

LEPIDOPTERA OF THE J.J. COLLETT NATURAL AREA, 2002-2011

Charles Durham Bird
Box 22, Erskine, AB, T0C 1G0, cdbird@telus.net
8 March 2012

The present paper incorporates the information in previous reports along with that gathered in 2011. It also includes a number of redeterminations and additions to the information in the earlier reports. Further, it follows the up-to-date order and taxonomy of Pohl et al. (2010), rather than that of Hodges et al. (1983).



Some of the participants on the May 30, 2004, J.J. Collett Natural Area Spring Walk. Left to right: Jack Surbey, Bob DeLong, Gail Hughes, Sylvia Glass, Ann Bird, Claudia Cameron, Ron Kruger.

THE AREA

The J.J. Collett Natural Area is made up of a section of land located near Morningside, 11 km NNE of Lacombe and 11 km south of Ponoka. The coordinates at the parking area are 52.53N, 113.65W and the elevation is around 870 m. The land was originally purchased by the Alberta Government from J.J. Collett in 1974. An elementary study of the natural resources and ecology of the area was carried out in that year by staff of the Alberta Department of the Environment and the Alberta Wildlife Foundation (Bienek 1974). Further studies carried out in 1980 resulted in a map of the trails and vegetation units of the area as well as data sheets of the major communities (Munsell 1980); this was followed by a management plan for the Natural

Areas Program, Alberta Forestry, Lands and Wildlife (Leszczynski 1987). The area is currently managed by volunteer members of the J.J. Collett Foundation, the Parks and Protected Areas Division of Alberta Community Development and the Public Lands Division of Alberta Sustainable Resource Development.



Trail through mixed woods, 30 May 2004

Ecologically, the area is made up of sandy, rolling, morainal aspen parkland. The vegetation of the area is quite diverse with aspen, balsam poplar, white spruce and paper birch all being common. There are open meadows, heavy woods, low wetlands, dry south-facing slopes and steep north-facing slopes. Though appearing at first glance to be undisturbed, the area was used many years ago for grazing cattle and, at one time, a small sawmill processed timber from the area. At present, the only agricultural use is that of limited late fall and early winter horse grazing to help lower the risk of fire by reducing the grass cover.

BACKGROUND

Provincial Parks and other areas where natural vegetation is protected are of great value as their flora and fauna is typical of what was in Alberta before widespread agricultural activities which resulted in a replacement of many native species by weedy species associated with cultivated grains and hay crops. As a result, many of Alberta's "rare and endangered" species are now found only, or mainly, in such protected areas.

The author, now retired and living in Erskine, Alberta, has had a long-time interest in the natural flora and fauna of the province. In the spring of 2000, he commenced an examination of the moths of south-central Alberta, the purpose of which was to document the species present in various natural areas. He has been in the area every year or so for over ten years. Dates and details of times when studies have been made are in the Appendix. No attempts have been

made to sample moths by sugaring. Obviously, many additions can be made to the following checklist, and further studies are needed.

Reports have been prepared on research carried out each year from 2002 onwards (Bird 2003-2009). The present paper incorporates the information in the previous reports along with that gathered in 2009. It also includes a number of redeterminations and additions to the information in the earlier reports.

There is still much to be learned about the distribution and status of lepidopteran (moth and butterfly) species in south-central Alberta. Baseline studies of this sort provide information that helps characterize the species associated with various ecoregions, in the present case Aspen Parkland; determine the status designations (abundant, common, rare, endangered) of various species; show the effects of grazing on species composition and abundance; and allow the examination of many other parameters, including phenology, dry vs. wet years, and outbreaks of various species such as by forest tent caterpillars.

The author is a member of the Alberta Lepidopterist's Guild, the purpose of which is to encourage the study of Alberta's moths and butterflies.

SPECIMEN DISPOSITION

All specimens collected by the writer presently reside in his collection but most will eventually go to the University of Alberta Strickland Museum (UASM), and some will be deposited in the Canadian National Collection (CNC) in Ottawa and the Northern Forest Research Centre (NFRC) in Edmonton. All specimens have been databased and the information on verified material can be viewed at <http://www.entomology.ualberta.ca/searching.php>.

THE FOLLOWING CHECKLIST

Pohl et al (2010) have put together an up-to-date annotated list of the Lepidoptera of Alberta. They include 2367 species, many more than those mentioned by Bowman (1951). This list incorporates recent changes in taxonomy of all groups according to various literature sources, including those listed for the Noctuoidea by Lafontaine & Schmidt (2010). In previous reports, the order and terminology, were that of the "Check List of the Lepidoptera of America North of Mexico" (1983) edited by R.W. Hodges. The species order and taxonomy in this report is that of Pohl et al (2010) followed by that in Hodges (1983). Common names are mentioned in those cases where such names are known.

Kenneth Bowman's (1951) list of the Lepidoptera of Alberta presents all species known at that time and gives the distribution of each according to 21 Areas. His areas 5, 8 and 10 essentially cover all of south-central Alberta, with the J.J. Collett Natural Area being in Area 8. Most of Bowman's records are from Area 10, which includes Edmonton, so most of the species found in the following list would be additions to his Area 8.

HEPIALIDAE – Ghost Moths and Swifts

5. *Gazoryctra novigannus* (B. & Benj.) (29. *Gazoryctra novigannus* (B. & Benj.)) (Novigannus Ghost Moth) – 27-VIII-2002 2.



Korscheltellus gracilis image from Moth Photographers Group web site.

6. *Korscheltellus gracilis* (Grt.) (31. *Korscheltellus gracilis* (Grt.)) (Conifer Swift Moth) – 29A-VII-2009 1. The larvae of this moth are root borers in coniferous trees.
8. *Sthenopsis purpurascens* (Pack.) (19. *Sthenopsis purpurascens* (Pack.)) (Large Ghost Moth) – 29B-VII-2009 1.

TINEIDAE – Fungus Moths

Tineidae, Tineinae

44. *Tinea irrepta* Braun (399. *Tinea irrepta* Braun) – 6-VII-2004 1, 29A-VII-2009 1 and 18B-VI-2010 1.
49. *Monopis laevigella* (D. & S.) (not in Hodges) – 6-VII-2004 1.
51. *Monopis spilotella* Teng. (421. *Monopis spilotella* Tengström) – 29A-VII-2009 1.

GRACILLARIIDAE – Gracilariid Moths

Gracillariidae, Gracillariinae

66. *Caloptilia alnivorella* (Cham.) (587. *Caloptilia alnivorella* (Cham.)) (Alder Leafminer) – 28-V-2002 1 and 18B-VI-2010 1.
76. *Caloptilia stigmatella* (F.) (639. *Caloptilia stigmatella* (F.)) – 28-V-2002 1 and 18B-VI-2010 1.
82. *Parornix conspicuella* (Dietz) (669. *Parornix conspicuella* (Dietz)) – 6-VII-2004 1.
- Phyllonorycter* sp. – 29C-VII-2009 1. This could be 85. *Phyllonorycter apparella* (H.-S.) (*Phyllonorycter tremuloidella* (Braun)).

YPONOMEUTIDAE – Yponomeutid Moths

Yponomeutidae, Yponomeutinae

93. *Euhyponomeutoides gracilariella* (Bsk.) (2426. *Euhyponomeutoides gracilariella* (Bsk.)) – 28-V-2002 1? And 18C-VI-2010 1.

ARGYRESTHIIDAE – Argyresthiid Moths

Yponomeutidae, Argyresthiinae

101. *Argyresthia oreasella* (Clem.) (2467. *Argyresthia oreasella* (Clem.)) (Cherry Shoot Borer Moth) – 29A-VII-2009 1.

PLUTELLIDAE – Plutellid Moths

104. *Ypsolopha canariella* (Wlsm.) (2371. *Ypsolopha canariella* (Wlsm.)) (Canary Ypsolopha Moth) – 27-VIII-2002 1.
 106. *Ypsolopha dentiferella* (Wlsm.) 2376. *Ypsolopha dentiferella* (Wlsm.) – 9A-VIII-2003 1.
 108. *Ypsolopha falciferella* (Wlsm.) 2380. *Ypsolopha falciferella* (Wlsm.) – 28-V-2002 1.
 113. *Plutella vanella* (Wlsm.) (2365. *Plutella vanella* (Wlsm.)) – 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.
 114. *Plutella xylostella* (L.) (2366. *Plutella xylostella* (L.)) (Diamondback Moth) – 28-V-2002 1, 9A-VIII-2003 1 and 9B-VIII-2003 1.

ELACHISTIDAE – Concealer Moths

Elachistidae, Depressariinae

134. *Agonopterix rosaciliella* (Bsk.) (876. *Agonopterix rosaciliella* (Bsk.)) – 26-V-2002 1 and 19B-IV-2005 1.
 138. *Agonopterix argillacea* (Wlsm.) (889. *Agonopterix argillacea* (Wlsm.)) – 28-V-2002 6.
 143. *Depressariodes ciniflonella* (Lienig & Zell.) (908. *Depressariodes ciniflonella* (Lienig & Zell.)) – 28-V-2002 1, 27-VIII-2002 1 and 19A-IV-2005 1.
 144. *Depressariodes fulva* (Wlsm.) (910. *Martyrhilda fulva* (Wlsm.)) – 27-VIII-2002 1. Can be confused with 2127 *Filatima abactella*, however the latter flies in the spring and early summer.
 147. *Semioscopis merricella* Dyar (913. *Semioscopis merricella* Dyar) – 19B-IV-2005 1.
 148. *Semioscopis inornata* Wlsm.) (914. *Semioscopis inornata* Wlsm.) – 19A-IV-2005 1.
 149. *Semioscopis megamicrella* Dyar (915. *Semioscopis megamicrella* Dyar) – 19A-IV-2005 1.
 150. *Semioscopis aurerella* Dyar (916. *Semioscopis aurerella* Dyar) – 19A-IV-2005 1, 19B-IV-2005 7 and 3-V-2008 1.
 153. *Depressaria pastinacella* (Dup.) (922. *Depressaria pastinacella* (Dup.)) (Parsnip Webworm Moth) – 28-V-2002 1.

Elachistidae, Elachistinae – Grass Miner Moths

Elachista sp. – 29A-VII-2009 1.

COLEOPHORIDAE – Coleophorid Moths

Coleophoridae, Coleophorinae

- Coleophora* spp. – 18A-VI-2010 1 and 18C-VI-2010 2.
 199. *Coleophora pruniella* Clem. (1271. *Coleophora pruniella* Clem.) (Cherry Case-bearer) – 6-VII-2004 3.
 214. *Coleophora sparsipulvella* Cham. (1352. *Coleophora sparsipulvella* Cham.) – 6-VII-2004 6.

222. *Coleophora trifolii* (Curt.) (1388. *Coleophora trifolii* (Curt.)) (Large Clover Case-bearer Moth) – 6-VII-2004 1.

Coleophoridae, Blastobasinae

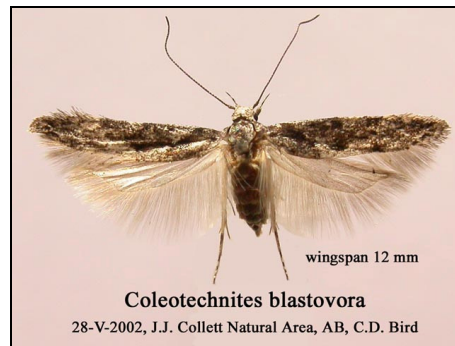
Species unknown – 27-VIII-2002 1. It has been sent to David Adamski for identification as he is doing a revision of the group.

GELECHIIDAE – Gelechiid Moths

Species unknown – 26-V-2002 1, 28-V-2002 3, 21-VI-2002 1, 27-VIII-2002 1, 9A-VIII-2003 3, 9B-VIII-2003 4, 6-VII-2004 10, 19A-IV-2005 2, 7C-V-2007 1, 7D-V-2007 2, 29A-VII-2009 3, 29C-VII-2009 2, 18A-VI-2010 1, 18B-VI-2010 2 and 18C-VI-2010 1. Little is known about many of the species in this family and it may be many years before some of these specimens are determined or described.

