maine:

Coleoptera; Carabidae:

- *Sphaeroderus canadensis* Chd. (C 160)
- *Pterostichus pennsylvanicus* Lec. (C 1188)
- *P. adstrictus* Dej. (C 1194)
- *Agonum decentis* Say (C 1514)
- *Calathus gregarius* Dej. (C 1482)
- *Myas cyanescens* Dej. (C 929)
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Coleoptera; Cantharidae:
  Cantharis nigritulus LeC. (C 7100) (Not actually seen feeding on the sawfly)
Coleoptera; Elateridae:
  Ctenicera inflatus (Say) (C 8780)
Hemiptera; Pentatomidae:
  Podisus serieventris Uhl. (C 228)

References

Because of the extensive work conducted with this insect in Maine the following references are suggested for further details:

Maine Forest Service. 1937 1944. Reports of the State Entomologist In the 22nd through the 25th Biennial Reports of the Forest Commissioner.


Family TENTHREDINIDAE

*H39 Hemitaxomus albidopictus (Nort.). Mt. Desert (E) and T12 R16 (N). July and August. Collected from fir. We have a host record from Osmunda (fern).

*H40 Strongyllogaster impressatus Prov. Rangeley (W) and Appleton (W). April and June. Collected from fir and white birch logs. We have a host record from ferns.

*H40 S. multicineta Nort. Statewide. June. Collected from hemlock, fir, and spruce. The host is listed as bracken fern.


*H41 Aneugmenus flavipes (Nort.). T43 MD (E), Shapleigh (S), Parkman (S), and Hollis (S). June and July. Collected from fir, pine, and bear oak. The host is listed as bracken fern.

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*H44  *D. nitens* Zaddach. Augusta (S) and Brunswick (S). May and August.

*H45  *D. unicolor* (Beauvois). Jonesport (E), Cupsuptic (W), and Mariaville (E). May and June. Collected from blueberry, white birch, and in a house.


*H48  *Loderus vestigialis apricus* (Nort.). Brunswick (S) and Auburn (S). June. Collected from red oak.


*H50  *Trichiocampus simplicicornis* (Nort.). Mt. Desert (E), E. Orland (E), and Topsfield (E). All specimens reared. One larval record for September. Adults emerged April through June. Collected and reared from longbeaked willow (*S. bebbiana*) and willow.

H51  *T. viminalis* (Fallen). E. Orland (E) and Kennebunk (S). Collected from willow. Poplar also listed as a host.


*H53  *Caulocampus acericaulis* (MacG.). Introduced. Maple Petiole Borer. Augusta (S) and Rumford (W) Larva - June and July; Adult - May. Collected from maple. Larvae bore in leaf petioles and cause premature leaf drop. Often up to 75% of the leaves on a single tree may drop in June or July. Larvae pupate in the soil. This is usually a shade tree problem and very local, often only a single tree in a group of trees is infested. Infestation frequently does not reappear the following year.

*H53  *Hemichroa crocea* (Geoffroy). Striped Alder Sawfly. The Forks (W), T3 R9 (N), and T4 ND (E). May, June, and August. Collected from fir and spruce. Reared from white birch.
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*H54 *H*amelanchieridis* (Rohwer). Augusta (S). Larvae collected from cherry from August through September. Adult emerged in May of the following year.

*H55 *Anoplonyx luteipes* (Cress.). Marlatt's Larch Sawfly. Statewide. Larva July and August; Adult April and May. This species has occasionally caused moderate to heavy local defoliation of larch in Maine.


**Life Cycle:**
- Egg: June
- Larva: June through September
- Cocoon: July through the winter (contains larva)
- Pupa: Spring (May)
- Adult: May and June

**Hosts**
- All species of spruce in Maine are fed upon. Collections have also been made from fir.

**History**
- This species was first recorded in Maine from a Norway spruce plantation at Readfield (S) in 1934. Since that time it has been found statewide. Although *P. alaskensis* often causes locally heavy defoliation under a wide variety of conditions it seems to cause the most noticeable feeding damage in spruce plantations and to ornamental spruce. The most notable exception to this was an infestation of forest stand red spruce in the coastal area around Phippsburg and Georgetown from 1947 to 1950. Defoliation of as much as 2,000 acres of red spruce in closed and open natural stands caused a great deal of concern at this time and several spray programs were conducted.

**Parasites:**
- Parasite rearings from this host have been conducted from a number of outbreaks, principally those at Readfield and PhippsburgGeorgetown. The following is a list of parasites obtained from these rearings:
TENTHREDINIDAE

Hymenoptera:

Ichneutidea proteroptoides Vier. (H 265)
Ichneutes pikonematis Mason (H 265)
Monoblastus sp. (H 373)
Excavarus velox Walley (H 377)
Endasys subclavatus (Say) (H 418)
Pleolephus indistincta Prov. (H 443)
Rhorus sp. (H 585)
R. extripatorius obscurelus (Cress.) (H 585)
Mesoleius sp. (H 600)
Mesochorus sp. (H 706)
Tetrastichus sp. (H 990)
Trichogramma minutum Riley (H 1039)

Diptera:

Bessa harveyi Tnsd. (D 1052)
B. selecta Meig. (D 1053)
Diplostichus lophyri (Tnsd.) (D 1055)

Predators:

Mites:

Caloglyphus sp. prob. spinitarsus commonly found in cocoons.

References:

The following two references were compiled from outbreaks in Maine:


*H59 P. dimmockii (Cress.). Greenheaded Spruce Sawfly. Statewide. The life cycle of this species is very similar to P. alaskensis and the two species frequently occur together. The Greenheaded spruce sawfly generally remains at low population levels and is not considered a problem in Maine. This species has been reared from white, red, and black spruce and has been collected from fir.

*H60 Pristiphora spp. Turner (S), Canton (S), and Auburn (S). July. Collected from red oak.

*H61 P. bivittata (Nort.). Rumford (W), Mt. Vernon (S), and Peru (S). May through July. Two adults collected from balsam fir buds in May.
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*H61 P. chlorea (Nort.). Bremen (S) and Bradley (E). Collected as larvae from red oak. Adults emerged in April.


Life Cycle:
- **Egg**: June and July
- **Larva**: July and August
- **Cocoon**: August through the winter with pupation in the spring
- **Adult**: May through August most in June and July.

History
This species caused devastating losses of larch in the Northeast between 1880 and 1890. Since that time infestations have been more spotty but periodically cause severe defoliation. A series of outbreaks during the 1930's in eastern Maine causes great concern especially on Mt. Desert Island. Although population levels did not reach those of the late 1800's they stimulated increased work with this sawfly. Larch Sawfly cocoons which were infested in the lab with the parasite *Dahlbominus fuscipennis* Zett. (H 975) were placed in the field in hopes of establishing some semblance of control. Results were disappointing. Another parasite, *Mesoleius tenthredinis* Morley (H 601), which had shown great promise, also did not seem to be working out as well as eggs of the parasite were often encapsulated by host larvae which then succeeded in maturing. Populations of the Larch Sawfly generally remained at low levels from 1941 until the early 1960's. By 1965 defoliation of larch by this species had begun to show up throughout eastern Maine and in spots elsewhere in the state. In 1965 a small spray project was conducted successfully against this sawfly on Mt. Desert Island. A 15 acre plantation in Bingham was successfully treated in 1966. In 1967 colonies of the European parasite, *OZesicampe benefactor* Hinz (H 673), from Manitoba, Canada were released at Mariaville and Greenbush. Recovery was made at Mariaville in 1968 and 1969. Recovery was made at Greenbush only in 1968. Another *Olesicampe* colony from Austria and Switzerland was released in 1968 at Caswell. No recovery was made. A colony of *Mesoleius tenthredinis* Morley (H 601) from Austria and Switzerland was released in Caswell in 1968. Recovery of this species was made in 1969. Populations of this sawfly declined greatly and by 1970 it was difficult to find more than a few individuals. The Larch Sawfly predisposes larch to other problems such as bark beetles and wood rots which can kill trees quickly.
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Parasites:
Hymenoptera:
   * Apiesis sp. (H 444)
   * Mesoleius tenthredinis Morley (H 601)
   * Olescampe benefactor Hinz (H 673)
   * Dahlbominus fusciennis Zett. (H 975)
Diptera:
   * Bessa harveyi Tnsd. (D 1052)
   * B. selecta Meig. (D 1053)
Diseases (Fungi):
   * Beauveria bassiana (Balsamo) Vuillemin
   * Paecilomyces farinosus (Dickson exFries) Brown and Smith

*H63  *P. geniculata* (Htg.). Mountainash Sawfly. Statewide. This is a common ornamental pest nearly every year. Reared from mountain ash.

Life Cycle:
   Egg: June
   Larva: June and July
   Cocoon: July through the winter with pupation in the spring
   Adult: May through August


*H66  *C rosesus latitarsus* Nort. Dusky Birch Sawfly. Found throughout the southern half of the state. Reared from white and gray birch.

Life Cycle:
   Egg: June through August
   Larva: June through August
   Cocoon: July through the winter with pupation in the spring
   Adult: May through August

Parasites:
   * Polyblastus pedalis* Cress. (H 368)


*H67  *N. hudsoniimagnus* Dyar. Statewide. Larva - July and August; Adult May through August. Collected and reared from poplar. Parasites: *Rhorus* sp. (H 585); *R. tristes* Prov. (H 586); *Trichogramma minutum* Riley (H 1039).

*H67  *N. ventralis* Say. Willow Sawfly. Newport (S) and Millinocket (E). August. Reared from willow.
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*H68 N. lipovskyi Smith. N. Bridgeton (S) and Falmouth (S). Larva - June and July; Adult - May. Reared from Azalea. This species was described from Maine material and named in honor of M.F.S. Entomologist, Louis Lipovsky. There are three paratypes in our collection. The first Maine record was 1966.


*H70 N. ribesii (Scopoli). Introduced. Imported Currantworm. Augusta (S) and Bar Harbor (E). June and July. Reared from Ribes (currant and gooseberry).

*H71 Pontania sp. Bred at Bar Harbor from willow leaf galls. Emerged August 17, 1934.


H74 Phyllocolpa bozemani (Cooley). Poplar Leaf-folding Sawfly. T7 R3 (N). We have one record identified as this species for 1941. As we have no specimen the identity of this supposedly western species is questioned. Host is listed as poplar.

H75 P. populi (Marlatt). Bar Harbor (E), Sidney (S), and Augusta (S). Reared from quaking aspen.


*H84 Caliroa spp. Turner (S) and Auburn (S). July, 1968. Collected from red oak.


H85 C. obsoleta (Nort.). Portland (S) and Falmouth (S). Reared from English white oak. Two generations. Eggs are laid by the first week in June. Larvae hatch by mid June. Adults emerge the second and third week in July. The second generation lays its eggs the first week in August. Larvae of the second generation are present through mid September. This species overwinters in cocoons in the soil.


Life Cycle:
  Egg: From mid June through mid August
  Larva: From early July through mid October
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Prepupa: From late August this stage overwinters and may be present until late June of the next season.

Pupa: June and the early part of July

Adult: June and July

Hosts

White and gray birch are the preferred hosts although the species may infest all of our native and ornamental birches as well as occasionally alder and hazelnut.

History

Although this species was reported in North America as early as 1909 it was not reported from Maine until 1926 when it caused noticeable defoliation of birch. By the early 1930's it was causing significant defoliation of birch throughout the state and a great deal of concern was expressed over the possible impact to our prized white birch. An ambitious program of study including evaluation and control was begun in 1927 and this continued until roughly 1936. Populations of this sawfly were declining steadily in the late 1930's and by 1940 were at very low levels. By 1960 it was difficult to find even single trees infested by this species.

