

LEPIDOPTERA OF THE TOLMAN BRIDGE AREA, ALBERTA, 2000-2011

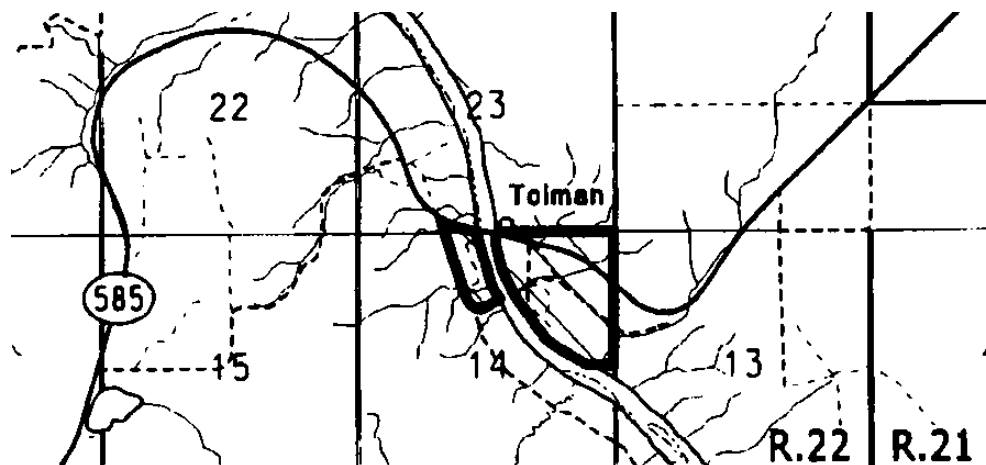
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The present paper includes a number of redeterminations and additions to the information in earlier reports. It also follows the up-to-date order and taxonomy of Pohl et al. (2010), rather than that of Hodges et al. (1983).



Brian Scholtens, Greg Pohl and Jean-François Landry collecting moths at a sheet illuminated by a mercury vapor (MV) light, Tolman Bridge, 24 July 2003, during the 2003 Olds meetings of the Lepidopterist's Society (C.D. Bird image).

Tolman Bridge, is located in the valley of the Red Deer River, 18 km (10 miles) east of the town of Trochu. The bridge and adjoining Park land are in the north half of section 14, range 22, township 34, west of the Fourth Meridian. The coordinates at the bridge are 51.503N and 113.009W. The elevation ranges from around 600 m at the river to 800 m or so near the top of the river breaks. In a Natural Area Inspection Report dated 25 June 1982 and in the 1989 Trochu 82 P/14, 1:50,000 topographic map, the land southwest of the bridge was designated as the "Tolman Bridge Municipal Park" while that southeast of the bridge was referred to as the "Tolman Bridge Recreation Area". In an Alberta, Department of the Environment, Parks and Protected Areas Division paper dated 9 May 2000, the areas on both sides of the river are included in "Dry Island Buffalo Jump Provincial Park". Campgrounds are found in both areas and they are patrolled by a Conservation Officer stationed in Drumheller.



Map showing land owned by the Province of Alberta on the east and west sides of the Red Deer River, being connected by Tolman Bridge.

Ecologically, the Tolman Bridge area is located in the “Tolman Badlands” and is between the Northern Fescue Subregion of the Grassland Natural Region and the Central Subregion of the Parkland Natural Region. A riverine community with balsam poplar, willows, chokecherry and various shrubs is found close to the river. The river flats have a mixture of *Koeleria cristata* and *Agropyron-Stipa* grasslands along with *Artemisia cana* in depositional areas. The Fragile Prickly Pear cactus, *Opuntia fragilis*, is common in the flats. A number of steep-sided ravines run through the flats and connect the riverine communities with those of the river breaks. North-facing exposures of the breaks have a dense growth of aspen, saskatoon, rose and juniper. South-facing slopes have a grassland community with *Bouteloua gracilis* and *Koeleria cristata* being common.

