

LEPIDOPTERA OF DRY ISLAND BUFFALO JUMP PROVINCIAL PARK, 1999-2009

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The present paper incorporates the information in previous reports along with that gathered in 2009. It also includes a number of redeterminations and additions to the information in the earlier reports.

THE AREA

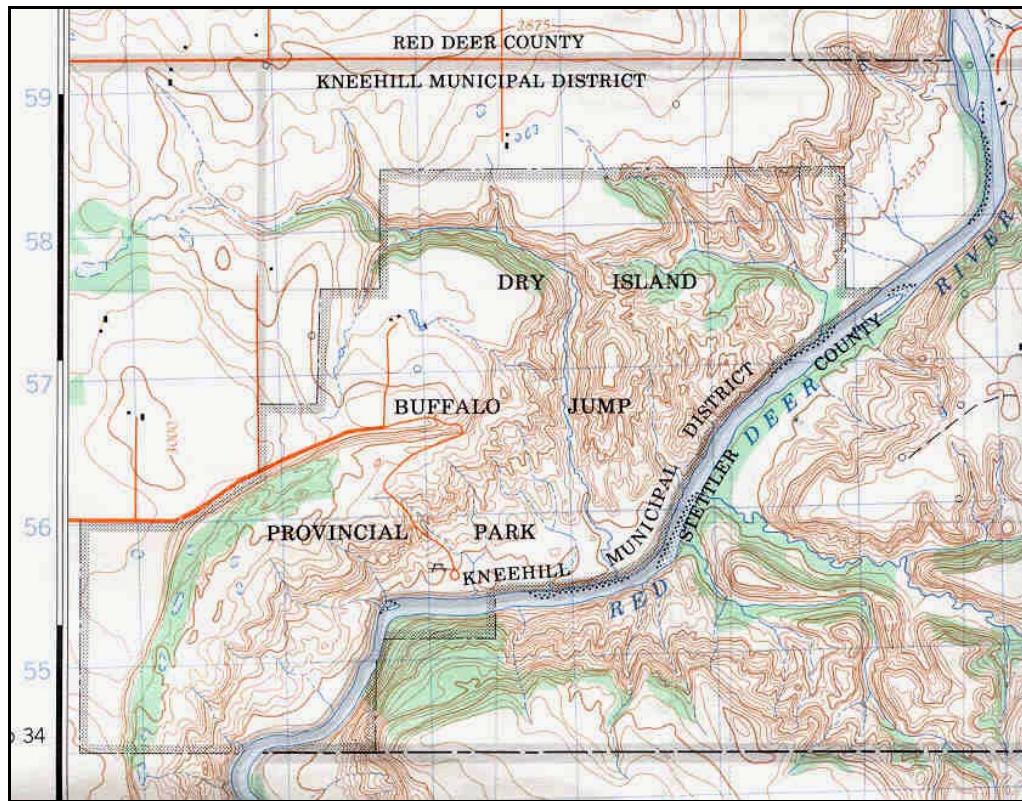


Dry Island Buffalo Jump Provincial Park looking east from the escarpment, July 8, 2001.

Dry Island Buffalo Jump Provincial Park, established in 1970, is located on the Red Deer River, 25 km northeast of Trochu. It is 15 km east of Highway 21. The area is so-named because of a flat-topped mesa, or “dry island” which rises some 200 metres above the river. On the west side of the Park, there is a precipitous cliff over which buffalo were stampeded by Indians. Ecologically, the Park is made up of badland terrain, grassy flats, shrub (saskatoon, chokecherry, silver willow, buckbrush) thickets, deciduous (aspen) woodland and riverine (balsam poplar) forest.

An ecological survey of the Park by Kondla & Smith (1972) came up with an impressive 148 species of birds, 25 of mammals, and 225 of flowering plants. Later studies by Wallis (1977), Nordstrom and Wilkinson (1980), Campbell (1983) and Lohr

(1993) have added to these totals. The present report incorporates all information in the earlier reports (Bird 2002-2008) as well as making a few corrections and adding new information based on studies carried out in 2008.



Dry Island Buffalo Jump Provincial Park

BACKGROUND

Provincial Parks and other areas where natural vegetation is protected are of great value as the flora and fauna present in them is typical of what was in Alberta before widespread agricultural activities replaced them with flora and fauna that was much reduced in numbers and made up of species that were associated with cultivated grains and hay crops. As a result, many of Alberta “rare and endangered” species are now found only in, or mainly in, such protected areas.

The present author, a member of the Alberta Lepidopterist’s Guild, the purpose of which is to encourage study of Alberta’s moths and butterflies, is retired and living in Erskine, Alberta. He has long been interested 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 led North American Butterfly Association (NABA) counts at Dry Island on 2 Jul 1999, 11 Jul 2000, 8 Jul 2001, 7 Jul 2002, 6 Jul 2003, 11 July 2004, 19 July 2005, 16 July 2006, 8 July 2007, 6 July 2008 and 5 July 2009.



Participants in the July 6, 2008 Butterfly Count

The Park was visited five times during 2001: June 8, June 20, July 8, August 8 and September 1. On the first two and the last two visits, ultraviolet light traps were run overnight in badland terrain. On the last two visits, moths were collected at a mercury vapor light and sheet set up in riverine forest. Research was carried out five times in the Park in 2002: June 4, June 27, July 7, August 21 and September 10. The coordinates that cover the studied sites are 51.93, 112.97. The results of studies made in earlier years are in Bird (2002-2008, 2003 and 2004). In 2003, light traps were set up in the same location on May 21 and July 12. On June 25, 2003, traps were set up in Section 26, a separate part of the Park, located about two miles south of the main Park area (51.86, 113/01) and mainly on the escarpment on the east side of the Red Deer River valley. The area was studied 7 times in 2004: May 30, June 19, July 11 and 18, August 15 and 28, and September 24. In 2005: the area was studied 5 times: April 24, June 21, July 10, August 2 and 28. In 2006 the area was studied 6 times: 16 May, 12, June, 9 and 16 July, and 6 and 27 August. In 2007 the area was studied 3 times: 30 May, and 4 and 8 July. In 2008 and 2009 the area was studied only on Butterfly Count Days. The Appendix gives details of each study day.



Looking ESE from the escarpment north of the “Dry Island”, June 19, 2004.

SPECIES RANKINGS

Due to a lack of sufficient information, rankings of the moths of Alberta have been difficult to make. For this reason, it is important that baseline studies, such as the present, be carried out. The provincial butterflies have, on the other hand, been ranked and it is of interest that *Icaricia shasta* and *I. acmon* have been found in the Park.

SPECIMEN DISPOSITION

All specimens collected by the writer presently reside in his collection but they will eventually be donated to the Strickland Museum at the University of Alberta and, possibly also to the Northern Forest Research Centre in Edmonton and the Canadian National Collection in Ottawa. Unless otherwise indicated, specimens collected by Ernest Mengersen reside in the collection at Olds College.

CHECKLIST

The order and terminology, is that of R.W. Hedges (1983) except where recent changes in taxonomy have occurred. While most of the larger or macromoths are relatively well known, the same cannot be said for many of the smaller or micromoths. 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 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.

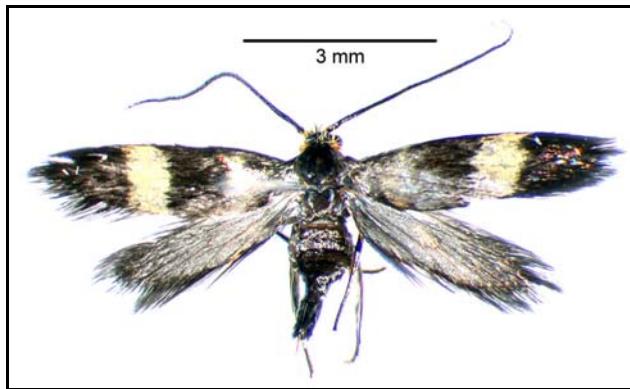
Kenneth Bowman's (1951) list of the Lepidoptera of Alberta presents all species known at that time and gives the distribution of each according to 21 Areas. His Areas 5, 8 and 10 essentially cover all of south-central Alberta, with the study area being in Area 5. Most of Bowman's records are from Area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

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). The list incorporates recent changes in taxonomy of all groups according to various literature sources, including those listed for the Noctuoidea by Lafontaine & Schmidt (2010).

HEPIALIDAE – Ghost Moths and Swifts

- 19. *Sthenopis purpurascens* (Pack.) – 10-VII-2005 1.
- 29. *Gazorycta novigannus* (B. & Benj.) – 1-IX-2001 1, 10-IX-2002 1, 28-VIII-2004 1, 24-IX-2004 1 and 28A-VIII-2005 1.

ADELIDAE – Adelid Moths



Adela (Cauchas) sp. – 12-VI-2006 1. Greg Pohl sent an image (see above) of this specimen to Dr. Ron Davis. Davis was unable to name it and it is possible that the specimen belongs to an undescribed species. The moth was collected during the day (diurnal) with a net as it was flying over *Juniperus communis* on a south-facing slope.

TINEIDAE – Clothes Moths and others

- 334. *Amydria effrentella* Clem. – 21-VIII-2002 1, 10-IX-2002 4, 18-VII-2004 1, 15-VIII-2004 1 and 27A-VIII-2006 1.
- 399. *Tinea irrepta* Braun – 25B-VI-2003 3, 12A-VII-2003 1, 19-VI-2004 2, 18-VII-2004 1, 21-V-2005 2, 2A-VIII-2005 4 and 2B-VIII-2005 3.
- 421. *Monopis spilotella* (Tengström) – 6A-VIII-2006 1 and 4B-VII-2007 1.

BUCCULATRICIDAE – Bucculatricid Moths

Bucculatrix sp. – 25-VI-2003 1.

GRACILLARIIDAE – Gracillariid Moths

- Gracillariidae indet. - 30A-V-2007 1
 583-644. Caloptilia spp. – 8-VI-2001 1 and 20-VI-2001 4.
 587. Caloptilia alnivorella (Cham.) – 24-IX-2004 1 and 16B-V-2006 1.
 589. Caloptilia anthobaphes (Meyr.) – 19-VI-2004 1.
 609. Caloptilia invariabilis (Braun) – 16A-V-2006 1 and 16B-VI-2006 2. Originally determined as Caloptilia betulivora McD. The specimens are probably C. invariabilis (Pohl et al. 2010).
 595. Caloptilia bimaculatella (Ely) – 8-VIII-2001 1.
 639. Caloptilia stigmatella (F.) – 8-VI-2001 1 and 6A-VIII-2006 1.
 669. Parornix conspicuella (Dietz) – 19-VI-2004 3, 21-VI-2005 2, 12C-V-2006 1 and 16A-V-2006 (1), 30C-V-2007 2 and 4B-VII-2007 1.
 692. Acrocercops astericola (F. & B.) – 21-VI-2005 1 and 4B-VII-2007 2.
 725/802. Phyllonorycter sp. – 21-VI-2005 1.

OECOPHORIDAE – Oecophorid Moths

889. Agonopterix argillacea (Wlsm.) – 28A-VIII-2005 1.
 908. Depressariodes ciniflonella Lienig. & Zell. – 2B-VIII-2005 1, 28A-VIII-2005 1 and 16B-V-2006 3.
 910. Martyrhilda fulva (Wlsm.) – 8-VI-2001 1, 20-VI-2001 1 and 12C-VI-2006 3.
 912. Semioscopis packardella (Clem.) – 22A-IV-2005 2.
 915. Semioscopis megamicrella Dyar – 22A-IV-2005 1 and 22B-IV-2005 2.
 916. Semioscopis aurorella Dyar – 22A-IV-2005 1.
 918. Depressaria atrostrigella Clarke – 24-IX-2004 6, 28A-VIII-2005 2 and 27B-VIII-2006 1.
 926. Depressaria alienella Bsk. – 28A-VIII-2005 1.
 1058. Polix coloradella (Wlsm.) – 28A-VIII-2005 1.

ELACHISTIDAE – Elachistid Moths

- Elachista sp. – 27-VI-2002 1, 12-VII-2003 1, 12B-VII-2003 1, 12B-VI-2006 2, 12C-VI-2006 4, 4B-VII-2007 2 and 4D-VII-2007 3.
 1088.01. Elachista virgatula Kaila – 25B-VI-2003 1.

SYMMOCIDAE – Symmocid Moths

- 1138.31. Glyphidocera hurlberti Adamski – 18-VII-2004 1, 4C-VII-2007 3 and 4D-VII-2007 2. This species was described by Adamski in 2000.

BLASTOBASIDAE – Blastobasid Moths

- 1133-1253. Species unknown – 10-IX-2002 2, 6A-VIII-2006 1 and 6B-VIII-2006 1 and 4C-VII-2007 1. Species in this family are still very poorly known.
 1156. *Hypatopa titanella* McD. – 18-VII-2004 1.
 1221. *Holcocera immaculella* McD. – 10-IX-2002 1, 2A-VIII-2005 3 and 28A-VIII-2005 1. Determinations by Dr. David Adamski.

COLEOPHORIDAE – Casebearer Moths

- 1254-1398. *Coleophora* spp. – 12-VII-2002 1, 18-VII-2004 2, 2B-VIII-2005 1, 28A-VIII-2005 1, 6A-VIII-2006 1, 6B-VIII-2006 1, 27B-VIII-2006 1, and 4D-VII-2007 1. The above specimens are currently with Dr. J.-F. Landry who is doing a North American monograph of the group. Some of the JFL specimens may be of species that remain to be described. It is amazing how many species have been found in Dry Island Buffalo Jump Provincial Park.
 1260. *Coleophora elaeagnisella* Kft. – 20-VI-2001 1 and 18-VII-2004 1.
 1271. *Coleophora pruniella* Clem. (Cherry Case-bearer) – 4B-VII-2007 1.
 1283. *Coleophora cretaticostella* Clem. – 12C-VI-2006 1.
 1313. *Coleophora rosaevorella* McD. – 19-VI-2004 1 and 21-VI-2005 1.
 1316. *Coleophora rosacella* Clem. – 4B-VII-2007 1.
 1323. *Coleophora sparsipuncta* Heinr. – 21-VI-2005 1 and 2A-VIII-2005 1.
 1352. *Coleophora sparsipulvella* Cham. – 12B-VII-2003 1, 18-VII-2004 1, 15-VIII-2004 1 and 28A-VIII-2004 1.
 1368. *Coleophora bidentella* McD. – 21-VI-2005 1.
 1388. *Coleophora trifolii* (Curt.) (Large Clover Case-bearer) – 20-VI-2001 1, 12-VII-2002 2, 12B-VII-2003 1, 18-VII-2004 2, 4B-VII-2007 3, 4C-VII-2007 2 and 4D-VII-2007 1.
Coleophora JFL013 – 18-VII-2004 1 and 4-VII-2007 1.
Coleophora JFL035 – 15-VIII-2004 1.
Coleophora JFL043 – 10-IX-2002 1.
Coleophora JFL055 – 27-VIII-2006 1.
Coleophora JFL063 – 12-VII-2002 1 and 12-VII-2003 1.
Coleophora JFL067 – 4C-VII-2007 1.
Coleophora JFL069 – 12B-VI-2006 1.
Coleophora JFL078 – 25-VI-2003 1 and 12B-VI-2006 1.
Coleophora JFL083 – 27-VI-2002 1.
Coleophora JFL084 – 15-VIII-2004 2 and 28A-VIII-2005 2.
Coleophora JFL090 – 4D-VII-2007 1.
Coleophora JFL092 – 10-IX-2002 1.
Coleophora JFL108 – 27-VI-2002 2 and 25-VI-2003 1.
Coleophora JFL109 – 8-VIII-2001 1.
Coleophora JFL118 – 12-VII-2003 1.
Coleophora JFL134 – 21-VI-2005 1.
 1399. *Batrachedra praearangusta* (Haw.) – 27A-VIII-2006 1.

MOMPHIDAE – Momphid Moths

Mompha sp. – 21-VI-2005 1.

COSMOPTERYGIDAE – Cosmopterygid Moths

- 1515. *Limnaecia phragmitella* Staint. – 15-VIII-2004 2.
- 1615. *Walshia miscecolorella* (Cham.) – 27-VI-2002 1, 12-VII-2002 1, 25C-VI-2003 2, 12A-VII-2003 1, 12B-VII-2003 2, 18-VII-2004 3, 21-VI-2005 1, 2A-VIII-2005 1, 12B-VI-2006 2, 27B-VIII-2006 1, 4B-VII-2007 1, 4C-VII-2007 3 and 4D-VII-2007 1.

SCYTHRIDIDAE – Scythrid Moths

- 1655. *Scythris eboracensis* (Haw.) – 12-VI-2006 1. Determined by Dr. Jean-François Landry.

GELECHIIDAE – Gelechiid Moths

- 1681-2311. Species unknown – 4-VI-2002 9, 27-VI-2002 1, 12-VII-2002 5, 21-VIII-2002 9, 10-IX-2002 9, 19-VI-2004 8, 18-VII-2004 15, 15-VIII-2004 14, 28-VIII-2004 12, 24-IX-2004 13, 22A-IV-2005 5, 22B-IV-2005 1, 21-VI-2005 10, 2A-VIII-2005 4, 2B-VIII-2005 5, 28A-VIII-2005 17, 16A-V-2006 2, 16B-V-2006 1, 12A-VI-2006 1, 12C-VI-2006 5, 2B-VIII-2006 1, 6A-VIII-2006 4, 6B-VIII-2006 2, 27A-VIII-2006 4, 27B-VIII-2006 6, 27C-VIII-2006 1, 30C-V-2007 4, 4B-VII-2007 2, 4C-VII-2007 3 and 4D-VII-2007 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 even described.
- 1734-1762. *Aristotelia* sp. – 21-VIII-2002 1.
- 1734. *Aristotelia devexella* Braun – 25C-VI-2003 1, 15-VIII-2004 3, 2A-VIII-2005 1 and 28A-VIII-2005 1.
- 1761. *Aristotelia roseosuffusella* (Clem.) – 10-IX-2002 2, 15-VIII-2004 2 and 28A-VIII-2005 1.
- 1762. *Aristotelia rubidella* (Clem.) – 2-VIII-2002 1 and 25C-VI-2003 1.
- 1792. *Coleotechnites atrupictella* Dietz – 2B-VIII-2005 2 and 4B-VII-2007 1.
- 1796. *Coleotechnites blastovora* McLeod – 22A-IV-2005 1, 22B-IV-2005 1 and 16B-V-2006 5.
- 1826. *Coleotechnites picaella* (Kft.) – 18-VII-2004 1 and 28A-VIII-2005 1.
- 1880. *Xenolechia velatella* (Bsk.) – 19-VI-2004 1 and 30A-V-2007 1.
- 1898. *Lita sexpunctella* (F.) – 2-V-2004 SR GP. Observed on the “Dry Island” by Greg Pohl. It was associated with bearberry.
- 1902. *Lita variabilis* (Bsk.) – 21-VIII-2002 4, 10-IX-2002 5, 15-VIII-2004 3, 28-VIII-2004 1, 28A-VIII-2005 5, 6C-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 2.

