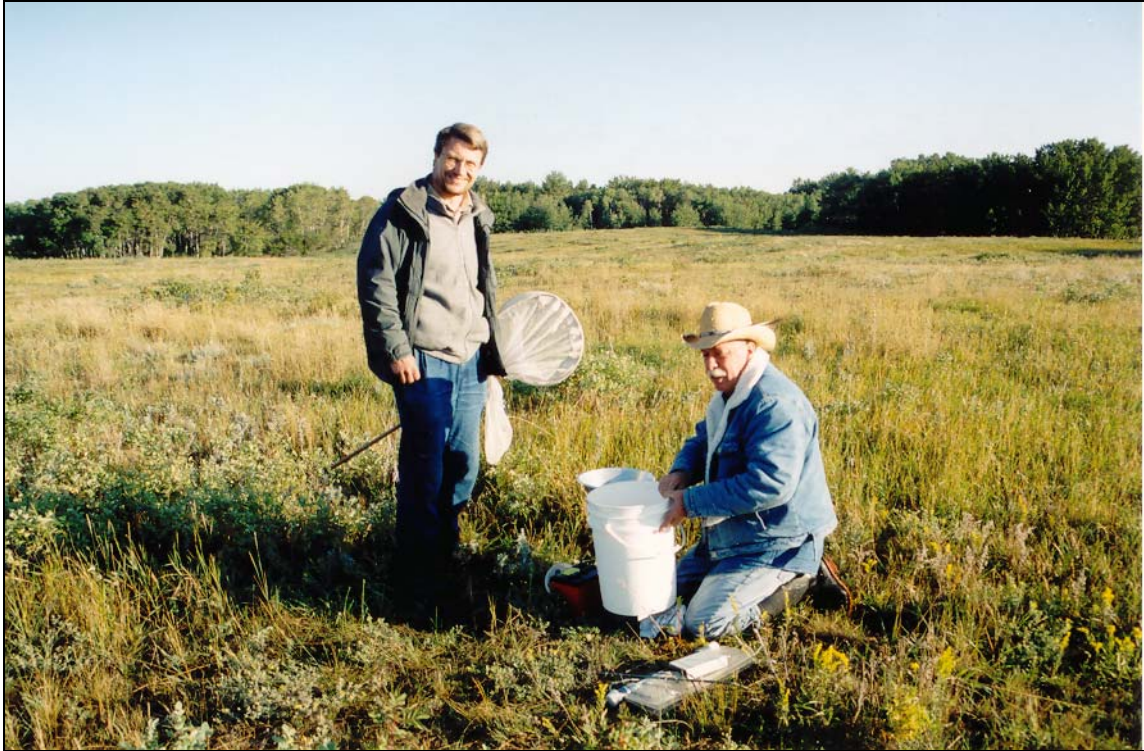


MOTHS OF THE BUFFALO LAKE MORaine CONSERVATION AREA, 2001-2006

Charles Durham Bird, 24 April 2007
Box 22, Erskine, AB, T0C 1G0
cbird@xplornet.com



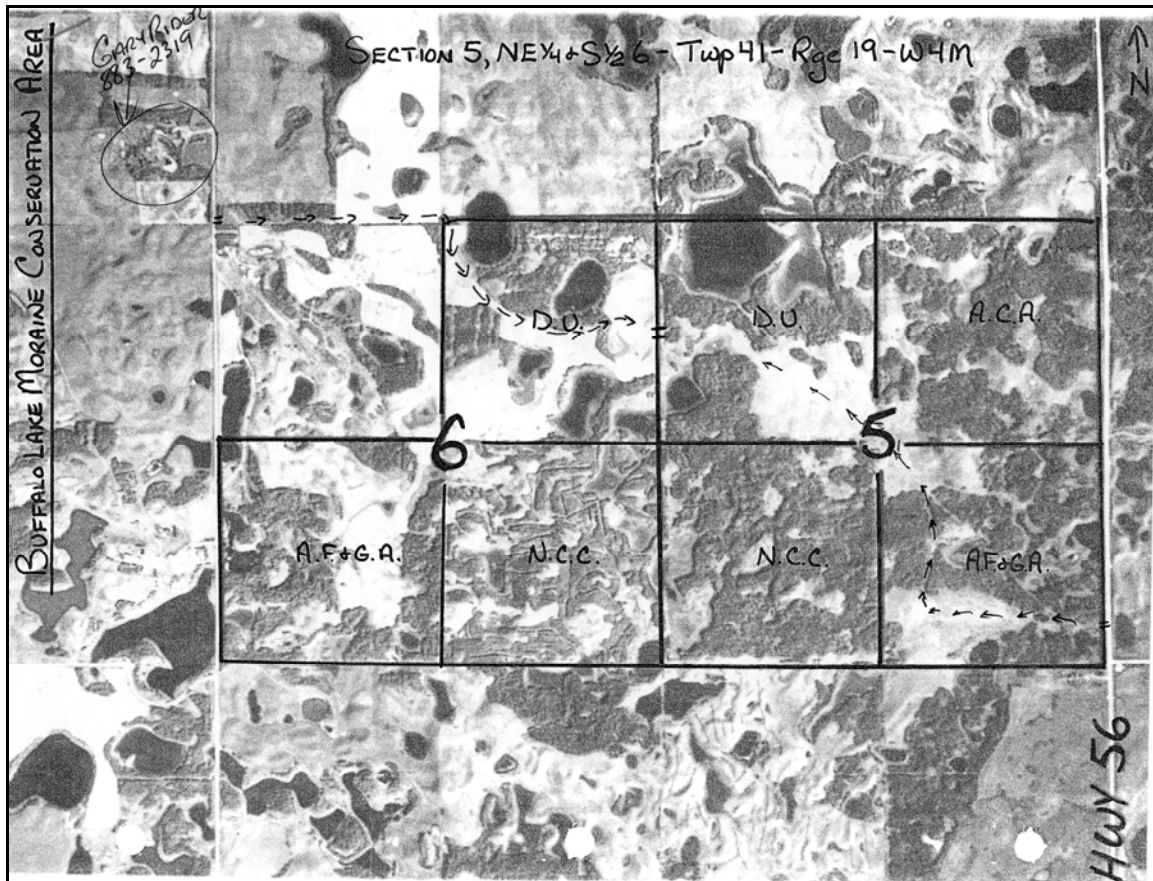
Felix Sperling and Gary Anweiler, Alberta Lepidopterist's Guild members, in the Buffalo Lake Conservation Area, August 18, 2002

THE AREA

The Buffalo Lake Moraine Conservation Area is made up of 6 contiguous quarters of land, located 18 km north of Stettler, in south-central Alberta. Known originally as the Caine property, the quarters were variously purchased by The Alberta Conservation Association, The Alberta Fish and Game Association, Ducks Unlimited Canada and The Nature Conservancy of Canada in June 1999. Additional quarters have been purchased since then.

Ecologically, the area is made up of rolling, morainal aspen parkland. There is evidence that some areas were cultivated well over 50 years ago, but since that time, the land has been used for grazing cattle. A grazing inventory study was carried out by Mancroft-EBA Consultants Ltd. (1998). A detailed vegetation and range resource inventory was carried out in 2005 (Rangeland Conservation Service Limited, 2006). No grazing was allowed in 1999. In 2000 the area was divided into 3 grazing paddocks.

Since 2000 limited grazing has been allowed with one of the quarters/paddocks being idled each year.



Aerial photo of the Buffalo Lake Moraine Conservation Area taken around the year 2000. Since then, additional quarters have been added. All research reported herein was carried out in Section 5. The arrows indicate an access trail.

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 reduced in numbers and made up of species that were associated with cultivated grains and hay crops. As a result, many of Alberta's "rare and endangered" species are now found only, or mainly, in such protected areas.

The writer, now retired and living in Erskine, Alberta, has long been interested in the natural flora and fauna of the province. He is a member of the Alberta Lepidopterist's Guild, the purpose of which is to encourage study of Alberta's moths and butterflies. 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 became acquainted with The Buffalo Lake Conservation Area in 1999, when it was still in private hands. This led to the procurement, with help from Grant Nieman, of a Letter

of Authority to collect in the Area in 2001, the purpose of which was to produce the present baseline list. The Area was visited sixteen times during the year: April 1, 15, 25 and 28; May 7, 15 and 31; June 22; July 5 and 15; August 4, 22 and 30; and September 12, 17 and 24 (Bird 2002). Ernest Mengersen collected with the author on the night of April 28/29. The first two visits to the area were mainly for reconnaissance and two areas were selected for light trapping, one being an open, grassland/silver willow area, the other being on a trail through aspen woods. On all subsequent visits, one trap was set up in each of these two habitats. On all but the first two visits, two ultraviolet light traps were run overnight. No attempts were made to capture specimens with a mercury vapor light and sheet, by sugaring, or, other than the first two visits, search for diurnal species. The area was visited 6 additional times in 2002: May 10, 19 and 29; June 23, August 17 and September 9, with UV light traps being set up each night (Bird 2003). On August 17, the writer was accompanied by Gary Anweiler, Felix Sperling and Doug Macaulay and a mercury vapor light and sheet were also set up that night. Research in the area was carried out 8 times in 2003: May 29; June 12 and 29; July 10, 20 and 27; and August 8 and 30. UV traps were set out four times in 2004: June 4 and 18, July 25 and August 30. In 2005, collecting was carried out on the nights of May 20 and 26 and on June 19. In 2006, sampling was done on the nights of May 13 and 24, June 24, July 13, and August 3 and 16.



A UV moth trap set up in an aspen stand on June 4, 2004 in the Buffalo Lake study area.



A moth trap in prairie grassland with silver willow nearby and aspen in the background; Buffalo Lake Conservation Area, 4 Jun 2004.

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

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, to the Northern Forest Research Centre, and possible also to the Canadian National Collection.

CHECKLIST

The order, and terminology, is that of R.W. Hodges (1983) except where recent changes in taxonomy have occurred. Except for a few made by Ernest Mengersen and Gary Anweiler, all collections were made by the writer. While most of the larger or

macromoths are relatively well known, the same cannot be said for some 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. This is especially true in the family Gelechiidae. 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 date-month-year of the collection and the number of individuals mounted; EM indicates a collection made by Ernest Mengersen; and an “SR” indicates a sight record. Common names are added if such are known to exist.

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 8. Most of Bowman’s records are from Area 10, which includes Edmonton, so most of the species found in the following list would be additions to his Area 8.

The present report incorporates all of the findings in the previous reports (Bird 2001-2006), and includes a number of corrections to previous identifications.

ACANTHOPTEROCTETIDAE – Acanthopteroctetid Moths

6. *Acanthopteroctetes bimaculata* Davis – 20A-V-2005 1. This is the second discovery of this rare species in Alberta, the first having been made by G. Pohl in old aspen forest near Lac La Biche. The present collection was made in a buckbrush/aspen/saskatoon community. Further details and the following photograph of this primitive moth can be found in Pohl & Bird (2005).



Acanthopteroctetes bimaculata, wingspan 11 mm; ALBERTA, Buffalo Lake, 20-V-2005, leg. C.D. Bird, BIRD9534, C.D. Bird image

HEPIALIDAE – Ghost Moths and Swifts

19. *Sthenopsis purpurascens* (Pack.) (Large Ghost Moth) – 15-VII-2001 5, 25-VII-2004 1.

29. *Gazoryctra novigannus* (B. & Benj.) – 22-VIII-2001 3, 30-VIII-2001 1, 12-IX-2001 2, 17-IX-2001 1, 24-IX-2001 1, 9A-IX-2002 1, 9B-IX-2002 1 and 30-VIII-2004 1.

TINEIDAE – Clothes Moths and others

334. *Amydria effrentella* Clem. – 25-VII-2004 3.
 399. *Tinea irrepta* Braun – 31-V-2001 1, 22-VI-2001 1, 5-VII-2001 1, 22-VIII-2001 1, 23-VI-2002 2, 17-VIII-2002 2, 9A-IX-2002 2, 9B-IX-2002 1, 12B-VI-2003 1, 29B-VI-2003 1, 10B-VII-2003 2, 20A-VII-2003 1, 20B-VII-2003 1, 27A-VII-2003 1, 27B-VII-2003 1, 30A-VIII-2003 1, 30B-VIII-2003 1, 4-VI-2004 2, 25-VII-2004 2, 19A-VI-2005 2, 19B-VI-2005 3, 24C-VI-2006 1, 13B-VII-2006 1 and 3A-VIII-2006 1.
 421. *Monopis spilotella* Tengström – 25-VII-2004 1 and 13A-VII-2006 2.
 Not in MONA. *Monopis laevigella* (D. & S.) – 4-VI-2004 1.

GRACILARIIDAE – Gracilariid Moths

587. *Caloptilia alnivorella* (Cham.) – 24B-VI-2006 1.
 639. *Caloptilia stigmatella* (F.) – 29-V-2002 1.
 669. *Parornix conspicuella* (Dietz) – 4-VI-2004 1.
 692. *Acrocercops astericola* (F. & B.) – 24B-VI-2006 1 and 24C-VI-2006 1.
 798. *Phyllonorycter prob apparella* (H.-S.) (Aspen Leaf Miner) – 28-IV-2001 1.

OECOPHORIDAE – Oecophorid Moths

878. *Agonopterix canadensis* (Bsk.) – 10-V-2002 2 and 3A-VIII-2006 1.
 889. *Agonopterix argillacea* (Wlsm.) – 28-IV-2001 5, 19-V-2002 1 and 9A-IX-2002 1.
 908. *Depressariodes ciniflonella* Leinig & Zell. – 25-IV-2001 2, 28-IV-2001 5, 31-V-2001 1, 22-VIII-2001 1, 17-IX-2001 1, 10-V-2002 1, 17-VIII-2002 1 and 9A-IX-2002 6.
 910. *Martyrhilda fulva* (Wlsm.) – 31-V-2001 1, 7-VI-2001 1, 22-VI-2001 1, 4-VIII-2001 5, 17-VIII-2002 9, 20B-VII-2003 1, 27A-VII-2003 3, 27B-VII-2003 1, 8A-VIII-2003 3, 8B-VIII-2003 1, 19A-VI-2002 1, 19B-VI-2005 2, 3A-VIII-2006 1 and 16B-VIII-2006 1.
 912. *Semioscopis packardella* (Clem.) – 4-VI-2004 1, 13A-V-2006 1 and 16B-V-2006 1.
 914. *Semioscopis inornata* (Wlsm.) – 25-IV-2001 1 and 28-IV-2001 2.
 915. *Semioscopis megamicrella* Dyar – 25-IV-2001 2, 28-IV-2001 3 and 10-V-2002 1.
 916. *Semioscopis aurorella* Dyar – 25-IV-2001 1.
 918. *Depressaria atrostrigella* Clarke – 17-IX-2001 1, 24-IX-2001 1 and 13A-VII-2006 1.
 926. *Depressaria alienella* Bsk. – 22-VIII-2001 2.
 1058. *Polix coloradella* (Wlsm.) – 15-VII-2001 1.

ELACHISTIDAE – Elachistid Moths

- Elachista* sp. – 23-VI-2002 1 and 24C-VI-2006 1.

