

AN ANNOTATED LIST OF THE LEPIDOPTERA OF ALBERTA^{1,*}BY KENNETH BOWMAN²**Abstract**

This list consists of 1825 species and varieties of Lepidoptera which have been taken in Alberta. Of these, 657 are records of captures in the hitherto almost completely neglected Microlepidoptera. Though few specialists on this continent have studied the taxonomy of this large group, those who have done so in certain families have generously assisted in classifying the species which are recorded. Unfortunately, in a few families it has been impossible to obtain this assistance. Despite the omissions this necessitates, the list constitutes the most comprehensive catalogue of Microlepidoptera which has, up to the present, been attempted for any province in the Dominion.

Arrangement and nomenclature are based on McDunnough's *Check List of the Lepidoptera of Canada and the United States*, published in 1938 and 1939. Proposed modifications in nomenclature, presented in subsequent publications, are substituted if they appear to be gaining general acceptance.

Locality records for captures are presented by a system of ecological areas of which the chief climatological and biological characteristics are briefly described.

Introductory

Professional entomologists are very greatly aided in the pursuit of their lifework with its practical objectives by the unstinted and critical industry of competent amateurs. Such amateurs have gathered a vast mass of data upon the distribution and the relative abundance of various insects and have recorded valuable information on the biology of the groups to which they have devoted their particular attention. In no field of entomological endeavor has this been more in evidence than it is in the study of Lepidoptera.

The province of Alberta is fortunate in that its residents have included a number of lepidopterists of unusual industry and ability. The pioneer in this field was F. H. Wolley-Dod, whose material now forms part of the Canadian National Collection in Ottawa. Other active Albertan lepidopterists have included D. Mackie of Edmonton, G. Sanson of Banff, H. Baird of High River, O. Bryant, and P. F. Bruggemann.

In 1904, Kenneth Bowman, who already possessed a thorough working knowledge of the Macrolepidoptera of England, started to collect energetically in the vicinity of Edmonton and in several of the mountain passes. He soon turned his attention to the almost universally neglected Microlepidoptera. In both quality and quantity his collection in the latter group constitutes by far the most important contribution to a knowledge of these little understood Lepidoptera ever assembled in a private collection in Canada.

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* *With introductory sections by E. H. Strickland, University of Alberta, Edmonton, Alta.*

In 1913, the writer established a light-trap at the Dominion Entomological Laboratory at Lethbridge. This has, subsequently, been in almost continuous operation during the summer months. Mr. Bowman has drawn upon the records of material obtained by it and has also been lent both reared and captured material from the recently established Forest Insect Laboratory at Seebe, on the outskirts of Banff National Park.

All specimens of which the identification was in doubt were submitted to Dr. J. H. McDunnough, Chief Curator of the insect collection at Ottawa. At the date of his retirement, he had completed a study of the Microlepidoptera to as far as the Tortricidae. In 1939, Dr. Annette Braun generously agreed to examine representatives of the remaining families. Her valued assistance has resulted in the addition of approximately forty new records for this province. Many of these had not, previously, been known to occur in Canada. There remain, however, some 50 to 70 unnamed species, chiefly in Phaloniidae, Gelechiidae, Blastobasidae, Coleophoridae, Gracillariidae, and Tineidae. Dr. Braun indicates that a number of these are, as yet, undescribed.

An early draft of this list was submitted to Dr. T. N. Freeman in Ottawa. He proposed certain changes, which are indicated below, and he inserted a number of hitherto unpublished records of additional species from the files of the Ottawa collection.

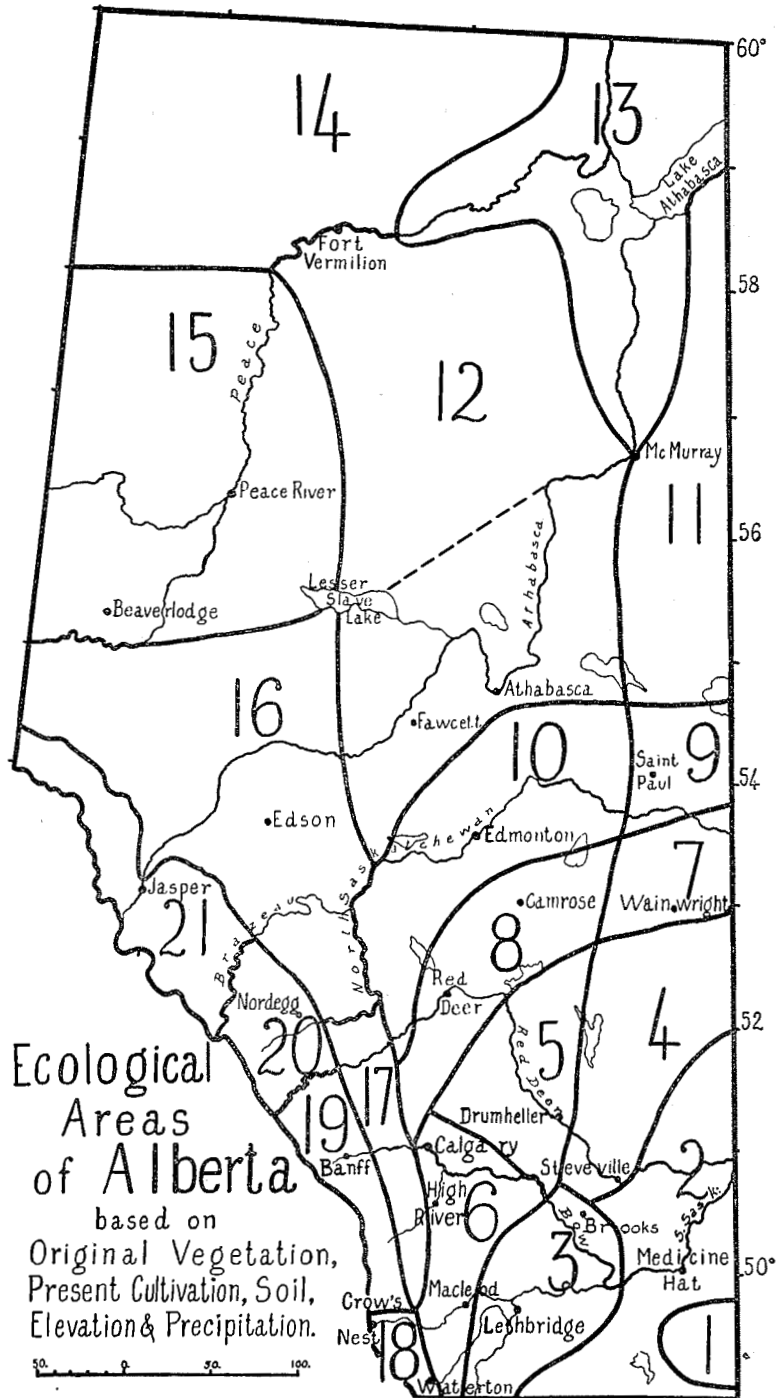
Records from sources which are considered to be of doubtful authenticity have been sedulously excluded from this list and it can, therefore, be accepted as the most complete and up-to-date catalogue of the species of Albertan Lepidoptera which could be compiled at the date of its preparation.

Method of Listing Species

The following list is based on McDunnough's *Check List of the Lepidoptera of Canada and the United States of America* (14). Since the appearance of this publication, revisions of various groups have suggested modifications in the nomenclature employed in certain families and genera. Dr. Freeman, with the assistance of Mr. D. F. Hardwick and Mr. E. G. Munroe, has generously evaluated the significance of all such proposals and has indicated those which appear to be gaining general acceptance. All such changes have been incorporated and a reference to the authority for each is given in the bibliography. The numbers which were allocated to individual species by McDunnough have, however, been retained.

Ecological Areas in Alberta

In recording localities in which captures have been made, Mr. Bowman has adopted the system of dividing this province into the 21 "Ecological Areas" which were defined and described by the writer in his *Annotated List of the Diptera of Alberta* (21). These are redefined herewith, and the map is reproduced without modification.



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*Transition Zone*1. *Cypress Hills*

Vegetation: - About 50% forested; lodgepole pine, spruce, aspen, and willow. Remainder; long grass. Very little cultivation.

Elevation: - Up to 4500 ft.

Soil: - Very dark brown. Summit of hills, which is an extensive tableland, was never glaciated.

Rainfall: - 10-11.5 in.

Remarks: - Flora and fauna are very similar to those of Area 18. Few Lepidoptera have been collected in this area.

2. *Southern Prairie (Dry) (Medicine Hat)*

Vegetation: - Short grass. A few poplars, willows, and a variety of bushes in river bottoms. Cactus and sage are common, while a few yuccas can be found in the extreme south. Crops: chiefly grain. Deserted land has grown up to mustard and Russian thistle.

Soil: - Fine brown clay, inclined to be sandy in eastern half.

Rainfall: - Less than 10 in.

Remarks: - The fauna includes scorpions, solpugids, termites, horned toads, kangaroo rats, and rattlesnakes. Nowhere else, east of the Rocky Mountains, do these forms extend to the Canadian prairies. Among the comparatively few Lepidoptera which have been examined from this area several are of unusual interest. In other orders of insects, "desert" types appear to predominate and it is anticipated that more extensive collecting in Lepidoptera will produce a number of additional xerobiotic species.

3. *Southern Prairie (About 50% Irrigated) (Lethbridge)*

Resembles Area 2. Vegetation on dry areas similar, but irrigated parts carry a greater variety of crops, among which alfalfa and beets predominate. Both soil and rainfall are a little heavier.

Remarks: - Extensive collections of Macrolepidoptera, particularly in the Phalaenidae, have been made in the vicinity of Lethbridge.

4. *Northern Prairie (East) (Stevenville)*

Vegetation: - Short to moderate long grass. Much deserted land. Crops: almost entirely grain.

Soil: - Dark brown loam.

Rainfall: - Less than 10 in. Very light in eastern half.

Remarks: - Hardly any Lepidoptera have been collected from this Area. The most extensive "badlands" of the Red Deer river are located here.

*Transition Zone—Concluded*5. *Northern Prairie (West) (Drumheller)*

Vegetation:—Moderately long grass. Crops: grain.

Soil:—Heavy clay "gumbo" to dark brown loam.

Rainfall:—10-11.5 in.

Remarks:—Collections of Lepidoptera have so far been confined to a few species which occur in a western extension of the badlands in which is situated the town of Drumheller. Among these are several which have not been taken elsewhere in the province.

6. *Northern Prairie (Southwest Extension) (Calgary)*

Vegetation:—Moderately long grass, occasional groves of willow and aspen. About 60% under cultivation. Crops: grain and hay.

Soil:—Dark brown loam.

Rainfall:—10-11.5 in.

Remarks:—Very extensive collecting in Macrolepidoptera was conducted by Wolley-Dod in the northern half of this area but there has been little elsewhere.

*Intermediate Between Transition and Canadian Zones*7. *Parkland (East) (Lloydminster)*

Vegetation:—About 30% wooded; aspen and willow groves, most heavily in northern half; remainder, moderately long to short grass.

Crops: grain and some hay.

Soil:—Dark brown loam; some areas, however, are almost pure sand.

Rainfall:—Less than 10 in.

Remarks:—Mr. P. F. Bruggemann has collected Lepidoptera extensively in this area. He considers that our map should be modified by moving the boundary between Areas 7 and 9 to the North Saskatchewan River, and by transferring the more sandy areas around Wainwright to Area 4. It is unfortunate that neither Lepidoptera nor insects in other Orders have ever been extensively collected between Medicine Hat and Lloydminster. It would appear that many southern forms which, in the past, have been considered to be peculiar to the former area extend northward into this Area, though they show no signs of a similar northward extension anywhere further west.

8. *Parkland (West) (Red Deer)*

Vegetation:—Originally about 50% wooded; mainly aspen. Remainder, long grass. Now about 70% cleared. Crops: grain and hay.

Soil:—Dark brown loam.

Rainfall:—10-13 in.

Remarks: Moderately intensive collecting has been conducted by Mr. Bowman in the vicinity of Red Deer.

*Canadian Zone*9. *Poplar (East) (Saint Paul)*

Vegetation:—Originally, aspen, balsam poplar, and willow, with some spruce. Less than 50% cleared. Crops: chiefly oats.

Soil:—Black loam.

Rainfall:—About 10 in.

Remarks:—Mr. Bruggemann has collected some of the Lepidoptera which occur along the eastern boundary of this area.

10. *Poplar (West) (Edmonton)*

Vegetation, as No. 9, larger local stands of spruce and pine. About 70% cleared. Crops: wheat and oats, some hay, particularly clovers.

Soil:—Black loam, with high humus content.

Rainfall:—Over 13 in.

Remarks:—Mr. Bowman and Mr. Mackie have collected Lepidoptera extensively in this area, both around Edmonton itself and at several lakes up to about forty miles to the west of the City.

11. *Mixed Forest with Eastern and Subarctic Intrusions*

Vegetation:—Poplar, spruce, pine, fir, tamarack, willow, birch, and alder.

Soil:—Gray wooded, large areas of sand.

Rainfall:—Probably 10-11.5 in.

Remarks:—No insects have, as yet, been collected here.

12. *Mixed Forest with Cordilleran (Rocky Mountain) Intrusions (Fawcett)*

Vegetation:—Similar to Area 11. Numerous lakes and large areas of muskeg. A little cultivation in the south. Crops: chiefly oats.

Soil:—Gray wooded, very variable in texture.

Rainfall:—11.5 to over 13 in.

Remarks:—There appear to be no factors on which this large area can be subdivided though we have, provisionally, inserted a broken line to separate it into "subareas". Only an occasional specimen of Lepidoptera has been seen from this area.

13. *Mackenzie Lowlands*

Vegetation:—Mixed forest, as No. 11, more Alpine-arctic species. Long grass and sedges in open spaces. No cultivation.

Soil:—Incompletely surveyed, probably all gray wooded.

Rainfall:—No record, probably about 13 in.

Remarks:—No Lepidoptera have been seen from here.

*Canadian Zone—Concluded*14. *Mixed Forest with Some Parkland and Alpine-Arctic Intrusions*

Vegetation:— Resembles Nos. 12 and 15. No cultivation.

Soil and vegetation:— No accurate data.

Remarks:— Very few Lepidoptera have been sent in from here.

15. *Mixed Forest and Parkland (Beaverlodge)*

Vegetation:— Large mixed forest areas interspersed with long-grass open plains. Crops: chiefly grain and hay.

Soil:— 10-15% black loam; much gray wooded, scattered patches of sand.

Rainfall:— 10-13 in.

Remarks:— Small collections of Lepidoptera have been made in various parts of the Peace River District. In common with insects in other Orders, these appear to be almost identical with the general fauna of the Edmonton area.

*Foothill Zone*16. *Foothills (Northern) (Edson)*

Vegetation:— Merges from that of No. 11 to that of 21. Incompletely surveyed. Some hay and grain in eastern half.

Soil:— Gray wooded. Believed to be very variable.

Rainfall:— Over 13 in.

Remarks:— A little collecting has been accomplished near Edson, but the fauna, in general, is not well known.

17. *Foothills (Southern)*

Vegetation:— Aspen, spruce, lodgepole pine, and willow, with much open prairie towards the southern end.

Soil:— Gray wooded in north merging to dark brown in the south.

Rainfall:— 13 in. in northern part but less than 10 in. in south.

Remarks:— This is the least uniform of the areas selected. Wolley-Dod collected Lepidoptera extensively in its center, particularly to the west of Midnapore in the foothills about 40 miles southwest of Calgary. Elsewhere the fauna is not well known.

Mountain Zone

The four areas into which this zone is divided each include a district in which moderately intensive collections of Lepidoptera have been made.

Vegetation:— This naturally varies greatly. Montane territory is dominated by lodgepole pine and white spruce. Douglas fir is locally abundant. Subalpine territory is characterized by Engelmann spruce, alpine fir, and other conifers, as well as by mountain heaths.

From Area 18 to Area 21 there is a gradual replacement of southern and western species by certain boreal and arctic species.

Mountain Zone—Concluded18. *Southern Rocky Mountain (Waterton and Crow's Nest Pass)*

Vegetation:—Strong intrusions of southern and western species extend to about the northern limits of this area.

Soil:—Has a higher lime content than have the more northern mountain areas.

Rainfall:—Over 13 in.

Remarks:—Spasmodic, but not intensive, insect collecting has been conducted in Waterton National Park for many years. Dr. McDunnough devoted a summer there to the Pterophoridae and other Microlepidoptera. Much of his material was classified by Dr. Braun. Mr. Bowman has collected Macrolepidoptera intensively in the Crow's Nest Pass. The fauna of both districts appears to be very similar.

19. *Central Rocky Mountain (Banff)*

Vegetation:—Typical for entire mountain zone with few southern or Arctic intrusions.

Soil:—Though very variable is, generally speaking, of a gray wooded type.

Rainfall:—Over 13 in.

Remarks:—Though many visitors have made small collections in this National Park, the only consistent collector of Lepidoptera was the late Mr. G. Sanson, for many years curator of the local insect collection. With the establishment of a Dominion Forestry Laboratory at Seebe, knowledge of the distribution and the biology of the Lepidoptera in this area should rapidly increase.

20. *North Central Rocky Mountain (Nordegg)*

Vegetation:—Similar to that of 19 but the late Dr. Malte, Dominion Agrostologist, found, among the grasses, several species which had been considered as confined to Labrador growing in the vicinity of Nordegg.

Soil and rainfall:—As in Area 19.

Remarks:—For many years, Mr. Bowman collected Lepidoptera intensively in the vicinity of Nordegg. Here, too, he had taken many species of moths which had, formerly, been considered as peculiar to the Labrador fauna. None of these have been taken, either to the north or the south, in the Rocky Mountains.

21. *Northern Rocky Mountain (Jasper)*

Vegetation, soil, and rainfall:—As in No. 19, but with strong intrusions of arctic and boreal species.

Remarks:—Though several collectors have made sporadic collections of Lepidoptera elsewhere in Jasper Park, by far the most intensive are those of Mr. Bowman at Pochontas, which is about twenty miles east of Jasper townsite.

Collections of Lepidoptera have rarely been made at a distance of more than about 50 miles from the town named (in brackets) in the above headings. Occasional specimens, taken elsewhere in these areas, have invariably belonged to the species which are known to occur in the neighborhood of these towns. Should it be desired to refer to a definite locality, in connection with any particular species, the name of the town can be safely employed as an alternative to the number of the Area in which it is located.

Arabic numerals which follow each insect name refer to the Ecological Area in which the species is known to occur. Roman numerals refer to the months in which the *adults* have been taken.

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Suborder FRENATAE

Superfamily PAPILIONOIDEA

PAPILIONIDAE

- 6 **Papilio** bairdii Edw. 8. VI.
 " brucei Edw. 8, 10. VI.
 7 nitra Edw. 2, 6, 8, 10, 18, 20. V-VII.
 8 zelicaon Luc. 8, 18, 20, 21. VI-VII.
 9 machaon dodi McD. 2, 5, 20. VII.
 " hudsonianus Clark. 13, 20. VI-VII.
 15 glaucus canadensis R. & J. 6-8, 10, 12, 18, 20, 21. V-VI.
 17 daunus Bdv. 18. VI.
 18 eurymedon Luc. 18. VI-VII.
 27 **Parnassius** smintheus Dbl. & Hew. 17-19, 21. VI-VIII.