Biological Control

During the course of study, a great volume of birch leaf miners were reared for parasites and an extensive parasite list established. In addition 4 species of European parasites were liberated:

Chrysocharis sp. (H 1008)
C. laricinellae (Ratz.) (H 1009)
Phanomeris phyllotomae Mues. (H 174)
Scambus foliae (Cush.) (H 324)

Parasites:

Hymenoptera:

Achrysocharella sp. (H 1013)
Aclista sp. (H 1130)
Acrolyta washingtonensis (Cush.) (H 397)
Agathis dimidiator (Nees.) (H 193)
Agrothereutes abbreviator iridescens Cress. (H 447)
Agrypon chlamidiatum (Prov.) (H 618)
Alophosternum n. sp. (H 334)
A. foliicola Cush. (H 334)
Apanteles sp. (H 241)
Aspilota sp. (H 219)
A. petiolata (Prov.) (H 221)
Bracon juncicola Ashm. (H 164)
TENTHREDINIDAE

_Buccultraiplex bucculatricis_ Ashm. (H 178)
_Campoplex_ sp. (H 626)
_Chrysocharis_ sp. (H 1008)
_C. laricinellae_ (Ratz) (H 1009)
_Cirrospilus_ sp. (H 983)
_C. cinctithorax_ (Gir.) (H 983)
_C. flavicinctus_ Riley (H 983)
_Cratospila_ sp.
_Crematogaster lineolata lineolata_ Say. (H 1379)
_Exocharus_ sp. (H 558)
_Gelis_ sp. (H 403)
_G. obscurus_ (Cress.) (H 407)
_G. urbaus_ (Brues). (H 410)
_Gonatopus_ sp. (H 1248)
_Habronyx_ sp. (H 611)
_Mesochorus_ sp. (H 706)
_M. Zuteipes_ Cress. (H 710)
_Meteorus indagator_ (Riley) (H 284)
_Monodontomerus_ n. sp. (H 761)
_Oncoptenes_ sp. (H 174)
_O. betulae_ Mues. (H 174)
_Opius cincticornis_ Gah. (H 205)
_Orthocentrus tetrazonatus_ (Ashm.) (H 735)
_Phaeogenes_ sp. near _hariolus_ Cress. (H 490)
_Phanomeris phyllotomae_ Mues. (H 174)
_Platygaster_ sp. (H 1176)
_Pnigalio_ sp. (H 967)
_Rhoptromeris_ sp. (H 1056)
_Rhysipolis_ sp. (H 175)
_Rogas scrutator_ (Say) (H 181)
_Scambus foliae_ (Cush.) (H 324) (Introduced but not established)
_S. hispae_ (Harr.) (H 324)
_Stenomacrus_ sp. (H 736)
_Sympiesis_ sp. (H 969)
_Torymus_ sp. (H 750)
_Trichogramma minutum_ Riley (H 1039)
_Trichopria_ sp. (H 1145)

References

Most of the work on this species was conducted out of the first field lab at Bar Harbor. This work is summarized in some detail in the publication:
TENTHREDINIDAE


*H86 *Metallus capitalis (Nort.). Bar Harbor (E) and Amherst (E). Larva - September; Adult - April through June. A miner on raspberry.

*H86 *M. rohweri MacG. Mt. Desert (E), Bar Harbor (E), and Augusta (S). Larva - September; Adult - April through August. A miner on blackberry and raspberry.

*H86 *Messa nana (Klug). Augusta (S), Rumford (W), Bucksport (E), Scarborough (S), and S. Berwick (S).

**Life Cycle:**
- Egg: June
- Larva: June through July
- Prepupa: Overwinters
- Pupa: May through June
- Adult: June

**Hosts**
A leaf miner on white, gray, and yellow birch.

**Parasites:**
- *Phanomeris phyllotomae* Mues. (H 174)

*H86 *M. populifoliella (Tnsd.). Augusta (S). A blotch miner on poplar. One miner collected in May of 1949 emerged as an adult in April of 1950.

*H87 *Profemusa alumna (MacG.). Redoak Leaf Mining Sawfly. Found throughout the southern half of the state on red oak. This species reached epidemic proportions in the 1950's and 1960's. P. aZumna was studied in some detail in Maine and at one point was described as a new species Profemusa mainensis by D.R. Smith.

**Life Cycle:**
- Egg: June through July
- Larva: July through August
- Prepupa: Overwinters
- Pupa: June
- Adult: June through July

**Parasites:**
- *Endasys* sp. (H 417)
- *Lathrolestes* sp. (H 591)
- *Eupelmus* sp. (H 880)
TENTHREDINIDAE

*H87  *P. canadensis* (Marlatt). Augusta (S) and Boothbay Harbor (S). June. Reared from hawthorn.

*87  *P. lucifex* (Ross). Portland (Evergreen Cemetary) (S), S. Berwick (S), Limington (S), and Benton (S). Hosts in Maine are red, bur, and white oak. First collected in Maine in 1965.

**Life Cycle:**
- **Egg:** May through June
- **Larva:** June
- **Prepupa:** Overwinters
- **Pupa:** May through June
- **Adult:** May through June

**Parasites:**
- *Closterocerus tricinctus* (Ashm.) (H 1007)
- *Pnigalio* sp. (H 967)
- *Tetrastichus ecus* (Walker) (H 994)

*H87  *P. thomsoni* (Kon.). Introduced. Statewide. First collected in Maine at Bar Harbor in 1946. Populations of this leaf miner were at epidemic levels in western and southern Maine during much of the 1960's. Reared from white, gray, and yellow birch.

**Life Cycle:**
- **Egg:** June through July
- **Larva:** July through August
- **Prepupa:** Overwinters
- **Pupa:** May through June
- **Adult:** June, July, and August

*H88  *Fenusa dohrnii* (Tischbein). European Alder Leaf Miner. Stratton (W), Augusta (S), and Mexico (W). May. Reared from European Black Alder and *Alnus* sp. An uncommon species in Maine.

*H88  *F. pusilla* (Lepeletier). Introduced. Birch Leaf Miner. Statewide. This European species was first noticed in Maine in 1927. It is now our commonest leaf miner of gray and hybrid birch (gray x white). It also occurs on white birch. There are continuous generations throughout the summer months. The first generation of adults emerge as the leaf buds open in the spring. All stages appear throughout the summer. Overwintering occurs as prepupae in the soil.
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*H90  *Tethida cordigera* (Beauvois). Blackheaded Ash Sawfly. Gloucester (S) and Augusta (S). Larva - June; Adult - April. Collected from white ash. Reared from ash sprouts.

*H91  *Paracharactus rudis* (Nort.). Brunswick (S) and S. Berwick (S). June.

H93  *Stethomostus fuliginosus* (Schrank) Introduced? Augusta (S). 1944. Collected from spruce.


*H94  *Apareophora rossi* Smith. Brunswick (S) and Bar Harbor (E). May, June, and September. First collected in Maine in 1941. Reared from white pine. Described from Maine material. Two paratypes in our collection.


*H99  *Eriocampa juglandis* (Fitch). Augusta (S). Larva - August; Adult - April through June. Reared from hickory and butternut.

H99  *Dimorphopteryx* sp. Turner (S). July, 1968. Larvae which appear to be species of this genus have been fairly commonly collected from white birch in the southern portion of the State.


*H101  *E. ignota* (Nort.). Ashland (N) and Oxbow (N). Adults collected from fir in June.
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*H101 *E. maculata* (Nort.). Statewide. May through July. Collected from alder and fir. Hosts are listed as cinquefoil and strawberry.

*HIC2 *E. multicolor* (Nort.). E. Machias (E) and Coburn Gore (W). Larva - August; Adult-April. Collected from spruce. Reared from yellow birch.

*H102 *E. obscurata* (Cress.). T15 R14 (N), S. Berwick (S), and Pittston (S). May and June. Collected from white oak and fir.

*H103 *Monostegia inferentia* (Nort.). Brunswick (S) and Harrington (E). June. May in fact be *Monosoma inferentia* (Nort.).


*H104 *A. recens* (Say). T42 MD (E) and Auburn (S). June and August. Collected from beech.

*H105 *Allantus cinctus* (Linnaeus). Curled Rose Sawfly. Bar Harbor (E), Augusta (S), and Mechanic Falls (S). June and July. Collected from cultivated rose bushes.


*H114 *T. leucostoma* Kirby. Washington (S) and Bar Harbor (E). April through July. Collected from willow.

H115 *T. grandis* (Nort.). Bar Harbor (E). June, 1938. Host is listed as turtlehead.
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*H121  *M. varia* (Nort.). Mt. Desert (E). June and July.

*H122  *M. zonalis* Nort. Auburn (S) and Brunswick (S). June and July. Collected from black raspberry.


Hymenoptera:

*Ibalia maculipennis* Hald. (H 1046)  
*Megarhyssa atrata* (Fab.) (H 354)  
*M. greenei* Vier. (H 354)  
*M. macrurus macrurus* (L.) (H 354)

Family XIPHYDRIIDAE

*H130  *Xiphydria* sp. Tll R9 (N). September, 1951. Collected from white birch. Species in this genus are wood borers and frequently emerge from firewood in the home.


Family CEPHIDAE


Suborder APOCRITA

Family BRACONIDAE

H148  *Dendrosoter protuberans* (Nees.). Introduced. Colonies of this introduced European parasite were obtained from Delaware, Ohio for release against *Scolytus multistriatus* (Marsh.) (C 18173) in Maine. The first releases were made in Biddeford (S) on July 3, 1965. Also, three releases made in Biddeford (S), Scarborough (S), and Westbrook (S) in 1969. No recovery has been made to date. Laboratory cultures of the host parasitized in late May produced adult parasites in July, 44 days later.

*H148  *Doryctes* sp. Salisbury Cove (Bar Harbor) (E). Collected in September, 1944. Emerged in May and June of 1945. Adults of these parasites were reared from fir. Host: Undetermined.


*H151  *Heterospilus* sp. Bangor (S). June, 1932. Bred from white pine twigs infested with Ipidae (Scolytidae).

*H153  *H. leptostyli* Rohwer. Mt. Desert (E). June, 1932. Reared from *Prumus* sp. containing larvae of.....*Rhopalopus sanquinicollis* (Horn) (C 14612), *Syntedon pictipes* Grote and Rob. (L 8720) and miscellaneous Coleoptera material.


*H157  *Spathius* spp. Bar Harbor (E) and Augusta (S). May and June. Reared from larch and from arborvitae containing cerambycid larvae.

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*H158  *S. canadensis* Ashm. Berwick (S) and T30 (Wesley) (E). Reared specimens only emerging as adults in September and in May. **Host: Scolyton multistriatus** (Marsh.) (C 18173).

*H159  *S. simillimus* Ashm. Rangeley (W), Stratton (W), Oquossoc (W), and Salem (W). Adults emerged from rearings from March through August. Bred from white birch logs containing *Agrilus anxius* Gory (C 9504) and ambrosia beetles.

*H159  Atanycolus* sp. Bar Harbor (E), Salem (W), Strong (W), and Jackman (W). June. Bred from logs containing *Agrilus anxius* Gory (C 9504) (birch logs) and *Saperda concolor* LeC. (C 15123).


*H161  *A. ulmicola* (Vier.). T4 R9 (N) and Stoneham (S). August. Collected from beech.


*H163  *B. gelechiae* Ashm. Bar Harbor (E) and Passadumkeag (E). Adult - June and July. **Hosts: Recurvaria thujaella** Kft. (L 7887) and *Coleophora loricella* Hbn. (L 9098). Also collected from spruce.


H164  *B. iuncicola* Ashm. Mt. Desert (E) and S.W. Harbor (E). 1931. **Hosts: Coleophora salmani** Heinr. (L 9097) and *Heterarthrus nemoratus* Fallen (H 85).


H167  *B. pygmaeus* Prov. Southern and Eastern Maine. 1932 and 1933. **Hosts: Coleophora cinerella** Cham. (L 9103) and *C. salmani* Heinr. (L 9097).

**BRACONIDAE**


H171 Iphialax augustus Vier. S.W. Harbor (E).


*H174 O. americanus (Weed). TD R2 (Bridgewater) (N) and Portland (S). April and July. Collected from oak. Reared from a tortricid larva on yellow birch.


*H174 Phanomeris spp. Augusta (S). Adult - July and September. Collected from red oak. Reared from Birch Leaf Miner larva (*Fenusa pusilla* Lepeletier (H 88)).

*H174 P. m. sp. Augusta (S) and Whitefield (S). Larva - August and September. Adult - May through July. Many reared from lab stock with little data. Oak plots suspected source.


*H174 P. phyllostomae Mues. Bar Harbor (E), Jim Pond (W), and Strong (W). June. Hosts: *Anchylopera discigerana* Wlk. (L 7178), *Heterarthrus nemoratus* (Fallen) (H 85), and *Mesa nana* (Klug) (H 86).


**Hosts:**
- *Gracilaria eueulipennella* Hbn. (L 9398)
- *Heterarthrus nemoratus* (Fallen) (H 85)
- *Bueculatrix* sp. (L 9428+) (on red oak)
- *Semiothisa* sp. (L 4669+) (on spruce and fir)


BRACONIDAE

*H178 Aleiodes parasiticus Nort. T9 R5 (N) and T8 R5 (N). May. **Hosts:** Autographa sp. (L 3246+) and A. seleeta Wlk. (L 3266).

*H178 Bucculatrix pectoralis (Ashm.). Nicatous Lake (E), Brunswick (S), and Canton (S). June and July. **Hosts:** Heterarthrus nemoratus (Fallen) (H 85), Bucculatrix ainsliella Murt. (L 9452), Bucculatrix canadensisella Cham. (L 9448.1), and larvae on red oak and white birch.

*H178 Clinocentrus sp. T4 R11 (Chesuncook) (N). Collected June 20, 1942 and emerged May, 1943. **Host:** Lepidoptera larva on larch.

*H179 Rogas sp. Clayton Lake (Til R14) (N), Eustis (W), Bar Harbor (E), and Lincoln (E). June through August. **Hosts:** Celerio gallii intermedia Kby. (L 798a), Lexis bicolor Grote (L 905), and Paraphia sp. (L 4807+).

*H181 R. scrutator (Say). Bar Harbor (E) and T2 R13 (W). June and July. **Hosts:** Heterarthrus nemoratus (Fallen) (H 85), Paraphia pinia Pack (L 4811), and Catocala relicta Wlk. (L 3344).


*H181 R. terminalis (Cress.). Bar Harbor (E) and Dennysville (E). July and October.