Gelechiidae, Gelechiinae

254. *Coleotechnites atrupictella* (Dietz) (1792. *Coleotechnites atrupictella* (Dietz)) – 9B-VIII-2003 2.



256. *Coleotechnites blastovora* (McLeod) (1796. *Coleotechnites blastovora* (McLeod)) – 28-V-2002 2, 7C-V-2007 1, 7D-V-2007 1 and 18C-VI-2010 1.
267. *Xenolechia velatella* (Bsk.) (1880. *Xenolechia velatella* (Bsk.)) – 6-VII-2004 1.
270. *Prolita sexpunctella* (F.) (1898. *Lita sexpunctella* (F.)) – 30-V-2004 1. The specimen was found during the day flying over bearberry, which is the larval food plant.
282. *Gelechia lynceella* Zell. (1946. *Gelechia lynceella* Zell.) – 6-VII-2004 3.
292. *Chionodes mediofuscella* (Clem.) (2093. *Chionodes mediofuscella* (Clem.)) – 21-VI-2002 1 and 18A-VI-2010 2.
293. *Chionodes terminimaculella* (Kft.) (2117. *Chionodes terminimaculella* (Kft.)) – 21-VI-2002 1.
300. *Chionodes psiloptera* (B. & Bsk.) (2111. *Chionodes psilopterus* (B. & Bsk.)) – 6-VII-2004 3, 29A-VII-2009 1 and 29B-VII-2009 1.
317. *Filatima abactella* (Clarke) (2127. *Filatima abactella* (Clarke)) – 28-V-2002 1, 21-VI-2002 1, 27-VIII-2002 1, 30-V-2004 1, 18A-VI-2010 1 and 18B-VI-2010 3.
349. *Anacamptis fragariella* Bsk. (2235. *Anacamptis fragariella* Bsk.) – 10-VIII-2003 1.

351. *Anacamptis niveopulvella* (Cham.) (2243. *Anacamptis niveopulvella* (Cham.)) – 9A-VIII-2003 3 and 9B-VIII-2003 1.

Gelechiidae, Dichomeridinae

354. *Helcystogramma fernaldella* (Bsk.) (2267. *Brachmia fernaldella* (Bsk.)) – 21-VI-2002 1.
 356. *Dichomeris setosella* (Clem.) (2302. *Dichomeris setosella* Clem.) – 27-VIII-2002 1 and 29A-VII-2009 1.

CHOREUTIDAE – Choreutid Moths

396. *Choreutis occidentella* (Dyar) (2635. *Choreutis occidentella* (Dyar)) – 18C-VI-2010 1.
 401. *Choreutis diana* (Hbn.) (2651. *Choreutis diana* (Hbn.)) (Diana's Choreutis Moth) – 10-VIII-2003 3.

TORTRICIDAE – Tortricid Moths

Tortricidae, Tortricinae, Tortricini

The species in the genus *Acleris* are badly in need of revision. Species differences are often not clearcut and there is considerable variation in some species.

Acleris sp. - 18A-VI-2010 1.

403. *Acleris albicomana* (Clem.) (3502. *Croesia albicomana* (Clem.)) – 29A-VII-2009 1 and 29C-VII-2009 1.
 407. *Acleris nivisellana* (Wlsm.) (3510. *Acleris nivisellana* (Wlsm.)) – 7D-V-2007 1. Formerly *Acleris* sp., this was revised in 2011 by Jason Dombroskie.
 408. *Acleris cervinana* (Fern.) (3514. *Acleris cervinana* (Fern.)) – 19A-IV-2005 1.
 411. *Acleris fuscana* (B. & Bsk.) (3520. *Acleris fuscana* (B. & Bsk.)) (Small Aspen Leaf-tier) – 7D-V-2007 1. Formerly *Acleris* sp., this was revised in 2011 by Jason Dombroskie.
 411. *Acleris* probably *fuscana* (B. & Bsk.) or 414 *cornana* McD. (3520. *Acleris* probably *fuscana* (B. & Bsk.) or 3523 *cornana* McD) – 28-V-2002 2 (formerly *A. robinsoniana*) and 19A-IV-2005 1 (formerly 3514 *Acleris cervinana* (Fern.)). These were revised in 2011 by Jason Dombroskie.
 418. *Acleris hastiana* (L.) (3531. *Acleris hastiana* (L.)) – 28-V-2002 1.
 420. *Acleris* near *celiana* (Rob.) (3533) – 7C-V-2007 1. Formerly *Acleris* sp., this was revised in 2011 by Jason Dombroskie.
 422. *Acleris robinsoniana* (Forbes) (3536. *Acleris robinsoniana* (Forbes)) – 26-V-2002 1 and 28-V-2002 2.
 431. *Acleris variana* (Fern.) (3548. *Acleris variana* (Fern.)) (Black-headed Budworm Moth) – 9A-VIII-2003 1, 9B-VIII-2003 4 and 29A-VII-2009 1.
 432. *Acleris maccana* (Tr.) (3549. *Acleris maccana* (Tr.)) – 19B-IV-2005 1.
 436. *Acleris nigrolinea* (Rob.) (3556. *Acleris nigrolinea* (Rob.)) – 28-V-2002 2.
 437. *Acleris maximana* (B. & Bsk.) (3557. *Acleris maximana* (B. & Bsk.)) – 28-V-2002 1 and 25-IX-2005 1.
 439. *Acleris hudsoniana* (Wlk.) (3561. *Acleris hudsoniana* (Wlk.)) – 28-V-2002 1.

Tortricidae, Tortricinae, Cochylini

The members of this group are currently being revised by Dr. Eric Metzler and Dr. John Brown.
The following specimen is presently being examined by them.

448. *Phtheochroa waracana* (Kft.) (3796. *Phtheochroa waracana* (Kft.)) – 6-VII-2004 2.

Tortricidae, Tortricinae, Cnephasini

466. *Eana argentana* (Cl.) (3568. *Eana argentana* (Cl.)) – 6-VII-2004 2.

Tortricidae, Tortricinae, Archipini

472. *Pandemis canadana* Kft. (3595. *Pandemis canadana* Kft.) (Green Aspen Leaf-tier Moth) – 29A-VII-2009 1.
483. *Choristoneura rosaceana* (Harr.) (3635. *Choristoneura rosaceana* (Harr.)) (Oblique-banded Leafroller Moth) – 6-VII-2004 1.
485. *Choristoneura conflictana* (Wlk.) (3637. *Choristoneura conflictana* (Wlk.)) (Large Aspen Tortrix) – 6-VII-2004 1.
486. *Choristoneura fumiferana* (Clem.) (3638. *Choristoneura fumiferana* (Clem.)) (Spruce Budworm Moth) – 29A-VII-2009 1.
491. *Archips packardiana* (Fern.) (3667. *Archips packardiana* (Fern.)) (Spring Spruce-needle Moth) – 6-VII-2004 1.
499. *Archips purpurana* (Clem.) (3658. *Archips purpurana* (Clem.)) – 29A-VII-2009 1.
502. *Syndemis afflictana* (Wlk.) (3672. *Syndemis afflictana* (Wlk.)) (Gray Leafroller Moth or Black-and-Gray Banded Leafroller Moth) - 28-V-2006 1.
508. *Clepsis persicana* (Fitch) (3682. *Clepsis persicana* (Fitch)) (White-triangle Tortrix) – 6-VII-2004 3.
509. *Clepsis clemensiana* (Fern.) (3684. *Clepsis clemensiana* (Fern.)) (Clemen's Clepsis Moth) – 9A-VIII-2003 1, 29A-VII-2009 1 and 29B-VII-2009 1.
511. *Clepsis melaleucana* (Wlk.) (3686. *Clepsis melaleucana* (Wlk.)) – 6-VII-2004 1.
513. *Ptycholoma virescana* (Clem.) (3689. *Ptycholoma virescana* (Clem.)) – 27-VIII-2002 1, 9B-VIII-2003 2, 29A-VII-2009 1 and 29C-VII-2009 1.
518. *Sparganothis xanthoides* (Wlk.) (3706. *Sparganothis xanthoides* (Wlk.)) (Mosaic Sparganothis Moth) – 29A-VII-2009 1.
522. *Sparganothis reticulatana* (Clem.) (3720. *Sparganothis reticulatana* (Clem.)) (Reticulated Fruitworm Moth) – 29A-VII-2009 1.
523. *Platynota idaeusalis* (Wlk.) (3740. *Platynota idaeusalis* (Wlk.)) (Tufted Apple Bud Moth) – 9B-VIII-2003 1 and 29A-VII-2009 1.

Tortricidae, Tortricinae, Euliini

525. *Eulia ministrana* (L.) (3565. *Eulia ministrana* (L.)) (Ferruginous Eulia Moth) – 18A-VI-2010 1.

Tortricidae, Tortricinae, Euliini

528. *Apotomops wellingtoniana* (Kft.) (3589. *Anopina wellingtoniana* (Kft.)) - 7A-V-2007 1 and 18A-VI-2010 1.

Tortricidae, Olethreutinae, Olethreutini

Olethreutinae indet. – 12-VIII-2002 2 and 6-VII-2004 3.

546. *Apotomis funerea* Meyr (2755. *Apotomis funerea* (Meyr)) (Funereal Apotomis Moth) – 27-VIII-2002 1 and 29A-VII-2009 1.
547. *Apotomis removana* (Kft.) (2766. *Apotomis dextrana* (McD.)) (Green Aspen Leafroller) – 28-V-2002 1 and 29A-VII-2009 1.
552. *Apotomis deceptana* (Kft.) (2765. *Apotomis deceptana* (Kft.)) (Deceptive Apotomis Moth) – 9B-VIII-2003 1.
556. *Pseudosciaphila duplex* (Wlsm.) (2769. *Pseudosciaphila duplex* (Wlsm.)) (Spotted Leaf Roller or Poplar Leafroller Moth) – 6-VII-2004 2.
557. *Orthotaenia undulana* (D. & S.) (2770. *Orthotaenia undulana* (D. & S.)) (Dusky Leafroller) – 6-VII-2004 2, 29C-VII-2009 1, 18A-VI-2010 1 and 18B-VI-2010 2.
- Olethreutes* spp. – 6-VII-2004 10, 29A-VII-2009 2, 29B-VII-2009 1 and 29C-VII-2009 2.
561. *Olethreutes quadrifidum* (Zell.) (2794. *Olethreutes quadrifidus* (Zell.)) – 6-VII-2004 2.
566. *Olethreutes galaxana* Kft. (2835. *Olethreutes galaxana* Kft.) – 18A-VI-2010 1.
568. *Olethreutes coruscana* (Clem.) or 569 *Olethreutes meatallicana* (Hbn.) (2839. *Olethreutes puncticostana* (Wik.)) – 6-VII-2004 12, 10-VI-2006 7, 18A-VI-2010 2 and 18B-VI-2010 1.
584. *Hedya ochroleucana* (Frölich) (2861. *Hedya ochroleucana* (Frölich)) (Off-white Hedya Moth) – 6-VII-2004 3, 29A-VII-2009 1 and 29B-VII-2009 1.
585. *Hedya nubiferana* (Haw.) (2862. *Hedya nubiferana* (Haw.)) (Marbled Orchard Tortrix Moth) – 29A-VII-2009 1 and 29B-VII-2009 1.

Tortricidae, Olethreutinae, Enarmoniini

600. *Ancylis unguicella* (L.) (3382. *Ancylis unguicella* (L.)) – 28-V-2002 7, 21-VI-2002 2. 30-V-2004 4 and 30-V-2005 1.
601. *Ancylis mediofasciana* (Clem.) (3384. *Ancylis mediofasciana* (Clem.)) – 28-V-2002 2 and 21-VI-2002 3.