PIERIDAE

- 34 **Anthlocharis** sara stella Edw. 18. VI.
 35 **Euchoe** creusa Dbl. & Hew. 12, 18-21. VI-VII.
 36 ausonides coloradensis Hy. Edw. 6-8, 10, 18-21. V-VII.
 37 olympia rosa Edw. 2. V.
 38 **Colias** meadi elis Stkr. 19, 21. VII-VIII.
 39 hecla glacialis McLach. 12, 20. V-VII.
 " pallida Skin. 20. V-VI.
 41 eurytheme Bdv. 2, 6-8, 10, 12, 15, 18, 19. V-IX.
 " alba Stkr. 6, 7, 10. VI-VIII.
 " amphidusa Bdv. 7, 10. VIII.
 " " alba Stkr. 10. VIII.
 " eriphyle Edw. 2, 6-8, 10, 19-21. V-IX.
 " autumnalis Ckll. 2, 6-8, 10, 18-20. V-VI.
 " alberta Bowman. 12, 15. VI-VII.
 " pallidissima Bowman. 12. VI.
 45 interior Scud. 1, 6-8, 10, 18-21. VII.
 46 christina Edw. 6-8, 18-21. VI-VII.
 " pallida Ckll. 8, 20. VII.
 47 alexandra Edw. 20. VII.
 " alba Stkr. 20, 21. VII.
 48 gigantea Stkr. 6-8, 10, 20, 21. VII.
 50 pelidne minisni Bean. 19, 20. VII-VIII.
 " isni B. & B. 19. VII-VIII.
 51 palaeno chippewa Kby. 12. VI.

PIERIDAE—*Concluded*

- 52 *nastes streckeri* Gr. Gr. 19-21. VII-VIII.
 " *obscurata* Verity. 19-21. VII-VIII.
 76 *Neophasia menapia* F. & F. 19. VIII.
 80 *Pieris sisymbrii* Bdv. 12, 18, 19. V-VI.
 " *flava* Edw. 12, 18. V-VI.
 81 *occidentalis* Reark. 6-8, 19-21. VII-IX.
 " *calyce* Edw. 7, 10, 19, 20, 21. IV-V.
 " *nelsoni* Edw. 20. VII.
 82 *protodice* Bdv. & Lec. 2, 6-8, 10. VI-VIII.
 " *vernalis* Edw. 10. IX.
 83 *napi oleracea* Harr. 6-8, 10, 12, 19. V-VI.
 " *cruciferarum* Bdv. 6, 8, 10, 12, 19. VII-VIII.
 " *marginalis* Scud. 18-20. VI-VII.
 86 *rapae* L. 2, 6-8, 10, 18, 19. IV-V.
 " *yreka* Reak. 2, 7, 8, 10, 18. VII-IX.

DANAIDAE

- 89 *Danaus plexippus* L. 2, 6-8, 10, 19. VI-VIII.

SATYRIDAE

- 109 *Coenonympha inornata benjamini* McD. 2, 6-8, 10, 15, 18, 19. VI-VII.
 115 *Eumenis ridingsii* Edw. 2, 5, 6. VII.
 117 *Minois alope nephele* Kby. 2, 6-8, 10, 20. VII.
 124 " *oetus* Bdv. 1, 2, 5, 6. VII-VIII.
 125 *Oeneis macouni* Edw. 6-8, 10, 12, 17, 20. VI-VII.
 127 " *chryxus* Dbld. & Hew. 18-21. VI-VIII.
 " *caryi* Dyar. 12. VI.
 128 *daura alberta* E. & E. 2, 6, 7, 19. V-VI.
 129 *taygete* Gey. 20. VII.
 130 *jutta* Hbn. 6-8, 10, 19-21. VI-VII.
 131 *uhleri varuna* Edw. 2, 6-8, 10, 15, 18-20. V-VII.
 135 *brucei* Edw. 12, 15, 19, 20. VII-VIII.
 141 *beani* E. & E. 19, 21. VIII.
 144 *Erebia disa mancinus* Dbld. & Hew. 7, 8, 19-21. V-VII.
 148 *discoidalis* Kby. 6-8, 10, 19-21. IV-V.
 150 *epipsodea* Butl. 1, 2, 6-8, 10, 18. IV-V.

NYMPHALIDAE (2)

- 159 *Euptoieta claudia* Cram. 2, 3, 6-8, 10, 18. VI-VII.
 165 *Argynnis cybele leto* Behr. 18. VII.
 166 " *pseudocarpenteri* C. & C. 6-8, 10, 18. VI-VIII.
 167 *aphrodite* Fabr. 6-8, 10. VII-VIII.
 169 *lais* Edw. 2, 6-8, 10, 18-20. VI-VIII.
 171 *atlantis* Edw. 6-8, 10, 18-20. VI-VIII.
 " *beani* B. & B. 18, 19. VIII.
 178 *hydaspe sakuntala* Skin. 17-21. VIII.
 180 *edwardsi* Reark. 2, 6, 18. VI.
 185 *zerene platina* Skin. 18. VI.
 191 *callippe calgariana* McD. 2, 3, 6-8, 17, 18, 20. VII-VIII.
 " *semivirida* McD. 18. VII.
 199 *monomia curynome* Edw. 2, 6-8, 10, 18-21. VII-VIII.
 " *clio* Edw. 2, 6-8, 18-20. VII-VIII.
 " *bischoffii* Edw. 20, 21. VII-VIII.
 200 *Boloria myrina* Cram. 6-8, 10. VII-VIII.
 202 *aphirape tricularis* Hbn. 6-8, 10, 19-21. VI-VII.
 " *dawsoni* B. & McD. 7, 12. VI.
 206 *chariclea boisduvali* Dup. 6, 7, 10, 19-21. VI-VII.
 208 *freija* Thun. 6-8, 10, 19-21. IV-V.

NYMPHALIDAE (2)—*Concluded*

- 211 frigga saga Staud. 6-8, 10, 12, 19-21. VI.
 212 toddi Holl. 2, 6-8, 10. V-VIII.
 213 epithore Edw. 18. VI.
 214 alberta Edw. 19. VII.
 216 astarte Edw. 19, 20. VII-VIII.
 222 **Euphydryas** anicia Dbld. & Hew. 1, 6, 17-21. VI-VIII.
 " capella Barnes. 18. VI.
 234 colonia beani Skin. 19, 21. VII.
 236 gilletti Barnes. 18. VI.
 240 **Melitaea** acastus Edw. 5, 6. VI-VII.
 244 damoetas Skin. 18, 19. VI-VII.
 245 mayi Gund. 19. VII.
 246 palla Bdv. 2, 18. VI.
 " whitneyi Behr. 17. VI-VII.
 262 **Phyciodes** gorgone Hbn. 2, 6-8, 10. V-VII.
 265 tharos Dru. 2, 6-8, 10, 19, 20. VI-IX.
 266 batesii Reark. 5, 7, 15. V-VI.
 267 campestris Behr. 6, 7, 18-21. VI-VIII.
 287 **Polygonia** satyrus Edw. 6-8, 10, 18, 19, 21. VII-IX.
 288 faunus Edw. 6-8, 10, 12, 18-21. VII-IX.
 291 zephyrus Edw. 6, 18-21. VII-IX.
 293 oreas silenus Edw. 18, 19. VIII.
 294 progne Cram. 2, 6-8, 10, 21. VIII.
 295 **Nymphalis** J-album Bdv. & Lec. 6-8, 10, 19-21. VIII.
 296 californica Bdv. 6-8, 10, 18, 19, 21. VI-X.
 297 milberti Godt. 2, 6-8, 10, 18-21. IV-IX.
 " furellata Say. 8. VI.
 298 antiopa L. 2, 6-8, 10, 18-21. VII-IX.
 299 **Vanessa** atalanta L. 6-8, 10, 18-21. VI-VIII.
 300 virginiensis Dru. 6, 7, 10. VII.
 301 cardui L. 6-8, 10, 18-21. VII-IX.
 302 carye Hbn. 18, 20. VI-VIII.
 321 **Basilarchia** arthemis rubrofasciata B. & McD. 2, 6-8, 10, 18-21. VI-VII.
 324 lorquini burrisonii Mayn. 18. VI-VII.
 325 archippus Cram. 2, 3, 6, 7. VII.

LYCAENIDAE

Theclinae

- 373 **Strymon** melinus Hbn. 6. VI.
 380 titus immaculosus Comst. 2, 5-8, 10. VIII.
 382 californica Edw. 2. VI-VII.
 389 liparops Bdv. & Lec. 7. VII.
 " strigosa Harr. 2. VI-VII.
 395 **Satyrium** fuliginosa Edw. 18. VI-VII.
 403 **Incisalia** augustus Kby. 6, 7, 10, 18-21. V-VI.
 409 polios Cook & Wats. 6-8, 10, 12, 18-21. V-VI.
 412 cryphon Bdv. 6, 17-21. V-VI.
 414 **Callophrys** dumetorum Bdv. 17. V.

Lycaeninae

- 423 **Lycaena** heteronea Bdv. 18. VII.
 424 thoe Guer. 6-8, 10. VII.
 427 dione Scud. 2, 3, 6, 7, 10, 18. VII.
 428 editha Mead. 6. VI-VII.
 429 rubidus Behr. 2, 3. VI-VII.
 430 mariposa Reak. 6, 18, 19, 21. VI-VII.
 432 helloides Bdv. 2, 6-8, 10, 18, 21. VI-IX.
 433 dorcas Kby. 7, 8, 10, 20. VII-VIII.
 435 hypophleas arethusa Dod. 6, 17, 19, 21. VI.
 437 snowi Edw. 19, 21. VII-VIII.

LYCAENIDAE—Concluded

Plebeïinae

- 448 *Everes amyntula* Bdv. 2, 6-8, 10, 18-21. VI.
 449 *Plebeius scudderii* Edw. 2, 19-21. VII.
 450 *melissa* Edw. 2, 6-8, 10, 15. V-VIII.
 452 *aquilo rustica* Edw. 6-8, 10, 15. VI-VII.
 " *megalo* McD. 18-21. VI-VII.
 453 *saepiolus* Bdv. 2, 6-8, 10, 19-21. V-VII.
 454 *optilete yukona* Holl. 10, 12. VII.
 455 *icaroides pembina* Edw. 18. VI.
 458 *shasta* Edw. 5, 6. VI.
 460 *lupini* Bdv. 6, 8, 18, 19. VI.
 472 *Phaedrotes piasus* Bdv. 6. VI.
 473 *Glaucopsyche lygdamus couperi* Grt. 2, 6-8, 10, 19-21. V-VIII.
 " *columbia* Skin. 18. VI.
 475 *Lycaenopsis pseudargiolus lucia* Kby. 2, 7, 8, 10, 19, 21. V.
 marginata Edw. 2, 7, 8, 10, 19, 21. V.

Superfamily HESPEROIDEA

HESPERIIDAE

Pyrginae

- 484 *Epargyreus tityrus* Fabr. 2, 7. VI.
 505 *Thorybes pylades* Scud. 6-8, 10, 17. VI.
 515 *Pyrgus centaureae* Ramb. 18-21. VII.
 516 *ruralis* Bdv. 18-20. V-VI.
 521 *communis* Grt. 2, 6-8, 10, 21. VI-VII.
 " *albescens* Ploetz. 2. VII.
 541 *Erynnis icelus* Scud. & Berg. 2, 6-8, 10, 18-21. V-VI.
 546 *persius* Scud. 2, 6-8, 18-21. V-VII.

Hesperinae

- 563 *Carterocephalus palaemon mandan* Edw. 18-21. V-VI.
 " *mesapano* Scud. 6-8, 10. V-VI.
 569 *Oarisma garita* Reak. 6-8, 10. VII.
 579 *Hesperia uncas* Edw. 2, 6, 10. VI-VII.
 583 *nevada* Scud. 6, 7, 18. VI-VIII.
 584 *comma manitoba* Scud. 6, 18-21. VI-VIII.
 " *assiniboia* Lym. 6-8, 18. VI-IX.
 611 *Polites themistocles* Latr. 6, 7, 10. VI.
 614 *peckius* Kby. 2, 6-8, 10, 19. VII.
 616 *draco* Edw. 6, 18, 19. VI-VII.
 618 *mystic* Scud. 6-8, 10. VI-VII.
 635 *Atrytone logan lagus* Edw. 2. VII.
 660 *Amblyscirtes vialis* Edw. 7. VI-VII.

Superfamily SPHINGOIDEA

SPHINGIDAE

Acherontiinae

- 707 *Ceratomia undulosa borealis* Clark. 7. VI.
 719 *Sphinx chersis* Hbn. 2. VI.
 720 *vashti* Stkr. 2, 6-8, 10. V-VII.
 " *albescens* Tepper. 3, 6-8, 10. V-VII.
 721 *mordecai* McD. 18. VI.
 728 *gordius campestris* McD. 7, 10, 20. VI.
 729 *luscitiosa* Clem. 7, 8, 10. V-VI.
 730 *druperiferarum marginalis* Clark. 8. VI.
 733 *pinastri* L. 8. VII.

SPHINGIDAE—*Concluded**Ambulicinae*

- 739 **Smerinthus** jamaicensis Dru. 10. V-VII.
 " geminatus Say. 6-8, 10, 18, 22. V-VII.
 740 cerisyi Kby. 3, 6-8, 10, 18-21. V-VII.
 741 **Paonias** excaecata borealis Clark. 2, 8, 10. VI.
 742 myops occidentalis Clark, 2, 3, 6. VI.
 " mccrearyi Clark. 7. VI.
 745 **Pachysphinx** modesta Harr. 2, 3, 7, 8, 10, 19. VI.

Sesiinae

- 767 **Hemaris** thysbe cimbiciformis Steph. 2, 7, 8, 10, 19, 21. V-VI.
 770 diffinis ariadne B. & McD. 2, 3, 6-8, 10, 19, 21. V-VI.
 " rubens Hy-Edw. 6, 8, 18. VI-VII.

Philampelinae

- 785 **Amphion** nessus Cram. 6. VI.
 788 **Proserpinus** juanita Stkr. 3, 5. VII.
 790 flavofasciata ulalume Stkr. 10, 17, 20. V-VII.

Choerocampinae

- 798 **Celerio** gallii intermedia Kby. 3, 6-8, 9, 10, 18-21. V-VII.
 799 lineata Fabr. 2, 3, 6-8, 10, 19-21. VII-IX.

Superfamily SATURNOIDEA

SATURNIIDAE

- 804 **Platysamia** cecropia L. 2, 15. VI.
 805 gloveri Stkr. 6, 8, 10, 19. V-VI.
 806 columbia nokomis Brodie. 7. V-VI.
 812 **Telea** polyphemus Cram. 2, 3, 7, 8, 10. VI.
 840 **Pseudohazis** eglanterina Bdv. 18. VI.

Superfamily NOCTUOIDEA

AMATIDAE

- 871 **Cisseps** fulvicollis Hbn. 5-7, 10, 20. VII.

NOLIDAE

- 888 **Celama** cilicoides Grt. 3, 6, 7, 10. VII.

NYCTEOLIDAE

- 3235 **Nycteola** frigidana Wlk. 7, 8, 10, 13. IX-V. (16)

ARCTIIDAE

Lithosiinae

- 905 **Lexis** bicolor Grt. 7, 10, 19-21. VII-VIII.
 911 **Crambidia** casta Pack. 2, 3, 6, 7, 10, 21. VIII-IX.
 952 **Clemensia** albata Pack. 10. VII.
 753 **Hypoprepia** miniata Kby. 6-8, 10, 20. VII-VIII.

ARCTIIDAE—*Concluded**Arctiinae*

- 980 *Halisdota* maculata Harr. 3, 6-8, 10, 18, 20, 21. VI.
 1005 *Euchaetias* oregonensis Stretch. 5. VI.
 1023 *Eubaphe* ferruginosa immaculata Reak. 6, 7, 10, 19. VI-VII.
 1024 *Dodia* albertae Dyar. 7, 17, 21. VI-VII.
 1028 *Phragmatobia* fuliginosa rubricosa Harr. 6, 10. V-VI.
 1029 " assimilans franconia Sloss. 6, 7, 10. IV-VIII.
 1031 *Neoarctica* beani Neum. 19, 20. VII-VIII.
 1032 " sordida McD. 19. VI.
 1033 *Apantesis* virgo L. 6, 8, 10, 19, 20. VII.
 " simplex Stretch. 10. VII.
 " citrinaria N. & D. 8, 10. VII.
 1035 parthenice Kby. 3, 6-10, 12. VI-VII.
 1036 oithona Stkr. 6.
 1037 doris Bdv. 6. VI.
 1039 ornata obliterated Stretch. 6. VIII.
 1041 quenselii Payk. 6. VII.
 1042 turbans Christ. 3, 6-8, 10, 20, 21. VII-VIII.
 1044 virguncula Kby. 6, 10, 19, 20. VI-VII.
 1047 nevadensis superba Stretch. 6. VII.
 N.S. gibsoni McD. 6. VI-VII.
 1048 bolanderi Stretch. 6. VI.
 1049 blakei Grt. 3, 6. VI-VII.
 1051 celia Saund. 19, 20. VI-VII.
 1053 williamsii Dodge. 2, 6-8, 10, 18, 20, 21. V-VIII.
 1062 *Nemeophila* plantaginis L. 10, 18, 19. VI-VII.
 " hospita D. & S. 6, 10, 18, 21. VI-VII.
 " scudderii Pack. 7, 10, 18, 20. VII.
 1065 *Diacrisia* virginica Fabr. 2, 7, 8, 10. IV-VI.
 1066 vagans Bdv. 18. VI.
 " kasloa Dyar. 18. VI.
 1067 pteridis Hy.-Edw. 10. V-VI.
 1069 *Isia* isabella A. & S. 2, 3, 6-8, 10. VI.
 1070 *Estigmene* acrea Dru. 2, 3, 6-8, 10. VI.
 1072 prima Sloss. 7, 8, 10. V-VII.
 1074 *Hyphantria* textor Harr. 3. VIII.
 1077 *Turuptiana* permaculata Pack. 2, 3, 5. VII.
 1092 *Parasemia* parthenos Harr. 3, 6-8, 10, 18, 19. VI-VII.
 1095 yarrowi Stretch. 19, 20. VII-VIII.
 1098 *Arctia* caja L. 3, 6, 18-21. VII-VIII.
 1103 *Haploa* lecontei militaris Harr. 2. VII.

AGARISTIDAE

- 1109 *Androloma* maccullochi Kby. 6, 17-21. VI-VII.
 1116 *Alypia* langtoni Couper. 6-8, 10. V-VII.