H183 Wroughtonia ligator (Say). Salem (W), China (S), and Amherst (E). Reared from logs of Betula papyrifera infested with Agrilus anxius Gory (C 9504) and ambrosia beetles.

*H185 Diospilus sp. Augusta (S). August. Reared from larva on Portulaca sp.

*H185 Zele sp. Statewide. June and August. **Hosts:** Ellopia fiscellaria Gn. (L 5146) and Nepyia canosaria Wlk. (L 5109).


H186 Zemiotes maximus (Mues.). Bar Harbor (E). 1933. **Host:** Lepidopterous larva on maple.

*H186 Z. niveitarsis (Cress.). Augusta (S) and Mt. Desert (E). July and September. **Hosts:** Salebria virgatella Clem. (L 6205), Acrobasis betulella Hlst. (L 6101), and Acrobasis compostiella Hlst. (L 6104).
BRACONIDAE

*H186 Macrocentrus sp. Skinner (W), T2 Rll (Greenville) (W), and Augusta (S). July and August. Hosts: (?) Malacosoma disstria Hbn. (L 3997), Argyrotaenia (L 7443+), microlepidoptera, and a tortricid.


*H188 M. irideszens French. T15 Rll (N), Skinner (W), T17 R5 (N), T9 R5 (N), and T13 R9 (N). July. Hosts: (?) Malacosoma disstria Hbn. (L 3997), Archips rosalcaena Harris (L 7405), Choristoneura fumiferana (Clem.) (L 7408), and a miscellaneous tortricid.


*H189 M. nigridorsis Vier. T8 R3 (N), Gilead (W), C Surplus (W), and Ta R8 & 9 (E). July. Collected sweeping white birch. Hosts: Tortrix packardiana Fern. (L 7418 and Sparganothis sp. (L 7317).

*H189 M. peroneae Mues. Augusta (S) and Hammond Plt. (N). June through August. Hosts: Argyrotaenia sp. (L 7443+) and Tortrix packardiana Fern. (L 7418).

*H190 M. uniformis Prov. Ashland (N), T4 R7 (N), and Ellsworth (E). May and June. Hosts: Diprion sp. (H 37) and Semiothisa sp. (L 4670 4726)

*H191 Agathis spp. Pittston (W) and Bar Harbor (E). July. Host: Zeiraphera ratzeburgiana Ratz. (L 7074) and (?).


*H192 A. binominata Mues. Statewide. May through August.

Hosts:
Recurvaria sp. (L 7875+)
R. piceaella Kft. (L 7892)
Zeiraphera sp. (L 7073+)
Epinotia nanana Treit. (L 7161)
Petrova comstockiana Fern. (L 6754)
BRACONIDAE

*H192  *A. calcarata* (Cress.). Mt. Desert (E), Augusta (S), and Bar Harbor (E). August. **Host:** *Acrobasis comptoniella* Hlst. (H 6104). Microlepidoptera on alder.


**Hosts:**
- *Coleophora laricella* Hbn. (L 9098)
- *C. salmani* Heinr. (L 9097)
- *C. limosipenella* Dup. (L 9088)
- *C. cinerella* Cham. (L 9103)

*H193  *A. dimidiator* (Nees.). Strong (W), T4 R4 (W), and T14 R6 (N). June and July. **Hosts:** *Heterarthrus nemoratus* (Fallen) (H 85) and *Recurvaria* sp. (L 7875+).

*H194  *A. malivorellae* Shenefelt. Bar Harbor (E) and Mt. Desert (E). May and August. **Hosts:** *Coleophora* sp. (L 9055+) on *Myrica asplenifolia* and *M. gale* and *C. cinerella* Cham. (L 9103) (on poplar).

*H194  *A. pini* Mues. Southport (S) and Popham (S). June. **Host:** *Petrova comstockiana* Fern. (L 6754).

*H195  *A. pumila* (Ratzeburg). Introduced. T18 R13 (N). One lot from Melrose, Ma. laboratory was released in West Sidney (S) on July 28, 1933. It is not known whether or not recovery was made. June. **Host:** *Coleophora laricella* Hbn. (L 9098).

*H202  *Opinus* spp. Nicatous Lake (E), Bar Harbor (E), and Gilead (S). July. Collected from sweeping white birch. **Hosts:** *Chrysopora lingulacea* Clem. (L 7854), *C. hermannella* Fab. (L 7855), and *Bucculatrix canadensisella* Cham. (L 9448.1).

*H205  *O. cincticornis* Gahan. Rangeley (W) and Eustis (W). June and July. **Hosts:** Prob. Dipterous leaf miner (Mues.) and *Heterarthrus nemoratus* (Fallen) (H 85).

*H207  *O. fulvicollis* Thoms. Bar Harbor (E). **Host:** *Chrysopora hermannella* Fab. (L 7855) or *C. lingulacea* Clem. (L 7854).


*H216  *Dacnusa* spp. Augusta (S) and Gilead (S). June and July. **Host:** *Plutella porrectella* L. (L 8870). Also collected while sweeping white birch.

*H219  *Aphaereta pallipes* (Say). Willimantic (S). August, 1955. **Host:** *Calocalpe prunivorata* Ferguson (L 4247.1).
BRACONIDAE

*H219 *Aspilota* spp. Nicatous Lake (E), Bar Harbor (E), Caratunk (W), Augusta (S), and Eustis (W). June (most); July and September (one record from eggs of *L. dispar*). **Hosts:** *Bucculatrix canadensisella* Cham. (L 9448.1), *Notodontidae, Lymantria dispar* (L.) (L 3965) (from egg masses), (?) *Heterarthrus nemoratus* (Fallen) (H 85), probably parasite of Diptera.


*H230 *Ascogaster* spp. Masardis (N), Christmas Cove (S), and Wesley (E). June and July. Collected from fir and spruce. **Host:** *Peronea variana* Fern. (L 7481).

H230 *Ascogaster* sp. (near mimetica Vier.). Chester (E). 1935. **Host:** *Taniva alboleana* Kft. (L 6630).

*H230 *A. provancheri* D.T. Tll R8 (N) and Nicatous Lake (E). July and August. Collected on white birch. **Host:** *Zeiraphera* sp. (L 7073+) (on spruce).


*H231 *Chelonus* spp. Forsythe (W), Christmas Cove (S), Friendship (S), and Bar Harbor (E). June and July. Collected from white birch logs containing *Agrilus anxius* Gory and Ambrosia beetles. **Hosts:** *Dichomeris marginella* Fab. (L 8299), *Recurvaria piceaella* Kft. (L 7892), *Epinotia nanana* Treit. (L 7161), and arborvitae leaf miners.


*H241 *Apanteles* spp. Statewide. May through September. This genus is very common and many rearings from a variety of hosts have been made.

**Hosts:**

- *Panthea acronyctoides* Wlk. (L 1125)
- *Camptylochila* (Epizeuxis) sp. (L 3752+)
- *Nepytia canosaria* Wlk. (L 5109)
- *Dicymolomia julianalis* Wlk. (L 5347)
- *Zeiraphera* sp. (L 7073)
- *Epinotia nanana* Treit. (L 7161)
- *Anchylopera* sp. (L 7175+)
- *Tortrix packardiana* Fern. (L 7418)
- *Recurvaria apicitrumpunctella* Clem. (L 7880)
- *R. piceaella* Kft. (L 7892)
- *Eucordylea atrupictella* Dietz (L 7908)
- *Lithocolletis hamametiella* Busck. (L 9266)
BRACONIDAE

_Heterarthrus nemoratus_ (Fallen) (H 85)
Also from a tortricid, a phalaenid, and a syrphid fly.

*H241  _A_. n. spp. Statewide. **Hosts:** _Archips conflictana_ Wlk. (H 7407) and various poplar leaf feeders.

H241  _A_. n. sp. Bar Harbor (S) and Mt. Desert Is. (S). July. **Host:** Arborvitae leaf miner larvae.

*H242  _A_. acaudus (Prov.). Waltham (E). June, 1932. **Host:** _A_. conflictana (?) Wlk. (H 7407). Also reported as a parasite of _Graptolitha laticinerea_ Grote (L 7242+) (record lost) and a geometrid.

*H244  _A_. carpatus (Say). Bar Harbor (E). **Host:** Tineid from a swallow's nest.

H245  _A_. depressariae Mues. Kenduskeag (S) and Bangor (S). **Host:** _Depressaria herculiana_ DeG. (L 8404).


*H247  _A_. fiskei Vier. Talmadge (E), Northfield (E), and T7 R8 (N). July. **Hosts:** _Olene_ sp. (L 3951+) and _O_. _plagiata_ Wlk. (L 3961).

*H247  _A_. fumiferanae Vier. Statewide. June and July. One of our most common early larval spruce budworm parasites. This species overwinters in hibernating spruce budworm larvae and continues development in the spring. **Host:** _Choristoneura fumiferana_ Clem. (L 7408).

*H247  _A_. glomeratus (L.). Mt. Desert (E) and Bar Harbor (E). July, 1933. **Host:** _Pieris rapae_ L. (L 86).


H248  _A_. halisidotae Mues. Statewide. **Host:** _Halisidota maculata_ Harr. (L 980).

*H248  _A_. hyphantriae Riley. Statewide. July and August. **Host:** _Hyphantria cunea_ Dru. (L 1075) (or _textor_ Harris (L 1074).

*H250  _A_. melanoscelus (Ratz.). Augusta (S) and Blue Hill (E). July. **Host:** _Lymantria dispar_ L. (L 3965).

*H252  _A_. ornigos Weed. Statewide. April through July. **Hosts:** _Lithocolletis martiella_ Braun. (L 9185), _L_. sp. near _incanella_ Wlshm. (L 9205) on alder), and _L_. spp. (L 9164+).
BRACONIDAE

*H252  *A. paleacrita*e Riley.  Parkman (S).  June, 1954.  **Host:** Alsophila pometaria Harr. (L 4026).

*H252  *A. paralechiac* Mues.  Statewide.  May through August.  **Hosts:** Argyresthia sp. (L 8879+) on cedar, Recurvaria sp. (L 7875+) on fir, and R. thujaella Kft. (L 7887).

H252  *A. parastichtidis* Mues.  Waltham (E) and Bar Harbor (E).  **Host:** Archips conflictana Wlk. (L 7407).

*H253  *A. polychrosidis* Vier.  Indiantown (E).  June, 1953.  **Host:** Exartema sp. (L 6658+).

*H254  *A. scitulus* Riley.  Mt. Desert (E).  September, 1932.  **Hosts:** Acronicta sp. (L 1147+) and A. oblinata A. and S. (L 1215).

*H254  *A. smerinhi* Riley.  Augusta (S).  April through June.  **Host:** Sphinx sp. (L 712+) on trembling aspen.

*H255  *A. thujae* Mues.  Mt. Desert (E).  **Host:** Recurvaria thujaella Kft. (L 7887).  PARATYPES.

*H256  Hypomicrogaster ecdytolophae* Mues.  S. China (S).  June, 1948.  **Host:** Recurvaria apicitripunctella Clem. (L 7880).

*H256  H. schizurae* (Mues.).  Charlotte (E), Nicatous (E), and Mt. Desert TE).  June.  **Hosts:** Notodontid larvae, Heterocampa mantoe Dbdly. (L 3905) and Gracillaria syringella Fab. (L 9398.1).

*H257  Microgaster** spp.  Gilead (S), Canton (S), and Brunswick (S).  June and July.  Collected from white birch.

*H257  M. canadensis* Mues.  Bancroft (E) and Mt. Desert (E).  April and July.  **Host:** Archips conflictana Wlk. (L 7407).

H258  *M. hospes* Marsh.  Enfield (E).  1933.  **Host:** Argyresthia calliphanes Meyr. (L 8889).

*H258  Microplitis** spp.  Bar Harbor (E), T9 R3 (N), and Levant (S).  July.  **Hosts:** Catocala antinympha Hbn. (L 3316), and a noctuid.


*H262  Protronicplitis facetosa* (Weed).  Northern half of the state.  April through August.
BRACONIDAE

Hosts:

* Plathypena scabra Fab. (L 3705)
* Neodiprion sp. (H 35) near edwardsi
* Nepytia canosaria Wlk. (L 5109)
* Semiothisa sp. (L 4670+)
* Elaphria versicolor Grote (L 2645)

H265 *Ichneutes pikonematis* Mason. Augusta (S), Waterville (S), Abbott (S), Phippsburg (S), and Waldoboro (S). June. Bred specimens emerged in April and May. Host: Reared from cocoons of *Pikonema alaskensis* (Rohwer) (H 59).

H265 *Ichneutidea proteroptoides* Vier. Dead River (W) and Augusta (S). July and August. Hosts: *Schizocerella pilicornis* (Holm.) (H 25) and *Pikonema alaskensis* (Rohwer) (H 59).

H270 *Allodorus crassigaster* (Prov.). Bar Harbor (E) and Parkman (S). May, June, and October. Hosts: Borers on fir, Coleoptera (?), in Elm.

