

LEPIDOPTERA OF EAST ARROWWOOD COULEE, ALBERTA, 1997-2011

Charles Durham Bird
Box 22, Erskine, AB, T0C 1G0, cdbird@xplornet.com
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The present paper incorporates the information in previous reports along with that gathered in 2011. It includes a number of redeterminations and follows the up-to-date order and taxonomy of Pohl et al. (2010), rather than that of Hodges et al. (1983).



East Arrowwood Coulee looking north, August 17, 1997

THE AREA

East Arrowwood Coulee occurs on the west side of the farm of Arthur and Dixie Bird (Prairie Rose Farm), NE of the village of Arrowwood. The coulee runs north and joins the Bow River. The general coordinates for the location are 50.75, 113.13. The elevation at the top of the coulee is 920 m and in the coulee bottom it is about 860 m. The west-facing coulee slope is fairly steep and is vegetated by short-growing grasses including *Bouteloua gracilis* and numerous forbs such as *Opuntia fragilis*. The coulee bottom has an open riverine forest with *Populus balsamifera* and shrubs including willows, thorny buffalo-berry and saskatoon.

A number of sightings were made on July 24, 1997. The area was sampled with ultraviolet light traps on the nights of August 3, 2000; June 2, 2001; June 27, 2003; and April 11 and June 26 in 2004. In 2005, the area was studied on May 8 and on July 2 and 30. Collections were made on June 17 and July 29, in 2006. In 2007, collections were made on March 10, April 28, June 1 and September 2; while in 2008 collections were made on April 9 and May 17. In 2009, traps were set out on April 12, May 29 and June 27; while in 2009 they were set out on August 18. In 2010, trapping was done during the night of August 18. In 2011, traps were out on the night of April 24.



East Arrowwood Coulee looking south, June 26, 2004



Art Bird beside moth trap in coulee bottom, 9 May 2005

BACKGROUND

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

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

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.

While most of the larger (macromoths) are relatively well known, the same cannot be said for many of the smaller (micromoths) ones. Identifications, especially of the latter, can be difficult or are at present impossible, until such time as revisionary studies are made. Also, genitalic dissection and examination is necessary for positive identification in some groups. For these reasons, some of the determinations found herein should be regarded as tentative. The scientific names of the species are followed by the day-month-year of the collection and the number of individuals mounted; an “SR” indicates a sight record.

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. East Arrowwood Coulee is in Bowman’s Area 6 which also includes Calgary. Most of Bowman’s records are from his Area 10, which includes Edmonton, so many of the species found in the following list are additions to his Area 6.

FAMILY UNKNOWN

A specimen collected 17C-V-2008 was originally thought to be *Hypatopa titanella* McD. but Dr. David Adamski feels it doesn’t belong there and he is unsure which family it belongs to.

TINEIDAE – Fungus Moths

Tineidae, Tineinae

44. *Tinea irrepta* Braun (399. *Tinea irrepta* Braun) – 27A-VI-2003 3, 27B-VI-2003 1 and 30A-VII-2005 1.

Not in Pohl et al. (420. *Monopis rusticella* (Hbn.)) – 1B-VI-2007 1. Tis is thought to be the same as 49. *Monopis laevigella* in Pohl et al.

51. *Monopis spilotella* Tengström (421. *Monopis spilotella* Tengström) – 27B-VI-2003 1, 26-VI-2004 1, 30A-VII-2005 1 and 30B-VII-2005 1.

BUCCULATRICIDAE – Ribbed-cocoon Maker Moths

63. prob. *Bucculatrix canadensisella* Chamb. (*Bucculatrix* sp. – 17A-VI-2006 1.

GRACILARIIDAE – Gracilariid Moths

Gracillariidae, Gracillariinae

66. *Caloptilia alnivorella* (Cham.) (587. *Caloptilia alnivorella* (Cham.)) (Alder Leafminer) – 29C-V-2009 1.

Gracillariidae, Lithocolletinae

- Phyllonorycter* sp. (*Phyllonorycter* sp.) – 29B-V-2009 1 and 29C-V-2009 1. These are probably *Phyllonorycter apparella* (H.-S.) or *P. salicifoliella* (Chamb.)

YPONOMEUTIDAE

Yponomeutidae, Argyresthiinae – Needle-miner Moths

96. *Argyresthia conjugella* Zell. (2449. *Argyresthia conjugella* Zell.) (Apple Fruit Moth) – 27B-VI-2003 1.

PLUTELLIDAE – Plutellid Moths

104. *Ypsolopha canariella* (Wlsm.) (2371. *Ypsolopha canariella* (Wlsm.)) (Canary Ypsolopha Moth) – 30B-VII-2005 1, 18D-VIII-2010 1 and 18E-VIII-2010 1.
 106. *Ypsolopha dentiferella* (Wlsm.) (2376. *Ypsolopha dentiferella* (Wlsm.)) – 30B-VII-2005 1 and 29C-VII-2006 1.
 108. *Ypsolopha falciferella* (Wlsm.) (2380. *Ypsolopha falciferella* (Wlsm.)) – 9B-IV-2008 1.
 114. *Plutella xylostella* (L.) (2366. *Plutella xylostella* (L.)) (Diamondback Moth) – 3-VIII-2000 1, 27A-VI-2003 1, 8A-V-2005 1, 8B-V-2005 1, 30A-VII-2005 1,2, 30B-VII-2005 1, 29C-VII-2006 1, 2A-IX-2007 1, 2B-IX-2007 1, 2C-IX-2007 1 and 18E-VIII-2010 1.

ELACHISTIDAE – Concealer Moths

Elachistidae, Ethmiinae

128. *Ethmia monticola* (Wlsm.) (987. *Ethmia monticola* (Wlsm.)) (Gray Ethmia Moth) – 27B-VI-2003 1 and 27E-VI-2009 1.

Elachistidae, Depressariinae

134. *Agonopterix rosaciliella* (Bsk.) (876. *Agonopterix rosaciliella* (Bsk.)) – 29B-V-2009 1.
 135. *Agonopterix canadensis* (Bsk.) (878. *Agonopterix canadensis* (Bsk.)) (Canadian Agonopterix) – 8B-V-2005 1.
 138. *Agonopterix argillacea* (Wlsm.) (889. *Agonopterix argillacea* (Wlsm.)) – 9B-IV-2008 1, 9C-IV-2008 1 and 29B-V-2009 1.
 143. *Depressariodes ciniflonella* (Lienig & Zell.) (908. *Depressariodes ciniflonella* (Lienig & Zell.)) – 17C-V-2008 2.
 144. *Depressariodes fulva* (Wlsm.) (910. *Martyrhilda fulva* (Wlsm.)) – 27A-VI-2003 1, 17A-VI-2006 2, 27B-VII-2006 3, 17C-VII-2006 1 and 28-V-2009 1.
 148. *Semioscopis inornata* Wlsm. (914. *Semioscopis inornata* Wlsm.) – 9B-IV-2008 1 and 9C-IV-2008 1.
 151. *Depressaria atrostrigella* Clarke (918. *Depressaria atrostrigella* Clarke) – 2A-IX-2007 1 and 17B-V-2008 1.

153. *Depressaria pastinacella* (Dup.) (922. *Depressaria pastinacella* (Dup.)) (Parsnip Webworm) – 29C-VII-2006 1 and 29B-V-2009 1.

Elachistidae, Elachistinae – Grass Miner Moths

- Elachista* spp. (*Elachista* spp.) – 27-VI-2003 1, 26-VI-2004 1 and 27D-VI-2009 2.

GLYPHIDOCERIDAE – Glyphidocerid Moths

189. *Glyphidocera hurlberti* Adamski (Not in Hodges.) – 27A-VI-2003 1, 26-VI-2004, 2B-VII-2005 1, 30A-VII-2005 1 and 30B-VII-2005 2. This species was described by Adamski in 2000.

COLEOPHORIDAE – Coleophorid Moths

Coleophoridae, Coleophorinae – Casebearer Moths

Dr. J.-F. Landry is doing a North American monograph of the group. Some of the JFL specimens may be of species that remain to be described.

- Coleophora* spp. – 30A-VII-2005 1, 30B-VII-2005 1, 29A-VII-2006 1, 29B-VII-2006 1, 29B-V-2009 1 and 18C-VIII-2010 1.

208. *Coleophora rosacella* Clem. (1316. *Coleophora rosacella* Clem.) – 26-VI-2004 1.

209. *Coleophora mcdunnoughiella* Oudejans (1321. *Coleophora mcdunnoughiella* Oudejans) – 27A-VI-2003 1.

214. *Coleophora sparsipulvella* Cham. (1352. *Coleophora sparsipulvella* Cham.) – 30B-VII-2005 1.

219. *Coleophora glaucicicola* Wood (1378. *Coleophora glaucicicola* Wood) – 27-VI-2003 1.

222. *Coleophora trifolii* (Curt.) (1388. *Coleophora trifolii* (Curt.)) (Large Clover Case-bearer) – 2-VI-2001 1 and 29C-VII-2006 1.

- Coleophora* JFL023 – 27-VI-2003 1.

- Coleophora* JFL049 – 27-VI-2003 1.

- Coleophora* JFL089 – 30A-VII-2005 1.

- Coleophora* JFL092 – 2A-IX-2007 1.

- Coleophora* JFL138 – 1B-VI-2007 1.

Coleophoridae, Momphinae – Momphid Moths

- Either *Mompha* sp. or *Elachista* sp. – 7-VI-2003 1.

COSMOPTERYGIDAE – Cosmet Moths

232. *Walshia miscecolorella* (Cham.) (1615. *Walshia miscecolorella* (Cham.)) (Sweetclover Root Borer) – 27A-VI-2003 1, 27B-VI-2003 3, 30A-VI-2005 2, 29B-VII-2006 1, 2A-IX-2007 2, 2B-IX-2007 2, 27D-VI-2009 2 and 27F-VI-2009 1.

241. *Limnaecia phragmitella* Staint. (1515. *Limnaecia phragmitella* Staint.) (Shy Cosmet Moth) – 3-VIII-2000 1 and 29C-VII-2006 1.

XYLORICTIDAE – Teardrop Moths

Xylorictidae, Scythridinae

Species indet. – 17A-VI-2006 1.

GELECHIIDAE – Gelechiid Moths

Species indet. – 2-VI-2001 1, 8A-V-2005 1, 8B-VI-2005 1, 30A-VII-2005 6, 30B-VII-2005 3, 17A-VI-2006 1, 29A-VII-2006 2, 29B-VII-2006 1, 2A-IX-2007 1. 29C-V-2009 1, 27D-VI-2009 1, 27F-VI-2009 1 and 18C-VIII-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

Aristotelia type B – 30A-VII-2005 1.

248. *Aristotelia devexella* Braun (1734. *Aristotelia devexella* Braun) – 30B-VII-2005 1, 17B-VI-2006 3 and 29A-VII-2006 1.

253. *Agnippe prunifoliella* Cham. (1771. *Evippe prunifoliella* Cham.) – 2-VI-2001 1? Identified by Dr. Jean-François Landry.

256. *Coleotechnites blastovora* (McLeod) (1796. *Coleotechnites blastovora* (McLeod)) – 27A-VI-2003 1, 17B-V-2008 1, 17C-V-2008 1, 29B-V-2009 1 and 29D-V-2009 1.

267. *Xenolechia velatella* (Bsk.) (1880. *Xenolechia velatella* (Bsk.)) – 8A-V-2005 6, 8B-V-2006 4 and 17C-V-2008 1.

282. *Gelechia lynceella* Zell. (1946. *Gelechia lynceella* Zell.) – 23A-VI-2003 1, 2B-VII-2005 1 and 29B-V-2009 1.

291. *Chionodes obscuruscella* (Cham.) (2099. *Chionodes obscuruscella* (Cham.)) (Boxelder Leafworm) – 30B-VII-2005 1.

292. *Chionodes mediofuscella* (Clem.) (2093. *Chionodes mediofuscella* (Clem.)) – 8A-V-2005 1, 8B-V-2005 1, 30A-VII-2005 1, 1A-VI-2007 1, 1B-VI-2007 1, 29B-V-2009 1, 29C-V-2009 1 and 29D-V-2009 1.

300. *Chionodes psiloptera* (B. & Bsk.) (2111. *Chionodes psilopterus* (B. & Bsk.)) – 30A-VII-2005 1, 17C-VI-2006 1, 29B-V-2009 1, 29D-V-2009 1 and 29E-V-2009 1.

317. *Filatima abactella* (Clarke) (2127. *Filatima abactella* (Clarke)) – 2-VI-2001 1. 27B-VI-2003 1 and 8B-V-2005 1.

Gelechiidae, Dichomeridinae

354. *Helcystogramma fernaldella* (Bsk.) (2267. *Brachmia fernaldella* (Bsk.)) – 17C-V-2008 1 and 29C-V-2009 1.

359. *Dichomeris simplicella* Bsk. (2303. *Dichomeris simplicella* Bsk.) - 2B-IX-2007 1.

360. *Dichomeris levisella* Fyles (2291. *Dichomeris levisella* Fyles) – 17B-VI-2006 1.

COSSIDAE – Carpenterworm Moths

392. *Acosus populi* (Wlk.) (2676. *Acosus populi* (Wlk.)) (Aspen Carpenterworm) – 30VIII-2000 1, 27B-VI-2003 1, 30B-VII-2005 2, 17C-VI-2006 1, 29C-VII-2006 1, 27F-VI-2009 1, 18C-VIII-2010 1, 18D-VIII-2010 1 and 18E-VIII-2010 1.