PHALAENIDAE

Pantheinae

- 1128 *Panthea* virginaria Grt. 10, 19, 20. VI-VIII.
 1141 *Raphia* frater Grt. 7, 10. V.
 1143 coloradensis Put. 2, 3. V-VII.

Acronictinae

- 1148 *Acronicta* americana Harr. 7. V.
 " eldora Sm. 2. V.
 1151 dactylina Grt. 6-8, 10, 20. VI-VII.
 1152 hesperida Sm. 10. VII.

PHALAEINIDAE—Continued

Acronictinae—Concluded

- 1153 lepusculina Gn. 2. VII.
 " canadensis Sm. 6, 20. VI-VII.
 " felina Grt. 6. VI.
 1154 leporina cretatoides Benj. 6, 8, 10. V-VI.
 1155 innotata Gn. 10, 20. V, VI.
 1160 grisea Wlk. 3, 6-8, 10, 19, 20. VI-VII.
 1161 tartarea Sm. 6. VI.
 1171 quadrata Grt. 6. VI-VII.
 1175 furcifera manitoba Sm. 6, 10. V-VII.
 1185 fragilis Gn. 7, 10. V-VI.
 1201 impleta illita Sm. 5-7, 10. VI-VII.
 1202 sperata Grt. 6. VI.
 " speratina Sm. 10. VI.
 1204 impressa Wlk. 6, 10, 20. VII.
 1206 distans Grt. 6-8, 10, 19, 20. IV-V.
 1215 obliterata A. & S. 6-8, 10. IV-VI.
 1217 **Merolonche** lupini Grt. 19-21. VI-VII.
 1221 ursina Sm. 20. VI.
 1222 **Simyra** henrici Grt. 3, 6, 7, 10. VI.

Phalaeninae

- 1224 **Agrotiphila** incognita Sm. 19, 20. VII-VIII.
 1232 **Euxoa** olivia Morr. 3. VIII.
 1233 brevipennis Sm. 3. IX.
 1234 cicatricosa G. & R. 2. VIII.
 1236 dargo Stkr. 3, 6, 7. VIII-IX.
 1238 quadridentata G. & R. 2, 3, 6, 7, 18. VIII-IX.
 1240 laetificans Sm. 2. VIII.
 1246 plagigera Morr. 3, 6, 19. VII-IX.
 1247 olivalis Grt. 2, 3, 6, 20. VI-VII.
 1249 oblongistigma Sm. 3. VII-VIII.
 1250 ridingsiana Grt. 2, 3, 6, 7, 10, 18, 19, 21. VII-VIII.
 1251 perolivalis Sm. 2, 3, 6, 8, 18. VII-VIII.
 1252 flavicollis Sm. 2, 3, 6, 7, 10. VII-VIII.
 1254 cooki McD. 6. VIII.
 1255 aberrans McD. 3. VII.
 1257 catenula Grt. 2, 3. VIII-IX.
 1258 lindseyi Blkmre. 6. VIII.
 1259 pallipennis Sm. 2, 3, 20. VIII.
 1264 mitis colla Stkr. 10. IX.
 1271 aurulenta Sm. 6. VII.
 1272 detera Wlk. 3, 10. VIII.
 " personata Morr. 10. VIII.
 1274 intrita strigilis Grt. 7, 10. VIII.
 " reuda Stkr. 6, 10. VIII.
 1276 rufula basiflava Sm. 6, 19. VIII.
 1277 dodi McD. 3, 6. VIII.
 1278 infracta Morr. 3, 18. VIII.
 1280 infausta Wlk. 6. VIII.
 1282 holoberba Sm. 6, 20. VII.
 1297 scandens Riley. 3, 6, 8, 10, 20. VII-VIII.
 1298 acornis Sm. 3, 6, 7, 10, 18. VIII-IX.
 " testula Sm. 6. VIII-IX.
 1301 choris Harv. 3, 6, 10, 21. VII-VIII.
 1309 mimallonis Grt. 6, 10, 18. VII-VIII.
 1310 messoria Harv. 2, 3, 7, 10, 18. VII.
 " atrifera Grt. 3. VIII.
 1311 septentrionalis Wlk. 3, 18. VIII-IX.
 1312 difformis Sm. 6. VIII.
 1314 terrena Sm. 19.
 1318 atropulvaria Sm. 18. IX.
 1321 fumalis Grt. 20, 21. VII-VIII.
 1322 ontario Sm. 10, 19-21. VIII-IX.

PHALAEINIDAE—Continued

Phalaeninae—Continued

- 1324 quinquelinea lutulenta Sm. 18. IX.
 " incallida Sm. 3, 6, 10, 19, 20. VII-IX.
 N.S. altera McD. 2, 6. VII-IX.
 1326 vallus Sm. 6, 19. VIII-X.
 1327 vulpina Sm. 6, 19-21. IX-X.
 1329 quebecensis dolens Sm. 6, 18-21. VI-IX.
 " quinta Sm. 6, 18. VI-IX.
 1339 rectincta Sm. 3, 6. VIII-IX.
 1340 murdocki Sm. 19. VIII.
 1341 tessellata Harr. 2, 3, 6, 7, 10, 18, 19. VII-VIII.
 " atropurpurea Grt. 7, 10, 21. VIII.
 " nordica Sm. 6, 10, 21. VII-VIII.
 " tesselloides Grt. 3, 6, 10, 21. VII-VIII.
 1346 pleuritica Grt. 3, 7. VII.
 1347 simona McD. 6. VI-VII.
 1349 petruska McD. 6. VI.
 1350 pestula Sm. 3, 6, 7, 10, 20. VI-VII.
 1351 declarata Wlk. 2, 3, 6, 7, 10, 19-21. VII-IX.
 1352 campestris Grt. 3, 7, 10, 19. VII-IX.
 1353 verticalis Grt. 10. VIII.
 1354 albipennis Grt. 2, 3, 6, 7, 10, 18. VIII-IX.
 1356 colata Grt. 6, 20, 21. VII-VIII.
 1365 rena Sm. 6-8, 18, 19. VII-VIII.
 " cervinea Sm. 6, 8, 18, 19. VIII.
 1366 divergens Wlk. 3, 6, 7, 10, 18-20. VI-VII.
 " abar Stkr. 20. VII.
 1370 obeliscoides Gn. 3, 6, 10. VIII-IX.
 " infusa Sm. 3, 6. VIII-IX.
 1371 redimicula Morr. 3, 6, 7, 10, 18-20. VI-IX.
 " servita Sm. 6. VI-IX.
 1372 costata idahoensis Grt. 3, 6, 10, 19-21. VI-VIII.
 1373 clausa McD. 3. VII.
 1374 westermanni Staud. 20. VII.
 1376 basalis Grt. 2, 3, 6-8, 10, 18, 20. VII-VIII.
 1378 ochrogaster Gn. 2, 3, 6-8, 10, 15, 19, 21. VI-IX.
 " insignata Wlk. 2, 3, 6-8, 10, 19, 21. VI-IX.
 " gularis Grt. 2, 3, 6-8, 10, 19, 21. VI-IX.
 " turris Grt. 2, 3, 6, 8, 10, 19, 21. VI-IX.
 1382 tristicula Morr. 2, 3, 6, 7, 10, 20. VI-VIII.
 " nesilens Sm. 2, 3, 7, 10, 18, 20. VI-VIII.
 1387 *Chorizagrotis* auxiliaris Grt. 2, 3, 6, 7, 10, 15, 20. VI-IX.
 " agrestis Grt. 2, 3, 6, 7, 10, 15, 20. VI-IX.
 " montanus Cook. 19, 20. VII.
 1389 thanatologia Dyar. 3, 6, 7, 10, 20, 21. VIII.
 " sordida Sm. 3, 6, 10, 20, 21. VIII.
 " boretha Sm. 6, 10, 20. VIII.
 " perfida Dod. 3, 6, 10, 19-21. VIII.
 1391 *Protexarnis* balanitis Grt. 3, 6, 10, 18-20. VI-VIII.
 1403 *Pseudorthosia* variabilis Grt. 3, 18. VIII-IX.
 1404 *Trichosilia* acarnea Sm. 19, 20. VI-VII.
 1416 *Agrotis* vetusta Wlk. 3, 6, 10. VI-VIII.
 " catenuloides Sm. 3, 7, 10, 21. VIII.
 1419 mollis Wlk. 6, 10, 19, 20. VII-IX.
 1420 orthogonia Morr. 2-7, 17, 18. VIII-IX.
 1421 patula Wlk. 20. VII.
 1424 robustior Sm. 3. VI.
 1425 venerabilis Wlk. 2, 3, 6, 7, 10, 18. VIII-IX.
 1426 vancouverensis Grt. 3, 6, 18-20. VI-VII.
 1429 musa Sm. 10. VI.
 1432 volubilis Harv. 7, 10, 19, 20. VI-VII.
 " stigmata Morr. 2, 7. VI.
 " fumipennis McD. 19, 20. VI.
 1433 obliqua Sm. 3, 6, 7, 10. V-VI.
 1435 ypsilon Rott. 3, 6-8, 10, 21. VI-X.

PHALAEINIDAE—Continued

Phalaeninae—Continued

- 1442 *Feltia* ducens Wlk. 2-10, 19-21. VI-VIII.
 1443 hudsoni Sm. 6. VII-VIII.
 1446 herilis Grt. 3, 6-8, 10, 19. VII-VIII.
 1452 *Actebia* fennica Tausch. 2, 3, 6, 7, 10, 19-21. VI-VIII.
 1454 *Copablepharon* grandis Stkr. 3. VII.
 1458 viridisparsa Dod. 3, 6. VI-VIII.
 1459 longipennis Grt. 3, 7. VIII.
 1462 alba Harv. 3. VII-VIII.
 1465 *Protogygia* querula Dod. 6. VII.
 1472 *Spaelotis* clandestina Harv. 2, 3-8, 10, 15, 18, 21. VI-VIII.
 1473 havilae Grt. 3, 6, 10, 18. VI-VII.
 1475 *Eurois* occulta L. 3, 6-8, 10, 19, 21. VI-IX.
 1476 astricta Morr. 3, 6, 7, 10, 19-21. VI-VIII.
 1477 nigra Sm. 3, 6, 19-21. VII-VIII.
 1480 *Ochropleura* plecta L. 3, 6-8, 10, 20. V-VII.
 1486 *Euagrotis* bairdi Sm. 6.
 1490 tepperi Sm. 2, 3, 6, 7, 10, 19, 20. VI-VII.
 1494 *Metalepsis* salicarum Wlk. 6-8, 10. IV-V.
 1496 *Peridroma* margaritosa Haw. 3, 6-8, 10, 18, 21. VI-X.
 " saucia Hbn. 3, 6, 8, 10, 18, 21. VI-X.
 1497 *Hemipachnobia* monochromatea Morr. 10. VII.
 1498 *Paradisias* littoralis Pack. 2, 3, 6-8, 10, 19, 20. VI-VII.
 1499 *Pseudospaelotis* haruspica Grt. 3, 6-8, 10, 19, 20, 21. VI-VII.
 1500 *Caradrina* quadrangula clemens Sm. 6. V-VII.
 1501 *Chersotis* juncta Grt. 3, 6-8, 20. VII-VIII.
 1503 *Diarsia* calgary Sm. 6, 7, 19, 20. VI-VII.
 1504 cynica Sm. 6, 7, 10, 21. VII-VIII.
 1505 rubifera Grt. 10, 20. VII-VIII.
 1506 dislocata Sm. 6, 10, 20. VII.
 1510 pseudorosaria Hdwk. 3, 6, 18-20. VI-VII (9).
 " freemani Hdwk. 10, 20. VI-VII.
 1511 *Graphiphora* c-nigrum L. 2, 3, 6, 7, 10, 19, 21. VII-VIII.
 1512 smithi Snell. 3, 6-8, 10, 19-21. VII-VIII.
 1513 normaniana Grt. 6, 8, 10, 20. VII-VIII.
 1517 oblata Morr. 3, 6, 19-21. VI-VII.
 1518 substrigata Sm. 3, 6, 10, 20, 21. VI-VIII.
 1521 bollii Grt. 6. IX.
 1522 collaris G. & R. 3, 6, 7, 10, 19, 21. VIII.
 1525 tenuicula Morr. 3, 6, 7, 10, 19, 20. VII-VIII.
 1527 opacifrons Grt. 15, 20. VII-VIII.
 1532 *Agrotimorpha* maculata Sm. 19. VII.
 1545 *Setagrotis* cinereicollis vocalis Grt. 19. VII.
 1550 *Anomogyna* atrata Morr. 8, 10, 20. VII.
 1551 sincera H.-S. 20. VI-VII.
 1553 apropitia Benj. 6, 19, 20. VII.
 1555 perquirata partita McD. 3, 6, 7, 10, 12, 20, 21. VII-VIII.
 1556 laetibilis Zett. 8, 10, 19-21. VII-VIII.
 1557 homogena McD. 19-21. VII-IX.
 1558 imperita Hbn. 19-21. VII-VIII.
 " discincta Wlk. 21. VIII.
 1561 elimata Gn. 19, 21. VII-VIII.
 1564 vernilis Grt. 19, 20. VIII-IX.
 1568 *Aplectoides* condita Gn. 8, 10. V-VII.
 1569 *Anaplectoides* pressus Grt. 6, 7, 10, 20, 21. VII-VIII.
 1570 prasina Schiff. 6, 8, 10, 19. VII-VIII.

PHALAEINIDAE—Continued

Phalaeninae—Concluded

- 1571 **Protolampra** rufipectus Morr. 3, 6-8, 10, 20, 21. VII-VIII.
 1574 **Pseudoglaea** olivata Harv. 19. VIII.
 1575 **Cryptocala** acadensis Beth. 3, 6-8, 10, 21. VII-VIII.
 1577 **Eueretagrotis** perattenta Grt. 6, 10. VI-VIII.
 1579 " inattenta Sm. 6, 7, 10, 19. VI-VIII.
 1585 **Abagrotis** nanalis Grt. 3. VIII-IX.
 1591 " dodi McD. 6. VII.
 1593 " placida Grt. 2, 3, 6, 7, 10, 19, 21. VII-IX.
 1594 " barnesi nevadensis Benj. 3. VIII.
 1601 " alternata Grt. 6, 10. VII-VIII.
 1611 **Ufeus** satyricus Grt. 2, 6-8, 10, 13, 21. IX-IV.
 1614 " plicatus Grt. 3, 6, 10, 19, 20. IX.

Hadeninae

- 1625 **Scotogramma** submarina Grt. 5. VII.
 1633 " trifolii Rott. 2, 3, 7, 10. VIII.
 1634 " mutata Dod. 3, 6, 10, 18, 19. VI-VIII.
 1635 " fervida campestris McD. 2. VII.
 1640 " alta B. & B. 19, 20. V-VII.
 1642 " obesula Sm. 3, 5, 6, 10, 20. VII-VIII.
 1643 " farnhami Grt. 3, 6, 7, 10, 19-21. V-VII.
 1645 " chunka Sm. 2, 3, 6, 7. V.
 1652 **Trichoclea** fuscolutea Sm. 3. VI.
 1655 " artesta Sm. 5, 6. VII.
 1660 **Mamestra** configurata Wlk. 2-7, 10. VII-VIII.
 1661 " curialis Sm. 10. V-VI.
 1662 **Polia** discalis Grt. 3, 6, 7, 18, 19, 21. VI-VIII.
 1663 " nimbose mystica Sm. 6, 10. VII.
 1665 " rogenhoferi Moesch. 20. VII.
 1666 " carbonifera Hamp. 6, 19, 20. VII.
 1667 " imbrifera Gn. 3, 6-8, 10. VI-VII.
 1669 " purpurissata Grt. 3, 6, 7, 8, 10, 12, 19-21. VII-VIII.
 " " juncimacula Sm. 6. VIII.
 1673 " subjuncta G. & R. 3, 7, 10. VII-VIII.
 1677 " atlantica Grt. 3, 6, 7, 10. VI-VII.
 1678 " nevadae Grt. 3, 6, 10, 18, 19. VI-VII.
 1679 " radix Wlk. 3, 6-8, 10, 19, 20, 21. VI-VII.
 1680 " segregata Sm. 3, 6-8, 10, 19. IV-V.
 " " negussa Sm. 3, 6, 7, 10, 19, 20. IV-V.
 " " plicata Sm. 6. IV-V.
 1684 " tacoma Stkr. 6, 10, 21. VI-VII.
 1686 " dodi Sm. 3, 6, 7, 10, 18, 20. VI-VII.
 1687 " lilacina Harv. 3, 6, 7, 10, 19, 20. VI-VIII.
 " " illabefacta Morr. 3, 6, 7, 10. VII-VIII.
 1689 " meodana Sm. 3, 6, 18. V-VII.
 1691 " adjuncta Bdv. 6, 8, 10, 20. VI.
 1693 " assimilis Morr. 3, 6-8, 10, 19. VI-VII.
 1694 " pulverulenta Sm. 6, 10, 19, 20. VI.
 1696 " ingravis Sm. 6-8, 10, 19-21. V-VI.
 1697 " cristifera Wlk. 10, 19-21. VI.
 1698 " invalida Sm. 6, 19. V-VII.
 1699 " lutra Gn. 6, 7, 10, 20, 21. VI-VII.
 1707 " secedens Wlk. 7, 10, 19, 20. V-VII.
 1709 " detracta Wlk. 6, 7, 10. VI-VII.
 1710 " goodelli acutermana Sm. 3, 6, 7, 10. IV-VII.
 1711 " obscura Sm. 6-8, 10, 21. VI.
 1712 **Lacinipolia** meditata columbia Sm. 3, 6-8, 10, 19. VII-VIII.
 1714 " lustralis Grt. 6, 7, 10, 18. VI-VII.
 1716 " anguina Grt. 6, 7, 10, 19, 20. VI-VII.
 1718 " longiclava Sm. 2. V.