1946. *Gelechia lynceela* Zell. – 10-IX-2002 1, 19-VI-2004 1, 21-VI-2005 1 and 4B-VII-2007 2.
- 1968-2010. *Gnorimoschema* sp. – 1-IX-2001 1.
2000. *Gnorimoschema septentrionella* Fyles – 24-IX-2004 1.
2040. *Caryocolum casella* (Wlk.) – 20-VI-2001 2.
- 2054-2125. *Chionodes* spp. – 8-VI-2001 2, 18-VII-2004 1.
- 2069.11. *Chionodes sattleri* Hodges – 19-VI-2004 1, 15-VIII-2004 1, 21-VI-2005 3 and 6A-VIII-2006 1.
- 2071.1. *Chionodes landryi* Hodges – 27-VI-2002 6, 12B-VII-2003 10, 12B-VI-2006 2, 12C-VI-2006 1 and 4C-VII-2007 1.
2093. *Chionodes mediofuscella* (Clem.) – 4-VI-2002 1, 25C-VI-2003 1, 19-VI-2004 1, 21-VI-2005 1 and 28A-VIII-2005 1, 16B-V-2006 1 and 30A-V-2007 1.
2099. *Chionodes obscuruscella* (Cham.) – 28A-VIII-2005 8.
2111. *Chionodes psilopterus* (B. & Bsk.) – 1-IX-2001 1, 25-VI-2003 1, 12A-VII-2003 1, 12B-VII-2003 1, 19-VI-2004 1, 18-VII-2004 2, 15-VIII-2004 2, 2B-VIII-2005 1, 12C-VI-2006 1, 6A-VIII-2006 2, 6B-VIII-2006 2, 27A-VIII-2006 1, 27B-VIII-2006 2, 27C-VIII-2006 2, 4C-VII-2007 1 and 4D-VII-2007 1.
2117. *Chionodes terminimaculella* (Kft.) – 20-VI-2001 1 and 27-VI-2002 1.
2123. *Chionodes viduella* (F.) – 18-VII-2004 6.
2127. *Filatima abactella* (Clarke) – 20-VI-2001 1, 27-VI-2002 1, 19-VI-2004 1, 21-VI-2005 1, 16A-V-2006 1 and 16B-V-2006 1.
2192. *Aroga* nr. *paraplutella* (Bsk.) – 20-VI-2001 2, 27-VI-2002 2. The specimens were examined by Dr. Jean-François Landry who originally thought that they were of *Aroga paraplutella* which would have been a new species for Alberta. Further examination indicates that this material is of an undescribed species of *Aroga*.
2235. *Anacampsis fragariella* Bsk. – 28 A-VIII-2005 1.
2237. *Anacampsis innocuella* (Zell.) – 28A-VIII-2005 9 and 16A-V-2006 1.
2243. *Anacampsis niveopulvella* (Cham.) – 18-VII-2004 4, 15-VIII-2004 3 and 28A-VIII-2005 4.
2267. *Helcystogramma fernaldella* (Bsk.) – 20-VI-2001 1, 27-VI-2002 1, 25C-VI-2003 1 and 12B-VI-2006 2.
2302. *Dichomeris setosella* (Clem.) – 28A-VIII-2005 2.
2303. *Dichomeris simpliciella* Bsk. – 12B-VII-2003 1, 18-VII-2004 3, 28-VIII-2004 1, 24-IX-2004 1 and 21-VI-2005 1.
2308. *Dichomeris purpureofusca* (Wlsm.) – 20-VI-2001 1.

ALUCITIDAE – Many-plume Moths

2313. *Alucita montana* Barnes & Lindsey (Six Plume Moth) – 20-VI-2001 3, 8-VIII-2001 1, 1-IX-2001 2, 4-VI-2002 5, 10-IX-2002 1, 25A-VI-2003 1, 19-VI-2004 2, 24-IX-2004 2 and 21-VI-2005 1. Bernard Landry and Jean-François Landry (2004) have shown that true *hexadactyla* does not occur in North America and that three other species occur in Alberta.

CARPOGINIDAE – Carposinid Moths

2319. Bondia crescentella (Wlsm.) - 30B-V-2007 1.

EPERMINIIDAE – Eperminiid Moths

2334. Ochromolopis ramapoella (Kft.) – 8-VI-2001 2, 20-VI-2001 6 and 27-VI-2002 1, 16B-V-2006 1, 12C-VI-2006 4 and 4C-VII-2007 2. Reported as new to Alberta in Pohl et al (2005).

PLUTELLIDAE – Plutellid Moths

2366. Plutella xylostella (L.) (Diamondback Moth) – 8-VIII-2001 1, 1-IX-2001 1, 10-IX-2002 1, 24-IX-2004 1, 22A-IV-2005 1, 22B-IV-2005 1, 21-VI-2005 2, 2B-VIII-2005 1, 28A-VIII-2005 1, 6A-VIII-2006 1, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.

2371. Ypsolopha canariella (Wlsm.) – 1-IX-2001 1, 21-VIII-2002 1, 10-IX-2002 1, 15-VIII-2004 1, 18-VIII-2004 2, 2B-VIII-2005 1 and 28A-VIII-2005 1.

2376. Ypsolopha dentiferella (Wlsm.) – 15-VIII-2004 1, 28A-VIII-2005 1, 27A-VIII-2006 1 and 27B-VIII-2006 1.

2380. Ypsolopha falciferella (Wlsm.) – 18-VII-2004 1, 22A-IV-2005 2 and 16A-V-2006 1.

ARGYRESTHIIDAE – Argyresthiid Moths

2433-2484. Argyresthia sp. – 19-VI-2004 1.

2449. Argyresthia conjugella Zell. – 20-VI-2001 1, 18-VII-2004 2, 6A-VIII-2006 1 and 6B-VIII-2006 1.

SESIIDAE – Sesiid Moths



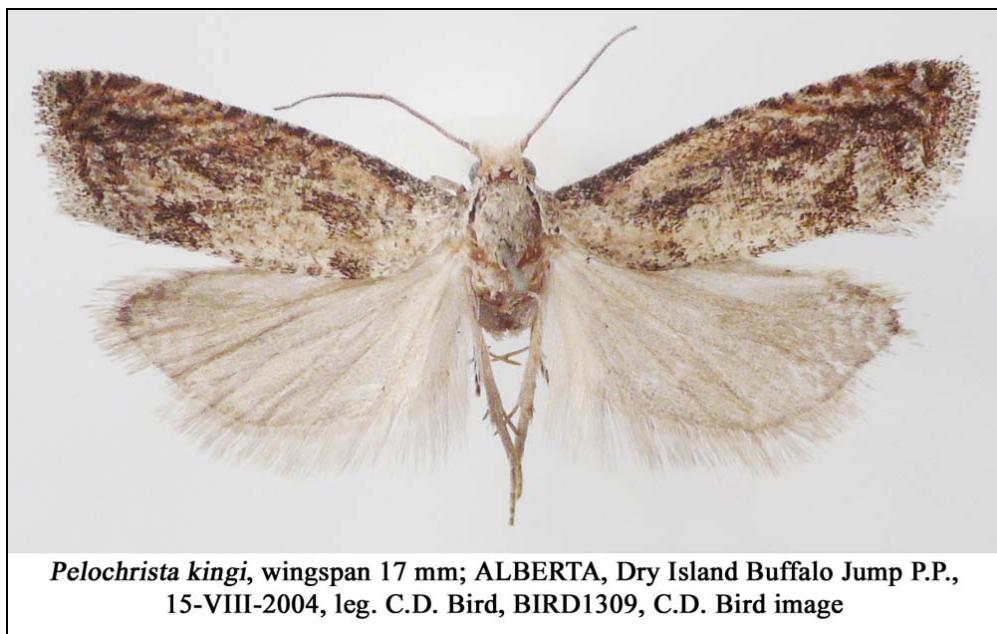
2581. Synanthedon polygoni (Hy. Edw.) – 5-VI-2006 photo by Dr. Heather Proctor (see above). This is a first report of this western North American species for Alberta.

The food plant is thought to be *Eriogonum flavum* (Yellow Umbrella-plant) which occurs on steep south-facing slopes in the area.

TORTRICIDAE – Tortricid Moths

- Species unknown – 8-VI-2001 2, 20-VI-2001 1 and 28A-VIII-2005 1.
 2701-3500. Olethrutinae indet - 27-VI-2002 1, 19-VI-2004 2, 18-VII-2004 5 and 16B-V-2006 1.
 Bactra sp. – 10-IX-2002 1 (female).
 2743a. Endothenia nubilana (Clem.) – 18-VII-2004 2 and 4C-VII-2007 1.
 2745. Endothenia albolineana (Kft.) (Spruce Needleminer) – 19-VI-2004 1 and 21-VI-2005 4.
 2753. Apotomis capreana (Hbn.) (Sallow Apotomis Moth) – 16A-V-2006 1.
 2766. Apotomis dextrana (McD.) (Green Aspen Leafroller Moth) – 8-VIII-2001 1, 4-VI-2002 1, 27-VI-2002 1 and 21-VI-2005 1.
 2769. Pseudosciaphila duplex (Wlsm.) (Spotted Aspen Leafroller Moth) – 27-VI-2002 1, 21-VI-2005 1 and 12A-VI-2006 2.
 2770. Orthotaenia undulana (D. & S.) (Dusky Leafroller Moth) – 20-VI-2001 1 and 19-VI-2004 2, 21-VI-2005 1, 12A-VI-2006 3, 12B-VI-2006 1, 12C-VI-2006 3, 4B-VII-2007 1, 4C-VII-2007 1 and 4D-VII-2007 1.
 2774-2859. Olethreutes spp. – 8-VIII-2001 1, 27-VI-2002 1, 10-IX-2002 1, 25A-VI-2003 1, 25C-VI-2003 1, 12B-VII-2003 1, 18-VII-2004 3, 2A-VIII-2005 1, 12A-VI-2006 2, 12C-VI-2006 1 and 4C-VII-2007 1. Many of the species in this genus are difficult to identify, require genitalic examination and/or are poorly known.
 2788. Olethreutes inornatana (Clem.) (Inornate Olethreutes Moth) – 18-VII-2004 1 and 21-VI-2005 1.
 2788/2794. Olethreutes inornatana or quadrifidus - 4B-VII-2007 2 and 4C-VII-2007 3.
 2794. Olethreutes quadrifidus (Zell.) – 27-VI-2002 1 and 21-VI-2005 5.
 2821. Olethreutes appendicea (Zell.) (Serviceberry Olethreutes Moth) – 16A-V-2006 2.
 2835. Olethreutes galaxana Kft. – 8-VI-2001 1 and 20-VI-2001 1.
 2839. Olethreutes puncticostana (Wlk.) – 6-VII-2004 2.
 2861. Hedya ochroleucana (Frölich) (Off-white Hedya Moth) – 18-VII-2004 1 and 4B-VII-2007 1.
 2862. Hedya nubiferana (Haw.) – 15-VIII-2004 1 and 21-VI-2005 1.
 2900. Petrova burkeana (Kft.) – 18-VII-2004 1.
 Phaneta spp. - 4D-VII-2007 1.
 2937. Phaneta parmatana (Clem.) – 12A-VI-2006 1.
 2947. Phaneta influana (Heinr.) – 17-VI-2002 2.
 2956. Phaneta tarandana (Mösch.) – 10-IX-2002 2, 15-VIII-2004 1 and 27C-VIII-2006 1.
 2965. Phaneta fertoriana (Heinr.) – 20-VI-2001 2, 25A-VI-2003 4, 19-VI-2004 2, 21-VI-2005 2, 4A-VII-2007 1 and 4C-VII-2007 1.
 2969. Phaneta indagatricana (Heinr.) – 12A-VII-2003 1, 12B-VII-2003 2, 18-VII-2004 7, 12B-VI-2006 1, 12C-VI-2006 1.
 2972. Phaneta dorsiatomana (Kft.) – 4-VI-2002 2.
 2973. Phaneta striatana (Clem.) – 27-VI-2002 1, 21-VI-2005 2, 16B-V-2006 1, 12B-VI-2006 1, 4C-VII-2007 1 and 4D-VII-2007 1.

2977. *Phaneta modicellana* (Heinr.) – 25A-VI-2003 1 and 18-VII-2004 3.
2980. *Phaneta pallidicostana* (Wlsm.) – 27-VI-2002 1, 12-VII-2002 1, 18-VII-2004 3, 12B-VI-2006 1, 12C-VI-2006 1, 4B-VII-2007 1, 4C-VII-2007 3 and 4D-VII-2007 2.
2985. *Phaneta infimbriana* (Dyar) – 2A-VIII-2005 1, 28A-VIII-2005 4, 6B-VIII-2006 2, 27B-VIII-2006 1 and 27C-VIII-2006 1.
- Eucosma* n. sp. 1 – 10-IX-2002 1. Mentioned in last year's report as 3156 *Pelochrista occipitana*, this is an undescribed species according to Dr. Don Wright.
3014. *Eucosma ridingsana* (Rob.) (Riding's Eucosma Moth) – 10-IX-2002 1.
3031. *Eucosma serpentana* (Wlsm.) – 27-VI-2002 1, 12-VII-2002 1, 21-VIII-2002 1, 10-IX-2002 3, 12B-VII-2003 2, 18-VII-2004 6, 15-VIII-2004 5, 28-VIII-2004 2, 24-IX-2004 1, 21-VI-2005 2, 28A-VIII-2005 3, 12B-VI-2006 1, 12C-VI-2006 2, 4A-VII-2007 1 and 4C-VII-2007 2.
3032. *Eucosma ophionana* McD. - 4C-VII-2007 1 and 4D-VII-2007 1.
3035. *Eucosma morrisonii* (Wlsm.) – 18-VII-2004 5.
3037. *Eucosma agricolana* (Wlsm.) – 27-VI-2002 7, 12-VII-2002 1, 10-IX-2002 1, 25B-VI-2003 1, 12B-VII-2003 2, 19-VI-2004 15, 18-VII-2004 14, 15-VIII-2004 4, 21-VI-2005 11, 16A-V-2006 1, 12A-VI-2006 1, 12B-VI-2006 3, 12C-VI-2006 2 and 4B-VII-2007 1.
3104. *Eucosma mediostriata* (Wlsm.) – 18-VII-2004 14.
3116. *Eucosma dorsesignatana* (Clem.) (Triangle-backed Eucosma Moth) - 27A-VIII-2006 1, 27B-VIII-2006 3, 27C-VIII-2006 2 – 1-IX-2001 1, 10-IX-2002 2, 28A-VIII-2005 3 and 12C-VI-2006 1.
3119. *Eucosma juncticiliiana* (Wlsm.) – 6B-VIII-2006 1.
3133. *Eucosma consobrinana* Heinr. – 18-VII-2004 1.
3142. *Eucosma cataclystana* (Wlk.) (Solidago Eucosma Moth) – 25B-VI-2003 1, 21-VI-2005 1, 4B-VII-2007 1 and 4C-VII-2007 1.



Pelochrista kingi Wright – 15-VIII-2004 1. Mentioned in last year's report as *Pelochrista* n. sp. 3. *Pelochrista kingi*, new species, is described and illustrated on the basis of Alberta Paratype material from Dry Island (Bird, BIRD), Jasper (McDunnough, CNC), Lethbridge (Seamans, CNC), Nordegg (McDunnough, CNC) and Edmonton? (Bowman, UASM). The type series consists of 33 adults from Alberta, British Columbia, Saskatchewan, Arizona, Montana, South Dakota and Wyoming. (Wright 2008).