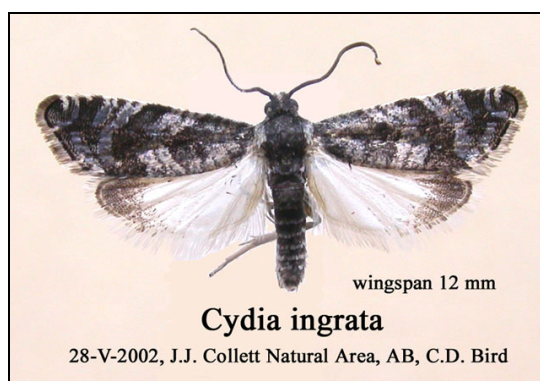
Tortricidae, Olethreutinae, Eucsomini

618. *Phaneta umbrastriana* (Kft.) (2913. *Phaneta umbrastriana* (Kft.)) – 18A-VI-2010 1.
643. *Phaneta indagatricana* (Heinr.) (2969. *Phaneta indagatricana* (Heinr.)) – 9B-VIII-2003 1.
644. *Phaneta dorsiatomana* (Kft.) (2972. *Phaneta dorsiatomana* (Kft.)) – 26-V-2002 1.
648. *Phaneta pallidocostana* (Wlsm.) (2980. *Phaneta pallidocostana* (Wlsm.)) – 29A-VII-2009 1 and 29B-VII-2009 1.
650. *Phaneta infimbriana* (Dyar) (2985. *Phaneta infimbriana* (Dyar)) – 9A-VIII-2003 1.
709. *Notocelia culminana* (Wlsm.) (3211. *Notocelia culminana* (Wlsm.)) – 27-VIII-2002 2, 9B-VIII-2003 1 and 29A-VII-2009 1.
710. *Gypsonoma fasciolana* (Clem.) (3223. *Gypsonoma fasciolana* (Clem.)) – 21-VI-2002 2, and 18B-VI-2010 1.
714. *Gypsonoma substitutionis* Heinr. (3227. *Gypsonoma substitutionis* Heinr.) – 6-VII-2004 1.
715. *Gypsonoma salicolana* (Clem.) (3228. *Gypsonoma salicolana* (Clem.)) – 7A-V-2007 1 and 18C-VI-2010 1.

725. *Pseudexentera oregonana* (Wlsm.) (3248. *Pseudexentera oregonana* (Wlsm.)) (Early Aspen Leafroller Moth) – 28-V-2002 7 SR, 21-VI-2002 2 SR, 19A-IV-2005 1, 7A-V-2007 1, 7C-V-2007 4, 7D-V-2007 1 and 3-V-2008 5.
740. *Epinotia nisella* (Cl.) (3306. *Epinotia nisella* (Cl.)) (Variable Tortrix, Poplar Branchlet Borer Moth and Yellow-headed Aspen Leaf-tier) – 27-VIII-2002 5, 9A-VIII-2003 3 and 6-VII-2004 1.
741. *Epinotia criddleana* (Kft.) (3307. *Epinotia criddleana* (Kft.)) – 27-VIII-2002 3.

Tortricidae, Olethreutinae, Grapholitini

758. *Dichrorampha simulana* (Wlsm.) 3404. *Dichrorampha simulana* (Wlsm.) – 29-V-2011 1.
770. *Grapholita lunatana* Wlsm. (3437. *Grapholita lunatana* Wlsm.) – 26-V-2002 1.



778. *Cydia ingrata* Heinr. (3460. *Cydia ingrata* (Heinr.)) – 28-V-2002 1.

EPERMENIIDAE – Fringe-tufted Moths

791. *Ochromolopis ramapoella* (Kft.) (2334. *Ochromolopis ramapoella* (Kft.)) – 18A-VI-2010 1 and 18B-VI-2010 1.

ALUCITIDAE – Many-plumed Moths

- 792-793. *Alucita* spp. (2313. *Alucita hexadactyla* L.) – 18C-VI-2010 1. This is one of several newly described species.

PTEROPHORIDAE – Plume Moths

Pterophoridae, Pterophorinae, Platyptiliini

800. *Gillmeria pallidactyla* (Haw.) (6107. *Gillmeria pallidactyla* (Haw.)) – 29A-VII-2009 1.

Pterophoridae, Pterophorinae, Platyptiliini

812. *Amblyptilia pica* (Wlsm.) (6118. *Amblyptilia pica* (Wlsm.)) (Geranium Plume Moth) – 28-V-2002 1.

PYRALIDAE – Pyralid Moths**Pyralidae, Epipaschiinae**

858. *Pococera asperatella* (Clem.) (5606. *Tetralopha asperatella* (Clem.)) (Maple Webworm Moth) – 6-VII-2004 2 and 18A-VI-2010 1.

Pyralidae, Phycitinae, Phycitini

864. *Myelopsis subtericella* (Rag.) 5718. *Myelopsis subtetricella* (Rag.) – 21-VI-2002 5, 18A-VI-2010 2 and 18B-VI-2010 1.

865. *Apomyelois bistriatella* (Hulst) (5721. *Apomyelois bistriatella* (Hulst)) – 6-VII-2004 2.

866. *Eulogia ochrifrontella* (Zell.) (5999. *Eulogia ochrifrontella* (Zell.)) (Broad-banded Eulogia Moth) – 29A-VII-2009 1.

870. *Vitula seratilineella* Rag. (6007c. *Vitula seratilineella* Rag.) – 18A-VI-2010 1.

890. *Meroptera pravella* (Grt.) (5787. *Meroptera pravella* (Grt.)) (Lesser Aspen Webworm) – 6-VII-2004 9, 18A-VI-2010 2 and 18B-VI-2010 1.

891. *Sciota basilaris* Zell. (5799. *Nephopterix basilaris* Zell.) – 6-VII-2004 1.

896. *Telethusia ovalis* (Pack.) (5812. *Telethusia ovalis* (Pack.)) – 29A-VII-2009 1.

901. *Pyla aenigmatica* Heinr. (5827. *Pyla aenigmatica* Heinr.) – 6-VII-2004 1.

903. *Pyla fusca* (Haw.) (5829. *Pyla fusca* (Haw.)) (Speckled Black Pyla Moth) – 6-VII-2004 1.

Dioryctria sp. – 29A-VII-2009 2.

920. *Zophodia grossulariella* (Hbn.) (5968. *Zophodia convolutella* (Hbn.)) (Gooseberry Fruitworm) – 28-V-2002 4, 21-VI-2002 1 and 7D-V-2007 1.

Pyralidae, Phycitinae, Anerastiini

930. *Anerastia lotella* (Hbn.) (6038. *Anerastia lotella* (Hbn.)) – 27-VIII-2002 1.

CRAMBIDAE – Snout Moths**Crambidae, Scopariinae**

935. *Scoparia biplagiata* (Wlk.) (4716. *Scoparia biplagiata* (Wlk.)) (Double-striped Scoparia Moth) – 6-VII-2004 1, 29A-VII-2009 1 and 29C-VII-2009 1.

Crambidae, Crambinae, Crambini

948. *Chrysoseuchia topiarius* (Zell.) (5391. *Chrysoseuchia topiaria* (Zell.)) (Cranberry Girdler) – 21-VI-2002 1, 9B-VIII-2003 1, 6-VII-2004 4 and 10-VI-2006 1.

953. *Crambus perlella* (Scop.) (5343a. *Crambus perlellus innotatellus* Wlk.) (Immaculate Grass-veneer Moth) – 27-VIII-2002 1 and 29A-VII-2009 1.

967. *Agriphila ruricolellus* (Zell.) (5399. *Agriphila ruricolella* (Zell.)) (Lesser Vagabond Sod Webworm Moth) – 12-VIII-2002 2, 9A-VIII-2003 1, 9B-VIII-2003 1 and 29B-VII-2009 1.

970. *Neodactria luteolellus* Clem. (5379. *Neodactria luteolella* Clem.) (Mottled Grass-veneer Moth) – 6-VII-2004 1.

Pediasia sp. – 27-VIII-2002 1. This is a female, probably of *Pediasia ericellus*.

978. *Pediasia ericellus* (B. & McD.) (5415. *Pediasia ericella* (B. & McD.)) – 6-VII-2004 2.
 979. *Pediasia abnaki* Klots (5416. *Pediasia abnaki* Klots) – 27-VIII-2002 1, 29A-VII-2009 1 and 29B-VII-2009 1.
 980. *Pediasia dorsipunctellus* (Kft.) (5417. *Pediasia dorsipunctella* (Kft.)) – 12-VIII-2002 2, 6-VII-2004 2, 29A-VII-2009 2 and 29B-VII-2009 1.

Crambidae, Acentropinae, Acentropini

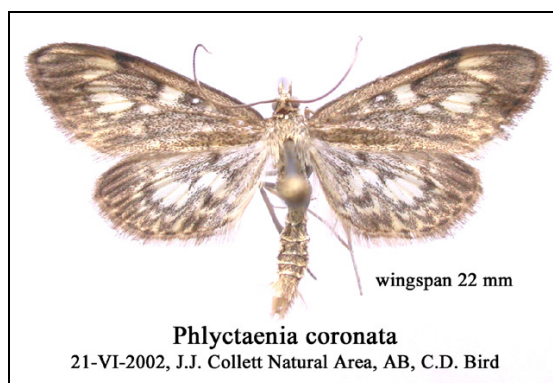
987. *Acentria ephemerella* (Denis & Schiff.) (5299. *Acentria ephemerella* (Denis & Schiffermüller)) (Water Veneer Moth) – 9A-VIII-2003 1, 9B-VIII-2003 1 and 29C-VII-2009 1. A new species for Alberta (Pohl et al. 2005), though it has now been found in numerous places in the province.

Crambidae, Acentropinae, Argyractini

991. *Petrophila kearfottalis* (B. & McD.) (4773. *Petrophila kearfottalis* (B. & McD.)) – 9A-VIII-2003 1.

Crambidae, Pyraustinae, Pyraustini

1012. *Perispasta caeculalis* Zell. (4951. *Perispasta caeculalis* Zell.) (Titian Peale's Pyralid Moth) – 6-VII-2004 1.



1013. *Anania coronata* (Hufn.) (4953. *Phlyctaenia coronata* (Hufn.)) (Crowned Phlyctaenia Moth) – 21-VI-2001 2, 6-VII-2004 2, 18A-VI-2010 2 and 18B-VI-2010 1.
 1015. *Anania mysippusalis* (Wlk.) (4957. *Mutuuraia mysippusalis* (Wlk.)) – 18A-VI-2010 1.
 1021. *Loxostege sticticalis* (L.) (5004. *Loxostege sticticalis* (L.)) (Beet Webworm) – 9A-VIII-2003 1 and 6-VII-2004 1.
 1025. *Loxostege cerealis* (Zell.) (5017. *Loxostege cerealis* (Zell.)) (Alfalfa Webworm Moth) – 28-VI-2002 1.
 1035. *Pyrausta fodinalis* (Led.) (5074. *Pyrausta fodinalis* (Led.)) – 9A-VIII-2003 1 and 9B-VIII-2003 1.

Crambidae, Pyraustinae, Spilomelini

1039. *Choristostigma plumbosignalis* (Fern.) (5128. *Choristostigma plumbosignalis* (Fern.)) – 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.

1045. *Udea itysalis* (Wlk.) (5099. *Udea itysalis* (Wlk.)) – 9B-VIII-2003 1.

1052. *Mecyna submedialis* (Grt.) (5135. *Mecyna submedialis* (Grt.) (Orange-toned Mecyna Moth)) – 12-VIII-2002 2.

HESPERIIDAE – Skippers

Hesperiidae, Eudaminae

1057. *Thorybes pylades* (Scud.) (3910. *Thorybes pylades* (Scudder)) (Northern Cloudywing) – 30-VI-2004 Adam Blake photo.

Hesperiidae, Pyrginae, Erynnini

1059. *Erynnis icelus* Scud. & Burg. (3945. *Erynnis icelus* Scudder & Burgess) (Dreamy Duskywing) – 28-V-2005 1 and 29-V-2011 1.

1061. *Erynnis persius* (Scud.) (3961. *Erynnis persius* (Scudder)) (Persius Duskywing) – 28-V-2005 1.

Hesperiidae, Hesperinae, Hesperini

1075. *Hesperia manitoba* Scud. (4020. *Hesperia comma assiniboia* (Lyman)) (Assiniboine Skipper) – 10-VIII-2003 adult photographed nectaring on *Hieracium* by Sylvia Glass.