PHALAEINIDAE—*Continued**Hadeninae*—Concluded

- 1735 vicina Grt. 2, 3, 6, 7, 10, 18-20. V-VII.
 1736 pensilis Grt. 6, 18. VIII.
 1738 renigera Steph. 3, 6, 7, 10, 19, 21. VII-VIII.
 1744 lorea Gn. 1, 3, 6-8, 10. V-VII.
 1745 olivacea Morr. 2, 3, 6-8, 10, 19, 21. VII-VIII.
 " davena Sm. 10, 18. VII-VIII.
- 1760 **Lasionycta** alberta B. & B. 6, 17-20. VII.
 1765 subfuscula Grt. 18. VI.
 1769 conjugata Sm. 18-20. VI-VII.
- 1775 **Lasiestra** staudingeri Auriv. 19, 20. VI-VIII.
 1777 leucocyclus poca B. & B. 21. V-VI.
 " albertensis McD. 20. VII.
 1779 lagganata B. & B. 19. VII-VIII.
 1780 impingens Wlk. 19, 20. VII.
 1784 luteola Sm. 19, 20. VII-VIII.
 1785 promulsa Morr. 16, 18-20. VII.
 1787 uniformis Sm. 19, 20. VII.
- 1789 **Anarta** cordigera Thun. 6, 10, 18-20. V-VI.
 1791 melanopa Thun. 19, 20. VI-VIII.
 1794 richardsoni Curt. 20. VII.
- 1800 **Sideridis** rosea Harv. 3, 6-8, 10. V-VII.
 1802 maryx Gn. 6-8, 10, 21. VI-VII.
- 1803 **Astrapetis** sutrina Grt. 6-8, 10, 19, 20. V-VI.
- 1808 **Anepia** ectrapela Sm. 19. VII-VIII.
 1809 circumvadis Sm. 3, 6, 7, 18. VI-VII.
- 1842 **Orthodes** utahensis Sm. 3. VIII.
- 1855 **Protorthodes** oviduca Gn. 3, 6-8, 10. V-VI (15).
- 1886 **Anhimella** contrahens infidelis Dyar. 5-7, 10, 19. VII.
- 1890 **Homorthodes** furfurata uniformis Sm. 3. VII.
- 1895 **Nephelodes** emmedonia Cram. 3, 6, 7, 10. VIII.
- 1899 **Tholera** americana Sm. 3, 6, 18. VIII-IX.
- 1910 **Xylomyges** cognata Sm. 6.
 1914 dolosa Grt. 7, 8, 10, 17, 18. IV-V.
 1915 rubrica Harv. 3, 19. V-VI.
- 1918 **Stretchia** muricina Grt. 2, 18. IV-V.
 1920 plusiaciformis Hy.-Ed. 6, 10, 19. IV-V.
- 1940 **Orthosia** revicta Morr. 6, 10. IV-V.
 1943 hibisci Gn. 3, 6-8, 10, 20. IV-V.
- 1950 **Crocigrapha** normani Grt. 3.
- 1951 **Ceramica** picta Harv. 3, 7, 8, 10, 18. VI-VIII.
- 1952 **Dargida** procincta Grt. 2, 3, 6-8, 10, 18-20. VI-X.
- 1962 **Protoleucania** albilinea Hbn. 3, 5-8, 10. VI-VII.
- 1977 **Leucania** commoides Gn. 2, 3, 6-8, 10, 19. VII-VIII.
 1982 multilinea Wlk. 3, 6, 10, 20. VII-VIII.
 1986 anteroclara Sm. 2, 3, 6, 19. VI-VIII.
 1987 calgariana Sm. 3, 6. VI-VIII.
 1992 insueta Gn. 2, 3, 6-8, 10, 19, 21. VII.
 " megadia Sm. 6, 8, 10. VII.
 1994 unipuncta Haw. 2, 6, 7, 10, 20. VII.
 1995 luteopallens minorata Sm. 3, 6-8, 10, 18, 19, 21. VII-VIII.

Cucullinae

- 2013 **Rancora** solidaginis Stkr. 19. V.
 2014 brucei Sm. 20. VI.
 2016 albicinerea Sm. 6, 8. IV-V.

PHALAEINIDAE—Continued

Cucullinae—Continued

- 2024 **Brachionycha** borealis Sm. 8, 10. IV-V.
 2025 **Pleroma** conserta Grt. 18, 19. IV-VI.
 2026 obliquata Sm. 6-8, 10, 19. IV-V.
 2034 **Cucullia** speyeri Lint. 2, 6, 18. VII-IX.
 2038 intermedia Spey. 3, 6, 7, 10, 18. VI-VII.
 2039 similaris Sm. 5. VII-VIII.
 2041 floreana Gn. 2, 6-7, 10, 20. VII-IX.
 2042 postera Gn. 3, 6-8, 10, 20. VI-VIII.
 2043 omissa Dod. 6, 10, 20. VII-VIII.
 2045 montanae Grt. 2, 6. VII.
 2049 **Nycterothaeta** luna Morr. 3, 5, 6. VII.
 2067 **Oncocnemis** hayesi Grt. 18, 19. IX.
 2068 regina Sm. 3. VIII.
 2071 albifasciata Hamp. 3, 10. VIII.
 2073 pudorata Sm. 19. VII.
 2076 lepipoloides McD. 3. VIII.
 2077 glennyi Grt. 19. VII.
 2087 levis Grt. 3. VIII-IX.
 2088 sanina Sm. 3. VIII-IX.
 2089 simplex Sm. 3. VIII-IX.
 2090 augustus Harv. 2, 3, 10. IX.
 2095 occata Grt. 2. V.
 2101 viriditincta Sm. 6, 7. VIII.
 2114 barnesi Sm. 18, 19. IX-X.
 2116 piffardi Wlk. 6, 10, 18, 19, 21. VII-IX.
 2117 cibalis Grt. 3, 6, 10, 18. VII-IX.
 2122 figurata Harv. 3. VII.
 2127 riparia Morr. 3. VIII.
 2132 major Grt. 3, 5. VI-VII.
 2133 chandleri Grt. 3, 6, 7, 10. VIII-IX.
 2136 mackiei B. & B. 3, 6, 7, 10, 19, 21. VII-IX.
 2147 **Homohadena** badistriga Grt. 6, 8, 10. VII-VIII.
 2150 stabilis Sm. 3, 6, 7, 10, 20. VII-VIII.
 2154 filia Dyar. 3, 6, 7, 10. V-VII.
 2155 **Adita** chionanthi A. & S. 3, 7. VIII.
 2156 **Apharetra** dentata Grt. 20. VII.
 2157 pyralis Grt. 6, 8, 19. VII-VIII.
 2161 **Sympistis** zetterstedti Staud. 19, 20. VII.
 " labradoris Std. 19, 20. VII-VIII.
 2163 funesta cocklei Dyar. 19. VIII.
 2183 **Feralia** jocosa Gn. 10. IV.
 2186 comstocki Grt. 10. IV-V.
 " columbiana Sm. 10. IV.
 2201 **Epidemas** melanographa Hamp. 2. IX.
 2207 **Bombycia** algens Grt. 6, 7, 10, 19. VIII-IX.
 2209 **Brachylomia** discinigrata Wlk. 10. VIII.
 2210 populi Stkr. 3, 6, 8, 10, 18. VI-IX.
 2211 **Hillia** iris Zett. 6-8, 10, 19-21. VIII-IX.
 " vigilans Grt. 6, 8, 10, 19-21. VIII-IX.
 2212 maida Dyar. 19, 21. IX.
 2215 **Litholomia** napaea Morr. 3, 6, 7, 10, 13, 19-21. IX-IV.
 2216 **Lithomoia** solidaginis albertae Strand. 6-8, 10, 19, 20. VIII-X.
 2221 **Graptolitha** innominata Sm. 8, 10, 12, 17, 18. IX-V.
 2223 ferrealis Grt. 10, 12. IV.
 2224 amanda Sm. 6, 7, 10, 20, 21. IX-V.
 2225 disposita Morr. 3, 10, 13. IX-V.
 2241 tepidata atincta Sm. 10, 12. IV.
 2244 georgii ancilla Sm. 2, 6-8, 10, 16, 18, 21. IX-IV.
 2248 fagina Morr. 6, 7, 8, 10, 13. IX-V.
 2252 pexata Grt. 6, 8, 10. IX-IV.
 2258 thaxteri Grt. 7, 10, 12. VIII-IV.

PHALAENIDAE—Continued

Cuculliinae—Concluded

- 2259 *Xylena* nupera Lint. 6-8, 10, 20. V-XI.
 2260 curvimacula Morr. 6-8, 10, 12. IX-V.
 2262 thoracica Put.-Cran. 3, 6, 8, 10, 12, 16, 19, 20, 21. IX-V.
 2263 cineritia Grt. 6, 7, 10, 16, 19-21. IX-V.
 2265 *Xylotype* capax G. & R. 8, 10, 20. VII-IX.
 2268 *Platypolia* anceps Steph. 6, 8, 10. IX.
 2269 contadina albertae McD. 19, 20. IX.
 2270 loda Stkr. 18, 19. IX.
 2273 *Mniotype* versuta Sm. 3, 6, 7, 10, 18-20. VI-VII (6).
 2276 miniota Sm. 6, 10, 20. V-VI.
 2278 *Fishia* discors Grt. 2, 3, 10. IX.
 2283 enthea Grt. 7, 10, 20, 21. VIII-IX.
 2284 instruta Sm. 2, 6, 7, 19. IX-X.
 2288 *Anytus* profunda obscura Sm. 6-8, 10. VII-IX.
 2298 *Metaxaglaea* signata French. 3. IX-X.
 2303 *Eupsilia* tristigmata Grt. 6, 7, 10, 12. IX-V.
 2306 devia Grt. 6-8, 10, 16. IX-V.
 2309 *Parastichtis* discivaria Wlk. 2, 3, 6, 7, 10, 12, 21. VII-VIII.
 " perbellis Grt. 10, 21. VII-VIII.
 2312 *Rusina* bicolorago ferrugineoides Gn. 2. X.
 2313 verberata Sm. 3, 6-8, 10, 19. IX.
 2316 *Xanthia* lutea Strom. 3, 6, 7, 10, 21. VIII-IX.
 2318 *Anathix* puta G. & R. 3, 6-8, 10, 21. VIII.
 2319 aggressa Sm. 2, 3, 10. VIII-IX.
 2321 *Eucirrhoedia* pampina Gn. 3, 6-8, 10, 18. VII-IX.
 2322 *Homoglaea* carbonaria Harv. 3, 6, 19, 20, 21. IX-V.
 2324 hircina Morr. 6-8, 10. X-V.

Amphipyriinae

- 2342 *Septis* auranticolor barnesi Sm. 3, 6, 19-21. VII-VIII.
 " sora Sm. 6, 19. VII-VIII.
 2344 vultuosa Grt. 3, 6, 10. VI-VII.
 2347 plutonia Grt. 6, 8. VII.
 2349 occidens Grt. 6. VI-VII.
 2351 arctica Fr. 3, 6, 7, 10, 12, 18-21. VI-VII.
 2352 castanea Grt. 19. VII-IX.
 2353 alia Gn. 3, 6, 7, 10, 19, 20. VI-VII.
 " rorulenta Sm. 6, 10, 19, 20. VI-VII.
 2355 inordinata montana Sm. 6, 10, 18. VI.
 2357 unita Sm. 6. VI.
 2359 cinefacta Grt. 3, 5, 6. VI-VII.
 2360 parcata Sm. 3, 20. VII.
 2361 comoda Wlk. 6, 10. VI-VII.
 " alberta Sm. 7, 10, 19, 20. VI-VII.
 2362 impulsa Gn. 6, 10, 19, 20. VI-VII.
 2364 indocilis Wlk. 6, 10. VII-VIII.
 2365 finitima cerivana Sm. 3, 6, 7, 10, 19-21. VI-VII.
 2366 *Agroperina* lateritia Hufn. 2, 3, 6-8, 10, 19-21. VI-VII.
 2368 dubitans cogitata Sm. 3, 6, 7, 10, 19, 21. VII.
 2369 morna Stkr. 6. VI.
 2372 indela lineosa Sm. 1, 3, 6, 7, 10, 15. VII-VIII.
 " pendina Sm. 2, 3, 6, 10, 15. VII-VIII.
 2375 *Crymodes* devastator Brace. 2-8, 10, 15, 19-21. VI-VIII.
 2376 maillardi alticola Sm. 19, 20. VII-VIII.
 2378 longula Grt. 3. VII.
 2381 *Trichoplexia* exornata contradicta Sm. 6, 10. VI-VII.
 2383 *Protagrotis* niveivenosa Grt. 3, 6, 7, 10, 19. VII-VIII.
 2384 extensa Sm. 3, 5, 10. VII.
 2386 nichollae Hamp. 20. VII-VIII.

PHALAEINIDAE—Continued

Amphipyrinae—Continued

- 2393 *Luperina* passer Gn. 3, 6, 8, 10, 19-21. VI-VIII.
 " conspicua Morr. 10, 20. VII.
- 2411 *Aseptis* characta pluraloides McD. 3. VII.
- 2417 *Oligia* tonsa subjuncta Sm. 3, 7, 10, 15, 18, 20. VII.
- 2418 violacea Grt. 19. IX.
- 2419 egens Wlk. 3, 6, 7, 10, 21. VII-VIII.
- 2423 illocata Wlk. 8, 10. IX.
- 2424 mactata Gn. 3, 6-8, 10. IX.
 " allecto Sm. 3, 6-8, 10. IX.
- 2426 fractilinea Grt. 3. VII.
- 2430 *Eremobina* claudens albertina Hamp. 6, 7, 10, 19. VIII-IX.
- 2433 *Xylomoia* didonea Sm. 3. VII.
- 2436 *Spartiniphaga* inops Grt. 2, 6. VIII-IX.
- 2437 includens Wlk. 7, 10. VII-IX.
- 2438 panatela Sm. 6, 10. VIII.
- 2440 *Archanara* subflava Grt. 6, 8, 10, 19. VIII-IX.
- 2447 *Hypocoena* rufostrigata Pack. 2, 3, 6, 7, 10, 19, 20. VI-VII
- 2448 inquinata Gn. 3, 10. VII.
- 2451 basistriga McD. 3, 6, 7, 10, 20. IX.
- 2452 defecta Grt. 2, 6, 10. VIII-IX.
- 2453 *Ipimorpha* pleonectusa Grt. 6, 7, 8, 10, 18-21. VII-VIII.
- 2455 subvexa Grt. 2, 3. VIII.
- 2457 *Helotropha* reniformis Grt. 6, 7, 10. VIII-IX.
 " atra Grt. 6, 7, 10. VIII-IX.
- 2459 *Apamea* interoceanica Sm. 3, 6-8, 10, 20, 21. VIII-IX.
- 2467 *Hydroecia* pallescens Sm. 3, 6, 18. VIII-X.
- 2468 intermedia B. & B. 6. VIII.
- 2475 perobliqua Hamp. 7, 10. VIII.
- 2484 *Papaipema* marginidens Gn. 10. IX.
- 2501 harrisi Grt. 2, 5-6, 10. VIII-IX.
- 2521 frigida Sm. 10. IX.
- 2533 *Euplexia* benesimilis McD. 6, 7, 10. VI-VII.
- 2536 *Phlogophera* periculosa Gn. 10. VII-VIII.
 " V-brunneum Grt. 10. VII-VIII.
- 2547 *Trachea* delicata Grt. 2, 3. VII.
- 2554 *Chytonix* palliatricula Gn. 10. VI.
 " iaspis Gn. 10. VI.
- 2577 *Leuconycta* lepidula avirida Sm. 5-7. VII.
- 2582 *Agriopodes* teratophera H.-S. 7, 10. VI.
- 2586 *Amphipyra* glabella Morr. 3. VII-IX.
- 2596 *Andropolia* contacta Wlk. 3, 6-8, 10, 16, 19-21. VIII-IX.
- 2602 aedon Grt. 18. VII.
- 2607 *Hyppa* xylinoides Gn. 3, 6-8, 10, 19, 20. V-VI.
- 2608 brunneicrista Sm. 6, 19, 20. VI-VII.
- 2609 indistincta Sm. 18-20. VII.
- 2647 *Elaphria* festivooides Gn. 7, 10. VI.
- 2656 *Platyperigea* extima Wlk. 2, 3, 6-8, 10, 12, 19, 21. VI-VIII.
- 2657 meralis Morr. 3, 6, 7. VIII.
- 2661 *Crambodes* talidiformis Gn. 3. VII-IX.
- 2662 *Proxenus* miranda nitens Dyar. 3, 6, 7, 18, 20, 21. VI-VIII.
- 2672 *Protoperigia* anotha Dyar. 19. VIII.
- 2675 *Acopa* perpallida Grt. 3. VI.
- 2685 *Enargia* decolor Wlk. 3, 6-8, 10, 20, 21. VIII-IX (5).
- 2685a infumata Grt. 6-8, 10. VIII-IX.
- 2703 *Arzama* obliqua pallida B. & B. 8, 10. VII-VIII.
- 2710 *Bellura* diffusa Grt. 10. VI-VII.

PHALAENIDAE—Continued

Amphipyrinae—Concluded

- 2715 *Pyrrhia umbra exprimens* Wlk. 6, 8, 10, 19, 20. V-VII.
 2734 *Escaria homogena* McD. 3. VI.
 2744 *Hadenella pergentilis* Grt. 3. VIII.
 2779 *Stibadium spumosum* Grt. 2, 3. VIII.
 2791 *Plagiomimicus expallidus* Grt. 2, 3. VIII.
 2803 *Stiria rugifrons* Grt. 3. VIII.
 2871 *Eutricopis nexilis* Morr. 2, 6, 8, 19, 20. VI-VII.

Heliothiinae

- 2907 *Melicleptria villosa* Grt. 5, 10. VII.
 2909 *persimilis* Grt. 6, 7. VIII.
 2916 *Melaporphyria immortua* Grt. 7, 10. V.
 2919 *Dysocnemis borealis* Hamp. 6. IV-V.
 2920 *oregonica* Hy.-Edw. 6, 10, 20. V-VII.
 2930 *Heliothis ononis* Schiff. 6, 7, 10, 20. V-VII.
 2931 *phloxiphaga* G. & R. 2, 3, 6, 18, 19, 21. V-IX.
 2932 *armigera* Hbn. 6. VIII (10).
 2934 *Canthylidia scutosa* Schiff. 3. VII.
 2939 *Dasypoudaea meadi* Grt. 2, 6, 8, 10. VII.
 2940 *Rhodophora gaurae* A. & S. 3. VI-VII.
 2941 *florida* Gn. 3, 7, 10. VII.
 2956 *Schinia cumatilis* Grt. 3, 6, 7, 20. VII-VIII.
 2979 *acutilinea* Grt. 3, 6. VIII.
 3014 *jaguarina* Gn. 3. VII-VIII.

Acontiinae

- 3117 *Erastria bellicula* Hbn. 8, 10. VI.
 3119 *albidula* Gn. 6, 7, 10. VI.
 3124 *carneola* Gn. 2, 7, 10. VI.
 3164 *Conochares elegantula* Harv. 5. VI-VII.
 3170 *Tarachidia tortracina* Zell. 3, 6, 10. VI-VIII.
 " *obsoleta* Grt. 5, 10. VI.
 3179 *binocula* Grt. 2. VI.
 3185 *semiflava* Gn. VI.
 3191 *Therasea angustipennis* Grt. 2, 3, 6-8, 10, 20. VI-VIII.

Plusiinae (19)

- 3245 *Caloplusia ignea* Grt. 6, 19-21. VI-VII.
 3243 *Syngrapha parilis* Hbn. 20. VII.
 3244 *alticola* Wlk. 19, 20. VII-VIII.
 3246 *microgramma* Hbn. 7, 8, 10, 17, 19, 20. VI-VII.
 " *montana* Pack. 7. VII.
 3247 *orophila* Hamp. 19, 20. VII-VIII.
 3248 *diasema* Bdv. 20. VII.
 3249 *lula* Strand. 6, 20. VII.
 3250 *sackeni* Grt. 6. VII.
 3254 *rectangula nargenta* Ottol. 20. VII.
 3256 *angulidens excelsa* Ottol. 19, 20. VII-VIII.
 3257 *alias* Ottol. 20. VII.
 " *interalia* Ottol. 6-8, 10, 19, 20. VII-VIII.
 3259 *interrogationis* L. 19, 20. VII-VIII.
 3260 *octoscripta* Grt. 6, 7, 10, 19-21. VIII.
 3263 *surena* Grt. 20. VII.
 3264 *epigaea* Grt. 6, 7, 10, 19-21. VI-VII.
 3266 *selecta* Wlk. 7, 10, 19-21. VIII.
 3252 *Anagrapha falcifera* Kby. 3, 6-8, 10, 19, 20. VI-IX.
 " *simplex* Gn. 2, 3, 6-8, 10, 19, 20. VIII-IX.