H270 *Eubadizon* spp. (? Eubazus spp.). Christmas Cove (E), Augusta (S), and Woolwich (S). July. Collected from red oak, elm, hemlock, and fir. Hosts: Bark beetles (?) or woodborers (?).


Hosts:

* Griselda sp. (L 7097+)
* Zeiraphera sp. (L 7073+)
* Epinotia nanana Treit. (L 7161)
* Choristoneura fumiferana Clem. (L 7408)
* Peronea variana Fern. (L 7481)
* Recurvaria piceaella Kft. (L 7892)

H276 *Orgilus* spp. Moose River (W), Bar Harbor (E), and Gilead (S). June through August. Hosts: *Recurvaria* sp. (L 7875+) and *Coleophora salmani* Heinr. (L 9097).


BRACONIDAE

*H279  *O. maculiventris* (Cress.). Lincoln (E), West Gardiner (S), and Bar Harbor (E). June and July. **Host:** *Argyresthia* spp. (L 8879+) on arborvitae and eastern red cedar.

*H282  *Meteorus* spp.  T18 R11 (N), Northfield (E), and Fort Kent (N). July through September.

**Hosts:**

*Lexis bicolor* Grote (L 905)
*Elaphria* sp. (L 2642+)
*E. versicolor* Grote (L 2645)
*Archips* sp. (L 7377+)
*Peronea* sp. (L 7472+)


*H282  *M. bakeri* Cook and Davis. Augusta (S). June, 1949. **Host:** *Camphyiochila aemula* Hbn. (L 3735).


*H283  *M. communis* (Cress.). Bar Harbor (E), Pleasant Ridge Plt. (W), and Ti7 R4 (N). July. **Hosts:** *Semiothisa* sp. (L 4760+), *Graptolitha* sp. (L 2217+), *G. bethunei* Grote and Rob. (L 2220), and Noctuidae.

*H283  *M. dimidiatus* (Cress.). S. Bristol (S) and Augusta (S). June through September. **Hosts:** *Epizeuris* (Zanclognatha) sp. (L 3752), *E. protumnusalis* Wlk. (L 3760), and Lepidopterous miner on *Phaseolus* sp.

H283  *M. humilis* (Cress.). Bar Harbor (E). 1939. **Host:** ? Tinead in fungi.


*H284  *M. indagator* (Riley). Kingman (E) and Mt. Desert (E). July. **Hosts:** *Acrobasis betulella* H1st. (L 6101), *A. comptoniella* H1st. (L 6104), and *Heterarthrus nemoratus* (Fallen) (H 85).


**Hosts:**

*Graptolitha* sp. (L 2217+)
BRACONIDAE

G. bethunei Grote and Rob. (L 2220)
Agrotis ypsilon Rott. (L 1435)
Feltia subgothica Haw. (L 1445)


*H285 M. versicolor (Wes.). ? Introduced. Southern half of the State. May and June. Large numbers of cocoons tentatively identified as this species have been collected from the trunks of trees infested with Leucoma salicis (L.) (L 3966). Reared. Parasite: Gelis sp. (H 403).

*H287 Euphoriella incerta (Ashm.). Canton (S). June. Collected from red oak.


Family APHIDIIDAE


Family ICHNEUMONIDAE

*H321 Exeristes comstockii (Cress.). Bar Harbor (E), Kokadjo (W), and N.E. Harbor (E). July and August.

Hosts:
Pinipestis zimmermanni Grote (L 6133)
Petrova comstockiana Fern. (L 6754)
Pissodes strobi (Pack) (C 16845)
Acrobasis sp. (L 6079+)
ICHNEUMONIDAE

*H324 * *Scambus* spp. Bar Harbor (E) and Bridgton (S). June. Collected from blue spruce and white birch. **Hosts:** *Taniva albolineana* Kft. (L 6630) and *Heterarthrus nemoratus* (Fallen) (H 85).

*H324 * *S. hispae* (Harris.). Statewide. June through August.

**Hosts:**
- *Heterarthrus nemoratus* (Fallen) (H 85)
- *Coleophora alnivorella* (?) (L 9055+)
- *C. salmani* Heirn. (L 9097)
- *Dicymolomia julianalis* Wlk. (L 5347)
- *Recurvaria thujaella* Kft. (L 7887)

*H328 * *Dolichomitus* spp. Bingham (W), Readfield (S), and China (S). July. Collected from white birch and red pine logs.

*H329 * *D. messor perlongus* (Cress.). Salem (W), Old Town (S), and Princeton (E). June and July. Bred from logs containing *Agrilus anxius* Gory (C 9504).

*H330 * *D. terebrans nubilipennis* (Vier.). Bar Harbor (E). Tune. Or fir infested with borers.


*H332 * *Iseropus stercorator orgyiae* (Ashm.). Single record in July, 1945 from Coburn Gore (W). **Host:** *Feralia* sp. (L 2183+).

*H333 * *Tromatobia rufopunctus* (Cress.). Mt. Desert (E). June, 1932. **Host:** (?) Spiders.

*H333 * *Zaglyptus varipes* incomplectus (Cress.). Topsfield (E). September, 1933.


*H334 * *Alophosternum foliicola* Cush. Statewide. May through July.

**Hosts:**
- *Lithocolletis salicifoliella* Cham. (L 9225)
- *L. corylisella* Cham. (L 9262)
- *Brachys* sp. (C 9568+) on willow
- *Heterarthrus nemoratus* (Fallen) (H 85)
- *Cameraria aceriella* (?) Clem. (L 9265)

ICHNEUMONIDAE


**Hosts:**
- *Olene* sp. (L 3951+)
- *O. plagiata* Wlk. (L 3961)
- *Malacosoma americana* Fab. (L 3989)
- *M. disstria* Hbn. (L 3997)
- *Lambdina fiscellaria* Gn. (L 5146)
- *Acrobas porcompleta* Hlst. (L 6104)
- *Dioryctria abietella* D. and S. (L 6129)
- *Sparganothis lycopodiana* Kft. (L 7351)
- *Archips cerastiorana* Fitch. (L 7384)
- *Choristoneura fumiferana* Clem. (L 7408)
- *Peronea variana* Fern. (L 7481)
- *Coleophora salmri* Heinr. (L 9097)
- Arborvitae Leaf Miners

*H341  *L. quadricingulatus* (Prov.). Talmadge (E), Mt. Desert (E), and West Forks (W). July.

**Hosts:**
- *Ancylis* sp. (L 7193+) on bearberry
- *A. comptana* Froh. (L 7193)
- *Anchlopera* spp. (L 7175+)
- *Gilpinia hercyniae* (Hartig) (H 38)

*H342  *L. vesca* Townes. Single specimen from St. Francis (N) in July, 1947. **Host:** *Peronea* sp. (L 7472+) on fir.

*H342  *Ephialtes annulicornis annulicornis* (Cress.). Seboomook (W) and Mattamiscontis (Tl R7) (E). July.

*H342  *E. ontario* (Cress.). Statewide. July and August. Common **Hosts:** *Choristoneura fumiferana* Clem. (L 7408) and *Ellipia fiscellaria* Gn. (L 5146).


H344  *C. aquilonius* (Cress.). Bar Harbor (E), Nicatous Lake (E), and West Forks (W). July.
ICHNEUMONIDAE

H345  *C. nudus* (Townes). Passadumkeag (E). October. **Hosts:** *Gilpinia hercyniae* (Hartig) (H 38) and *Neodiprion* n. sp. (H 35).

*H345  *C. pedalis* (Cress.). Statewide. June through August.

**Hosts:**

*Lymantria dispar* L. (L 3965)
*Malacosoma americana* Fab. (L 3989)
*M. disstria* Hbn. (L 3997)
*Thera juniperata* L. (L 4431.1)
*Ellopiella fiscellaria* Gn. (L 5146)
*Gilpinia hercyniae* (Hartig) (H 38)

*H347  Theronia atalanta fulvescens* (Cress.). Statewide. July and August. **Hosts:**

*Malacosoma disstria* Hbn. (L 3997) and *Lymantria dispar* L. (L 3965).


*H349  Delomerista japonica diprionis* Cush. Augusta (S), Lincoln (E), Pemaquid (S), and Westport (S). June through September. **Hosts:** *Neodiprion* spp. (H 35) and *Gilpinia hercyniae* (Hartig) (H 38). We have a number of Maine records listed simply as *Delomerista n. sp.* which are likely this species. Specimens were kept by Cushman.

*H349  Pseudorhyssa maculicosis* (Kriech.) Bar Harbor (E) June 1944

*H352  Rhyssa lineolata* (Kby.). Statewide. June through September. Collected from various hosts and usually associated with woodborers.


ICHNEUMONIDAE

*H358  Phytophagus spp.  Freedom (S), Jefferson (S), and T30 MD (E).  August.  Hosts:  
Argyrotaenia sp.  (L 7443+), pyraloid and a microlepidoptera.

H358  P. burgessi  (Cress.).  Greenville (W) and Charlotte (E).  June and July.  Host:  Leaf  
rollers.

*H359  P. fumiferanae  Rohwer.  Introduced into Maine from British Columbia.  It was reared  
and released in Northern Maine between 1948 and 1958.  No definite recovery has been  
made in the field since that time and apparently the species did not become established.  
It has been thought that with different methodology, success might be achieved.  A  
total of 2,086 mated females were released in various locations.

Life Cycle:
Egg:  June  
Larva:  June and July.  Overwinters as a mature larva.  
Pupa:  May  
Adult:  June  

Host:
Reared on Choristoneura fumiferana Clem.  (L 7408) in the East but it occurs on  
other Choristoneura within its native range in the West.

folder on Amelanchier).

*H359  P. vulgaris  Cress.  Mt. Desert (E), T4 R2 (Crockertown) (W), and Oxbow  N).  May and  
June.

Hosts:
Argyrotaenia pinatubana  Kft.  (L 7445)  
Sciaphila duplex  Wlishm.  (L 6653)  
Choristoneura fumiferana Clem.  (L 7408)  
Sparganothis sp.  (L 7317+)


*H360  N. tarsata  (Brischke).  Bar Harbor (E).  August through October.  Collected from light  
traps.


ICHNEUMONIDAE


*H365  *Neliopisthus semirufus* (Prov.). Augusta (S) and Maine (?). May. **Host:** Cryptolechia sp. (L 8467+) (= *Psilocorois*) on *Castanea*.

H367  *Grypocentros* sp. Bar Harbor (E). October, 1933. **Host:** Sawfly on blackberry.

*H368  *Polyblastos* sp. Mt. Desert (E) and Portage (N). May and August. Collected from moss under spruce and a leaf roller.

*H368  *P. pedalis* Cress. Lincoln (E) and Bar Harbor (E). May and June. **Hosts:** *Croesus latitarsus* Nort. (H 66) and a sawfly on birch.

*H372  *Errromonus* sp. near *punctulatus* Holmgren. Bar Harbor (E) and Amherst (E). Reared from a sawfly (no host given). Collected from raspberry.


*H373  *Monoblastus* sp. Phippsburg (S), Augusta (S), Abbott (S), Weeks Mills (S), and Somerville (S). Common. Larva July; Adult May and June. **Host:** *Pikonema alaskensis* (Rohwer) (H 59). Specimens identified as this genus by R.A. Cushman may in fact belong elsewhere taxonomically.


*H381  *Exenterus* sp. Newfield (S) and Augusta (S). July and August. Collected from white pine. **Host:** *Neodiprion pinetum* (H 33).

*H382  *E. affinis* Rohwer. Lincoln (E), T31 MD (E), and Mt. Desert (E). May. Collected from red pine. **Host:** Sawfly on pine, *Neodiprion* sp. (H 35) and *Neodiprion namulus namulus* Schedl. (H 35).
ICHNEUMONIDAE

*H382 *E. canadensis* Prov. Passadumkeag (E), Lincoln (E), Mt. Desert (E), TD R2 (N, Oxford (S), Boothbay Harbor (S), and Pemaquid Harbor (S). Adult April through October. Collected from Pinus spp. and red pine. **Hosts:** *Neodiprion* sp. (H 35), *Neodiprion abietis* Harris (H 35), and *Neodiprion nanulus nanulus* Schedl. (H 35).

*H383* *Eridolius* sp. Single record in July from Mt. Katahdin (N).

*H385* *Euceros* sp. Single record in July, 1951 from Greenville (W).


*H389* *Odontocolon atripes* (Rohwer). Bar Harbor (E). September, 1938.


*H394* *X. stigmaticus* *stigmaticus* (Say). Mt. Desert (E). May, 1931


**Hosts:**

*Lymantria dispar* L. (L 3965) (egg clusters)

*Epinotia nanana* Treit. (L 7161)

*Recurvaria* sp. (L 7875+)

*Argyresthia aureoargentella* Brower (L 8885.1)

*H396* *Acrolyta* sp. Single record in June, 1953 from Bridgewater (N). Collected from fir.

H397 *A. washingtonensis* (Cush.). Bar Harbor (E). May, 1937. **Host:** *Heterarthrus nemoratus* (Fallen) (H 85).

*H399* *Lysibia mandibularis* Prov. Porter (S). August, 1951. Collected on pitch pine. **Host:** *Olene* sp. (L 3951+) and *O. plagiata* Wlk. (3961).