- 3149. *Pelochrista argenteana* (Wlsm.) - 4C-VII-2007 1 and 4D-VII-2007 4.
- 3151a. *Pelochrista scintillana* (Clem.) – 18-VII-2004 4.
- 3156. *Pelochrista occipitana* (Zell) group – 21-VI-2005 2. Dr. Donald Wright calls one specimen *Pelochrista* sp. and the other either a *Eucosma* or a *Pelochrista*. They look unlike anything in the BIRD Collection.
- 3161. *Pelochrista fuscosparsa* (Wlsm.) – 12B-VII-2003 1 and 26-VI-2004 2.
- Pelochrista gellatana Wright - 8-VI-2001 1, 20-VI-2001 1, 27-VI-2002 1. Described as new to science based on specimens from Alberta, Utah and Wyoming (Wright 2007).
- 3185. *Epiblema benignatum* (McD.) – 18-VII-2004 2, 21-VI-2005 2, 28A-VIII-2005 2, 27B-VIII-2006 4, 27C-VIII-2006 1 and 4B-VII-2007 1.
- 3209. *Notocelia purpurissitana* Heinr. – 4C-VII-2007 1 and 4D-VII-2007 1.
- 3211. *Notocelia culminana* (Wlsm.) – 10-IX-2002 1, 2A-VIII-2005 1, 2B-VIII-2005 4, 6A-VIII-2006 1 and 27B-VIII-2006 1.
- 3223. *Gypsonoma fasciolana* (Clem.) – 20-VI-2001 5, 12A-VI-2006 2 and 12C-VI-2006 1.
- 3227. *Gypsonoma substitutionis* Heinr. – 12A-VI-2006 1.
- 3229. *Gypsonoma adjuncta* Heinr. – 12A-VI-2006 3.
- 3230. *Proteoteras aesculana* Riley (Early Proteoteras Moth) – 27A-VIII-2006 1.
- 3248. *Pseudexentera oregonana* (Wlsm.) (Early Aspen Leafroller) – 22A-IV-2005 1, 16A-V-2006 1 and 16B-V-2006 1.
- 3269. *Griselda radicana* Heinr. – 24-IX-2004 1 and 27A-VIII-2006 1.
- 3276. *Rhopobota naevana* (Haw.) (Holly Tortrix Moth) – 24-IX-2004 1, 2B-VIII-2005 2 and 28A-VIII-2005 2.
- 3288. *Epinotia castaneana* (Wlsm.) – 18-VII-2004 1, 4B-VII-2007 3, 4C-VII-2007 1 and 4C-VII-2007 1.
- 3296. *Epinotia albicapitana* (Kft.) – 24-IX-2004 4, 27A-VIII-2006 4 and 27B-VIII-2006 2. Reported as new for Alberta in Pohl et al (2005).
- 3306. *Epinotia nisella* (Cl.) (Variable Tortrix Moth) – 10-IX-2002 1, 18-VII-2004 4, 15-VIII-2004 3, 24-IX-2004 1, 28A-VIII-2005 1, 6A-VIII-2006 2 and 27A-VIII-2006 1.
- 3307. *Epinota criddleana* Kft. – 28A-VIII-2005 1.
- 3324. *Epinotia columbia* sensu R.L. Brown – 6B-VIII-2006 1. This appears to be new to Alberta.
- 3342. *Epinotia lomonana* (Kft.) – 24-IX-2004 5, 28A-VIII-2005 6 and 27A-VIII-2006 2..
- 3351. *Epinotia lindana* (Fern.) (Diamondback Epinotia Moth) – 28-VIII-2004 1, 28A-VIII-2005 5 and 27A-VIII-2006 3.
- 3355. *Ancylis subaequana* (Zell.) – 21-VI-2005 1 and 12C-VI-2006 1.
- 3374. *Ancylis comptana* (Frölich) (Strawberry Leafroller Moth) – 19A-VI-2006 1.

3382. *Ancylis unguicella* (L.) – 19-VI-2004 2 and 12B-VI-2006 1.
3384. *Ancylis mediofuscana* (Clem.) – 8-VI-2001 1, 16A-V-2006 2 and 16B-V-2006 2.
3386. *Ancylis tineana* (Hbn.) – 8-VI-2001 1.
3391. *Hystrichophora stygiana* (Dyar) – 25B-VI-2003 1, 12B-VII-2003 1, 19-VI-2004 2, 18-VII-2004 1, 2A-VIII-2005 1, 6A-VIII-2006 1, 6C-VIII-2006 1, 27A-VIII-2006 1 and 4C-VII-2007 1.
3396. *Hystrichophora ochreicostana* (Wlsm.) – 18-VII-2004 1, 21-VI-2005 2 and 4D-VII-2007 1.
3399. *Hystrichophora vestaliana* (Zell.) – 21-VI-2005 4 and 4D-VII-2007 1. New to Alberta.
3404. *Dichorampha simulana* (Wlsm.) – 27-VI-2002 1.
3406. *Dichorampha bittana* (Bsk.) – 19-VI-2004 1.
3412. *Dichrorampha sedatana* (Bsk.) (Tanacetum Root Moth) – 8-VI-2002 1.
- Cydia* sp. – 21-VI-2005 1.
3455. *Cydia strobilella* (L.) – 12B-VI-2006 1.
3460. *Cydia ingrata* (Heinr.) – 16B-V-2006 3.
3463. *Cydia populana* (Bsk.) – 27-VI-2002 1 and 21-VI-2005 1.
3465. *Cydia flexiloqua* (Heinr.) – 27-VI-2002 1 and 2B-VIII-2005 1.
3467. *Cydia nigricana* (F.) (Pea Moth) - 4A-VII-2007 1.
3502. *Croesia albicomana* (Clem.) – 12-VII-2002 2, 12B-VII-2003 1, 18-VII-2004 2, 2B-VIII-2005 1, 4B-VII-2007 1 and 4D-VII-2007 1.
- 3506-3563. *Acleris* sp. – 10-IX-2002 1 and 27B-VIII-2006 1.
3525. *Acleris forbesana* (McD.) – 16A-V-2006 1 and 16B-V-2006 4.
3529. *Acleris oxycoccana* (Pack.) – 20-VI-2001 1, 24-IX-2004 1 and 27A-VIII-2006 1.
3536. *Acleris robinsoniana* (Fbs.) – 10-IX-2002 1, 24-IX-2004 1, 28A-VIII-2005 3, 6A-VIII-2006 1, 6B-VIII-2006 1, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.
3548. *Acleris variana* (Fern.) (Black-headed Budworm Moth) – 28A-VIII-2005 2 and 6A-VIII-2006 2.
3559. *Acleris emargana* (F.) (Hook-winged Tortrix Moth) – 27A-VIII-2006 1.
3568. *Eana argentana* (Cl.) – 12-VII-2002 1.
3580. *Decodes hororianus* (Wlsm.) – 1-IX-2001 1, 10-IX-2002 1 and 24-IX-2004 2.
3595. *Pandemis canadana* Kft. (Green Aspen Leafier) – 6B-VIII-2006 1, 4B-VII-2007 1 4C-VII-2007 1 and 4D-VII-2007 1.
3621. *Argyrotaenia quadrifasciana* (Fern.) (Lesser All-green Leafroller Moth) – 4B-VII-2007 1, 4C-VII-2007 2 and 4D-VII-2007 3.
3635. *Choristoneura rosaceana* (Harr.) (Oblique-banded Leafroller Moth) – 12-VII-2002 2, 18-VII-2004 4, 15-VIII-2004 1, 6A-VIII-2006 2, 27A-VIII-2006 1 and 4B-VII-2007 1.
3536. *Acleris robinsoniana* (Fbs.) – 24-IX-2004 1.
3637. *Choristoneura conflictana* (Wlk.) (Large Aspen Tortrix) – 27-VI-2002 1, 12-VII-2002 1, 19-VI-2004 2, 18-VII-2004 2, 21-VI-2005 2, 12C-VI-2006 1 and 4B-VII-2007 1.
3638. *Choristoneura fumiferana* (Clem.) (Spruce Budworm Moth) – 15-VIII-2004 6 and 4B-VII-2007 2.
3648. *Archips argyrospila* (Wlk.) (Fruit-tree Leafroller Moth) – 18-VII-2004 1.

3658. *Archips purpurana* (Clem.) - 4C-VII-2007 1 and 4D-VII-2007 1.
3661. *Archips cerasivorana* (Fitch) (Ugly Nest Caterpillar Moth) – 2A-VIII-2005 1.
3675. *Aphelia alleniana* (Fern.) – 20/21-VII-2001 1 E. Mengersen (OLDS), 12-VII-2002 1, 25C-VI-2003 1 and 4C-VII-2007 1.
3682. *Clepsis persicana* (Fitch) (White Triangle Tortrix Moth) – 20-VI-2001 3, 27-VI-2002 2, 12-VII-2002 1, 18-VII-2004 1, 21-VI-2005 2, 12A-VI-2006 1, 12C-VI-2006 1, 4B-VII-2007 1, 4C-VII-2007 1 and 4D-VII-2007 1.
3684. *Clepsis clemensiana* (Fern.) (Clemen's Clepsis Moth) – 28-VIII-2004 1, 4D-VII-2007 1, 25B-VII-2007 1 and 25D-VII-2007 1.
3688. *Ptycholoma peritana* (Clem.) (Garden Tortrix Moth) – 18-VII-2004 1, 2A-VIII-2005 1, 4C-VII-2007 1 and 4D-VII-2007 1.
3689. *Ptycholoma virescana* (Clem.) – 27C-VIII-2006 2.
3706. *Sparganothis xanthoides* (Wlk.) (Mosaic Sparganothis Moth) – 12-VII-2002 1.
3711. *Sparganothis unifasciana* (Clem.) (One-lined Sparganothis Moth) – 12-VII-2002 2, 25C-VI-2003 1, 12B-VII-2003 1, 18-VII-2004 3, 21-VI-2005 1, 4B-VII-2007 2, 4C-VII-2007 1 and 4D-VII-2007 1.
3712. *Sparganothis vocaridorsana* Kft. – 20-VI-2001 1.
3720. *Sparganothis reticulatana* (Clem.) (Reticulated Fruitworm Moth) – 10-IX-2002 2, 18-VII-2004 2 and 2B-VIII-2005 1.
3740. *Platynota idaeusalis* (Wlk.) (Tufted Apple Bud Moth) – 18-VII-2004 1, 28A-VIII-2005 1 and 4C-VII-2007 1.

COCHYLIDAE – Cochylid Moths

The members of this family are being revised by Dr. Eric Metzler and Dr. John Brown.

Some of the following specimens are now being studied by them.

3755. *Aethes smethmanniana* (F.) (Smeathman's Aethes Moth) - 4D-VII-2007 1.
3758. *Aethes rutilana* (Hbn.) – 12-VII-2002 1.
3792. *Phtheochroa fulviplicana* (Wlsm.) – 12-VII-2002 1 and 18-VII-2004 1.
3794. *Phtheochroa aureoalbida* (Wlsm.) - 4D-VII-2007 1?
- n.n. *Phtheochroa vulneratana* (Zett.) – 27C-VIII-2006 2.

HESPERIIDAE - Skippers

3870. *Epargyreus clarus* (Cram.) (Silver-spotted Skipper) – 6-VII-2008 1 and 5-VII-2009 1 SR.
3910. *Thorybes pylades* (Scudder) (Northern Cloudywing) – 7-VII-2002 1 SR.
3966. *Pyrgus communis* (Grt.) (Checkered Skipper) – 2-VII-1999 9 SR, 11-VII-2000 1 SR, 8-VII-2001 5 SR, 7-VII-2002 40 SR, 6-VII-2003 7 SR, 11-VII-2004 1 SR, 10-VII-2005 2 SR, 22-VI-2007 1 SR Nora Bryan, 8-VII-2007 12 SR, 6-VII-2008 7 SR and 5-VII-2009 1 SR.
4007. *Oarisma garita* (Reak.) (Garita Skipperling) – 2-VII-1999 7 SR, 11-VII-2000 1000+ SR, 8-VII-2001 30 SR, 7-VII-2002 50 SR, 6-VII-2003 1 SR, 11-VII-2004 23 SR and 10-VII-2005 4 SR, 12-VI-2006 6 SR, 9-VII-2006 5 SR, 8-VII-2007 14 SR, 6-VII-2008 17 SR and 5-VII-2009 28 SR.

4041. *Polites themistocles* (Latr.) (Tawny-edged Skipper) – 7-VII-2002 1 SR and 6-VII-2008 1 SR.
- 4051a. *Anatrytone logan lagus* (Layberry et al.) (Delaware Skipper) – 8-VII-2007 1. The specimen was originally mistaken for *Thymelicus lineola*, the European Skipper.
4043. *Polites mystic* (Edw.) (Long Dash Skipper) – 8-VII-2002 1? SR, 7-VII-2002 6 SR and 6-VII-2008 1 SR.

PAPILIONIDAE - Swallowtails

4166. *Papilio machaon dodi* McD. (Dod's Old World Swallowtail) – 2-VII-1999 5 SR, 11-VII-2000 20 SR, 8-VII-2001 10 SR, 7-VII-2002 50 SR, 6-VII-2003 1 SR, 11-VII-2004 12 SR, 10-VII-2005 7 SR, 8-VII-2007 2 SR 6-VII-2008 1, 6-VII-2008 2 SR and 5-VII-2009 2 SR.
- 4176a. *Papilio glaucus canadensis* (R. & J.) (Canadian Tiger Swallowtail) – 2-VII-2000 1 SR, 7-VII-2002 3 SR, 6-VII-2003 1 SR and 6-VII-2008 2 SR.

PIERIDAE – White and Sulphur Butterflies

4194. *Pieris occidentalis* (Reak.) (Western Checkered White) – 2-VII-1999 4 SR, 2-VII-2000 8 SR, 8-VII-2001 1 SR, 7-VII-2002 32 SR, 10-VII-2005 14 SR, 9-VII-2006 30 SR and 8-VII-2007 1 SR.
4197. *Pieris rapae* (L.) (Cabbage Butterfly) – 8-VII-2001 1 SR, 7-VII-2002 2 SR, 10-VII-2005 1 SR, 9-VII-2006 5 SR and 6-VII-2008 2 SR.
4209. *Colias philodice* Godt. (Clouded Sulphur) – 2-VII-2000 8 SR, 8-VII-2001 3 SR, 7-VII-2002 12 SR, 10-VII-2005 7 SR, 12-VI-2006 100 SR, 8-VII-2007 3 SR and 6-VII-2008 1 SR and 5-VII-2009 4 SR.
- 4211e. *Colias christina* Edw. (Christina Sulphur) – 11-VII-1999 1 SR, 7-VII-2002 2 SR and 6-VII-2003 1 SR.

LYCAENIDAE – Blue and Copper Butterflies

4262. *Lycaena helloides* (Bdv.) (Purplish Copper) – 7-VII-2002 1 SR and 5-VI-2009 1 SR.
4275. *Harkenclenus titus* (F.) (Coral Hairstreak) – 8-VII-2001 1 SR, 7-VII-2002 1 SR, 11-VII-2004 3 SR and 10-VII-2005 1 SR.
4362. *Everes amyntula* (Bdv.) (Western Tailed Blue) – 2-VII-2000 1 SR, 8-VII-2001 6 SR, 7-VII-2002 2 SR, 9-VII-2006 1 SR 8-VII-2007 1 SR and 6-VII-2008 1 SR.
4363. *Celastrina ladon* (Cram.) (Spring Azure) – 2-V-2004 SR GP. Observed on the “Dry Island” by Greg Pohl.
- 4372a. *Glaucopsyche lygdamus couperi* Grt. (Silvery Blue) – 8-VII-2001 3 SR, 7-VII-2002 16 SR, 6-VII-2003 2 SR, 8-VII-2007 1 SR, 6-VII-2008 7 SR and 5-VII-2009 5 SR.
4375. *Lycaeides melissa* (Edw.) (Melissa Blue) – 11-VII-1999 2 SR, 8-VII-2001 1 SR, 7-VII-2002 22 SR, 10-VII-2005 1 SR, 12-VI-2006 3 and 8-VII-2007 2 SR.

4376. *Plebejus saepiolus* (Bdv.) (Greenish Blue) – 2-VII-2000 3 SR, 7-VII-2002 3 SR, 6-VII-2003 2 SR, 11-VII-2004 1 SR, 12-VI-2006 3, 8-VII-2007 3 SR, 6-VII-2008 14 SR and 5-VII-2009 15 SR.
4379. *Icaricia shasta* (Edw.) (Shasta Blue) – 2-VII-2000 2 SR, 8-VII-2001 1 SR, 7-VII-2002 4 SR, 10-VII-2005 3 SR, 12-VI-2006 1, 8-VII-2007 1 SR, 6-VII-2008 1 SR and 5-VII-2009 4 SR.
4380. *Icaricia acmon* (Westwood & Hewitson) (Acmon Blue) – 11-VII-1999 2 SR and 7-VII-2002 3 SR.
- 4384d. *Plebejus rusticus rusticus* (Edw.) (Rustic or Arctic Blue) – 12-VI-2006 1.

NYMPHALIDAE - Fritillaries

4422. *Polygonia satyrus* (Edw.) (Satyr Anglewing) – 16-VII-2006 1 SR.
4427. *Polygonia gracilis* (G. & R.) (Hoary Comma) – 8-VII-2001 1 SR.
4435. *Vanessa cardui* (L.) – 10-VII-2005 8 SR. Migrants from the south.
4437. *Vanessa atalanta* (L.) (Red Admiral) – 8-VII-2001 1 SR and 7-VII-2002 2 SR.
4447. *Euptoieta claudia* (Cram.) (Variegated Fritillary) - 8-VII-2007 1 SR.
- 4450c. *Speyeria cybele pseudocarpenteri* (Edw.) (Great Spangled Fritillary) – 8-VII-2001 4 SR and 7-VII-2002 2 SR.
4451. *Speyeria aphrodite* (F.) (Aphrodite Fritillary) – 11-VII-1999 1 SR, 2-VII-2000 30 SR, 8-VII-2001 2 SR, 7-VII-2002 2 SR, 11-VII-2004 1 SR, 8-VII-2007 10 SR, 6-VII-2008 3 SR and 5-VII-2009 2 SR.
4457. *Speyeria callippe* (Bdv.) – 16 VII-2006 1.
- 4459s. *Speyeria atlantis lais* (Edw.) (Northwestern Fritillary) – 2-VII-2000 SR, 8-VII-2001 6 SR, 7-VII-2002 30 SR, 6-VII-2003 7 SR, 11-VII-2004 4 SR, 10-VII-2005 6 SR, 8-VII-2007 5 SR, 6-VII-2008 6 SR and 5-VII-2009 5 SR.
- 4481.1. *Phyciodes cocyta* (Cram.) (Northern Pearl Crescent) – 11-VII-1999 3 SR, 2-VII-2000 1, 8-VII-2001 1 SR, 7-VII-2002 6 SR, 11-VII-2004 1 SR, 10-VII-2005 8 SR, 8-VII-2007 7 SR 6-VII-2008 4 SR and 5-VII-2009 15 SR.
4482. *Phyciodes batesii* (Reak.) (Tawny Crescent) – 11-VII-1999 1 SR, 2-VII-2000 2 SR, 8-VII-2001 6 SR, 7-VII-2002 4 SR, 6-VII-2003 1 SR, 11-VII-2004 5 SR, 10-VII-2005 3 SR, 12-VI-2006 1, 8-VII-2007 9 SR 6-VII-2008 21 SR and 5-VII-2009 1 SR.
4493. *Chlosyne acastus* (Edw.) (Acastus Checkerspot) – 22-VI-2007 1 SR Nora Bryan, 8-VII-2007 2 SR and 6-VII-2008 11 SR.
4522. *Basilarchia arthemis* (Drury) (White Admiral) – 11-VII-1999 2 SR, 2-VII-2000 5 SR, 8-VII-2001 15 SR, 7-VII-2002 5 SR, 11-VII-2004 3 SR, 10-VII-2005 2 SR, 9-VII-2006 3 SR, 8-VII-2007 1 SR and 6-VII-2008 9 SR and 5-VII-2009 6 SR.