TORTRICIDAE – Tortricid Moths

Tortricidae, Tortricinae, Tortricini

403. *Acleris albicomana* (Clem.) (3502. *Croesia albicomana* (Clem.)) – 30B-VII-2005 1.
 405. *Acleris macdunnoughi* Obr. (3506. *Acleris macdunnoughi* Obr.) – 29D-V-2009 1.
 408. *Acleris cervinana* (Fern.) (3514. *Acleris cervinana* (Fern.)) – 8B-V-2005 1.
 414. *Acleris cornana* (McD.) or 411. *Acleris fuscana* (B. & Bsk.) (3523. *Acleris prob cornana* (McD.) or 3529. *Acleris fuscana* (B. & Bsk.)) – 17C-V-2008 1. Revised by Jason Dombroskie, 2011. This was down as 3525 *Acleris forbesana* (McD.) in previous reports.
 423. *Acleris brittania* Kft. (3537. *Acleris brittania* Kft.) – 2C-IX-2007 1.
 432. *Acleris maccana* (Tr.) (3549. *Acleris maccana* (Tr.)) – 29B-V-2009 1.
 434. *Acleris scabrana* (D. & S.) (3552. *Acleris scabrana* (D. & S.)) -29B-V-2009 1.
 435. *Acleris bowmanana* (McD.)/3561. *Acleris hudsoniana* (Wlk) complex) (3553/3556. *Acleris bowmanana* (McD.)/3556. *Acleris hudsoniana* (Wlk.) complex – 9B-IV-2008 1.

Tortricidae, Tortricinae, Cochylini – Cochyliid Moths

The members of this family are presently being revised by Dr. Eric Metzler and Dr. John Brown. Some of the following specimens are presently with them.

440. *Phtheochroa aureoalbida* (Wlsm.) (3794. *Hysterosia aureoalbida* Wlsm.) – 27E-VI-2009 1.
 443. *Phtheochroa fulviplicana* (Wlsm.) (3792. *Hysterosia fulviplicana* (Wlsm.)) – 27B-VI-2003 2, 30-VII-2005 3, 17B-VI-2006 1, 27A-VI-2009 1 and 18D-VIII-2010 1.
 448. *Phtheochroa waracana* (Kft.) (3796. *Hysterosia waracana* Kft.) – 3-VIII-2000 1, 27B-VI-2003 1 and 30-VII-2005 1.
 451. *Platphalonidia felix* (Wlsm.) (3760. *Platphalonidia felix* (Wlsm.)) – 26-VI-2004 1.
 460. *Aethes smeathmanniana* (F.) (3755. *Aethes smeathmanniana* (F.)) (Smeathmann's Aethes Moth) – 27F-VI-2009 1.

Tortricidae, Tortricinae, Cnephasiini

466. *Eana argentana* (Cl.) (3568. *Eana argentana* (Cl.)) – 27B-VI-2003 1, 2A-VII-2005 1, 17A-VI-2006 1 and 27E-VI-2009 1.

Tortricidae, Tortricinae, Archipini

472. *Pandemis canadana* Kft. (3595. *Pandemis canadana* Kft.) (Green Aspen Leaf-tier) – 3-VIII-2000 2, 3-VIII-2006 1, 30B-VII-2005 11 and 29C-VII-2006 1.
 475. *Argyrotaenia repartana* Free. (3601. *Argyrotaenia repartana* Free.) – 8B-V-2005 1, 17C-V-2008 1, 29B-V-2009 1 and 29C-V-2009 1.
 483. *Choristoneura rosaceana* (Harr.) (3635. *Choristoneura rosaceana* (Harr.)) (Oblique-banded Leafroller) – 30B-VII-2005 1 and 2A-IX-2007 1.
 485. *Choristoneura conflictana* (Wlk.) (3637. *Choristoneura conflictana* (Wlk.)) (Large Aspen Tortrix) – 27B-VI-2003 1, 18D-VIII-2010 2 and 18E-VIII-2010 1.
 498. *Archips cerasivorana* (Fitch) (3661. *Archips cerasivorana* (Fitch)) (Ugly Nest Caterpillar Moth) – 29B-VII-2006 1.
 499. *Archips purpurana* (Clem.) (3658. *Archips purpurana* (Clem.)) (Omnivorous Leafroller) – 18D-VIII-2010 2.

502. *Syndemis afflictana* (Wlk) (3672. *Syndemis afflictana* (Wlk.)) (Gray Leafroller Moth or Black-and-Gray Banded Leafroller) – 17B-V-2008 1.
504. *Aphelia alleniana* (Fern.) (3675. *Aphelia alleniana* (Fern.)) – 27A-VI-2003 1, 27B-VI-2003 1, 26-VI-2004 1, 2B-VII-2005 1, 17C-VI-2006 1, 27D-VI-2009 1, 27F-VI-2009 2 and 18E-VIII-2010 1.
508. *Clepsis persicana* (Fitch) (3682. *Clepsis persicana* (Fitch)) (White-angle Tortrix or White-triangle Leafroller) – 27B-VI-2003 1 and 2B-VII-2005 1, 29B-VII-2006 1, 27D-VI-2009 1 and 27F-VI-2009 1.
509. *Clepsis clemensiana* (Fern.) (3684. *Clepsis clemensiana* (Fern.)) (Clemen's Clepsis Moth) – 30B-VII-2005 2 and 2C-IX-2007 1.
512. *Ptycholoma periscana* (Clem.) (3688. *Ptycholoma peritana* (Clem.)) (Garden Tortrix Moth) – 26-VI-2004 1 and 2C-IX-2007 1.
513. *Ptycholoma virescana* (Clem.) (3680. *Ptycholoma virescana* (Clem.)) – 29C-VII-2006 1.
518. *Sparganothis xanthoides* (Wlk.) (3706. *Sparganothis xanthoides* (Wlk.)) (Mosaic Sparganothis Moth) – 29C-VII-2006 1 and 18E-VIII-2010 1.
521. *Sparganothis vocaridorsana* Kft. (3712. *Sparganothis vocaridorsana* Kft.) – 17C-VI-2006 1 and 27D-VI-2009 1.
522. *Sparganothis reticulatana* (Clem.) (3720. *Sparganothis reticulatana* (Clem.)) (Reticulated Fruitworm Moth) – 29C-VII-2006 1.

Tortricidae, Olethreutinae, Olethreutini

533. *Endothenia nubilana* (Clem.) (2743a. *Endothenia quadrimaculana nubilana* (Clem.)) – 3-VIII-2000 1.
547. *Apotomis dextrana* McD. (2766. *Apotomis dextrana* McD.) (Green Aspen Leafroller Moth) – 30B-VII-2005 3.
551. *Apotomis capreana* (Hbn.) (2753. *Apotomis capreana* (Hbn.)) (Sallow Apotomis) – 18E-VIII-2010 1.
552. *Apotomis deceptana* (Kft.) (2765. *Apotomis deceptana* (Kft.)) (Deceptive Apotomis) – 29C-VII-2006 1 and 29C-V-2009 1.
557. *Orthotaenia undulana* (D. & S.) (2770. *Orthotaenia undulana* (D. & S.)) (Dusky Leafroller Moth) – 27B-VI-2003 1, 26-VI-2004 2, 2B-VII-2005 1, 17A-VI-2006 1 and 27F-VI-2009 1.
- Olethreutes* spp. – 27A-VI-2003 1 and 27B-VI-2003 2, 17A-VI-2006 2, 17C-VI-2006 1 and 2B-IX-2007 2.
575. *Olethreutes bipartitana* (Clem.) (2848. *Olethreutes bipartitana* (Clem.)) (Divided Olethreutes) – 27F-VI-2009 1.
583. *Metendothenia separatana* (Kft.) (2860. *Hedya separatana* (Kft.)) (Pink-washed Leafroller Moth) – 27A-VI-2003 1?

Tortricidae, Olethreutinae, Enarmoniini

604. *Hystrichophora stygiana* (Dyar) (3391. *Hystrichophora stygiana* (Dyar)) – 30A-VII-2005 1.

Tortricidae, Olethreutinae, Eucosmini

- Phaneta* sp. – 29 B-VII-2006 1.
631. *Phaneta lapidana* (Wlsm.) (2949. *Phaneta lapidana* (Wlsm.)) – 29D-V-2009 1.

633. *Phaneta elongana* (Wlsm.) (2952. *Phaneta elongana* (Wlsm.)) – 17B-VI-2006 1 and 29C-VII-2006 1.
641. *Phaneta fertoriana* (Heinr.) (2965. *Phaneta fertoriana* (Heinr.)) – 2-VI-2001 1, 29D-V-2009 1 and 27D-VI-2009 1.
643. *Phaneta indagatricana* (Heinr.) (2969. *Phaneta indagatricana* (Heinr.)) – 27A-VI-2003 1, 30A-VII-2005 1, 30A-VII-2005 6, 30B-VII-2005 2, 29A-VII-2006 5, 29C-VII-2006 1 and 1B-VI-2007 1.
648. *Phaneta pallidicostana* (Wlsm.) (2980. *Phaneta pallidicostana* (Wlsm.)) – 17C-VI-2006 1 and 27F-VI-2009 1.
650. *Phaneta infimbriana* (Dyar) (2985. *Phaneta infimbriana* (Dyar)) – 30A-VII-2005 1, 29B-VII-2006 1 and 29C-VII-2006 1.
656. *Eucosma ridingsana* (Rob.) 3014. *Eucosma ridingsana* (Rob.) (Riding's Eucosma Moth, Snakeweed Borer) – 30A-VII-2005 14.
660. *Eucosma serpentana* (Wlsm.) (3031. *Eucosma serpentana* (Wlsm.)) – 27A-VI-2003 4, 27B-VI-2003 2, 26-VI-2004 2, 30A-VII-2005 6, 30B-VII-2005 4, 29A-VII-2006 5, 29B-VII-2006 3, 29C-VII-2006 2, 27D-VI-2009 1, 18C-VIII-2010 6 and 18D-VIII-2010 2.
661. *Eucosma ophionana* McD. (3032. *Eucosma ophionana* McD.) – 30A-VII-2005 1.
664. *Eucosma agricolana* (Wlsm.) (3037. *Eucosma agricolana* (Wlsm.)) – 27A-VI-2003 4, 27B-VI-2003 3, 26-VI-2004 1, 30A-VII-2005 1, 30V-VII-2005 1, 17B-VI-2006 1 and 27D-VI-2009 1.
666. *Eucosma vagana* McD. (3042. *Eucosma vagana* McD.) – 26-VI-2004 1 and 30A-VII-2005 2.
668. *Eucosma serapicana* (Heinr.) (3049. *Eucosma serapicana* (Heinr.)) – 26-VI-2004 2. "I've labeled several specimens *E. serapicana*. I'm not absolutely certain of this --- the forewing color is not a perfect match to the holotype, but the pattern and genitalia are right. The holotype appears to be a little unusual ... I've not seen any specimens that match it exactly in color." [Dr. Don Wright in letter of 20 Jan 2009].
- Not in Pohl et al. (3133. *Eucosma consobrinana* Heinr.) – 27A-VI-2003 1.
692. *Eucosma cataclystiana* (Wlk.) (3142. *Eucosma cataclystiana* (Wlk.)) (Solidago Eucosma) – 27B-VI-2003 1.
- Pelochrista* n. sp. ? – 2A-IX-2007 1. Dr. Don Wright is uncertain about what this is. He says it looks like either a *Eucosma* or a *Pelochrista*.
694. *Pelochrista argenteana* (Wlsm.) (3149. *Pelochrista argenteana* (Wlsm.)) – 27A-VI-2003 3, 27B-VI-2003 8 and 26-VI-2004 2, 30A-VII-2005 1, 30B-VII-2005 1, 29A-VII-2006 1 and 27F-VI-2009 1.
699. *Pelochrista kingi* Wright (3156. *Pelochrista occipitana* (Zell.)) – 2-VIII-2007 1.
709. *Notocelia culminana* (Wlsm.) (3211. *Notocelia culminana* (Wlsm.)) – 30B-VII-2005 5, 29C-VII-2006 2, 2C-IX-2007 1 and 18D-VIII-2010 1.
- Not in Pohl et al. (3218/3222. *Sonia* sp.) – 27D-VI-2009 1.
- Not in Pohl et al. (3218/3222. *Sonia* n. sp.) – 27-VI-2003 1. This is an undescribed species according to Dr. Don Wright.
725. *Pseudexentera oregonana* (Wlsm.) (3248. *Pseudexentera oregonana* (Wlsm.)) (Early Aspen Leaf Roller Moth) – 11-IV-2004 2 (30 SR), 28A-IV-2007 1, 17A-V-2008 1 and 17C-V-2008 1.
740. *Epinotia nisella* (Cl.) (3306. *Epinotia nisella* (Cl.)) (Variable Tortrix, Poplar Branchlet Borer or Yellow-headed Aspen Leaf-tier) – 29C-VII-2006 1, 2A-IX-2007 1, 2C-IX-2007 1 and 18E-VIII-2010 1.
743. *Epinotia transmissana* (Wlk.) (3310. *Epinotia transmissana* (Wlk.)) (Walker's Epinotia Moth) – 2A-IX-2007 1.
753. *Epinotia lomonana* (Kft.) (3342. *Epinotia lomonana* (Kft.)) – 2C-IX-2007 1.

Tortricidae, Olethreutinae, Grapholitini

759. *Dichorampha bittana* (Bsk.) (3406. *Dichrorampha bittana* (Bsk.)) – 17V-2008 2.
 780. *Cydia flexiloqua* (Heinr.) (3465. *Cydia flexiloqua* (Heinr.)) – 30B-VII-2005 2 and 29C-VII-2006 1.