*H400* *Hemiteles* sp. Bar Harbor (E). November, 1936. Collected from fir branches.

*H401* *Polycaulon* sp. Single record in June, 1965 from Portland (S). Collected from oak.
ICHNEUMONIDAE


*H403 Gelis spp. Statewide. May through September.

Hosts:
- Heterarthrus nemoratus (Fallen) (H 85)
- Gilpinia hercyniae (Hartig) (H 38)
- Exema conspersa (Mann) (C 15306), an arborvitae leaf miner
- Coleophora salmani Heinr. (L 9097).


H407 G. obscurus (Cress.). Mt. Desert (E), Nicatous Lake (E), and S.W.Harbor (E). June and July. Hosts: Bucculatrix canadensisella Cham. (L 9448.1), Heterarthrus nemoratus (Fallen) (H 85), and Coleophora salmani Heinr. (L 9097).


Hosts:
- Arborvitae leaf miners:
  - Neodiprion
  - Neodiprion abietis Harris (H 35)
  - Exema conspersa (Mann) (C 15306)
  - Coleophora sp. (L 9055+) on Myrica gale
  - C. salmani Heinr. (L 9097)
  - C. laricella Hbn. (L 9098)
  - Agotherreutes mandator americanus Townes (H 448)
  - Lymantria dispar L. (3965)

*H410 G. urbanus (Brues.). Statewide. June through September.

Hosts:
- Monoctenus sp. (H 29) on Juniperus communis
- Lexis bicolor Grote (L 905)
- Heterarthrus nemoratus (Fallen) (H 85)
- Gilpinia hercyniae (Hartig) (H 38)
- Ancylis sp. comptana (Froh.)- floridana Zell. (L 7193) complex on Arctostaphylos Uva-ursi
- Coleophora salmani Heinr. (L 9097)
ICHNEUMONIDAE


H411 M. aciculatus (Prov.). Statewide. June through August. Hosts: Neodiprion sp. (H 35), N. abietis Harris (H 35), and Gilpinia hercyniae (Hartig) (H 38).


*H417 Endasys sp. E. Millinocket (E), Springfield (E), and Clayton Lake (N). August and September. Host: ? Profenusa alumna (MacG.) (H 87).

*H418 E. subclavatus (Say). Bar Harbor (E), Abbott (S), Phippsburg (S), Canton (S), Augusta (S), and Lincoln (E). June and July. Hosts: Neodiprion sp. (H 35), Pikonema alaskensis (Rohwer) (H 59), and Gilpinia hercyniae (Hartig) (H 38).


*H424 Phygaedoun sp. Bar Harbor (E), Portland (S), and Greenville (W). May and June.


*H442 Pleolophus basizonus (Grav.). Introduced. Released Statewide. Host: Gilpinia hercyniae (Hartig) (H 38).

History

Parasites variously identified in our early records as Aptesis basizonia (Grav.), Aptesis sp. and Microcryptus basizonius Thomson are all assumed to be this species. Approximately 95,000 parasites or parasitized host cocoons were placed in the field for liberation throughout the state against G. hercyniae between 1935 and 1943. Most of the liberations were from lab rearings conducted at the field lab in Bar Harbor from stock obtained from Canada and Europe. Successful parasitism in the field was achieved especially in areas of Mt. Desert Island and at T9 R5 where releases had been made but parasitism levels were much lower than expected. Most recaptures were made within one year of release. We have no records for this species after 1944. For more information on this program see the following references:
ICHNEUMONIDAE


*H443 P. indistincta (Prov.). Southern and Eastern Maine. May through November. Hosts: Pikonema alaskensis (Rohwer) (H 59), Neodiprion sp. (H 35), and Gilpinia hercyniae (Hartig) (H 38).

*H444 Aptesis sp. Lubec (E) and T9 R5 (N). May. Host: Pristiphora erichsoni (Hartig) (H 62).

*H446 Echthus abdominalis Cress. T16 R6 (N), T5 R10 (N), and Eustis (W). June.

H447 Agrothereutes spp. Statewide.

*H447 A. abbreviator iridescent (Cress.). Statewide. April through October. Hosts: Heterarthrus nemoratus (Fallen) (H 85) (Common), Coleophora salmani Heinr. (L 9097), and Gilpinia hercyniae (Hartig) (H 38).


H448 A. lophyri (Nort.). Bar Harbor (E), Lincoln (E), and N.E. Harbor (E). June and July. Hosts: Neodiprion sp. and Gilpinia hercyniae (Hartig) (H 38).

*H449 Gambrus canadensis canadensis (Prov.). Augusta (S) and T9 R15 (N). July and August. Hosts: Malacosoma americana Fab. (L 3989) and M. disstria Hbn. (L 3997).

*H449 G. extrematis (Cress.). Passadumkeag (E) and Enfield (E). June through August. Hosts: Platysamia columbia Sm. (L 806) and P. cecropia L. (L 804).

ICHNEUMONIDAE

*H456 Ischnus inquisitorius atricollaris (Walsh.). T4 R4 (N), Bar Harbor (E), and Symrna Mills (N). June and July.


*H481 Arotes amoenus Cress. Bar Harbor (E), T3 Rll (W), T15 R6 (N), and Stacyville (N). July and August.


*H481 S. vicinum (Cress.). Bar Harbor (E) and T2 R4 (W). July and August. Collected from fir.

*H483 Orthopelma luteolator (Grav.). Bar Harbor (E) and Georgetown (S). April through June. **Host:** Diplolepis rosae (L.) (H 1071).


*H490 P. gaspesiansus Prov. T16 R4 (N), T20 R12 (N), and Winter Harbor (E). July and August. **Host:** Peronea variana Fern. (L 7481).

*H490 P. maculicornis hariolus (Cress.). Statewide. June through August. **Hosts:** Argyrotaenia sp. (L 7443+), Choristoneura fuminfera Clem. (L 7408+), and Peronea variana Fern. (L 7481).
ICHNEUMONIDAE

H490  *P.* sp. near hariolus Cress. Christmas Cove (S), Bar Harbor (E), and Bancroft (N). Little data available. Collected from spruce. **Hosts:** Acrobasis comptoniella H1st. (L 6104), and Heterarthrus nemoratus (Fallen) (H 85), Arborvitae leaf miner.

*H494  Craticchneumon nigrarius acerbus* (Cress.). Winthrop (S) and Bar Harbor (Ej. June through September. **Host:** Hyphantria cunea Dru. (L 1075).


*H496  C. sublatus* (Cress.). Southern half of the State. April through September. **Hosts:** Nymphalis antiopa L. (L 298), Heterocampa binidata Wlk. (L 3906), and H. guttivitta Wlk. (L 3907). This is probably the most common parasite of *H. guttivitta* and may occur in enormous numbers in declining populations of the host. At these times it is also attracted to lights in numbers.


*H497  C. walbum* (Cress.). Mt. Katahdin (N), Bar Harbor (E), and Bucksport (E). July and August.

H499  *Melanichneumon disparilis* (Cress.). Collected from pitch pine.


H504  *Rubicundiella perturbatrix* Heinr. Augusta (S). November, 1939. **Host:** Gilpinia hercyniae (Hartig) (H 38).


ICHNEUMONIDAE


*H509 Eutanyacra improvisa (Cress.). St. Francis (N) and Weeks Mills (S). May and July. Host: Phalaenid (Noctuid) larva.


*H512 Diphus ormenus (Cress.). Bar Harbor (E) and Coburn Gore (W). July and September.

*H515 Amblyteles sp. (?). July, 1934. No data available. Parasite of a silk moth. This species is placed here because of likelihood that it belongs in the genus *Spilichneumon*.


*H517 Stenichneumon culpator cincticorns (Cress.). Bar Harbor (E) and Boundary Bald Mt. (W). August, 1936.

*H517 S. militarius leucopus Heinr. Redington (W), Ft. Kent (N), and Rockwood (W). May and July. Hosts: *Autothropa* sp. (L 3246+) and *A. selecta* Wlk. (L 3266).


*H518 Orgichneumon sp. T8 R5 (N) and Ashland (N). July and August.

*H518 O. calctatorius (Thunb.). Masardis (N), Beddington (E), and Sebec (S). July through September. Hosts: *Olene* sp. (L 3951+) and *O. plaqiata* Wlk. (L 3961).

*H518 Thyrateles lugubrator (Graven.). Bar Harbor (E). August, 1936.


*H520 P. annulatorius (Fab.). Augusta (S) and Drew Pk. (E). June and July.

*H520 P. canadensis (Cress.). Statewide. April through September. Host: *Ctenucha virginica* Charp. (L 884). Several (3) specimens identified as *Ichneumon* sp. nr. *trizonatus* (Prov.) by Luella Walkley and G. Heinrich have been included here because of the close association although they look quite different superficially.
ICHNEUMONIDAE

*H521  *P. crecreperus* (Cress.). Single specimen from Augusta (S) in July, 1953.

*H522  *P. feralis* (Cress.). T2 R9 (E) and T36 ND.

*H523  *P. fuscifrons* (Cress.). Single specimen from Bar Harbor (E) in June, 1935.


*H527  *P. subdolus* (Cress.). Single record in August, 1936 from Bar Harbor (E).

H530  *Amblyteles* sp. (=Ichneumon ?). Bar Harbor (E). 1936. **Host:** *Ichthyura* sp. (probably *inclusa* Hbn.) (L 3825).

*H530  *Ichneumon* spp. Statewide. Several species collected and reared at various times. Two specimens from Strong (W) and Amherst (E) emerged from white birch logs containing *Agriulus anxius* Gory (C 9504).


*H533  *I. viola* Cress. Single record in August, 1951 from Augusta (S).

*H534  *Protichneumon grandis* (Brulle). Bar Harbor (E), Dennysville (E) and Greenville (W). July through September.

*H539  *Trogus penniator* (Fab.). One reared specimen labeled "Maine" emerged in March, 1953. **Host:** *Papilio ajax* L. (L 4).


*H543  *Platylabus* sp. Single record in July, 1958 from Enfield (E).

*H548  *Chorinaeus longicalcar* Thoms. Statewide. June and July. **Hosts:** *Paraphia* sp. (L 4807+) and *Peronea* sp. (L 7472+).


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ICHNEUMONIDAE


**Hosts:**

- Ancylis sp. (L 7193+) on bearberry
- A. complana Froh. (L 7193)
- Heterarthrus nemoratus (Fallen) (H 85)
- Argyrotaenia sp. (L 7443+)
- Archips sp. (L 7377+)
- A. persicana Fitch (L 7378)
- Sparganothis sp. (L 7313+)
- Choristoneura fumiferana Clem. (L 7408)
- Tortrix sp. (L 7409+)

*H559  *E. albibrons* Cress. Augusta (S), Tremont (E), and Cherryfield (E). August. **Hosts:**

Archips cerasivarana Fitch. (L 7384), A. servidana Clem. (L 1338), and Sparganothis lycopodiana Kft. (L 7351).

*H561  *E. peroniae* Townes. Single record in August, 1947 from T2 R13 (W). **Host:** Peronea variana Fern. (L 7481).

*H564  *Glypta* spp. Statewide. May through July.

**Hosts:**

- Poplar leaf tier, Archips sp. (L 7377+)
- Dioryctria sp. (L 6131+)
- Argyrotaenia sp. (L 7443+)
- A. pinatubana Kft. (L 7445)
- Peronea sp. (L 7472+)
- Tortrix packardiana Fern. (L 7418)
- Archips sp. (L 7377+)
- Also reared from white birch logs infested with *Agriius anxius* Gory (C 9504)


*H565  *G. fumiferanae* (Vier.). Statewide. June and July. A very common parasite of spruce budworm. **Host:** Choristoneura fumiferana Clem. (L 7408).

*H566  *G. mutica* Cush. Moro Pt. (N). June and July, 1936. Collected from spruce. **Hosts:**

Tortrix sp. (L 7409) and Archips persicana Fitch (L 7378).

ICHNEUMONIDAE

*H567 *Lissonota* spp. Statewide. Reared throughout the season from a variety of situations: Birch logs containing *Agrilus anxius* Gory (C 9504); leaf rolling weevils on birch and *Cryptolechia* sp. (L 8467+).

*H570 *L. montana* (Cress.). Bar Harbor. August and September.

*H570 *L. parva* (Cress.). South, East, and West quarters. June and July. Collected from white birch and spruce. **Hosts:** Leaf roller on poplar and *Epinotia nanana* Treit. (L 7161).

*H571 *L. tegularis* (Cress.). Single record in September, 1938 from Bar Harbor (E).

H573 *Cryptopimpla* sp. near *jocosa* Cress. Northeast Harbor (E). 1934. **Host:** *Pinipestis zimmermanni* Grote (L 6133).

H573 *C.* sp. near *pleuralis* (Cress.). Bar Harbor (E). 1936. **Host:** *Chryptorrhynchus lapathi* L. (C 17974).