SATYRIDAE - Browns and Alpines

- 4583b. *Coenonympha inornata benjamini* McD. (Inornate Ringlet) – 11-VII-1999 7 SR, 11-VII-2000 10 SR, 8-VII-2001 10 SR, 7-VII-2002 45 SR, 6-VII-2003 4 SR, 10-VII-2005 10 SR, 8-VII-2007 13 SR, 6-VII-2008 16 SR and 5-VII-2009 33 SR.
4587. *Cercyonis pegala* (F.) (Common Wood Nymph or Meadow Brown) – 9-VII-2006 10 SR and 8-VII-2007 18 SR.

4596. *Erebia discoidalis* (Kby.) (Red-disked Alpine) – 2-V-2004 SR GP. Observed by Greg Pohl.
4599. *Erebia epipsodea* Butler (Common Alpine) – 2-VII-2000 1 SR and 10-VII-2005 5 SR.

DANAIDAE - Monarchs

4614. *Danaus plexippus* (L.) (Monarch) – 22-VI-2007 3 SR Nora Bryan.

PYRALIDAE – Pyralid or Snout Moths

4703. *Gesneria centuriella* (D. & S.) – 18-VII-2004 1.
4716. *Scoparia biplagialis* Wlk. (Double-striped Scoparia Moth) – 5-VIII-2001 5, 18-VII-2004 1, 2A-VIII-2005 1 and 2B-VIII-2005 2, 2B-VIII-2006 2, 6A-VIII-2006 1 and 4B-VII-2007 1.
4773. *Petrophila kearfottalis* (B. & McD.) – 8-VIII-2001 4, 1-IX-2001 1, 12A-VII-2003 1, 12B-VII-2003 1, 18-VII-2004 1, 2B-VIII-2005 1, 27A-VIII-2006 2 and 27B-VIII-2006 1.
4826. *Mimoschinia rufofascialis* (Steph.) – 25B-VI-2003 1.
4951. *Perispasta caeculialis* Zell. (Titian Peale's Pyralid Moth) – 20-VI-2001 1, 27-VI-2002 2, 12B-VII-2003 1, 21-VI-2005 1, 12C-VI-2006 1 and 4B-VII-2007 1..
4957. *Mutuuraia mysippusalis* (Wlk.) – 18-VII-2004 1 and 21-VI-2005 1.



- *4974. *Achyra bifidalis* (F.) – 12B-VI-2006 2, 6A-VIII-2006 1 and 4C-VII-2007 1.
*These specimens have turned out to belong to an undescribed Pyralid which Dr. Alma Solis thinks may be in the genus *Aglossa*.
4987. *Sitochroa chortalis* (Grt.) (Sitochroa Moth) – 2-VII-1999 SR, 2-VII-2000 1, 8-VI-2001 1, 20-VI-2001 2, 27-VI-2002 1, 19-VI-2004 1 and 4D-VII-2007 1.
5004. *Loxostege sticticalis* (L.) (Beet Webworm Moth) – 27-VI-2002 1, 12-VII-2002 2, 25A-VI-2003 1, 12B-VII-2003 1, 19-VI-2004 3, 18-VII-2004 2, 15-VIII-2004 2, 21-VI-2005 2, 12-VI-2006 2 and 27B-VIII-2006 1.
5017. *Loxostege cereralis* (Zell.) (Alfalfa Webworm Moth) – 21-VI-2005 1.
5032. *Pyrausta nicalis* (Grt.) – 25C-VI-2003 1, 21-VI-2005 3 and 4D-VII-2007 2.
5034. *Pyrausta signatalis* (Wlk.) (Raspberry Pyrausta Moth) – 20-VI-2001 1, 27-VI-2002 3, 21-VI-2005 2, 12-VI-2006 2, 12A-VI-2006 1, 12C-VI-2006 2 and 4D-VII-2007 1.

5056. *Pyrausta generosa* (G. & R.) – 12-VII-2002 1 and 12B-VII-2003 1.
5068. *Pyrausta unifascialis* (Pack.) (Pussytoes Pyrausta Moth) – 20-VI-2001 1, 27-VI-2002 1, 25C-VI-2003 1, 12-VI-2006 1, 4A-VII-2007 1 and 4D-VII-2007 1.
5074. *Pyrausta fodinalis* (Led.) – 20/21-VI-2001 (EM), 12B-VII-2003 1, 18-VII-2004 3, 15-VIII-2004 1, 21-VI-2005 1, 2A-VIII-2005 2, 28A-VIII-2005 1, 12-VI-2006 4, 12A-VI-2006 2, 6B-VIII-2006 3 and 4D-VII-2007 2.
5075. *Pyrausta socialis* (Grt.) - 4B-VII-2007 1 and 4D-VII-2007 1.
5099. *Udea itysalis* (Wlk.) – 6A-VIII-2006 1.
5101. *Udea radiosalis* (Mösch.) – 2B-VIII-2005 1.
5128. *Choristostigma plumbosignalis* (Fern.) – 12-VII-2002 1 and 4B-VII-2007 1.
5135. *Mecyna submedialis* (Grt.) (Orange-tines Mecyna Moth) – 12-VII-2002 2, 12B-VII-2003 1, 18-VII-2004 4, 2A-VIII-2005 1 and 4A-VII-2007 1.
5137. *Mecyna mustelinalis* (Pack.) – 20-VI-2001 3, 27-VI-2002 1, 12-VII-2002 1, 21-VIII-2002 1, 19-VI-2004 3, 18-VII-2004 4, 15-VIII-2004 1, 21-VI-2005 3, 2A-VIII-2005 1, 12B-VI-2006 1, 4C-VII-2007 1 and 4D-VII-2007 1.
5156. *Nomophila nearctica* Mun. (Lucerne Moth) – 6B-VIII-2006 1.
5299. *Acentria ephemerella* (Denis & Schiffermüller) (Water Veneer Moth) – 12-VII-2002 2, 10-IX-2002 3, 15-VIII-2004 2 and 21-VI-2005 1. Reported as new for Alberta from this and other areas in Pohl et al. (2005).
- 5343a. *Crambus perlellus innotatellus* Wlk. – 12-VII-2002 2, 21-VIII-2002 1, 12A-VII-2003 1, 18-VII-2004 1, 18-VIII-2004 1 and 2A-VIII-2005 1.
5345. *Crambus whitmerellus browni* Klots – 20-VI-2001 3, 27-VI-2002 5, 25A-VI-2003 1, 25C-VI-2003 1, 12B-VII-2003 1, 21-VI-2005 1, 12-VI-2006 2, 12B-VI-2006 5 and 12C-VI-2006 2.
5352. *Crambus trichusalis* (Hulst) – 28-VIII-2004 2.
5354. *Crambus ainsliellus* Klots – 27B-VIII-2006 1.
5354. *Crambus ainsliellus* Klots – 1-IX-2001 2 and 10-IX-2002 7. Probably *C. ainsliellus*, but possibly *C. leachellus*.
5379. *Neodactria luteolella* Clem. (Mottled Grass-veneer Moth) – 27-VI-2002 1, 18-VII-2004 2.
5380. *Neodactria zeella* (Fern.) – 12-VII-2002 1 and 15-VIII-2004 1. Material formerly thought to be this species now appears to be a species, perhaps undescribed, of *Pediasia*.
5391. *Chrysoteuchia topiaria* (Zell.) (Cranberry Girdler or topiary Grass-veneer Moth) – 2-VII-1999 SR, 2-VII-2000 1, 20-VI-2001 14, 27-VI-2002 1, 12-VII-2002 1, 25C-VI-2003 1, 12B-VII-2003 1, 18-VII-2004 2, 21-VI-2005 7, 12-VI-2006 2, 12A-VI-2006 1, 12B-VI-2006 4, 12C0VI-2006 2, 27A-VIII-2006 1, 27B-VIII-2006 1, 27C-VIII-2006 1, 4B-VII-2007 1, 4C-VII-2007 1 and 4D-VII-2007 1.
5394. *Platytes vobisne* Dyar – 27-VI-2002 1. New to Alberta according to Pohl et al. (2005).
5399. *Agriphila ruricolella* (Zell.) (Lesser Vagabond Sod Webworm) – 8-VIII-2001 2, 21-VIII-2002 3, 10-IX-2002 1, 18-VII-2004 1 and 2A-VIII-2005 3 and 6C-VIII-2006 2. Listed in previous reports as *Agriphila plumbifimbriella* (Dyar).
5404. *Agriphila vulgivagella* (Clem.) (Vagabond Crambus Moth or Vagabond Sod Webworm Moth) – 27A-VIII-2006 2, 27B-VIII-2006 3 and 27C-VIII-2006 2.

5408. *Catoptria latiradiella* (Wlk.) (Three-spotted Crambus Moth) – 27-VI-2002 2, 12B-VII-2003 3, 19-VI-2004 1, 18-VII-2004 7, 15-VIII-2004 1 and 4B-VII-2007 1.
- 5410-5417. *Pediasia* spp. – 12-VII-2002 3, 21-VIII-2002 1, 12B-VII-2003 1, 18N-VII-2004 2, 18S-VII-2004 2 and 15-VIII-2004 3. These could be *Pediasia aridella edmontella*, *P. laciniella*, or even an undescribed species.
5413. *Pediasia trisecta* (Wlk.) (Sod Webworm Moth) – 1/2-IX-2001 (EM), 12-VII-2002 1, 10-IX-2002 3, 15-VIII-2004 2, 28A-VIII-2005 4, 6A-VIII-2006 1, 6C-VIII-2006 1, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.
5417. *Pediasia dorsipunctella* (Kft.) – 20-VI-2001 1, 8-VIII-2001 5, 10-IX-2002 5, 12B-VII-2003 2, 18-VII-2004 2, 15-VIII-2004 3, 2A-VIII-2005 1, 2B-VIII-2005 1 and 4D-VII-2007 1.
- 5441a. *Thaumatopsis fernaldella nortella* Kft. – 8-VIII-2001 1, 27-VI-2002 2, 12-VII-2002 3, 12A-VII-2003 1, 18-VII-2004 3 and 4D-VII-2007 3.
5455. *Euchromius californicus* (Pack.) (California Grass-veneer Moth) – 18-VII-2004 1 and 28A-VIII-2005 1.
5585. *Toripalpus trabalis* (Grt.) (Jocara Moth) – 27-VI-2002 1, 12-VII-2002 1, 12B-VII-2003 1 and 18-VII-2004 2.
5606. *Tetralopha asperatella* (Clem.) (Maple Webworm) – 19-VI-2004 2, 18-VII-2004 1, 21-VI-2005 2, 12A-VI-2006 1 and 4B-VII-2007 1.
5655. *Acrobasis tricolorella* Grt. (Tricolored Acrobasis Moth) – 12-VII-2002 1, 12A-VII-2003 1, 19-VI-2004 1, 18-VII-2004 7, 21-VI-2005 1, 2A-VIII-2005 1, 12B-VI-2006 1, 4B-VII-2007 3, 4C-VII-2007 1 and 4D-VII-2007 2.
5718. *Myelopsis subtetricella* (Rag.) – 1-IX-2001 1, 4-VI-2002 5, 27-VI-2002 2, 21-VIII-2002 8, 10-IX-2002 2, 19-VI-2004 2, 18-VII-2004 3, 24-IX-2004 1, 21-VI-2005 2, 2A-VIII-2005 1, 16A-V-2006 2, 12A-VI-2006 2, 6A-VIII-2006 1 and 4B-VII-2007 1.
5719. *Myelopsis minutularia* (Hulst) (*M. coniella*) – 4/5-VII-2001 (EM), 8/9-VIII-2001 (EM), 21-VIII-2002 2 10-IX-2002 4, 12B-VII-2003 1, 18-VII-2004 3, 15-VIII-2004 8, 28-VIII-2004 3, 24-IX-2004 2, 2A-VIII-2005 2, 28A-VIII-2005 3, 6A-VIII-2006 1 and 6B-VIII-2006 1.
5721. *Apomyelois bistriatella* (Hulst) – 18-VII-2004 1 and 4B-VII-2007 1.
5746. *Pima boisduvaliella* (Gn.) – 27-VI-2002 2 and 4B-VII-2007 1. Wingspread 18-24 mm. Neunzig (2003) states that *P. boisduvaliella* is a European species that feeds on introduced legume crops.
5751. *Pima fulvirugella* (Rag.) (incl. *P. vividella* McD.) – 8-VI-2001 2, 20-VI-2001 3, 27-VI-2002 5, 25C-VI-2003 3, 12B-VII-2003 3, 18-VII-2004 1, 21-VI-2005 1, 12B-VI-2006 3 and 4C-VII-2007 1. Close to *P. boisduvaliella* (Guenée) but with wingspread 25 mm and above.
5759. *Ambesa laetella* Grt. – 18-VII-2004 2.
5764. *Catastia actualis* (Hulst) – 21-VI-2005 1 and 4D-VII-2007 1.
5787. *Meroptera pravella* (Grt.) (Lesser Aspen Webworm) – 27-VI-2002 2, 25C-VI-2003 1, 21-VI-2005 4, 16B-V-2006 1, 12A-VI-2006 2, 12C-VI-2006 2, 4C-VII-2007 1 and 4D-VII-2007 1.
5792. *Nephopterix fernaldella* (Rag.) – 25B-VI-2003 1, 18-VII-2004 3 and 4C-VII-2007 1. This may be an undescribed species of *Sciota* according to Dr. H. Neunzig.
5799. *Nephopterix basilaris* Zell. – 20-VI-2001 1, 27-VI-2002 4 and 12A-VI-2006 1.

5812. *Telethusia ovalis* (Pack.) – 15-VIII-2004 2.
5827. *Pyla aenigmatica* Heinr. – 21-VIII-2002 1 and 18-VII-2004 4.
5829. *Pyla fusca* (Haw.) (Speckled Black Pyla Moth) – 15-VIII-2004 1, 2A-VIII-2005 1, 2B-VIII-2005 1 and 27A-VIII-2006 2.
5831. *Pyla hanhamella* Dyar – 27-VI-2002 1. Identified by Dr. George Balogh.
5843. *Dioryctria reniculeloides* Mutuura & Mun. (Spruce Coneworm Moth) - 4B-VII-2007 1.
5870. *Sarata caudelella* (Dyar) – 22A-IV-2005 4.
5886. *Lipographis fenestrella* (Pack.) – 15-VIII-2004 1. Reported as new to Alberta from this and another area in Pohl et al. (2005).
5918. *Hulstia undulatella* (Clem.) (Sugarbeet Crown Borer Moth) – 1/2-IX-2001 (EM), 12-VII-2002 1 and 18-VII-2004 1.
5936. *Homoeosoma stipiticellum* Grt. – 18-VII-2004 1.
5946. *Phycitoides mucidellum* (Rag.) – 8-VIII-2001 2, 10-IX-2002 1, 28A-VIII-2005 1, 27B-VIII-2006 2, 27C-VIII-2006 1 and 4C-VII-2007 1.
5968. *Zophodia grossulariella* Hbn. (Gooseberry Fruitworm Moth) – 4-VI-2002 2 and 21B-V-2003 2.
5971. *Melitara dentata* (Grt.) – 21-VIII-2002 1, 15-VIII-2004 5 and 2A-VIII-2005 2.
5999. *Eulogia ochrifrontella* (Zell.) (Broad-banded Eulogia Moth) – 12A-VII-2003 1, 12B-VII-2003 1 and 18-VII-2004 2.
- 6007a. *Vitula seratilineella* Rag. – 18-VII-2004 1, 24-IX-2004 3, 21-VI-2005 1, 2A-VIII-2005 1, 28A-VIII-2005 3, 12A-VI-2006 1, 12B-VI-2006 1, 6A-VIII-2006 3, 24A-VIII-2006 4, 27B-VIII-2006 2, 27C-VIII-2006 1 and 4C-VII-2007 1 .
6038. *Anerastia lotella* (Hbn.) – 21-VIII-2002 2.
6053. *Peoria approximella* (Wlk.) (Carmine Snout Moth) – 27-VI-2002 1, 12B-VII-2003 2, 18-VII-2004 4, 15-VIII-2004 3, 21-VI-2005 4, 12B-VI-2006 3, 12C-VI-2006 2, 4C-VII-2007 1 and 4D-VII-2007 2.

PTEROPOHORIDAE – Plume Moths

- 6089-6234. Indet. Pterophorids – 12-VII-2002 2, 2-VIII-2005 2, 21-VIII-2005 1, 12-VI-2006 2, 4B-VII-2007 3, 4C-VII-2007 2 and 4D-VII-2007 4. These specimens are currently being examined by Doug Macaulay.
6102. *Dejongia lobidactylus* (Fitch) – 12-VII-2003 1.
6107. *Gillmeria pallidactyla* (Haw.) – 20-VI-2001 3, 21-VI-2005 1 and 12-VI-2006 3.
6166. *Oidaematophorus mathewianus* (Zell.) (Mathew's Plume Moth) – 2-VIII-2005 1, 6-VIII-2006 1 and 27-VIII-2006 1.
6171. *Oidaematophorus grisescens* Wlsm. – 15-VIII-2004 1.
6203. *Hellinsia homodactylus* (Wlk.) – 18-VII-2004 1.

THYATIRIDAE – Thyatirid Moths

6240. *Euthyatira pudens* (Gn.) (Dogwood Thyatira) - 30A-V-2007 1.
6248. *Ceranemota albertae* Clarke (Alberta Lutestring) – 1-IX-2001 1, 28N-VIII-2004 2 (5 SR), 28S-VIII-2004 2 SR and 28A-VIII-2005 3 and 27A-VIII-2006 1.

DREPANIDAE – Hooktips

6252. *Drepana bilineata* (Pack.) (Two-lined Hooktip) – 12B-VII-2003 2.
 6255. *Oreta rosea* (Wlk.) (Rose Hooktip) - 4B-VII-2007 1.