The varied terrain and numerous habitats allow the presence of numerous species of plants, insects, birds and mammals. The area has, therefore, been a popular place, not only for campers, picnickers, fishermen and photographers, but also for birders, those interested in various insect groups, and naturalists in general.

A 2003 report by Bird and Mengersen brought together much of what had been learned about the Lepidoptera (moths and butterflies) of the area up to the end of 2002. Reports by Bird (2004 and 2005) added information gathered in 2003 and 2004. **The present report incorporates all of the information found in the earlier ones, corrects some identifications found in the earlier reports, and adds information from recently identified unknowns from previous years.** Additional species may have been collected or observed by others and it is hoped that some of this information will surface and can be added to a future report. This report is still very much a “work in progress”. Future work will result in the addition of further species through collecting and through identifications of undetermined species in difficult and poorly known groups. Also, some identifications may still need to be revised.

A Letter of Authority to allow the collecting of specimens in the Tolman Bridge area was issued to cover the years 2001, 2002, 2003 and 2004. The following personal collections were made in the area: 2000 – May 19, May 21, June 22, September 13; 2002 – August 9, August 24, September 6; 2003 – July 23, July 24, August 24; 2005 – May 4.

Because of its species richness and good camping facilities, Tolman Bridge has long been a “hot spot” for entomologists to visit.



Entomologists Gary Anweiler, Dave Lawrie, Chris Schmidt and Ernest Mengersen on an outing to Tolman Bridge, May 18, 2000 (C.D. Bird image).

SPECIMEN DISPOSITION

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

THE FOLLOWING CHECKLIST

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

Kenneth Bowman's (1951) list of the Lepidoptera of Alberta presented all species known up to that time. That list recorded the known distribution of the various species. Numerous species were recorded in some areas, such as Edmonton, but other areas, such as the one that included Tolman Bridge had few species. The present report, and work being done in neighbouring areas, will help fill in that gap.

Species are followed by collection dates arranged in chronological order. The majority of moths were collected at night, theoretically over a two day period. Initials of the collectors are

as follows: GGA = Gary Anweiler, CDB = Charles Bird, BL = Bernard Landry, DL = Dave Lawrie, DM = Doug Macaulay, EM = Ernest Mengersen, EMP = Ted Pike, GP = Greg Pohl, BCS = Chris Schmidt, BS = Brian Scholtens, FS = Felix Sperling, and AW = Andrew Warren et al. An SR abbreviation refers to a sight record or release. The abbreviations BCSC, BIRD, GGAC, OLDS, POHL and UASM refer to specimens being housed in the Schmidt, Bird, Gary Anweiler, OLDS, Pohl and Strickland Museum collections.

TINEIDAE – Fungus Moths

Tineidae, Tineinae

44. *Tinea irrepta* Braun (399. *Tinea irrepta* Braun) – 3-VII-2002 1 CDB BIRD and 24B-VII-2003 1 CDB BIRD.

ACROLOPHIDAE – Tube Moths

54. *Amydria effrentella* Clem. (334. *Amydria effrentella* Clem.) – 9-VIII-2002 2 CDB BIRD and 24-VIII-2002 3 CDB BIRD.

GRACILLARIIDAE – Gracilariid Moths

Gracillariidae, Lithocolletinae

85. *Phyllonorycter* prob. *apparella* (H.-S.) (798. *Phyllonorycter* prob. *tremuloidella* (Braun)) – 9-V-2000 1 CDB BIRD.

YPSOLOPHIDAE – Falcate-winged Moths

Ypsolophidae, Ypsolophinae

104. *Ypsolopha canariella* (Wlsm.) (2371. *Ypsolopha canariella* (Wlsm.) (Canary Ypsolopha Moth) – 24-VIII-2002 1 CDB BIRD and 11-VIII-2004 1 GGA UASM.
 106. *Ypsolopha dentiferella* (Wlsm.) (2376. *Ypsolopha dentiferella* (Wlsm.)) – 9-VIII-2002 1 CDB BIRD.
 108. *Ypsolopha falciferella* (Wlsm.) (2380. *Ypsolopha falciferella* (Wlsm.)) – 4B-V-2005 1 CDB BIRD.