*H574 *Syzeuctus elegans* (Cress.). Bar Harbor (E), Aurora (E), and Nicatous Lake (E). June. **Hosts:** *Ichthyura* sp. (L 3825) (probably *inclusa* Hbm.) (L 3825), *Tetralopha* sp. (L 6035+), and *Cryptolechia jaginella* Cham. (L 8472).


*H579 *Banchus* sp. Single record in May, 1955 from Augusta (S).


H582 *Xenoschesis* n. sp. Bar Harbor (E). July. Collected from Jack and pitch pine. **Host:** *Pamphilius* sp. (H 14).


H582+ *N.* n. sp. Bar Harbor (E). September, 1935. Collected from Jack pine. **Host:** *Pamphilius* sp. (H 14).

*H583 *Hodostates* sp. Single record in June, 1956 from Bradley (E). Collected from oak. **Host:** *Periclista* sawflies (H 95+).

H583 *Homaspis* n. sp. Bar Harbor (E). June, 1937. Collected from pitch pine. **Host:** *Pamphilius* sp. (H 14).

*H584 *Glyptorhaestus* sp. Single record in April, 1958 from Marion (E). Collected from spruce. **Host:** *Neodiprion* sp. (H 35).
ICHNEUMONIDAE

*H585 Rhorus (Cyphanza) spp. Statewide. April through June. **Hosts:** Pikonema alskensis (Rohwer) (H 59), Nematus hudsoniimagrus Dyar. (H 67), and Croesus latitarsus Nort. (H 66).

H585 R. clapini (Prov.). Bar Harbor (E). November to April (?). **Host:** Trichiosoma sp. (H 27).

*H585 R. extirpatorius obscurellus (Cress.). Stillwater (S). June, 1937. **Host:** Pikonema alskensis (Rohwer) (H 59). This record is questionable, but is included here because our specimen was identified as Monoblastus obscurellus (Cress.) by Cushman. The species as cited in this list is reportedly in the western U.S. only.


*H588 Perilissus sp. Single record in July from Lincoln (E).

*H590 Opheltes glaucopterus barberi Cush. Bar Harbor (E) and Peru (S). July through September. **Hosts:** Sawfly on poplar, Sawfly on willow, Cimbex americana Leach (H 28).

*H591 Lathrodestes n. sp. Southern and Western Maine. May. **Host:** Profemusa alumna (MacG.) (H 87).

*H592 L. rufigaster Cush. Bar Harbor (E). October, 1933. **Host:** Sawfly on blackberry.

*H593 Tribe: Mesoleiini. Southern and Eastern Maine. April through June. **Hosts:** Fir Sawfly, Pristiphora ericheonii (Hartig) (H 62), and Tethida cordigera (Beauvois) (H 90).

*H595 Protarchus mellipes (Prov.). Bar Harbor (E). June. **Host:** Sawfly on ash.

*H596 Lamachus spp. Statewide. April, May and September.

**Hosts:**
- Neodiprion spp. (H 30)
- N. pinetum (Nort.) (H 33)
- N. abietis Harris (H 35)
- N. nanulus nanulus Schedl. (H 35)

*H596 L. contortionis Davis. Alfred (S), Lincoln (E), and Mt. Desert (E). September. **Hosts:** Sawfly on pitch pine, Neodiprion sp. (H 30) and N. pratt pratti (Dyar.) (H 33).
ICHNEUMONIDAE

*H597 * L. lophyri (Ashm.). Boothbay Harbor (S) and T8 R9 (N). May. Hosts: Neodiprion sp. (H 30) and *N. abietis* Harris (H 35).

*H597 * L. ruficoxalis (Cush.). Statewide. April, 1942. Host: Neodiprion n. sp. (H 30) (blackheaded) on spruce.

*H599 * Campodorus sp. Augusta (S) and Carrol (E). Collected from butternut and spruce. Host: Blennocampa caryae ?

*H600 * Mesoleius sp. Mt. Desert (E) and Bar Harbor (E). June and July. Hosts: *Gilpinia hercyniae* (Hartig) (H 38) and *Pikonema alaskensis* (Rohwer) (H 59).


*H603 * Tribe: Euryproctini. Augusta (S) and Ashland (N). May and July. Host: Sawfly on birch.

H603 * Synodites* sp. St. Francis (N). Host: *Gilpinia hercyniae* (Hartig)


*H616 * Gravenhorstia* sp. Caratunk (W), Cooper (E), Days Acad. Grant (W), and T1 R8 (E). April. Hosts: *Semiothisa* sp. (L 4670+) and Geometrid (L 4023+).
ICHNEUMONIDAE


*H617* *Agrypon* sp. Rangeley (W), Days Acad. Grant (W), and T37 MD (E). April and July. **Hosts:** Macropupae, Geometrid pupae; *Incisalia lanoraiensis* Shep. (L 411).

*H618* *A. anale* (Say). Waltham (E) and Hersey (N). July. **Host:** *Malacosoma disstria* Hbn. (L 3997).


**Hosts:**
- *Heterarthrus nemoratus* (Fallen) (H 85)
- *Anchylopera* sp. (L 7175+)
- *A. discigerana* Wlk. (L 7178+)
- Lepidopterous pupae

*H619* *A. prismaticum* (Nort.). Tremont (E). July, 1938. **Host:** *Archips cerasivorana* Fitch. (L 7384).

H619 *Parama geniculata* (Holmgren). Bar Harbor (E).

H621 *Ophionellus foutsi* (Cush.). Bar Harbor (E). August.

*H624* *Sinophorus* sp. Single record in May, 1957 from Sandy River Plt. (W). **Host:** *Acronicta* sp. (L 1147+).

*H625* *S. validus* (Cress.). T31 MD (E), Bridgton (S), and Macwahoc (E). April, June, and July. **Host:** *Olene* sp., Tortricid larvae and *Tetralopha* sp. (L 6035+).

*H626* *Campoplex* sp. Statewide. June through August.

**Hosts:**
- Pyralid sp.
- *Hyphantria cunea* Dru. (L 1075)
- *Calocalpe prunivorata* Ferg. (L 4247.1)
- *Dioryctria abietella* D. and S. (L 612)
- *Peronea varians* Fern. (L 7481)
- *Heterarthrus nemoratus* (Fallen) (H 85)
- *Brachys* sp. (on poplar) (C 9572+)
- *Archips* sp. (L 7377+)
- *Griselda radicana* Wlshm. (L 7097)
- *Zeiraphera* sp. (L 7073+)
- *Recurvaria piceella* Kft. (L 7892)
ICHNEUMONIDAE

Gelechiid blotch miner on *Lyonia*;
*Archips persicana* Fitch (L 7378)

H629  *C. mellipes* (Prov.). Passadumkeag (E) and Chester (E). June. **Hosts:** *Taniva albolineana* Kft. (L 6630) and *Coleophora loricella* Hbn. (L 9098).

*H631 Porizon* sp. Single specimen from Bar Harbor (E) in April, 1935 taken on poplar catkins.

*H632  *P. cupressi* (Ashm.). Friendship (S) and Georgetown (S). May and June. **Host:** *Epinotia nanana* Treit. (L 7161).


H635 *Casinaria* spp. Statewide. June and July.

**Hosts:**
- *Dioryctria abietella* D. and S. (L 6129)
- *Epinotia nanana* Treit. (L 7161)
- *Zeiraphera* sp. (L 7073+)
- *Tetralopha* sp. (L 6035+)
- *Coleophora cinerella* Cham. (L 9183)
- *Brachys* sp. (C 9572+)

H635 *C. n.* sp. CR2 (Houlton) (N). 1947. Larva June; Adult June. **Host:** *Recurvaria* sp. (L 7875+).


*H637 C. semiothisae* Walley. April, T4 R11 (N).


H641  *D. montrealensis* (Vier.). St. Francis (N). August, 1938. **Host:** Cocoon (not sawfly) from duff.

*H643  *D. vitticollis* (Nort.). Surry (E) and T8 R5 (N). April and August. **Host:** *Paraphia piniata* Pack (L 4811).

H649 *Campoletis* sp. St. Francis (N). June, 1938. **Host:** *Gilpinia hercyniae* (Hartig) (H 38).
ICHNEUMONIDAE


*H657  Meloboris sp. Single record in August from Ashland (N).


*H664  Diadegma sp. Statewide. June through August.

Hosts:
  Choristoneura fumiferana Clem. (L 7408)
  Dioryctria abietella D. and S. (L 6129)
  Zeiraphera sp. (L 7073+)
  Gelechid (L 7775+)

*H665  D. aestival (Vier.). Boothbay Harbor (S) and Charlotte (E). May and June. Collected from Myrica gale. Host: Cryptolechia faginella Cham. (L 8472).

*H672  Olesicampe sp. Bar Harbor (E) and Augusta (S). Reared from white birch logs infested with Agrilus anxius Gory (C 9504) and Ambrosia beetles. Also reared from a Sawfly on willow and raspberry.

ICHNEUMONIDAE

Life Cycle:
- Egg: July
- Larva: July through June
- Pupa: June
- Adult: July

Host:

Pristiphora ericsonii (Hartig) (H 62)

*H675 *Hyposoter* sp. Statewide. May through August.

Hosts:
- Spruce duff.
- *Olene* sp. (L 3951+)
- *O. plagia* Wlk. (L 3961)
- *Paraphia piniata* Pack. (L 4811)
- *Autographa* sp. (L 3246+)
- *A. selecta* Wlk. (L 3266)


*H677 *H. fugitivus* (Say). Southern and Eastern Maine. May through September. Hosts:
- *Hyphantria cunea* Dru. (L 1075), *Malacosoma americana* Fab. (L 3989), and *Schizura concinna* A. and S. (L 3921).


*H679 *H. rivalis* (Cress.). Bar Harbor (E) and Sandy Bay (Jackman) (W). August and October. Host: *Hyphantria cunea* Dru. (L 1075).


Host:
- *Tetralopa* sp. (L 6035+)
- *Zeiraphera* sp. (L 7073+)
- *Z. ratzeburgiana* Ratz. (L 7074)
- *Coleophora salman* Heinr. (L 9097)
ICHNEUMONIDAE


H689  *T. forbesi* (Weed). Mt. Desert (E) and S.W. Harbor (E). July. **Host:** *Coleophora salmani* Heiri. (L 9097).

*H697  *Ophion* spp. Statewide. May through September.

**Hosts:**
- Noctuid
  - *Semiothisa* sp. (L 4670+)
  - *Graptoleiba* sp. (L 2217+)
  - *G. bethunei* Grote and Rob. (L 2220)
  - *Panthea acronyctoides* Wlk. (L 1125)
  - *Feralia* sp. (L 2183+)

*H700  *Thyreodon atricolor atricolor* (Oliv.). Kingfield (W), T11 R16 (N), and Bar Harbor (E). May and August. **Hosts:** *Sphinx* sp. (L 712+) and ? *Smerinthus cerisyi* Kby. (L 740).

*H701  *Enicosiphus* sp. Single record in September, 1951 from Caratunk (W). **Host:** *Schizura concinna* A. and S. (L 3921+).

H702  *E. arcuatus* (Felt.). N.E. Harbor (E).


*H706  *Mesochorus* sp. Statewide. Pupa July and August; Adult May through July.

**Hosts:**
- *Heterarthrus nemoratus* (Fallen) (H 85)
- *Pikonema alaskensis* (Rohwer) (H 59)
- *Bucculatrix canadensisella* Cham. (L 9448.1)
- Blotch miner on alder
- Geometridae
- *Lexis bicolor* Grote (L 905)
- *Eusithecia palpata* Pack. (L 4287)
- *Lithocolletis* sp. nr. *incanella* Wlshm. (L 9205)
- *Olene* sp. (L 3951+)

H710  *M. luteipes* Cress. Bar Harbor (E). July and August. **Host:** *Heterarthrus nemoratus* (Fallen) (H 85), secondary parasite.
ICHNEUMONIDAE

*H715 Subfamily: Diplazontinae. Statewide. May and June.

*H715 *Syrphoctonus* sp. Statewide. May through August. **Host:** Syrphid.


*H720 *Phthorima* sp. Statewide. May and June. **Host:** Syrphid fly.

*H723 *Diplazon laetatorius* (Fab.). Statewide. June and July.

*H723 *D. pectoratorius* (Thunb.). Statewide. June. **Host:** Syrphid pupa.

*H733 *Megastylus* sp. Single record in August, 1956 from Johnson Mt. (The Forks) (W).

H735 *Orthocentrus tetrazonatus* (Ashm.). Nicatous Lake (E). July, 1932. **Hosts:** "Probably parasitic on some leafmining dipterous larvae." Cush. and/or *Heterarthrus nemoratus* (Fallen) (H 85).

*H736 *Stenomacrus* sp. Bar Harbor (E) and Canton (S). June. **Host:** *Heterarthrus nemoratus* (Fallen) (H 85).

*H738 *Neurateles* sp. Southern and Western Maine. May and August.

**Family TORYMIDAE**

*H750 *Torymus* sp. Salem (W), Bingham (W), and Masardis (N). August. **Hosts:** *Mayetiola piceae* (Felt) (D 263), *Recurvaria* sp. (L 7875+), *Xanthoteras quercusforticorne* (Walsh) (H 1077), and *Heterarthrus nemoratus* (Fallen) (H 85).