GEOMETRIDAE – Inchworm or Geometrid Moths

6270. *Protitame virginalis* (Hulst) (Virgin Moth) – 20-VI-2001 1, 19-VI-2004 3, 18-VII-2004 2, 21-VI-2005 3, 12-VI-2006 1 and 4B-VII-2007 1.
 6272. *Eumacaria latiferrugata* (Wlk.) (Brown-bordered Geometer) – 2-VII-1999 SR and 8-VI-2001 1.
 6279. *Macaria (Itame) occiduaria* (Pack.) (Western Sulphur) – 18-VII-2004 1, 21-VI-2005 1 and 2B-VIII-2005 1.
 6290. *Macaria (Itame) loricaria* (Evers.) (False Bruce Spanworm) – 18-VII-2004 2, 12A-VI-2006 1, 12C-VI-2006 1 and 4B-VII-2007 1.
 6304. *Macaria (Itame) bitactata* (Wlk.) – 20/21-VI-2001 (EM), 15-VIII-2004 2 and 2B-VIII-2005 2.
 6344. *Macaria (Semiothisa) signaria* (Hbn.) (Pale-marked Angle) – 19-VI-2004 3, 21-VI-2005 3 and 30C-V-2007 1.
 6373. *Digrammia (Semiothisa) denticulata* Grt. (Striped Granite) - 8-VI-2001 2, 4-VI-2002 2, 27-VI-2002 1, 10-IX-2002 2, 25B-VI-2003 1, 25C-VI-2003 2, 18-VII-2004 1, 21-VI-2005 2 and 4B-VII-2007 1.
 6380. *Digrammia (Semiothisa) californiaria* (Pack.) – 19-VI-2004 1, 27B-VIII-2006 2 and 27C-VIII-2006 1.
 6394. *Digrammia rippertaria* (Dup.) (Semiothisa hebetata) – 20/21-VI-2001 (EM).
 6396. *Digrammia (Semiothisa) neptaria* (Gn.) – 4-VI-2002 3, 27-VI-2002 1, 10-IX-2002 1 and 4C-VII-2007 1.
 6431. *Hesperumia sulphuraria* Pack. (Sulphur Moth) – 18-VII-2004 3 and 4B-VII-2007 1.
 6598. *Protoboarmia porcelaria* (Gn.) (Speckled Carpet) – 18-VII-2004 1.
 6640. *Biston betularia* (L.) (Salt and Pepper Moth) – 20-VI-2001 1, 4B-VII-2007 1 and 4C-VII-2007 1.
 6654. *Hypagyrtis unipunctata* (Haw.) (One-spotted Variant) – 20/21-VI-2001 (EM) and 12-VII-2002 1.
 6666. *Lomographa semiclarata* (Wlk.) (Bluish Spring Moth) – 8-VI-2001 1, 16A-V-2006 1 and 16V-2006 2.
 6677. *Cabera erythemaria* Gn. (Yellow-dusted Cream Moth) – 27-VI-2002 2, 12-VII-2002 2, 21-VI-2005 1 and 4B-VII-2007 1.
 6678. *Cabera variolaria* Gn. (The Vestal or The Pink-striped Spanworm Moth) – 20-VI-2001 2, 12-VII-2002 2 and 21-VI-2005 1.
 6715. *Aspitates aberratus* (Hy. Edw.) – 2-VII-1999 SR, 2-VII-2000 2, 8-VI-2001 3, 20-VI-2001 2, 4-VI-2002 1, 27-VI-2002 1, 25A-VI-2003 2, 25B-VI-2003 1, 25C-VI-2003 1, 12B-VII-2003 1, 19-VI-2004 1, 18-VII-2004 1, 12A-VI-2006 1, 12B-VI-2006 1, 12C-VI-2006 1 and 4B-VII-2007 1.
 6726. *Euchlaena obtusaria* (Hdn.) (Obtuse Euchlaena) – 12-VII-2002 1 and 12A-VI-2006 1.

6729. *Euchlaena johnsonaria* (Fitch) (Johnson's Euchlaena) – 12-VII-2002 2, 12B-VII-2003 1, 18-VII-2004 1, 4B-VII-2007 1, 4C-VII-2007 1 and 4D-VII-2007 2.
6731. *Euchlaena madusaria* (Wlk.) – 12B-VII-2003 1, 19-VI-2004 1, 18-VII-2004 1, 21-VI-2005 1, 30A-V-2007 1, 30C-V-2007 1, 4B-VII-2007 1, 4C-VII-2007 1 and 4D-VII-2007 1.
6734. *Euchlaena marginaria* (Minot) (Alberta Thorn) – 8-VI-2001 1 and 16B-V-2006 1.
6737. *Euchlaena tigrinaria* (Gn.) (Variable Thorn or Mottled Euchlaena) – 20/21-VI-2001 (EM), 12A-VI-2006 1, 4B-VII-2007 1 and 4C-VII-2007 1.
6740. *Xanthotype urticaria* Swett - 26B-VI-2007 1 and 26C-VI-2007 1.
6743. *Xanthotype sospeta* (Drury) – 21-VI-2005 1, 4B-VII-2007 1 and 4C-VII-2007 1.
6755. *Pero morrisonaria* (Hy. Edw. (Lesser Umber or Morrison's Pero) – 20-VI-2001 1, 4-VI-2002 1, 27-VI-2002 1, 19-VI-2004 3, 12A-VI-2006 1, 4B-VII-2007 1 and 4D-VII-2007 1.
6796. *Campaea perlata* (Gn.) (Pale Beauty or Fringed Looper Moth) - 4B-VII-2007 1 and 4C-VII-2007 1.
6797. *Ennomos magnaria* Gn. (Maple Spanworm Moth) – 1-IX-2001 1, 10-IX-2002 1 and 24-IX-2004 1.
6819. *Metanema inatomaria* Gn. ((Pale Metanema) – 20-VI-2001 1 and 4B-VII-2007 1.
6820. *Metanema determinata* (Wlk.) (Dark-banded Thorn) – 20-VI-2001 1 and 4B-VII-2007 1.
6822. *Metarranthis duaria* (Gn.) (Canadian Thorn or Ruddy Metaranthis) – 4-VI-2002 1, 16B-V-2006 1, 30A-V-2007 1, 30B-V-2007 1 and 30C-V-2007 1.
6836. *Anagoga occiduaria* (Wlk.) (American Barred Umber) - 30A-V-2007 1, 30B-V-2007 1 and 30C-V-2007 1.
6837. *Probola alienaria* (H.-S.) – 20VI-2001 1, 19-VI-2004 1 and 30A-V-2007 1.
6838. *Probola amicaria* (H.-S.) (Sharp-toothed Thorn or Friendly Probola) – 18-VII-2004 1.
6842. *Plagodis phlogosaria* (Gn.) (Straight-lined Plagodis) – 16B-V-2006 1.
6863. *Caripeta divisata* (Wlk.) (Gray Spruce Looper) - 4B-VII-2007 1.
6912. *Sicya macularia* (Harr.) (Pink-bordered Yellow) – 18-VII-2004 1.
6926. *Plataea trilinearia* (Pack.) (Sagebrush Girdle) – 8-VI-2001 8, 20-VI-2001 2, 27-VI-2002 1, 12-VII-2002 1, 12B-VII-2003 1, 18-VII-2004 1, 21-VI-2005 2, 12A-VI-2006 1, 12B-VI-2006 1, 12C-VI-2006 1 and 4D-VII-2007 1..
6982. *Prochoerodes transversata* (Drury) (Large Maple Spanworm Moth) – 10-IX-2002 2, 15-VIII-2004 3 and 6A-VIII-2006 1.
7018. *Nemoria unitaria* (Pack.) – 13-VII-2002 1 and 4B-VII-2007 1.
7058. *Synchlora aerata* (F.) (Wavy lined Emerald) – 12-VII-2002 6, 27C-VIII-2006 2, 4B-VII-2007 1 and 4D-VII-2007 1.
7065. *Chaetoscelis bistriaria* (Pack.) (Red-fringed Emerald) - 12B-VII-2003 1 and 18-VII-2004 2.
7125. *Idaea rotundopennata* (Pack.) (Round-winged Wave) – 19-VI-2004 3.
7139. *Cyclophora pendulinaria* (Gn.) (Pearly-gray Wave or Sweetfern Geometer) - 4C-VII-2007 1.
7159. *Scopula limboundata* (Haw.) (Large Lace-border) – 18-VII-2004 2.
7164. *Scopula junctaria* (Wlk.) (United Wave) – 12-VII-2002 2 and 18-VII-2004 2.
7166. *Scopula frigidaria* Mösch. (Frigid Wave) – 12B-VII-2003 1 and 19-VI-2004 1.

7169. *Scopula inductata* (Gn.) (Soft-lined Wave) – 27-VI-2002 2, 12B-VII-2003 1, 18-VII-2004 1, 21-VI-2005 2, 12C-VI-2006 1, 27A-VIII-2006 1, 27B-VIII-2006 1, 27C-VIII-2006 1, 4B-VII-2007 1 and 4D-VII-2007 1.
7172. *Scopula sentinaria* (Gey.) – 2-VII-2000 1 and 12-VI-2006 1.
7180. *Leptostales ferruminaria* (Zell.) – 4-VI-2002 1.
7182. *Dysstroma citrata* (L.) (Dark Marbled Carpet) – 28A-VIII-2005 1 and 6A-VIII-2006 1.
7189. *Dysstroma hersiliata* (Gn.) (Orange-barred Carpet) – 20-VI-2001 1, 18-VII-2004 1 and 4B-VII-2007 1.
7194. *Dysstroma brunneata* (Pack.) (Handsome Carpet) - 4C-VII-2007 1.
7199. *Eulithis propulsata* (Wlk.) – (Barred Yellow or Currant Eulithis) – 18-VII-2004 1.
7207. *Eulithis xyloina* (Hulst) (The Phoenix) – 18-VII-2004 3, 4B-VII-2007 1 and 4D-VII-2007 1.
7219. *Thera otisi* (Dyar) (Dyar's Carpet) – 8-VIII-2001 EM, 10-IX-2002 1, 15-VIII-2004 6, 28-VIII-2004 2, 24-IX-2004 1, 2B-VIII-2005 1, 28A-VIII-2005 6, 6A-VIII-2006 2, 6B-VIII-2006 1 and 27B-VIII-2006 2.
7254. *Hydriomena ruberata* (Frey.) – 19-VI-2004 1.
7257. *Hydriomena furcata* (Thunb.) – 2B-VIII-2005 2.
7307. *Mesoleuca ruficillata* (Gn.) (Red-fringed Carpet) – 27-V-2004 1.
7316. *Perizoma basaliata* (Wlk.) (Twin-spot Wave) – 12A-VI-2006 1.
7328. *Perizoma custodiata* (Gn.) – 8-VI-2001 4, 4-VI-2002 2, 25C-VI-2003 1, 21-VI-2005 2, 16A-V-2006 1, 12B-VI-2006 1, 6B-VIII-2006 1, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.
7370. *Xanthorhoe abrasaria* (H.-S.) – 18-VII-2004 1.
7394. *Epirrhoe alternata* (Müller) – 21-VI-2005 1, 12A-VI-2006 1 and 12C-VI-2006 1.
7408. *Zenophleps alpinata* Cass. – 10-IX-2002 1, 15-VIII-2004 1, 28N-VIII-2004 1 (4 SR), 2B-VIII-2005 2, 28A-VIII-2005 1, 6A-VIII-2006 1, 27A-VIII-2006 1 and 27B-VIII-2006 1.
7440. *Eubaphe mendica* (Wlk.) (The Beggar) – 12-VII-2002 1 and 4B-VII-2007 1.
7445. *Horisme intestinata* (Gn.) (Many-lined Pug) – 20-VI-2001 2 and 4B-VII-2007 2.
7446. *Horisme incana* Swett – 20-VI-2001 2, 27-VI-2002 1, 12-VII-2002 1, 25C-VI-2003 2, 16B-V-2006 1, 12-VI-2006 1, 12B-VI-2006 1, 12C-VI-2006 1, 30A-V-2007 1, 30B-V-2007 1, 4D-VII-2007 1, 30A-V-2007 2, 30B-V-2007 1, 4B-VII-2007 1 and 4D-VII-2007 1.
7449. *Eupithecia palpata* group – 12B-VI-2006 1.
7483. *Eupithecia regina* Tayl. – 20-VI-2001 2, 21-VI-2005 1, 12A-VI-2006 2 and 12C-VI-2006 1.
7487. *Eupithecia subfuscata* (Haw.) – 20-VI-2001 1, 27-VI-2002 1 and 19-VI-2004 1.
7522. *Eupithecia nimbicolor* (Hulst) – 8-VI-2001 1 and 12A-VI-2006 1.
7524. *Eupithecia cimicifugata* Pears. – 21-VI-2005 1.
7539. *Eupithecia multistrigata* (Hulst) – 10-IX-2002 1.
7548. *Eupithecia lachrymosa* (Hulst) – 20-VI-2001 1, 19-VI-2004 1 and 21-VI-2005.
- 7551a. *Eupithecia interruptofasciata* Pack. – 1-IX-2001 2, 10-IX-2002 1, 24-IX-2004, 28A-VIII-2005 6, 27A-VIII-2006 3, 27B-VIII-2006 1 and 27C-VIII-2006 1.
7575. *Eupithecia mutata* Pears. – 20-VI-2001 1 and 19-VI-2004 1.
7605. *Eupithecia ravocostaliata* Pack. (Great Variegated Pug) – 16B-V-2006 1.

7640. *Lobophora nivigerata* Wlk. (Two-lined Aspen Looper) – 25C-VI-2003 1 and 4B-VII-2007 1.

LASIOCAMPIDAE – Tent Caterpillar or Lappet Moths

- 7687. *Phyllodesma americana* (Harr.) (Lappet Moth) – 17-VI-2002 1, 21A-V-2003 1, 12A-VI-2006 1, 30A-V-2007 1 and 30B-V-2007 1.
- 7698. *Malacosoma disstria* Hbn. (Forest Tent Caterpillar) – 12-VII-2002 1, 12B-VII-2003 1, 18-VII-2004 1 and 4B-VII-2007 1.
- 7702. *Malacosoma californicum* (Pack.) (Western Tent Caterpillar) – 18-VII-2004 1, 4C-VII-2007 1 and 4D-VII-2007 2.

SATURNIDAE – Giant Silk Moths

- 7757. *Antheraea polyphemus* (Cram.) (Polyphemus Moth) – 8/9-VI-2001 (EM).

SPHINGIDAE – Sphinx Moths

- 7803. *Sphinx vashti* Stkr. (Vashti or Snowberry Sphinx) – 20-VI-2001 1, 4-VI-2002 10 SR, 27-VI-2002 1, 25B-VI-2003 1, 19-VI-2004 1 and 30C-V-2007 1.
- 7812. *Sphinx drupiferarum* J. E. Smith (Wild Cherry Sphinx) – 27-VI-2002 1. Seldom encountered in Alberta. Known from Red Deer (1916) and Tolman Bridge (Gary Anweiler, 14/15-VI-2002). Similar to *Smerinthis cerisyi* but darker and larger (the wingspan on the above specimen being 92 mm).
- 7821. *Smerinthus jamaicensis* (Drury) (Twin-spot Sphinx) – 20-VI-2001 1, 12-VII-2002 2 SR and 12C-VI-2006 2.
- 7822. *Smerinthus cerisyi* Kby. (One-eyed Sphinx) – 20-VI-2001 1, 4-VI-2002 15 SR, 12-VII-2002 10 SR, 19-VI-2004 1, 30A-V-2007 1, 4B-VII-2007 2 and 4D-VII-2007 1.
- 7824. *Paonias excaecatus* (J. E. Smith) (Blinded Sphinx) – 8/9-VI-2001 (EM). 27-VI-2002 1, 12-VII-2002 1 SR, 12A-VI-2006 1, 12B-VI-2006 1, 4B-VII-2007 1 and 4D-VII-2007 1.
- 7825. *Paonias myops* (J. E. Smith) (Small-eyed Sphinx) – 8/9-VI-2001 (EM), 12-VII-2002 2 SR, 25C-VI-2003 1, 12C-VI-2006 1, 30C-V-2007 1, 4B-VII-2007 1, 4C-VII-2007 1 and 4D-VII-2007 1.
- 7828. *Pachysphinx modesta* (Harr.) (Large Poplar Sphinx) – 8/9-VI-2001 (EM).
- 7893. *Hyles gallii* (Rottemburg) (Galium Sphinx or Bedraw Hawkmoth) – 25C-VI-2003 1, 21-VI-2005 1, 12C-VI-2006 1 and 4C-VII-2007 1.

NOTODONTIDAE – Prominent Moths

- 7895. *Clostera albosigma* Fitch (Sigmoid Prominent or Rusty-lined Leafier Moth) – 8-VIII-2001 1, 22B-IV-2005 1 and 30A-V-2007 1.
- 7898. *Clostera strigosa* (Grt.) (Striped Chocolate-tip) – 27-VI-2002 1.
- 7901. *Clostera apicalis* (Wlk.) (Common Chocolate-tip or Red-marked Tentmaker Moth) – 4-VI-2002 2, 12-VI-2002 1 and 21A-V-2003 1.

7915. *Nadata gibbosa* (J. E. Smith) (White-dotted Prominent or Yellow-lined Caterpillar Moth) – 27-VI-2002 1, 12-VII-2002 1, 19-VI-2004 6 (25 SR), 18-VII-2004 2, 21-VI-2005 1, 12A-VI-2006 1, 4C-VII-2007 1 and 4D-VII-2007 1.
7922. *Pheosia rimosa* Pack. (Black-rimmed Prominent) – 18-VII-2004 1.
7924. *Odontosia elegans* (Stkr.) (Elegant Prominent) – 20/21-VI-2001 (EM) and 12-VII-2002 1.
7926. *Notodonta scitipennis* Wlk.) (Base-streaked Prominent) – 20/21-VI-2001 (EM) and 18-VII-2004 1.
7928. *Notodonta simplaria* Graef – 21-VI-2005 2 and 12C-VI-2006 1. Now regarded as synonymous with the Old World *Notodonta torva* (Hübner).
7931. *Gluphisia septentrionis* (Wlk.) (Small Pebble) – 8-VI-2001 1, 20-VI-2001 2, 27-VI-2002 1, 12-VII-2002 1 SR, 16B-V-2006 1, 12A-VI-2006 1, 4C-VII-2007 1 and 4D-VII-2007 1.
7934. *Gluphisia lintneri* (Grt.) – 22B-IV-2005 1.
7939. *Furcula occidentalis* (Lint.) (Willow Kitten) – 12B-VII-2003 1.
7941. *Furcula modesta* (Huds.) (Modest Kitten) – 4-VI-2002 1 and 4C-VII-2007 1.
8007. *Schizura unicornis* (J. E. Smith) (Variegated Prominent or Unicorn Caterpillar Moth) – 20-VI-2001 3, 27-VI-2002 1, 19-VI-2004 1 and 4B-VII-2007 1.