BLASTOBASIIDAE – Blastobasid Moths

1133-1253. indet spp. – 22-VIII-2001 4, 30-VIII-2001 1, 12-IX-2001 1, 9A-IX-2002 11 and 16B-VIII-2006 1. Little is known about many of the species in this family.
Holcocera sp. – 4-VIII-2001 1.

COLEOPHORIDAE – Coleophorid Moths

1254-1389. Coleophora spp. – 15-VII-2001 1, 4-VIII-2001 2, 22-VIII-2001 1, 23-VI-2002 2, 27-VII-2002 3, 17-VIII-2002 3, 20B-VII-2003 1, 27A-VII-2003 2, 27B-VII-2003 1, 8A-VIII-2003 1, 8B-VIII-2003 2, 4-VI-2004 1, 25-VII-2004 2, 20A-V-2005 1, 24A-VI-2006 1, 24B-VI-2006 1, 13A-VII-2006 1, 13B-VII-2006 1, 3A-VIII-2006 1 and 3C-VIII-2006 1. The above specimens are currently with Dr. J.-F. Landry who is doing a North American monograph of the group. Some of the specimens may be of undescribed species.
1283. Coleophora cretaticostella Clem. – 7-VI-2001 1.
1316. Coleophora rosacella Clem. – 5-VII-2001 1.
1367. Coleophora brunneipennis Braun – 29B-VI-2003 2.
1388. Coleophora trifolii (Curt.) (Large Clover Case-bearer) – 15-VII-2001 1, 20A-VII-2003 1, 20B-VII-2003 1, 25-VII-2004 2 and 13B-VII-2006 1.
1399. Batrachedra praeangustata (Haw.) – 4-VIII-2001 1 and 22-VIII-2001 1.

MOMPHIDAE – Momphid Moths

1458. Mompha unifasciella (Cham.) – 23-VI-2002 1.

COSMOPTERYGIDAE – Cosmopterygid Moths

1515. Lymnaecia phragmitella Staint. – 15-VII-2001 1, 4-VII-2001 5, 12-VIII-2001 1 and 27A-VII-2003 1.

SCYTHRIDIDAE – Scythridid Moths

1646-1680. indet sp. – 28-IV-2001 1, 4-VI-2004 2.
1665. Scythris mixaula (Meyr.) – 30B-VIII-2003 1. Identified by J.-F. Landry on 3 Feb 2004, this, and a specimen collected at Tolman Bridge on 16 September 2000 by Ernest Mengersen, were the first records for Alberta and for Canada (Pohl et al 2005). The specimen is now in the Canadian National Collection of Insects (CNCI). The larvae of this species apparently feed on cactus.

GELECHIIDAE – Gelechiid Moths

1681-2311. Species unknown – 25-IV-2001 4, 22-VI-2001 2, 15-VII-2001 18, 4-VIII-2001 1, 22-VIII-2001 3, 10-V-2002 1, 19-V-2002 3, 23-VI-2002 5, 27-VII-2002

- 6, 4-VIII-2002 1, 27A-VII-2003 1, 17-VIII-2002 3, 9A-IX-2002 2, 20A-VII-2003 1, 4-VI-2004 5, 25-VII-2004 9, 30-VIII-2004 9, 20A-V-2005 1, 19-VI-2005 1 (?*Syncopacma* sp.), 24A-V-2006 2, 24C-V-2006 2, 24C-VI-2006 5, 13A-VII-2006 2, 13B-VII-2006 2, 3C-VIII-2006 1 and 16B-VIII-2006 1. Little is known about many of the species in this family and it may be many years before some of these specimens are determined or described.
1734. *Aristotelia devexella* Braun – 27-VII-2002 1, 20A-VII-2003 1, 20B-VII-2003 1, 27A-VII-2003 2, 27B-VII-2003 1, 8A-VIII-2003 4, 30A-VIII-2003 1, 30-VIII-2004 1 and 3A-VIII-2006 1.
1796. *Coleotechnites blastovora* McLeod – 25-IV-2001 1, 28-IV-2001 4, 7-V-2001 1, 15-V-2001 1, 19-V-2002 4 and 20A-V-2005 3.
- Xenolechia* sp. – 15-VII-2001 1.
1880. *Xenolechia velatella* (Bsk.) – 7-V-2001 1.
1902. *Lita variabilis* (Bsk.) – 30-VIII-2004 3.
1946. *Gelechia lynceola* Zell. – 22-VI-2001 3, 15-VII-2001 2 and 24B-VI-2006 3.
- Gnorimoschema* sp. – 16B-VIII-2006 2.
1985. *Gnorimoschema gallaeasterella* (Kellicott) – 9A-IX-2002 1.
1986. *Gnorimoschema galaesolidaginis* (Riley) – 16A-VIII-2006 1.
2000. *Gnorimoschema septentrionella* Fyles – 30 VIII-2004 3.
2040. *Carycolum casella* (Wlk.) – 17-IX-2001 2.
- 2054-2125. *Chionodes* sp. – 22-VI-2001 1 and 5-VII-2001 1.
2093. *Chionodes mediofuscella* (Clem.) – 22-V-2001 2, 12B-VI-2003 1, 4-VI-2004 12, 18-VI-2004 1, 20A-V-2005 1, 24A-V-2006 1, 24B-V-2006 2 and 24C-V-2006 4.
2111. *Chionodes psilopterus* (B. & Bsk.) – 5-VII-2001 2, 15-VII-2001 3, 23-VI-2002 1, 10B-VII-2003 4, 20B-VII-2003 1, 4-VI-2004 3, 18-VI-2004 5, 25-VII-2004 3, 13A-VII-2006 4 and 13B-VII-2006 1.
2117. *Chionodes terminimaculella* (Kft.) – 15-V-2001 1, 31-V-2001 1, 23-VI-2002 1, 9A-IX-2002 1, 4-VI-2004 5. 24A-V-2006 1 and 24C-V-2006 1.
2123. *Chionodes viduella* (F.) – 15-VII-2001 2 and 4-VIII-2001 1.
2127. *Filatima abactella* (Clarke) – 29-V-2002 9, 23-VI-2002 1, 29B-VI-2003 1, 4-VI-2004 2, 20A-V-2005 1, 26A-V-2005 2, 24A-V-2006 3, 24C-V-2006 2 and 24B-VI-2006 1.
2237. *Anacampsis innocuella* (Zell.) – 22-VI-2001 1, 20A-V-2005 1, 19B-VI-2005 1 and 24C-V-2006 1.
2243. *Anacampsis niveopulvella* (Cham.) – 4-VIII-2001 2.
2267. *Helcystogramma (Brachmia) fernaldella* (Bsk.) – 27-VII-2002 1, 4-VI-2004 2, 20A-V-2005 2 and 24A-V-2006 1.
2308. *Dichomeris purpureofusca* (Wlsm.) – 12B-VI-2003 1.

ALUCITIDAE – Many Plume Moths

2313. *Alucita montana* Barnes & Lindsay (Six Plume Moth) – 22-VIII-2001 1, 17-IX-2001 1, 23-VI-2002 1, 30B-VIII-2003 1 and 22B-IV-2005 1. B. Landry and J.F. Landry (2004) have shown that true *A. hexadactyla* does not occur in North America and that instead we have three other species, all of which are known from Alberta.

EPERMINIIDAE – Eperminiid Moths

2334. *Ochromolopis ramapoella* (Kft.) – 23-VI-2002 1, 18-VI-2004 1, 20A-V-2005 1, 31-V-C005 1, 19A-VI-2005 1 and 24A-VI-2006 1. Reported as new for Alberta in Pohl et al. (2005).

PLUTELLIDAE – Plutellid Moths

2366. *Plutella xylostella* (L.) (Diamondback Moth) – 15-VII-2001 1, 4-VIII-2001 2, 22-VIII-2001 1, 17-IX-2001 4, 24-IX-2001 2, 19-V-2002 2, 27A-VII-2003 3, 27B-VII-2003 1, 8A-VIII-2003 1, 30A-VIII-2003 1+8 SR, 30B-VIII-2003 1 SR, 19B-VI-2005 2 and 3A-VIII-2006 1.
2371. *Ypsolopha canariella* (Wlsm.) – 15-VII-2001 2, 22-VIII-2001 1, 30-VIII-2001 1, 17-VIII-2002 2, 9A-IX-2002 1, 8A-VIII-2003 1, 30A-VIII-2003 1, 30B-VIII-2003 1, 25-VII-2004 1, 30-VIII-2004 3 and 3C-VIII-2006 1.
2376. *Ypsolopha dentiferella* (Wlsm.) – 4-VII-2001 2, 27-VII-2002 1, 27A-VII-2003 1, 13B-VII-2006 1 and 3A-VIII-2006 1.
2380. *Ypsolopha falciferella* (Wlsm.) – 7-V-2001 1 and 10-V-2002 1.

ARGYRESTHIIDAE – Argyresthiid Moths

2467. *Argyresthia oreasella* (Clem.) – 15-VII-2001 1 and 22-VIII-2001 3.

TORTRICIDAE – Tortricid Moths

2706. *Bactra furfurana* (Haw.) – 27B-VII-2003 1.
2707. *Bactra verutana* Zell. (Javelin Moth) – 17-IX-2001 1 and 8B-VIII-2003 1.
- 2743a. *Endothenia nubilana* (Clem.) (Dusky Leafroller) – 15-VII-2001 1, 4-VIII-2001 1, 30-VIII-2001 1, 9B-IX-2002 1, 20A-VII-2003 1, 30-VIII-2004 1 and 19A-VI-2005 7.
2753. *Apotomis capreana* (Hbn.) – 15-VII-2001 1 and 4-VIII-2001 1.
2765. *Apotomis deceptana* (Kft.) (Deceptive Apotomis Moth) – 24B-VI-2006 1.
2766. *Apotomis dextrana* (McD.) (Green Aspen Leafroller) – 15-VII-2001 1, 4-VI-2004 1, 13A-VII-2006 2 and 3B-VIII-2006 1.
2769. *Pseudosciaphila duplex* (Wlsm.) (Spotted Aspen Leafroller or Poplar Leafroller Moth) – 22-VI-2001 1, 23-VI-2002 1, 24B-VI-2006 1 and 24C-VI-2006 1.
2770. *Orthotaenia undulana* (D. & S.) (Dusky Leafroller Moth) – 22-VI-2001 6, 5-VII-2001 1, 23-VI-2002 4, 29B-VI-2003 1, 24A-VI-2006 1 and 24C-VI-2006 1.
- Olethreutes* spp. – 22-VI-2001 2, 15-VII-2001 7, 4-VIII-2001 4, 23-VI-2002 1, 27-VII-2002 4, 20B-VII-2003 1, 25-VII-2004 3, 24A0VI-2006 1, 24B-VI-2006 1 and 13B-VII-2006 1. Many of the species in this genus are difficult to identify and require genitalic examination.
- Olethreutes inornatana* or *quadrifidus* – 24A-VI-2006 1 and 24B-VI-2006 1.
2848. *Olethreutes bipartitana* (Clem.) (Divided *Olethreutes* Moth) – 22-VI-2001 2 and 13A-VII-2006 1.

2861. *Hedya ochroleucana* (Frölich) (Off-white Hedya Moth) – 15-VII-2001 2, 27A-VII-2003 1 and 25-VII-2004 1.
2913. *Phaneta umbrastriana* (Kft.) – 31-V-2001 1.
2932. *Phaneta alterana* (Heinr.) – 15-VII-2001 1.
2933. *Phaneta marmontana* (Kft.) – 15-VII-2001 1, 24B-VI-2006 3 and 24C-VI-2006 2.
2937. *Phaneta parmatana* (Clem.) – 25-VII-2004 1.
2940. *Phaneta convergana* (McD.) – 29-V-2002 1.
2956. *Phaneta tarandana* (Mösch.) – 22-VI-2001 1, 5-VII-2001 1, 4-VIII-2001 2, 9A-IX-2002 1 and 12B-VI-2003 1.
2965. *Phaneta fertoriana* (Heinr.) – 29B-VI-2003 2 and 19A-VI-2005 1.
2969. *Phaneta indagatricana* (Heinr.) – 20A-VII-2003 1, 27A-VII-2003 2, 8A-VIII-2003 2, 8A-VIII-2003 3 and 25-VII-2004 1.
2973. *Phaneta striatana* (Clem.) – 15-VII-2001 1 and 27B-VII-2003 2.
2980. *Phaneta pallidicostana* (Wlsm.) – 22-VI-2001 1, 15-VII-2001 8, 4-VIII-2001 1, 29A-VI-2003 2, 20A-VII-2003 2, 27A-VII-2003 1, 25-VII-2004 6, 24C-VI-2006 1, 13A-VII-2006 4 and 13B-VII-2006 4.
2985. *Phaneta infimbriana* (Dyar) – 4-VIII-2001 1, 27A-VII-2003 1, 25-VII-2004 4 and 13A-VII-2006 1.
2986. *Phaneta octopunctana* (Wlsm.) – 15-VII-2001 2 and 25-VII-2004 1.
3005. *Phaneta offectalis* (Hulst) – 23-VI-2002 1, 24B-V-2006 4, 24C-V-2006 6 and 13A-VII-2006 2.
3014. *Eucosma ridingsana* (Rob.) (Riding's Eucosma Moth) – 4-VIII-2001 3, 27A-VII-2003 3, 8A-VIII-2, 25-VII-2004 4 and 3A-VIII-2006 1.
3031. *Eucosma serpentana* (Wlsm.) – 4-VIII-2001 1.
3035. *Eucosma morrisonii* (Wlsm.) – 15-VII-2001 5, 4-VIII-2001 1, 22-VIII-2001 1, 27-VII-2002 4, 29A-VI-2003 2, 29B-VII-2003 4, 27A-VII-2003 2, 27V-VII-2003 2, 8A-VIII-2003 1, 8B-VIII-2003 3, 30A-VIII-2003 1 and 25-VII-2004 3.
3037. *Eucosma agricolana* (Wlsm.) – 15-VII-2001 2, 23-VI-2002 7, 27-VII-2002 3, 10B-VII-2003 1, 20B-VII-2003 1, 4-VI-2004 5, 18-VI-2004 1, 25-VII-2004 7, 19A-VI-2005 3, 19B-VI-2005 6 and 13A-VII-2006 1.
3116. *Eucosma dorsisignatana* (Clem.) (Triangle-backed Eucosma Moth) – 16B-VIII-2006 1.
- 3116.2. *Eucosma similiana* (Clem.) – 9A-IX-2002 1, 3B-VIII-2006 1 and 16C-VIII-2006 1.
3119. *Eucosma juncticiliana* (Wlsm.) – 27-VII-2002 2, 27B-VII-2003 1, 25-VII-2004 2 and 3A-VIII-2006 1.
3142. *Eucosma cataclystiana* (Wlk.) (Solidago Eucosma Moth) – 5-VII-2001 1, 15-VII-2001 1, 25-VII-2004 2, 24C-VI-2006 1 and 13B-VII-2006 2.
3209. *Notocelia purpurissitana* Heinr. – 25-VII-2004 5, 13B-VII-2006 1 and 3A-VIII-2006 1.
3211. *Notocelia culminana* (Wlsm.) – 9-VIII-2001 9, 17-VIII-2002 5, 20B-VII-2003 1, 25-VII-2004 2, 3A-VIII-2006 1 and 3C-VIII-2006 1.
3223. *Gypsonoma fasciolana* (Clem.) – 31-V-2001 2, 22-VI-2001 1, 23-VI-2002 1 and 4-VI-2004 2.
7227. *Gypsonoma substitutionis* Heinr. – 24A-VI-2006 2, 24B-VI-2006 2 and 13A-VII-2006 1.