H761 *Monodontomerus* n. sp. Bar Harbor. July, 1936. **Host:** *Heterarthrus nemoratus* (Fallen) (H 85).

H761 *M. dentipes* (Dalm.). Bar Harbor (E). June. **Hosts:** Sawfly cocoon on pine, *Diprion similis* (Hartig) (H 37).
TORYMIDAE

*H763  *Pseudotorymus lazulellus* (Ashm.). Single record in June, 1949 from Augusta (S) on red clover.

*H764  *Roptrocerus* sp. Readfield (S) and Dover-Foxcroft (S). August. Collected from a red pine log and fir infested with *Adelges piceae* (Ratze.).

*H765  *Megastigmus* sp. Jackman (W) and Bar Harbor (E). May and June. Collected from white pine and fir.

**Family PTEROMALIDAE**

*H769  *Ormyros* spp. Mt. Desert (E) and "Maine." May. Reared from galls on oak (twig?).


*H769  *O. brunneipes* Prov. Mt. Desert (E). May, 1944. **Host:** *Melissopus latiferreanus* Wlshm. (L 7300) on *Quercus ilicifoli.*


*H771  *P. fulvicornis* Ashm. Statewide. May and July. **Hosts:** *Recurvaria* sp. (L 7875+) and *Peronea* sp. (L 7472+).

*H771  *P. hyalinus* Say. Palmyra (S), Bar Harbor (E), Alfred (S), and Caratunk (W). July. **Host:** *Cingilia catenaria* Drury (L 5152).


*H785  *A. rufipes* Brues. Single record in June, 1946 from Moose River (W) from fir.

*H786  *Sphegigaster aurata* (Ashm.). Single record taken from a bullet gall on poplar from Weeks Mills (S) in May.


*H795  *Pachyneuron* sp. W. Palmyra (S) and Wesley (E). May. Collected from fir infested with *Adelges piceae* (Ratze.) and *Leucopis obscura* (D 709).
PTEROMALIDAE

*H795 *P. albutius* (Walker). Augusta (S), Castle Hill (N), and T16 R6 (N). 1947 and 1956. July and August. **Host:** Syrphid larva on cherry.

*H797 *P. syrphicola* Ashm. Castle Hill (N), T19 R12 (N), and T4 R10 (N). July. **Host:** Syrphid larva.


H798 *Dinotiscus* sp. Bar Harbor (E). 1933. **Host:** *Myeloborus ramiperda* Sw. (C 18421).

*H799* *D. dendroctoni* (Ashm.). Single record from T30 MD (E) in May, 1953 on pine log.

*H799* *Rhopalicus pulchripennis* (Crawford). Southern and Eastern Maine. June through October. **Host:** *Pissodes strobi* (peck) (C 16845).


*H801* *Perniphora americana* Miller. Jackman (W), Amherst (E), Rangeley (W), and Oquossoc (W). March and April. Collected from birch logs infested with *Trypodendron betulae* Swaine (C 18307) and *Agrilus ancius* Gory (C 9504). **PARATYPES.**

*H808* *Psychophagus tortricis* (Brues.). Statewide. July and August. **Hosts:** *Dioryctria abietella* D. and S. (L 6129) and *Choristoneura fumiferana* Clem. (L 7408).

H808 *Sceptrothelys deione* (Walker). Mt. Desert (E). **Host:** *Coleophora salmani* Heinr. (L 9097).


*H811* *Habrocytus* spp. Statewide. June and July. **Hosts:** *Acronicta* sp. (L 1147–), *Coleophora salmani* Heinr. (L 9091), and *Peronea variana* Fern. (L 7481).

*H811* *H. bedeguaris* (Thoms.). Bar Harbor (E). June and July. **Host:** *Diplolepis rosae* (L.) (H 1071).

*H813* *H. phycidis* Ashm. Passadumkeag (E), T29 (E), and Bar Harbor (E). May and June. **Hosts:** *Diprion similis* (Hartig) (H 37), *Choristoneura fumiferana* Clem. (L 7408), and *Coleophora laricella* Hbn. (L 9098).

H813 *H. thyridopterigis* How. Mt. Desert (E) and Christmas Cove (E). June. **Host:** *Coleophora salmani* Heinr. (L 9097).
PTEROMALIDAE

H814 *Mesopolobus* sp. Bar Harbor (E) and Salem (W). Spring. Hosts: *Myeloborus ramiperdi* Sw. (C 18421) and *Mayetiola piceae* (Felt) (D 263).


**Hosts:**

- *Olene* sp. (L 3951+)
- *O. plagiata* Wlk. (L 3961)
- *Dioryctria abietella* D. and S. (L 6129+)
- *Choristoneura fumiferana* Clem. (L 7408)


*H824 *Tomicobia tibialis* Ashm. Hull's Cove (E) and T30 MD (E). June. Collected from red pine. **Host:** Scolytid.

H825 *Tritneptis diprionis* Gah. Georgetown (S). 1946. **Host:** *Neodiprion abietis* Harris (H 35).

*H825 *T. hemerocampae* (Vir.). Springfield (E). August, 1932. **Host:** Sawfly on Norway pine.

H826 *Dibrachys* sp. Lincoln (E). 1932. **Host:** *Neodiprion* sp. (H 35).


*H830 *H. tabacum* (Fitch). Porter (S) and T10 R3 (N). July. **Hosts:** *Dioryctria* sp. (L 6125+), *Olene* sp. (L 3951+), and *O. plagiata* Wlk. (L 3961).


*H831 *Coelopisthia suborbicularis* (Prov.). Single record in August, 1953 from Chapman (N). **Host:** ? Spruce bud scale, *Physokermes piceae* (Schr.)

**Family EURYTOMIDAE**

*H851 *Eurytoma* spp. Bar Harbor (E), "Maine," and Bristol (S). May and October. Reared from galls on red oak and willow and from weevil infested terminals on white pine.

H852 *E. appendigaster* (Sw.). Rumford (W). August, 1932. **Host:** *Coleophora limosipenella* Dup. (L 9088).

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EURYTOMIDAE


**Family CHALCIDIDAE**

*H867* *Spilochaicis albifrons* (Walsh). Southern and Eastern Maine. Junethrough August.

**Hosts:**
- *Exema dispar* Lec. (C 15306a)
- Arborvitae Leaf Miner
- *Coleophora laricella* Hbn. (L 9098)
- *Ctenucha virginica* Charp. (L 884)


*H869* *Phasgonophora sulcata* Westwood. Salem (W), Bingham (W), Strong (W), and Norway (S). June and August. Reared from logs of paper birch infested with *Agrilus anxius* Gory (C 9504) and Ambrosia beetles.

*H871* *Brachymeria compsilurae* (Crawford). Woolwich (S), Augusta (S), and "Maine." May and August. **Hosts:** ? *Nepytia canosaria* Wlk. (L 5109) and as a hyperparasite in association with *Lymantria dispar* (L.) (L 3965).

*H872* *B. intermedia* (Nees.). Introduced. Augusta (S). August, 1980. **Hosts:** *Lymantria dispar* (L.) (L 3965) (reared). This species has been reared and released in Maine against the gypsy moth. Although reportedly parasitizing other species, no confirmed records exist in our file.

**Family LEUCOSPIDIDAE**


**Family EUPELMIDAE**

*H880* *Eupelmus* sp. Single record in September, 1964 (emerged April, 1965) from Augusta (S). Collected from red oak. **Host:** *Profenusa alumna* (MacG.) (H 87).

*H885* *Eupelmella vesicularis* (Retzius). Southern and Eastern Maine. June and July. **Hosts:** Sawfly on Norway pine, *Coleophora salmani* Heinr. (L 9097), Arborvitae leaf miners and reared from Rose galls.
EUPELMIDAE


Family ENCYRTIDAE

*H895 Aphytis mytilaspidis (LeBaron). Salisbury Cove (E). Host: Lepidosaphes ulmi L.


*H938 Copidosoma spp. Statewide. April through October.

Hosts:
- Poplar leaf rollers
- Lithocolletis spp. (L 9164+) on cherry and Acer saccharum
- Microlepidoptera
- Coleoptera
- Griselda sp. (L 7097)
- Collected on cedar


*H939 C. truncatellum (Dalm.). Statewide. June and July. Hosts: Autographa sp. (L 3246+), A. selecta Wlk. (L 3266), and Notodontid sp.


*H952 Microterys montinus (Pack.). T5 ND (E). May, 1944.

ENCYRTIDAE

*H953  *O. kuvanae* (How.). This common egg parasite of *Lymantria dispar* (L.) (L 3965) has been collected in the fall in southern Maine, but no confirmed identifications have been made. Specimens are available.


Family EULOPHIDAE


**Hosts:**

- *Profenusa lucifex* (Ross.) (H 87)
- *P. alumna* (MacG.) (H 87)
- *Heterarthrus nemoratus* (Fallen) (H 85)
- *Brachys* sp. (C 9572) on willow
- Arborvitae leaf miner


*H969  *Sympiesis* spp. T12 R16 (N), Bar Harbor (E), and Bristol (S). April through July.

**Hosts:**

- *Lymantria dispar* (L.) (L 3965)
- *Epinotia nanana* Treit. (L 7161)
- *Recurvaria piceaella* Kft. (L 7892)
- *Lithocolletis martiella* Braun. (L 9185)
- *L. populiella* Cham. (L 9206)
- *Heterarthrus nemoratus* (Fallen) (H 85)
EULOPHIDAE

H970 *S. conica* (Prov.). Bar Harbor (E). **Host:** Blotch miner in serviceberry.


*H970 *S. marylandensis* Girault. Topsfield (E) and Mt. Desert (E). July through September. **Hosts:**
- *Recurvaria thujaeella* Kft. (L 7887)
  - Beech blotch miner
- *Lithocolletis* sp. (L 9164+) on *Acer saccharum*
  - Blotch miner on willow


*H975 *Dahlbominus fuscipennis* (Zett.). Introduced. Statewide. August. **Hosts:** *Gilpinia hercyniae* Hartig (H 38) and *Pristiphora erichsonii* (Hartig) (H 62), a leaf miner on *Diervilla* and *Neodiprion abietis* Harris (H 35).

This species was reared and released in large numbers in Maine in an effort to control the European Spruce Sawfly. For details of this program, refer to the discussion given under *Gilpinia hercyniae* Hartig (H 38) on pp. 1114 of the first part of this list. See also the paper by P.B. Dowden. 1962. *Parasites and Predators of Forest Insects liberated in the United States through 1960.* U.S.D.A. Agr. Handbook No. 226. 70 pp.

H977 *Euplectrus bicolor* (Sw.). Bar Harbor (E). 1936. **Host:** Phalaenid (Noctuid).

*H978 *E. mellipes* Prov. Statewide. June and August. Collected from white birch. **Hosts:**
- *Anomogyna elimata* Gn. (L 1561)
- *Feralia* sp. (L 2183+)
- *F. comstocki* Grote (L 2186)
- *Autographa* sp. (L 3246+)
- *A. selecta* Wlk. (L 3266)
- *Semiothisa* sp. (L 4669+)
- *Paraphia piniata* Pack. (L 4811)

*H979 *Elachertus* sp. Garfield (N) and Allagash (N). July. **Hosts:** ? Spruce budworm and leaf roller on poplar.


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EULOPHIDAE

*H980  *E. roteoteratis* Howard. Single record in June, 1965 from Woolwich (S).


H983  *Cirrospilus* sp. Mt. Desert (E). 1931. **Host:** *Heterarthrus nemoratus* (Fallen) (H 85).


**Hosts:**

- *Phyllocnistis populiella* Cham. (L 9308)
- *Lymantria dispar* L. (L 3965)
- *Coleophora salmani* Heirn. (L 9097)
- *Bucculatrix canadensisella* Cham. (L 9448.1)
- *Heterarthrus nemoratus* (Fallen) (H 85)
- *Lithocolletis tremuloidiella* Braun. (L 9226)

*H983  *C. flavicinctus* Riley. Mt. Desert (E), Augusta (S), and Blue Hill (E). September. **Hosts:** *Heterarthrus nemoratus* (Fallen) (H 85), *Lymantria dispar* L. (L 3965) and *Profenusa alumna* (MacG.) (H 87).

*H985  *Zagrammosoma nigrolineatum* Crawford. Richmond (S) and Belgrade (S). June and July. **Hosts:** Arborvitae leaf miner, *Dichelonyx* sp. (C 13649+), and *Argyresthia thuiella* Pack. (L 8914).


**Hosts:**

- *Agrilus anxius* Gory (L 9504)
- *Lithocolletis* sp. (L 9164+)
- *Dasineura balsamicola* (Lintner) (D 259)
- *Mayetiola piceae* (Felt) (D 263)
- *Pikonema alaskensis* (Rohwer) (H 59)
- Diptera larva

**Reared from:**

- Catkins of birch Leaf gall on poplar
- Arborvitae leaf miner Gall on trembling aspen
- Paper birch logs infested with ambrosia beetles

*H993  *T. chlamytis* Ashm. Augusta (S) and Bar Harbor (E). August. **Hosts:** *Exema dispar* Lac. (C 15306a), *Brachys* sp. (C 9572+), and a Chrysomelid.