ARCTIIDAE – Tiger Moths and others

8043. *Eilema bicolor* (Grt.) (Yellow-edged Footman or Bicolored Moth) – 21-VIII-2002 1, 10-IX-2002 2, 18-VII-2004 1, 15-VIII-2004 1, 28-VIII-2004 1 and 28A-VIII-2005 2.
8051. *Crambidia casta* (Pack.) (Pearly-winged Lichen Moth) – 1-IX-2001 3, 21-VIII-2002 3, 10-IX-2002 3, 21-VIII-2003 1, 15-VIII-2004 2, 28-VIII-2004 1, 28A-VIII-2005 3, 6B-VIII-2006 1, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.
8089. *Hypoprepia miniata* (Kby.) (Scarlet-winged Lichen Moth) – 12-VII-2002 2, 12B-VII-2003 1, 18-VII-2004 3 and 4C-VII-2007 1.
8098. *Clemensia albata* Pack. (Little White Lichen Moth) – 18-VII-2004 2 and 4B-VII-2007 1.
8123. *Holomelina ferruginosa* (Wlk.) (Rusty Holomelina or Spotted Salmon Tiger Moth) – 12-VII-2002 1, 18-VII-2004 3, 15-VIII-2004 1, 4C-VII-2007 1 and 4D-VII-2007 1.
8129. *Pyrrharctia isabella* (J. E. Smith) – 20-VI-2001 2, 27-VI-2002 1 and 12-VII-2002 2.
8131. *Estigmene acraea* (Drury) – 20-VI-2001 1.
8134. *Hyphantria congrua* (Wlk.) – 8-VI-2001 1, 20-VI-2001 2, 21-VI-2005 2, 12A-VI-2006 1 and 4B-VII-2007 1.
8136. *Spilosoma dubia* (Wlk.) – 8/9-VI-2001 (EM).
8137. *Spilosoma virginica* (F.) (Virginian Tiger Moth, Red-marked Tentmaker or Yellow Woolly Bear) – 20/21-VI-2001 (EM) and 18-VII-2004 1.
8144. *Hypercompe permaculata* (Pack.) – 8-VI-2001 3, 20-VI-2001 1, 27-VI-2002 1, 12-VII-2002 2, 25B-VI-2003 1, 25C-VI-2003 2, 12B-VII-2003 2, 18-VII-2004 1, 15-VIII-2004 2, 21-VI-2005 1, 2A-VIII-2005 1, 12B-VI-2006 1, 12C-VI-2006 1, 4C-VII-2007 1 and 4D-VII-2007 1.

8158. *Phragmatobia assimilans* (Wlk.) (Large Ruby Tiger Moth) – 4-VI-2002 2, 16B-V-2006 1 and 30A-V-2007 1.
8162. *Platarctia parthenos* (Harr.) (St. Lawrence Tiger Moth) – 19-VI-2004 1.
8186. *Grammia williamsii* (Dodge) – 20-VI-2001 2, 27-VI-2002 2, 12-VII-2002 2, 25B-VI-2003 1, 25C-VI-2003 1, 12B-VII-2003 1, 18-VII-2004 1, 21-VI-2005 3, 12C-VI-2006 1, 4C-VII-2007 1 and 4D-VII-2007 1.
8196. *Grammia parthenice* (W. Kirby) (Parthenice Tiger Moth) – 12A-VII-2003 1, 12B-VII-2003 1, 18-VII-2004 2, 15-VIII-2004 2, 2B-VIII-2005 1 and 4C-VII-2007 1.
8197. *Grammia virgo* (L.) (Virgin Tiger Moth) – 20-VI-2001 2, 12-VII-2002 1, 18-VII-2004 1, 4B-VII-2007 1 and 4D-VII-2007 1.
8214. *Lophocampa maculata* Harr. (Spotted Tussock Moth) – 27-VI-2002 1.
8262. *Ctenucha virginica* (Esp.) (Virginia Ctenucha) – 2-VII-1999 SR and 2-VII-2001 1.

LYMANTRIIDAE – Tussock Moths

8294. *Dasychira vagans* (B. & McD.) (Variable Tussock Moth) – 20-VI-2001 1, 12-VII-2002 1, 25C-VI-2003 1 and 4B-VII-2007 1.
8304. *Dasychira plagiata* (Wlk.) (Northern Conifer Tussock Moth) – 18-VII-2004 1 and 4C-VII-2007 1.

NOCTUIDAE – Owlets or Noctuid Moths

8322. *Idia americalis* (Gn.) (American Snout Moth) – 20-VI-2001 2, 8-VIII-2001 2, 19-VI-2004 1, 18-VII-2004 1, 15-VIII-2004 1, 28A-VIII-2005 1, 12A-VI-2006 1, 12C-VI-2006 1, 6A-VIII-2006 1, 27C-VIII-2006 1, 4B-VII-2007 1 and 4C-VII-2007 1.
8323. *Idia aemula* Hbn. (Powdered Snout) – 18-VII-2004 1.
8334. *Idia lubricalis* (Gey.) (Glossy Black Idia) – 10-IX-2002 2, 18-VII-2004 1, 15-VIII-2004 1 and 4B-VII-2007 2.
8354. *Zanclognatha latalba* (Sm.) (The Canadian Zanclognatha) – 18-VII-2004 3 and 4C-VII-2007 1.
8356. *Chytolita petrealis* Grt. (Lesser Luteous Snout) – 19-VI-2004 4 and 21-VI-2005 1.
8362. *Phalaenostola metonalis* (Wlk.) (Pale Phalaenostola or Tufted Snout) – 12-VII-2002 1 and 4D-VII-2007 1.
8365. *Phalaenostola hanhami* (Sm.) (Hanham's Snout Moth) – 18-VII-2004 1.
8370. *Bleptina caradrinalis* Gn. (Bent-winged Owlet) – 27-VI-2002 2, 25C-VI-2003 4, 18-VII-2004 1, 21-VI-2005 1, 12A-VI-2006 1 and 4C-VII-2007 2.
8397. *Palthis angulalis* (Hbn.) (Angulated Snout Moth) – 19-VI-2004 1.
8421. *Hypenodes fractilinea* (Sm.) (Broken-line Hypenodes) – 18-VII-2004 1.
8461. *Hypena humuli* Harr. – 22A-IV-2005 1, 22B-IV-2005 2 and 28A-VIII-2005 1.
8555. *Scoliopteryx libatrix* (L.) (The Herald) – 12A-VI-2006 1.
8632. *Drasteria hudsonica* (G. & R.) (Northern Arches) – 8-VI-2001 2, 20-VI-2001 2, 27-VI-2002 1, 25C-VI-2003 1, 21-VI-2005 1 and 12C-VI-2006 1.
8635. *Drasteria perplexa* (Hy. Edw.) (Perplexing Arches) – 18-VII-2004 1, 21-VI-2005 1, 16A-V-2006 1, 12B-VI-2006 1 and 4C-VII-2007 1.
8636. *Drasteria adumbrata* (Behr) – 12-VII-2002 1.

8697. *Zale minerea* (Gn.) (Colorful Zale) – 16B-V-2006 2, 30A-V-2007 1, 30B-V-2007 1 and 30C-V-2007 1.
8731. *Euclidea cuspidea* (Hbn.) (Pointed Grass Moth) – 16B-V-2006 1 and 12-VI-2006 1.
8738. *Caenurgina crassiuscula* (Haw.) (Clover Looper Moth) – 8-VI-2001 1, 4-VI-2002 1, 27-VI-2002 2, 12-VII-2002 1, 12B-VII-2003 1, 16B-V-2006 1 and 12C-VI-2006 1.
8739. *Caenurgina erechtea* (Cram.) (Forage Looper Moth) – 28A-VIII-2005 1 and 16-VII-2006 1.
8803. *Catocala relicta* Wlk. (White Underwing) – 8-VIII-2001 1, 21-VIII-2002 1, 10-IX-2002 1 and 15-VIII-2004 1 and 27A-VIII-2006 1.
8805. *Catocala unijuga* (Wlk.) (Once-married Underwing) – 8-VIII-2001 1, 15-VIII-2004 1, 6A-VIII-2006 1 and 27B-VIII-2006 1.
8812. *Catocala hermia* Hy. Edw. (Hermia Underwing) – 15-VIII-2004 1.
8817. *Catocala briseis* Edw. (Briseis Underwing) – 8-VIII-2001 1 and EM, 21-VIII-2002 1.
8821. *Catocala semirelicta* Grt. (Semirelict Underwing) – 10-IX-2002 1.
8867. *Catocala blandula* Hulst (Charming Underwing) – 24-IX-2004 1.
8914. *Autographa californica* (Speyer) (Alfalfa Looper Moth) – 8-VIII-2001 EM, 1-IX-2001 2, 24-IX-2004 1, 22A-IV-2005 1 and 6B-VIII-2006 1.
8924. *Anagrapha falcifera* (Kby.) (Celery Looper Moth) – 27-VI-2002 1, 25B-VI-2003 1, 25C-VI-2003 1, 21-VI-2005 1 and 28A-VIII-2005 1.
8926. *Syngrapha octoscripta* (Grt.) – 10-IX-2002 1.
9048. *Lithacodia albidula* (Gn.) (Common Midget) – 8-VI-2001 2, 20-VI-2001 1 and 12A-VI-2006 1.
9053. *Pseudostrotia carneola* (Gn.) (Pink-barred Lithacodia) – 20/21-VI-2001 EM, 27-VI-2002 3, 10-IX-2002 1, 19-VI-2004 1, 21-VI-2005 1 and 4B-VII-2007 1.
9066. *Leuconycta lepidula* (Grt.) (Brown Leuconycta) – 20/21-VI-2001 EM.
9101. *Tarachidia tortricina* (Zell.) (Olive-shaded Bird-dropping Moth) – 20/21-VI-2001 EM, 27-VI-2002 4, 12-VII-2002 1, 12B-VII-2003 2, 18-VII-2004 1, 15-VIII-2004 2, 21-VI-2005 1 and 12-VI-2006 1.
9110. *Conochares arizonae* (Hy. Edw.) (Arizona Bird-dropping Moth) – 8-VI-2001 6, 20-VI-2001 1 and EM, 8-VIII-2001 EM, 4-VI-2002 1, 27-VI-2002 3, 12-VII-2002 1, 25C-VI-2003 1, 12B-VII-2003 1, 19-VI-2004 1, 18-VII-2004 1 and 12B-VI-2006 2.
9112. *Therasea flavidota* (Sm.) (Narrow-winged Midget) – 20-VI-2001 1, 25A-VI-2003 1, 25C-VI-2003 1, 19-VI-2004 2, 18-VII-2004 2 and 16A-V-2006 1.
9177. *Panthea acronyctoides* (Wlk.) (Black Zigzag) – 18-VII-2004 2.
9193. *Raphia frater* Grt. (The Brother) – 20-VI-2001 2 and EM, 27-VI-2002 1, 12B-VII-2003 1, 19-VI-2004 1, 21-VI-2005 1 and 12A-VI-2006 1.
9209. *Acronicta radcliffei* (Harr.) (Radcliff's Dagger Moth) – 16A-V-2006 1. This species has been rarely collected in Alberta. An early record is from Red Deer.
9212. *Acronicta grisea* (Wlk.) (Gray Dagger Moth) – 16B-V-2006 1, 30B-V-2007 1 and 30B-V-2007 1.
9224. *Acronicta quadrata* Grt. – 18-VII-2004 1.
9226. *Acronicta superans* Gn. – 21-VI-2005 1 and 4C-VII-2007 1.

- 9228/9229. *Acronicta furcifera* Gn. (= *A. hasta* Gn.) (Speared Dagger Moth) – 27-VI-2002 1 and 4C-VII-2007 1.
9241. *Acronicta fragilis* (Gn.) (Fragile Dagger Moth) – 20-VI-2001 1, 19-VI-2004 2, 16B-V-2006 1, 30A-V-2007 1 and 4B-VII-2007 1.
9257. *Acronicta impleta* Wlk. (Yellow-haired Dagger Moth) – 4-VI-2002 EM OLDS.
9261. *Acronicta impressa* Wlk. (Willow Dagger Moth) – 18-VII-2004 1 and 30A-V-2007 1.
9284. *Agriopodes teratophora* (H.-S.) (Gray Marvel) – 20-VI-2001 2 and EM.
9286. *Harrisimemna trisignata* (Wlk.) (Harris's Three-spot) – 20-VI-2001 1.
9341. *Apamea vultuosa* (Grt.) (Narrow-bordered Quaker or Airy Quaker) – 12C-VI-2006 1.
9348. *Apamea amputatrix* (Fitch) (Northern Quaker or Yellow-headed Cutworm Moth) – 4/5-VII-2001 EM and 12-VII-2002 3.
9351. *Apamea alia* (Gn.) (Dewy Quaker) – 12A-VI-2006 1.
9359. *Apamea commoda* (Wlk.) (Gray Quaker) – 12-VII-2002 2, 19-VI-2004 2, 18-VII-2004 2, 21-VI-2005 1, 4B-VII-2007 1, 4C-VII-2007 1 and 4D-VII-2007 1.
9364. *Apamea sordens* (Hufn.) (A. finitima) (Bordered Apamea) – 12C-VI-2006 1.
9365. *Apamea scoparia* Mikkola, Mustelin & Laf. (Red-winged Quaker) – 20-VI-2001 2, 8-VIII-2001 1, 25B-VI-2003 1, 25C-VI-2003 1, 12B-VII-2003 1, 4C-VII-2007 1 and 4D-VII-2007 1.
9369. *Apamea inficita* (Wlk.) (Inficita Quaker) – 8-VIII-2001 1, 12-VII-2002 1, 18-VII-2004 1 and 5-VIII-2004 1.
9374. *Apamea niveivenosa* (Grt.) – 21-VIII-2005 1.
9382. *Apamea devastator* (Brace) (Glassy Cutworm Moth) – 10-IX-2002 1, 25C-VI-2003 2, 12B-VII-2003 1, 18-VII-2004 2, 15-VIII-2004 3, 21-VI-2005 2, 2A-VIII-2005 1, 2B-VIII-2005 1, 28A-VIII-2005 2, 12A-VI-2006 1, 12C-VI-2006 1, 6A-VIII-2006 1 and 6C-VIII-2006 1.
9383. *Apamea longula* (Grt.) (Mountain Quaker) – 4/5-VII-2001 EM, 2A-VIII-2005 2 and 2B-VIII-2005 2.
9396. *Eremobina claudens* (Wlk.) – 28A-VIII-2005 1.
9417. *Oligia egens* (Wlk.) (Neomogen's Quaker) – 1-IX-2001 1.
9419. *Oligia mactata* (Gn.) – 28A-VIII-2005 2, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.
9420. *Oligia illocata* (Wlk.) (Wandering Quaker) – 19-VI-2004 1, 28-VIII-2004 1 and 28A-VIII-2005 1.
9434. *Spartiniphaga includens* (Wlk.) (Silver-C Borer) – 2-IX-2004 1 and 28A-VIII-2005 1.
9440. *Chortodes rufostrigata* (Pack.) (Brown-streaked Rustic) – 12-VII-2002 1 and 18-VII-2004 1.
9457. *Amphipoea americana* (Speyer) (American Ear Moth) – 8-VIII-2001 EM, 1-IX-2001 1, 21-VIII-2002 2, 10-IX-2002 1 and 28A-VIII-2005 1.
9525. *Bellura obliqua* (Wlk.) (Cattail Borer Moth) – 8-VIII-2001 EM.
9543. *Aseptis characta* (Grt.) – 12-VII-2002 1, 18-VII-2004 1, 4C-VII-2007 1 and 4D-VII-2007 3.