PAPILIONIDAE – Swallowtail Butterflies

Papilionidae, Papilioninae, Papiliopini

1091. *Papilio canadensis* Roth. & Jord. (4176a. *Papilio glaucus canadensis* R. & J.) (Canadian Tiger Swallowtail) - 28-V-2005 3 SR and 10-VI-2006 2 SR

PIERIDAE – White and Sulphur Butterflies

Pieridae, Coliadinae

1095b. *Colias philodice eriphyle* Edw, (4209. *Colias philodice* Godt.) (Clouded Sulphur) – 12-VIII-2002 SR, 10-VIII-2003 1 SR and 28-V-2005 4 SR.

Pieridae, Pierinae, Pierini

1116a. *Pontia occidentalis occidentalis* Reak. (4194. *Pontia occidentalis* (Reak.)) (Western Checkered White) – 26-V-2002 1 SR and 10-VIII-2003 1.

1113. *Pieris oleracea oleracea* (Harr.) (4195d. *Pieris napi oleracea* (Harr.)) (Mustard White) – 12-VIII-2002 1, 28-V-2005 1 SR and 10-VI-2006 1.

LYCAENIDAE – Blues and Coppers

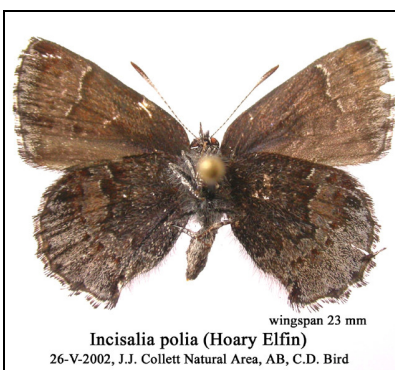
Lycaenidae, Lycaenini

1127. *Lycaena helloides* (Bd.) (4262. *Lycaena helloides* (Bd.)) (Purplish Copper) – 4-IX-2004, Adam Blake photo.

Lycaenidae, Theclinae, Eumaeini

1132. *Satyrium titus immaculosus* (Comstock) (4275. *Harkenclenus titus* (F.)) (Coral Hairstreak) – 30-VII-2004, Adam Blake photo.

1133. *Satyrium liparops* (Leconte) (4285. *Satyrium liparops* (Leconte)) (Striped Hairstreak) – 26-VII-2004, Adam Blake photo.



1138. *Incisalia polios obscurus* Ferris (4324. *Incisalia polia* Cook & Watson) (Hoary Elfin) – 26-V-2002 1.

Lycaenidae, Polyommatae, Polyommataini

1142. *Cupido amyntula albrighti* (Clench) (4362b. *Everes amyntula* (Bdv.)) (Western Tailed Blue) - 10-VI-2006 1.

1143. *Celastrina lucia* (Kby.) (4363. *Celastrina ladon* (Cram.)) (Spring Azure) – 26-V-2002 1 and 28-V-2005 2.

1148. *Glaucopsyche lygdamus afra* (Edw.) (4372a. *Glaucopsyche lygdamus couperi* Grt.) (Silvery Blue) - 28-V-2005 2 SR.

NYMPHALIDAE – Brush-footed Butterflies



Purple Fritillary and Assiniboine Skipper (10 Aug 2003) and Monarch (30 Jun 2007) photographs by Sylvia Glass.

Nymphalidae, Danainae, Danaini - *Monarchs*



1157. *Danaus plexippus* (L.) (4614. *Danaus plexippus* (L.)) (Monarch) – on 25 Jul 1998, the author photographed a Monarch caterpillar on Low Milkweed (*Asclepias ovalifolia*) in the J.J. Collett Natural Area. On 30 Jun 2007, an adult was photographed on Low Milkweed by Sylvia Glass. This species is uncommon in Alberta, especially as its preferred foodplant, Showy Milkweed, primarily occurs in eastern North America. The species has not been seen in the area since that time.

Nymphalidae, Heliconiinae, Argynnini

1164. *Boloria eunomia* (Esp.) (4463. *Clossiana eunomia* (Esper)) (Bog Fritillary) – 10-VI-2006 1.

1166. *Boloria bellona jenistai* Stall. & Turn. (4465b. *Boloria bellona* (Fabr.)) (Meadow Fritillary) – 28-V-2005 1.

1173. *Boloria chariclea grandis* (B. & Benj.) (4475. *Boloria chariclea* (Schneider)) (Purple Fritillary) – 12-VIII-2002 1 and 10-VIII-2003 1; also a photograph by Sylvia Glass.

1174. *Speyeria cybele pseudocarpenteri* Cherm. & Cherm.) (4450c. *Speyeria cybele pseudocarpenteri* (F. & R. Chermock)) (Great Spangled Fritillary) – 12-VIII-2002 1.

1181. *Speyeria atlantis hollandi* (Cherm. & Cherm.) (4459b. *Speyeria atlantis hollandi* (F. & R. Chermock)) – 10-VIII-2003 1.

1182c. *Speyeria hesperis dennisi* dos Passos (4459s. *Speyeria atlantis lais* (Edw.)) (Northwestern Fritillary) – 12-VIII-2002 1.

Nymphalidae, Nymphalinae, Nymphalini

1189. *Aglais milberti* (Godt.) (4433. *Aglais milberti* (Godt.)) (Milbert's Tortoiseshell) – 26-IX-2004 1 SR.

1192. *Nymphalis antiopa hyperborea* (Seitz) (4432. *Nymphalis antiopa* (L.)) (Mourning Cloak) – 26-V-2002 4 SR and 10-VIII-2003 1 SR.

1198a. *Polygonia faunus faunus* (Edw.) (4423. *Polygonia faunus* (Edw.)) (Green Comma) – 26-V-2002 2 and 27-IX-2008 1.

Nymphalidae, Nymphalinae, Melitaeini

1208. *Phyciodes cocyta* (Cram.) (4481.1. *Phyciodes cocyta* (Cram.)) (Northern Pearl Crescent) – 22-VIII-2002 2.

SATYRIDAE – Browns and Alpines

Satyridae, Satyrinae, Satyrini

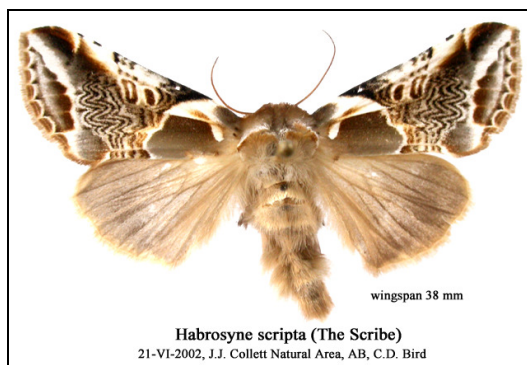
1214. *Cercyonis pegala ino* Hall (4587. *Cercyonis pegala* (F.)) (Common Wood Nymph) – 12-VIII-2002 1 and 10-VIII-2003 1 SR.

1218. *Erebia epipsodea* Butler (4599. *Erebia epipsodea* Butler) (Common Alpine) – 26-V-2002 200+ SR, 28-V-2005 1 and 10-VI-2006 30 SR.

1229. *Oeneis macounii* (Edw.) (4605. *Oeneis macounii* (Edw.)) (Macoun's Arctic) – 30-VI-2004 Adam Blake photo and 28-V-2005 2.

DREPANIDAE – Drepanid Moths

Drepanidae, Thyatirinae, Habrosyninae



1231. *Habrosyne scripta* (Gosse) (6235. *Habrosyne scripta* (Gosse)) (The Scribe or Lettered Habrosyne) – 21-VI-2002 1 and 6-VII-2004 1.

1232. *Euthyatira pudens* (Gn.) (6240. *Euthyatira pudens* (Gn.)) (Dogwood Thyatira) - 7B-V-2007 1 and 18A-VI-2010 1.

Drepanidae, Thyatirinae, Ceranemotini

1234. *Ceranemota albertae* Clarke (6248. *Ceranemota albertae* Clarke) (Alberta Lutestring) – 27-VIII-2002 2.

Drepanidae, Drepaninae, Drepanini

1236. *Drepana arcuata* Wlk. (6251. *Drepana arcuata* Wlk.) (Arched Hooktip) – 6-VII-2004 1.

1237. *Drepana bilineata* (Pack.) (6252. *Drepana bilineata* (Pack.)) (Scalloped Hook-tip) – 28-V-2002 1.

URANIIDAE – Uraniid Moths**Uraniidae, Epipleminae**

1240. *Callizia amorata* (Pack.) (7650. *Callizia amorata* (Pack.)) (Gray Scoopwing) – 29A-VII-2009 1 and 29C-VII-2009 1.

GEOMETRIDAE – Inchworm or Geometrid Moths**Geometridae, Larentiinae, Cidariini**

1241. *Dysstroma citrata* (L.) (7182. *Dysstroma citrata* (L.)) (Dark Marbled Carpet) – 9B-VIII-2003 1 and 29C-VII-2009 1.

1252. *Eulithis propulsata* (Wlk.) (7199. *Eulithis propulsata* (Wlk.)) (Currant Eulithis) – 27-VIII-2002 1, 9B-VIII-2003 1 and 29A-VII-2009 1.

1253. *Eulithis testata* (L.) (7201. *Eulithis testata* (L.)) (Chevron Moth) – 27-VIII-2002 1 and 9A-VIII-2003 1.

1255. *Eulithis flavibrunneata* (McD.) (7205. *Eulithis flavibrunneata* (McD.)) – 27-VIII-2002 1 and 9B-VIII-2003 1.

1256. *Eulithis explanata* (Wlk.) (7206. *Eulithis explanata* (Wlk.)) (White Eulithis) – 29A-VII-2009 1.

1257. *Eulithis xyliana* (Hulst) (7207. *Eulithis xyliana* (Hulst)) (The Phoenix) – 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.

1258. *Antepirrhoe semiatrata* (Hulst) (7210. *Eustroma semiatrata* (Hulst)) – 18A-VI-2010 1.

Geometridae, Larentiinae, Hydriomenini

1271. *Hydriomena ruberata* (Frey.) (7254. *Hydriomena ruberata* (Frey.)) – 29C-VII-2009 1 and 18A-VI-2010 1.

1273. *Hydriomena furcata* (Thunb.) (7257. *Hydriomena furcata* (Thunb.)) (Common Highflyer) – 27-VIII-2002 2, 9A-VIII-2003 1 and 9B-VIII-2003 2.

1286. *Spargania luctuata* (D. & S.) (7313. *Spargania luctuata* (D. & S.)) (White-bordered Black) – 6-VII-2004 1.

1287. *Perizoma basaliata* (Wlk.) (7316. *Perizoma basaliata* (Wlk.)) (Square-patched Carpet) – 12-VIII-2002 1, 29A-VII-2009 1 and 29C-VII-2009 1.

1290. *Anticlea vasiliata* Gn. (7329. *Anticlea vasiliata* Gn.) (Variable Carpet) – 26-V-2002 4, 28-V-2002 4, 21-VI-2002 1, 7A-V-2007 2, 7C-V-2007 1, 7D-V-2007 1 and 3-V-2008 1.

Geometridae, Larentiinae, Stamnodini

1292. *Stamnodes topazata* (Stkr.) (7349. *Stamnodes topazata* (Stkr.)) (Topaz Carpet) – 26-V-2002 1.

Geometridae, Larentiinae, Xanthorhoini

1295. *Xanthorhoe abrasaria* (H.-S.) (7370. *Xanthorhoe abrasaria* (H.-S.)) – 1-VII-2004 2.
 1304. *Xanthorhoe decoloraria* (Esper) (7384. *Xanthorhoe munitata* (Hbn.)) – 29A-VII-2009 1 and 18A-VI-2010 1.
 1306. *Xanthorhoe ferrugata* (Cl.) (7388. *Xanthorhoe ferrugata* (Cl.)) (Red Twin-spot) – 18C-VI-2010 3.
 1307. *Xanthorhoe lacustrata* (Gn.) (7390. *Xanthorhoe lacustrata* (Gn.)) (Toothed Brown Carpet) – 26-V-2002 1.
 1308. *Epirrhoe alternata* (Müller) (7394. *Epirrhoe alternata* (Müller)) (White-banded Toothed Carpet) – 29A-VII-2009 1.
 1309. *Epirrhoe plebeculata* (Gn.) (7395. *Epirrhoe plebeculata* (Gn.)) (Orange-winged Carpet) – 3-V-3008 2.
 1310. *Epirrhoe sperryi* Herbulot (7396. *Epirrhoe sperryi* Herbulot) (Small Argent and Sable) – 28-V-2005 1.
 1311. *Euphyia unangulata* (Haw.) (7399a. *Euphyia unangulata intermediata* (Gn.)) (Sharp-angled Carpet) – 21-VI-2002 1, 6-VII-2004 1 and 29B-VII-2009 1.
 1312. *Zenophleps alpinata* Cass. (7408. *Zenophleps alpinata* Cass.) – 27-VIII-2002 3, 9A-VIII-2003 1, 9B-VIII-2003 1, 29A-VII-2009 1 and 29C-VII-2009 1.