EULOPHIDAE


*H994  T. ecus (Walker). Hollis (S) and Augusta (S). July. Collected from red oak. Hosts: Profemusa lucifex (Ross.) (H 87) and a leaf miner.

*H998 T. minutus (How.). Readfield (S) and Swan Island (S). May and November. Reared from Thuja occidentalis.


*H1001  T. trisulcatus Prov. Lincoln (E) and Augusta (S). June through August. Hosts: Arge scapularis (Klug) (H 22), Arge pectoralis (Leach) (H 22), and a Sawfly on gray birch.


*H1007  C. tricinctus (Ashm.). Statewide. April through September.

Hosts:
Phyllocnistis populiella Cham. (L 9308)  
Lithocolletis tremuloidiella Braun (L 9226)  
Arborvitae leaf miners  
Brachys sp. (C 9572+) on Acer saccharum  
Profemusa lucifex (Ross.) (H 87)  
P. alumna (MacG.) (H 87)

*H1008  C. trifasciatus Westwood. Mt. Desert (E) and T12 R16 (N). April. Hosts: Arborvitae leaf miner, Lithocolletis populiella Cham. (L 9206), and Phyllocnistis populiella Cham. (L 9308).

*H1008  Chrysocharis spp. Mt. Desert (E). April, September, and October.

Hosts:
Arborvitae leaf miners  
Lithocolletis martiella Braun (L 918)  
L. salicifoliella Cham. (L 9225)  
? L. diversella Braun (L 9188)  
Heterarthrus nemoratus (Fallen) (H 85)  
L. spp. (L 9164+) on Acer saccharum and blotch on Fagus sylvatica.
EULOPHIDAE

*H1009 *C. laricinellae (Ratz.). Statewide. June and July. **Hosts:** Coleophora laricella Hbn. (L 9098) and Heterarthrus nemoratus (Fallen) (H 85).


H1011 Achrysocharoides bipunctatus (Girault). Bar Harbor (E). 1933. **Host:** Lithocolletis tremuloidiella Braun. (L 9226).

H1011 Rhicnpeltioidea amsterdamensis Girault. Bar Harbor (E). 1934. **Host:** Lithocolletis corylisella Cham. (L 9262).

H1011 Chrysocharomyia sp. Bar Harbor (E). 1933. **Host:** Lithocolletis tremuloidiella Braun. (L 9226).

*H1013 *Achrysocharella sp. Mt. Desert (E), Freedom (S), and Millinocket (E). June, August, and September. **Hosts:** Arborvitae leaf miner, a sawfly on cherry, and Heterarthrus nemoratus (Fallen) (H 85). Collected from oak.

*H1013 *A. variipes (Crawford). Augusta (S). April and May. **Host:** Lithocolletis sp. (L 9164) on cherry.

*H1014 *Horismenus fraternus (Fitch). Bar Harbor (E). Collected in October, 1944; emerged in April, 1945. **Host:** Lithocolletis martiella Braun. (L 9185).


H1015 *H. microgaster* (Ashm.). Mt. Desert (E). 1932. **Hosts:** Phyllocnistis sp. (L 9308+) and *P. populii* Cham. (L 9308+).

*H1015 Pediobius* sp. Bar Harbor (E), Parkman (S), and Topsfield (E). September. **Hosts:** Coleoptera (?) on witherod, Lithocolletis sp. (L 9164+) on willow and Lithocolletis sp. (L 9164+) on *Acer saccharum*.

*H1016 P. albipes* (Prov.). Augusta (S). June. **Host:** ? Lithocolletis sp. (L 9164+).

*H1016 P. bucculaticis* (Gahan). Mt. Desert (E), T2 R6 (N), and Augusta (S). April and September. **Hosts:** Phyllocnistis populii Cham. (L 9308), Tischeria solidaginfoliella Clem. (L 9496), and Lithocolletis sp. (L 9164+) on red oak.

EULOPHIDAE

*H1017 *P. longfellowi (Grilt.). Bar Harbor (E). May through October. **Hosts:** Lithocolletis sp. (L 9164+) on willow and L. aceriella Clem. (L 9265).

*H1018 *P. sexdentatus (Grilt.). Bancroft (E). October, 1953. **Host:** A leaftier on poplar.

*H1018 *P. tarsalis (Ashm.). Mt. Desert (E). April, 1947. **Host:** Lymantria dispar L. (L 3965) egg mass.

H1019 *Entedon* n. sp. Bar Harbor (E). **Host:** A sawfly.

Family MYMARIDAE


*H1032 *Polynema* spp. Strong (W) and S. China (S). May. **Hosts:** Egg parasite (Mues.) and eggs of a membracid on white birch stems.

Family TRICHOGRAMMATIDAE

*H1037 *Trichogramma* spp. Statewide.


**Hosts:** Eggs of:

- *Heterocampa guttivitta* Wlk. (L 3907)
- *Choristoneura fumiferana* Clem. (L 7408)
- *Coleophora salmani* Heinr. (L 9097)
- *Pikonomia alaskensis* (Rohwer) (H 59)
- *Nematus hudsoniimagnus* Dyar (H 67)
- *Heterarthrus nemoratus* (Fallen) (H 85)
- *Brachys* sp. (C 9572+)
- Arborvitatea leaf miners

Family IBALIIDAE


Family FIGITIDAE

H1048 Callaspidia provancheri Ashm. S.W. Harbor (E).


Family EUCOILIDAE


H1056 Rhoptromeris sp. Statewide. June through August. Host: Heterarthrus nemoratus (Fallen) (H 85).

Family CYNIPIDAE

Our records for this family are very poor and many are questionable. We have few specimens.


*H1071 D. rosal (L.). Bar Harbor (E) and Georgetown (S). March and May, 1959. Host: Polythamous hairy rose gall. Parasite: (these records indefinite) Hymenoptera - Habrocytus bedeguaris (Thoms.) (H 11) and Orthopelma luteolator (Gravenhorst) (H 483).

*H1077 Xanthoteras quercusforticorne (Walsh.). Bingham (W) and Masardis (Nj. May. Host: oak. Parasite: Hymenoptera - Torymus sp.

H1083 Amphibolips quercusianinis (O.S.). Bar Harbor (E) and Dover Foxcroft (S). 1937 and 1953. Host: Gall on red oak.
CYNIPIDAE

H1101 *Callirhytis cornigera* (O.S.). Horned Oak Gall. Produces occasional horned woody galls on twigs of pin and red oak in Southern Maine.


**Family AULACIDAE**


H1113 *P. rufitarsis* (Cress.). Bar Harbor (E). June and July.

**Family GASTERUPTIIDAE**


**Family PELECINIDAE**


**Family DIAPRIIDAE**

*H1130 Aclista* sp. Bar Harbor (E), Nicatous Lake (E), TD R2 (N), and Cherryfield (E). June. **Host**: *Heterarthrus nemoratus* (Fallen) (H 85).


H1145 *Trichopria* sp. Strong (W) and Freeman (W). 1931. **Host**: *Heterarthrus nemoratus* (Fallen) (H 85).

Family SCELIONIDAE

*H1153 Macroteleia sp. Phippsburg (S). September 15, 1940.

*H1167 Telenomus sp. Springfield (E), St. Francis (N), and Salem (W). May and June. Host: Hemerocampa sp. (L 3944+).


Family PLATYGASTRIDAE

*H1174 Allotropa utilis Mues. Orono (S). September, 1953. Host: Adelges sp. (?)


Family CERAPHRONIDAE


Family MEGASPILIDAE


Family BETHYLIDAE


*H1212 Laelius utilis Ckll. Augusta (S). April, 1959. Host: Dermestids (?)

*H1214 Sclerodermus sp. Augusta (S). September, 1939.

Family CYNIPIDAE


CYNIPIDAE

H1226 *Hedychridium* sp. near *dimidiatum* (Say). Penikese on ground near holes.

*H1227 Chrysis* sp. Statewide. June and September.

*H1232 *C. coerulans* Fab. Garland (S) and Mt. Desert (E). June and July.


*H1238 *Trichrysis doriae* (Gribodo). Bar Harbor (E). 1936. *(Host: Heterarthrus nemoratus (Fallen) (H 85)).*

**Family DRYLINIDAE**


**Family TIPHIIDAE**

H1253 Tiphiidae. Southern Maine. Several specimens exist in our *pro tem* material from areas under cultivation.

**Family FORMICIDAE**

H1342 *Ponera pennsylvanica* Buckley. Bar Harbor (E) and Tremont (E) 1937.

*H1347 *Myrmica* spp. Statewide.

*H1379 *Crematogaster lineolata* (Say). Bar Harbor (E). September. Collected carrying larva of *Heterarthrus nemoratus* (Fallen) (H 85).


*H1427 *C. pennsylvanicus* (DeGeer). Statewide. Very common. Probably the most common carpenter ant in homes and other man made structures.


*H1448 *Formica* sp. Mt. Desert (E), Mattawamkeag (E), and Bar Harbor (E). July.
FORMICIDAE

*H1452  *F. fusca* L. Statewide.


Family EUMENIDAE

*H1500  *Ancistrocerus adiabatus adiabatus* (Sauss.). Bar Harbor (E). June through September.

*H1502  *A. catskill albophaleratus* (Sauss.). Bar Harbor (E). August.

*H1502  *A. catskill catskill* (Sauss.). Upper Machias River (E). August.


*H1506  *S. canadensis* (Sauss.). Bar Harbor (E). August, 193-.

*H1507  *Eumenes crucifera nearcticus* Bequaert. Bar Harbor (E) July, 1936

Family VESPIDAE

H1518  *Vespa crabro germana* Christ. Introduced. Giant Hornet. This very large striking hornet has been reported unofficially from Maine. We have no definite records.


*H1519  *V. germanica* (Fab.). Introduced. Augusta (S) and Mount Vernon (S). July through September. Reported throughout much of Southern Maine. A serious pest of man.

*H1520  *V. maculifrons* (Buysson). Statewide.

*H1521  *V. vulgaris* (L.). Statewide.

tH1521  *V. arenaria* (Fab.). Aerial nesting Yellowjacket. Statewide.

tH1522  *V. maculata* (L.). Baldfaced Hornet. Statewide. Forms large paper nests in trees and shrubs and beneath eaves of homes.

*H1522  *V. norvegicoides* (Slad.). T2 R13 (W). September, 1947.
Family POMPILIDAE


*H1570  *Ceropales maculata fraterna* Smith. T3 ND (E) and Bar Harbor (E). August and September.

Family SPHECIDAE

*H1577  *Chalybion californicum* (Sauss.). T5 R13 (N) and Franklin (E). June

*H1578  *Sceliphron caementarium* (Dru.). Augusta (S), T5 R13 (N), and T12 R13 (N). June through August.

*H1580  *Sphex ichneumoneus* (L.). Great Golden Digger Wasp. Augusta (S), Fairfield (S), and Waterville (S). July and August. This large attractive wasp may look fearsome to some but although it can sting, it usually doesn't. Nests are formed in clusters in open sandy areas with sparse grass cover. They are provisioned with grasshoppers and crickets.

H1580  *S. jamaicensis* (Dru.). Augusta (S), Fairfield (S), and Waterville (S).


Family PEMPHREDONIDAE

*H1605  *Passaloecus annulatus* (Say). Bar Harbor (E) and Augusta (S). June and July. Collected from acorns with Valentinia sp. (L 8488+) and from old house timbers.

Family LARRIDAE


Family CRABRONIDAE


H1677 Ectemnius cephalotes (Olivier). Gardiner (S). 1952

*H1678 E. maculosus (Gmelin). Bar Harbor (E) and Lincoln (E). July and September.

Family NYSSONIDAE


*H1708+ Bembix spp. One or more species are common throughout at least the southern half of the State. Many individuals were found nesting in sand dunes along beach areas of Georgetown (S) and Phippsburg (S) during summer months.

Family COLLETIDAE


Family ANDRENIDAE

*H1772 Andrena spp. Bar Harbor (E) and Augusta (S). May and September.

*H1820 A. crataegi Robt. Mt. Desert (E) and Weld (W). June and July.

Family HALICTIDAE


*H1954  *Agapostemon virescens* (Fab.). Hartland (S) and Litchfield (S). June.


Family MEGACHILIDAE

*H2032  *Osmia lignaria lignaria* Say. Mt. Desert (E) and T5 R8 (N). May and June, 1933 and 1954.


Family ANTHOPHORIDAE

*H2097  *Nomada* spp. Statewide.

*H2103  *N. lepida* Cress. T8 R5 (N) and Mayfield (W). May and June. Collected from fir.


Family APIDAE


APIDAE

*H2206 Psithyrus citrinus (Smith). Bar Harbor (E). July and October.

*H2208 Apis mellifera L. Introduced. Honey Bee. Statewide. This common domesticated insect is our STATE INSECT. This designation was made by an act of the 107th Legislature in 1975 and made effective on October 1, 1975 (P.L. 1975 Chapter 271; 1 MRSA Section 214).
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