EPERMENIIDAE – Fringe-tufted Moths

791. *Ochromolopis ramapoella* (Kft.) (2334. *Ochromolopis ramapoella* (Kft.)) – 17A-VI-2006 1, 17B-VI-2006 1, 17C-VI-2006 1, 1A-VI-2007 2, 1B-VI-2007 4, 1C-VI-2007 5, 29B-V-2009 1 and 29C-V-2009 1.

ALUCITIDAE – Many-plumed Moths

Landry & Landry (2004) have revised the North American species.

- Alucita* sp. – 29C-V-2009 1.
 792. *Alucita montana* Barnes & Lindsay 2313. *Alucita hexadactyla* (L.) – 2A-IX-2007 2.

PTEROPHORIDAE – Plume Moths**Pterophoridae, Pterophorinae**

Species indet. – 26-VI-2004 1 and 29-VII-2006 1. These specimens are being studied by Doug Macaulay.

Pterophoridae, Pterophorinae, Platyptiliini

800. *Gillmeria pallidactyla* (Haw.) (6107. *Gillmeria pallidactyla* (Haw.)) – 17-VI-2006 1.

Pterophoridae, Pterophorinae, Oidaematophorini

833. *Oidaematophorus mathewianus* (Zell.) (6166. *Oidaematophorus mathewianus* (Zell.)) (Mathew's Plume Moth) – 18E-VIII-2010 1.
 839. *Oidaematophorus brucei* (Fern.) (6185. *Oidaematophorus brucei* (Fern.)) – 26-VI-2004 1.

CARPOSINIDAE – Fruitworm Moths

845. *Bondia comonana* (Kft.) (2318. *Bondia comonana* (Kft.)) – 26-VI-2004 1.
 846. *Bondia crescentella* (Wlsm.) (2319. *Bondia crescentella* (Wlsm.)) – 17C-VI-2006 1.

PYRALIDAE – Pyralid Moths**Pyralidae, Pyralinae, Pyralini**

849. *Pyralis farinalis* L. (5510. *Pyralis farinalis* L.) (Meal Moth) – 26-VI-2004 1. Found in a house.

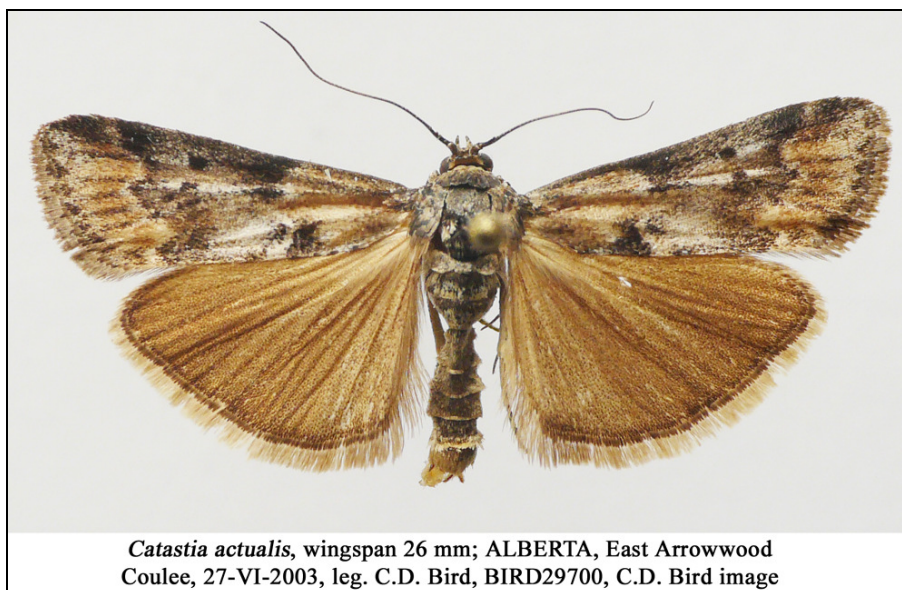
856. *Jocara trabalis* (Grt.) (5585. *Jocara trabalis* (Grt.)) (Jocara Moth) – 30A-VII-2005 1 and 27F-VI-2009 1.

Pyralidae, Phycitinae, Phycitini

863. *Myelopsis minutularia* (Hulst) (5719. *Myelopsis coniellea* (Rag.)) – 29C-VII-2006 1.

870. *Vitula seratilineella* Rag. (6007. *Vitula seratilineella* Rag.) – 29C-VII-2006 1, 2C-IX-2007 1 and 18E-VIII-2010 1.

881. *Pima fulvirugella* (Rag.) (5751. *Pima fulvirugella* (Rag.) (incl. *P. vividella* McD.)) – 26-VI-2004 1 and 27D-VI-2009 1.



887. *Catastia actualis* (Hulst) (5764. *Catastia actualis* (Hulst)) – 27A-VI-2003 1 and 27B-VI-2003 1.

890. *Meroptera pravella* (Grt.) (5787. *Meroptera pravella* (Grt.)) (Lesser Aspen Webworm Moth) – 17C-VI-2006 1.

893. *Sciota fernaldi* (Rag.) (5792. *Nephopterix fernaldella* (Rag.) – 27A-VI-2003 1. This could be a new species of *Sciota* according to Dr. H. Neunzig. He advised the collecting of additional specimens, especially of females.

896. *Telethusia ovalis* (Pack.) (5812. *Telethusia ovalis* (Pack.)) – 18C-VIII-2010 1.

901. *Pyla aenigmatica* Heinr. (5827. *Pyla aenigmatica* Heinr.) – 18E-VIII-2010 1.

903. *Pyla fusca* (Haw.) (5829. *Pyla fusca* (Haw.)) (Speckled Black Pyla Moth) – 2A-IX-2007 1.

907. *Dioryctria reniculelloides* Mutuura & Mun. (5843. *Dioryctria reniculelloides* Mutuura & Mun.) (Spruce Coneworm Moth) – 30A-VII-2005 1.

918. *Hulstia undulatella* (Clem.) (5918. *Hulstia undulatella* (Clem.)) (Sugarbeet Crown Borer Moth) – 3-VIII-2003 1, 2A-IX-2007 2 and 2B-IX-2007 1.

920. *Zophodia grossulariella* (Hbn.) (5968. *Zophodia convolutella* (Hbn.)) (Gooseberry Fruitworm Moth) – 8A-V-2005 1, 17B-V-2008 1 and 17C-V-2008 2.

928. *Phycitoides mucidella* (Rag.) (5946. *Phycitoides mucidellum* (Rag.)) – 2A-IX-2007 1, 2C-IX-2007 1 and 29C-VI-2009 1.

Pyralidae, Phycitinae, Peoriini

933. *Peoria approximella* (Wlk.) (6053. *Peoria approximella* (Wlk.)) (Carmine Snout Moth) – 30A-VII-2005 3.

CRAMBIDAE – Pyralid or Snout Moths

Crambidae, Scopariinae

935. *Scoparia biplagiata* (Wlk.) (4716. *Scoparia biplagiata* (Wlk.)) (Double-striped Scoparia Moth) – 30B-VII-2005 1.

Crambidae, Crambinae, Crambini

942. *Euchromius californicalis* (Pack.) (5455. *Euchromius californicalis* (Pack.)) (California Grass-veneer Moth) – 2B-IX-2007 2.

948. *Chrysoteuchia topiarius* (Zell.) (5391. *Chrysoteuchia topiaria* (Zell.)) (Cranberry Girdler or Topiary Grass-veneer Moth) – 27A-VI-2003 3, 27B-VI-2003 2, 26-VI-2004 2 and 27F-VI-2009 1.

949. *Crambus pascuella* (L.) (5339. *Crambus pascuellus* (L.)) (Grass-veneer Moth) – 27B-VI-2003 1.

953. *Crambus perlella* (Scop.) (5343a. *Crambus perlellus innotatellus* Wlk.) (Immaculate Grass-veneer Moth) – 30B-VII-2005 1, 29A-VII-2006 2, 29B-VII-2006 1, 29C-VII-2006 1 and 18D-VIII-2010 2.

959. *Crambus ainliellus* Klots (5354. *Crambus ainliellus* Klots) – 2C-IX-2007 2.

967. *Agriphila ruricolellus* (Zell.) (5399. *Agriphila ruricolella* (Zell.)) (Lesser Vagabond Sod Webworm) – 30A-VII-2005 1 and 30B-VII-2005 2, 29A-VII-2006 2, 29B-VII-2006 1 and 29C-VII-2006 1.

968. *Agriphila vulgivagellus* (Clem.) (5403. *Agriphila vulgivagella* (Clem.)) (Vagabond Crambus Moth) – 2A-IX-2007 1, 2B-IX-2007 2, 2C-IX-2007 1 and 17C-V-2008 1.

969. *Agriphila attenuatus* Grote (5404. *Agriphila attenuata* Grote) – 2C-IX-2007 1.

976. *Pediasia trisecta* (Wlk.) (5413. *Pediasia trisecta* (Wlk.)) (Sod Webworm Moth) – 29A-VII-2006 1, 29B-VII-2006 1, 29C-VIII-2006 1, 2A-IX-2007 1, 2B-IX-2007 1 and 2C-IX-2007 1.

978. *Pediasia ericellus* (B. & McD.) (5415. *Pediasia ericella* (B. & McD.)) – 18D-VIII-2010 2.

978. *Pediasia ericellus* (B. & McD.) or 974. *Pediasia aridella edmontella* (McD.) (5415. *Pediasia ericella* (B. & McD.) or 5410a. *Pediasia aridella edmontella* McD.) – 30B-VII-2005 1 and 2B-IX-2007 1. These are females of either *Pediasia aridella edmontella* or *P. ericellus*.

980. *Pediasia dorsipunctellus* (Kft.) (5417. *Pediasia dorsipunctella* (Kft.)) – 30A-VII-2005 1, 30B-VII-2005 2, 29B-VII-2006 1 and 18C-VIII-2010 3.

Crambidae, Schoenobiinae

985. In Pohl et al. as *Donacaula melinellus* (Clem.) (5316. *Donacaula melinella albicostella* (Fern.)) (Delightful Donacaula Moth) – 29B-VII-2006 1. This specimen was examined by Edda Martinez at the Mississippi Entomological Museum as part of her PhD monograph of the North American species of the genus.

Crambidae, Acentropinae, Acentropini

987. *Acentria ephemerella* (Denis & Schiff.) (5299. *Acentria nivea* (Olivier)) (Water Veneer Moth) – 18E-VIII-2010 1.

Crambidae, Odontiinae, Eurrhypini

994. *Mimoschinia rufofascialis* (Steph.) (4826. *Mimoschinia rufofascialis* (Steph.)) – 27A-VI-2003 6 and 27B-VI-2003 2.

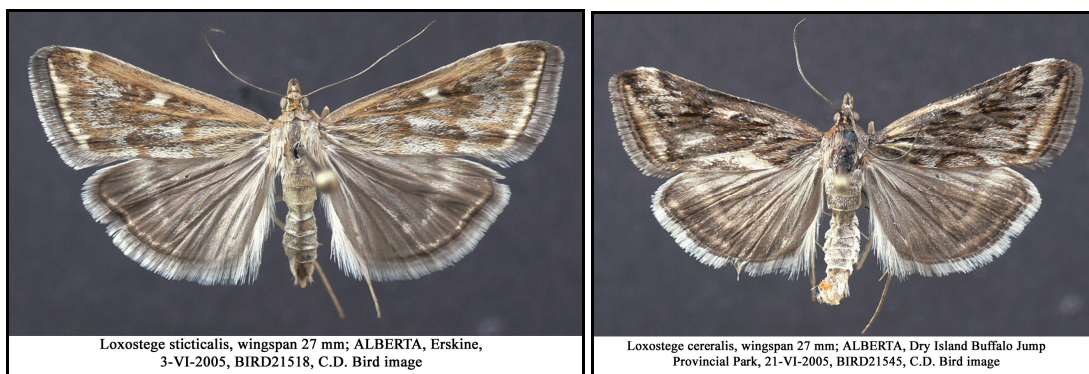
Crambidae, Pyraustinae, Pyraustini

1011. *Fumibotys fumalis* (Gn.) (4950. *Fumibotys fumalis* (Gn.)) (Mint Root Borer Moth) – 27B-VI-2003 3, 27E-V-2009 1 and 18D-VIII-2010 2.

1012. *Perispasta caeculalis* Zell. (4951. *Perispasta caeculialis* Zell.) (Titian Peale's Pyralid Moth) – 27B-VI-2003 1.

1015. *Anania mysippusalis* (Wlk.) (4957. *Mutuuraia mysippusalis* (Wlk.)) – 27B-VI-2003 1.

1018. *Sitochroa chortalis* (Grt.) (4987. *Sitochroa chortalis* (Grt.)) (Sitochroa Moth) – 29A-V-2009 1, 29C-V-2009 1 and 27F-VI-2009 1.



1021. *Loxostege sticticalis* (L.) (5004. *Loxostege sticticalis* (L.)) (Beet Webworm) – 26-VI-2004 1, 30A-VII-2005 2, 1A-VI-2007 2, 1B-VI-2007 1, 1C-VI-2007 1, 2A-IX-2007 1, 2B-IX-2007 1 and 29C-V-2009 1.