Geometridae, Larentiinae, Asthenini

1319. *Venusia pearsalli* (Dyar) (7429. *Venusia pearsalli* (Dyar)) (Pearsall's Wave) – 26-V-2002 1 and 7D-V-2007 2.

Geometridae, Larentiinae, Eupitheciini

1326. *Horisme intestinata* (Gn.) (7445. *Horisme intestinata* (Gn.)) (Brown Bark Carpet) – 6-VII-2004 1 and 29A-VII-2009 1.
Eupithecia sp. – 29A-VII-2009 1, 18A-VI-2010 2, 18B-VI-2010 3 and 18C-VI-2010 2.
 1332. *Eupithecia columbiata* (Dyar) (7459. *Eupithecia columbiata* (Dyar)) – 28-V-2002 1.
 1346. *Eupithecia ravocostaliata* Pack. (7605. *Eupithecia ravocostaliata* Pack.) (Great Variegated Pug) – 28-V-2002 2.
 1347. *Eupithecia lariciata* Frey. (7489. *Eupithecia lariciata* Freyer) – 21-VI-2002 1.
 1355. *Eupithecia satyrata* (Hbn.) (7520c. *Eupithecia satyrata dodata* Tayl.) – 21-VI-2002 1 and 6-VII-2004 1.
 1363. *Eupithecia cimicifugata* Pears. (7524. *Eupithecia cimicifugata* Pears.) – 6-VII-2004 1.
 1371. *Eupithecia tripunctaria* H.-S. (7488. *Eupithecia tripunctaria* H.-S.) – 6-VII-2004 1.

Geometridae, Larentiinae, Lobophorini

1374. *Cladara limitaria* (Wlk.) (7637. *Cladara limitaria* (Wlk.)) (Mottled Gray Carpet) – 28-V-2002 3, 19B-IV-2005 1, 7A-V-2007 1 and 7C-V-2007 2.
1375. *Cladara atroliturata* (Wlk.) (7639. *Cladara atroliturata* (Wlk.)) (The Scribbler) - 7D-V-2007 2.
1376. *Lobophora nivigerata* Wlk. (7640. *Lobophora nivigerata* Wlk.) (Two-lined Aspen Looper) – 6-VII-2004 1 and 18A-VI-2010 1.

Geometridae, Sterrhinae, Sterrhini

1379. *Idaea rotundopennata* (Pack.) (7125. *Idaea rotundopennata* (Pack.)) (Round-winged Wave) – 21-VI-2002 3.

Geometridae, Sterrhinae, Cosymbiini

1380. *Cyclophora pendularia* (Gn.) (7139. *Cyclophora pendularia* (Gn.)) (Pearly-grey Wave or Sweetfern Geometer) – 18C-VI-2010 1.

Geometridae, Sterrhinae, Scopulini

1383. *Scopula limboundata* (Haw.) (7159. *Scopula limboundata* (Haw.)) (Large Lace-border) – 6-VII-2004 1.
1384. *Scopula ancellata* (Hulst) (7162. *Scopula ancellata* (Hulst)) (Pointed-winged Wave) – 29A-VII-2009 1.
1388. *Scopula frigidaria* Mösch. (7166. *Scopula frigidaria* Mösch.) (Frigid Wave) – 6-VII-2004 3.

Geometridae, Ennomiinae, Cassymini

1405. *Nematocampa resistaria* (H.-S.) (7009. *Nematocampa limbata* (Haw.)) (Horned Spanworm Moth) – 27-VIII-2002 1.

Geometridae, Ennomiinae, Cassymini

1406. *Protitame virginalis* (Hulst) (6270. *Protitame virginalis* (Hulst) (Virgin Moth)) – 21-VI-2002 1 and 30-V-2004 1.

Geometridae, Ennomiinae, Macariini

1421. *Speranza loricaria* (Hulst) (6290. *Itame loricaria* (Evers.)) (False Bruce Spanworm) – 6-VII-2004 4 and 29A-VII-2009 1.
1429. *Macaria signaria* (Hbn.) (6344. *Semiothisa signaria* (Hbn.)) (Pale Marked Angle) – 6-VII-2004 2, 26-V-2005 1, 28-V-2006 1 and 10-VI-2006 2.
1433. *Digrammia denticulata* Grt. (6373. *Semiothisa denticulata* Grt.) (Striped Granite) - 27-V-2007 1.

Geometridae, Ennomiinae, Boarmiini

1455. *Ectropis crepuscularia* (D. & S.) (6597. *Ectropis crepuscularia* (D. & S.)) (Saddleback Looper) – 26-V-2002 1, 28-V-2002 4 and 7C-V-2007 1.

1456. *Protoarmia porcelaria* (Gn.) (6598. *Protoarmia porcelaria* (Gn.)) (Speckled Carpet) – 6-VII-2004 1 and 29C-VII-2009 1.

Geometridae, Ennomiinae, Bistonini

1461. *Lycia ursaria* (Wlk.) (6651. *Lycia ursaria* (Wlk.)) (The Bear or Stout Spanworm Moth) - 19A-IV-2000 1 and 7C-V-2007 1.

Geometridae, Ennomiinae, Baptini

1468. *Lomographa semiclarata* (Wlk.) (6666. *Lomographa semiclarata* (Wlk.)) (Bluish Spring Moth) – 26-V-2002 1, 30-V-2004 1, 27-V-2007 1 and 30-V-2009 1.

Geometridae, Ennomiinae, Caberini

1472. *Cabera erythemaria* Gn. (6677. *Cabera erythemaria* Gn.) (Yellow-dusted Cream Moth) – 9A-VIII-2003 1, 9B-VIII-2003 1, 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.

1473. *Cabera variolaria* Gn. (6678. *Cabera variolaria* Gn.) (Pale-striped Willow Spanworm) – 29A-VII-2009 1.

Geometridae, Ennomiinae, Angeronini

1483. *Euchlaena johnsonaria* (Fitch) (6729. *Euchlaena johnsonaria* (Fitch)) (Johnson's Euchlaena) – 6-VII-2004 2.

1486. *Euchlaena tigrinaria* (Gn.) (6737. *Euchlaena tigrinaria* (Gn.)) (Mottled Euchlaena) – 6-VII-2004 3.

1488. *Xanthotype sospeta* (Drury) (6743. *Xanthotype sospeta* (Drury)) (Crocus Geometer) – 6-VII-2004 3.

Geometridae, Ennomiinae, Azelini

1490. *Pero morrisonaria* (Hy. Edw.) (6755. *Pero morrisonaria* (Hy. Edw.)) (Lesser Umber) – 21-VI-2002 1, 6-VII-2004 2 and 18A-VI-2010 1.

Geometridae, Ennomiinae, Campaeini

1494. *Campaea perlata* (Gn.) (6796. *Campaea perlata* (Gn.)) (Pale Beauty or Fringed Looper Moth) – 9B-VIII-2003 1, 29A-VII-2009 1 and 29C-VII-2009 1.

Geometridae, Ennomiinae, Epirranthini

1497. *Spodolepis substriaria* (Hulst) (6799. *Spodolepis substriaria* (Hulst)) - 7B-V-2007 1 and 7C-V-2007 1.

Geometridae, Ennomiinae, Anagogini

1501. *Selenia alciphearia* (Wlk.) (6817. *Selenia alciphearia* Wlk.) (Brown-tipped Thorn or Northern Selenia) – 28-V-2002 1.
1502. *Selenia kentaria* (G. & R.) (6818. *Selenia kentaria* (G. & R.)) (Kent's Geometer) – 28-V-2002 1.
1503. *Metanema inatomaria* Gn. (6819. *Metanema inatomaria* Gn.) (Pale Metanema) – 6-VII-2004 1.
1504. *Metanema inatomaria* Wlk. (6820. *Metanema determinata* Wlk.) (Dark Metanema) – 6-VII-2004 1.
1506. *Metarranthis duaria* (Gn. (6822. *Metarranthis duaria* (Gn.)) (Ruddy Metarranthis) – 21-VI-2002 1, 18A-VI-2010 1, 18B-VI-2010 1 and 18C-VI-2010 1.
1507. *Probole alienaria* (H.-S.) (6837. *Probole alienaria* (H.-S.)) – 18B-VI-2010 1.
1508. *Probole amicaria* (H.-S.) (6838. *Probole amicaria* (H.-S.)) (Friendly Probole) – 21-VI-2002 1.
1510. *Plagodis phlogosaria* (Gn.) (6842. *Plagodis phlogosaria* (Gn.)) (Straight-lined Plagodis) – 28-V-2002 1.
1511. *Plagodis alcoolaria* (Gn.) (6844. *Plagodis alcoolaria* (Gn.)) (Hollow-spotted Plagodis) – 6-VII-2004 1.

Geometridae, Ennomiinae, Ourapterygini

1513. *Caripeta divisata* Wlk. (6863. *Caripeta divisata* Wlk.) (Gray Spruce Looper) – 6-VII-2004 4.
1522. *Sicya macularia* (Harr.) (6912. *Sicya macularia* (Harr.)) (Pink-bordered Yellow) – 9B-VIII-2003 1.
1531. *Prochoerodes lineola* (Göze) (6982. *Prochoerodes transversata* (Drury)) (Large Maple Spanworm Moth) – 27-VIII-2002 2, 9A-VIII-2003 1 and 9B-VIII-2003 1.

LASIOCAMPIDAE – Lappet Moths**Lasiocampidae, Lasiocampinae, Gastropachini**

1536. *Phyllodesma americana* (Harr.) (7687. *Phyllodesma americana* (Harr.)) (Lappet Moth) – 28-V-2002 2, 7C-V-2007 1, 7D-V-2007 1 and 18A-VI-2010 1.

SATURNIDAE Large Silkworm Moths**Saturniidae, Saturniinae, Saturniini**

1542. *Antheraea polyphemus* (Cram.) (7757. *Antheraea polyphemus* (Cram.)) (Polyphemus Moth) – 21-VI-2002 1.

SPHINGIDAE – Sphinx Moths**Sphingidae, Smerinthinae, Smerinthini**

1553. *Smerinthus jamaicensis* (Drury) (7821. *Smerinthus jamaicensis* (Drury)) (Twin-spotted Sphinx) – 21-VI-2002 1 and 18A-VI-2010 1.

1554. *Smerinthus cerisyi* Kby. (7822. *Smerinthis cerisyi* Kby.) (One-eyed Sphinx) – 28-V-2002 1 SR, 21-VI-2002 1, 6-VII-2004 17 SR, 29C-VII-2009 1, 18A-VI-2010 1 and 18B-VI-2010 2.
 1556. *Paonias excaecatus* (J.E. Sm.) (7824. *Paonias excaecatus* (J.E. Smith)) (Blinded Sphinx) – 6-VII-2004 1.

Sphingidae, Macroglossinae, Dilophonotini

1562. *Hemaris diffinis* (Bdv.) (7855. *Hemaris diffinis* (Bdv.)) (Snowberry Clearwing) – 28-V-2005 1.

NOTODONTIDAE – Prominent Moths

Notodontidae, Pygaerinae

1572. *Clostera albosigma* Fitch (7895. *Clostera albosigma* Fitch) (Sigmoid Prominent) – 28-V-2002 1, 21-VI-2002 1, 29A-VII-2009 1, 18A-VI-2010 1, 18B-VI-2010 1 and 18C-VI-2010 1.
 1575. *Clostera apicalis* (Wlk.) (7901. *Clostera apicalis* (Wlk.)) (Common Chocolate-tip or Red-marked Tentmaker) – 18B-VI-2010 1.