PLUTELLIDAE – Plutellid Moths

114. *Plutella xylostella* (L.) (2366. *Plutella xylostella* (L.)) – 23/24-VIII-2001 1 EM BIRD, 24A-VIII-2003 1 CDB BIRD, 4A-V-2005 1 CDB BIRD and 4B-V-2005 1 CDB BIRD.

ELACHISTIDAE – Concealer Moths

Elachistidae, Depressariinae

151. *Depressaria atrostrigella* Clarke (918. *Depressaria atrostrigella* Clarke) – 24A-VIII-2003 1 CDB, BIRD and 24B-VIII-2003 1 CDB, BIRD.

153. *Depressaria pastinacella* (Dup.) (922. *Depressaria pastinacella* (Dup.)) (Parsnip Webworm Moth) – 24B-VIII-2003 1 CDB BIRD.

GLYPHIDOCERIDAE – Glyphidocerid Moths

189. *Glyphidocera hurlberti* Adamski (Not in Hodges) – 27A-VI-2003 1. This species was described by Adamski in 2000.

COLEOPHORIDAE – Coleophorid Moths

Coleophoridae, Blastobasinae

Species in this group are still very poorly known and many are undescribed. Dr. David Adamski is monographing the group for the Moths of North America series.

Hypatopa sp. – 23/24-VII-2003 BL.

Coleophoridae, Coleophorinae

Coleophora spp. – 22-VI-2001 1 CDB BIRD, 9-VIII-2002 1 CDB BIRD and 24-VIII-2002 2 CDB BIRD.

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 species that remain to be described.

222. *Coleophora trifolii* (Curt.) (1388. *Coleophora trifolii* (Curt.)) – 8/9-VII-2001 2 EM BIRD, 9-VIII-2002 1 CDB BIRD, 23/24-VII-2003 BL.

Coleophoridae, Momphinae

Not in Pohl et al. *Pigritia murtfeldtella* (Cham.) (1448. *Mompha murtfeldtella* (Cham.)) – 24-VIII-2002 1 CDB BIRD, west side. Determined by David Adamski, this was listed as Blastobasidae indet. In previous reports. Reported as new for Alberta in Pohl et al 2011.

COSMOPTERYGIDAE – Cosmet Moths

Cosmopterigidae, Cosmopteriginae

241. *Lymnaecia phragmitella* Staint. (1515. *Lymnaecia phragmitella* Staint.) (Shy Cosmet Moth) – 9-VIII-2002 1 CDB BIRD.

Cosmopterigidae, Chrysopeliinae

242. *Walshia miscecolorella* (Cham.) (1615. *Walshia miscecolorella* (Cham.)) – 4/5-VI-2000 1 EM OLDS, 3/4-VII-2000 1 EM OLDS, 23/24-VI-2002 1 EM OLDS and 23/24-VII-2003 BL.

GELECHIIDAE – Gelechiid Moths

Species unknown – 9-VIII-2002 7 CDB BIRD, 24-VIII-2002 1 CDB BIRD and 4B-V-2005 2 CDB BIRD.
Little is known about many of the species in this family and it may be many years before some of these specimens are determined or described.

Gelechiidae, Gelechiinae, Anomologini

251. *Aristotelia rubidella* (Clem.) (1762. *Aristotelia rubidella* (Clem.)) – 24-VIII-2002 1 CDB BIRD.

Gelechiidae, Gelechiinae, Litini

256. *Coleotechnites blastovora* McLeod (1796. *Coleotechnites blastovora* McLeod) – 4A-V-2005 5 CDB BIRD and 4B-V-2005 4 CDB BIRD.