PHALAEINIDAE—Continued

Plusiinae (19)—Concluded

- 3269 *Trichoplusia* ni brassicae Riley. 3, 6, 7, 10, 20. VII-IX.
 3273 *Chrysoaspida* putnami Grt. 3, 6-8, 10, 11, 20, 21. VI-VIII.
 3304 *venusta* Wlk. 3, 6, 10, 20. VII-VIII.
 3261 *Autographa* v-alba Ottol. 6, 19. VIII.
 3265 *ampla* Wlk. 3, 6, 7, 10, 11, 19, 20. VI-VII.
 3271 *sanconi* Dod. 19, 20. VI.
 3272 *rubida* Ottol. 6, 10, 20. VI-VII.
 3285 *bimaculata* Steph. 3, 6-8, 10, 11, 20, 21. VII-VIII.
 3286 *mappa* G. & R. 6, 7, 10, 20. VI-VII.
 3287 *pseudogamma* Grt. 6, 10, 19-21. V-VII.
 3288 *californica* Spey. 2, 3, 6-8, 10, 18-21. V-IX.
 " *russea* Hy.-Edw. 10. VIII-IX.
 3291 *flagellum* Wlk. 3, 6, 10, 20. VII-VIII.
 3295 *Plusia* aereoides Grt. 3, 6-8, 10, 20. VII-VIII.
 3298 *Polychrysis* trabea Sm. 6, 10, 20, 21. VII-VIII.
 3300 *Eosphoropteryx* thyatyroides Gn. 10. VII-VIII.
 3301 *Pseudeva* purpurigera Wlk. 6, 7, 10. VII-VIII.
 3305 *Chrysanympa* formosa Grt. 10. VIII.
 3307 *Abrostola* urentis Gn. 5, 10. VII.

Catocalinae

- 3344 *Catocala* relictata Wlk. 7, 10. VIII-IX.
 " *clara* Beut. 3, 6-8, 10, 17, 19. VIII-IX.
 3346 *unijuga* Wlk. 2, 3, 6-8, 10, 19, 21. VIII-IX.
 " *fletcheri* Beut. 5. VIII.
 3347 *parta* Gn. 3. VIII.
 3349 *luciana* Stkr. 2, 3. VIII.
 3353 *hermia verecunda* Hlst. 2, 3, 6, 7. VIII-X.
 " " *diantha* Beut. 7. X.
 3357 *briseis* Edw. 2, 3, 6-8, 10, 12, 19-21. VIII-IX.
 3361 *semirelictata* Grt. 8, 10, 21. VIII-IX.
 3362 *meskei* Grt. 2. VIII.
 " *orion* McD. 2, 3. VIII.
 " *concolorata* McD. 3. VIII.
 3373 *concombens* Wlk. 7. VIII.
 3401 *blandula manitobensis* Cass. 7, 8, 10. VIII.
 3426 *Euclidina* cuspidata Hbn. 5-8, 10. V-VI.
 3427 *Caenurgina* annexa Hy.-Ed. 5, 6, 18, 20. V-VI.
 3429 *distincta* Neum. 2, 3, 6-8, 10, 18, 19, 21. V-VI.
 3430 *crassiuscula* Haw. 5, 20. VII-VIII.
 3431 *erecta* Cram. 2, 6, 7, 10, 11. VII-VIII.
 3484 *Zale* minerea norda Sm. 2. VI.
 3489 *duplicata largera* Sm. 10. V (17).
 3525 *Erebus* odora L. 6, 7, 10, 19. V-VIII.
 3556 *Bulia* deducta Morr. 6. VII.
 3574 *Synedoida* hudsonica G. & R. 5, 6, 18-21. VI-VIII.
 " *heathi* B. & McD. 5, 7. VII-VIII.
 3577 *petricola* Wlk. 18-21. VI-VII.
 " *athabasca* Neum. 3, 5, 7, 8. VI-VII.
 3578 *adumbrata saxea* Hy.-Edw. 18. VI.
 " *alleni* Grt. 7. VI.
 3579 *perplexa* Hy.-Edw. 5. VII.
 3608 *Calpe* canadensis Beth. "Alta". (15).
 3615 *Scoliopteryx* libatrix L. 3, 6-8, 10, 19-21. VI-VII.

PHALAENIDAE—*Concluded**Hypeninae*

- 3684 **Spargaloma** sexpunctata Grt. 10. VI.
 3689 **Bomolocha** bijugalis Wlk. 10. VII.
 3690 palparia Wlk. 10. VI.
 3696 atomaria Sm. 10. VII.
 3698 toreuta Grt. 10. VII.
 3699 edictalis Wlk. 10. VIII.
 3703 **Lomanaltes** eductalis Wlk. 10. VII.
 3706 **Hypena** humili Harr. 5, 6, 10, 18, 20. IX-V.
 " albopunctata Tepper. 6, 10. IX.
 3707 californica Behr. 10. IX-V.

Rivulinae

- 3712 **Mycterophora** inexplicata Wlk. 7, 10. VII.
 3728 **Menopsimus** caducus Dyar. 8, 10, 20. VI-VII.
 3732 **Rivula** propinquialis Gn. 10. VII.

Herminiinae (4)

- 3733 **Reabotis** immaculalis Hlst. 3. VII.
 3734 **Epizeuxis** americalis Gn. 6, 7, 10, 20. VI-VII.
 3735 aemula Hbn. 3, 5-7, 10, 20. VII.
 3746 lubricalis Geyer. 5. VII.
 3750 **Phalaenophana** pyramusalis Wlk. 10. VI.
 3765 **Zanclognatha** lotalba Sm. 7, 10. VII.
 3767 **Chytolita** petrealis Grt. 1, 3, 7, 8, 10, 21. V-VI.
 3770 **Philometra** metonalis Wlk. 6-8, 10, 18. VII-VIII.
 3797 **Bleptina** caradrinalis Gn. 3, 10. VI-VII.
 3807 **Palthis** angulalis Hbn. 6, 7, 10. VII-VIII.

PERICOPIDAE

- 3817 **Gnophaela** latipennis vermiculata G. & R. 6-8, 10, 15, 20. VII-VIII.

NOTODONTIDAE

- 3822 **Ichthyura** apicalis Wlk. 3, 6, 7, 10, 18, 21. IV-VII.
 3827 albosigma Fitch. 2, 7, 10. VIII.
 " specifica Dyar. 3, 6-8, 10, 19-21. IV-V.
 3828 brucei Hy.-Edw. 6, 8, 10, 19-21. V-VI.
 3843 **Hyperaeschra** stragula Grt. 6-8, 10. VI-VII.
 3847 **Odontosia** elegans Stkr. 6, 7, 10, 18, 20. VI-VII.
 3850 **Notodonta** simplaria Graef. 6, 7, 10, 20. V-VII.
 3851 **Pheosia** rimosa Pack. 7, 8, 10, 18, 19, 21. VII-VIII.
 3857 **Nadata** gibbosa A. & S. 7, 8, 10. VI.
 3880 **Dasylophia** anguina A. & S. 3. VII.
 3919 **Dicentria** semirufescens Wlk. 7, 10. VI-VII.
 3924 **Schizura** unicornis A. & S. 3, 6, 7, 10, 17, 20. V-VII.
 3927 leptinoides Grt. 10. VII.
 3930 **Cerura** multscripta Riley. 7. VII.
 3933 borealis Bdv. 10. VI.
 3934 occidentalis Lint. 7, 10. VI-VII.
 " gigans McD. 6, 19-21. IV-VI.
 3935 cinerea Wlk. 7. V.
 " wileyi Dyar. 2, 3. V-VII.
 3937 modesta Hud. 6, 7, 10, 19. V-VI.
 3938 scolopendrina albicoma Stkr. 3, 5, 6, 10, 18. V-VII.

NOTODONTIDAE—*Concluded*

- 3939 **Gluphisia** septentrionis Wlk. 2, 5-8, 10, 18, 19. VI-VII.
 " ridenda Hy.-Edw. 7, 10. VII-IX.
 " albofasciata Hy.-Edw. 10. VII.
 " quinquelinea Dyar. 10. V-VII.
 3940 lintneri Grt. 6, 7, 10, 19. IV-VII.
 " pretians Francl. 7, 10. IV.
 3940a severa normalis Dyar. 8, 19-21. V.
 " danbyi Neum. 8, 20. V.

LIPARIDAE

- 3941 **Byrdia** rossi Curt. 8. VI.
 3943 **Notolophus** antiqua L. 6, 8, 10, 12, 18, 20. VIII-IX.
 3954 **Olene** vagans grisea B. & McD. 5, 6, 7, 10. VI-VII.
 " willingi B. & McD. 7, 10. VI-VII.
 3958 atomaria Wlk. 2. VII.
 " parallela G. & R. 2. VII.
 3963 grisefacta Dyar. 10, 19, 20. VII.

Superfamily BOMBYCOIDEA

LASIOCAMPIDAE

- 3990 **Malacosoma** lutescens N. & D. 2, 3, 6-8, 20. VII-VIII.
 3994 pluviale Dyar. 20. VII.
 3997 distria Hbn. 6-10, 16, 17, 20. VII-VIII.
 3999 **Epicnaptera** americana Harr. 2, 6-8, 10, 18-21. IV-V.
 " ferruginea Pack. 6, 10, 20. IV.

Superfamily DREPANOIDEA

THYRATIRIDAE

- 4004 **Habrosyne** scripta Gosse. 6-8, 10, 16, 19, 20. VI-VII.
 4007 **Pseudothyatira** cymatophoroides Gn. 7, 10. VI-VII.
 " expultrix Grt. 6, 7, 10, 20. VI-VII.
 4010 **Euthyatira** pudens Gn. 6, 10. IV-VI.
 " pennsylvanica Sm. 10. V-VI.
 4014 **Ceranemota** albertae Clk. 3, 6, 8. VIII-IX.

DREPANIDAE

- 4017 **Eudeilinea** herminiata Gn. 5, 7, 8, 10. VI-VII.
 4019 **Oreta** rosea Wlk. 7, 10. VII-IX.
 " irrorata Pack. 10. VII-IX.
 4020 **Drepana** arcuata siculifer Pack. 7, 10. VI.
 4021 bilineata Pack. 10, 18. V-VI.

Superfamily GEOMETROIDEA

GEOMETRIDAE

Brephinae

- 4023 **Brephos** infans Moesch. 6-8, 10, 18, 19. IV-V.
 4025 **Leucobrephos** brephoides Wlk. 6, 8, 10, 21. IV.

Oenochrominae

- 4026 **Alsophila** pometaria Harr. 2, 7. X.

GEOMETRIDAE—Continued

Geometrinae

- 4062 *Nemoria hudsonaria* Tayl. 5, 7. VII.
 4074 *Synchlora rubrifrontaria* Pack. 3, 6, 7, 10. VI-VII.
 4079 *Cheteoscelis bistriaria* Pack. 3, 5. VII.
 4090 *Mesothea viridipennata* Hlst. 6-8, 10, 18-21. IV-VI.

Sterrhinae

- 4144 *Scopula* quinquelinearia Pack. 5, 6. VI-VII.
 4147 " ancillata Hlst. 6, 10, 19, 20. VI-VIII.
 4148 " junctaria Wlk. 5, 7, 10, 18. VI-VIII.
 4149 " enucleata Gn. 5. VII.
 " " adornata Prout. 7. VII.
 4150 " fuscata Hlst. 1, 18. V.
 4151 " frigidaria Moesch. 7, 10, 20. VI-VII.
 4157 " subfuscata Tayl. 18, 19. VI.
 4158 " inductata delicata Cass. 2, 3, 6, 7, 10, 19, 20. VII-VIII.
 4170 *Holarctias sentinaria* Gey. 6-8, 18-20. VI-VII.
 4195 *Sterrho rotundopennata* Pack. 5-7, 10, 18. VI-VII.
 4204 *Haematopsis grataria* Fabr. 2, 6. VI-VII.
 4211 *Cosymbia pendulinaria* griseor McD. 7, 8, 10, 17, 20. VI.

Larentiinae

- 4213 *Carsia paludata* Thun. 10. VII-VIII.
 " " alpinata Pack. 19. VIII.
 4221 *Acasis viridata* Pack. 10. V.
 4223 *Nyctobia limitaria nigroangulata* G. & R. 7, 8, 10, 21. IV-V.
 4225 *Cladara atroliturata* Wlk. 7, 10. V.
 4226 *Lobophora nivigerata* Wlk. 7. V.
 4227 " montanata Pack. 5-7, 10, 17-21. V-VII.
 4235 *Neodezia albovittata* Gn. 6-8, 10, 18, 19. VI-VII.
 " " tenuifasciata B. & McD. 18. VI-VII.
 4239 *Oporophtera bruceata* Hlst. 6-8, 10, 17, 19. IX-X.
 4243 *Oporinia autumnata omissa* Harr. 6, 10, 19-21. IX.
 " " undulata Harr. 20. IX.
 4244 *Triphosa haesitata affirmaria* Wlk. 6-8, 10. X-V.
 4247 *Calocalpe undulata* L. 3, 6-8, 10, 19-21. VI-VIII.
 4248 *Coryphista meadi* Pack. 18. VI-VII.
 4267 *Eupithecia* misturata Hlst. 5, 20. VI. (20).
 4270 " pygmeata obumbrata Tayl. 10. VII.
 4271 " bryanti Tayl. 5, 18, 20. VII.
 4273 " regina Tayl. 6, 10. VI-VII.
 4274 " undata Freyer. 17, 19. VII.
 4275 " borealis Hlst. 6, 10, 21. VII.
 4276 " castigata Hbn. 6, 8, 10, 20, 21. VI-VII.
 4279 " albipunctata Haw. 6, 10, 18, 20. VII.
 4281 " kasloata Dyar. 10, 20. VI.
 4283 " luteata Pack. 7, 8, 10, 17-21. VI.
 " " bifasciata Dyar. 8, 10, 20. VI.
 4287 " palpata Pack. 10, 17, 19, 21. VI.
 4288 " columbiata Dyar. 10. IV-V.
 4315 " monacheata C. & S. 19. VI.
 4319 " satyrata dodata Tayl. 7, 8, 10, 18, 20, 21. V-VII.
 4321 " terminata Tayl. 10, 20, 21. VI.
 4325 " cimicifugata Pears. 10. VI.
 4327 " ammonata McD. 5-7, 10. VI-VII.
 4330 " coagulata Gn. 3, 10, 20. VI-VII.
 4331 " geminata Pack. 6, 10, 20. VII-VIII.
 4332 " nimbicolor Hlst. 6, 8, 10, 18, 19, 20, 21. V-VI.
 4333 " gelidata Moesch. 19-21. VI-VII.
 4334 " multistrigata Hlst. 6, 10. VI-VIII.

GEOMETRIDAE—Continued

Larentiinae—Continued

- 4336 *perfusca* albertya Tayl. 10, 19-21. VI-VII.
4341 *georgii* McD. 2. VI.
4342 *niphadophilata* Dyar. 19-21. VIII-IX.
4346 *annulata* Hlst. 6, 10, 20. IV-V.
4347 *usurpata* Pears. 20. VI.
4348 *filmata* Pears. 7, 10, 17-21. IV-V.
4350 *cretacea* Pack. 1, 6, 7, 10, 18-20. VI-VII.
4361 *stellata* Hlst. 10. VI-VIII.
4362 *bowmani* C. & S. 20, 21. VI-VII.
4366 *albicapitata* Pack. 8, 10. VI-VII.
4367 *columbrata* McD. 8, 20. VII.
4383 *ravocostaliata* Pack. 6-8, 10, 20, 21. IV-VI.
4389 *anticaria* Wlk. 6-8, 10, 19, 20, 21. V-VII.
4393 **Horisme** *intestinata* Gn. 6-8, 10, 19, 21. VI, X.
4394 *incana* Swett. 6, 7, 10, 21. V-VII.
4398 **Eustroma** *semiatrata* Hlst. 6, 10, 17, 18, 20, 21. VII-VIII. (18).
4400 *atrifasciata* Hlst. 18, 19. VII-VIII.
4401 **Lygris** *diversilineata* Hbn. 6, 7. VIII.
4402 *propulsata* Wlk. 6, 7, 10, 19, 21. VII-VIII.
4403 *testata* L. 2, 6, 7, 10, 19-21. VII-VIII.
N.S. *flavibrunneata* McD. 7, 8, 10. VII-VIII.
 " *unicolorata* McD. 7, 10. VII-VIII.
4405 *destinata* bowmani C. & S. 18-21. VII-VIII.
 " *lugubrata* Moesch. 19-21. VII-VIII.
 " *similis* Wlk. 19-21. VII-VIII.
4406 *explanata* Wlk. 7, 10. VII-VIII.
 " *cunigerata* Wlk. 7, 10. VII-VIII.
4407 *xylina speciosa* Hlst. 6, 7, 10, 18, 19, 21. VII-VIII.
4410 **Diactinia** *silacea* albolineata Pack. 3, 6, 10, 20, 21. VI-VIII.
4411 **Colostigia** *turbata circumvallaria* Tayl. 17, 19, 20. VI-VII.
4412 **Plemyria** *georgii* Hlst. 6, 8, 10, 18, 19, 21. VIII-IX.
4413 **Dysstroma** *truncata* Hufn. 3, 6, 7, 10, 21. VII-IX.
 " *walkerata* Pears. 10, 19, 20. VII.
4415 *mackieata* C. & S. 10. VI.
4416 *citrata* L. 7, 10, 19, 21. VIII.
4419 *ethela kasloata* Tayl. 6, 7, 10, 20. VII-VIII.
4420 *hersiliata cervinifascia* Wlk. 10, 20. VII.
 " *manitoba* McD. 6, 7, 10, 20. VII.
 " *infumata* McD. 10. VII.
4424 *formosa boreata* Tayl. 6, 18. VII-VIII.
N.S. *rutlandia* McD. 10, 19, 20. VII.
4429 **Ceratodalia** *gueneata* Pack. 18. VII.
4432 **Thera otisi** Dyar. 3, 18-21. VIII.
4448 **Stamnones** *topazata* Stkr. 6, 8, 10, 17, 20. IV-VII.
4465 **Hydriomena** *furcata* Thun. 6-8, 10, 18-21. VII-VIII.
4477 *pluviata* Gn. 10. VI.
4478 *perfracta* Swett. 7, 10, 20, 21. VI-VII.
4485 *renunciata* Wlk. 10. V-VI.
4489 *macdunnoughi* Swett. 20, 21. V-VI.
4492 *ruberata* Frey. 6-8, 10, 20, 21. V-VII.
4496 *speciosata morosata* B. & McD. 6. VIII.
4509 **Xanthorhoe** *lacustrata* Gn. 2, 6, 8, 10. V-VII.
4511 *designata emendata* Pears. 5-7, 10, 18, 20, 21. V-VIII.
4513 *munitata convallaria* Gn. 3, 7, 10, 18-21. VII-VIII.
4516 *ferrugata* Clerk. 6-8, 10, 20, 21. V-VII.
4519 *incursata lagganata* S. & C. 17, 19, 20. VII.
4520 *ramaria reclivisata* S. & C. 19. VII.
4522 *dodata* S. & C. 3, 20, 21. VI-VIII.
4526 *fossaria atlinensis* Swett. 19-21. VI-VIII.
4527 *iduata* Gn. 10. VI-VII.