3248. *Pseudexentera oregonana* (Wlsm.) (Early Aspen Leafroller) – 1-IV-2001 2, 25-IV-2001 2 and 10-V-2002 1.
3276. *Rhopobota naevana* (Haw.) – 24-IX-2001 1.
3288. *Epinotia castaneana* (Wlsm.) – 24A-VI-2006 3 and 24B-VI-2006 3.
3302. *Epinotia rectiplicana* (Wlsm.) – 4-VIII-2001 1 and 22-VIII-2001 1.
3306. *Epinotia nisella* Cl. (Variable Tortrix Moth) – 22-VII-2001 5, 4-VIII-2001 3, 9A-IX-2002 4, 27B-VII-2003 1, 25-VII-2004 1 and 13A-VII-2006 1.
3307. *Epinotia criddleana* Kft. – 4-VII-2001 2, 22-VIII-2001 2, 17-VIII-2002 1, 9A-IX-2002 2 and 3A-VIII-2006 1.
3342. *Epinotia lomonana* (Kft.) – 17-IX-2001 1 and 9A-IX-2002 2.
3351. *Epinotia lindana* (Fern.) (Diamondback Epinotia Moth) – 16C-VIII-2006 2.
3465. *Cydia flexiloqua* (Heinr.) – 25-VII-2004 1.
3374. *Ancylis comptana* (Frölich) (Strawberry Leafroller) – 23-VI-2002 1.
3384. *Ancylis mediofasciana* (Clem.) – 20A-V-2005 1 and 24A-V-2006 1.
3391. *Hystriophora stygiana* (Dyar) – 22-VI-2001 1.
3502. *Croesia albicomana* (Clem.) – 15-VII-2001 2, 4-VIII-2001 1, 20A-VII-2003 1, 25-VII-2004 1, 13A-VII-2006 1 and 13B-VII-2006 1.
3506. *Acleris macdunnoughi* Obr. – 17-IX-2001 3.
3525. *Acleris forbesana* (McD.) – 24C-V-2006 2.
3529. *Acleris oxycoccana* (Pack.) – 17-IX-2001 13 and 24-IX-2001 3.
3536. *Acleris robinsoniana* (Fbs.) – 22-VIII-2001 1, 17-VIII-2002 1, 3A-VIII-2006 1 and 16B-VIII-2006 1.
3549. *Acleris maccana* (Tr.) – 22-VIII-2001 1.
3553. *Acleris bowmanana* (McD.) – 24-IX-2001 1.
3556. *Acleris nigrolinea* (Rob.) – 28-IV-2001 1, 15-V-2001 1 and 10-V-2002 2.
3559. *Acleris emargana* (F.) – 30-VIII-2001 2.
3568. *Eana argentana* (Cl.) – 22-VI-2001 3, 5-VII-2001 1, 29A-VI-2003 1, 29B-VI-2003 1 and 10B-VII-2003 1.
3580. *Decodes hororianus* (Wlsm.) – 17-IX-2001 12 and 24-IX-2001 2.
3589. *Anopina wellingtoniana* (Kft.) – 24B-VI-2006 1.
3595. *Pandemis canadana* Kft.) (Green Aspen Leafroller) – 5-VII-2001 1, 15-VII-2001 1 and 4-VIII-2001 1, 13A-VII-2006 1, 3A-VIII-2006 1, 3C-VIII-2006 1 and 16C-VIII-2006 1.
3625. *Argyrotaenia mariana* (Fern.) – 20A-V-2005 1.
3635. *Choristoneura rosaceana* (Harr.) – 15-VII-2001 1, 4-VIII-2001 1, 24A-VI-2006 1, 13A-VII-2006 2 and 3B-VIII-2006 1.
3637. *Choristoneura conflictana* (Wlk.) (Large Aspen Tortrix) – 5-VII-2001 2, 23-VI-2002 100 SR, 29B-VI-2003 1 and 25-VII-2004 1. This can occur in outbreak numbers (Prentice 1955).
3648. *Archips argyrospila* (Wlk.) – 25-VII-2004 3.
3672. *Syndemis afflictana* (Wlk.) (Gray Leafroller or Black-and-gray Banded Leafroller Moth) – 24A-V-2006 1.
3675. *Aphelia alleniana* (Fern.) – 15-VII-2001 1, 27-VII-2002 1, 29A-VI-2003 2, 29B-VI-2003 1, 10B-VII-2003 1, 24B-VI-2006 1 and 24C-VI-2006 1.
3682. *Clepsis persicana* (Fitch) (White-triangle Tortrix Moth) – 24A-VI-2006 1, 24B-VI-2006 1 and 13A-VII-2006 1.

3684. *Clepsis clemensiana* (Fern.) (Clemen's Clepsis Moth) – 15-VII-2001 2, 27-VII-2002 1, 17-VIII-2002 2, 10B-VII-2003 1, 20A-VII-2003 1, 27A-VII-2003 2, 25-VII-2004 2 and 13B-VII-2006 2.
3688. *Ptycholoma peritana* (Clem.) – 15-VII-2001 1, 20B-VII-2003 2, 27A-VII-2003 1, 25-VII-2004 1 and 30-VIII-2004 1.
3689. *Ptycholoma virescana* (Clem.) – 22-VI-2001 1, 4-VIII-2001 1, 30-VIII-2001 1, 17-VIII-2002 2, 25-VII-2004 1, 13A-VII-2006 2 and 3A-VIII-2006 1.
3695. *Sparganothis sulfureana* (Clem.) (Sparganothis Fruitworm Moth) – 15-VII-2001 1, 27-VII-2002 1 and 20B-VII-2003 1.
3706. *Sparganothis xanthoides* (Wlk.) (Mosaic Sparganothis Moth) – 22-VI-2001 1, 5-VII-2001 3, 15-VII-2001 1, 17-VIII-2002 1, 20A-VII-2003 1, 27A-VII-2003 1, 25-VII-2004 1 and 13B-VII-2006 1.
3711. *Sparganothis unifasciana* (Clem.) (One-lined Sparganothis Moth) – 22-VI-2001 1, 15-VII-2001 1, 27-VII-2002 1, 10B-VII-2003 1, 20A-VII-2003 2, 20B-VII-2003 2 and 27B-VII-2003 1.
3712. *Sparganothis vocaridorsana* Kft. – 19B-VI-2005 1 and 12B-VI-2006 2.
3720. *Sparganothis reticulatana* (Clem.) (Reticulated Fruitworm Moth) – 4-VIII-2001 1, 27B-VII-2003 1 13A-VII-2006 1 and 27B-VII-2006 2.
3740. *Platynota idaeusalis* (Wlk.) (Tufted Apple Bud Moth) – 27-VII-2002 1.

COCHYLIDAE – Cochylid Moths

Further information on Canadian Cochylids can be found in Razowski (1997). Some of the following specimens are now being studied by Eric Metzler and John Brown as part of a major look at the family members. This may result in a number of new species.

3755. *Aethes smeathmanniana* (F.) – 5-VII-2001 1.
- Platphalonidia* sp. – 30-VIII-2001 1.
3787. *Phtheochroa* (Carolella) *vitellinana* (Zell.) – 24B-VI-2006 1.
3792. *Phtheochroa fulvuplicana* (Wlsm.) – 5-VII-2000 1, 13A-VII-2006 1, 13B-VII-2006 1, 24C-VI-2006 1, 13A-VII-2006 1 and 3B-VIII-2006 1.
3796. *Phtheochroa waracana* (Kft.) – 15-VII-2001 1 and 27B-VII-2003 1.

PIERIDAE – White and Sulphur Butterflies

- 4211e. *Colias christina* Edw. – 19A-VI-2005 1.

LYCAENIDAE – Blue & Copper Butterflies

4375. *Lycaeides melissa* (Edw.) – 18-VI-2004 1.

NYMPHALIDAE – Fritillaries

4435. *Vanessa cardui* (L.) (Painted Lady) – 19A-VI-2005 1.

PYRALIDAE – Snout or Pyralid Moths

4703. *Gesneria centuriella* (D. & S.) – 13A-VII-2006 1.
4716. *Scoparia biplagiata* (Wlk.) (Double-striped Scoparia Moth) – 4-VIII-2001 2, 22-VIII-2001 2, 27-VII-2002 1, 17-VIII-2002 3, 9-IX-2002 2, 13A-VII-2006 1 and 13B-VII-2006 1.
4759. *Paraponix maculalis* (Clem.) – 15-VII-2001 1.
4773. *Petrophila kearfottalis* (B. & McD.) – 15-VII-2001 1, 4-VIII-2001 8, 22-VIII-2001 1, 27B-VII-2003 1 and 25-VII-2004 2.
4950. *Fumibotys fumalis* (Gn.) – 25-VII-2004 1.
4951. *Perispasta caeculalis* Zell. – 24-VI-2002 3 and 19B-VI-2005 1.
4957. *Mutuuraia mysippusalis* (Wlk.) – 15-VII-2001 1 and 24B-VI-2006 1.
4987. *Sitochroa chortalis* (Grt.) – 23-VI-2002 1, 29B-VI-2003 1 and 19B-VI-2005 1.
5004. *Loxostege sticticalis* (L.) (Beet Webworm) – 22-VIII-2001 1, 12B-VI-2003 1, 27A-VII-2003 1, 8A-VIII-2003 1, 30A-VIII-2003 1+4 SR, 30B-VIII-2003 1 SR, 4-VI-2004 1, 19A-VI-2005 1, 19B-VI-2005 2 and 3A-VIII-2006 2. Very common in 2003.
5017. *Loxostege cereralis* (Zell.) (Alfalfa Webworm Moth) – 25-VII-2004 1.
5032. *Pyrausta nicalis* (Grt.) – 15-VII-2001 1.
5065. *Pyrausta scurralis* (Hulst) – 4-VIII-2001 1, 25-VII-2004 1, 3A-VIII-2006 3 and 3B-VIII-2006 1. New to Alberta.
5068. *Pyrausta unifascialis* (Pack.) (Pussytoes Pyrausta Moth) – 22-VI-2001 5, 5-VII-2001 3, 23-VI-2002 2, 29B-VI-2003 1, 10B-VII-2003 1, 4-VI-2004 124N-VI-2006 1 and 24C-VI-2006 2.
5074. *Pyrausta fodinalis* (Led.) – 22-VI-2001 1, 15-VII-2001 2, 4-VIII-2001 2, 23-VI-2002 1, 27-VII-2002 1, 17-VIII-2002 2, 22-VIII-2002 3, 20A-VII-2003 1, 27A-VII-2003 2, 8A-VIII-2003 1, 25-VII-2004 2 and 24A-VI-2006 1.
5128. *Choristostigma plumbosignalis* (Fern.) – 13A-VII-2006 1.
5135. *Mecyna submedialis* (Grt.) (Orange-toned Mecyna Moth) – 15-VII-2001 4, 27-VII-2002 1, 29A-VI-2003 1, 20A-VII-2003 1, 27A-VII-2003 1, 8A-VIII-2003 1, 25-VII-2004 2 and 13B-VII-2006 1.
5137. *Mecyna mustelinalis* (Pack.) – 15-VII-2001 1.
5316. *Donacaula melinella* (Clem.) – 15-VII-2001 1.
5319. *Donacaula longirostrella* (Clem.) – 20A-VII-2003 1.
- 5343a. *Crambus perlellus innotatellus* (Wlk.) – 5-VII-2001 1, 15-VII-2001 1, 4-VIII-2001 3, 22-VII-2002 1, 17-VIII-2002 2, 9-IX-2002 2, 20A-VII-2003 1, 27A-VII-2003 1, 25-VII-2004 1 and 13A-VII-2006 1.
5344. *Crambus unistriatellus* Pack. – 17-VIII-2002 1 and 27B-VII-2003 1.
5345. *Crambus whitmerellus browni* Klots – 22-VI-2001 3 and 19-VI-2004 1.
- 5354/5357. *Crambus ainsliellus* Klots/*leachellus* (Zinck.) – 22-VIII-2001 1, 30-VIII-2001 1, 9-IX-2002 7 and 30-VIII-2004 1. Both species occur in Alberta. The adults look alike and examination of the male genitalia is necessary to differentiate them.
5365. *Crambus girardellus* Clem. – 22-VI-2001 3, 17-VIII-2002 1 and 29B-VI-2003 1.
5379. *Neodactria luteolella* Clem. (Mottled Grass-veneer Moth) – 23-VI-2002 4, 24A-VI-2006 1 and 24C-VI-2006 1.