Gelechiidae, Gelechiinae, Gelechiini

271. *Lita variabilis* (Bsk.) (1902. *Lita variabilis* (Bsk.)) – 24-VIII-2002 2 CDB BIRD and 24B-VIII-2003 2 CDB BIRD.

317. *Filatima abactella* (Clarke) (2127. *Filatima abactella* (Clarke)) – 22-VI-2000 1 CDB BIRD.
Aroga sp. nr. *paraplutella* – 23/24-VII-2003 BL. This is an undescribed species according to Dr. Jean-François Landry.

Gelechiidae, Gelechiinae, Anacampsini

351. *Anacampsis niveopulvella* (Cham.) (2243. *Anacampsis niveopulvella* (Cham.)) – 24A-VIII-2003 1 CDB BIRD.

Gelechiidae, Dichomeridinae

354. *Helcystogramma fernaldella* (Bsk.) (2267. *Brachmia fernaldella* (Bsk.)) – 19-V-2000 1 CDB BIRD.

SESIIDAE – Wasp Moths

Sesiidae, Sesiinae, Sesiini

372. *Sesia tibiale* (Harer.) (2543. *Sesia tibialis* (Harr.)) (Cottonwood Crown Borer) – 11-VIII-2004 1 GGA UASM.

Sesiidae, Sesiinae, Synanthedoninae

385. *Synanthedon proxima* (Edw.) (2572. *Synanthedon proxima* (Hy. Edw.)) – 1-VII-2001 4 (pheromone trap) GGA BIRD.

COSSIDAE – Carpenterworm Moths

392. *Acosus populi* (Wlk.) (2676. *Acosus populi* (Wlk.)) (Aspen Carpenterworm Moth) – 23/24-VIII-1999 1 EM OLDS, 8/9-VII-2001 1 EM OLDS and 4-VIII-2001 1 GGA UASM.

TORTRICIDAE – Tortricid or Bell Moths**Tortricidae, Tortricinae, Tortricini**

403. *Acleris albicomana* (Clem.) (3502. *Croesia albicomana* (Clem.)) – 3/4-VII-2000 1 EM OLDS and 8/9-VII-2001 3 EM BIRD.
412. *Acleris semiannula* (Rob.) (3521. *Acleris semiannula* (Rob.)) – 24B-VIII-2003 1? CDB BIRD.
422. *Acleris robinsoniana* (Fbs.) (3536. *Acleris robinsoniana* (Fbs.)) – 24A-VIII-2003 2 CDB BIRD.
439. *Acleris hudsoniana* (Wlk.) complex (3561. *Acleris hudsoniana* (Wlk.) complex) – 4B-V-2005 1 CDB BIRD.

Tortricidae, Tortricinae, Cochylini

448. *Phtheochroa waracana* (Kft.) (3796. *Phtheochroa waracana* (Kft.)) – 9-VIII-2002 1 CDB BIRD.

Tortricidae, Tortricinae, Cnephasiini

469. *Decodes hororiana* (Wlsm.) 3580. *Decodes hororianus* (Wlsm.) – 6-IX-2002 1 CDB BIRD.

Tortricidae, Tortricinae, Archipini

472. *Pandemis canadana* Kft. (3595. *Pandemis canadana* Kft.) (Green Aspen Leaf-tier) – 24B-VII-2003 1 CDB BIRD and 23/24-VII-2003 BL.
486. *Choristoneura fumiferana* (Clem.) (3638. *Choristoneura fumiferana* (Clem.)) (Spruce Budworm) – 23/24-VII-2003 BL.
495. *Archips argyrospila* (Wlk.) 3648. *Archips argyrospila* (Wlk.) (Fruit Tree Leafroller) – 3/4-VII-2000 1 EM OLDS.
504. *Aphelia alleniana* (Fern.) (3675. *Aphelia alleniana* (Fern.)) – 3/4-VII-2000 1 EM OLDS.
508. *Clepsis persicana* (Fitch) (3682. *Clepsis persicana* (Fitch)) (White Triangle Tortrix, White Triangle Leafroller) – 22-VI-2000 1 CDB BIRD.
509. *Clepsis clemensiana* (Fern.) (3684. *Clepsis clemensiana* (Fern.)) (Clemen's Clepsis Moth) – 15/16-VIII-1999 1 EM OLDS and 22-VI-2000 1 CDB BIRD.
512. *Ptycholoma peritana* (Clem.) (3688. *Ptycholoma peritana* (Clem.)) (Garden Tortrix) – 24B-VII-2003 1 CDB BIRD.