Notodontidae, Notodontinae, Notodontini

1576. *Pheosia rimosa* Pack. (7922. *Pheosia rimosa* Pack.) (Black-rimmed Prominent) – 6-VII-2004 2.
 1577. *Odontosia elegans* (Stkr.) (7924. *Odontosia elegans* (Stkr.)) (Elegant Prominent) – 6-VII-2004 1 and 18A-VI-2010 1.

Notodontidae, Notodontinae, Dicranurini

1580. *Gluphisia septentrionis* Wlk. (7931. *Gluphisia septentrionis* Wlk.) (Small Pebble or Common Gluphisia) – 21-VI-2002 1 (19 SR) and 6-VII-2004 1.
 1586. *Furcula scolopendrina* (Bdv.) (7940. *Furcula scolopendrina* (Bdv.)) (Poplar Kitten) – 21-VI-2002 2, 6-VII-2004 2, 18B-VI-2010 1 and 18C-VI-2010 1.

Notodontidae, Phalerinae

1589. *Nadata gibbosa* (J.E. Sm.) (7915. *Nadata gibbosa* (J.E. Smith)) (White-dotted Prominent) – 6-VII-2004 3.

Notodontidae, Heterocampinae

1591. *Schizura unicornis* (J.E. Sm.) (8007. *Schizura unicornis* (J.E. Smith)) (Variegated Prominent) – 6-VII-2004 2.

EREBIDAE – Quadrifine Noctuids

Erebidae, Lymantriinae, Orgyiini

1600. *Dasychira vagans* (B. & McD.) (8294. *Dasychira vagans* (B. & McD.)) (Variable Tussock Moth) – 29A-VII-2009 1 and 29C-VII-2009 1.

Erebidae, Arctiinae, Lithosiini

1606. *Hypoprepia miniata* (Kby.) (8089. *Hypoprepia miniata* (Kby.)) (Scarlet-winged Lichen Moth) – 9A-VIII-2003 1.
 1608. *Clemensia albata* Pack. (8098. *Clemensia albata* Pack.) (Little White Lichen Moth) – 6-VII-2004 1 and 29A-VII-2009 1.
 1609. *Eilema bicolor* (Grt.) (8043. *Eilema bicolor* (Grt.)) (Bicolored Moth) – 29A-VII-2009 1 and 18B-VI-2010 1.

Erebidae, Arctiinae, Arctiini

1613. *Virbia ferruginea* (Wlk.) (8123. *Holomelina ferruginea* (Wlk.)) (Rusty Holomelina) – 27-VIII-2002 1, 6-VII-2004 1, 29A-VII-2009 1 and 29B-VII-2009 1.
 1619. *Grammia virgo* (L.) (8197. *Grammia virgo* (L.)) (Virgin Tiger Moth) – 6-VII-2004 2.
 1620. *Grammia parthenice* (Kby.) (8196. *Grammia parthenice* (W. Kirby)) (Parthenice Tiger Moth) – 9A-VIII-2003 1, 29A-VII-2009 1 and 29B-VII-2009 1.
 1631. *Platarctia parthenos* (Harr.) (8162. *Platarctia parthenos* (Harr.)) (St. Lawrence Tiger Moth) – 21-VI-2002 2, 6-VII-2004 8 and 18C-VI-2010 1.
 1635. *Phragmatobia assimilans* Wlk.) (8158. *Phragmatobia assimilans* Wlk.) (Large Ruby Tiger Moth) – 28-V-2002 1.
 1639. *Spilosoma congrua* (Wlk.) (8134. *Spilosoma congrua* (Wlk.)) – 21-VI-2002 1, 6-VII-2004 1, 18B-VI-2010 1 and 18C-VI-2010 1.
 1640. *Spilosoma dubia* (Wlk.) (8136. *Spilosoma dubia* (Wlk.)) (Dubious Tiger Moth) – 21-VI-2002 1.
 1641. *Spilosoma virginica* (F.) (8137. *Spilosoma virginica* (F.)) (Virginian Tiger Moth or Yellow Woolly Bear) – 21-VI-2002 1 and 26-IX-2004 last instar caterpillar.



Yellow Woolly Bear Caterpillar, September 26, 2004

Erebidae, Arctiinae, Arctiini

1648. *Gnophaela vermiculata* (Grt.) (8037. *Gnophaela vermiculata* (Grt.)) (Green Lattice or Police Car Moth) – 12-VIII-2002 1.

Erebidae, Arctiinae, Arctiini

1649. *Lophocampa maculata* Harr. (8214. *Lophocampa maculata* Harr.) (Spotted Tiger Moth) – 6-VII-2004 1 and 18B-VI-2010 1.

1652. *Ctenucha virginica* (Esp.) (8262. *Ctenucha virginica* (Esp.)) (Virginia Ctenucha) – 18A-VI-2010 1.

Erebidae, Herminiinae

1654. *Idia americalis* (Gn.) (8322. *Idia americalis* (Gn.)) (American Snout) – 21-VI-2002 1, 9A-VIII-2003 1, 6-VII-2004 2, 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.

1663. *Chytolita petrealis* Grt. (8356. *Chytolita petrealis* Grt.) (Lesser Luteous Snout) – 21-VI-2002 4, 6-VII-2004 3 and 29A-VII-2009 1.

1666. *Phalaenostola metonalis* (Wlk.) (8362. *Phalaenostola metonalis* (Wlk.)) (Pale Phalaenostola or Tufted Snout) – 12-VIII-2002 1 and 29C-VII-2009 1.

1669. *Palthis angulalis* (Hbn.) (8397. *Palthis angulalis* (Hbn.)) (Angulated Snout Moth) – 6-VII-2004 1.

Erebidae, Erebinae, Euclidiini

1698. *Euclidea cuspea* (Hbn.) (8731. *Euclidea cuspea* (Hbn.)) (Pointed Grass Moth) – 28-V-2005 1.

1700. *Caenurgina crassiuscula* (Haw.) (8738. *Caenurgina crassiuscula* (Haw.)) (Clover Looper Moth) – 28-V-2002 1, 21-VI-2002 1. 30-V-2004 3, 28-V-2005 1 and 28-V-2006 6 SR.



A mating pair of *Caenurgina crassiuscula*, May 30, 2004

Erebidae, Erebinae, Ophiusini

1703. *Zale minerea* (Gn.) (8697. *Zale minerea* (Gn.)) – 18A-VI-2010 1.

Erebidae, Erebinae, Catocalini

1705. *Catocala relictata* Wlk. (8803. *Catocala relictata* Wlk.) (White Underwing) – 9A-VIII-2003 1.
 1706. *Catocala unijuga* Wlk. (8805. *Catocala unijuga* Wlk.) (Once-married Underwing) – 9A-VIII-2003 1.
 1711. *Catocala briseis* Edw. (8817. *Catocala briseis* Edw.) (Briseis Underwing) – 27-VIII-2002 1.

NOCTUIDAE – Owlets or Noctuid Moths**Noctuidae, Chloephorinae, Sarrothripini**

1722. *Nycteola frigidana* (Wlk.) (8975. *Nycteola frigidana* (Wlk.)) (Frigid Owlet or Willow Leaf-tier) - 7D-V-2007 1.

Noctuidae, Plusiinae, Plusiini

1744. *Autographa ampla* (Wlk.) (8923. *Autographa ampla* (Wlk.)) (Broken-banded Y or Large Looper Moth) – 29B-VII-2009 1.

Noctuidae, Eustrotiinae

1767. *Protodeltote albidula* (Gn.) (9048. *Lithacodia albidula* (Gn.)) (Common Midget) – 21-VI-2002 3, 6-VII-2004 1 and 10-VI-2006 1, 29A-VII-2009 1, 29C-VII-2009 1, 18A-VI-2010 1, 18B-VI-2010 1 and 18C-VI-2010 1.

Noctuidae, Dilobinae

1778. *Raphia frater* Grt. (9193. *Raphia frater* Grt.) (The Brother) – 6 VII-2004 1, 18A-VI-2010 1 and 18B-VI-2010 1.

Noctuidae, Acronictinae

1783. *Acronicta vulpina* (Grt.) (9206. *Acronicta vulpina* (Grt.)) (Poplar Dagger Moth) – 18A-VI-2010 2 and 18C-VI-2010 1.
 1784. *Acronicta innotata* Gn. (9207. *Acronicta innotata* Gn.) (Unmarked Dagger Moth) – 6-VII-2004 1.
 1787. *Acronicta grisea* (Wlk.) (9212. *Acronicta grisea* (Wlk.)) (Gray Dagger Moth) – 6-VII-2004 1, 18A-VI-2010 2 and 18B-VI-2010 2.
 1790. *Acronicta superans* Gn. (9226. *Acronicta superans* Gn.) (The Chieftain Dagger Moth) – 18B-VI-2010 1.
 1793. *Acronicta fragilis* (Gn.) (9241. *Acronicta fragilis* (Gn.)) (Fragile Dagger Moth) – 6 VII-2004 1, 18A-VI-2010 2 and 18C-VI-2010 2.
 1794. *Acronicta impleta* (Wlk.) (9257. *Acronicta impleta* (Wlk.)) (Yellow-haired Dagger Moth) – 18A-VI-2010 1.
 1796. *Acronicta impressa* Wlk. (9261. *Acronicta impressa* Wlk.) (Willow Dagger Moth) – 28-V-2002 1.

Noctuidae, Amphipyridae, Psaphidini

1821. *Feralia comstocki* (Grt.) (10008. *Feralia comstocki* (Grt.)) Comstock's Sallow) - 7C-V-2007 1 and 7D-V-2007 2.

Noctuidae, Oncocnemidinae

1828. *Pleromelloida conserta* (Grt.) (10028. *Pleromelloida obliquata* (Sm.)) (Oblique Rover) – 28-V-2002 1, 7C-V-2007 2 and 7D-V-2007 1.

1853. *Sympistis chionanthi* (Sm.) (10067. *Adita chionanthi* (J. E. Sm.)) (Fringed Tree Sallow) – 9A-VIII-2003 1.

Noctuidae, Noctuinae, Caradrini

1905. *Caradrina montana* (Bremer) (9656. *Platyperigea montana* (Bremer)) (Civil Rustic) – 27-VIII-2002 1.

1906. *Proxenus miranda* (Grt.) (9647. *Proxenus miranda* (Grt.)) (Glistening Rustic) – 6-VII-2004 1.

1907. *Proxenus mendosa* McD. (9649. *Proxenus mendosa* McD.) – 27-VIII-2002 1.

Noctuidae, Noctuinae, Phlogophorini

1909. *Euplexia benesimilis* McD. (9545. *Euplexia benesimilis* McD.) (American Angle Shades) – 18C-VI-2010 1.

Noctuidae, Noctuinae, Apameini

1924. *Apamea commoda* (Hufn.) (9359. *Apamea commoda* (Wlk.)) (Southern Quaker) – 6-VII-2004 3 and 29B-VII-2009 1.

1930. *Apamea scoparia* Mik., Must. & Laf. (9365. *Agroperina lateritia* (Hufn.)) (Red-winged Quaker) – 6-VII-2004 2 and 29B-VII-2009 1.

1931. *Apamea cogitata* (Sm.) (9367a. *Apamea dubitans cogitata* (Sm.)) (Red-winged Quaker) – 29A-VII-2009 1.

1932. *Apamea inficita* (Wlk.) (9369. *Apamea inficita* (Wlk.)) (Inficita Quaker) – 12-VIII-2002 1, 27-VIII-2002 1, 9A-VIII-2003 1, 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.

1944. *Oligia mactata* (Gn.) (9419. *Oligia mactata* (Gn.)) (Prairie Quaker) – 27-VIII-2002 1.

1945. *Oligia illocata* (Wlk.) (9420. *Oligia illocata* (Wlk.)) (Wandering Quaker) – 27-VIII-2002 1.

1946. *Neoligia subjuncta* (Sm.) (9412. *Oligia laevigata* (Sm.)) (Short-cloaked Quaker) – 6-VII-2004 1 and 29A-VII-2009 1.