5391. *Chrysoteuchia topiaria* (Zell.) (Cranberry Girdler) – 15-VII-2001 1, 23-VI-2002 6, 29B-VI-2003 2, 20B-VII-2003 1, 25-VII-2004 1, 24A-VI-2006 1, 24B-VI-2006 1 and 24C-VI-2006 2.
5397. *Agriphila plumbifimbriella* (Dyar) – 27-VII-2002 1, 17-VIII-2002 3, 9-IX-2002 1, 8A-VIII-2003 1, 25-VII-2004 1, 13A-VII-2006 1, 13B-VII-2006 3 and 3A-VIII-2006 1. The forewings lack the AM and PM lines usually associated with *A. ruricolella*. Some specimens have the ST lines usually associated with *A. plumbifimbriella*, though this line, if present, is faint. Most fresh specimens have a distinct yellowish-orange shade in the terminal area in which the seven black dots are found. *Agriphila ruricolella* lacks this feature. *Agriphila ruricolella* is basically an eastern species while *A. plumbifimbriella* is western. There are no known genitalic differences between the two species. Thus, taking everything into account, this material fits *plumbifimbriella* better than *zuricolella*. It is also possible that *plumbifimbriella* should be regarded as a synonym of *zuricolella*.
5403. *Agriphila vulgigagella* (Clem.) (Vagabond Crambus or Vagabond Sod Webworm Moth) – 30-VIII-2001 1 and 30-VIII-2004 1.
- 5410-5417. *Pediasia* sp. – 22-VIII-2001 1, 27A-VII-2003 1, 25-VII-2004 1. Included here could be any of *Pediasia abnaki*, *aridella edmontella*, *laciniella*, or even an undescribed species.
5413. *Pediasia trisecta* (Wlk.) (Sod Webworm Moth) – 15-VII-2001 1, 22-VIII-2001 2, 30-VIII-2001 1, 9A-IX-2002 2, 9B-IX-2002 2, 8A-VIII-2003 3 and 30-VIII-2004 2.
5415. *Pediasia ericella* (B. & McD.) – 17-VIII-2002 2, 10A-VII-2003 1 and 10B-VII-2003 1.
5417. *Pediasia dorsipunctella* (Kft.) – 31-V-2001 1, 12-VI-2001 1, 15-VII-2001 2, 4-VIII-2001 3, 27-VII-2002 1, 17-VIII-2002 9, 9-IX-2002 7, 20A-VII-2003 1, 8A-VIII-2003 3, 25-VII-2004 2, 30-VIII-2004 2, 13A-VII-2006 1 and 16B-VIII-2006 1.
- 5439b. *Thaumatopsis pexella coloradella* Kft. – 30-VIII-2001 1.
5474. *Acigona comptulitilis* (Hulst) – 15-VII-2001 2, 15-VII-2001 2, 4-VIII-2001 3, 27A-VII-2003 1, 27B-VII-2003 1 and 25-VII-2004 3.
5529. *Herculia thymetusalis* (Wlk.) – 25-VII-2004 1.
5606. *Tetralopha asperatella* (Clem.) (Maple Webworm Moth) – 24B-VI-2006 1 and 13A-VII-2006 1.
5655. *Acrobasis tricolorella* Grt. (Tricolored Acrobasis Moth) – 25-VII-2004 1 and 13A-VII-2006 1.
5718. *Myelopsis subtetricella* (Rag.) – 23-VI-2002 1, 29B-VI-2003 1, 4-VI-2004 4, 18-VI-2004 1 and 25-VII-2004 2.
5721. *Apomyeloides bistriatella* (Hulst) – 25-VII-2004 1, 13A-VII-2006 3, 13B-VII-2006 1 and 3A-VIII-2006 1.
5787. *Meroptera pravella* (Grt.) (Lesser Aspen Webworm) – 4-VIII-2001 1, 23-VI-2002 1, 24A-V-2006 1, 24C-VI-2006 1 and 24B-VI-2006 1.
5799. *Nephoterix basilaris* Zell. – 23-VI-2002 1, 24B-VI-2006 1 and 24C-VI-2006 1.
5812. *Telethusia ovalis* (Pack.) – 15-VII-2001 3, 27-VII-2002 1, 20A-VII-2003 7, 27A-VII-2003 1, 8B-VIII-2003 1 and 25-VII-2004 5.
5824. *Pyla aequivoca* Heinr. – 13A-VII-2006 1.

5827. *Pyla aenigmatica* Heinr. – 15-VII-2001 1.
 5870. *Sarata caudelella* (Dyar) – 9-VIII-2002 1.
 5918. *Hulstia undulatella* (Clem.) – 30A-VIII-2003 1.
 5968. *Zophodia grossulariella* (Hbn.) (*Z. convolutella* (Hbn.) (Gooseberry Fruitworm Moth) – 28-IV-2001 2, 7-V-2001 2, 19-V-2002 3, 29-V-2002 6, 20A-V-2005 1 and 24C-V-2006 2.
 6038. *Anerastia lotella* (Hbn.) – 22-VI-2001 2, 4-VIII-2001 1, 9-IX-2002 1 and 30-VIII-2004 1.

PTEROPHORIDAE – Plume Moths

- 6089-6234. indet Pterophorids – 29-VI-2003 2, 10-VII-2003 2, 27-VII-2003 4, 25-VII-2004 2 and 3-VIII-2006 2. These are presently being determined by Doug Macaulay.
 6107. *Gillmeria pallidactyla* (Haw.) – 24-VI-2006 5.
 6166. *Oidaematophorus mathewianus* (Zell.) (Mathew's Plume Moth) – 27-VII-2002 1, 27-VII-2003 1 and 13-VII-2006 7.
 6185. *Oidaematophorus brucei* (Fern.) – 20-VII-2003 1.
 6203. *Hellinsia homodactylus* (Wlk.) – 27-VII-2002 1.
 6205. *Hellinsia pectodactylus* (Staudinger) – 13-VII-2006 3.
 6232. *Hellinsia arion* (B. & L.) – 20-VII-2003 1.

THYATIRIDAE – Thyatirid Moths

6235. *Habrosyne scripta* (Gosse) (The Scribe or The Lettered Habrosyne) – 24A-VI-2006 1.
 6240. *Euthyatira pudens* (Gn.) (Dogwood Thyatirid) – 28-IV-2001 1 and EM, 15-V-2001 1, 19-V-2002 1.
 6248. *Ceranemota albertae* Clarke (Alberta Lutestring) – 9A-IX-2002 1 and 30-VIII-2004 1.

GEOMETRIDAE – Inchworm or Geometrid Moths

6270. *Protitame virginalis* (Hulst) (Virgin Moth) – 23-VI-2002 1 and 4-VI-2004 3.
 6279. *Macaria (Itame) occiduaria* (Pack.) (Western Sulphur) – 22-VI-2001 4, 5-VII-2001 3, 15-VII-2001 2, 22-VIII-2001 1, 27-VII-2002 1, 29A-VI-2003 1, 29B-VI-2003 1, 10B-VII-2003 1, 18-VI-2004 1, 24A-VI-2006 1, 24C-VI-2006 1, 13A-VII-2006 1, 13B-VII-2006 1 and 3C-VIII-2006 1.
 6283. *Macaria (Itame) sulphurea* (Pack.) (Spotted Sulphur) – 4-VIII-2001 1, 27-VII-2002 1, 20A-VII-2003 1, 27A-VII-2003 1, 25-VII-2004 1 and 30-VIII-2004 1.
 6290. *Macaria (Itame) loricaria* (Evers.) (False Bruce Spanworm) – 22-VI-2001 1, 29A-VI-2003 2, 29B-VI-2003 2, 10B-VII-2003 2, 24A-VI-2006 1 and 24B-VI-2006 1.
 6304. *Macaria (Itame) bitactata* (Wlk.) – 15-VII-2001 1, 27A-VII-2003 1, 27B-VII-2003 1, 25-VII-2004 3, 24A-VI-2006 1, 24B-VI-2006 1, 13A-VII-2006 1, 13B-VII-2006 1, 3A-VIII-2006 1 and 3B-VIII-2006 1.

6373. *Digrammia* (*Semiothisa*) *denticulata* Grt. (Striped Granite) – 23-VI-2002 1, 27-VII-2002 1, 12B-VI-2003 2, 29A-VI-2003 2, 8A-VIII-2003 1, 25-VII-2004 1 and 20A-V-2005 1.
6380. *Digrammia* (*Semiothisa*) *californiaria* (Pack.) – 8A-VIII-2003 1, 8B-VIII-2003 1 and 25-VII-2004 1.
6394. *Digrammia* *rippertaria* (Dup.) (*Semiothisa* *hebetata*) – 4-VI-2004 1.
6396. *Digrammia* (*Semiothisa*) *neptaria* (Gn.) – 4-VI-2004 1.
6397. *Digrammia* (*Semiothisa*) *mellistrigata* (Grt.) – 15-VII-2001 1.
6640. *Biston* *betularia* (L.) (Salt-and-Pepper Moth) – 22-VI-2001 2, 5-VII-2001 1 and 24C-VI-2006 1.
6651. *Lycia* *ursaria* (Wlk.) (The Bear or Stout Spanworm Moth) – 25-IV-2001 6, 28-IV-2001 1 and 10-V-2002 2.
6665. *Erannis* *tiliaria* (Harr.) (Linden Looper Moth) – 24-IX-2001 1 and 27-IX-2001 2.
6677. *Cabera* *erythemaria* Gn. (Yellow-dusted Cream Moth) – 22-VI-2001 4, 4-VIII-2001 1, 24B-VI-2006 1 and 13A-VII-2006 1.
6678. *Cabera* *variolaria* Gn. (The Vestal or Pale Striped Willow Spanworm) – 22-VI-2001 3, 15-VII-2001 2, 14-VIII-2001 1, 23-VI-2002 1, 17-VIII-2002 1, 25-VII-2004 1, 19B-VI-2005 1, 24A-VI-2006 2, 24B-VI-2006 1, 13A-VII-2006 1 and 3A-VIII-2006 1.
6715. *Aspitates* *aberratus* (Hy. Edw.) – 24C-V-2006 1.
6726. *Euchlaena* *obtusaria* (Hbn.) (Obtuse *Euchlaena*) – 24A-VI-2006 1, 24B-VI-2006 1 and 24C-VI-2006 1.
6729. *Euchlaena* *johnsonaria* (Fitch) (Johnson's *Euchlaena*) – 15-VII-2001 2, 24B-VI-2006 1 and 13B-VII-2006 1.
6734. *Euchlaena* *marginaria* (Minot) (Maple Spanworm) – 3-V-2001 1, 22-VI-2001 1, 24A-V-2006 1 and 24C-V-2006 1.
6737. *Euchlaena* *tigrinaria* (Gn.) (Variable Thorn or Mottled *Euchlaena*) – 22-VI-2001 1, 15-VII-2001 1, 24A-VI-2006 1 and 24B-VI-2006 1.
6740. *Xanthotype* *urticaria* Swett – 24A-VI-2006 1.
6743. *Xanthotype* *sospeta* (Drury) (Crocus Geometer) – 24B-VI-2006 1 and 24C-VI-2006 1.
6755. *Pero* *morrisonaria* (Hy. Edw.) (Lesser Umber or Morrison's *Pero*) – 31-V-2001 4, 22-VI-2001 1, 23-VI-2002 1, 24A-V-2006 1 and 24A-VI-2006 1.
6796. *Campaea* *perlata* (Gn.) (Pale Beauty or Fringed Looper Moth) – 15-VII-2001 2, 25-VII-2004 1, 13A-VII-2006 1 and 13B-VII-2006 1.
6797. *Ennomos* *magnaria* Gn. (Maple Spanworm) – 17-IX-2001 1, 17-VIII-2002 1, 9A-IX-2002 1 and 9B-IX-2002 1.
6817. *Selenia* *alciphearia* Wlk. (Northern *Selenia*) – 25-IV-2001 1 and 29-V-2002 1.
- 6817/6818. *Selenia* *alciphearia* or *kentaria* – 20A-V-2005 1.
6818. *Selenia* *kentaria* (G. & R.) (Kent's Geometer) – 29-V-2002 1.
6819. *Metanema* *inatormaria* Gn. (Pale *Metanema*) – 12-VI-2001 1, 23-VI-2002 1 and 24B-VI-2006 1.
6820. *Metanema* *determinata* Wlk. (Dark *Metanema*) – 22-VI-2001 4, 24C-V-2006 1, 24A-VI-2006 1 and 24B-VI-2006 1.

6822. *Metarranthis duaria* (Gn.) (Ruddy Metarranthis) – 31-V-2001 1, 29-V-2002 1, 4-VI-2004 1, 20A-V-2005 1, 26A-V-2005 2, 24A-V-2006 1, 24B-V-2006 1 and 24C-V-2006 1.
6836. *Anagoga occiduaris* (Wlk.) (American Barred Umber) – 7-VI-2001 1, 4-VI-2004 1 and 24A-V-2006 1.
6837. *Probole alienaria* H.-S. – 22-VI-2001 1, 31-V-2001 2, 29-V-2002 1, 23-VI-2002 1, 4-VI-2004 2, 20A-V-2005 1, 24A-V-2006 2, 24B-V-2006 1, 24C-V-2006 1 and 24B-VI-2006 1.
6838. *Probole amicaria* (H.-S.) (Friendly Probole) – 22-VI-2001 1, 4-VI-2004 1, 24C-V-2006 1 and 24A-VI-2006 1.
6842. *Plagodis phlogosaria* (Gn.) (Straight-lined Plagodis) – 29-VI-2002 1, 24B-V-2006 1 and 24C-V-2006 1.
6912. *Sicya macularia* (Harr.) – 20B-VII-2003 1, 25-VII-2004 2, 13A-VII-2006 1 and 13B-VII-2006 1.
6954. *Synaxis jubararia* (Hulst) (October Thorn) – 17-IX-2001 1.
6963. *Tetracis crocallata* Gn. (White Slant-line) – 4-VI-2004 1.
6982. *Prochoerhodes transversata* (Drury) (Large Maple Spanworm) – 4-VIII-2001 1, 22-VIII-2001 2, 9A-IX-2002 2, 3A-VIII-2006 2, 3B-VIII-2006 1 and 16C-VIII-2006 1.
7009. *Nematocampa resistaria* (H.-S.) (Horned Spanworm Moth) – 25-VII-2004 1 and 13A-VII-2006 1.
7018. *Nemoria unitaria* (Pack.) – 15-VII-2001 2 and 25-VII-2004 1.
7058. *Synchlora aerata* (F.) (Wavy Lined Emerald) – 15-VII-2001 3, 27-VII-2002 2, 20A-VII-2003 1, 20B-VII-2003 1, 25-VII-2004 2, 24A-VI-2006 1, 13A-VII-2006 1 and 13B-VII-2006 1.
7164. *Scopula junctaria* Wlk. (Simple Wave) – 22-VI-2001 2, 24A-VI-2006 1, 24B-VI-2006 1, 24C-VI-2006 1 and 13A-VII-2006 1.
7166. *Scopula frigidaria* Mösch. (Frigid Wave) – 24-IX-2001 1, 19A-VI-2005 1 and 19B-VI-2005 1.
7169. *Scopula inductata* Gn. (Soft-lined Wave) – 22-VI-2001 1, 15-VII-2001 4, 30-VIII-2001 1, 24-IX-2001 1, 27-VII-2002 1, 29B-VI-2003 1, 20A-VII-2003 1, 24A-VI-2006 3, 24C-VI-2006 1 and 16B-VIII-2006 1.
7182. *Dysstroma citrata* – 22-VIII-2001 2, 9A-IX-2002 1, 24A-VI-2006 1, 24C-VI-2006 1 and 16C-VIII-2006 1.
7187. *Dysstroma truncata* (Hufn.) (Marbled Carpet) – 13A-VII-2006 2.
7189. *Dysstroma hersiliata* (Gn.) (Orange-barred Carpet) – 24A-VI-2006 1 and 24B-VI-2006 2.
7199. *Eulithis propulsata* (Wlk.) (Barred Yellow or Currant Eulithis) – 17-VIII-2002 1, 13A-VII-2006 1 and 13B-VII-2006 1.
7201. *Eulithis testata* (L.) (Chevron Moth) – 22-VIII-2001 1, 17-VIII-2002 3, 9A-IX-2002 1, 3B-VIII-2006 1 and 16C-VIII-2006 1.
7205. *Eulithis flavibrunneata* (McD.) – 22-VIII-2001 1, 3A-VIII-2006 1, 3B-VIII-2006 1 and 3C-VIII-2006 1.
7207. *Eulithis xyliana* (Hulst) (The Phoenix) – 15-VII-2001 1, 27-VII-2002 1, 25-VII-2004 1, 24A-VI-2006 1, 24B-VI-2006 2 and 13A-VII-2006 1.
7216. *Plemyria georgii* Hulst (Eyed Carpet) – 4-VIII-2001 1.