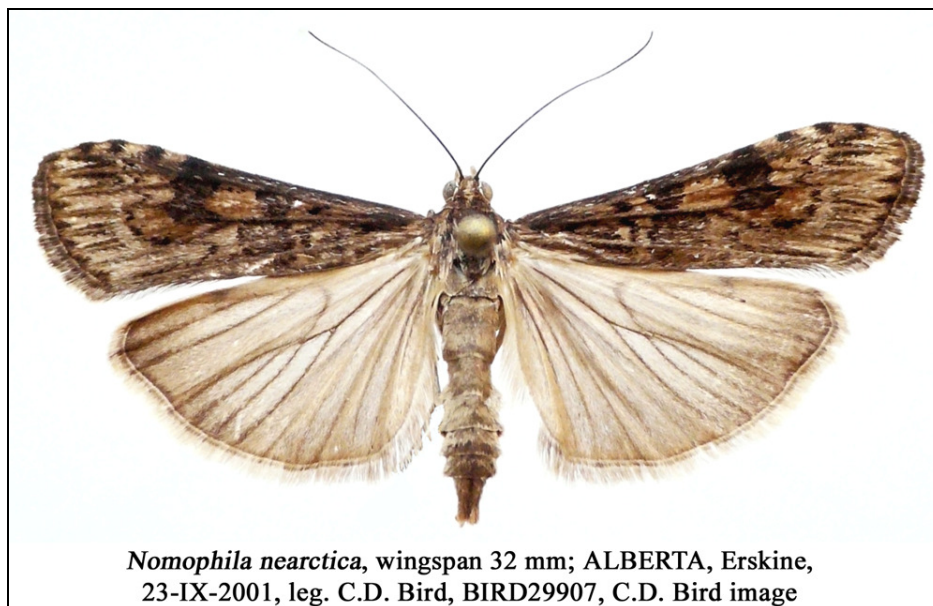
1025. *Loxostege cereralis* (Zell.) (5017. *Loxostege cereralis* (Zell.)) (Alfalfa Webworm Moth) – 30A-VII-2005 1.

1026. *Pyrausta nicalis* (Grt.) (5032. *Pyrausta nicalis* (Grt.)) – 29C-BII-2006 1.

Crambidae, Pyraustinae, Spilomelini

1052. *Mecyna submedialis* (Grt.) (5135. *Mecyna submedialis* (Grt.)) (Orange-toned Mecyna Moth) – 27B-VI-2003 1, 30A-VII-2005 4 and 29C-VII-2006 1.

1053. *Mecyna mustelinalis* (Pack.) (5137. *Mecyna mustelinalis* (Pack.)) – 26-VI-2004 1.



1054. *Nomophila nearctica* Mun. (5156. *Nomophila nearctica* Mun.) (Lucerne Moth or Celery Stalkworm) – 3-VIII-2000 1, 29B-VII-2006 1, 2A-IX-2007 1 and 2C-IX-2007 1.

HESPERIIDAE – Skippers

Hesperiidae, Pyrginae, Pyrgini

1065. *Pyrgus communis* (Grt.) (3966. *Pyrgus communis* (Grt.)) (Common Checkered Skipper) – 2-VI-2001 1.

Hesperiidae, Hesperinae, Hesperini

1074. *Hesperia uncas* Edw. (4018. *Hesperia uncas* Edw.) (Uncas Skipper) – 24-VII-1997 SR and 2-VI-2001 1.

PAPILIONIDAE – Swallowtails

Papilionidae, Papilioninae, Papilionini

1089c. *Papilio machaon dodi* McD. (4165a. *Papilio machaon dodi* McD.) (Dod's Old World Swallowtail) – 17-V-2008 1.

PIERIDAE – Whites and Sulfurs

Pieridae, Coliadinae - Sulphurs

1095b. *Colias philodice* ssp. *eriphyle* Edw. (4209. *Colias philodice* Godt.) (Clouded Sulphur) – 24-VII-1997 SR

Pieridae, Pierinae, Pierini

1114. *Pieris rapae* (L.) (4197. *Pieris rapae* (L.)) (Cabbage White) – 24-VII-1997 SR, 17A-V-2008 1 and 29A-VI-2009 1.

1116a. *Pontia occidentalis* (Reakirt) ssp. *occidentalis* (4194. *Pontia occidentalis* (Reak.)) (Western Checkered White or Western White) – 2-VI-2001 1 and 9A-IV-2008 2.

LYCAENIDAE – Blues and Coppers

Lycaenidae, Polyommatae, Polyommataini

1142. *Cupido amyntula* ssp. *albrighti* (Clench) (4362b. *Everes amyntula* (Bdv.)) (Western Tailed Blue) – 29A-V-2009 1.

1150. *Plebejus melissa* (Edw.) (4375. *Lycaeides melissa* (Edw.)) (Melissa Blue) – 2-VI-2001 1.

1151. *Aricia saepiolus* ssp. *amica* (Edw.) (4376. *Plebejus saepiolus* (L.)) (Greenish Blue) – 29A-V-2009 1.

NYMPHALIDAE – Fritillaries and others

Nymphalidae, Nymphalinae, Nymphalini

1189. *Aglais milberti* (Godt.) (4433. *Aglais milberti* (Godt.)) (Milbert's Tortoiseshell) – 29A-V-2009 1.

1192. *Nymphalis antiopa* (L.) ssp. *hyperborea* (Seitz) (4432. *Nymphalis antiopa* (L.)) (Mourning Cloak) – 11-IV-2004 3 SR.

1198a. *Polygonia faunus* (Edw.) ssp. *faunus* (4423. *Polygonia faunus* (Edw.)) (Green Comma) – 29A-V-2009 1.

Nymphalidae, Melitaeini - Checkerspots

1209. *Phyciodes batesii* ssp. *saskatchewan* Scott (4482. *Phyciodes batesii* (Reak.)) (Tawny Crescent) – 2-VI-2001 1.

SATYRIDAE – Browns and Alpines

Satyridae, Satyrinae, Satyrini

1213a. *Coenonympha inornata* ssp. *benjamini* McD. (4583b. *Coenonympha inornata benjamini* McD.) (Common Ringlet) – 24-VII-1997 SR and 29A-V-2009 1.

1214. *Cercyonis pegala* ssp. *ino* Hall (4587. *Cercyonis pegala* (F.)) (Meadow Brown) – 24-VII-1997 SR.

DREPANIDAE– Lutestrings and Hooktips

Drepanidae, Thyatirinae, Habrosyninae

1231. *Habrosyne scripta* (Gosse) (6235. *Habrosyne scripta* (Gosse)) (The Scribe or The Lettered Habrosyne) – 17C-V-2008 1.

Drepanidae, Thyatirinae, Ceranemotini

1234. *Ceranemota albertae* Clarke (6248. *Ceranemota albertae* Clarke) (Alberta Lutestring) – 2C-IX-2007 2.

Drepanidae, Drepaninae, Drepanini

1237. *Drepana bilineata* (Pack.) (6252. *Drepana bilineata* (Pack.)) (Two-lined Hooktip) – 30B-VII-2005 1, 1B-VI-2007 1 and 1C-VI-2007 1.

GEOMETRIDAE – Inchworm Moths, Loopers**Geometridae, Larentiinae, Cidariini**

1241. *Dysstroma citrata* (L.) (7182. *Dysstroma citrata* (L.)) (Dark Marbled Carpet) – 2B-IX-2007 1 and 2C-IX-2007 1.

1252. *Eulithis propulsata* (Wlk.) (7199. *Eulithis propulsata* (Wlk.)) (Barred Yellow or Currant Eulithis) – 2B-VII-2005 1.

1257. *Eulithis xyliana* (Hulst) (7207. *Eulithis xyliana* (Hulst)) (The Phoenix) – 30A-VII-2005 1 and 29C-VII-2006 1.

Geometridae, Larentiinae, Hydriomenini

1290. *Anticlea vasiliata* Gn. (7329. *Anticlea vasiliata* Gn.) (Variable Carpet) – 8A-V-2005 1.

Geometridae, Larentiinae, Xanthorhoini

1293. *Xanthorhoe labradorensis* (Pack.) (7368. *Xanthorhoe labradorensis* (Pack.)) – 26-VI-2004 1.

1308. *Epirrhoe alternata* (Müller) (7394. *Epirrhoe alternata* (Müller)) (White-banded Toothed Carpet) – 17B-VI-2006 1.

1312. *Zenopheps alpinata* Cass. (7408. *Zenopheps alpinata* Cass.) (Wood-colored Carpet) – 2B-IX-2007 2 and 2C-IX-2007 3.

Geometridae, Larentiinae, Eupitheciini

1326. *Horisme intestinata* (Gn.) (7445. *Horisme intestinata* (Gn.)) (Brown Bark Carpet) – 27B-VI-2003 1 and 26-VI-2004 2.

1327. *Horisme incana* Swett (7446. *Horisme incana* Swett) – 17C-VI-2006 1, 1A-VI-2007 1, 1B-VI-2007 2 and 29C-V-2009 1.

Eupithecia spp. – 2A-IX-2007 1 and 2C-IX-2007 1.

1336. *Eupithecia subfuscata* (Haw.) (7487. *Eupithecia subfuscata* (Haw.)) (Grey Pug) – 27-VI-2003 1.

1339. *Eupithecia misturata* (Hust) (7476. *Eupithecia misturata* (Hulst)) (Insignificant Pug) – 8-V-2005 1.

Geometridae, Sterrhinae, Scopulini

1386. *Scopula junctaria* (Wlk.) (7164. *Scopula junctaria* (Wlk.)) (Simple Wave) – 27B-VI-2003 1 and 2B-VII-2005 1.
1388. *Scopula frigidaria* Mösch. (7166. *Scopula frigidaria* Mösch.) (Frigid Wave) – 2C-IX-2007 1.
1390. *Scopula inductata* Gn. (7169. *Scopula inductata* Gn.) (Soft-lined Wave) – 17A-VI-2006 1, 29A-VII-2006 1, 29B-VII-2006 1, 2A-IX-2007 1 and 2C-IX-2007 1.
1392. *Scopula sentinaria* (Gey.) (7172. *Scopula sentinaria* (Gey.)) – 2-VI-2001 1.

Geometridae, Ennomiinae, Macariini

1408. *Eumacaria madopata* (Gn.) (6272. *Eumacaria latiferrugata* (Wlk.)) (Brown-bordered Geometer) – 27B-VI-2003 1 and 1A-VI-2007 1.
1414. *Speranza bitactata* (Wlk.) (6304. *Itame bitactata* (Wlk.)) – 3-VIII-2000 1, 30B-VII-2005 4 and 2C-IX-2007 1.
1416. *Speranza occiduaria* (Pack.) (6279. *Itame occiduaria* (Pack.)) (Western Sulphur) – 26-VI-2004 2, 30A-VII-2005 1, 30B-VII-2005 4, 29B-VII-2006 1 and 18D-VIII-2010 1.
1431. *Digrammia californiaria* (Pack.) (6380. *Semiothisa californiaria* (Pack.)) – 27A-VI-2003 1, 1A-VI-2007 1, 29B-V-2009 2 and 29C-V-2009 1.
1433. *Digrammia denticulata* Grt. (6373. *Semiothisa denticulata* Grt.) (Striped Granite) – 27B-VI-2003 2, 30A-VII-2005 1, 30B-VII-2005 1, 1B-VI-2007 1 and 29C-V-2009 1.
1440. *Digrammia neptaria* (Gn.) (6396. *Semiothisa neptaria* (Gn.)) – 2-VI-2001 2, 27B-VI-2003 2, 29C-VII-2006 1, 17C-V-2008 1 and 29D-V-2009 1.

Geometridae, Ennomiinae, Boarmiini

1445. *Hesperumia sulphuraria* Pack. (6431. *Hesperumia sulphuraria* Pack.) – 30B-VII-2005 1.
1455. *Ectropis crepuscularia* (D. & S.) (6597. *Ectropis crepuscularia* (D. & S.)) – 8B-V-2005 1.

Geometridae, Ennomiinae, Bistonini

1460. *Biston betularia* (L.) (6640. *Biston betularia* (L.)) (Salt-and-Pepper Moth) – 1C-VI-2007 1.
1461. *Lycia ursaria* (Wlk.) (6651. *Lycia ursaria* (Wlk.)) (The Bear or Stout Spanworm Moth) – 28A-IV-2007 2, 28B-IV-2007 1 and 17C-V-2008 1.

Geometridae, Ennomiinae, Caberini

1472. *Cabera erythemaria* Gn. (6677. *Cabera erythemaria* Gn.) (Yellow-dusted Cream Moth) – 27B-VI-2003 1 and 29C-VII-2006 1.
1473. *Cabera variolaria* Gn. (6678. *Cabera variolaria* Gn.) (Pink-striped Willow Spanworm) – 27B-VI-2003 1 and 2B-VII-2005 1.

Geometridae, Ennomiinae, Angeronini

1480. *Aspitates aberratus* (Hy. Edw.) (6715. *Aspitates aberratus* (Hy. Edw.)) – 27B-VI-2003 2, 26-VI-2004 1, 17A-VI-2006 1, 17B-VI-2006 1, 17C-VI-2006 1, 1A-VI-2007 1, 1B-VI-2007 1 and 1C-VI-2007 1.
1483. *Euchlaena johnsonaria* (Fitch) (6729. *Euchlaena johnsonaria* (Fitch)) (Johnson's Euchlaena) – 27A-VI-2003 1, 27B-VI-2003 1.

1485. *Euchlaena marginaria* (Minot) (6734. *Euchlaena marginaria* (Minot)) (Ochre Euchlaena) – 27B-VI-2003 1.
 1486. *Euchlaena tigrinaria* (Gn.) (6737. *Euchlaena tigrinaria* (Gn.)) (Mottled Euchlaena or Variable Thorn) – 27B-VI-2003 1.
 1488. *Xanthotype sospeta* (Drury) (6743. *Xanthotype sospeta* (Drury)) – 2B-VII-2005 1.