GEOMETRIDAE—Continued

Larentiinae—Concluded

- 4530 *abrasaria* H.-S. 7, 8, 10, 19, 20. VI-VII.
 " *congregata* Wlk. 7, 10. VII.
 " *trilineata* Warr. 10. VII.
- 4531 **Zenophleps** *lignicolorata* Pack. 2, 7, 8, 10, 12, 17, 19, 20. VII-VIII.
- 4535 **Percnoptilota** *obstipata* Fabr. 7, 20. IX.
- 4536 *evansi* McD. 10. VII.
- N.S. **Psycophora** *suttoni* Hein. 20. VIII.
- 4540 **Entephria** *aurata* Pack. 10, 20, 21. VII.
- 4541 *multivagata* Hlst. 18-21. VIII.
- 4543 *lagganata* Tayl. 19, 20. VIII.
- 4546 **Mesoleuca** *ruficillata* Gn. 7, 8, 10, 18, 19, 21. V-VII.
- 4547 *gratulata latialbata* B. & McD. 6, 19. V-VI.
- 4548 **Epirrhoe** *tristata* L. 6-8, 10, 19-21. V-VI.
- 4549 *plebeculata* Gn. 6-8, 10, 12, 18, 19. IV-VI.
- 4551 *alternata* Mull. 6, 7, 10, 19, 20. VI-VII.
- 4555 **Spargania** *magnoliata* Gn. 6, 7, 10. VI-VIII.
- " *pernotata* Hlst. 19-21. VI-VIII.
- 4556 *luctuata obductata* Moesch. 6, 7, 10, 18, 20. VI-VII.
- 4558 **Euphyia** *unangulata intermediata* Gn. 6-8, 10, 21. V-VI.
- 4561 *multiferata* Wlk. 6, 7, 10, 17, 19. V-VII.
- 4573 **Eulype** *hastata* L. 6-8, 10, 18-21. VI-VII.
- " *gothicata* Gn. 7, 20. VI.
- 4574 *albodecorata confusa* McD. 18-20. VI.
- " *stygiata* McD. 7, 20. VI.
- 4575 **Perizoma** *basaliata grandis* Hlst. 10. VII-VIII.
- 4586 *custodiata* Gn. 5-7. VII.
- " *polygrammata* Hlst. 5. VI-VII.
- 4587 **Earophila** *vasiliata* Gn. 6, 10. IV-VII.
- 4589 **Venusia** *cambrica* Curt. 10, 20, 21. VII.
- 4593 *pearsalli* Dyar. 10, 18, 19, 20, 21. V.
- 4597 **Hydrelia** *albifera* Wlk. 10. VI-VII.
- 4599 **Eudule** *mendica* Wlk. 10. VI-VII.
- Ennominae*
- 4605 **Bapta** *semiclarata* Wlk. 6, 7, 10. V-VI.
- 4610 **Deilinia** *borealis* Hlst. 6, 10, 19-21. VI-VII.
- 4612 *variolaria* Gn. 6, 7, 10, 19. VI-VII.
- 4614 *erythemaria* Gn. 1, 5-8, 10, 18-21. VI.
- 4616 *bryantaria* Tayl. 6, 21. VI.
- 4622 **Drepanulatrix** *falcataria* Pack. 18. V.
- litaria* Hlst. 18. VIII.
- 4634 *unicalcararia* Gn. 6. VIII.
- 4645 **Sericosema** *juturnaria* Gn. 18. VIII.
- 4658 **Isturgia** *truncataria* Wlk. 6, 7, 10, 18-21. V-VII.
- 4664 **Philobia** *ulsterata* Pears. 7, 10, 17, 20. VI.
- 4665 *aemulataria* Wlk. 7. VIII.
- 4680 **Semiothisa** *granitata* Gn. 6-8, 10, 16, 19-21. VI-VII.
- 4681 *oweni* Swett. 7, 8, 10. VI.
- 4682 *perplexa* McD. 7, 19. VI.
- 4687 *sexmaculata* Pack. 7, 8, 10, 12, 16, 20, 21. V-VII.
- 4688 *denticulata* Grt. 3, 5-7, 10, 18, 21. V-VIII.
- 4694 *californiaria* Pack. 3. VII.
- 4705 *teucaria* Stkr. 18, 21. VI-VIII.
- 4710 *continuata* Wlk. 5. VI-VII.
- 4725 *neptaria* Gn. 2, 3, 18. VI, IX.
- 4726 *mellistrigata* Grt. 6, 7, 10. V-VIII.
- 4727 *hebetata* Hlst. 2, 6, 7, 10, 18-21. VI-VII.
- " *ponderosa* B. & McD. 2, 6, 7, 10, 18, 20, 21. VI-VII.

GEOMETRIDAE—Continued

Ennominae—Continued

- 4730 decorata Grossb. 3, 10. V.
 " arubescens McD. 2. VIII.
 4735 snoviata Pack. 3. VII.
 4737 meadiaria Pack. 2. V.
 4746 **Itame** ribearia fascioferaria Hlst. 2, 3. VII.
 4747 flavicaria Pack. 1, 6, 10. VII-VIII.
 4749 occiduaria Pack. 6-7, 12, 18, 19. VII-VIII.
 " andersoni Swett. 20. VII.
 4751 sulphurea Pack. 1-3, 5-7, 10. VII-VIII.
 4752 fulvaria Vill. 1, 3, 6, 10, 18, 20. VII-VIII.
 4753 simplex Dyar. 18-21. VI-VII.
 4759 anataria Swett. 12, 16, 18, 20. VII.
 4762 exauspicata Wlk. 3, 6, 7, 10. VII.
 4771 bitacta Wlk. 3, 6, 7, 12, 18-21. VII.
 4772 denticulodes Hlst. 6, 19. VII.
 4773 decorata Hlst. 6, 19. VII-VIII.
 4774 latiferrugata Wlk. 7. VI.
 4782 **Protitame** matilda Dyar. 3, 19. VI.
 4784 hulstaria Tayl. 6, 7, 10, 18. V-VI.
 4797 **Dysmigia** loricaria Evers. 6, 7, 10, 18-21. VI-VII.
 4801 **Hesperumia** sulphuraria Pack. 3, 6, 7, 10, 18, 19, 21. VII-VIII.
 4802 **Ematurga** amitaria Gn. 8, 10. V-VII.
 4803 **Eufidonia** notataria Wlk. 10, 15, 20. V-VI.
 4804 discospilata Wlk. 6-8, 10. VI.
 4805 **Orthofidonia** tinctaria Wlk. 6, 10. IV-V.
 4806 **Dasyfidonia** avuncularia Gn. 18. V-VI.
 4809 **Paraphia** subatomaria Wood. 5. VII.
 4811 piniata Pack. 5, 7, 18. VI.
 4859 **Melanolophia** imitata Wlk. 18. VI-VII.
 4875 **Protoboarmia** porcelaria indicataria Wlk. 7, 10. VI-VII.
 4880 **Pseudoboarmia** umbrosaria Hbn. 5. VII.
 4902 **Stenoporpia** separataria Grt. 18. VI.
 4905 satisfacta B. & McD. 19. VIII.
 4908 **Anavitrinella** pampinaria Gn. 7. VII.
 4912 **Anacamptodes** larvaria Gn. 7, 10. VI.
 4913 emasculata Dyar. 10. VI.
 4945 **Aethalura** anticaria fumata B. & McD. 7, 10. V.
 4946 **Ectropis** crepuscularia Schiff. 7, 10, 21. IV-VI.
 4960 **Paleacrita** vernata Peck. 2. IV.
 4963 **Erannis** vancouverensis Hlst. 10. IX.
 4966 **Lycia** ursaria Wlk. 7, 8, 10. IV-V.
 4967 **Poecilopsis** rachelae Hlst. 2, 6, 7, 8, 10. IV-V.
 4968 **Amphidasis** cognataria Gn. 6-8, 10, 19, 21. V-VII.
 4992 **Aspilates** orciferaria aberrata Hy.-Edw. 1, 2, 6, 7, 10, 18. VI-VII.
 4995 **Euchlaena** obtusaria Hbn. 3, 5, 7. VII.
 4997 johnsonaria Fitch. 3, 6, 7, 10. VII.
 5000 vinulentaria ochrearia McD. 3, 5-7, 10, 18, 21. V-VII.
 5002 marginata albertanensis Swett. 7, 8, 10. V-VI.
 5005 tigrinaria sirenaria Stkr. 5-7, 10. VI-VII.
 5007 **Xanthotype** sospeta Dru. 3, 6-8, 10. VII-IX.
 " manitobensis Swett. 7, 10. VII.
 5010 urticaria turbidaria Swett. 7. VI.
 5012 **Spodolepis** substriataria danbyi Hlst. 6, 7, 10, 19-21. IV-V.
 5015 **Campaea** perlata Gn. 3, 6-8, 10, 12, 18-20. VI-VII.
 5034 **Plagodis** approximaria Dyar. 7, 10. V.
 5038 alcoolaria Gn. 10. VI.
 5042 **Anagoga** occiduaria Wlk. 6-8, 10, 19, 21. V-VI.

GEOMETRIDAE—*Concluded**Ennominae*—*Concluded*

- 5043 *Hyperitis* *amicaria* H.-S. 5, 7, 8, 10, 19. V-VII.
 5044 *Nematocampa* *limbata* Haw. 7, 10. VIII.
 5048 *Metarranthis* *warneri* cappsaria Rupert. 7, 10. V-VI.
 5050 *duaria* septentrionaria B. & McD. 2, 7, 10. V-VI.
 5054 *Metanema* *inatomaria* Gn. 6, 7, 10, 17, 19-21. V-VII.
 5055 *determinata* Wlk. 6, 7, 10, 19, 21. V-VII.
 5057 *Selenia* *alciphearia* Wlk. 6, 7, 10, 19-21. V.
 5058 *kentaria* G. & R. 7, 10. V.
 5059 *Ennemos* *subsignarius* Hbn. 2. V.
 5072 *Pero* *honestarius* Wlk. 3, 6, 7, 10, 18, 19. V-VI.
 5075 *behrensarius* Pack. 19. VI.
 5077 *occidentalis* Hlst. 20, 21. VI.
 5080 *morrisonarius* Hy.-Edw. 6-8, 10, 18. V-VII.
 5094 *Enypia* *moillieti* Blkmre. 18-20. VII-VIII.
 5100 *Plataea* *trilineararia* Pack. 5. VI-VII.
 5125 *Caripeta* *divisata* Wlk. 7, 10. VII.
 5128 *angustiorata* Wlk. 10, 18, 21. VII.
 5144 *Besma* *endropiaria* G. & R. 7. VI.
 5145 *quercivoraria* Gn. 7, 10, 20. VI-VII.
 5146 *Lambdina* *fiscellaria* Gn. 7, 10. IX.
 " *lugubrosa* Hlst. 18. VIII-IX.
 5152 *Cingilia* *catenaria* Dru. 10. IX.
 5158 *Neoterpes* *trianguliferata* Pack. 6, 18-20. V-VII.
 5161 *Sicya* *macularia* Harr. 3, 6-8, 10. VII-IX.
 " *agyllaria* Wlk. 7, 19-21. VIII.
 5170 *Deuteronomos* *magnarius* Gn. 3, 6-8, 10, 19, 21. VIII-IX.
 5189 *Synaxis* *jubararia* Hlst. 6, 8, 10. IX.
 5197 *Tetracis* *crocallata* aspilatata Gn. 7, 10. VI.
 5198 *cachexiata* Gn. 3, 5. VI-VII.
 5211 *Prochoerodes* *transversata* Dru. 2, 3, 7, 8, 10. VII-VIII.

Superfamily URANIOIDEA

EPIPLEMIDAE

- 5223 *Callizzia* *amorata* Pack. 7, 10. VI-VII.

Superfamily ZYGAENOIDEA

LIMACODIDAE

- 5279 *Tortricidia* *testacea* Pack. 7. VI.

Superfamily PYRALIDOIDEA

PYRALIDAE

Pyraustinae

- 5353 *Desmia* *funeralis* Hbn. 10. VII-IX.
 5367 *Diastictis* *argyralis* Hbn. 3. VII.
 " *ventralis* Grt. 3. VII.
 5427 *Sameodes* *elealis* Wlk. 8, 10. V-VI.
 5436 *Evergestis* *subterminalis* B. & McD. 18, 20. VII.
 5438 *simulatalis* Grt. 18, 20. VII.
 5439 *vinctalis* B. & McD. 3. V.
 5441 *obscuralis* B. & McD. 18. VI.
 5446 *straminalis* Hbn. 7, 10, 19, 20. VI-VII.
 5455 *Nomophila* *noctuella* Dyar. 7, 10, 20. V-IX.

PYRALIDAE—Continued

Pyraustinae—Concluded

- 5462 **Loxostege** chortalis Grt. 7, 10, 18, 20. V-VII.
 5478 stictialis L. 2-8, 10, 15, 18. V-VIII.
 5479 commixtalis Wlk. 19-21. VI-VII.
 5482 indentalis Grt. 3. VI-VII.
 5488 albertalis B. & McD. 6, 20. V-VI.
 5491 succandialis Hlst. 3. VII.
- 5501 **Diasemia** plumbosignalis Fern. 7, 8, 10, 19, 20, 21. VII-VIII.
 5506 disputalis B. & McD. 20. VII.
- 5531 **Titanio** ephippialis Zett. 20. VI-VII.
- 5545 **Perispasta** caeculalis Zell. 10. VI-VII.
- 5546 **Phlyctaenia** rubigalis Gn. 10, 20. VI-VII.
 5550 nordeggensis McD. 20. VI.
 5553 itysalis Wlk. 7, 8, 10, 18, 20, 21. VI-VII.
 5558 radiosalis Moesch. 8, 19, 20. VII-VIII.
 5559 indistinctalis Warr. 20. VII.
 5561 terrealis Tr. 10. V-VII.
 5562 extricalis Gn. 20. VII.
 5564 tertialis Gn. 10, 20. V-VII.
- 5576 **Pyrausta** pertextalis Led. 10. VI.
 5586 submedialis Grt. 3. VII.
 5598 fumalis Gn. 10. VII-VIII.
 5602 fumoferalis Hlst. 7, 10. V-VII.
 5605 mustelinalis Pack. 7, 10, 18, 20. VI-VII.
 5607 unifascialis Pack. 7, 10, 18, 20, 21. VI-VIII.
 5609 fodinalis Led. 6, 10, 18. VI-VII.
 5621 borealis Pack. 8, 10, 19, 20. V-VII.
 5622 subsequalis plagialis Haim. 3. VII.
 5624 generosa G. & R. 8, 10. V-VII.
 5625 ochosalis Dyar. 7, 8, 10, 20. VI-VII.
 5633 signatalis Wlk. 1, 6, 18. VI-VII.
 5638 nicalis Grt. 10, 20. VI-VIII.
 5645 marginalis Wlk. 8, 10, 20. V.
 5647 funebris Strom. 6-8, 10, 18, 20. VI-VII.
- 5655 **Cornifrons** simalis Grt. 3, 6. VII.
- 5659 **Noctuella** rufofascialis Steph. 6, 10, 18. VI-VII.

Nymphulinae

- 5686 **Nymphula** oblitalis Wlk. 10. VI.

Scopariinae

- 5725 **Scoparia** centuriella D. & S. 6-8, 10, 18, 20, 21. VI-VII.
 5742 lugubralis Wlk. 10, 20. VI-VIII.
 5745 albertalis Dyar. 19. VII.
 5746 phycitinalis Dyar. 19. VI-VII.
 5747 basalis Wlk. 8, 10, 20. VI-VII.

Pyralinae

- 5758 **Pyralis** farinalis L. 3, 6-8, 10, 20. VII-VIII.
 5770 **Herculia** thymetusalis Wlk. 10. VII.

Chrysauginae

- 5805 **Acallis** gripalis Hlst. 3. VI, VII.

Schoenobiinae

- 5827 **Schoenobius** mellinellus Clem. 10. VI-VIII.
 5830 forficellus Thun. 10. VII.

PYRALIDAE—Continued

Crambinae

- 5848 **Pseudoschoenobius** opalescalis Hlst. 1. VII.
 5850 **Raphiptera** argillaceella Pack. 17, 20. VI-VII.
 5857 **Crambus** pascucllus L. 10. VII.
 5860 girardellus Clem. 8, 10. VI-VII.
 5861 leachellus Zinck. 2, 7, 10. VIII-IX.
 N.S. ainslicellus Klots. 3. VIII. (12, 13).
 5862 unistriatellus Pack. 10, 20. VI-VII.
 5863 praefectellus Zinck. 7. IX.
 5864 carpenterellus Pack. 19. VIII.
 5867 bidens Zell. 10. VIII.
 5868 labradoriensis Christ. 20. VI-VII.
 5871 whitmerellus browni Klots. 1, 10, 19, 20. VII-VIII.
 5872 trichusalis Hlst. 18, 20, 21. VIII.
 5873 cockleellus Kft. 19. VIII.
 5877 awemellus McD. 10. VIII.
 5878 myellus Hbn. 8, 20. VII.
 5883 hortuellus toparius Zell. 10, 20. VI-VII.
 5887 innotatellus Wlk. 2, 10, 20. VII-VIII.
 5892 vulvivagellus Clem. 3, 7, 10. VIII.
 5893 plumbifimbriellus Dyar. 18. VI.
 5894 dorsipunctellus Kft. 7, 8, 10. VII-VIII.
 5895 ruricolellus Zell. 8, 10, 20. VII-VIII.
 5904 truncatellus Zett. 8, 10, 20. VI.
 5906 paganellus McD. 20. VII.
 5907 oregonicus Grt. 19. VII-VIII.
 5915 nevadellus Kft. 18, 20. VI-VII.
 5919 trisectus Wlk. 2, 6, 7, 10. VII-IX.
 5921 laciniellus McD. 3, 6, 8, 10, 20. VII-VIII.
 5922 edmontellus McD. 3, 6, 8, 10, 20. VII-VIII.
 5925 caliginosellus Clem. 10. VII.
 5927 zeellus Fern. 18. VI.
 5928 luteolellus Clem. 10. VII.
 5934 **Thaumatopsis** pexellus coloradellus Kft. 3, 10, 18. VIII.
 5937 fernandellus nortellus Kft. 6. VII.
 5952 **Ommatopteryx** texana Rob. 10. VIII.
 5979 **Occidentalia** comptulatalis Hlst. 10. VII.