7229. *Hydriomena perfracta* Swett (Marbled Carpet) – 24C-V-2006 1.
7257. *Hydriomena furcata* (Thunb.) (Common Highflyer) – 4-VIII-2001 1, 27-VI-2002 1, 27A-VII-2003 1, 25-VII-2004 1 and 3A-VIII-2006 1.
7316. *Perizoma basaliata* (Wlk.) (Twin-spot Wave) – 24A-V-2006 1, 24A-VI-2006 1 and 24C-VI-2006 1.
7329. *Anticlea vasiliata* Gn. (Variable Carpet) – 7-V-2001 1, 10-V-2002 1 and 29-V-2002 1.
7384. *Xanthorhoe decoloraria* (Esper) (American Carpet) – 27-VII-2002 1 and 25-VII-2004 1.
7388. *Xanthorhoe ferrugata* (Cl.) (Red Twin-spot) – 23-VI-2002 1.
7390. *Xanthorhoe lacustrata* (Gn.) (Toothed Brown Carpet) – 15-VII-2001 1.
7394. *Epirrhoe alternata* (Müller) (White-banded Toothed Carpet) – 24A-VI-2006 1, 24B-VI-2006 1 and 13A-VII-2006 1.
7399. *Euphyia unangulata* (Haw.) (Sharp-angled Carpet) – 13A-VII-2006 1.
7408. *Zenophleps alpinata* Cass. – 17-VIII-2002 1, 30-VIII-2004 1, 3B-VIII-2006 1 and 16C-VIII-2006 1.
7414. *Orthonama obstipata* (F.) – 17-IX-2001 1.
7433. *Epirrita autumnata* (Bkh.) (Autumn Moth) – 9A-IX-2002 1.
7445. *Horisme intestinata* (Gn.) (Brown Bark Carpet) – 22-VI-2001 1, 23-VI-2002 1, 24C-V-2006 1 and 24B-VI-2006 1.
7446. *Horisme incana* Swett – 3-V-2001 1.
- Eupithecia* spp. (Pugs) – 24A-V-2006 1, 24A-VI-2006 1, 24B-VI-2006 1 and 13A-VII-2006 1. These specimens are currently being examined by Dr. George Balogh.
7487. *Eupithecia subfuscata* (Haw.) – 23-VI-2002 1, 24A-V-2006 1.
- 7520c. *Eupithecia satyrata dodata* Tayl. – 31-V-2001 1 and 4-VI-2004 1.
7594. *Eupithecia anticaria* Wlk. – 31-V-2001 3, 23-VI-2002 3, 24A-V-2006 1, 24B-V-2006 1 and 24A-VI-2006 1.
7564. *Eupithecia stellata* (Hulst) (Stellate Pug) – 22-VIII-2001 1, 9A-IX-2002 1, 27A-VII-2003 1, 3A-VIII-2006 1 and 3B-VIII-2006 1.
7605. *Eupithecia ravocostaliata* Pack. (Great Variegated Pug) – 25-IV-2001 1, 29-V-2002 2, 20A-V-2005 1 and 26A-V-2005 1.
7640. *Lobophora nivergerata* Wlk. (Two-lined Aspen Looper) – 23-VI-2002 1 and 21-VI-2005 1, 24C-V-2006 1 and 24B-VI-2006 1.
7643. *Lobophora magnoliotidata* (Dyar) – 23-VI-2002 1.

LASIOCAMPIDAE – Tent Caterpillar and Lappet Moths

7687. *Phyllodesma americana* (Harr.) (Lappet Moth) – 28-IV-2001 1 and 29-V-2002 1.
7698. *Malacosoma disstria* Hbn. (Forest Tent Caterpillar) – 15-VII-2001 1 and 24B-VI-2006 1. This species periodically occurs in outbreak numbers (Ives 1973).
7702. *Malacosoma californicum* (Pack.) (Western Tent Caterpillar) – 15-VII-2001 2, 20A-VII-2003 1, 8A-VIII-2003 1, 25-VII-2004 2 and 13B-VII-2006 1.

SATURNIDAE – Large Silkworm Moths

7757. *Antheraea polyphemus* (Cram.) (Polyphemus Moth) – 22-VI-2001 1 and 4-VI-2004 1.
 7769. *Hyalophora gloveri* (Stkr.) (Glover's Silk Moth) – 15-V-2001 1, 29A-V-2003 1, 4-VI-2004 1 and 26A-V-2005 1.

SPHINGIDAE – Sphinx Moths

7803. *Sphinx vashti* Stkr. (Vashti or Snowberry Sphinx) – 28-IV-2001 1, 22-VI-2001 2, 15-VII-2001 SR, 29-V-2002 1, 23-VI-2002 1 SR, 10B-VII-2003 1 SR, 4A-VI-2004 2 SR, 4B-VI-2004 2 SR, 20A-V-2005 1 and 24C-VI-2006 2.
 7821. *Smerinthus jamaicensis* (Drury) (Twin-spotted Sphinx) – 7-VI-2001 1, 22-VI-2001 SR, 5 VII 2001 SR, 23-VI-2002 2 SR, 15-VII-2001 SR, 4A-VI-2004 3 SR, 4B-VI-2004 2 SR, 18-VI-2004 1, 20A-V-2005 1, 24A-V-2006 1, 24C-V-2006 1, 24C-VI-2006 1 and 13A-VII-2006 1.
 7822. *Smerinthus cerisyi* Kby. (One-eyed Sphinx) – 31-V-2001 1, 22-VI-2001 SR, 5-VII-2001 SR, 29-V-2002 1, 23-VI-2002 1 SR, 10A-VII-2003 1 SR, 10B-VII-2003 1 SR, 4A-VI-2004 2 SR, 4B-VI-2004 3 SR, 18-VI-2004 1 and 24C-V-2006 1.
 7824. *Paonias excaecatus* (J.E. Smith) (Blinded Sphinx) – 7-VI-2001 1 and 15-VII-2001 1.
 7825. *Paonias myops* (J.E. Smith) (Small-eyed Sphinx) – 22-VI-2001 1 and 23-VI-2002 1.
 7828. *Pachysphinx modesta* (Harr.) (Big Poplar Sphinx) – 22-VI-2001 1, 31-V-2001 1, 23-VI-2002 1 SR, 29B-VI-2003 1, 4A-VI-2004 1 (2 SR) and 4B-VI-2004 1 SR.
 7893. *Hyles gallii* (Rottemburg) (Bedstraw Hawkmoth) – 29A-VI-2003 1, 4-VI-2004 1, 20A-V-2005 1 and 24C-VI-2006 1.
 7894. *Hyles lineata* (F.) (White-lined Sphinx) – 30-VIII-2001 1.

NOTODONTIDAE – Prominent Moths

7895. *Clostera albosigma* Fitch (Sigmoid Prominent) – 25-IV-2001 1, 28-IV-2001 1, 23-VI-2001 1, 15-VII-2001 1, 4-VIII-2001 2, 29-V-2002 1, 23 VI-2002 1 SR and 4-VI-2004 1.
 7900. *Clostera brucei* (Hy. Edw.) (Bruce's Chocolate-tip) – 23-VI-2002 1 SR, 12A-VI-2003 1, 4-VI-2004 1 and 24C-V-2006 1.
 7901. *Clostera apicalis* (Wlk.) (Common Chocolate-tip or Red-marked Tentmaker) – 15-V-2001 1, 31-V-2001 1, 7-VI-2001 1, 29-V-2002 1, 4-VI-2004 1, 20A-V-2005 1, 26A-V-2005 1 and 13A-V-2006 1.
 7915. *Nadata gibbosa* (J.E. Smith) (White-dotted Prominent) – 22-VI-2001 2, 23-VI-2002 1, 4A-VI-2004 1 (4 SR), 24B-V-2006 1, 24A-VI-2006 1 and 24B-VI-2006 1.
 7922. *Pheosia rimosa* Pack. (Black-rimmed Prominent) – 22-VI-2001 1, 15-VII-2001 1, 29-V-2002 1, 25-VII-2004 1, 20A-V-2005 1, 24A-V-2006 1, 24B-V-2006 1 and 13A-VII-2006 1.
 7924. *Odontosia elegans* (Stkr.) (Elegant Prominent) – 22-VI-2001 2.
 7928. *Notodonta simplaria* Graef. (Simple Prominent) – 15-V-2001 1, 29-V-2002 3, 20A-V-2005 2, 13B-V-2006 1 and 3B-VIII-2006 1.

7931. *Gluphisia septentrionis* Wlk. (Small Pebble or Common Gluphisia) – 22-VI-2001 1, 15-VII-2001 1, 23-VI-2002 5 SR, 29A-VI-2003 1, 29B-VI-2003 1, 10B-VII-2003 1, 4-VI-2004 1, 24A-VI-2006 1 and 24B-VI-2006 1.
7934. *Gluphisia lintneri* (Grt.) (Lintner's Pebble) – 25-IV-2001 1 and 28-IV-2001 1.
7940. *Furcula scolopendrina* (Bdv.) (Poplar Kitten) – 24B-VI-2006 1.
7941. *Furcula modesta* (Huds.) (Modest Kitten) – 29-V-2002 1 and 3A-VIII-2006 1.
8007. *Schizura unicornis* (J.E. Smith) (Variegated Prominent or Unicorn Caterpillar Moth) – 23-VI-2002 1, 25-VII-2004 1 and 24B-VI-2006 1.

ARCTIIDAE - Tiger Moths and others

8043. *Eilema bicolor* (Grt.) (Bicolored Moth) – 25-VII-2004 1.
8051. *Crambidia casta* (Pack.) (Pearly-winged Lichen Moth) – 22-VIII-2001 6, 9A-IX-2002 1, 20B-VII-2003 1, 8A-VIII-2003 2, 8B-VIII-2003 1, 30A-VIII-2003 1 and 30-VIII-2004 1.
8089. *Hypoprepia miniata* (Kby.) (Scarlet-winged Lichen Moth) – 15-VII-2001 2 and 25-VII-2004 1.
8111. *Haploa lecontei* (Guér.-Méneville) (Leconte's Haploa) – 15-VII-2001 1.
8123. *Holomelina ferruginosa* (Wlk.) (Rusty Holomelina) – 15-VII-2001 1, 4-VIII-2001 1, 27-VII-2002 1, 17-VIII-2002 1, 25-VII-2004 1, 24B-VI-2006 1 and 13A-VII-2006 1.
8129. *Pyrrharctia isabella* (J.E. Smith) (Isabella Tiger Moth) – 22-VI-2001 1 and 23-VI-2002 1.
8131. *Estigmene acraea* (Drury) (Salt Marsh Moth) – 24B-V-2006 1.
8134. *Hyphantria congrua* (Wlk.) – 22-VI-2001 1, 23-VI-2002 2, 29B-VI-2003 1 and 4-VI-2004 1.
8158. *Phragmatobia assimilans* Wlk. (Large Ruby Tiger Moth) – 31-V-2001 1, 29-V-2002 1, 29A-V-2003 1, 29B-V-2003 1 and 4-VI-2004 2.
8162. *Platarctia parthenos* (Harr.) (St. Lawrence Tiger Moth) – 23-VI-2002 40 SR, 27-VII-2002 10 SR, 4A-VI-2004 1 (3 SR), 18-VI-2004 1 (2 SR), 24C-V-2006 1, 24B-VI-2006 1 and 24C-VI-2006 1.
8166. *Arctia caja* (L.) (Great Tiger Moth) – 15-VII-2001 1, 4-VIII-2001 1, 27-VII-2002 1, 25-VII-2004 2 and 13A-VII-2006 1.
8175. *Grammia virguncula* (W. Kby.) (Little Virgin Moth) – 22-VI-2001 1, 15-VII-2001 2, 10A-VII-2003 1, 10B-VII-2003 1 and 25-VII-2004 1.
8186. *Grammia williamsii* (Dodge) (William's Tiger Moth) – 22-VI-2001 1, 23-VI-2002 2, 29A-VI-2003 1, 29B-VI-2003 1 and 4-VI-2004 1.
8196. *Grammia parthenice* (W. Kby.) (Parthenice Tiger Moth) – 15-VII-2001 3, 4-VIII-2001 1, 22-VIII-2001 1, 27-VII-2002 1, 17-VIII-2002 2, 27B-VII-2003 1, 8B-VIII-2003 1, 25-VII-2004 2 and 13B-VII-2006 1.
8197. *Grammia virgo* (L.) (Virgin Tiger Moth) – 22-VI-2001 1, 5-VII-2001 2, 15-VII-2001 1, 29A-VI-2003 2, 29B-VI-2003 1, 25-VII-2004 1, 24A-VI-2006 1, 24B-VI-2006 1 and 24C-VI-2006 1.
8214. *Lophocampa maculata* Harr.) (Spotted Tussock Moth) – 15-VII-2001 1, 24B-V-2006 1 and 24B-VI-2006 1.
8262. *Ctenucha virginica* (Esp.) (Virginia Ctenucha) – 22-VI-2001 1 and 23-VI-2002 1.

LYMANTRIIDAE – Tussock Moths

8294. *Dasychira vagans* (B. & McD.) (Variable Tussock Moth) – 15-VII-2001 1, 17-VIII-2002 1, 25-VII-2004 1 and 24B-VI-2006 1.

NOCTUIDAE – Owlets or Noctuid Moths

8322. *Idia americalis* (Gn.) (American Snout Moth) – 22-VI-2001 3, 15-VII-2001 2, 4-VIII-2001 1, 27-VII-2002 1, 17-VIII-2002 3, 9A-IX-2002 1, 8B-VIII-2003 1, 25-VII-2004 1, 30-VIII-2004 1, 24B-VI-2006 1, 13A-VII-2006 1, 13B-VII-2006 1, 3A-VIII-2006 1 and 3B-VIII-2006 1.
8323. *Idia aemula* Hbn. (Powdered Snout) – 25-VII-2004 1.
8354. *Zanclognatha lotalba* (Sm.) (The Canadian Zanclognatha) – 15-VII-2001 1.
8356. *Chytolita petrealis* Grt. – 15-VII-2001 1 and 29B-VI-2003 1.
8359. *Macrochilo bivittata* (Grt.) – 15-VII-2001 3 and 25-VII-2004 1.
8362. *Phalaenostola metonalis* (Wlk.) (Pale Phalaenostola or Tufted Snout) – 15-VII-2001 2, 24C-VI-2006 2 and 13A-VII-2006 1.
8370. *Bleptina caradrinalis* Gn. (Variable Snout Moth or Bent-winged Owlet) – 24B-VI-2006 1.
8397. *Palthis angulalis* (Hbn.) (Angulated Snout Moth or Dark-spotted Palthis) – 22-VI-2001 2 and 24B-VI-2006 1.
8404. *Rivula propinquialis* Gn. (Yellow Snout Moth) – 13A-VII-2006 2.
8413. *Mycterophora inexplicata* (Wlk.) (Pale-edged Snout Moth) – 13A-VII-2006 1.
8452. *Bomolocha edictalis* (Wlk.) (Large Bomolocha) – 15-VII-2001 1, 13A-VII-2006 2 and 13B-VII-2006 1.
8632. *Drasteria hudsonica* (G. & R.) – 29A-VI-2003 1.
8697. *Zale minerea* (Gn.) (Colorful Zale) – 29-V-2002 5, 20A-V-2005 2, 24A-V-2006 1 and 24B-V-2006 1.
8738. *Caenurgina crassiuscula* (Haw.) (Clover Looper Moth) – 4-VIII-2001 1, 15-IX-2001 1, 24-IX-2001 1, 23-VI-2002 1, 27-VII-2002 2, 12A-VI-2003 1, 29B-VI-2003 1, 4-VI-2004 2, 25-VII-2004 1 and 13A-VII-2006 1.
8739. *Caenurgina erechtea* (Cram.) (Forage Looper Moth) – 25-VII-2004 1 and 3A-VIII-2006 1.
8803. *Catocala relictata* Wlk. (White Underwing) – 4-VIII-2001 1, 17-VIII-2002 2, 3B-VIII-2006 1 and 16C-VIII-2006 1.
8805. *Catocala unijuga* Wlk. (Once-married Underwing) – 4-VIII-2001 7, 27-VII-2002 1 and 17-VIII-2002 1.
8817. *Catocala briseis* Edw. (Ribbed or Briseis Underwing) – 17-VIII-2002 1, 9B-IX-2002 1, 3B-VIII-2006 1 and 3C-VIII-2006 2.
8821. *Catocala semirelictata* Grt. (Semirelict Underwing) – 17-VIII-2001 1, 22-VIII-2001 1, 27-VII-2002 2, 8A-VIII-2003 1, 26A-VIII-2003 1 and 16C-VIII-2006 1.
8867. *Catocala blandula* Julst (Charming Underwing) – 3B-VIII-2006 1.
8881. *Abrostola urentis* Gn. (Variegated Brindle) – 24A-VI-2006 1 and 13A-VII-2006 1.
8887. *Trichoplusia ni* (Hbn.) (Cabbage Looper Moth) – 17-IX-2001 1.