Tortricidae, Tortricinae, Sparganothidini

516. *Sparganothis sulfureana* (Clem.) (3695. *Sparganothis sulfureana* (Clem.)) (Sparganothis Fruitworm Moth) – 3/4-VIII-2000 1 EM OLDS.
520. *Sparganothis unifasciana* (Clem.) (3711. *Sparganothis unifasciana* (Clem.)) (One-lined Sparganothis Moth) – 3/4-VII-2000 1 EM BIRD.
521. *Sparganothis vocaridorsana* Kft. (3712. *Sparganothis vocaridorsana* Kft.) – 12/13-VI-2000 1 EM OLDS and 22-VI-2000 1 CDB BIRD.
522. *Sparganothis reticulatana* (Clem.) (3720. *Sparganothis reticulatana* (Clem.)) (Reticulated Fruitworm Moth) – 24B-VII-2003 2 CDB BIRD.

Tortricidae, Olethreutinae, Endotheniini

533. *Endothenia nubilana* (Clem.) (2743. *Endothenia quadrimaculana nubilana* (Clem.)) – 9-VIII-2002 1.

537. *Bactra furfurana* (Haw.) (2706. *Bactra furfurana* (Haw.)) – 23/24-VIII-2001 1 EM OLDS.

Tortricidae, Olethreutinae, Olethreutini

556. *Pseudosciaphila duplex* (Wlsm.) (2769. *Pseudosciaphila duplex* (Wlsm.)) (Spotted Aspen Leafroller, Poplar Leafroller Moth) – 3-VII-2000 1 EM OLDS.

557. *Orthotaenia undulana* (D. & S.) (2770. *Orthotaenia undulana* (D. & S.)) (Dusky Leafroller Moth) – 22-VI-2000 1 CDB BIRD, 22-VI-2000 1 EM OLDS, 3-VII-2000 1 EM OLDS and 3-VII-2001 1 EM OLDS.

Olethreutes spp. – 12/13-VI-2000 1 EM OLDS, 22-VI-2000 2 CDB BIRD, 6/7-VI-2001 1 EM OLDS, 13/14-VI-2002 1 EM OLDS and 9-VIII-2002 3 CDB BIRD.

582. *Celypha cespitana* (Hbn.) (2859. *Olethreutes cespitana* (Hbn.)) (Celypha Moth) – 23/24-VII-2003 BL.

584. *Hedya ochroleucana* (Frölich) (2861. *Hedya ochroleucana* (Frölich)) – 3/4-VII-2000 1 EM OLDS and 3/4-VII-2001 1 EM OLDS.

585. *Hedya nubiferana* (Haw.) (2862. *Hedya nubiferana* (Haw.)) (Marbled Orchard Tortrix Moth) – 9-VIII-2002 1 and 24B-VII-2003 1.

Tortricidae, Olethreutinae, Enarmoniini

600. *Ancylis unguicella* (L.) (3382. *Ancylis unguicella* (L.)) – 13/14-VI-2002 1 EM OLDS.

604. *Hystrichophora stygiana* (Dyar) (3391. *Hystrichophora stygiana* (Dyar)) – 9-VIII-2002 1 CDB BIRD.

Tortricidae, Olethreutinae, Eucosmini

Phaneta sp. – 23/24-VII-2003 BL.