1954. *Hypocoena inquinata* (Gn.) (9437. *Chortodes inquinata* (Gn.)) (Sordid Wainscot) – 29A-VII-2009 1.

1962. *Amphipoea americana* (Speyer) (9457. *Amphipoea* prob. *americana* (Speyer)) (American Ear-moth) – 27-VIII-2002 2 and 9A-VIII-2003 1.

Noctuidae, Noctuinae, Xylenini

1972. *Hyppa contrasta* McD. (9579. *Hyppa contrasta* McD.) (Common Hyppa or Cranberry Cutworm) – 6-VII-2004 1 and 29A-VII-2009 1.
1976. *Xylena curvimacula* (Morr.) (9874. *Xylena curvimacula* (Morr.)) (Dot and Dash Swordgrass Moth) – 28-V-2002 2, 19A-IV-2005 1, 19B-IV-2005 2, 7C-V-2007 1 and 7D-V-2007 1.
1978. *Xylena cineritia* (Grt.) (9876. *Xylena cineritia* (Grt.)) (Western Swordgrass Moth) – 19A-IV-2005 2, 19B-IV-2005 1 and 7D-V-2007 1.
1981. *Homoglaea hircina* Morr. (9881. *Homoglaea hircina* Morr.) (Goat Sallow) – 19A-IV-2005 2 and 19B-IV-2005 1.
1983. *Litholomia napaea* (Morr.) (9884. *Litholomia napaea* (Morr.)) (Dark Gray Peasant) - 7C-V-2007 1 and 7D-V-2007 1.
1988. *Lithophane tepida* Grt. (9909. *Lithophane tepida* Grt.) (Dowdy Pinion) - 7D-V-2007 1.
1991. *Lithophane fagina* Morr. (9917. *Lithophane fagina* Morr.) (Beech Pinion) – 19A-IV-2005 1.
1999. *Eucirroedia pampina* (Gn.) (9952. *Eucirroedia pampina* (Gn.)) (Scalloped Sallow) – 27-VIII-2002 1.
2003. *Anathix puta* (Grt. & Rob. (9962. *Anathix puta* (Grt. & Rob.)) (Puta Sallow) – 27-VIII-2002 1, 9A-VIII-2003 1 and 9B-VIII-2003 1.
2008. *Brachylomia populi* (Stkr.) (9993. *Brachylomia populi* (Stkr.)) (Cloaked Peasant) – 9A-VIII-2003 1.
2019. *Enargia decolor* (Wlk.) (9549. *Enargia decolor* (Wlk.)) (Angle-striped Sallow) – 27-VIII-2002 2 and 9A-VIII-2003 1.
2020. *Enargia infumata* (Grt.) (9550. *Enargia infumata* (Grt.)) (Lesser Angle-striped Sallow) – 9B-VIII-2003 1 and 29A-VII-2009 1.
2021. *Ipimorpha pleonectusa* Grt. (9555. *Ipimorpha pleonectusa* Grt.) (Even-lined Sallow) – 9A-VIII-2003 2.

Noctuidae, Noctuinae, Orthosiini

2044. *Orthosia revicta* (Morr.) (10490. *Orthosia revicta* (Morr.)) (Subdued Quaker) – 28-V-2002 1, 19A-IV-2005 3, 19B-IV-2005 1, 7C-V-2007 1 and 7D-V-2007 1.
2045. *Orthosia segregata* (Sm.) (10493. *Orthosia segregata* (Sm.)) (Segregate Penman) – 28-V-2002 1, 19A-IV-2005 1, 7B-V-2007 1 and 7D-V-2007 1.
2046. *Orthosia hibisci* (Gn.) (10495. *Orthosia hibisci* (Gn.)) (Variable Penman or Speckled Green Fruitworm Moth) – 19A-IV-2005 1, 7C-V-2007 1 and 7D-V-2007 2.
2049. *Egira dolosa* (Grt.) (10513. *Egira dolosa* (Grt.)) (Greater Black-letter Dart) – 28-V-2002 4, 7C-V-2007 1 and 7D-V-2007 2.

Noctuidae, Noctuinae, Tholerini

2053. *Nephelodes minians* Gn. (10524. *Nephelodes minians* Gn.) (Bronzed Cutworm Moth) – 27-VIII-2002 3 and 9A-VIII-2003 1.

Noctuidae, Noctuinae, Hadenini

2074. *Polia nimbosa* (Gn.) (10275. *Polia nimbosa* (Gn.)) (Stormy Arches) – 6-VII-2004 3.
2075. *Polia imbrifera* (Gn.) (10276. *Polia imbrifera* (Gn.)) (Cloudy Arches) – 21-VI-2002 1 and 6-VII-2004 2.

2079. *Polia purpurissata* (Grt.) (10280. *Polia purpurissata* (Grt.)) (Purple Arches) – 27-VIII-2002 1, 29A-VII-2009 1, 29B-VII-2009 1, and 29C-VII-2009 1.
2082. *Lacanobia atlantica* (Grt.) (10297. *Lacanobia atlantica* (Grt.)) (Atlanta Arches) – 21-VI-2002 1 and 18A-VI-2010 1.
2083. *Lacanobia radix* (Wlk.) (10298. *Lacanobia radix* (Wlk.)) (Garden Arches) – 21-VI-2002 1, 18A-VI-2010 1 and 18B-VI-2010 1.
2094. *Trichordestra dodii* (Sm.) (10305. *Trichordestra dodii* (Sm.)) (Dod's Arches) – 29A-VII-2009 1.
2096. *Trichordestra liquida* (Grt.) (10308. *Trichordestra liquida* (Grt.)) (Liquid Arches) – 18A-VI-2010 1.
2097. *Papestra quadrata* (Sm.) (10310. *Papestra quadrata* (Sm.)) (Quadrate Arches) – 28-V-2002 3.
2101. *Hada sutrina* (Grt.) (10324. *Hecatera sutrina* (Grt.)) (The Cobbler) – 18A-VI-2010 1.

Noctuidae, Noctuinae, Leucaniini

2114. *Mythimna oxygala* (Grt.) (10436. *Aletia oxygala* (Grt.)) (Lesser Wainscot) – 27-VIII-2002 1, 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.
2119. *Leucania commoides* Gn. (10447. *Leucania commoides* Gn.) (Comma Wainscot) – 29A-VII-2009 1 and 29B-VII-2009 1.

Noctuidae, Noctuinae, Eriopygini

2142. *Lacinipolia meditata* (Grt.) (10368. *Lacinipolia meditata* (Grt.)) (The Thinker or Pale-backed Cutworm Moth) – 29B-VII-2009 1.
2143. *Lacinipolia lustralis* (Grt.) (10370. *Lacinipolia lustralis* (Grt.)) (Lustrous Arches) – 6-VII-2004 3.
2145. *Lacinipolia anguina* (Grt.) (10372. *Lacinipolia anguina* (Grt.)) (Snaky Arches) – 21-VI-2002 1.
2148. *Lacinipolia vicina* (Grt.) (10394. *Lacinipolia vicina* (Grt.)) (Small Gray Arches) – 18A-VI-2010 1 and 18B-VI-2010 1.
2150. *Lacinipolia renigera* (Steph.) (10397. *Lacinipolia renigera* (Steph.)) (Kidney-spotted Arches or Bristly Cutworm Moth) – 27-VIII-2002 1, 9B-VIII-2003 1 and 29a-VII-2009 1.
2152. *Lacinipolia lorea* (Gn.) (10405. *Lacinipolia lorea* (Gn.)) (Bridled Arches) – 6-VII-2004 1.
2153. *Lacinipolia olivacea* (Morr.) (10406. *Lacinipolia olivacea* (Morr.)) (Olive Arches) – 27-VIII-2002 1 and 29B-VII-2009 1.
2162. *Protorthodes oviduca* (Gn.) (10563. *Protorthodes oviduca* (Gn.)) (Ruddy Quaker or Island Stylus) – 21-VI-2002 7 SR, 18A-VI-2010 1, 18B-VI-2010 2 and 18C-VI-2010 1.
2168. "*Polia*" *detracta* (Wlk.) (10288. *Polia detracta* (Wlk.)) (Disparaged Arches) – 6-VII-2004 1 and 18B-VI-2010 1.

Noctuidae, Noctuinae, Noctuini

- Euxoa* sp. – 29A-VII-2009 1.
2189. *Euxoa auxiliaris* (Grt.) (10731. *Chorizagrotis auxiliaris* (Grt.)) (Auxiliary Dart) – 18B-VI-2010 1.
2195. *Euxoa divergens* (Wlk.) (10702. *Euxoa divergens* (Wlk.)) (Divergent Dart) – 6-VII-2004 3.

2204. *Euxoa tristicula* (Morr.) (10723. *Euxoa tristicula* (Morr.)) (Three-marked Dart) – 6-VII-2004 1.
2215. *Euxoa declarata* (Wlk.) (10755. *Euxoa declarata* (Wlk.)) (Clear Dart) – 27-VIII-2002 1.
2221. *Euxoa plagigera* (Morr.) (10804. *Euxoa plagigera* (Morr.)) (Plaited Dart) – 9A-VIII-2003 1.
2228. *Euxoa ochrogaster* (Gn.) (10801. *Euxoa ochrogaster* (Gn.)) (Red-backed Cutworm Moth) – 12-VIII-2002 1, 27-VIII-2002 2, 9A-VIII-2003 1, 9B-VIII-2003 1, 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.
2233. *Euxoa basalis* (Grt.) (10798. *Euxoa basalis* (Grt.)) (Pale-based Dart) – 29A-VII-2009 1.
2271. *Euxoa ridingsiana* (Grt.) (10861. *Euxoa ridingsiana* (Grt.)) (Riding's Dart) – 27-VIII-2002 1 and 9A-VIII-2003 2.
2275. *Feltia herilis* (Grt.) (10676. *Feltia herilis* (Grt.)) (Master's Dart) – 27-VIII-2002 1, 9B-VIII-2003 1, 29A-VII-2009 1 and 29B-VII-2009 1.
2282. *Agrotis venerabilis* Wlk. (10651. *Agrotis venerabilis* Wlk.) (Venerable Dart) – 27-VIII-2002 2.
2283. *Agrotis vancouverensis* Grt. (10652. *Agrotis vancouverensis* Grt.) (Vancouver Dart) – 18B-VI-2010 1.
2292. *Diarsia rubifera* (Grt.) (10917. *Diarsia rubifera* (Grt.)) (Rubifera Dart) – 27-VIII-2002 1.
2294. *Cerastis salicarum* (Wlk.) (10996. *Cerastis salicarum* (Wlk.)) (Willow Dart) – 28-V-2002 2, 19A-IV-2005 2, 19B-IV-2005 2, 7B-V-2007 1, 7C-V-2007 1 and 7D-V-2007 1.
2295. *Paradiarsia littoralis* (Pack.) (10992. *Paradiarsia littoralis* (Pack.)) (Labrador Dart) – 21-VI-2002 2, 6-VII-2004 2 and 18B-VI-2010 1.
2300. *Noctua pronuba* (L.) (10035. *Noctua pronuba* (B. & McD.)) (Large Yellow Underwing) – 29C-VII-2009 1.
2301. *Cryptocala acadensis* (Bethune) (11012. *Cryptocala acadensis* (Bethune)) (Catocaline Dart) – 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.
2302. *Spaelotis clandestina* (Harr.) (10926. *Spaelotis clandestina* (Harr.)) (Clandestine Dart) – 9A-VIII-2003 1 and 6-VII-2004 4.
2304. *Eurois occulta* (L.) (10929. *Eurois occulta* (L.)) (Soothsayer Dart) – 27-VIII-2002 2, 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.
2305. *Eurois astricta* Morr. (10930. *Eurois astricta* Morr.) (Great Brown Dart) – 9A-VIII-2003 1, 29A-VII-2009 1, 29B-VII-2009 1 and 29C-VII-2009 1.
2307. *Graphiphora augur* (Grt.) (10928. *Graphiphora augur* (Grt.)) (Soothsayer Dart) – 29A-VII-2009 1 and 29C-VII-2009 1.
2308. *Anaplectoides prasina* (D. & S.) (11000. *Anaplectoides prasina* (D. & S.)) (Green-winged Dart) – 29A-VII-2009 1 and 29B-VII-2009 1.
2309. *Anaplectoides pressus* (Grt.) (11001. *Anaplectoides pressus* (Grt.)) (Dappled Dart or Broad-winged Dart) – 29A-VII-2009 1, 18A-VI-2010 1, 18B-VI-2010 1 and 18C-VI-2010 4.
2310. *Aplectoides condita* (Gn.) (10999. *Aplectoides condita* (Gn.)) (Base-streaked Dart) – 18A-VI-2010 1 and 18C-VI-2010 1. 2313. *Xestia smithii* (Snell.) (10944. *Xestia smithii* (Snellen)) (Smith's Dart or Spotted Clay Dart) – 9B-VIII-2003 1, 29A-VII-2009 1 and 29C-VII-2009 1.
2335. *Agnorisma bugrai* (Koçak) (10954. *Xestia collaris* G. & R.) (Collared Dart) – 27-VIII-2002 3 and 9A-VIII-2003 1.
2337. *Pseudohermonassa tenuicula* (Morr.) (10951. *Xestia tenuicula* (Morr.)) (Hairpin Dart) – 29A-VII-2009 1 and 29C-VII-2009 1.
2344. *Protolampra rufipectus* (Morr.) (11004. *Protolampra rufipectus* (Morr.)) (Red-breasted Dart) – 9A-VIII-2003 1, 9B-VIII-2003 1, 29A-VII-2009 1 and 29C-VII-2009 1
2357. *Abagrotis placida* (Grt.) group (11041. *Abagrotis placida* (Grt.) group) – 9A-VIII-2003 1.