Epipaschiinae

- 6021 **Jocara** breviornatalis Grt. 3. VII.
 6022 trabalis Grt. 3. VII.
 6042 **Tetralopha** aplastella Hlst. 10. VI-VII.

Phycitinae

- 6062 **Myelois** subtetricella Rag. 10, 20. VI-VIII.
 6063 obnupsella Hlst. 5, 7, 10. V-VI.
 6067 bistratella Hlst. 10. VI-VIII.
 6071 conienda Rag. 2, 10. VIII.
 6111 **Mineola** tricolorella Grt. 10. VI-VIII.
 6129 **Dioryctria** abietella D. & S. 19. VII.
 6130 ponderosae Dyar. 20. VIII.
 6131 reniculella Grt. 10, 20. VII-IX.
 6132 actualis Hlst. 7, 10, 18, 20. VI-VII.
 6150 **Polopeustis** annulatella arctiella Gib. 20. VII.
 6156 **Ambesa** lactella Grt. 2, 3, 6, 7, 10, 18. VI-VII.
 6157 niviella Hlst. 20. VII.
 6159 columbiella McD. 3. VII.
 6163 **Nephopteryx** ovalis Pack. 10, 18, 20. VI-VII.
 6167 fasciolalis Hlst. 18, 19. VII-VIII.
 6178 **Tlascal** umbripennis Hlst. 18. VI.
 6184 **Meroptera** pravella Grt. 10. V-VI.

PYRALIDAE—Concluded

Phycitinae—Concluded

- 6189 **Immyria** pasadamia Dyar. 10. VII.
 6209 **Salebria** basilaris Zell. 10. V-VII.
 6223 **Myrlaea** tarmitalis Hlst. 10, 21. V-VIII.
 6226 feraldi Rag. 10. V-VII.
 6227 **Laodamia** fusca Haw. 10, 20. VI-IX.
 6235 **Pyla** scintillans Grt. 18. VI.
 6237 aeneoviridella Rag. 2. VIII.
 6240 incoruscilla Hlst. 1, 18, 19. VI-VII.
 6241 criddlella Dyar. 18, 20. V-VI.
 6243 rainierella Dyar. 19. VII.
 6251 **Epischnia** boisduvaliella Gn. 3, 8, 10. VII.
 6253 fulvirugella Rag. 19, 20. VI-VII.
 6254 albocostialis Hlst. 3. VI-VII.
 6256 vividella McD. 3, 6, 8, 10. VI.
 6261 **Megasis** caudellella Dyar. 7, 10. V.
 6265 indianella Dyar. 5, 6. IV-V.
 6278 **Melitara** dentata Grt. 2, 3, 6. VIII.
 6282 **Olycella** nephelepasa Dyar. 2. V.
 6303 **Zophodia** convolutella Hbn. 10. IV-V.
 6318 **Euzophera** ochrifrontella Zell. 10. VI-VII.
 6337 **Staudingeria** albipenella olivacella Dyar. 3, 8, 20. VI-VII.
 6341 **Hulstia** undulatella Clem. 2, 3, 6, 8, 10, 20. VII-VIII.
 6363 **Homoesoma** impressale Hlst. 3, 6. VII.
 6364 uncanale Hlst. 10. VI-VII.
 6366 illuviellum Rag. 6, 18. VI.
 6370 mucidellum Rag. 3, 18, 20. VII-VIII.
 6371 stypticellum Grt. 10. VI.
 6372 reliquellum Dyar. 8, 10. VI-X.
 6374 electellum texanellum Rag. 3, 18. VI-VII.
 6379 **Ephestiodes** gilvescentella Rag. 3. VII.
 6396 **Moodna** pelviclella Hlst. 10. VII.
 6397 nigrella Hlst. 10. VII.
 6399 **Ephestia** kuehniella Zell. 2, 3, 6, 10. I-XII.
 6401 clutella Hbn. 10. VI-IX.
 6408 **Plodia** interpunctella Hbn. 10. X-VI.

Anerastiinae

- 6439 **Peoria** approximella Wik. 3, 6. VI-VII.
 6444 **Anerastia** lobella Hbn. 10. VI-VII.
 6456 **Coenochroa** inspergella Rag. 2. VI.

PTEROPHORIDAE

- 6463 **Trichoptilus** lobidactylus Fitch. 10. VII.
 6467 **Pterophorus** tenuidactylus Fitch. 3, 18. VI.
 6469 raptor Meyr. 3, 18. VI.
 6470 ningoris Wlsh. 10. VI-VII.
 6471 delawaricus Zell. 18. VI.
 6474 **Platyptilia** tessaradactyla L. 18-20. VI.
 6476 pallidactyla Haw. 7, 10, 18, 20. VI-VII.
 6477 carduidactyla Riley. 3, 7, 8, 10, 18. V-VII.
 6478 percnodactyla Wlsh. 18, 20. VII.
 6479 williamsi Grin. 20. VI-VII.
 N.S. comstocki Lange. 2. VI-VII.
 6481 albicans Fish. 18. VI.
 6482 albertae B. & L. 19. VIII.
 6484 punctidactyla Haw. 3, 10, 18-21. V-IX.
 6490 edwardsii Fish. 3, 18, 19. VI-VII.
 6491 albiciata canadensis McD. 18-20. VI-VII.

PTEROPHORIDAE—*Concluded*

- 6492 nana McD. 18, 19. VI.
 6493 shastae Wlsh. 18. VI.
 6497 albidorsella Wlsh. 18. VI.
 6498 maea B. & L. 18-20. VIII.
 6511 **Stenoptila** bowmani McD. 6, 20. V-VIII.
 6513 coloradensis Fern. 3, 8, 10, 19-21. VII-IX.
 6514 columbia McD. 18-20. VI-VII.
 6519 **Adaina** montana declivis Meyr. 8, 10. VIII.
 6520 cinerascens Wlsh. 18. VI.
 6523 **Oidaematophorus** occidentalis Wlsh. 18. VIII.
 6527 mathewianus Zell. 19, 20. VII-VIII.
 6531 phaceliae McD. 3, 8, 10. VII.
 6532 griseus Wlsh. 3. VII.
 6534 rileyi Fern. 18, 19. VI.
 6535 lindseyi McD. 8, 10. VII-VIII.
 6541 gratiosus Fish. 19. VII.
 6545 brucei Fern. 6, 7, 10, 20. VI-VII.
 6560 helianthi Wlsh. 19. VII.
 6561 homodactylus Wlk. 10, 18-21. VI-VII.
 6562 elliottii Fern. 10, 20. VI-VII.
 6563 stramineus Wlsh. 3, 8, 18-20. VI-VIII.
 6568 lacteodactylus kelicottii Fish. 10. VI.
 6578 corvus B. & L. 18, 20. VI.
 6588 monodactylus L. 10, 20. VI-X.
 N.S. balsamorrhizae McD. 18. VI-VII.

ALUCITIDAE

- 6591 **Alucita** huebneri Wallen. 3, 7, 8, 10, 20, 21. X-IV.

Superfamily TORTRICOIDEA

OLETHREUTIDAE

Olethreutinae

- 6596 **Bactra** furfurana Haw. 10. VII-VIII.
 6597 verutana Zell. 3, 10. VIII.
 6620 **Endothenia** montanana Kft. 10. V-VI.
 6621 heinrichi McD. 10. VI.
 6625 hebesana Wlk. 8, 10, 18, 20. VI-IX.
 6628 infuscata Hein. 10. VI.
 6629 antiquana nubilana Clem. 3, 6, 8, 10, 20. VI-VII.
 6630 **Taniva** albolineana Kft. 8, 10, 20. VI-VII.
 6631 **Tia** vulgana McD. 20. VI.
 6633 **Esia** approximana Hein. 10. VII-VIII.
 6638 **Aphania** capreana Hbn. 8, 10, 19, 20. VI-VII.
 6639 youngana McD. 10. VI-VII.
 6640 frigidana Pack. 10, 20. V-VII.
 6643 tertia McD. 10. VI.
 6648 apateticana McD. 8, 10. V-VII.
 6650 dextrana McD. 6, 10, 19, 20. VII.
 6651 infida Hein. 6, 8, 10, 18, 20. VI-VII.
 6652 removana Kft. 8, 10, 20. VII-VIII.
 6653 **Sciaphila** duplex Wlsh. 7, 10, 18. VI-VII.
 " thalassana McD. 10. VI.
 6654 **Badebecia** urticana Hbn. 3, 8, 10, 18, 20. VI-VIII.
 6666 **Exartema** rusticanum McD. 10. VIII.
 6670 punctanum Wlsh. 10. VII.
 6672 inornatanum Clem. 10, 20. VI-VII.
 6694 versicoloranum Clem. 10. VII.
 6700 appendicium Zell. 8, 10. VI-VII.

OLETHREUTIDAE—*Continued**Olethreutinae*—Concluded

- 6706 **Hedia** separatana Kft. 8, 10, 20. V-VI.
 6707 ochroleucana Hbn. 3, 7, 8, 10, 18, 21. VI-VII.
 6717 **Olethreutes** siderana chalybeana Wlshm. 18. VI.
 6718 sordidana McD. 20. VII.
 6719 galaxana Kft. 2, 18-20. VI.
 6721 astrologana Zell. 6, 8, 10. VI-VII.
 6723 puncticostana Wlk. 8, 10, 20. VI-VII.
 " major Wlshm. 8, 10, 20. VI-VII.
 6724 nordeggana McD. 20. VII.
 N.S. kennethana McD. 10. VII-VIII.
 6727 deprecatoria Hein. 10. VII.
 6728 cespitana Hbn. 8, 10, 18-20. VI-VIII.
 6729 carolana McD. 10, 18. VII.
 6730 polluxana McD. 19, 20. VII.
 6731 glaciana Moesch. 6, 10, 18, 20. VI-VIII.
 6732 bipartitana Clem. 6, 10, 18, 20. VI-VIII.
 6734 schulziana Fabr. 10, 20, 21. VI.
 6735 intermistana Clem. 10, 19, 20. VII.
 6738 bowmanana McD. 19, 20. VII.
 6740 costimaculana Fern. 6. VII.
 6742 buckellana McD. 20. VI.
 6743 **Evora** hemidesma Zell. 10. VII.

Eucosminae

- 6756 **Petrova** albicapitana Busck. 10. VI.
 6763 pallipennis McD. 20. VI.
 6764 burkeana Kft. 10, 20. VII-VIII.
 6766 **Barbara** colfaxiana taxifoliella Busck. 18. VI.
 6771 **Thiodia** albertana McD. 19. VI.
 6773 awemeana Kft. 8, 10. V-VI.
 6774 indeterminana McD. 8, 10, 18. V-VI.
 6778 formosana Clem. 6, 10. V-VI.
 " subcandida Hein. 10. VI.
 6780 corculana Zell. 18. V.
 6782 refusana Wlk. 8, 10. V.
 6783 amphorana Wlshm. 6. VII.
 6787 ochroterminana Kft. 10. VI-VIII.
 6790 alterana Hein. 10. VI-VIII.
 6791 marmontana Kft. 8, 10, 18, 20. VI-VIII.
 6792 sinestrigana McD. 10. VII.
 6793 oregonensis Hein. 18. VI.
 6797 convergana McD. 6. V.
 6804 influana Hein. 3. VII.
 6809 elongana Wlshm. 20. VI.
 6810 rupestrana McD. 6, 18-20. V-VII.
 6812 tarandana Moesch. 3, 6, 8, 10, 18-20. V-VI.
 6813 nepotiana Hein. 5. VI.
 6815 spectana McD. 10. VIII-IX.
 6820 parvana Wlshm. 3. VI.
 6821 fertoriana Hein. 10, 18. VI.
 6825 indagatricana Hein. 10, 18. VI-VIII.
 6828 dorsiatomana Kft. 3, 10, 18. VI-VII.
 6829 striatana Clem. 10, 19, 20. VII.
 6833 modicellana Hein. 3, 10, 18. VII.
 6836 pallidicostana Wlshm. 3, 8, 10. VII.
 6840 artemisiana Wlshm. 10. VIII.
 6841 infimbriana candidula Hein. 10, 20. VII.
 6842 octopunctana Wlshm. 10. VII.
 6843 youngi McD. 18. VII.
 6861 offectalis Hlst. 10. V-VII.
 6870 **Eucosma** ridingsana Rob. 6-8, 10, 19. VII-VIII.
 6885 argentiana Wlshm. 3, 5. VI.
 6888 serpentana Wlshm. 3, 10. VII.

OLETHREUTIDAE—Continued

Eucosminae—Continued

- 6889 ophionana McD. 3, 18, 20. VI-VII.
6891 argentialbana Wlshm. 2, 3, 5, 6, 8, 10, 18, 20. V-VII.
6892 morrisoni Wlshm. 3, 6, 8, 10, 18, 20. VI-VII.
6894 pergandeanana Fern. 3, 6, 10, 18, 20. VI-VII.
6898 vagana McD. 8, 10. VII.
6901 galenapunctana Kft. 3. VII.
6904 serapicana Hein. 3, 18. VI.
6905 watertonana McD. 18. VII.
6909 scintillana Clem. 10. VII.
“ randana Kft. 3, 10. V-VI.
6915 luridana Wlshm. 5. VI.
6918 subflavana Wlshm. 3. VII.
6933 lolana Kft. 18, 19. VIII.
N.S. louisana McD. 19. VII-VIII.
6934 dodana Kft. 19. VII.
6936 invicta Wlshm. 3. VIII.
6949 occipitana Zell. 3, 18, 20. VII.
6959 bilineana Kft. 2, 3, 10. VI.
6961 fuscosparsa Wlshm. 10. VI.
6962 mediotriata Wlshm. 3. VI.
6969 nandana Kft. 10. VIII.
6970 landana Kft. 6, 7. V.
6971 simplex McD. 6. IV.
6972 dorsisignatana Clem. 7, 10. VIII-IX.
“ diffusana Kft. 10. IX.
6974 juncticiliana Wlshm. 8, 10. VI-VIII.
6975 derelicta Hein. 18. VII.
6976 excusabilis Hein. 18. VII.
6985 corosana Hein. 6. VII.
6988 pulveratana Wlshm. 6. VII.
6991 hohana Kft. 19. VIII.
6995 suadana Hein. 3. VI.
7004 cataclystiana Wlk. 3, 10, 18. VI-VII.
- 7034 **Epiblema** purpurissatana Hein. 10. VI-VII.
7035 walsinghami Kft. 10. V.
7036 periculosana Hein. 18-20. VI-VII.
7042 illotana Wlshm. 3, 10, 18. VI.
7043 culminana Wlshm. 8, 10, 18. VII-VIII.
7047 abbreviatana Wlshm. 10. V.
- 7058 **Gypsonoma** fasciolana Clem. 6, 8, 10, 20. V-VII.
7059 nebulosana Pack. 10. VII.
7060 parryana Curt. 10. VI.
7062 substitutionis Hein. 10. VI-VIII.
7063 salicicolana Clem. 10. VIII.
7064 adjuncta Hein. 10. VI-VII.
- 7065 **Proteoteras** aesculana Riley. 10. IV.
7067 willingana Kft. 3-8, 10. VI.
7068 crescentana Kft. 2, 10. VII.
- 7075 **Zeiraphera** dineana Gn. 16, 20. VII.
7077 fortunana Kft. 10. VIII.
- 7078 **Pseudexentera** oregonana Wlshm. 6-8, 10. IV-V.
7081 perstructana Wlk. 10, 20. VIII-IX.
- 7097 **Griselda** radicana Wlshm. 10, 18, 20, 21. VII-IX.
- 7106 **Epinotia** similana Hbn. 18, 20. VII.
7107 sperana McD. 10, 20, 21. VIII-IX.
7109 solandriana L. 18, 20, 21. VII-VIII.
7114 castaneana Wlshm. 19. VII.
7116 madderana Kft. 10. VII.
7128 rectiplicana Wlshm. 8, 10. VI.

OLETHREUTIDAE—Concluded

Eucosminae—Concluded

- 7129 corylana McD. 10. VI-VII.
 7130 solicitana Wlk. 10, 20. V-VII.
 7132 nisella Clerck. 7-9, 19, 20. VII-IX.
 7135 transmissana Wlk. 8, 10. VI-VII.
 7136 removana McD. 18. VI.
 7137 momonana Kft. 10. VII-VIII.
 7140 silvertoniensis Hein. 3, 18, 20. IX.
 7142 digitana Hein. 19. VII.
 7143 nigralbanoidea McD. 3, 18. VI.
 7149 crenana Hbn. 8, 10, 19, 20. IV-V
 7153 arctostaphylana Kft. 20. IX.
 7159 nonana Kft. 3. VII.
 7163 lomonana Kft. 10. IX.
 7165 medioplagata Wlsh. 3, 10, 18, 20. VII-VIII.
 7167 cruciana L. 10, 18, 19, 20. VII-IX.
 7170 seorsa Hein. 18. IV.
 7172 lindana Fern. 10. VIII-IX.
- 7175 **Achylopera** nubeculana Clem. 8, 10, 18. V-VI.
 7176 subaequana kincaidiana Fern. 10, 18, 20. V-VI.
 7178 discigerana Wlk. 10. VI.
 7179 tenebrica Hein. 10. VI.
 7181 angulifasciana Zell. 8, 10, 20. VI-VII.
 7184 burgessiana Zell. 10. VI-VII.
 7185 mira Hein. 8, 10. VI.
- 7193 **Ancylis** comptana Froh. 3, 10, 18, 20. V-VI.
 " cometana Wlsh. 20. V.
 7195 apicana Wlk. 10. V-VI.
 7197 carbonana Hein. 20. V-VI.
 7198 diminutana Haw. 10, 20. V-VII.
 7199 goodelliana Fern. 10, 18, 20. V-VI.
 7201 unguicella L. 10, 18, 20. V.
 7203 mediofasciana Clem. 7, 8, 10, 18, 20. V-VI.
 7205 tineana Hbn. 10, 20. V-VII.
- 7209 **Hystriophora** stygiana Dyar. 1, 3, 6, 7, 18. VI-VII.
 7212 asphodelana Kft. 3, 8, 18. VI.
 7214 ochreicostana Wlsh. 3. VII.