Geometridae, Ennomiinae, Azelini

1489. *Pero honestaria* (Wlk.) (6753. *Pero honestaria* (Wlk.)) (Honest Pero) – 27B-VI-2003 1.
 1490. *Pero morrisonaria* (Hy. Edw.) (6755. *Pero morrisonaria* (Hy. Edw.)) (Lesser Umber or Morrison's Pero) – 27B-VI-2003 1, 1B-VI-2007 1 and 27F-VI-2009 1.

Geometridae, Ennomiinae, Campaeini

1494. *Campaea perlata* (Gn.) (6796. *Campaea perlata* (Gn.)) (Pale Beauty) – 27B-VI-2003 2.

Geometridae, Ennomiinae, Ennomini

1495. *Ennomos magnaria* Gn. (6797. *Ennomos magnaria* Gn.) (Maple Spanworm) – 2C-IX-2007 2.
 1496. *Ennomos subsignaria* (Hbn.) (6798. *Ennomos subsignaria* (Hbn.)) – 27B-VI-2003 2.

Geometridae, Ennomiinae, Anagogini

1501. *Selenia alciphearia* (Wlk.) or 1502. *Selenia kentaria* (G. & R.) (6817. *Selenia alciphearia* (Wlk.) or 6818 *Selenia kentaria* (G. & R.)) – 8A-V-2005 1.
 1502. *Selenia kentaria* (G. & R.) (6818. *Selenia kentaria* (G. & R.)) (Kent's Geometer) – 29D-V-2009 1.
 1504. *Metanema determinata* (Wlk.) (6820. *Metanema determinata* Wlk.) (Dark Metanema) – 1A-VI-2007 1.
 1506. *Metarranthis duaria* (Gn.) (6822. *Metarranthis duaria* (Gn.)) – 8B-V-2005 8, 1A-VI-2007 1, 29B-V-2009 1, 29D-V-2009 1 and 29F-V-2009 1.
 1507. *Probole alienaria* H.-S. (6837. *Probole alienaria* H.-S.) – 27B-VI-1002 2, 8B-V-2005 1 and 17C-VI-2006 1.
 1508. *Probole amicaria* (H.-S.) (6838. *Probole amicaria* (H.-S.)) (Friendly Probole) – 27B-VI-2003 1 and 26-VI-2004 1.
 1509. *Plagodis pulveraria* L. (6836. *Anagoga occiduaria* (Wlk.)) (American Barred Umber) – 2-VI-2001 1.

Geometridae, Ennomiinae, Ourapterygini

1512. *Neoterpes trianguliferata* (Pack.) (6860. *Neoterpes trianguliferata* (Pack.)) – 27B-VI-2003 1 and 29D-V-2009 1.
 1522. *Sicya macularia* (Harr.) (6912. *Sicya macularia* (Harr.)) (Pink-bordered Yellow) – 29B-VII-2006 1, 29C-VII-2006 1 and 2C-IX-2007 1.
 1529. *Tetracis cachexiata* Gn. (6964. *Tetracis cachexiata* Gn.) (White Slant-line) – 1B-VI-2007 1, 29D-V-2009 1 and 27F-VI-2009 2.
 1531. *Prochoerhodes lineola* (Göze) (6982. *Prochoerhodes transversata* (Drury)) (Large Maple Spanworm) – 2B-IX-2007 1 and 2C-IX-2007 1.

LASIOCAMPIDAE – Tent Caterpillar and Lappet Moths

Lasiocampidae, Lasiocampinae, Gastropachini

1536. *Phyllodesma americana* (Harr.) (7687. *Phyllodesma americana* (Harr.)) (Lappet Moth) – 8B-V-2005 1, 28B-IV-2007 1, 17C-V-2008 1 and 29D-V-2009 2.

Lasiocampidae, Lasiocampinae, Lasiocampini

1537. *Malacosoma disstria* Hbn. (7698. *Malacosoma disstria* Hbn.) (Forest Tent Caterpillar) – 18E-VIII-2010 1.
1538. *Malacosoma californica* (Pack.) (7702. *Malacosoma californicum* (Pack.)) (Western Tent Caterpillar) – 29A-VII-2006 1 and 29C-VII-2006 1.

SATURNIDAE – Giant Silkworm Moths

Saturniidae, Saturniinae, Saturniini

1542. *Antheraea polyphemus* (Cram.) (7757. *Antheraea polyphemus* (Cram.)) (Polyphemus Moth) – 2-VI-2001 1.

SPHINGIDAE – Sphinx Moths

Sphingidae, Sphinginae, Sphingini

1548. *Sphinx vashti* Stkr. (7803. *Sphinx vashti* Stkr.) (Vashti or Snowberry Sphinx) – 2-VI-2001 1, 27A-VI-2003 1, 27B-VI-2003 1, 26-VI-2004 1, 1A-VI-2007 2, 1C-VI-2007 1 and 27F-VI-2009 1.

Sphingidae, Smerinthinae, Smerinthini

1553. *Smerinthus jamaicensis* (Drury) (7821. *Smerinthus jamaicensis* (Drury)) (Twin Spotted Sphinx) – 2-VI-2001 1, 27B-VI-2003 1, 26-VI-2004 1, 2B-VII-2005 1, 17C-VI-2006 1 and 27F-VI-2009 1.
1554. *Smerinthus cerisyi* Kby. (7822. *Smerinthus cerisyi* Kby.) (One-eyed Sphinx) – 2-VI-2001 1 and 27B-VI-2003 1.
1557. *Paonias myops* (J.E. Smith) (7825. *Paonias myops* (J. E. Smith)) (Small-eyed Sphinx) – 27A-VI-2003 1, 27B-VI-2003 1, 26-VI-2004 1, 1A-VI-2007 1, 1B-VI-2007 1, 1C-VI-2007 1 and 27D-VI-2009 1.

Sphingidae, Macroglossinae, Macroglossini

1570. *Hyles gallii* (Rottemburg) (7893. *Hyles gallii* (Rottemburg)) (Galium Sphinx or Bedstraw Hawkmoth) – 27A-VI-2003 1, 2A-VII-2005 1, 1A-VI-2007 1 and 1C-VI-2007 1.

NOTODONTIDAE – Prominents

Notodontidae, Pygaerinae

1575. *Clostera apicalis* (Wlk.) (7901. *Clostera apicalis* (Wlk.)) (Common Chocolate-tip or Red-marked Tentmaker) – 27B-VI-2003 1.

Notodontidae, Notodontinae, Notodontini

1576. *Pheosia rimosa* Pack. (7922. *Pheosia rimosa* Pack.) (Black-rimmed Prominent) – 8B-V-2005 1.

1579. *Notodonta torva* Graef (7928. *Notodonta simplaria* Graef) (Simple Prominent) – 17C-VI-2006 1.

Notodontidae, Notodontinae, Dicranurini

1580. *Gluphisia septentrionis* Wlk. (7931. *Gluphisia septentrionis* Wlk.) (Small Pebble or Common Gluphisia) – 27A-VI-2003 1.

1585. *Furcula occidentalis* (Lint. (7939. *Furcula occidentalis* (Lint.)) (Willow Kitten) – 29D-V-2009 1.

Notodontidae, Heterocampinae

1591. *Schizura unicornis* (J.E. Smith) (8007. *Schizura unicornis* (J. E. Smith)) (Variegated Prominent or Unicorn Caterpillar Moth) – 27B-VI-2003 1 and 29C-V-2009 1.

EREBIDAE – Quadrifine Noctuoids**Erebidae, Lymantriinae, Orgyiini**

1597. *Leucoma salicis* (L.) (8319. *Leucoma salicis* (L.)) (Satin Moth) – 18E-VIII-2010 1.

1600. *Dasychira vagans* (B. & McD.) (8294. *Dasychira vagans* (B. & McD.)) (Variable Tussock Moth) – 26-VI-2004 1, 30A-VII-2005 1, 30A-VII-2006 1 and 30A-VII-2009 1.

Erebidae, Arctiinae, Lithosiini

1610. *Crambidia casta* (Pack.) (8051. *Crambidia casta* (Pack.)) (Pearly-winged Lichen Moth) – 28A-VIII-2005 2, 29A-VII-2006 1, 2A-IX-2007 1, 18C-VIII-2010 1, 18E-VIII-2010 1 and 24B-IV-2011 1.

Erebidae, Arctiinae, Arctiini

1619. *Grammia virgo* (L.) (8197. *Grammia virgo* (L.)) (Virgin Tiger Moth) – 26-VI-2004 1 and 27F-VI-2009 1.

1625. *Grammia williamsii* (Dodge) (8186. *Grammia williamsii* (Dodge)) (William's Tiger Moth) – 27A-VI-2003 1, 27B-VI-2003 2, 26-VI-2004 1 17B-VI-2006 1 27D-VI-2009 1, 27E-VI-2009 1 and 27F-VI-2009 1.

1634. *Phragmatobia lineata* Newm. & Donahue (8157. *Phragmatobia lineata* Newm. & Donahue) – 17B-V-2008 1. Previously known in Alberta only from “head of Pine Creek”, SW of Calgary, where it was collected by F.H. Wolley-Dod.

1635. *Phragmatobia assimilans* Wlk. (8158. *Phragmatobia assimilans* Wlk.) (Large Ruby Tiger Moth) – 1A-VI-2007 1, 27B-V-2009 1, 27C-V-2009 1 and 27D-V-2009 1.
1637. *Estigmene acraea* (Drury) (8131. *Estigmene acraea* (Drury)) (Salt Marsh Moth) – 1B-VI-2007 1.
1640. *Spilosoma dubia* (Wlk.) (8136. *Spilosoma dubia* (Wlk.)) (Dubious Tiger Moth) – 29D-V-2009 1, 27D-VI-2009 1, 27E-VI-2009 1 and 27F-VI-2009 1.
1641. *Spilosoma virginica* (F.) (8137. *Spilosoma virginica* (F.)) (Virginian Tiger Moth, Red-marked Tentmaker or Yellow Woollybear) – 27B-VI-2003 1 and 29B-VII-2006 1.
1644. *Hypercompe permaculata* (Pack.) (8144. *Hypercompe permaculata* (Pack.)) (Many-spotted Tiger Moth) – 3-VIII-2000 1, 2-VI-2001 1, 2A-VII-2005 1 and 30A-VII-2005 1.
1649. *Lophocampa maculata* (Harr.) (8214. *Lophocampa maculata* (Harr.)) (Spotted Tiger Moth) – 26-VI-2004 1, 17A-VI-2006 1, 1B-VI-2007 1 and 27F-VI-2009 1.

Erebidae, Herminiinae

1654. *Idia americalis* (Gn.) (8322. *Idia americalis* (Gn.)) (American Snout Moth) – 27B-VI-2003 2, 29B-VII-2006 1, 2C-IX-2007 1 and 18E-VIII-2010 1.
1668. *Bleptina caradrinalis* Gn. (8370. *Bleptina caradrinalis* Gn.) (Bent-winged Owlet or Variable Snout Moth) – 27-VI-2003 1.

Erebidae, Hypeninae

1677. *Hypena humuli* Harr. (8461. *Hypena humuli* Harr.) (Hop Vine Snout Moth) – 8A-V-2005 2, 8B-V-2005 1, 17C-V-2008 1, 29B-V-2009 1 and 29C-V-2009 1.

Erebidae, Erebiniae, Melipotini

1693. *Drasteria petricola* (Wlk.) (8631. *Synedoida petricola athabasca* (Neum.)) (Little Arches) – 17-V-2008 2.
1694. *Drasteria hudsonica* (G. & R.) (8632. *Synedoida hudsonica* (G. & R.)) (Northern Arches) – 8A-V-2005 2, 8B-V-2005 1 and 29D-V-2009 1.

Erebidae, Erebiniae, Eucliniini

1700. *Caenurgina crassiuscula* (Haw.) (8738. *Caenurgina crassiuscula* (Haw.)) (Clover Looper Moth) – 2-VIII-2000 1, 30A-VII-2005 1, 30B-VII-2005 1, 29B-VII-2006 1, 1A-VI-2007 1, 1B-VI-2007 1, 1C-VI-2007 1, 29A-V-2009 1 and 29C-V-2009 1.
1701. *Caenurgina erechtea* (Cram.) (8739. *Caenurgina erechtea* (Cram.)) (Forage Looper Moth) – 29A-VII-2006 2, 29C-VII-2006 1, 2B-IX-2007 1, 18C-VIII-2010 1, 18D-VIII-2010 1 and 18E-VIII-2010 1.

Erebidae, Erebiniae, Ophiusini

1703. *Zale minerea* (Gn.) (8697. *Zale minerea* (Gn.)) (Colorful Zale) – 1C-VI-2007 1.

Erebidae, Erebiniae, Catocalini

1705. *Catocala relictata* (Wlk.) 8803. *Catocala relictata* (Wlk.) (White Underwing) – 2A-IX-2007 2 and 2B-IX-2007 1.
1706. *Catocala unijuga* Wlk. (8805. *Catocala unijuga* Wlk.) (Once-married Underwing) – 2A-IX-2007 2.
1709. *Catocala hermia* Hy. Edw. (8812. *Catocala hermia* Hy. Edw.) (Hermia Underwing) – 2A-IX-2007 2.
1711. *Catocala briseis* Edw. (8817. *Catocala briseis* Edw.) (Ribbed Underwing or Briseis Underwing) – 2A-IX-2007 1.
1713. *Catocala semirelictata* Grt. (8821. *Catocala semirelictata* Grt.) (Semirelict Underwing) – 29B-VII-2006 1 and 29C-VII-2006 1.
1714. *Catocala meskei* Grt. (8822. *Catocala meskei* Grt.) – 2A-IX-2007 1.