9549. *Enargia decolor* (Wlk.) (Angle-striped Sallow) – 1-IX-2001 1, 28B-VIII-2004 6 SR, 24N-IX-2004 1 (9 SR), 28A-VIII-2005 2, 6A-VIII-2006 1, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.
9550. *Enargia infumata* (Gret.) Lesser Angle-striped Sallow) – 18-VII-2004 3, 15-VIII-2004 2, 2A-VIII-2005 1 and 28A-VIII-2005 3.
9555. *Ipimorpha pleonectusa* Grt. (Even-lined Sallow) – 15-VIII-2004 1, 2B-VIII-2005 1 and 27A-VIII-2006 1.
9556. *Chytonix palliatricula* (Gn.) (Cloaked Marvel) – 19-VI-2004 1 and 4B-VII-2007 1 .
9564. *Andropolia contacta* (Wlk.) (Canadian Giant) – 15-VIII-2004 1, 2A-VIII-2005 1, 2B-VIII-2005 1 and 6A-VIII-2006 1.
9647. *Proxenus miranda* (Grt.) (Glistening Rustic) – 8-VI-2001 4, 20-VI-2001 5 and EM, 27-VI-2002 1, 25C-VI-2003 2, 12C-VI-2006 1, 4C-VII-2007 1 and 4D-VII-2007 1.
9649. *Proxenus mendosa* McD. – 8-VIII-2001 1.
9654. *Platyperigea meralis* (Morr.) – 2A-VIII-2005 1.
9656. *Platyperigea montana* (Bremer) (*P. extima*) (Civil Rustic) – 20-VI-2001 1, 8-VIII-2001 1, 12-VII-2002 2 SR, 10-IX-2002 1, 25C-VI-2003 1, 28N-VIII-2004 1 (2 SR), 28S-VIII-2004 3 SR, 24S-IX-2004 3 SR, 24N-IX-2004 2 SR, 2A-VIII-2005 1, 28A-VIII-2005 1, 27A-VIII-2006 1 and 27B-VIII-2006 1.
9681. *Elaphria festivoides* (Gn.) (Festive Midget) – 20-VI-2001 1 and EM, 19-VI-2004 2 and 12A-VI-2006 1.
9873. *Xylena nupera* (Lint.) (American Swordgrass) – 27-VI-2002 1.
9874. *Xylena curvimacula* (Morr.) (Dot-and-Dash Swordgrass Moth) – 24-IX-2004 1.
9878. *Lithomoia germana* (Morr.) (American Peasant) – 27C-VIII-2006 1.
9884. *Litholomia napaea* (Morr.) (Dark Gray Peasant) – 1-IX-2001 1, 24N-IX-2004 1 (3 SR), 24S-IX-2004 3 SR, 22A-IV-2005 1 and 22B-IV-2005 1.
9909. *Lithophane tepida* Grt. (Dowdy Pinion) – 27A-VIII-2006 1.
9913. *Lithophane georgii* Grt. (Large Grey Pinion) – 16B-V-2006 1.
9952. *Eucirroedia pampina* (Gn.) (Spotted Sallow) – 1-IX-2001 1, 24-IX-2004 1 and 28A-VIII-2005 1, 27A-VIII-2006 2, 27B-VIII-2006 1.
9962. *Anathix puta* (Grt. & Rob.) (Puta Sallow) – 1-IX-2001 2, 10-IX-2002 1, 15-VIII-2004 1, 28-VIII-2004 1 and 28A-VIII-2005 1.
9965. *Xanthia tatago* Laf. & Mik. (Pink-barred Sallow) – 10-IX-2002 1.
9987. *Mniotype ducta* (Grt.) – 25C-VI-2003 1.
9993. *Brachylomia populi* (Stkr.) (Cloaked Peasant) – 1-IX-2001 2.
9988. *Brachylomia algens* (Grt.) ((Willow Peasant) – 1-IX-2001 1.
9999. *Brachylomia discinigra* (Wlk.) (Black-disked Peasant) – 27A-VIII-2006 1.
10028. *Pleromelloida obliquata* (Sm.) – 22A-IV-2005 1 and 22B-IV-2005 1.
10035. *Noctua pronuba* (B. & McD.) (Large Yellow Underwing) – 6A-VIII-2006 1 and 27A-VIII-2006 2.
10055. *Apharetra dentata* (Grt.) – 2B-VIII-2005 1.
10059. *Homohadena badistriga* (Grt.) – 2A-VIII-2005 1.
10062. *Homohadena stabilis* Sm. (Brown Sallow) – 8-VIII-2001 1, 18-VII-2004 1, 4C-VII-2007 1 and 4D-VII-2007 1.
10065. *Homohadena infixa* (Wlk.) (Broad-lined Sallow) – 12-VII-2002 2 and 28-VIII-2004 1.

10124. *Oncocnemis cibalis* Grt. (Delicate Beauty) – 1-IX-2001 EM, 10-IX-2002 3 and 24-IX-2004 1.
- 10130.1. *Oncocnemis pallidior* (Barnes) – 20-VI-2001 1 and EM, 17-VI-2002 1, 10-IX-2002 1, 25B-VI-2003 1, 25C-VI-2003 2, 18-VII-2004 2 and 21-VI-2005 1.
10135. *Oncocnemis riparia* Morr. (Greater Beauty) - 4C-VII-2007 1.
10143. *Oncocnemis mackiei* B. & Benj. (Mackie's Beauty) – 1-IX-2001 11 and EM, 10-IX-2002 4, 24-IX-2004 3, 28A-VIII-2005 2, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.
10194. *Cucullia intermedia* Speyer (Intermediate Falconer or Goldenrod Cutworm Moth) – 8-VI-2001 1 and 16B-V-2006 1.
- 10228c. *Discestra oregonica montanica* McD. – 4-VI-2002 2 and 25C-VI-2003 1.
10232. *Discestra farnhami* (Grt.) (Farnham's Discestra) – 3-VI-2002 3, 30C-V-2007 1 and 4D-VII-2007 1.
10233. *Discestra crotchi* (Grt.) – 4-VII-2002 1.
10238. *Scotogramma submarina* (Grt.) – 4-VI-2002 6, 17-VI-2002 2, 19-VI-2004 1, 18-VII-2004 1 and 21-VI-2005 1, 16A-V-2006 1, 16B-V-2006 3, 12A-VI-2006 1 and 30C-V-2007 1.
10265. *Sideridis rosea* (Harv.) (The Rosywing) – 8-VI-2001 2, 4-VI-2002 3, 27-VI-2002 1, 16A-V-2006 1, 12B-VI-2006 1, 12C-VI-2006 1 and 30C-V-2007 1.
10271. *Mamestrra configurata* Wlk. (Bertha Armyworm Moth) – 4/5-VII-2001 EM, 12-VII-2002 1, 18-VII-2004 1, 2A-VIII-2005 1, 4C-VII-2007 1 and 4D-VII-2007 1.
10273. *Polia discalis* (Grt.) (Large Gray Polia) – 18-VII-2004 2 and 4B-VII-2007 1.
10275. *Polia nimbosa* (Gn.) (Stormy Arches) – 20-VI-2001 2, 12C-VI-2006 1 and 4B-VII-2007 1.
10276. *Polia imbrifera* (Gn.) (Cloudy Arches) – 12-VII-2002 1, 21-VI-2005 1, 12A-VI-2006 1 and 4D-VII-2007 1.
10280. *Polia purpurissata* (Grt.) (Purple Arches) – 8-VIII-2001 4, 12-VII-2002 3, 21-VIII-2002 1, 18-VII-2004 2, 15-VIII-2004 2, 2A-VIII-2005 3 and 4C-VII-2007 1.
10281. *Polia nugatis* (Sm.) – 4/5-VII-2001 EM, 8-VIII-2001 1 and EM, 12-VIII-2002 1 and 28-VIII-2004 1.
10288. *Polia detracta* (Wlk.) (Dingy Arches) – 20-VI-2001 5, 4-VI-2002 1, 27-VI-2002 2, 25B-VI-2003 1, 25C-VI-2003 3, 19-VI-2004 3, 21-VI-2005 2, 12A-VI-2006 2, 12C-VI-2006 2 and 4D-VII-2007 1.
10289. *Polia goodelli* (Grt.) (Goodell's Arches) – 8-VI-2001 1.
10290. *Polia obscura* (Sm.) Obscure Arches) – 8-VI-2001 2.
10298. *Lacanobia radix* (Wlk.) (Garden Arches) – 4-VI-2002 1, 12-VII-2002 1, 16A-V-2006 1, 16B-V-2006 1, 12A-VI-2006 1, 12C-VI-2006 1 and 4C-VII-2007 1.
10299. *Lacanobia subjuncta* (G. & R.) (Harnessed Arches) – 12C-VI-2006 1.
10300. *Spirameter grandis* (Gn.) (Pale-banded Arches) – 20-VI-2001 1.
10305. *Trichordestra dodii* (Sm.) (Dod's Arches) – 8-VI-2001 1, 20-VI-2001 EM, 27-VI-2002 1 and 19-VI-2004 1.
10307. *Lacanobia lilacina* (Harv.) (Lilac Arches) – 4/5-VII-2001 EM, 27-VI-2002 1, 12B-VII-2003 1, 4B-VII-2007 1 and 4C-VII-2007 1.
10308. *Trichordestra liquida* (Grt.) (Liquid Arches) – 8-VI-2001 3, 20-VI-2001 1, 25C-VI-2003 1 and 4D-VII-2007 1.
10310. *Papestra quadrata* (Sm.) (Quadrata Arches) – 4-VI-2002 2 and 16B-V-2006 3.

10322. Hadena circumvadis Sm. – 12B-V-2005 1, 4B-VII-2007 1 and 4C-VII-2007 1.
10368. Lacinipolia meditata (Grt.) (The Thinker) – 4/5-VII-2001 EM.
10370. Lacinipolia lustralis (Grt.) (Lustrous Arches) – 20-VI-2001 3 and 12B-VI-2006 1.
10372. Lacinipolia anguina (Grt.) (Snaky Arches) – 8-VI-2001 1, 20-VI-2001 1, 4-VI-2002 3, 25B-VI-2003 1, 21-VI-2005 1, 16B-V-2006 1 and 30B-V-2007 1.
10381. Lacinipolia naevia (Sm.) – 8-VI-2001 1, 20-VI-2001 1, 19-VI-2004 2 and 30C-V-2007 1.
10394. Lacinipolia vicina (Grt.) (Small Gray Arches) – 20-VI-2001 1, 4/5-VII-2001 EM, 12-VII-2002 1, 18-VII-2004 2, 21-VI-2005 1, 4C-VII-2007 2 and 4D-VII-2007 1.
10397. Lacinipolia renigera (Steph.) (Kidney-spotted Arches or Bristly Cutworm Moth) – 12-VII-2002 1, 4C-VII-2007 1 and 4D-VII-2007 1.
10405. Lacinipolia lorea (Gn.) (Bridled Arches) – 20-VI-2001 1, 12B-VII-2003 1, 18-VII-2004 1, 21-VI-2005 1, 12A-VI-2006 1, 4C-VII-2007 1 and 4D-VII-2007 1.
10406. Lacinipolia olivacea (Morr.) (Olive Arches) – 8-VIII-2001 2.
10428. Dargida procincta (Grt.) (The Girdler) – 24-IX-2004 1.
10431. Faronta diffusa (Wlk.) (Wheat Head Armyworm Moth) – 20-VI-2001 2, 25B-VI-2003 1 and 4C-VII-2007 1.
10436. Aletia oxygala (Grt.) (Lesser Wainscot) – 8-VIII-2001 1 and 6C-VIII-2006 1.
10438. Pseudaleitia unipuncta (Haw.) – 8-VI-2001 EM.
10442. Leucania anteoclara Sm. - 4D-VII-2007 1.
10446. Leucania multilinea Wlk. – 2B-VIII-2005 1.
10447. Leucania commoides Gn. (Comma Wainscot) – 8-VIII-2001 2, 12-VII-2002 1, 21-VIII-2002 2, 12B-VII-2003 1, 2A-VIII-2005 1, 4C-VII-2007 1 and 4D-VII-2007 2.
10449. Leucania insueta Gn. (Heterodox Wainscot) – 8-VI-2001 2 and EM, 20-VI-2001 1, 25C-VI-2003 1 and 12C-VI-2006 1.
10490. Orthosia revicta (Morr.) (Subdued Quaker) – 4-VI-2002 1, 22A-IV-2005 1 and 22B-IV-2005 1.
10493. Orthosia segregata (Sm.) (Segregate Penman) – 21A-V-2003 2, 22A-IV-2005 3, 22B-IV-2005 1, 16A-V-2006 1 and 30B-V-2007 1.
10493. Orthosia segregata f. negussa (Sm.) – 21B-V-2003 1, 22A-IV-2005 1 and 22B-IV-2005 1.
10495. Orthosia hibisci (Gn.) – 22A-IV-2005 1 and 22B-IV-2005 1.
10513. Egira dolosa (Grt.) (Greiving Woodling or Greater Black-letter Dart) – 22B-IV-2005 1, 16A-V-2006 1 and 16B-V-2006 1.
10523. Tholera americana (Sm.) – 27C-VIII-2006 1. At the northern limit of its range.
10524. Nephelodes minians Gn. (Bronzed Cutworm Moth) – 4/5-VII-2001 EM, 21-VIII-2002 1, 10-IX-2002 1, 15-VIII-2004 1, 26-VIII-2004 1, 28N-VIII-2004 1 SR, 22A-VIII-2005 2, 6A-VIII-2006 1, 6C-VIII-2006 1, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.
10532. Homorthodes furfurata Grt. - 4C-VII-2007 1.
10563. Protorthodes oviduca (Gn. (Ruddy Quaker) – 4-VI-2002 1, 25C-VI-2003 1, 16B-V-2006 1 and 30C-V-2007 1.
10645. Agrotis orthogonia Morr. – 28A-VIII-2005 1.
10650. Agrotis robustior (Sm.) (Robust Dart) – 8-VIII-2001 1, 15-VIII-2004 1, 28A-VIII-2005 2 and 27A-VIII-2006 1.

10651. *Agrotis venerabilis* (Wlk.) (Venerable Dart) – 1-IX-2001 3, 27-VI-2002 1, 21-VIII-2002 1, 10-IX-2002 1, 28-VIII-2004 1, 28A-VIII-2005 2, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.
10652. *Agrotis vancouverensis* Grt. (Vancouver Dart) – 8-VI-2000 1, 8-VI-2001 3, 20-VI-2001 2, 27-VI-2002 3, 25B-VI-2003 1, 25C-VI-2003 1, 12B-VII-2003 1, 19-VI-2004 3, 12A-VI-2006 1, 12C-VI-2006 1 and 4D-VII-2007 1.
10660. *Agrotis obliqua* (Sm.) (Oblique Dart) – 16A-V-2006 1 and 16B-V-2006 1.
10670. *Feltia jaculifera* (Gn.) (Dingy Cutworm Moth) – 4/5-VII-2001 EM, 21-VIII-2002 1, 10-IX-2002 1, 15-VIII-2004 1, 2B-VIII-2005 2, 28A-VIII-2005 3, 6C-VIII-2006 1, 27A-VIII-2006 1, 27B-VIII-2006 1, 27C-VIII-2006 1 and 4C-VII-2007 1.
- 10698.2. *Trichosilia mollis* (Wlk.) – 12B-VII-2003 1, 4B-VII-2007 1, 4C-VII-2007 1 and 4D-VII-2007 1.
- 10701.1. *Euxoa adumbrata* (Ev.) (Sordid Dart) – 20/21-VI-2001 EM.
- 10701.2. *Euxoa auxiliaris* (Grt.) (Auxiliary Dart) – 4-VI-2002 1, 27-VI-2002 4, 21-VIII-2002 2, 10-IX-2002 2, 25C-VI-2003 4 and 12B-VII-2003 1.
10702. *Euxoa divergens* (Wlk.) (Divergent Dart) – 20-VI-2001 1, 12-VII-2002 2, 25C-VI-2003 3, 12B-VII-2003 1, 19-VI-2004 1, 18-VII-2004 2 and 4D-VII-2007 1.
10705. *Euxoa messoria* (Harr.) (Reaper Dart or Dark-sided Cutworm) – 24-IX-2004 1.
10723. *Euxoa tristicula* (Morr.) (Early Cutworm Moth) – 27-VI-2002 1, 12-VII-2002 2, 12B-VII-2003 1, 18-VII-2004 2 and 4B-VII-2007 1.
10755. *Euxoa declarata* (Wlk.) – 28A-VIII-2005 1.
10756. *Euxoa campestris* (Grt.) (Flat Dart) – 8-VIII-2001 1, 10-IX-2002 2 and 2B-VIII-2005 1.
10769. *Euxoa nevada* (Sm.) (Nevada Dart) – 1-IX-2001 EM.
10777. *Euxoa aequalis* (Harv.) – 10-IX-2002 3 and 24-IX-2004 1.
10780. *Euxoa comosa* (Morr.) (Hairy Dart) – 8-VIII-2001 4, 1-IX-2001 2, 1-IX-2001 1 EM, 10-IX-2002 1, 27-VIII-2002 1, 10-IX-2002 4, 18-VII-2004 1, 28-VIII-2004 1, 24-IX-2004 1, 2A-VIII-2005 2, 2B-VIII-2005 1, 28A-VIII-2005 4, 6B-VIII-2006 1, 27A-VIII-2006 2, 27B-VIII-2006 2, 27C-VIII-2006 1 and 30B-V-2007 1.
10794. *Euxoa setonia* McD. (Seton Lake Dart) – 20-VI-2001 4, 27-VI-2002 3, 12-VII-2002 2, 25C-VI-2003 1, 12B-VII-2003 1, 12B-VI-2006 1, 4B-VII-2007 1, 4C-VII-2007 1 and 4D-VII-2007 1.
10798. *Euxoa basalis* (Grt.) (Basal Dart) – 8-VIII-2001 1 and 21-VIII-2002 1.
10801. *Euxoa ochrogaster* (Gn.) (Red-backed Cutworm Moth) – 8-VIII-2001 5, 1-IX-2001 3, 21-VIII-2002 1, 10-IX-2002 4, 15-VIII-2004 1 and 28A-VIII-2005 1.
10804. *Euxoa plagigera* (Morr.) (Plaited Dart) – 15-VIII-2004 1 and 28A-VIII-2005 1.
10807. *Euxoa albipennis* (Grt.) (White-winged Dart) – 10-IX-2002 1 and 28-VIII-2004 1.
10813. *Euxoa medialis* (Sm.) (Median-banded Dart) – 10-IX-2002 1 and 24-IX-2004 1.
10817. *Euxoa obeliscoides* (Gn.) (Obelisk Dart) – 1-IX-2001 4 EM, 10-IX-2002 1 and 24-IX-2004 3.
10826. *Euxoa nr. idahoensis* (Grt.) – 2B-VIII-2005 1 and 4C-VII-2007 2.
10830. *Euxoa quadridentata* (Grt. & Rob.) (Four-toothed Dart) – 1-IX-2001 EM.
10833. *Euxoa olivalis* (Grt.) – 18-VII-2004 1 and 2A-VIII-2005 1.
- 10852/10854. *Euxoa auripennis* Laf. or *E. servita* (Sm.) – 8-VIII-2001 1, 1-IX-2001 2, 18-VII-2004 1 and 6B-VIII-2006 1.