DISCUSSION

An analysis of the data from the present study of the moths encountered in twelve major study areas in south-central Alberta, reveals that the present area (JC) has less than 43% similarity to the other areas. This is probably due in large part to inadequate sampling. Clearly more research is needed.

SUMMARY

Three hundred and thirty-seven species of moths and 17 species of skippers and butterflies are reported from the area. While these may seem like impressive numbers, it is felt that, with further study, the total might be doubled. To put things into perspective, Pohl et al (2010) document 2367 species of Lepidoptera for Alberta.

Of the 13 major areas involved in the present study, only one species of moth were found only in the J.J. Collett Natural Area - *Spodolepis substriaria* (Hulst).

Moths were found on all visits but peak numbers occurred during the summer months. As most species fly for only a few days, sampling should be carried out every week or so. As time commitments have not allowed this, attempts have been made to bracket time periods so that various species will not be missed. It is important that further work be conducted.

ACKNOWLEDGEMENTS

Sincere thanks are extended to members of the J.J. Collett Foundation, especially Sylvia Glass, Gail Hughes and Jack Surbey for encouraging me to document the Lepidoptera of the J.J. Collett Natural Area, making me an Honorary Member of their group, and providing a key for vehicle access to the parking lot. Sincere thanks are extended to Gary Anweiler and Chris Schmidt for verifying the macromoths and Greg Pohl identified, or verified, some of the micromoths. The following individuals are thanked for identifications of certain group: Dr. George Balogh (Eupithecia), Dr. Jean-François Landry (Coleophora), and Doug Macaulay (Pterophoridae). Jason Dombroskie provided help with some of the Tortricidae. Even though others helped, I personally take responsibility for the identification of the species mentioned in this report. Felix Sperling and Danny Shpeley facilitated the study of specimens in the Bowman Collection of the Strickland Museum, and Greg Pohl did the same for the Northern Forest Research Centre Entomology Collection. The late Ernest Mengersen is thanked for allowing access to the Entomology Collection at Olds College. Adam Blake is thanked for providing a number of 2004 photo records.

LITERATURE CITED

- Bienek, G. K. 1974. A manual for an elementary study on natural resources and ecology at the Environmental Center near Lacombe, Alberta with an index of the flora and fauna. Alberta Department of the Environment and Alberta Wildlife Foundation. 153 pp.
- Bird, C. D. 2003. Lepidoptera of the J.J. Collett Natural Area, a preliminary report. Report prepared for Alberta Parks and Protected Areas. 10 pp.

- Bird, C. D. 2004. Lepidoptera of the J.J. Collett Natural Area, a second report. Report prepared for Alberta Parks and Protected Areas. 11 pp.
- Bird, C. D. 2005. Lepidoptera of the J.J. Collett Natural Area, 2002-2004. Report prepared for Alberta Parks and Protected Areas. 15 pp.
- Bird, C. D. 2006. Lepidoptera of the J.J. Collett Natural Area, 2002-2005. Report prepared for Alberta Parks and Protected Areas. 17 pp.
- Bird, C. D. 2007. Lepidoptera of the J.J. Collett Natural Area, 2002-2006. Report prepared for Alberta Parks and Protected Areas. 18 pp.
- Bird, C. D. 2008. Lepidoptera of the J.J. Collett Natural Area, 2002-2007. Report prepared for Alberta Parks and Protected Areas. 18 pp.
- Bird, C. D. 2009. Lepidoptera of the J.J. Collett Natural Area, 2002-2008. Report prepared for Alberta Parks and Protected Areas. 19 pp.
- Bird, C. D. 2009. Lepidoptera of the J.J. Collett Natural Area, 2002-2009. Report prepared for Alberta Parks and Protected Areas. 22 pp.
- Bowman, Kenneth 1951. An annotated list of the Lepidoptera of Alberta. Can. J. Zoology 29: 121-165.
- Hodges, R. W. (ed.). 1983. Check List of the Lepidoptera of America North of Mexico. E.W. Classey Ltd. & The Wedge Entomological Research Foundation.
- Lafontaine, J. D. & B.C. Schmidt. 2010. Annotated check list of the Noctuoidea (Insecta, Lepidoptera) of North America north of Mexico. ZooKeys 40: 1-239.
- Leszczynski, J. 1987. J.J. Collett Natural Area management plan. Natural Areas Program, Alberta Forestry, Lands and Wildlife. 19 pp.
- Munsell, D. 1980. Collett Natural Area. Alberta Natural Areas Program, Resource Inventory for proposed Educational Natural Areas. 33 pp.
- Pohl, G., C. D. Bird, J-F. Landry & G. Anweiler. 2005. New records of Microlepidoptera for Alberta. J. Lep. Soc. 59(2): 61-82.
- Pohl, G. R., G. G. Anweiler, B. C. Schmidt and N. G. Kondla. 2010. An annotated list of the Lepidoptera of Alberta, Canada. ZooKeys 38: 1-549.

USEFUL ONLINE INFORMATION SOURCES ON MOTHS

Information on many of our Alberta moths can be found at the Entomology Collection Search site of the E.H. Strickland Entomological Museum of the Department of Biological Sciences at the University of Alberta: <http://www.entomology.ualberta.ca/>.

Illustrations of Alberta macromoths can be found at a site put together by D. Lafontaine and J. Troubridge called "The Moths of Canada":
http://www.cbif.gc.ca/spp_pages/misc_moths/phps/mothindex_e.php.

Illustrations on many of the western American macromoths can also be found on a site put together by The Moth Photographers Group:
<http://www.origins.tv/MothPhotographersGroup/WestPlates.htm>.

D. Lynn Scott has a web site with natural photos of over 400 species of moths that she has found in Ottawa, Ontario (<http://www.hei.ca/dls/mothindex.html>). As many of the species also occur in Alberta, these images can be quite helpful

USEFUL BOOKS ON LEPIDOPTERA

- Acorn, J. 1993. Butterflies of Alberta. Lone Pine. 141 pp.
- Bird, C. D., G. J. Hilchie, N. G. Kondla, E. M. Pike and F. A. H. Sperling. 1995. Alberta Butterflies. Prov. Museum Alberta. 349 pp.
- Covell, Charles V., Jr. 1984. A Field guide to Moths; Eastern North America. Houghton, Mifflin Co., Boston, New York.
- Handfield, Louis. 1999. Le Guide des Papillons du Quebec. Vol. 1. Broquet, Boucherville, QC. 536 pp. + 123 pl.
- Handfield, Louis. 2011. Le Guide des Papillons du Quebec. Vol. 1. Partie 1 & 2, 1352 pp. plus 166 plates.
- Ives, W.G.H. & H.R. Wong. 1988. Tree and Shrub Insects of the Prairie Provinces. Can. Forestry Serv., Northern For. Centre, Inf. Rept. NOR-X-292.
- Layberry, R. A., P. W. Hall & J. D. Lafontaine. 1998. The Butterflies of Canada. Univ. Toronto Press. 280 pp.
- Powell, J. A. & P. A. Opler. 2009. Moths of Western North America. Univ. California Press. 369 pp.

APPENDIX

Collection dates, sites and other details

- 25 July 1998 – hike on which a *Danaus plexippus* caterpillar was seen on *Asclepias ovalifolia*.
- 26 May 2002 – Diurnal, annual spring hike, 52.53, 113.65, 850 m.
- 28 May 2002 – 2 UV traps and a MV light and sheet, 52.53, 113.65, 850 m.
- 21 June 2002 – 2 UV traps, 52.53, 113.65, 850 m.
- 12 August 2002 – Diurnal, annual fall walk, 52.53, 113.65, 850 m.
- 27 August 2002 – 2 UV traps plus MV light and sheet, 52.53, 113.65, 850 m; UV traps stolen and parts found near gate.
- 9A August 2003 – 1 UV trap, aspen woods, 52.552, 113.640, 895 m.
- 9B August 2003 – 1 UV trap, *Picea glauca* woods, 52.551, 113.640, 866 m.
- 30 May 2004 – Diurnal, annual spring hike, mixed woods, 52.53, 113.65, 875 m.
- 6 July 2004 – Diurnal, 52.55, 113.64, 850-880 m.
- 6 July 2004 – UV, S-facing *Stipa* meadow in mixed woods, 52.552, 113.640, 888 m.
- 6 July 2004 – UV, small clearing in mixed woods, 52.552, 113.640, 852 m.
- 26 September 2004 – Diurnal, annual fall hike.
- 19 April 2005 – UV, S-facing *Stipa* meadow in mixed woods, 52.552, 113.640, 888 m.
- 28 May 2005 – Diurnal, annual spring hike, 52.55, 113.64, 890 m.
- 25 September 2005 – annual fall hike, 52.55, 113.64, 890 m.
- 28 May 2006 – Diurnal, annual spring hike, 52.55, 113.64, 890 m.
- 10 June 2006 – diurnal, hiking, mixed woods, 52.55, 113.64, 890 m.
- 7A May 2007 – Crepuscular, annual spring hike, mixed woods, 52.55, 113.64, 860-900 m.
- 7B May 2007 – UV, *Picea glauca* woods, 52.551, 113.640, 866 m.
- 7C May 2007 – UV, aspen woods, 52.552, 113.640, 895 m.
- 7D May 2007 – UV, *Picea glauca* woods, 52.553, 113.639, 900 m.
- 27 May 2007 – Diurnal, annual spring hike, 52.55, 113.64, 890 m.
- 27 September 2007 – Diurnal, annual fall hike, 52.55, 113.64, 890 m.

- 3 May 2008 – Diurnal, annual spring hike, 52.55, 113.64, 890 m.
27 September 2008 – Diurnal, annual fall hike, 52.55, 122.64, 890 m.
31 May 2009 – Diurnal, annual spring hike, 52.55, 113.64, 860-900 m.
29A July 2009 – UV, N-facing slope with *Picea glauca*, 835 m.
29B July 2009 – UV, small S-facing meadow, 52.553, 113.641, 835 m.
29C July 2009 – UV, wet *Picea glauca* woods, 52.552, 113.641, 820 m.
27 September 2009 – Diurnal, annual fall hike, 52.553, 113.641, 835 m.
18A June 2010 – UV, N-facing slope with *Picea glauca* and *Betula papyrifera*, 52.553, 113.641, 835 m.
18B June 2010 – UV, small S-facing fescue meadow, 52.553, 113.641, 835 m.
18C June 2010 – UV, wet *Picea glauca* woods, 52.552, 113.641, 810 m.
26 September 2010 – Diurnal, annual fall hike, 52.553, 113.641, 835 m,
29 May 2011 – Diurnal, annual spring hike, 52.55, 113.64, 860-900 m.