NOLIDAE – Nolid Moths

Nolidae, Nolinae

1721. *Nola cilicoides* (Grt.) (8990. *Nola cilicoides* (Grt.)) (Blurry-patched Nola) – 30A-VII-2005 1 and 30B-VII-2005 1.

NOCTUIDAE – Noctuid Moths

Noctuidae, Plusiinae, Plusiini

1729. *Pseudeva purpurigera* (Wlk.) (8899. *Pseudeva purpurigera* (Wlk.)) (Straight-lined Looper Moth) – 18E-VIII-2010 1.
1740. *Autographa californica* (Speyer) (8914. *Autographa californica* (Speyer)) (Alfalfa Looper) – 3-VIII-2000 2, 17A-VI-2006 1, 2C-IX-2007 3 and 17B-V-2008 1.
1744. *Autographa ampla* (Wlk.) (8923. *Autographa ampla* (Wlk.)) (Broken-banded Y or Large Looper Moth) – 27A-VI-2003 1 and 27F-VI-2009 1.
1745. *Anagrapha falcifera* (Kby.) (8924. *Anagrapha falcifera* (Kby.)) (Celery Looper) – 27B-VI-2003 1, 2B-IX-2007 1, 2C-IX-2007 2, 27D-VI-2009 1 and 18E-VIII-2010 2.
1755. *Syngrapha alias* (Ottol.) (8939. *Syngrapha alias* (Ottol.)) (Hooked Silver Y or Spruce Climbing Cutworm Moth) – 18D-VIII-2010 1.
1763. *Plusia putnami* Grt. (8950. *Plusia putnami* Grt.) (Putnam's Looper Moth) – 17B-VI-2006 1.

Noctuidae, Eustrotiinae

1767. *Protodeltote albidula* (Gn.) (9048. *Lithacodia albidula* (Gn.)) (Common Midget) – 29B-VII-2006 1.

Noctuidae, Acontiinae, Acontiini

1770. *Ponometia tortricina* (Zell.) (9101. *Tarachidia tortricina* (Zell.)) (Olive-shaded Bird-dropping Moth) – 27A-VI-2003 1.
1773. *Tarache angustipennis* (Grt.) (9111. *Therasesa angustipennis* and 9112. *Therasesa flavicosta* (Sm.)) (Narrow-winged Midget or Olive-shaded Bird Dropping Moth) – 2-VI-2001 2, 27A-VI-2003 1, 27B-VI-2003 1, 26-VI-2004 1, 30A-VII-2005 3 and 2A-IX-2007 1.

Noctuidae, Dilobinae

1778. *Raphia frater* Grt. (9193. *Raphia frater* Grt.) (The Brother) – 27B-VI-2003 1 and 29D-V-2009 1. Also included here is 9195. *Raphia coloradensis* Put.-Cr. – 2-VI-2001 1, 27B-VI-2003 1, 1C-VI-2007 1, 17C-V-2008 1, 29D-V-2009 1 and 27F-VI-2009 1. The latter has identical genitalia and is considered a white, southern, form.

Noctuidae, Acronictinae

1785. *Acronicta radcliffei* (Harr.) (9209. *Acronicta radcliffei* (Harr.)) (Radcliff's Dagger Moth) – 17C-V-2008 1. Seldom collected in Alberta.
1790. *Acronicta superans* Gn. (9226. *Acronicta superans* Gn.) (The Chieftain Dagger Moth) – 29C-V-2009 1.
1791. *Acronicta hasta* Gn. (9228. *Acronicta furcifera* Gn. and 9229. *Acronicta hasta* Gn.) (The Forked Dagger Moth) – 8A-V-2005 1, 1A-VI-2007 1 and 1B-VI-2007 2, 29B-V-2009 1 and 27F-VI-2009 1.
1794. *Acronicta impleta* Wlk. (9257. *Acronicta impleta* Wlk.) (Yellow-haired Dagger Moth) – 1B-VI-2007 1, 1C-VI-2007 1 and 17C-V-2008 1.
1795. *Acronicta sperata* Grt. (9258. *Acronicta sperata* Grt.) (Sperata Dagger Moth) – 8B-V-2005 1, 1B-VI-2007 1, 1C-VI-2007 1 and 29C-V-2009 1.
1796. *Acronicta impressa* Wlk. (9261. *Acronicta impressa* Wlk.) (Willow Dagger Moth) – 1C-VI-2007 2.
1801. *Simyra henrici* (H.-S.) (9280. *Simyra henrici* (Grt.)) (Henry's Marsh Moth) – 1A-VI-2007 1.

Noctuidae, Cuculiinae

1808. *Cucullia intermedia* Speyer (10194. *Cucullia intermedia* Speyer) (Goldenrod Cutworm Moth) – 27A-VI-2003 1, 1B-VI-2007 1, 1C-VI-2007 1 and 29C-V-2009 1.

Noctuidae, Oncocnemidinae

1844. *Sympistis mackiei* (B. & Benj.) (10143. *Oncocnemis mackiei* (B. & Benj.)) (Mackie's Beauty) – 2C-IX-2007 2.
1853. *Sympistis chionanthi* (Sm.) (10067. *Adita chionanthi* (J.E. Smith)) (Fringed Tree Sallow) – 30B-VII-2005 1 and 18E-VIII-2010 2.

Noctuidae, Heliolithinae

1892. *Schinia cumatilis* (Grt.) (11192. *Schinia cumatilis* (Grt.)) (Silver-banded Gem) – 30A-VII-2005 7.

Noctuidae, Noctuinae, Pseuostrotiini

1897. *Pseudostrotia carneola* (Gn.) (9053. *Pseudostrotia carneola* (Gn.)) (Pink-barred Lithacodia) – 27B-VI-2003 1, 1A-VI-2007 1 and 17B-V-2008 1.

Noctuidae, Noctuinae, Caradrini

1904. *Caradrina meralis* (Morr.) (9654. *Platyperigea meralis* (Morr.)) – 30B-VII-2005 1.
 1905. *Caradrina montana* (Bremer) (9656. *Platyperigea montana* (Bremer)) (Civil Rustic) – 3-VIII-2000 2, 2-VI-2001 1, 27A-VI-2003 1, 26-VI-2004 1, 30B-VII-2005 1, 2B-IX-2007 1, 2C-IX-2007 1 and 18C-VIII-2010 1.
 1906. *Proxenus miranda* (Grt.) (9647. *Proxenus miranda* (Grt.)) (Glistening Rustic) – 2-VI-2001 4, 26-VI-2004 2 and 2C-IX-2007 1.
 1907. *Proxenus mendosa* McD. (9649. *Proxenus mendosa* McD.) – 30A-VII-2005 1.

Noctuidae, Noctuinae, Apameini

1914. *Apamea alia* (Gn.) (9351. *Apamea alia* (Gn.)) (Dewy Quaker) – 17B-VI-2006 3, 17C-VII-2006 2 and 27E-VI-2009 1.
 1918. *Apamea sordens* (Hufn.) (9364. *Apamea finitima* Gn.) (Bordered Apamea) – 27B-VI-2003 1, 26-VI-2004 1, 17B-VI-2006 1, 1A-VI-2007 1 and 1C-VI-2007 1.
 1919. *Apamea inordinata* (Morr.) (9353. *Apamea inordinata* (Morr.)) (Montana Quaker) – 27A-VI-2003 1.
 1921. *Apamea lignicolora* (Gn.) (9333. *Apamea lignicolora* (Gn.)) – 27E-VI-2009 1.
 1924. *Apamea commoda* (Wlk.) (9359. *Apamea commoda* (Wlk.)) (Southern Quaker) – 27A-VI-2003 1, 26-VI-2004 2, 17A-VI-2006 1, 17B-VI-2006 2, 27D-VI-2009 1 and 27F-VI-2009 1.
 1927. *Apamea amputatrix* (Fitch) (9348. *Apamea amputatrix* (Fitch)) (Northern Quaker or Dusky Sallow) – 2B-VII-2005 1, 29B-VII-2006 1, 27D-VI-2009 1 and 27F-VI-2009 1.
 1930. *Apamea scoparia* Mik. Must. & Laf. (9365. *Agroperina lateritia* (Hufn.)) (Red-Winged Quaker) – 27A-VI-2003 2, 27B-VI-2003 1, 26-VI-2004 2, 17C-VI-2006 1, 27E-VI-2009 1, 27F-VI-2009 1, 18C-VIII-2010 1 and 18D-VIII-2010 1.
 1931. *Apamea cogitata* (Sm.) (9367a. *Apamea dubitans cogitata* (Sm.)) (Ruby Quaker) – 30B-VIII-2005 1, 27D-VI-2009 1 and 27E-VI-2009 1.
 1932. *Apamea inficita* (Wlk.) (9369. *Apamea inficita* (Wlk.)) – 30A-VII-2005 1, 30B-VIII-2005 1, 29A-VII-2006 1, 29B-VII-2006 1, 29C-VII-2006 1 and 18E-VIII-2010 1.
 1933. *Apamea devastator* (Brace) (9382. *Crymodes devastator* (Brace)) (Glassy Cutworm Moth or Destructive Quaker) – 3-VIII-2000 2, 30A-VII-2005 3 and 30B-VII-2005 1, 17C-VI-2006 1, 29A-VII-2006 1, 29B-VI-2006 1, 18C-VIII-2010 1, 18D-VIII-2010 1 and 18E-VIII-2010 1.
 1937. *Lateroligia ophiogramma* (Esper) – 18D-VIII-2010 1. Not in Hodges.
 1938. *Resapamea passer* (Gn.) (9391. *Luperina passer* (Gn.)) (Dock Rustic) – 30B-VII-2005 1.
 1943. *Oligia egens* (Wlk.) (9417. *Oligia egens* (Wlk.)) (Neomogen's Quaker) – 30B-VII-2005 1, 29C-VII-2006 1, 2C-IX-2007 1 and 18D-VIII-2010 1.
 1956. *Hypocoena rufostriata* (Pack.) (9440. *Chortodes rufostriata* (Pack.)) (Brown-streaked Rustic) – 27B-VI-2003 1 and 30A-VII-2005 1.
 1959. *Capsula subflava* (Grt.) (9450. *Archanara subflava* (Grt.)) (Subflava Sedge Borer) – 2C-IX-2007 1, 18C-VIII-2010 1 and 18D-VIII-2010 2.
 1960. *Helotropha reniformis* (Grt.) (9453. *Celaena reniformis* (Grt.)) (Kidney-spotted Rustic) – 3-VIII-2000 1.
 1962. *Amphipoea americana* (Speyer) (9457. *Amphipoea americana* (Speyer)) (American Ear Moth) – 29C-VII-2006 1, 2C-IX-2007 1 and 18D-VIII-2010 1.
 1963. *Papaipema harrisii* (Grt.) (9472. *Papaipema harrisii* (Grt.)) (Cow Parsnip Borer Moth) – 2C-IX-2007 1.
 1968. *Hydraecia perobliqua* Hamp. (9515. *Hydraecia perobliqua* Hamp.) (Oblique Rustic) – 30B-VII-2005 1 and 2C-IX-2007 1.

Noctuidae, Noctuinae, Xylenini

1975. *Xylena nupera* (Lint.) (9873. *Xylena nupera* (Lint.)) (American Swordgrass Moth) – 8A-V-2005 2 and 8B-V-2005 2.
1976. *Xylena curvimacula* (Morr.) (9874. *Xylena curvimacula* (Morr.)) (Dot-and-Dash Swordgrass Moth) – 9C-IV-2008 1.
1978. *Xylena cineritia* (Grt.) (9876. *Xylena cineritia* (Grt.)) (Western Swordgrass Moth) – 8A-V-2005 3, 8B-V-2005 1, 9B-IV-2008 1 and 9C-IV-2008 1.
1991. *Lithophane fagina* Morr. (9917. *Lithophane fagina* Morr.) (Beech Pinion) – 8A-V-2005 1, 28A-IV-2007 1, 9B-IV-2008 1, 24A-IV-2011 1 and 24B-IV-2011 1.
1995. *Eupsilia vinulenta* (Grt.) (9933. *Eupsilia vinulenta* (Grt.)) (Straight-toothed Sallow) – 24A-IV-2011 1.
1996. *Eupsilia tristigmata* (Grt.) (9935. *Eupsilia tristigmata* (Grt.)) (Three-spotted Sallow) – 10-III-2007 2, 9D-IV-2008 1 and 12B-IV-2009 1.
1997. *Eupsilia devia* (Grt.) (9939. *Eupsilia devia* (Grt.)) (Many-lined Sallow) – 24A-IV-2011 1
1999. *Eucirroedia pampina* (Gn.) (9952. *Eucirroedia pampina* (Gn.)) (Scalloped Sallow) – 2B-IX-2007 1 and 2C-IX-2007 1.
2003. *Anathix puta* (G. & R.) (9962. *Anathix puta* (G. & R.)) (Dusky Sallow) – 18D-VIII-2010 1.
2008. *Brachylochia populi* (Stkr.) (9993. *Brachylochia populi* (Stkr.)) (Cloaked Peasant) – 2C-IX-2007 2 and 18E-VIII-2010 1.
- Mniotype* sp. – 17C-VI-2006 1.
2039. *Ufeus plicatus* Grt. (11052. *Ufeus plicatus* Grt.) – 24B-IV-2011 1.