Laspeyresinae

- 7219 **Dichrorampha** kana Busck. 18, 19. VI.
 7221 britana Busck. 18. VI.
 7228 piperana Busck. 20. VI.
 7229 sedatana Busck. 18. VI.
- 7236 **Hemimene** felicitana Hein. 10. VI.
 7237 signifera Hein. 10. VI.
 7239 bowmanana McD. 10, 20. V.
- 7244 **Grapholitha** packardi Zell. 10. VI-VII.
 7245 prunivora Wlsh. 10, 18. VIII.
 7251 imitativa Hein. 18. V.
 7252 lunatana Wlsh. 7, 10, 20. V.
 7254 interstinctana Clem. 18, 20, 21. VI-VII.
- 7263 **Laspeyresia** rana Forbes. 20. VII.
 7271 multilineana Kft. 10. V-VI.
 7272 ingrata Hein. 10. V.
 7275 populana Busck. 3, 10, 20. V-VII.
 7276 youngana Kft. 7, 10, 15. V-VI.
 7277 nigricana Steph. 5, 10, 20. VI-VII.
 7284 prosperana Kft. 18, 19. VI.
 7288 lautiuscula Hein. 10. V.
 7289 flexiloqua Hein. 6, 10, 20. VII.

TORTRICIDAE

- 7314 **Amorbia** humerosana Clem. 10. V.
 7323 **Sparganothis** reticulatana Clem. 3, 10. VII.
 7333 irrorea Rob. 10. VI-VII.
 7334 xanthoides Wlk. 8, 10. VII.
 7336 violaceana Rob. 8, 18. VI.
 7338 vocaridorsana Kft. 3, 8, 18. VI-VII.
 7349 sulfureana Clem. 8. VII.
 7369 **Platynota** idaeusalis Wlk. 10. VI-VII.
 7370 **Pandemis** canadana Kft. 10, 12. VI-VIII.
 7378 **Archips** persicana Fitch. 10, 18-20. VI-VII.
 7384 cerasivorana Fitch. 10, 18. VII-VIII.
 7388 argyrospila Wlk. 10. VII.
 7390 eleagnana McD. 20. VII.
 7397 melaleucana Wlk. 10. VII.
 7403 symphoricarpana Kft. 2. VII.
 7404 arctica Moesch. 10, 20. V-VI.
 7405 rosaceana Harris. 3, 7, 10, 12, 13, 15, 18. VI-VIII.
 7406 striana Fern. 10. VI-VII.
 7407 conflictana Wlk. 1, 6, 10, 18-20. VI-VII.
 7408 **Choristoneura** fumiferana Clem. 10, 19-21. VII-VIII. (7).
 7410 **Tortrix** pallorana Rob. 3. VII.
 7411 clemensiana Fern. 10. VII-VIII.
 7415 alleniana Fern. 3, 6, 10. VI-VII.
 7418 packardiana Fern. 10, 19, 20. VII.
 7420 peritana Clem. 10. VI-VIII.
 7423 virescana Clem. 8, 10, 20. VII.
 7428 wellingtoniana Kft. 10, 20. V-VI.
 7437 moeschleriana Kft. 18. VIII.
 7439 afflictana Wlk. 10. V-VII.
 7440 alberta McD. 10, 20. VII-VIII.
 7442 **Eulia** ministrana L. 10. VI.
 7443 **Argyrotaenia** velutinana Wlk. 8, 10, 21. V.
 7445 pinatubana Kft. 20. V.
 N.S. occultana Freeman. 20. VI.
 7455 **Tortricodes** horariana Wlsh. 8, 10, 19. IX.
 7458 **Cnephasia** osseana Scop. 10, 20. VI-VII.
 7459 argentana Clem. 1, 10, 18, 20. VI-VII.
 7468 **Argyrotoxa** bergmanniana L. 20. VII.
 7469 albicomana Clem. 8, 10, 20. VII-VIII.
 7471 curvilana Kft. 20. VII.
 7472 **Acleris** emargana Fabr. 6, 10, 18, 20. VIII-IX (11).
 7473 maccana Tr. 10, 20. VIII-V.
 7473a fishiana Fern. 8, 10, 12. VIII-IV.
 7475 nigrolinea ferruginiguttata Fern. 10, 21. IX-V.
 7476 maximana B. & B. 10. IX-V.
 7477 caliginosana Wlk. 10, 20. X-IV.
 7478 latifascia Haw. 10. VIII-IX.
 7480 oxycoccana Pack. 10. IX-VI.
 7481 variana Fern. 10, 15, 19-21. VII.
 7484 hastiana L. 8, 10, 20. IX-V.
 7485 celiana Rob. 10. IX-IV.
 " albilineana Kft. 8, 10. X-V.
 7486 pulverosana Wlk. 16, 20. X.
 7490 robinsoniana Forbes. 9, 10, 16. X-V.
 7493 brittana Kft. 19, 20. VIII-X.
 7494 fragariana Kft. 10. IX.
 7495 inana Rob. 10. VIII-IX.
 7498 scabrana D. & S. 7, 10. IX-V.
 7499 lipsiana D. & S. 7, 10. IX-V.
 7500 hudsoniana Wlk. 10, 20, 21. X-V.
 7501 bowmanana McD. 8, 10. IX-V.

TORTRICIDAE—*Concluded*

- 7502 *minuta* Rob. 20. VII.
 “ *cinderella* Riley. 20. V.
 7503 *logiana* L. 7, 9, 10, 19. IX-V.
 “ *tresignana* Rob. 10. VIII-V.
 7504 *nivisellana* Wlshm. 8, 10. X-V.
 7505 *cervinana* Fern. 10. VI-VIII.
 7508 *braunana* McD. 9-10. V.
 7511 *forbesana* McD. 10. VI-VII.
 7512 *fuscana* B. & Bsk. 7, 8, 10, 16. VIII-V.
 7514 *semiannula* Rob. 10, 19. VIII-V.
 7515 *gallicolana* Clem. 10. V-VI.
 “ *heindelana* Fern. 10. V-VI.
 7516 *cornana* McD. 10. VIII-V.

PHALONIIDAE

- 7530 *Phalonia* *deutschiana* Zett. 20. VI-VII.
 7542 *angulatana* Rob. 10. VI-VII.
 7608 *Pharmacis* *vitellinana* Zell. 8, 10. VI-VII.
 7610 *Hysterosia* *fulviplicana* Wlshm. 10, 19, 20. VII.
 7611 *aureoalbida* Wlshm. 18, 20. VI.
 7613 *waracana* Kft. 10. VI.
 7621 *baracana* Busck. 10, 20. VII.

CARPOSINIDAE

- 7624 *Bondia* *crescentella* Wlshm. 10. V.
 7625 *Carposina* *ottawana* Kft. 10. VI.
 7628 *comonana* Kft. 10. V-VI.

COSSIDAE

- 7666 *Acosus* *centerensis* Lint. 6, 10. VII.
 7667 *populi* Wlk. 6, 7, 10, 18, 20. VI-VII.
 7670 *Prionoxystus* *robiniae* Peck. 5, 10. VI-VII.

Superfamily GELECHIOIDEA

COSMPTERYGIDAE

- 7696 *Batrachedra* *praeangusta* Haw. 10. IV-V.
 7738 *Cyphophora* *tricristatella* Cham. 10, 18. VI-VII.
 7743 *Walshia* *amorphella* Clem. 2, 10. VI.
 7746 *Mompha* *albopalpella* Cham. 10, 18. VII.
 7755 *claudiella* Kft. 10. VII.
 7758 *unifasciella* Cham. 10. IV-X.

EPERMENIIDAE

- 7770 *Epermenia* *infracta* Braun. 20. VI-VII.

GELECHIIDAE (1)

- 7818 *Aristotelia* *rubidella* Clem. 18. VI.
 7823 *fungivorella* Clem. 10, 20. VII-IX.
 7834 *roseosuffusella* Clem. 8. VII.
 7835 *devexella* Braun. 18. VII.
 7854 *Chrysopora* *lingulacella* Clem. 10. VII.
 7867 *Evippe* *prunifoliella* Cham. 10. V.
 7886 *Recurvaria* *milleri* Busck. 19, 20. VII.
 7893 *gibsonella* Kft. 10. VII-VIII.

GELECHIIDAE (1)—*Concluded*

- 7908 *Eucordylea atrupictella* Dietz. 10. IX.
 7932 *Telphusa aethiops* Westw. 18. VI.
 7937 *belangerella* Cham. 8. VI.
 7949 *praeforma* Braun. 18. VI.
 7961 *Chionodes metallica* Braun. 10, 18. VI-VII.
 7977 *viduella* Fabr. 10, 20. V-VI.
 7980 *lugubrella* Fabr. 10, 20. VI-VII.
 8005 *continuella* Zell. 10, 18, 20. VI-VIII.
 8013 *fondella* Busck. 8, 10. V-VII.
 8014 *terminimaculella* Kft. 10. V-VI.
 8020 *mediofuscella* Clem. 10. V-VI.
 8026 *abella* Busck. 10. III-VI.
 8077 *negundella* Hein. 10. VIII-IX.
 8106 *fluvialella* Busck. 10. V-VII.
 7962 *Bryotropha clandestina* Meyr. 18. VI.
 7965 *Aroga trialbamaculella* Cham. 20. VI.
 7998 *Gelechia mandella* Busck. 20. VII.
 8001 *albisparsella* Cham. 3. VII.
 8064 *conspersa* Braun. 5, 18. VI.
 8065 *versutella* Zell. 8, 10. VII-IX.
 8120 *nigrobarbata* Braun. 18. VI.
 8121 *occlusa* Braun. 18. VI-VII.
 8122 *permacta* Braun. 18. VI-VII.
 8023 *Lita longicornis* Curt. 8, 10, 19, 20. V-VI.
 8025 *petulans* Braun. 19. VIII.
 8032 *variabilis* Busck. 10, 20. VII-VIII.
 8034 *Filatima striatella* Busck. 10. V.
 8082 *serotinella* Busck. 10. V.
 8098 *abactella* Clarke. 10. VI.
 8103 *abradescens* Braun. 10, 18, 20. VII.
 8153 *Gnorimoschema gallaesolidaginis* Riley. 10. VIII-IX.
 8156 *gallaeasteriella* Kell. 8, 10. VI-VIII.
 8160 *petrella* Busck. 20. VII.
 8168 *miscitatella* Clarke. 10. VIII.
 8180 *ochreostrigella* Cham. 20. VII.
 8182 *trioellella* Cham. 18. VI.
 8186 *radiatella* Busck. 18. VII.
 8219 *Phthorimaea chenopodiella* Busck. 10. V-VII.
 8272 *Compsolechia niveopulvella* Cham. 10, 18, 19. VII-VIII.
 8285 *Thelyasceta nonstrigella* Cham. 18. VI.
 8288 *Anarsia lineatella* Zell. 10. X.
 8314 *Trichotaphe fernaldella* Busck. 10, 20. V-VI.
 8322 *setosella* Clem. 10. V-VIII.
 8329 *leuconotella* Busck. 10. VII-VIII.
 8331 *leyisella* Fyles. 10, 18. VI-VII.
 8332 *Oegoconia quadripuncta* Haw. 8. VI.

OECOPHORIDAE (8)

- 8440 *Agnopterix fulva* Wlsh. 6, 10. VIII.
 8451 *gelidella* Busck. 10, 20. VII-VIII.
 8431 *rosaciliella* Busck. 7, 10. IV.
 8418 *pallidella* Busck. 10. X.
 8413 *argillacea* Wlsh. 8, 10, 12, 20, 21. IV-V, IX-X.
 8420 *flavicomella* Engel. 10. VII-VIII.
 8433 *Martyrhilda canella* Busck. 18. VI-VII.
 8419 *nivalis* Braun. 19, 20. VII-VIII.
 8435 *klamathiana* Wlsh. 20. IX.
 8434 *sciadopa* Meyr. 8, 10, 12, 18, 21. IV-VI, IX-X.
 8464 *Bibarrambula allenella* Wlsh. 10. VI-VII.

OECOPHORIDAE (8)—*Concluded*

- 8459 **Semioscopis** packardella Clem. 7, 10. IV-V.
 8460 inornata Wlshm. 6-8, 10, 19, 21. IV-VI.
 8461 megamicrella Dyar. 10. IV-V.
 8463 aurerella Dyar. 8, 10. IV-V.
 8393 **Depressaria** alienella Busck. 10, 20. VIII, IX.
 8396 leptotaeniae Clarke. 18. VII.
 8405 grotella Rob. 10. VIII-IX.
 8406 betulella Busck. 10, 19. VIII.
 8365 **Schiffermulleria** quadrimaculella Cham. 10, 18. VI-VII.
 8370 **Chambersia** haydenella Cham. 18. VII.

ETHMIIDAE

- 8390 **Eumeyrickia** trimaculella Fitch. 10. VI.
 8367 **Ethmia** coloradella Wlshm. 10, 18, 20. VI-VII.
 8612 monticola Wlshm. 6. VI.

Superfamily YPONOMEUTOIDEA

GLYPHIPTERYGIDAE

- 8643 **Anthophila** fabriciana L. 18. VI.
 " alpinella Busck. 18. VI.
 8645 **Allononyma** vicarialis Zell. 8, 10, 19, 20. IV-V, VIII-X.
 8646 diana Hbn. 21.
 8652 **Choreutis** pernalis Braun. 10. VI.
 8663 onustana Wlk. 18. VI.
 8664 balsamorrhizella Busck. 18. VII.
 8666 occidentella Dyar. 10, 18, 20. VI-VII.
 8669 leucobasis Fern. 20. V-VI, IX.
 N/R myllerana Fab. 10. VII.
 8680 **Ellabella** editha Busck. 18. VI.

AEGERIIDAE (3)

- 8684 **Bembecia** marginata Harr. 5, 10, 20. VII-VIII.
 8708 **Ramosia** tipuliformis Clerck. 3.
 8769 **Podosesia** syringae fraxini Lug. 6. VII.
 8789 **Albuna** pyramidalis Wlk. 6, 7, 10, 18-20. VI-VII.
 " coloradensis Hy.-Ed. 10. VI.
 8796 **Vitacea** polistiformis Harr. 6, 18. VI-VIII.

PLUTELLIDAE

- 8842 **Trachoma** falciferella Wlshm. 8, 10. IV, IX-X.
 8844 senex Wlshm. 10, 16, 19. VIII.
 8845 **Harpipteryx** dentiferella frustrella Wlshm. 6, 10, 19. VII-IX.
 " canariella Wlshm. 10, 19. VII-IX.
 8863 **Cerostoma** dorsimaculella Kft. 10. VII.
 8870 **Plutella** porrectella L. 10, 18. VI-VII.
 8871 poulella Busck. 20. IX.
 8875 interrupta Wlshm. 10. V.
 8878 maculipennis Curt. 10. VII-X.

YPONOMEUTIDAE

- 8890 *Argyresthia* goedartella^fL. 10. VII.
 8891 pygmaeella Hbn. 10, 18. VII.
 8893 oreasella Clem. 10, 18. VII-VIII.
 8902 monochromella Busck. 18. VI.
 8903 conjugella Zell. 18. VII.
 8921 *Zelleria* gracilariella Busck. 10. IV-V.
 8925 *Swammerdamia* cuprescens Braun. 10. VI-VII.
 8927 *Xyrosaris* celastrustella Kft. 20. IX.

SCYTHRIDAE

- 8956 *Scythris* ochristriata Wlsh. 18. VI.
 8964 magnatella Busck. 10. VII-IX.

Superfamily CYCNODIOIDEA

DOUGLASIDAE

- 9005 *Tinagma* gigantea Braun. 18. VI.
 9006 pulverilinea Braun. 18. VI.

ELACHISTIDAE

- 9009 *Elachista* orestella Busck. 20. VII.
 9031 aurocristata Braun. 10, 18. V-VI.

Superfamily TINEOIDEA

COLEOPHORIDAE

- 9061 *Coleophora* cleagnisella Kft. 10, 20. VI-VII.
 9092 coruscipennella Wlsh. 8, 10, 20. VI-VIII.
 9105 innotabilis Braun. 10. VI-VII.
 9122 brunneipennis Braun. 10. VI-VII.
 9130 acutipennella Wlsh. 18. VI.
 9142 tenuis Wlsh. 18. VI.
 9143 crinita Braun. 18. VI.

GRACILLARIIDAE

- 9300 *Acrocercops* astericola F. & B. 10. VI.
 9320 *Parectopa* pennsylvaniella Eng. 10. VII.
 9325 albicostella Braun. 10. VII.
 9356 *Gracillaria* cornusella Ely. 10. V-VII.
 9374 negundella Cham. 10. IX-X.
 9382 acerifoliella Cham. 10. VI-VII, IX.
 9388 invariabilis Braun. 10. IV-VI, IX-X.
 9391 alnivorella pulchella Clem. 10. IX-X.
 9394 murtfeldtella Busck. 18. VI.

OPOSTEGIDAE

- 9406 *Opostega* cretea Meyr. 10. VII.

LYONETIDAE

- 9448.1 *Bucculatrix* canadensisella Cham. 10. VI.

PSYCHIDAE

- 9532 *Hyaloscotes* fragmentella Hy.-Edw. 18. VI.

TINEIDAE

- 9588 *Myrmecozela coloradella* Dietz. 18. VI.
 9628 *Elatobia martinella* Wlk. 18. VI.
 9631 *Monopis biflavimaculella* Clem. 10. VII.
 9633 *monachella* Hbn. 10. IX.
 9641 *Tinea misella* Zell. 10. VII.
 9643 *fuscipunctella* Haw. 10. VII-VIII.
 9644 *irrepta* Braun. 3, 20. VII.
 9652 *grumella* Zell. 10. VI-VII.
 9653 *pellionella* L. 10. VII.
 9670 *roburella* Dietz. 10. VI.
 9686 *granella* L. 10. VIII-IX.
 9695 *Tineola biselliella* Hum. 10. I-XII.

Superfamily INCURVARIODEA

INCURVARIIDAE

- 9796 *Lampronia variata* Braun. 18. VI-VII.
 9800 *piperella* Busck. 18. VI.
 9801 *aenescens* Wlsh. 18. VI.
 9802 *politella* Wlsh. 18. VI-VII.
 9803 *sublustris* Braun. 8, 10, 18. VI.
 9804 *obscurumaculata* Braun. 18. VI.
 9806 *Greya humilis* Wlsh. 10. V.
 9807 *subalba* Braun. 18. VI.
 9815 *Chalceopla cockerelli* Busck. 18.

PRODOXIDAE

- 9823 *Prodoxus quinquepunctellus* Cham. 2. VI-VII.
 9834 *Tegeticula alba* Zeller. 2. VI-VII.

ADELIDAE

- 9838 *Nemetois bellela* Wlk. 10, 20, 21. VI.
 9844 *Adela purpurea* Wlk. 6, 7, 10. V.

Suborder JUGATAE

HEPIALIDAE

- 9858 *Sthenopis argenteomaculatus* Harris. 6. VII.
 9859 *purpurascens* Pack. 6-8, 10. VII-VIII.
 9860 *quadriguttatus* Grt. 6-8, 10. VII.
 9863 *Hepialus hyperboreus* Moesch. 10, 21. VII.
 9865 *roseicaput* N. & D. 19, 21. VIII.
 9869 *novigannus* B. & B. 6, 10, 18, 19, 21. VII-X.
 " *mackiei* B. & B. 6, 10, 18, 19, 21. VII-X.
 9871 *gracilis* Grt. 10. VII.

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