8896. *Diachrysia aeroides* (Grt.) (Dark-spotted Looper Moth) – 15-VII-2001 1, 22-VII-2002 1 and 25-VII-2004 1.
8899. *Pseudeva purpurigera* (Wlk.) – (Straight-lined Looper Moth) – 13A-VII-2006 1 and 3C-VIII-2006 1.
8911. *Autographa bimaculata* (Steph.) (Two-spotted Looper Moth) – 15-VII-2001 1 and 13A-VII-2006 2.
8914. *Autographa californica* (Speyer) (Alfalfa Looper Moth) – 15-VII-2001 1 and 24-IX-2001 1.
8916. *Autographa flagellum* (Wlk.) – 24B-VI-2006 1.
8923. *Autographa ampla* (Wlk.) – 20B-VII-2003 1, 24B-VI-2006 1 and 24C-VI-2006 1.
8924. *Anagrapha falcifera* (Kby.) – 12A-VI-2003 1, 12B-VI-2003 1, 8A-VIII-2003 1 and 19A-VI-2005 1.
8950. *Plusia putnami* Grt. (Putnam's Looper Moth) – 20-VII-2004 1, 24A-VI-2006 1, 24B-VI-2006 1 and 13A-VII-2006 1.
8953. *Plusia venusta* Wlk. (White-streaked Looper Moth) – 13A-VII-2006 1 and 13B-VII-2006 2.
8990. *Nola cilicoides* (Grt.) (Blurry-patched Nola) – 15-VII-2001 4, 27-VII-2002 1, 17-VIII-2002 2 and 27B-VII-2003 1.
9048. *Lithacodia albidula* (Gn.) (Common Midget) – 22-VI-2001 3, 23-VI-2002 1 and 13A-VII-2006 1.
9085. *Tarachidia semiflava* (Gn.) – 20A-VII-2003 1, 31-V-2005 1 and 19A-VI-2005 2.
9112. *Theresea flavicosta* (Sm.) (Narrow-winged Midget) – 4-VI-2004 1.
9193. *Raphia frater* Grt. (The Brother) – 22-VI-2001 1, 15-VII-2001 1, 23-VI-2002 15 SR, 29A-VI-2003 1, 4-VI-2004 1 and 24B-VI-2006 1.
9212. *Acronicta grisea* (Wlk.) (Gray Dagger Moth) – 24B-V-2006 1 and 24C-VI-2006 1.
9226. *Acronicta superans* Gn. (The Chieftain Dagger Moth) – 22-VI-2001 1 and 23-VI-2002 2.
9228. *Acronicta furcifera* Gn. (The Forked Dagger Moth) – 24B-VI-2006 1.
9241. *Acronicta fragilis* (Gn.) (Fragile Dagger Moth) – 31-V-2001 1 and 24C-V-2006 1.
9257. *Acronicta impleta* Wlk. (Yellow-haired Dagger Moth) – 29-V-2002 1.
9261. *Acronicta impressa* Wlk. (Willow Dagger Moth) – 24A-V-2006 1, 13A-VII-2006 1 and 3B-VIII-2006 1.
9272. *Acronicta oblongata* (J.E. Smith) (Smear-dagger Moth) – 31-V-2001 1 and 4-VI-2004 3.
9341. *Apamea vultuosa* (Grt.) (Narrow-bordered Quaker or Airy Quaker) – 24B-VI-2006 1.
9348. *Apamea amputatrix* (Fitch) (Northern Quaker or Dusky Sallow) – 22-VI-2001 1, 27A-VII-2003 1 and 25-VII-2004 1.
9351. *Apamea alia* (Gn.) (Dewy Quaker) – 24B-VI-2006 1, 24C-VI-2006 1 and 13A-VII-2006 1.
9359. *Apamea commoda* (Wlk.) (Southern Quaker) – 5-VII-2001 2, 15-VII-2001 2, 25-VII-2004 1 and 13A-VII-2006 1.
9362. *Apamea remissa* (Hbn.) (*A. indocilis*) (Ignorant Apamea) – 24C-VI-2006 1.
9364. *Apamea sordens* (Hufn.) (was *A. finitima*) (Bordered Apamea) – 7-VI-2001 4, 4-VI-2004 2, 19A-VI-2005 1, 24A-V-2006 1 and 24C-V-2006 1.

9365. *Agroperina lateritia* (Hufn.) (now *Apamea scoparia* (Hufn.) (Red-winged Quaker) – 5-VII-2001 1 and 15-VII-2001 1.
9367. *Agroperina cogitata* (Sm.) (*A. dubitans*) (Ruby Quaker) – 15-VII-2001 1, 22-VIII-2001 1 and 13A-VII-2006 1.
9369. *Apamea inficita* (Wlk.) (Inficita Quaker) – 15-VII-2001 4, 4-VIII-2001 3, 17-VIII-2002 1, 27-VIII-2002 1, 25-VII-2004 1, 13A-VII-2006 1, 13B-VII-2006 1, 3A-VIII-2006 1 and 16B-VIII-2006 1.
9374. *Apamea niveivenosa* (Grt.) (White-veined Quaker) – 15-VII-2001 2 and 17-VIII-2002 1.
9382. *Apamea devastator* (Brace) (Destructive Quaker or Glassy Cutworm Moth) – 4-VIII-2001 1, 30-VIII-2001 1, 17-IX-2001 1, 27-VII-2002 4, 17-VIII-2002 1, 9A-IX-2002 2, 8B-VIII-2003 1, 25-VII-2004 2, 30-VIII-2004 1 and 13B-VII-2006 1.
9396. *Eremobina claudens* (Wlk.) (Alberta Quaker) – 28-VIII-2001 1, 9A-IX-2002 1, 16B-VIII-2006 1 and 16C-VIII-2006 1.
- 9412.1. *Oligia subjuncta* (Sm.) (*A. laevigata*) (Short-cloaked Quaker) – 15-VII-2001 1, 17-VIII-2002 1, 25-VII-2004 1 and 13A-VII-2006 1.
9417. *Oligia egens* (Wlk.) (Neomogen's Quaker) – 22-VIII-2001 1 and 9B-IX-2002 1.
9419. *Oligia mactata* (Gn.) (Prairie Quaker) – 22-VIII-2001 5, 30-VIII-2001 1 and 9A-IX-2002 1.
9420. *Oligia illocata* (Wlk.) (Wandering Quaker) – 22-VIII-2001 1 and 24-IX-2001 1.
9434. *Spartiniphaga includens* (Wlk.) (Silver-C Borer) – 17-VIII-2002 2, 27B-VII-2003 2 and 3B-VIII-2006 1.
9437. *Chortodes inquinata* (Gn.) (Sordid Wainscot) – 27-VII-2002 1, 17-VIII-2002 1 and 25-VII-2004 1.
9440. *Chortodes rufostrigata* (Pack.) (Brown-streaked Rustic) – 22-VIII-2001 1, 27-VII-2002 1, 25-VII-2004 1 and 24C-VI-2006 1.
9443. *Chortodes defecta* (Grt.) (Narrow-winged Borer) – 25-VII-2004 1.
9450. *Archanara subflava* (Grt.) (Subflava Sedge Borer) – 9A-IX-2002 1.
9453. *Helotropha reniformis* (Grt.) (now *Celaena reniformis*) (Kidney-spotted Rustic) – 24-IX-2001 1 and 17-VIII-2002 1.
9456. *Amphipoea interoceanica* (Sm.) – 4-VIII-2001 1.
9457. *Amphipoea americana* (Speyer) (American Ear Moth) – 4-VIII-2001 4, 22-VIII-2001 3, 17-IX-2001 1, 24-IX-2001 1, 9A-IX-2002 1, 9B-IX-2002 1, 30-VIII-2004 1, 3A-VIII-2006 1, 3B-VIII-2006 1, 3C-VIII-2006 1, 16B-VIII-2006 1 and 16C-VIII-2006 1. Can be mistaken for *A. interoceanica*.
9472. *Papaipema harrisii* (Grt.) (Cow Parsnip Borer Moth) – 16C-VIII-2006 1.
9515. *Hydraecia perobliqua* Hamp. (Oblique Rustic) – 22-VIII-2001 1, 30-VIII-2001 2, 17-IX-2001 2, 26-VIII-2002 1 and 11-IX-2002 2.
9525. *Bellura obliqua* (Wlk.) (Cattail Borer Moth) – 7-VI-2001 2, 22-VI-2001 3, 15-VII-2001 1 and 23-VI-2002 1.
9545. *Euplexia benesimilis* McD. (American Angle Shades) – 24C-V-2006 1.
9549. *Enargia decolor* (Wlk.) (Angle-striped Sallow) – 4-VIII-2001 1, 22-VIII-2001 2, 25-VIII-2001 1, 24-IX-2001 1, 9A-IX-2002 2, 9B-IX-2002 1, 30A-VIII-2003 1 SR, 30B-VIII-2003 13 SR, 30A-VIII-2004 10 SR, 30M-VIII-2004 2 SR, 16B-VIII-2006 1 and 16C-VIII-2006 1.

9550. *Enargia infumata* (Grt.) (Lesser Angle-striped Sallow) – 4-VIII-2002 1, 27A-VII-2003 1, 25-VII-2004 1, 13A-VII-2006 1 and 3C-VIII-2006 1.
9555. *Ipimorpha pleonectusa* Grt. (Even-lined Sallow) – 17-VIII-2002 1 and 3B-VIII-2006 1.
9564. *Andropolia contacta* (Wlk.) – 17-VIII-2002 1.
9647. *Proxenus miranda* (Grt.) (Glistening Rustic) – 22-VI-2001 2, 23-VI-2002 3, 19A-VI-2005 2, 24C-V-2006 1, 24A-VI-2006 1, 24C-VI-2006 2 and 28-VI-2006 1.
9656. *Platyperigea extima* (Wlk.) (now *P. montana*) (Civil Rustic) – 4-VIII-2001 1, 17-IX-2001 1, 24-IX-2001 1, 27-VII-2002 4 SR, 17-VIII-2002 2, 9A-IX-2002 1, 9B-IX-2002 18A-VIII-2003 1 SR, 8B-VIII-2003 1 SR, 30B-VIII-2003 1 SR, 30W-VIII-2004 2 SR and 30M-VIII-2004 2 SR.
9874. *Xylena curvimacula* (Morr.) (Dot and Dash Swordgrass Moth) – 25-IV-2001 2, 28-IV-2001 (EM), 17-IX-2001 1, 24-IX-2001 1 and 10-V-2002 2.
9875. *Xylena thoracica* (Putnam-Cramer) (Gray Swordgrass Moth) – 10-V-2002 1 and 13A-V-2006 1.
9876. *Xylena cineritia* (Grt.) (Western Swordgrass Moth) – 25-IV-2001 4, 28-IV-2001 1, 28-IV-2001 (EM) and 10-V-2002 1.
9579. *Hyppa contrasta* McD. (*H. nr xylinoides*) (Common Hyppa or Cranberry Cutworm) – 24A-V-2006 1 and 24B-VI-2006 1.
9878. *Lithomoia germana* (Morr.) (American Peasant) – 16C-VIII-2006 1.
9881. *Homoglaea hircina* Morr. (Goat Sallow) – 25-IV-2001 4, 28-IV-2001 4 and 10-V-2002 2.
9884. *Litholomia napaea* (Morr.) (Dark Gray Peasant) – 25-IV-2001 6, 28-IV-2001 1, 15-V-2001 1, 30-VIII-2001 2, 17-IX-2001 2, 24-IX-2001 2, 10-V-2002 2, 19-V-2002 1, 30A-VIII-2003 1 and 20A-V-2005 1.
9888. *Lithophane innominata* (Sm.) (Nameless Pinion) – 28-IV-2001 1.
9935. *Eupsilia tristigmata* (Grt.) (Three-spotted Sallow) – 10-V-2002 1.
9952. *Eucirroedia pampina* (Gn.) (Scalloped Sallow) – 22-VIII-2001 1, 9A-IX-2002 1 and 16C-VIII-2006 1.
9957. *Sunira bicolorago* (Gn.) (Bicolored Sallow) – 25-IX-2001 1.
9960. *Sunira verberata* (Sm.) (Western Sallow) – 24-IX-2001 2.
9962. *Anathix puta* (G. & R.) (Dusky or Puta Sallow) – 22-VIII-2001 4, 30-VIII-2001 1, 9A-IX-2002 3 and 30B-VIII-2003 1.
9963. *Anathix aggressa* (Sm.) (Pale Sallow) – 22-VIII-2001 1 and 9A-IX-2002 1.
9965. *Xanthia tatago* Laf. & Mik. (Pink-barred Sallow) – 17-IX-2001 1, 24-IX-2001 1 and 9A-IX-2002 2.
9976. *Platypolia anceps* (Steph.) (Rugged Rover) – 17-IX-2001 1.
- Mniotype* spp. – 24A-V-2006 1, 24B-V-2006 1 and 24C-V-2006 1.
9987. *Mniotype ducta* (Grt.) – 12A-VI-2003 1.
9988. *Mniotype prob tenera* (Sm.) (Miniota Rover) – 7-VI-2001 3, 12A-VI-2003 1 and 19A-VI-2005 1.
9990. *Sutyna profunda* (Sm.) (Profound Sallow) – 13C-VIII-2006 1 and 16B-VIII-2006 1.
9993. *Brachylomia populi* (Stkr.) (Cloaked Peasant) – 9A-IX-2002 1 and 16C-VIII-2006 1.
9999. *Brachylomia discinigra* (Wlk.) (Black-disc Peasant) – 22-VIII-2001 1.