Noctuidae, Noctuinae, Orthosiini

2042. *Stretchia plusiaeformis* Hy. Edw. (10471. *Stretchia plusiaeformis* Hy. Edw.) (Gray Spectacles) – 8A-V-2005 1, 8B-V-2005 2, 9B-IV-2008 1, 9C-IV-2008 1, 9D-IV-2008 1, 12A-IV-2009 1, 12B-IV-2009 1 and 24A-IV-2011 1.
2044. *Orthosia revicta* (Morr.) (10490. *Orthosia revicta* (Morr.)) (Subdued Quaker) – 8A-V-2005 1, 8B-V-2005 3, 28A-IV-2007 1 and 17C-V-2008 1.
2045. *Orthosia segregata* Sm. (10493. *Orthosia segregata* Sm.) (Segregate Penman) – 8A-V-2005 2, 8B-V-2005 2, 28A-IV-2007 3, 17B-V-2008 1 and 17C-V-2008 1. *Orthosia segregata* f. *negussa* Sm.) – 8A-V-2005 5, 8B-V-2005 1 and 28A-IV-2007 4.
2046. *Orthosia hibisci* (Gn.) (10495. *Orthosia hibisci* (Gn.)) (Variable Penman or Speckled Green Fruitworm Moth) – 8B-V-2005 1, 28A-IV-2007 3, 28B-IV-2007 1, 9C-IV-2008 3, 9B-IV-2008 1, 17C-V-2008 1 and 12B-IV-2009 1.
2047. *Crocigrapta normani* (Grt.) (10501. *Crocigrapta normani* (Grt.)) (Norman's Quaker) – 8A-V-2005 1 and 8B-V-2005 12, 29B-V-2009 1 and 29C-V-2009 1.
2049. *Egira dolosa* (Grt.) (10513. *Egira dolosa* (Grt.)) (Grieving Woodling or Greater Black Letter Dart) – 27A-VI-2003 1 and 17C-V-2008 1.

Noctuidae, Noctuinae, Tholerini

2053. *Nephelodes minians* Gn. (10524. *Nephelodes minians* Gn.) (Shaded Umber, Brown Cutworm Moth or Bronzed Cutworm Moth) – 29B-VII-2006 1, 2B-IX-2007 1, 2C-IX-2007 1 and 18C-VIII-2010 1.

Noctuidae, Noctuinae, Hadenini

2059. *Anarta mutata* (Dod) (10224. *Discestra mutata* (Dod)) (The Changeling) – 27A-VI-2003 1 and 1C-VI-2007 1.
2060. *Anarta montanica* (McD.) (10228c. *Discestra oregonica montanica* McD.) – 2-VI-2001 1.
2064. *Anarta farnhami* (Grt.) (10232. *Discestra farnhami* (Grt.)) (Farnham's Discestra) – 2-VI-2001 1, 1A-VI-2007 1, 1B-VI-2007 2, 1C-VI-2007 2 and 29B-V-2009 1.
2065. *Anarta crotchi* (Grt.) (10233. *Discestra crotchi* (Grt.)) – 8B-V-2005 2.
2068. *Scotogramma submarina* (Grt.) (10238. *Scotogramma submarina* (Grt.)) – 27A-VI-2003 1.
2072. *Polia discalis* (Grt.) (10273. *Polia discalis* (Grt.)) (Large Gray Polia) – 2B-VII-2005 2 and 17C-VI-2006 2.
2079. *Polia purpurissata* (Grt.) (10280. *Polia purpurissata* (Grt.)) (Purple Arches) – 30B-VII-2005 1, 29B-VII-2006 1, 29C-VII-2006 1 and 18C-VIII-2010 1.
2082. *Lacanobia atlantica* (Grt.) (10297. *Lacanobia atlantica* (Grt.)) (Atlantic Arches) – 2-VI-2001 1 and 27F-VI-2009 1.
2083. *Lacanobia radix* (Wlk.) (10298. *Lacanobia radix* (Wlk.)) (Garden Arches) – 2-VI-2001 1, 27A-VI-2003 1, 1A-VI-2007 1, 1B-VI-2007 2 and 1C-VI-2007 1.
2084. *Lacanobia subjuncta* (G. & R.) (10299. *Lacanobia subjuncta* (G. & R.)) (Harnessed Arches) – 1B-VI-2007 1.
2086. *Melanchnra picta* (Harr.) (10293. *Melanchnra picta* (Harr.)) (Painted Arches) – 1B-VI-2007 1 and 29D-V-2009 1.
2089. *Spirameter grandis* (Gn.) (10300. *Spirameter grandis* (Gn.)) (Pale-banded Arches) – 2-VI-2001 1, 27B-VI-2003 2 and 26-VI-2004 1.
2092. *Trichordestra tacoma* (Stkr.) (10303. *Trichordestra tacoma* (Stkr.)) (Tacoma Arches) – 1A-VI-2006 1, 1B-VI-2007 1 and 1C-VI-2007 1.
2096. *Trichordestra liquida* (Grt.) (10307. *Trichordestra liquida* (Grt.)) (Liquid Arches) – 27F-VI-2009 1.
2102. *Mamestra configurata* (Wlk.) (10271. *Mamestra configurata* (Wlk.)) (Bertha Armyworm) – 26-VI-2004 1, 17A-VI-2006 1, 17B-VI-2006 1 and 17C-VI-2006 2.
2107. *Sideridis rosea* (Harv.) (10265. *Sideridis rosea* (Harv.)) (Rosy Penman or The Rosywing) – 2-VI-2001 1, 1A-VI-2007 1 and 1B-VI-2007 1, 28-V-2009 1 and 29C-V-2009 1.
2110. *Hadena circumvadis* Sm. (10322. *Anepia circumvadis* (Sm.)) – 29D-VI-2009 1.

Noctuidae, Noctuinae, Leucaniini

2112. *Faronta diffusa* (Wlk.) (10431. *Faronta diffusa* (Wlk.)) (Cloudy Wainscot or Wheat-head Armyworm Moth) – 27A-VI-2003 2, 1B-VI-2007 1, 27D-VI-2009 1 and 27F-VI-2009 1.
2114. *Mythimna oxygala* (Grt.) (10436. *Aletia oxygala* (Grt.)) (Lesser Wainscot) – 27B-VI-2003 1, 2A-VII-2005 1, 2B-VII-2005 1, 30A-VII-2005 1, 17B-VI-2006 1 and 29A-VII-2006 1.
2117. *Leucania anteoclara* Sm. (10442. *Leucania anteoclara* Sm.) – 27F-VI-2009 1.
2118. *Leucania multilinea* Wlk. (10446. *Leucania multilinea* Wlk.) (Many-lined Wainscot) – 29B-VII-2006 1.
2119. *Leucania commoides* Gn. (10447. *Leucania commoides* Gn.) (Comma Wainscot) – 3-VIII-2000 2, 17B-VI-2006 1, 29A-VII-2006 1, 29C-VII-2006 1, 2C-IX-2007 1, 18C-VIII-2010 1 and 18E-VIII-2010 1.
2120. *Leucania insueta* Gn. (10449. *Leucania insueta* Gn.) (Heterodox Wainscot) – 2-VI-2001 1, 26-VI-2004 1, 17A-VI-2006 1, 17C-VI-2006 1.

Noctuidae, Noctuinae, Eriopygini

2143. *Lacinipolia lustralis* (Grt.) (10370. *Lacinipolia lustralis* (Grt.)) (Lustrous Arches) – 2-VI-2001 1, 27B-VI-2003 1 and 26-VI-2004 2.
2145. *Lacinipolia anguina* (Grt.) (10372. *Lacinipolia anguina* (Grt.)) (Snaky Arches) – 2-VI-2001 2 and 1B-VI-2007 1.
2148. *Lacinipolia vicina* (Grt.) (10394. *Lacinipolia vicina* (Grt.)) (Small Gray Arches) – 29D-VI-2009 1 and 29F-VI-2009 1.
2150. *Lacinipolia renigera* (Steph.) (10397. *Lacinipolia renigera* (Steph.)) (Kidney-spotted Arched or Bristly Cutworm) – 2B-VII-2005 1, 30A-VII-2005 1, 29B-VII-2006 1, 29C-VII-2006 1 and 27F-VI-2009 1.
2152. *Lacinipolia lorea* (Gn.) (10405. *Lacinipolia lorea* (Gn.)) (Bridled Arches) – 27B-VI-2003 1, 17B-VI-2006 1, 27D-VI-2009 1, 27E-VI-2009 1, 27F-VI-2009 1 and 18D-VIII-2010 1.
2162. *Protorthodes oviduca* (Gn.) (10563. *Protorthodes oviduca* (Gn.)) (Ruddy Quaker) – 2-VI-2001 2, 27A-VI-2003 1, 8A-V-2005 2, 17C-V-2006 1, 1B-VI-2007 1, 29B-V-2009 1, 29C-V-2009 1 and 29D-V-2009 1.
2165. *Orthodes goodelli* (Grt.) (10289. *Polia goodelli* (Grt.)) (Goodell's Arches) – 27B-VI-2003 1.
2166. *Orthodes obscura* (Sm.) (10290. *Polia obscura* (Sm.)) (Obscure Arches) – 1A-VI-2007 1, 1B-VI-2007 1, 1C-VI-2007 1 and 17A-V-2008 1.
2168. "*Polia*" *detracta* (Wlk.) (10288. *Polia detracta* (Wlk.)) (Dingy or Disparaged Arches) – 2-VI-2001 1, 27B-VI-2003 1, 26-VI-2004 1, 29B-V-2009 1 and 29C-V-2009 1.

Noctuidae, Noctuinae, Noctuini

2172. *Anicla tepperi* (Sm.) (10910. *Euagrotis tepperi* (Sm.)) (Black-girdled Dart) – 27A-VI-2003 3, 27B-VI-2003 1, 26-VI-2004 2, 17B-VI-2006 1, 27D-VI-2009 1 and 27E-VI-2009 1.
2175. *Actebia fennica* (Tauscher) (10924. *Actebia fennica* (Tauscher)) (Finland Dart or Dark Army Cutworm) – 2C-IX-2007 1.
2176. *Actebia balanitis* (Grt.) (10923. *Protexarnis balanitis* (Grt.)) (Bracketed Dart or Acorn Dart) – 27A-VI-2003 3, 27B-VI-2003 1, 2B-VII-2005 1 and 27F-VI-2009 1.
2178. *Dichagyris variabilis* (Grt.) (10889. *Abagrotis variabilis* (Grt.)) – 18C-VIII-2010 1.
- Euxoa* sp. – 18C-VIII-2010 1.
2188. *Euxoa adumbrata* (Ev.) Not in Hodges. (Sordid Dart) – 27F-VI-2009 1 and 18C-VIII-2010 1.
2189. *Euxoa auxiliaris* Grt. (10731. *Chorizagrotis auxiliaris* (Grt.)) (Auxiliary Dart) – 27A-VI-2003 3, 27B-VI-2003 2 and 2C-IX-2007 2, 29D-V-2009 1 and 27D-VI-2009 1.
2195. *Euxoa divergens* (Wlk.) (10702. *Euxoa divergens* (Wlk.)) (Divergent Dart) – 2-VI-2001 4, 27A-VI-2003 2, 27B-VI-2003 1, 26-VI-2004 1, 2A-VII-2005 1, 2B-VII-2005 1, 1B-VI-2007 1, 27D-VI-2009 1, 27E-VI-2009 1 and 27F-VI-2009 1.
2204. *Euxoa tristicula* (Morr.) (10723. *Euxoa tristicula* (Morr.)) (Early Cutworm or Three-marked Dart) – 27B-VI-2003 1, 2B-VII-2005 1, 30A-VII-2005 2, 30B-VII-2005 1, 27F-VI-2009 1 and 18C-VIII-2010 1.
2207. *Euxoa pestula* Sm. (10728. *Euxoa pestula* Sm.) – 27A-VI-2003 1 and 27B-VI-2003 1.
2209. *Euxoa medialis* (Sm.) (10813. *Euxoa medialis* (Sm.)) (Median-banded Dart) – 10-X-2004 1.
2212. *Euxoa intrita* (Morr.) (10749. *Euxoa intrita* (Morr.)) (Tippling Dart) – 18D-VIII-2010 1.
2215. *Euxoa declarata* (Wlk.) (10755. *Euxoa declarata* (Wlk.)) (Clear Dart) – 3-VIII-2000 1.
2216. *Euxoa campestris* (Grt.) (10756. *Euxoa campestris* (Grt.)) (Flat Dart) – 18D-VIII-2010 1.
2220. *Euxoa tessellata* (Harr.) (10805. *Euxoa tessellata* (Harr.)) (Tessellate Dart) – 30A-VII-2005 1.