10861. *Euxoa ridingsiana* (Grt.) (Riding's Dart) – 8-VIII-2001 3, 21-VIII-2002 3, 10-IX-2002 2 and 15-VIII-2004 1.
10891. *Ochropleura implecta* Laf. – 20-VI-2001 1.
10894. *Protogygia querula* (Dod) – 25C-VI-2003 1 and 18-VII-2004 1.
10905. *Euagrotis exuberans* (Sm.) - 4C-VII-2007 1 and 4D-VII-2007 1.
10910. *Anicla tepperi* (Sm.) (*Euagrotis tepperi*) (Black-girdled Dart) – 19-VI-2004 2, 18-VII-2004 1, 24-IX-2004 1, 21-VI-2005 4, 4C-VII-2007 1 and 4D-VII-2007 1.
10915. *Peridroma saucia* (Hbn.) – 4-VI-2002 1, 27-VI-2002 3, 21-VIII-2002 2, 10-IX-2002 2, 25C-VI-2003 4 and 12B-VII-2003 1.
10923. *Actebia balanitis* (Grt.) (Protexarnis squalid) (Acord Dart or Bracketed Dart) – 20-VI-2001 2, 1-IX-2001 1, 27-VI-2002 1, 12-VII-2002 1, 25B-VI-2003 2, 25C-VI-2003 1, 18-VII-2004 1, 28A-VIII-2005 2, 27A-VIII-2006 1, 27B-VIII-2006 1 and 27C-VIII-2006 1.
10926. *Spaelotis clandestina* (Harr.) (Clandestine Dart) – 2-VII-2000 1, 12-VII-2002 1, 21-VIII-2002 2, 25C-VI-2003 3, 18-VII-2004 1, 24-IX-2004 2, 21-VI-2005 1, 28A-VIII-2005 1, 27A-VIII-2006 1, 27B-VIII-2006 1, 4B-VII-2007 2 and 4D-VII-2007 1.
- 10927.1. *Spaelotis bicava* Laf. – 20-VI-2001 1.
10929. *Eurois occulta* (L.) (Great Grey Dart) – 28A-VIII-2005 1 and 6A-VIII-2006 1.
10930. *Eurois astricta* Morr. (Great Brown Dart) – 18-VII-2004 3 and 28A-VIII-2005 1.
10931. *Eurois nigra* (Sm.) – 18-VII-2004 1 and 15-VIII-2004 1.
10942. *Xestia c-nigrum* (L.) (Lesser Black-letter Dart) – 20-VI-2001 2.
10944. *Xestia smithii* (Snell.) (Smith's Dart or Spotted Clay Dart) – 8-VIII-2001 3, 15-VIII-2004 1, 2A-VIII-2005 1, 2B-VIII-2005 5, 6A-VIII-2006 2, 6B-VIII-2006 1 and 27A-VIII-2006 1.
10954. *Agnorisma bugrai* (Koçak) (*Xestia collaris*) (Collared Dart) – 8-VIII-2001 1, 1-IX-2001 2, 15-VIII-2004 4 and 28A-VIII-2005 4, 27A-VIII-2006 1, 27B-VIII-2006 2 and 27C-VIII-2006 1.
10962. *Xestia (Anomogyna) perquiritata* (Morr.) (Divided Dart) – 6A-VIII-2006 1.
10992. *Paradiarsia littoralis* (Pack.) (Labrador Dart) – 2-VII-1999 SR, 2-VII-2000 1, 8-VI-2001 2, 20-VI-2001 1, 12-VII-2002 1, 25B-VI-2003 1, 25C-VI-2003 1, 18-VII-2004 1, 12A-VI-2006 1, 12C-VI-2006 1 and 4D-VII-2007 1.
11004. *Protolampra rufipectus* (Morr.) (Red-breasted Dart) – 18-VII-2004 1 and 2B-VIII-2005 1 and 6A-VIII-2006 1.
- 11013-11042. *Abagrotis* spp. – 15-VIII-2004 3 and 28-VIII-2004 1.
11018. *Abagrotis trigona* (Sm.) – 10-IX-2002 1 and 2A-VIII-2005 1.
- 11032.1. *Abagrotis orbis* (Grt.) – 28A-VIII-2005 1.
11038. *Abagrotis nanalis* (Grt.) – 21-VIII-2002 1 and 15-VIII-2004 2.
11041. *Abagrotis placida* (Grt.) group (Placid Dart) – 2A-VIII-2005 1, 2B-VIII-2005 1, 28A-VIII-2005 6, 6B-VIII-2006 1, 27B-VIII-2006 2 and 27C-VIII-2006 1. A taxonomic revision is needed in this group.
- 11041.1. *Abagrotis hermina* Laf. – 1-IX-2001 1, 12-VII-2002 1, 21-VIII-2002 2, 10-IX-2002 3, 18-VII-2004 1, 15-VIII-2004 5, 28-VIII-2004 1 and 28A-VIII-2005 1.
11051. *Ufeus satyricus* Grt. (Satyr Dart) – 11-IX-2004 4.
11192. *Schinia cumatilis* (Grt.) (Silver-banded Gem) – 18-VII-2004 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 (DI) is most similar (57.03) to the aspen parkland of the Buffalo Lake Conservation Area site (BL) and (49.61%) to Big Knife Provincial Park, and least similar (27.20%) to the aspen parkland of the Allen Hall acreage site (AH). Though quite different, more habitats in DI are similar to those of BL, and thus many similar food plants are present. The aspen woods of AH, on the other hand, have far fewer habitats than are present in DI. The higher number of plant species and the greater range of soil and microclimate habitats in the Dry Island area meet the ecological requirements of a greater number of moth species.

SUMMARY

Up to the end of 2001 (Bird 2002) a total of 212 species of Lepidoptera, 179 moths and 25 butterflies and skippers, were known from the Park. Since then, further studies have steadily raised the totals: Bird (2003) to 319 species of Lepidoptera, Bird (2004) to 349, Bird (2005) to 459, Bird (2006) to 525, Bird (2007) to 580 species, Bird (2008) went down slightly to 578, while the present report lists 594 species. If all species in the undetermined categories were named, the actual total would be around 650. The vast majority of these were not reported from Area 5 by Bowman (1951). Many are known, however, from Tolman Bridge about 15 km downstream (see Bird 2006). It is felt that the overall total can be brought to over 700 by further study. To put things into perspective, Pohl et al (2010) document 2367 species of Lepidoptera for Alberta.

At least three moths (a *Cauchas* (*Adela*), an *Aroga*, a *Eucosma*, a *Pelochrista*, and possibly a *Sciota*) collected in the area, appear to be undescribed species. One, *Pelochrista gelattana* was recently described (Wright 2007) and is otherwise known in Alberta only from Manyberries. Many prairie species, such as *Synanthedon polygoni*, *Epiblema beningatum*, *Epinotia columbia* sensu R.L. Brown, *Mimoschinia rufofascialis*, *Nephopterix fernaldi*, *Toripalpus trabalis*, *Catastia actualis*, *Toripalpus trabalis*, *Platytes vobisne*, *Chaetoscelsis bistriaria*, *Catocala hermia*, *Conocharles arizonae*, *Aseptis characta*, *Platyperigea meralis*, *Oncocnemis pallidior*, *Lacinipolia naevia*, *Tholera americana*, *Protogygia querula* and *Abagrotis trigona* reach their northern distribution limits here. Other species, such as *Epinotia albicapitana*, *Lipographis fenestrella*, *Leptostales ferruminaria*, *Sphinx drupiferarum* and *Acronicta radcliffei* have been seldom encountered in Alberta. The insect fauna of the present area, and that of Tolman Bridge (mentioned above), is of special interest due to the protected status of the areas, and to the large number of habitats that are present.

Most Dry Island Buffalo Jump Provincial Park collections prior to 2004 were from south-facing badland habitats. In 2004 a serious attempt was made to sample steep north-facing slopes with white spruce in an area north of the “Dry Island”. This proved particularly worthwhile as many additional species were found.

The large number of species found in the Park to date indicates that it may be more biodiverse than any other area in Alberta and this provides strong support for the

setting aside of the area as a Provincial Park where it receives special protection from agricultural and other commercial activities.

Of the 14 major areas involved in the present study, forty-eight species of moths were found only at DI - Adela (Cauchas) sp., Elachista virgatula Kaila, Coleophora elaeagnisella Kft., Coleophora rosaevorella McD., Coleophora bidentella McD., Coleophora JFL043, Coleophora JFL063, Coleophora JFL067, Coleophora JFL069, Coleophora JFL083, Coleophora JFL090, Coleophora JFL109, Coleophora JFL118, Coleophora JFL134, Scythris eboracensis (Haw.), Synanthedon polygoni (Hy. Edw.), Olethreutes inornatana (Clem.), Eucosma n. sp. 1 Wright, Eucosma mediostriata (Wlsm.), Pelochrista kingi Wright, Pelochrista gelattana Wright, Pelochrista fuscosparsa (Wlsm.), Epinotia columbia sensu R.L. Brown, Hystrichophora ochreicostana (Wlsm.), Hystrichophora vestaliana (Zell.), Dichrorampha sedatana (Bsk.), Phtheochroa near vulneratana (Zett.), Pyrausta orphisalis Wlk., Udea radiosalis Mösch., Diastictis ventralis (G. & R.), Platytés vobisne Dyar, Pyla hanhamella Dyar, Homoeosoma stipiticellum Grt., Oidaematophorus grisescens Wlsm., Eupithecia multistrigata (Hulst), Eupithecia mutata Pears., Dasychira plagiata (Wlk.), Drasteria adumbrata (Behr), Fishia discors (Grt.), Apharetra dentata (Grt.), Lacinipolia naevia (Sm.), Tholera americana (Sm.), Homorthodes furfurata (Grt.), Euxoa nevada (Sm.), Euxoa idahoensis (Grt.) group, Euxoa olivalis (Grt.), Abagrotis orbis (Grt.), Abagrotis nanalis (Grt.).

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Wayne Nordstrom and Gerald Bennett helped with the procurement of Letters of Authority to collect Lepidoptera in the Park. Sincere thanks are extended to Gary Anweiler for verifying or identifying macromoths and Greg Pohl for his help in identifying various micromoths; also to Chris Schmidt to verifying Arctiids and Geometrids and to George Balogh for identifying the *Eupithecias*. Jean-François Landry identified the *Coleophora* species and Doug Macaulay identified the Pterophorids. 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. Ernest Mengersen is thanked for his company in the field on several occasions and for allowing access to the extensive collection at Olds College. Wayne Nordstrom and Gerry Bennett are thanked for their help in obtaining Letters of Authority to allow the collecting of Lepidoptera in Dry Island Buffalo Jump Provincial Park.

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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

- 11 July 1999 – Diurnal, Butterfly Count in area from north lookout to picnic area.
 2 July 2000 – Diurnal, Butterfly Count in area from north lookout to picnic area.
 8 June 2001 – UV trap, S-facing slope & vicinity of picnic area, 51.93, 112.97.
 20 June 2001 – UV trap, S-facing slope & vicinity of picnic area, 51.93, 112.97. With Ernest Mengersen.

- 8 July 2001 – Diurnal, Butterfly Count in area from north lookout to picnic area.
- 8 August 2001 – UV trap, S-facing slope & vicinity of picnic area, 51.93, 112.97. With Ernest Mengersen.
- 1 September 2001 – UV trap, S-facing slope & vicinity of picnic area, 51.93, 112.97. An ALG outing with Gary & Judy Anweiler, Ernest Mengersen, Felix Sperling, Rob Hughes & Bruce Christensen.
- 4 June 2002 – UV trap, S-facing slope & vicinity of picnic area, 51.93, 112.97. With Ernest Mengersen.
- 27 June 2002 – UV trap, S-facing slope & vicinity of picnic area, 51.93, 112.97.
- 7 July 2002 – Diurnal, Butterfly Count in area from north lookout to picnic area.
- 21 August 2002 – UV trap, S-facing slope & vicinity of picnic area, 51.93, 112.97.
- 10 September 2002 – UV trap, S-facing slope & vicinity of picnic area, 51.93, 112.97.
- 21A May 2003 – UV trap, vicinity of picnic area, 51.936, 112.961, 722 m.
- 21B May 2003 – UV trap, S-facing slope, 51.939, 112.964, 760 m.
- 25A June 2003 – UV trap, Section 26, grassland above badlands, vicinity of old windmill, 51.863, 113.014, 800 m.
- 25B June 2003 – UV trap, Section 26, grassland, SE-facing slope 100 yards south of old windmill, 51.86323, 113.01442, 810 m.
- 25C June 2003 – UV trap, Section 26, S-facing slope 300 yards SE of old windmill, 51.86294, 113.01372, 800 m.
- 6 Jul 2003 – Diurnal, Butterfly Count in area from north lookout to picnic area.
- 12A July 2003 – UV trap, vicinity of picnic area, 51.936, 112.961, 722 m.
- 12B July 2003 – UV trap, S-facing slope, 51.939, 112.965, 760 m.
- 19A June 2004 – Diurnal, Badland terrain, north trail to “Dry Island”, 51.95, 112.95, 800-850 m.
- 19B June 2004 – UV trap, steep N-facing slope, mixed woods, north of “Dry Island”, 51.959, 112.746, 836 m.
- 11 July 2004 – Diurnal, Butterfly Count in area from north lookout to picnic area.
- 18A July 2004 – Diurnal, badland terrain, north of “Dry Island”, 51.95, 112.95, 850 m.
- 18N July 2004 – UV trap, steep N-facing slope, mixed woods, north of “Dry Island”, 51.959, 112.746, 836 m.
- 18SE July 2004 – UV trap, SE facing badland slope, north of “Dry Island”, 51.958, 112.942, 823 m.
- 15N August 2004 – UV trap, steep N-facing slope, mixed woods, north of “Dry Island”, 51.959, 112.746, 836 m.
- 15SE August 2004 – UV trap, SE facing badland slope, north of “Dry Island”, 51.958, 112.942, 823 m.
- 28N August 2004 – UV trap, steep N-facing slope, mixed woods, north of “Dry Island”, 51.959, 112.746, 836 m.
- 28SE August 2004 – UV trap, SE facing badland slope, north of “Dry Island”, 51.958, 112.942, 823 m.
- 24SE September 2004 – UV trap, SE facing badland slope, north of “Dry Island”, 51.958, 112.942, 823 m.
- 24N September 2004 – UV trap, steep N-facing slope, mixed woods, north of “Dry Island”, 51.959, 112.746, 836 m.

- 22A April 2005 – UV trap, SE facing badland slope, north of “Dry Island”, 51.958,
112.942, 823 m.
- 22B April 2005 – UV trap, Steep N-facing slope, mixed woods, north of “Dry Island”,
51.959, 112.746, 836 m.
- 21N June 2005 – UV trap, Steep N-facing slope, mixed woods, north of “Dry Island”,
51.959, 112.746, 836 m.
- 21SE June 2005 – UV trap, SE facing badland slope, north of “Dry Island”, 51.958,
112.942, 823 m.
- 10 July 2005 – Diurnal, Butterfly Count in area from north lookout to picnic area.
- 2A August 2005 – UV trap, SE facing badland slope, north of “Dry Island”, 51.958,
112.942, 823 m.
- 2B August 2005 – UV trap, steep N-facing slope, mixed woods, north of “Dry Island”,
51.959, 112.746, 836 m.
- 28A August 2005 – UV trap, SE facing badland slope, north of “Dry Island”, 51.958,
112.942, 823 m.
- 28B August 2005 – UV trap, steep N-facing slope, mixed woods, north of “Dry Island”,
51.959, 112.746, 836 m.
- 16A May 2006 – UV trap, SE facing badland slope, north of “Dry Island”, 51.958,
112.942, 823 m.
- 16B May 2006 – UV trap, steep N-facing slope, mixed woods, north of “Dry Island”,
51.959, 112.746, 836 m.
- 12 June 2006 – Diurnal, badlands, mainly S-facing, north and NE of the picnic area, 51.94,
112.96, abt 800 m.
- 12A June 2006 UV trap, Edge of riverine forest, beside aspen & silverwillow, picnic area,
51.936, 112.961, 720 m.
- 12B June 2006 – UV trap, bottom of draw with *Juniperus horizontalis*, north of picnic area,
51.939, 112.966, 748 m.
- 12C June 2006 – UV trap, prairie near aspen, north of picnic area, 51.943, 112.969, 822 m.
- 9 July 2006 – Diurnal, Canadian Nature Federation field trip in area from north lookout to
picnic area.
- 16 July 2006 – Diurnal, Annual Butterfly Count in area from north lookout to picnic area.
- 6A August 2006 – UV trap, Steep N-facing slope, mixed woods, north of the “Dry Island”,
51.959, 112.746, 836 m.
- 6B August 2006 – UV trap, SE facing badland slope, north of the “Dry Island”, 51.958,
112.942, 823 m.
- 6C August 2006 – UV trap, steep, S-facing grassy slope with *Artemisia biennis* &
longifolia, north of the “Dry Island”, 51.95728, 112.94668, 850 m.
- 27A August 2006 – UV trap, Steep N-facing slope, mixed woods, north of the “Dry
Island”, 51.959, 112.746, 836 m.
- 27B August 2006 – UV trap, SE facing badland slope, north of the “Dry Island”, 51.958,
112.942, 823 m.
- 27C August 2006 – UV trap, steep, S-facing grassy slope with *Artemisia biennis* &
longifolia, north of the “Dry Island”, 51.95728, 112.94668, 850 m.
- 30A May 2007 – UV trap, steep N-facing slope, mixed woods, north of the “Dry Island”,
51.959, 112.746, 836 m.

- 30B May 2007 – UV trap, steep N-facing slope with *Picea glauca*/*Populus tremuloides*/shrubs, north of the “Dry Island”, 51.959, 112.941, 838 m.
- 30C May 2007 – UV trap, SE facing badland slope with *Picea glauca* and *Populus tremuloides*, north of the “Dry Island”, 51.958, 112.942, 823 m.
- 4B July 2007 – UV trap, steep N-facing slope with *Picea glauca*, *Populus tremuloides* and shrubs, north of the “Dry Island”, 51.959, 112.746, 836 m.
- 4C July 2007 – UV trap, SE facing badland slope with *Picea glauca*, *Populus tremuloides* and shrubs, north of the “Dry Island”, 51.958, 112.942, 823 m.
- 4D July 2007 – UV trap, steep S-facing badland slope, grassland near shrubs, north of the “Dry Island”, 51.957, 112.947, 850 m.
- 8 July 2007 – Diurnal, Annual Butterfly Count in area from north lookout to picnic area.
- 6 July 2008 – Diurnal, Annual Butterfly Count in area from north lookout to picnic area.
- 5 July 2009 – Diurnal, Annual Butterfly Count in area from north lookout to picnic area.