10062. *Homohadena stabilis* Sm. (Brown Sallow) – 1-VII-2001 1, 15-VII-2001 1, 4-VIII-2001 1, 27A-VII-2003 2, 25-VII-2004 2, 24B-VI-2006 1 and 13B-VII-2006 1.
10065. *Homohadena infixa* (Wlk.) (Broad-lined Sallow) – 27A-VII-2003 1, 24B-VI-2006 1 and 13A-VII-2006 1.
10067. *Adita chionanthi* (J.E. Smith) (Fringed Tree Sallow) – 22-VIII-2001 1, 17-VIII-2002 1, 20B-VII-2003 1 and 8A-VIII-2003 1.
10099. *Oncocnemis saundersiana* Grt. (Saunderson's Beauty) – 22-VIII-2001 1, 9B-IX-2002 1. This is the first collection of this species for Alberta. It is reported from southern and eastern Ontario by Rockburne and Lafontaine (1976) where it was reared on beardtongue (*Penstemon*), and from Ohio by Rings et al. (1992). *Penstemon gracilis* occurs in the study area. It is a species that does not respond well to grazing.
10108. *Oncocnemis viriditincta* Sm. – 22-VIII-2001 1 and 30-VIII-2001 1.
10140. *Oncocnemis poliochroa* Grt. – 8A-VIII-2003 1.
10143. *Oncocnemis mackiei* (B. & Benj.) (Mackie's Beauty) – 22-VIII-2001 1.
10194. *Cucullia intermedia* Speyer (Intermediate Falconer or Goldenrod Cutworm) – 31-V-2001 1, 10B-VII-2003 1, 24A-V-2006 2, 24B-V-2006 1, 24C-V-2006 1 and 24B-VI-2006 1.
10223. *Discestra trifolii* (Hufn.) – 4-VI-2004 1.
10224. *Discestra mutata* (Dod) – 12B-VI-2003 1.
10232. *Discestra farnhami* (Grt.) (Farnham's Discestra) – 7-VI-2001 2, 12A-VI-2003 4, 12B-VI-2003 1, 4-VI-2004 1, 26A-V-2005 2, 24B-V-2006 1 and 24C-V-2006 1.
10265. *Sideridis rosea* (Harv.) (Rosy Penman) – 31-V-2001 1, 22-VI-2001 1, 12A-VI-2003 1, 4-VI-2004 1, 26A-V-2005 1, 19A-VI-2005 1, 24A-V-2006 1, 24B-V-2006 1, 24C-V-2006 1 and 24C-VI-2006 1.
10271. *Mamestra configurata* Wlk. (Bertha Armyworm) – 22-VI-2001 4, 5-VII-2001 1 and 13A-VII-2006 1.
10275. *Polia nimbosa* (Gn.) – 22-VI-2001 3, 15-VII-2001 1, 23-VI-2002 3 and 17-VIII-2002 1, 24A-VI-2006 1, 24B-VI-2006 1 and 24C-VI-2006 1.
- 10276
. *Polia imbrifera* (Gn.) (Cloudy Arches) – 5-VII-2001 1, 24C-VI-2006 1 and 13A-VII-2006 1.
10280. *Polia purpurissata* (Grt.) (Purple Arches) – 15-VII-2001 1, 4-VIII-2001 2, 27-VII-2002 1, 17-VIII-2002 1, 20B-VII-2003 1, 27A-VII-2003 1, 25-VII-2004 2, 13A-VII-2006 1, 13B-VII-2006 2, 3A-VIII-2006 1, 3B-VIII-2006 2 and 16C-VIII-2006 1.
10288. *Polia detracta* (Wlk.) (Disparaged Arches) – 22-VI-2001 1, 12B-VI-2003 1, 29A-VI-2003 1, 4-VI-2004 1, 19B-VI-2005 1, 24C-V-2006 1, 24A-VI-2006 1 and 24C-VI-2006 1.
10289. *Polia goodelli* (Grt.) (Goodell's Arches) – 24C-VI-2006 1.
10290. *Polia obscura* (Sm.) (Obscure Arches) – 24A-V-2006 1.
10292. *Melanchra adjuncta* (Gn.) (Hitched Arches) – 24B-VI-2006 2 and 13B-VII-2006 1.
10295. *Melanchra assimilis* (Morr.) (Black Arches) – 22-VI-2001 1, 4-VI-2004 1 and 19A-VI-2005 1.

10297. *Lacanobia atlantica* (Grt.) (Atlantic Arches) – 31-V-2001 1, 7-VI-2001 1, 22-VI-2001 1, 23-VI-2002 1, 27-VII-2002 1, 19B-VI-2005 1 and 24B-VI-2006 1.
10298. *Lacanobia radix* (Wlk.) (Garden Arches) – 7-VI-2001 4, 15-V-2001 1, 22-VI-2001 1, 20A-V-2005 2, 26A-VI-2005 1, 24A-V-2006 1, 24B-V-2006 1, 24C-V-2006 2 and 24A-VI-2006 1.
10301. *Spiramater lutra* (Gn.) – 22-VI-2001 1, 23-VI-2002 1, 24A-V-2006 1, 24A-VI-2006 1 and 24C-VI-2006 1.
10308. *Trichordestra liquida* (Grt.) (Liquid Arches) – 31-V-2001 2, 7-VI-2001 1, 22-VI-2001 1, 19A-VI-2005 1, 24A-V-2006 2 and 24C-VI-2006 1.
10322. *Hadena circumvadis* Sm. – 22-VI-2001 1, 29A-VI-2003 1 and 29B-VI-2003 1.
10368. *Lacinipolia meditata* (Grt.) (The Thinker or Pink-backed Cutworm Moth) – 4-VIII-2001 5, 17-VIII-2002 2 and 3A-VIII-2006 1.
10370. *Lacinipolia lustralis* (Grt.) (Lustrous Arches) – 22-VI-2001 7, 5-VII-2001 1, 23-VI-2002 3, 29B-VI-2003 1, 10A-VII-2003 1, 10B-VII-2003 1, 18-VI-2004 4, 19A-VI-2005 1, 24A-VI-2006 2, 24B-VI-2006 1 and 24C-VI-2006 1.
10394. *Lacinipolia vicina* (Grt.) (Small Gray Arches) – 15-VII-2001 1, 4-VIII-2001 1 and 25-VII-2004 1.
10397. *Lacinipolia renigera* (Steph.) (Kidney-spotted Arches or Bristly Cutworm Moth) – 15-VII-2001 1, 4-VIII-2001 1, 25M-VII-2004 1, 25W-VII-2004 1 SR, 24C-VI-2006 1, 13A-VII-2006 1 and 13B-VII-2006 1.
10405. *Lacinipolia lorea* (Gn.) (Bridled Arches) – 22-VI-2001 1, 29A-VI-2003 1, 24A-VI-2006 1 and 24C-VI-2006 1.
10406. *Lacinipolia olivacea* (Morr.) (Olive Arches) – 15-VII-2001 1, 4-VIII-2001 1, 17-VIII-2002 1, 13A-VII-2006 1 and 3B-VIII-2006 1.
10431. *Faronta diffusa* (Wlk.) (Cloudy Wainscot or Wheat-head Armyworm Moth) – 23-VI-2002 1, 17-VIII-2002 1, 19A-VI-2005 1 and 19B-VI-2005 1 and 24A-VI-2006 1.
10436. *Aletia oxygala* (Grt.) (Lesser Wainscot) – 15-VII-2001 1, 27-VII-2002 1, 17-VIII-2002 1, 9A-IX-2002 1, 13A-VII-2006 1, 13B-VII-2006 1 and 3C-VIII-2006 1.
10447. *Leucania commoides* Gn. (Comma Wainscot) – 22-VI-2001 1, 15-VII-2001 3, 4-VIII-2001 2, 13A-VII-2006 1, 13B-VII-2006 1 and 13C-VII-2006 1.
10449. *Leucania insueta* Gn. (Heterodox Wainscot) – 7-VI-2001 4, 22-VI-2001 2, 19B-VI-2005 1 and 24A-VI-2006 2.
10471. *Stretchia plusiaeformis* Hy. Edw. (Gray Spectacles) – 25-IV-2001 4, 28-IV-2001 1, 10-V-2002 2 and 19-V-2002 1.
10490. *Orthosia revicta* (Morr.) – 25-IV-2001 6, 28-IV-2001 6, 15-V-2001 3, 10-V-2002 3, 29-V-2002 1 and 20A-V-2005 1.
10493. *Orthosia segregata* (Sm.) (Subdued Quaker) – 25-IV-2001 10, 28-IV-2001 1 and EM, 7-V-2001 3, 15-V-2001 1, 19-V-2002 1, 29-V-2002 1 and 10A-VI-2005 1.
10493. *Orthosia segregata* f. *negussa* (Sm.) – 15-IV-2001 2, 25-IV-2001 14, 28-IV-2001 8 and 29-V-2002 1.
10495. *Orthosia hibisci* (Gn.) (Variable Penman or Speckled Green Fruitworm Moth) – 25-IV-2001 10, 28-IV-2001 2, 10-V-2002 3, 19-V-2002 1 and 24A-V-2006 1.
10513. *Egira dolosa* (Grt.) (Grieving Woodling or Greater Black-letter Dart) – 25-IV-2001 1, 19-V-2002 1 and 29-V-2002 1.

10524. *Nephelodes minians* Gn. (Shaded Umber or Brown Cutworm Moth) – 22-VII-2001 1, 30-VIII-2001 1, 17-VIII-2002 1, 9A-IX-2002 2, 8A-VIII-2003 1, 30B-VIII-2003 3 SR, 30W-VIII-2004 1, 30M-VIII-2004 1 SR, 3A-VIII-2006 1, 16A-VIII-2006 1, 16B-VIII-2006 1 and 16C-VIII-2006 1.
10563. *Protorthodes oviduca* (Gn.) (Ruddy Quaker) – 15-V-2001 5, 31-V-2001 4, 7-VI-2001 2, 22-VI-2001 1, 23-VI-2002 4 SR, 12A-VI-2003 1, 12B-VI-2003 1, 29A-VI-2003 1, 4A-VI-2004 2 (13 SR), 4B-VI-2004 16 SR, 26A-V-2005 1 and 19B-VI-2005 1, 24A-V-2006 1 and 24B-V-2006 1.
10651. *Agrotis venerabilis* Wlk. (Venerable Dart) – 22-VIII-2001 3, 30-VIII-2001 1, 9A-IX-2002 2, 9B-IX-2002 1, 30A-VIII-2003 1 SR, 30B-VIII-2003 6 SR, 30A-VIII-2004 1 (6SR), 30M-VIII-2004 1 SR, 16A-VIII-2006 1, 16B-VIII-2006 1 and 16C-VIII-2006 1.
10652. *Agrotis vancouverensis* Grt. – 31-V-2001 3, 7-VI-2001 1, 22-VI-2001 5, 23-VI-2002 1, 12B-VI-2003 1, 18-VI-2004 2, 26A-V-2005 1, 24A-V-2006 1, 24C-V-2006 1 and 24A-VI-2006 1.
10670. *Feltia jaculifera* (Gn.) (Gothic Dart or Dingy Cutworm Moth) – 4-VIII-2001 5, 23-VIII-2001 1, 27-VII-2002 2, 17-VIII-2002 2, 9A-IX-2002 1, 8A-VIII-2003 1, 25-VII-2004 1, 3A-VIII-2006 1 and 16B-VIII-2006 1.
10676. *Feltia herilis* (Grt.) (Master's Dart) – 15-VII-2001 2, 4-VIII-2001 8, 27-VII-2002 1 and 13A-VII-2006 1.
- 10701.1. *Euxoa adumbrata* (Ev.) – 22-VI-2001 1.
- 10701.2. *Euxoa auxiliaris* (Grt.) (Auxiliary Dart) – 4-VIII-2001 1, 29A-VI-2003 1 and 3A-VIII-2006 1.
10702. *Euxoa divergens* (Wlk.) (Divergent Dart) – 3-V-2001 1, 22-VI-2001 4, 15-VII-2001 1, 23-VI-2002 1, 29A-VI-2003 1, 29B-VI-2003 1, 10A-VII-2003 1, 10B-VII-2003 1, 19A-VI-2005 1, 19B-VI-2005 1, 24A-VI-2006 1 and 24C-VI-2006 1.
10705. *Euxoa messoria* (Harr.) (Reaper Dart or Dark-sided Cutworm) – 17-VIII-2002 1 and 25-VII-2004 1.
10715. *Euxoa scandens* (Riley) – 22-VI-2001 1.
10723. *Euxoa tristicula* (Morr.) (Three-marked Dart) – 7-VI-2001 2, 22-VI-2001 9, 15-VII-2001 3 and 23-VI-2002 1.
10728. *Euxoa pestula* Sm. (Pestula Dart) – 22-VI-2001 1.
10738. *Euxoa mimallonis* (Grt.) (Ruddy Dart) – 17-VIII-2002 1 and 9A-IX-2002 1.
10749. *Euxoa intrita* (Morr.) (Tippling Dart) – 17-VIII-2002 16, 8A-VIII-2003 1 and 3B-VIII-2006 1.
10755. *Euxoa declarata* (Wlk.) (Clear Dart) – 30-VIII-2001 1, 9A-IX-2002 1 and 30-VIII-2004 1.
10756. *Euxoa campestris* (Grt.) (Flat Dart) – 30-VIII-2001 1, 9A-IX-2002 3, 9B-IX-2002 2, 30-VIII-2004 1 and 3C-VIII-2006 1.
10777. *Euxoa aequalis* (Harv.) (Aequalis Dart) – 22-VI-2001 1, 22-VIII-2001 1, 30-VIII-2001 1, 24-IX-2001 1, 9A-IX-2002 4, 9B-IX-2002 7, 30A-VIII-2003 2 and 30B-VIII-2003 1.
10798. *Euxoa basalis* (Grt.) (Pale-based Dart) – 4-VIII-2001 1, 22-VIII-2001 1, 27-VII-2002 2, 17-VIII-2002 1, 9B-IX-2002 1 and 8B-VIII-2003 1.
10801. *Euxoa ochrogaster* (Gn.) (Red-backed Cutworm Moth) – 4-VIII-2001 2, 22-VIII-2001 1, 27-VII-2002 1, 17-VII-2002 1, 9A-IX-2002 1 and 9B-IX-2002 1.