2228. *Euxoa ochrogaster* (Gn.) (10801. *Euxoa ochrogaster* (Gn.)) (Red-backed Cutworm Moth) – 3-VIII-2000 2, 30A-VII-2005 1, 2C-IX-2007 1 and 18D-VIII-2010 1.
2233. *Euxoa basalis* (Grt.) (10798. *Euxoa basalis* (Grt.)) (Pale-based Dart) – 29B-VII-2006 1 and 2C-IX-2007 1.
2239. *Euxoa servitus* (Sm.) (10854. *Euxoa servita* (Sm.)) (Servita Dart) – 18C-VIII-2010 1.
2271. *Euxoa ridingsiana* (Grt.) (10861. *Euxoa ridingsiana* (Grt.)) (Riding's Dart) – 18C-VIII-2010 1.
2274. *Feltia jaculifera* (Gn.) (10670. *Feltia jaculifera* (Gn.)) (Dingy Cutworm Moth) – 3-VIII-2000 2, 30A-VII-2005 3, 2B-IX-2007 1, 2C-IX-2007 2, 18C-VIII-2010 1 and 18D-VIII-2010 1.
2275. *Feltia herilis* (Grt.) (10676. *Feltia herilis* (Grt.)) (Master's Dart) – 30B-VII-2005 2, 29B-VII-2006 2 and 29C-VII-2006 2.
2276. *Agrotis vetusta* Wlk.) (10641. *Agrotis vetusta* Wlk. (Old Man Dart)) – 18E-VIII-2010 1.
2281. *Agrotis robustior* (Sm.) (10650. *Agrotis robustior* (Sm.)) (Robust Dart) – 18C-VIII-2010 1.
2282. *Agrotis venerabilis* Wlk. (10651. *Agrotis venerabilis* Wlk.) (Venerable Dart) – 2B-IX-2007 1 and 2C-IX-2007 1.
2283. *Agrotis vancouverensis* Grt. (10652. *Agrotis vancouverensis* Grt.) (Vancouver Dart) – 2-VI-2001 5, 27A-VI-2003 2, 27B-VI-2003 1, 26-VI-2004 2, 2A-VII-2005 1, 2B-VII-2005 1, 17A-VI-2006 1, 17C-VI-2006 1, 28-V-2009 1, 29B-B-2009 1, 29D-V-2009 1, 27D-VI-2009 1, 27E-VI-2009 1 and 27F-VI-2009 1.
2286. *Agrotis obliqua* (Sm.) (10660. *Agrotis obliqua* (Sm.)) (Oblique Dart) – 1A-VI-2007 1, 1B-VI-2007 1 and 29C-V-2009 1.
2288. *Agrotis ipsilon* (Hufn.) (10663. *Agrotis ipsilon* (Hufn.)) (Ipsilon Dart) - 27A-VI-2003 1.
2292. *Diarsia rubifera* (Grt.) (10917. *Diarsia rubifera* (Grt.) (Rubifera Dart)) – 27B-VI-2003 1.
2295. *Paradiarsia littoralis* (Pack.) (10992. *Paradiarsia littoralis* (Pack.)) (Labrador Dart) – 2-VI-2001 1, 27A-VI-2003 1, 27B-VI-2003 1, 26-VI-2004 2, 2A-VII-2005 1, 2B-VII-2005 1, 17B-VI-2006 1, 17C-VI-2006 1, 27D-VI-2009 1, 27E-VI-2009 1 and 27F-VI-2009 1.
2299. *Chersotis juncta* (Grt.) (11003. *Chersotis juncta* (Grt.)) (Scribbled Dart) – 27E-VI-2009 1.
2300. *Noctua pronuba* (L.) (10035. *Noctua pronuba* (B. & McD.)) (Large Yellow Underwing) – 29A-VII-2006 1, 2A-IX-2007 2, 2B-IX-2007 1, 2C-IX-2007 2 and 18D-VIII-2010 1.
2301. *Cryptocala acadensis* (Bethune) (11012. *Cryptocala acadensis* (Bethune)) (Catocaline Dart) – 30B-VII-2005 1 and 29C-VII-2006 1.
2302. *Spaelotis clandestina* (Harr.) (10926. *Spaelotis clandestina* (Harr.)) (Clandestine Dart) – 27A-VI-2003 1, 27B-VI-2003 2, 26-VI-2004 1, 2B-VII-2005 1, 30B-VII-2005 1, 2B-IX-2007 1, 2C-IX-2007 1, 27F-VI-2009 1 and 18E-VIII-2010 2..
2303. *Spaelotis bicava* Laf. Not in Hodges. – 2-VI-2001 1, 2B-VII-2005 1 and 27F-VI-2009 1.
2304. *Eurois occulta* (L.) (10929. *Eurois occulta* (L.)) (Great Gray Dart) – 27B-VI-2003 1, 17B-VI-2006 1, 29C-VII-2006 1, 2B-IX-2007 1, 2C-IX-2007 2 and 18E-VIII-2010 1.
2307. *Graphiphora augur* (Grt.) (10928. *Graphiphora augur* (Grt.)) (Soothsayer Dart) – 30B-VII-2005 1 and 18E-VIII-2010 1.
2313. *Xestia smithii* (Snell.) (10944. *Xestia smithii* (Snellen)) (Smith's Dart or Spotted Clay Dart) – 3-VIII-2000 2 and 2B-VII-2005 2, 30B-VII-2005 1, 29A-VII-2006 1, 29B-VII-2006 1, 29C-VII-2006 1 and 2C-IX-2007 1.
2322. *Xestia c-nigrum* (L.) (10942. *Xestia c-nigrum* (Franc.)) (Black-letter Dart) – 27B-VI-2003 1.
2335. *Xestia collaris* (Koçak) (10954. *Xestia collaris* (G. & R.)) (Collared Dart) – 2C-IX-2007 2.
2337. *Xestia tenuicula* (Morr.) (10951. *Xestia tenuicula* (Morr.)) (Hair-pin Dart) – 30B-VII-2005 2.
2342. *Parabagrotis exertistigma* (Morr.) (11047. *Parabagrotis exertistigma* (Morr.)) – 2C-IX-2007 1, 27E-VI-2009 1 and 27F-VI-2009 1.
2344. *Protolampra rufipectus* (Morr.) (11004. *Protolampra rufipectus* (Morr.)) (Red-breasted Dart) – 3-VIII-2000 1 and 30B-VII-2005 1, 29B-VII-2006 1 and 29C-VII-2006 2.

2357. *Abagrotis placida* (Grt.) group (11041. *Abagrotis placida* (Grt.) group) (Placida Dart) – 30A-VII-2005 1 and 2B-IX-2007 1.

2361. *Abagrotis alternata* (Grt.) (11029. *Abagrotis alternata* (Grt.)) – 30B-VII-2005 1 and 29C-VII-2006 1.

DISCUSSION

An analysis of the data from the present study of the moths encountered in the twelve major study areas, reveals that the present area (EA) is most similar to BL (44.36%) and least similar to the aspen woods of the Lohr site (LF) (27.13%). The coulee habitats in EA are quite different from those in the other study areas and many different food plants are present. Also more species reach their northern limits in EA.

SUMMARY

Three hundred and eighty-one species of moths and nine skippers and butterflies are reported from East Arrowwood Coulee. Further study and the identification of the unknowns, should bring the total up to 500 species. To put things into perspective, Pohl et al (2010) document 2367 species of Lepidoptera for Alberta.

It has been encouraging to encounter southern species, such as *Ethmia monticola*, *Pelochrista argenteana*, *P. occipitana*, *Mimoschinia rufofascialis*, *Neoterpes trianguliferata*, *Ennomos subsignaria*, *Raphia coloradensis*, *Lateroligia ophiogramma* and *Ufeus plicatus*. It has also been exciting to encounter rare species like *Phragmatobia lineata* and *Acronicta radcliffei*. Further study is definitely recommended. Peak numbers of moths occur during June, July and August but various species fly only in the spring and fall. It is therefore important to collect at times of the year when previous collections have not been made, for example, the early spring (April 24) collections made in 2011 added three species.

Of the 13 major areas involved in previous studies, fourteen species of moths were found only at East Arrowwood Coulee - *Ethmia monticola*, *Coleophora* JFL138, *Agnippe prunifoliella* Cham., *Eucosma serapicana?*, *Sonia* n. sp., *Pero honestaria*, *Ennomos subsignaria*, *Neoterpes trianguliferata*, *Phragmatobia lineata*, *Dichagyris variabilis*, *Cucullia speyeri*, *Abagrotis alternata*, *Parabagrotis exertistigma* and *Ufeus plicatus*.

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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://acleris.com/dls/mothindex.html>). As many of the species also occur in Alberta, these images can be quite helpful.

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APPENDIX

Collection dates, sites and other details
East Arrowwood Coulee, 3 km NE of Arrowwood

- 24 July 1997 – diurnal, W-facing coulee slope, 50.750, 113.130, 860 m.
- 2 June 2001 – 2 UV traps and some diurnals, W-facing coulee slope, 50.75, 113.13, abt 900 m,
- 27A June 2003 – UV, upper edge of W-facing coulee slope, 50.75037, 113.12813, 915 m.
- 27B June 2003 – UV, *Populus balsamifera* woods along creek, 50.75128, 113.13015, 862 m.
- 11 April 2004 – diurnal, W-facing coulee slope and coulee bottom, 50.75, 113.13, 860-900.
- 26D June 2004 – diurnal and porch light, 50.75, 113.13, 860-915 m.
- 26U June 2004 – UV, W-facing coulee slope, 50.750, 113.128, 915 m.
- 26L June 2004 – UV, *Populus balsamifera* woods along creek, 50.751, 113.130, 862 m.
- 8A May 2005 – UV, W-facing coulee slope beside seeping spring, 50.757, 113.129, 887 m.
- 8B May 2005 – UV, wooded coulee bottom, 50.759, 113.130, 870 m.
- 2A July 2005 – UV, W-facing coulee slope beside seeping spring, 50.757, 113.129, 887 m.
- 2B July 2005 – UV, wooded coulee bottom, 50.759, 113.130, 870 m.
- 30A July 2005 – UV, W-facing coulee slope, 50.750, 113.128, 900 m.
- 30B July 2005 – UV, *Populus balsamifera* woods along creek, 50.751, 113.130, 860 m.
- 17A June 2006 – UV, W-facing coulee slope, 50.757, 113.129, 889 m.
- 17B June 2006 – UV, W-facing coulee slope, 50.757, 113.128, 898 m.
- 17C June 2006 – UV, W-facing coulee slope above *Populus balsamifera*, 50.758, 113.127, 899 m.
- 29A July 2006 – UV, W-facing coulee slope, 50.74912, 113.12818, 905 m.
- 29B July 2006 – UV, coulee bottom near *Solidago* and *Shepherdia argentea*, 50.74814, 113.12946, 887 m.
- 29C July 2006 – coulee bottom with *Populus balsamifera*, 50.75147, 113.13020, 886 m.
- 10 March 2007 – UV, coulee bottom with *Populus balsamifera*, 50.751, 113.130, 886 m.
- 28A April 2007 – UV, W-facing coulee slope near *Shepherdia argentea* and *Prunus virginiana*, 50.757, 113.129, 887 m.

- 28B April 2007 – UV, coulee bottom with *Populus balsamifera*, 50.759, 113.130, 870 m.
- 1A June 2007 – UV, W-facing coulee slope, 50.757, 113.129, 889 m.
- 1B June 2007 – UV, W-facing coulee slope, 50.757, 113.128, 898 m.
- 1C June 2007 – UV, W-facing coulee slope above *Populus balsamifera*, 50.758, 113.127, 887 m.
- 2A September 2007 – UV, W-facing coulee slope above *Populus balsamifera*, 50.758, 113.127, 887 m.
- 2B September 2007 – UV, W-facing coulee slope near *Shepherdia argentea*, 50.757, 113.128, 898 m.
- 2C September 2007 – UV, coulee bottom with *Populus balsamifera*, 50.759, 113.130, 870 m.
- 9A April 2008 – Diurnal, W-facing coulee slope, 50.750, 113.128, 915 m.
- 9B April 2008 – UV, coulee bottom with *Populus balsamifera*, 50.759, 113.130, 870 m.
- 9C April 2008 – UV, coulee bottom with *Populus balsamifera*, 50.759, 113.130, 870 m.
- 9D April 2008 – UV, W-facing coulee slope beside seeping spring and *Prunus virginiana*, 50.757, 113.129, 887 m.
- 17 May 2008 – Diurnal, W-facing coulee slope, 50.757, 113.128, 890 m.
- 17A May 2008 – UV, W-facing coulee slope, 50.759, 113.128, 905 m.
- 17B May 2008 – UV, coulee bottom near *Shepherdia argentea*, 50.758, 113.130, 887 m.
- 17C May 2008 – coulee bottom with *Populus balsamifera*, 50.752, 113.130, 886 m.
- 6 Nov 2008 – Inside farm house, 50.751, 113.127, 912 m.
- 12A April 2009 – UV, near *Shepherdia argentea*, 50.748, 113.129, 880 m.
- 12B April 2009 – UV, *Populus balsamifera* woods, 50.751, 113.130, 880 m.
- 28 May 2009 – UV, upper edge of coulee, 50.750, 112.128, 917 m.
- 29A May 2009 – diurnal, w-facing coulee slope, 50.750, 113.128, 870-910 m.
- 29B May 2009 – UV, bottom of W-facing coulee slope, *Salix/silverwillow//saskatoon/buckbrush*, 50.755, 113.131, 900 m.
- 29C May 2009 – UV, bottom of W-facing coulee slope, *chokecherry/saskatoon/buckbrush*, 50.755, 113.131, 900 m.
- 29D May 2009 – UV, *Populus balsamifera* woods in coulee bottom, 50.757, 113.132, 900 m.
- 27D June 2009 – UV, dry W-facing coulee slope, 50.759, 113.128, 900 m.
- 27E June 2009 – UV, coulee bottom with *Shepherdia argentea*, 50.758, 113.130, 885 m.
- 27F June 2009 – UV, coulee bottom with *Populus balsamifera*, 50.752, 113.130, 885 m.
- 18C August 2010 – UV, W-facing coulee slope, 50.759, 113.128, 900 m.
- 18D August 2010 – UV, coulee bottom near *Shepherdia argentea*, 50.758, 113.130, 885 m.
- 18E August 2010 – UV, coulee bottom with *Populus balsamifera*, 50.752, 113.130, 885 m.
- 24A April 2011 – UV, W-facing coulee slope above *Populus balsamifera*, 50.758, 113.127, 887 m.
- 24B April 2011 – UV, W-facing coulee slope beside seeping spring and *Prunus virginiana*, 50.757, 113.129, 887 m.