10807. *Euxoa albipennis* (Grt.) (White-winged Dart) – 22-VIII-2001 2, 9A-IX-2002 2 and 9B-IX-2002 1.
10817. *Euxoa obeliscoides* (Gn.) (Obelisk Dart) – 30A-VIII-2003 1.
- 10826.1. *Euxoa castanea* Laf. – 15-VII-2001 1.
10830. *Euxoa quadridentata* (G. & R.) (Four-toothed Dart) – 30-VIII-2001 1, 9A-IX-2002 1, 9B-IX-2002 2 and 30A-VIII-2003 1.
10852. *Euxoa auripennis* Lafontaine or 10854 *E. servita* (Sm.) (Servita Dart) – 4-VIII-2001 4, 22-VIII-2001 1, 27-VII-2002 1, 17-VIII-2002 1, 9A-IX-2002 2, 9B-IX-2002 1, 27A-VII-2003 1 and 25-VII-2004 1.
10861. *Euxoa ridingsiana* (Grt.) (Riding's Dart) – 4-VIII-2001 2, 22-VIII-2001 1, 27-VII-2002 1, 17-VIII-2002 2, 12A-VI-2003 1 and 30-VIII-2004 1.
- 10861.1. *Euxoa maimes* (Sm.) – 22-VIII-2001 1.
10891. *Ochropleura implecta* (L.) (*O. plecta*) (Flame-shouldered Dart) – 22-VI-2001 1, 17-VIII-2002 1 and 24C-VI-2006 1.
10910. *Anicla tepperi* (Sm.) (Black-girdled Dart) – 22-VI-2001 2, 9B-IX-2002 1 and 4-VI-2004 1.
10915. *Peridroma saucia* (Hbn.) (Variegated Cutworm Moth) – 30-VIII-2001 1.
10921. *Diarsia rosaria* (Grt.) (Rosy Dart) – 22-VI-2001 1.
10923. *Actebia balanitis* (Grt.) (Acorn Dart) – 22-VI-2001 1.
10926. *Spaelotis clandestina* (Harr.) (Clandestine Dart) – 22-VI-2001 1, 30-VIII-2001 1, 23-VI-2002 1, 29A-VI-2003 1, 25-VII-2004 2, 24A-VI-2006 1 and 24C-VI-2006 1.
- 10927.1. *Spaelotis bicava* Lafontaine – 22-VI-2001 1.
10928. *Graphiphora augur* (Grt.) (Soothsayer Dart) – 22-VIII-2001 1, 13A-VII-2006 2 and 13B-VII-2006 2.
10929. *Eurois occulta* (L.) (Great Gray Dart) – 22-VI-2001 2, 24-IX-2001 1, 17-VIII-2002 1, 24B-VI-2006 1, 13B-VII-2006 1, 3B-VIII-2006 1, 3C-VIII-2006 1 and 16C-VIII-2006 1.
10930. *Eurois astricta* Morr. (Great Brown Dart) – 15-VII-2001 3, 25-VII-2004 2, 13A-VII-2006 1 and 13B-VII-2006 1.
10942. *Xestia c-nigrum* (Franc.) (Black-letter Dart) – 22-VI-2001 3, 15-VII-2001 2, 4-VIII-2001 1, 24B-VI-2006 1 and 13A-VII-2006 1.
10943. *Xestia normaniana* (Grt.) (Norman's Dart) – 3A-VIII-2006 1 and 3C-VIII-2006 1.
10944. *Xestia smithii* (Snell) (Spotted-clay Dart or Smith's Dart) – 4-VIII-2001 2, 22-VIII-2001 1, 17-VIII-2002 2, 25-VII-2004 1, 13A-VII-2006 1, 3A-VIII-2006 1, 3B-VIII-2006 1, 3C-VIII-2006 1, 16B-VIII-2006 1 and 16C-VIII-2006 1.
10951. *Pseudohermonassa tenuicula* (Morr.) (Hair-pin Dart) – 15-VII-2001 2, 4-VIII-2001 2, 25-VIII-2004 1, 13A-VII-2006 2, 13B-VII-2006 2 and 3B-VIII-2006 1.
10954. *Agnorisma bugrai* (Koçak) (Collared Dart) – 22-VIII-2001 8, 30-VII-2001 1, 9A-IX-2002 1, 9B-IX-2002 2, 8A-VIII-2003 2, 30-VIII-2004 1, 16A-VIII-2006 1, 16B-VIII-2006 1 and 16C-VIII-2006 1.
10988. *Coenophila opacifrons* (Grt.) – 17-VIII-2002 1. This species is typically associated with bogs, habitat which does not exist in this area.
10992. *Paradiarsia littoralis* (Pack.) (Labrador Dart) – 31-V-2001 1, 22-VI-2001 3, 5-VII-2001 2, 23-VI-2002 1, 29A-VI-2003 1, 29B-VI-2003 1, 10A-VII-2003 14 SR,

- 10B-VII-2003 6 SR, 4-VI-2004 1, 18-VI-2004 1, 19A-V-2005 1, 24A-VI-2006 1 and 24C-VI-2006 1.
10996. *Cerastis salicarium* (Wlk.) (Willow Dart) – 25-IV-2001 3, 28-IV-2001 1, 10-V-2002 1 and 19-V-2002 1.
11004. *Protolampra rufipectus* (Morr.) (Red-breasted Dart) – 4-VIII-2001 2, 27-VII-2002 2, 17-VIII-2002 1, 13A-VII-2006 1, 3A-VIII-2006 1, 3B-VIII-2006 1, 3C-VIII-2006 1, 16A-VIII-2006 1 and 16C-VIII-2006 1.
11012. *Cryptocala acadensis* (Bethune) (Catocaline Dart) – 15-VII-2001 2, 4-VIII-2001 2, 4-VIII-2002 2, 25-VII-2004 1, 13A-VII-2006 1, 13B-VII-2006 1 and 3A-VIII-2006 1.
11041. *Abagrotis placida* (Grt.) group – 4-VIII-2004 1 and 3A-VIII-2006 1.
- 11041.1. *Abagrotis hermina* Laf. – 30-VIII-2001 1, 17-VIII-2002 1 and 27A-VII-2003 1.
11077. *Heliothis ononis* (F.) – 29A-VI-2003 1.
11164. *Schinia florida* (Gn.) – 10B-VII-2003 1.
11192. *Schinia cumatilis* (Grt.) (Silver-banded Gem) – 15-VII-2001 1, 27B-VII-2003 2 and 25-VII-2004 1.

DISCUSSION

A meaningful comparison can be made between this area and that of a parallel study made on the smaller Hall acreage, 3 km south of Nevis, as both are excellent examples of Aspen Parkland. Percentage-wise, 62.2% (352 species) of the recorded moths were common to both, while 25.9% (147 species) were found only in the present, larger area and 12% (68 species) were found only in the smaller Hall acreage study. As both areas are very similar, it is highly likely that, if further study were carried out, the percentage of species common to both would go up. On the other hand, and because the present study area is larger and somewhat more ecologically diverse, it will always have more species. This points out the need, when setting aside areas for protection such as Parks, Ecological Areas and Conservation Areas, that they be of sufficient size so that they provide protection for a larger number of species. Though the present study deals primarily with moths, the same reasoning obviously applies to other faunistic groups, as well as to all floristic groups.

A comparison can also be made between the moths of the Buffalo Lake Conservation Area and those of Dry Island Buffalo Jump Provincial Park. Percentage-wise, 49.6% (342 species) of the recorded moths were common to both, while 27.9% (194 species) were found only in the Buffalo Lake area and 22.9% (159 species) were found only in the Dry Island area. This can be explained on the basis of the ecological dissimilarities of the two areas: the Buffalo Lake area being typical native Aspen Parkland; while the Dry Island area is comprised of diverse communities, including riverine forest, badland terrain on south facing slopes, native grassland, shrubland and mixed woods on north-facing slopes. 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

A steadily increasing number of species have become known for the area as research progressed: 304 in 2001 (Bird 2002), 374 in 2002 (Bird 2003), 400 in 2003 (Bird 2004), 434 in 2004 (Bird 2005), 464 in 2005 (Bird 2006), while the present report based on 2006 research, lists 532 species. While this may seem an impressive number, it is felt that, with further study, this total could be brought up to over 600. To put things into perspective, it is known that there are over 1000 macromoths and 1000 micromoths in the province. The present report is still “a work in progress”. More species can still be added, a few of the present reports may be found to be based on misidentifications, and there are many species in the “unknown” category, especially in the Gelechiidae and other micromoth groups, which will eventually be determined or described.

It was interesting that another specimen of *Oncocnemis saundersiana* was found in 2002. This species, found in the area in 2001, has still not been collected anywhere else in Alberta. A specimen of *Scythris mixaula* was collected in 2003 and it was a second record for Alberta and also for Canada. *Pyrausta scurralis*, which has been collected twice in the area, is another new species for Alberta. The collection in 2005 of a specimen of *Acanthopteroctetes bimaculata*, also a second report for Alberta, is further evidence that other interesting findings remain to be made.

Moths were found on all visits but peak numbers occurred during the summer months. As most species were encountered over a 1-2 week period, attempts were made to sample frequently. Weather and other conditions sometimes prevented sampling.

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USEFUL ONLINE INFORMATION SOURCES ON MOTHS

Information on, and illustrations of, 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://virtual-museum.sunsite.ualberta.ca/dig.search/ent/ent/>.

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 moths 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.

USEFUL BOOKS ON MOTHS

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Plate I. Some moths from the Buffalo Lake Conservation Area.



wingspan 27 mm
Anerastia lotella
 4-VIII-2001, Buffalo Lake, AB, C.D. Bird



wingspan 11 mm
Argyresthia oreasella
 15-VII-2001, Buffalo Lake, AB, C.D. Bird



wingspan 18 mm
Bactra furfurana
 17-IX-2001, Buffalo Lake, AB, C.D. Bird



Crambus girardellus, wingspan 28 mm: ALBERTA, Buffalo Lake Conservation Area, C.D. Bird, BIRD147, C.D. Bird image



Gelechia lynceola, wingspan 15 mm; ALBERTA, Buffalo Lake, 22-VI-2001, C.D. Bird, BIRD5, C.D. Bird image



Neodactria luteocellus, wingspan 23 mm: ALBERTA, Buffalo Lake Conservation Area, 23-VI-2002, C.D. Bird, BIRD 501, C.D. Bird image



Pediasia trisecta, wingspan 32 mm: ALBERTA, Buffalo Lake Conservation Area, 9B-IX-2002, C.D. Bird, BIRD85, C.D. Bird image



Thaumtopsia pexella coloradella, wingspan 25 mm: ALBERTA, Buffalo Lake Conservation Area, 30-VIII-2001, C.D. Bird, BIRD716, C.D. Bird image

APPENDIX

Collection dates, sites and other details

- 1 April 2001 – Diurnal, aspen parkland, 52.51, 112.70, 800 m.
 15 April 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 25 April 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 28 April 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 7 May 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 15 May 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 31 May 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 7 June 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 22 June 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 15 July 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 4 August 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 22 August 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 30 August 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 12 September 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 17 September 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 24 September 2001 – UV, aspen parkland, 52.51, 112.70, 800 m.
 10 May 2002 – UV, SW5, near E fence and trail, aspen, 52.483, 112.703, 850 m.
 19 May 2002 – UV, SW5, near E fence and trail, aspen, 52.483, 112.703, 850 m.
 29 May 2002 – UV, SW5, near E fence and trail, aspen, 52.483, 112.703, 850 m.
 23 June 2002 – UV, SW5, near E fence and trail, aspen, 52.483, 112.703, 850 m.
 27 July 2002 – UV, NW5, north side of trail through big clearing, 52.303, 112.75, 850 m.
 17 August 2002 – UV and MV, aspen woods, west side of big clearing, 52.51, 112.71, 810 m, with Gary Anweiler, Felix Sperling and Doug Macaulay.
 9A September 2002 – UV and MV, aspen woods, west side of big clearing, 52.51, 112.71, 810 m.
 9B September 2002 – UV, prairie and silverwillow, 52.51, 112.70, 810 m.
 4 June 2004 – Crepuscular, buckbrush, 52.50, 112.704, 790 m.
 4A June 2004 – UV, aspen woods, 52.50, 112.712, 800 m.
 4B June 2004 – UV, silverwillow/buckbrush/grassland, 52.50, 112.704, 790 m.
 18W June 2004 – UV, aspen woods, 52.50, 112.712, 800 m.
 18G June 2004 – UV, native grassland near sloughs, 52.50, 112.72, 800 m.
 25M July 2004 – UV, silverwillow/buckbrush grassland, 52.50, 112.704, 790 m.
 25W July 2004 – UV, aspen woods, 52.50, 112.712, 800 m.
 30W August 2004 – UV, aspen woods, 52.50, 112.712, 800 m.
 30M August 2004 – UV, silverwillow/buckbrush/grassland, 52.50, 112.704, 790 m.
 20 May 2005 – UV, buckbrush/aspen/saskatoon, near highway, beside trail, 52.493, 112.693, 814 m.
 26 May 2005 – UV, buckbrush/aspen/saskatoon, near highway, beside trail, 52.493, 112.693, 814 m.
 19A June 2005 – UV, silverwillow/buckbrush grassland, 52.50, 112.704, 790 m. Lots of mosquitoes.

- 19B June 2005 – UV, S-facing hillside with *Stipa/Koeleria* grassland, 52.498, 112.700, 819 m. Lots of mosquitoes.
- 13A May 2006 – UV, saskatoon/silverwillow/aspens, top of hill, beside pipeline, 52.49649, 112.70078, 804 m.
- 13B May 2006 – UV, buckbrush/aspens, 400 yards in from east gate, 52.49396, 112.69505, 822 m.
- 24A May 2006 – UV, saskatoon/silverwillow/aspens, top of hill, near pipeline, 52.49649, 112.70078, 804 m.
- 24B May 2006 – UV, silverwillow/buckbrush/pussytoes, 500 yards in from east gate, 52.49364, 112.69632, 811 m.
- 24C May 2006 – UV, aspens/buckbrush, 400 yards in from east gate, 52.49396, 112.69505, 822 m.
- 24A June 2006 – UV, saskatoon/silverwillow/aspens, top of hill, near pipeline, 52.49649, 112.70078, 804 m.
- 24B June 2006 – UV, silverwillow/buckbrush/pussytoes, 500 yards in from east gate, 52.49364, 112.69632, 811 m.
- 24C June 2006 – UV, aspens/buckbrush, 400 yards in from east gate, 52.49396, 112.69505, 822 m.
- 13A July 2006 – UV, aspens/buckbrush, 400 yards in from east gate, 52.49396, 112.69505, 822 m.
- 13B July 2006 – UV, fescue/buckbrush, near highway, beside access trail, 52.493, 112.693, 814 m.
- 3A August 2006 – UV, silverwillow/buckbrush/pussytoes, 500 yards in from east gate, 52.49364, 112.69632, 811 m. Traps set up on Buffalo Lake Naturalist's Field trip.
- 3B August 2006 – UV, aspens/buckbrush, 400 yards in from east gate, 52.49396, 112.69505, 822 m. Traps set up on Buffalo Lake Naturalist's Field trip.
- 3C August 2006 – UV, fescue/buckbrush, near highway, beside access trail, 52.493, 112.693, 814 m. Traps set up on Buffalo Lake Naturalist's Field trip.
- 16A August 2006 – UV, ACA quarter, near SW gate, *Artemisia*/buckbrush grassland, 52.49850, 112.70237, 789 m.
- 16B August 2006 – UV, silverwillow/buckbrush/pussytoes, 500 yards in from east gate, 52.49364, 112.69632, 811 m.
- 16C August 2006 – UV, aspens/buckbrush, 400 yards in from east gate, 52.49396, 112.69505, 822 m.