636. *Phaneta tarandana* (Mösch.) (2956. *Phaneta tarandana* (Mösch.)) – 11/12-VIII-2004 1 GGA UASM.

642. *Phaneta crassana* (McD.) (2966. *Phaneta crassana* (McD.)) – 19-V-2000 1 CDB BIRD.

650. *Phaneta infimbriana* (Dyar) (2985. *Phaneta infimbriana* (Dyar)) – 24-VIII-2002 1 CDB BIRD.

651. *Phaneta octopunctana* (Wlsm.) (2986. *Phaneta octopunctana* (Wlsm.)) – 8/9-VII-2001 2 EM BIRD.

Eucosma sp. – 9-VIII-2002 2 CDB BIRD.

Eucosma n. sp. 2 – 24B-VIII-2003 1 CDB BIRD. This is an undescribed species according to Dr. Don Wright.

660. *Eucosma serpentana* (Wlsm.) (3031. *Eucosma serpentana* (Wlsm.)) – 9-VIII-2002 7 CDB BIRD, 24-VIII-2002 2 CDB BIRD, 23-VII-2003 1 CDB BIRD and 23/24-VII-2003 BL.

664. *Eucosma agricolana* (Wlsm.) (3037. *Eucosma agricolana* (Wlsm.)) – 19-V-2001 1 CDB BIRD.

683. *Eucosma dorsisignatana* (Clem.) (3116. *Eucosma dorsisignatana* (Clem.)) (Diamond-backed Eucosma Moth) – 20/21-VIII-2001 1 EM OLDS and 23/24-VIII-2001 1 EM OLDS.

692. *Eucosma cataclystiana* (Wlk.) (3142. *Eucosma cataclystiana* (Wlk.)) (Solidago Eucosma Moth) – 9-VIII-2002 1 CDB BIRD.

696. *Pelochrista scintillana* (Clem.) (3151a. *Pelochrista scintillana* (Clem.)) – 3/4-VII-2000 1 EM OLDS.

700. *Epiblema abruptana* (Kft.) (3173. *Epiblema abruptana* (Kft.)) – 23/24-VII-2003? BL.

710. *Gypsonoma fasciolana* (Clem.) (3223. *Gypsonoma fasciolana* (Clem.)) – 9-VIII-2002 1 CDB BIRD.
740. *Epinotia nisella* Cl. (3306. *Epinotia nisella* Cl.) (Variable Tortrix Moth, Poplar Branchlet Borer Moth, Yellow-headed Aspen Leaf-tier) – 24B-VII-2003 6 CDB BIRD and 24A-VIII-2003 2 CDB BIRD. *Epinotia nisella* Cl. form – 24-VII-2003 1 CDB BIRD.
741. *Epinotia criddleana* Kft. (3307. *Epinotia criddleana* Kft.) – 23/24-VI-2002 1 EM OLDS.
753. *Epinotia lomonana* (Kft.) (3342. *Epinotia lomonana* (Kft.)) – 23/24-VIII-2001 1 EM OLDS.
757. *Epinotia lindana* (Fern.) (3351. *Epinotia lindana* (Fern.)) (Diamondback Epinotia Moth) – 16/17-IX-2000 1 EM OLDS, 24A-VIII-2003 4 CDB BIRD and 24B-VIII-2003 1 CDB BIRD.

ALUCITIDAE – Many-plume Moths

793. *Alucita adriendenisi* B. Landry & J.-F. Landry (2313 *Alucita hexadactyla* (L.)) – 13/14-VI-2002 1 EM OLDS and 9-VIII-2002 1 CDB BIRD. 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.

PTEROPHORIDAE – Plume Moths

Pterophoridae, Pterophorinae, Platyptiliini

800. *Gillmeria pallidactyla* (Haw.) (6107. *Gillmeria pallidactyla* (Haw.)) – 12-VI-2000 1 DM UASM and 19-VI-2000 1 DM UASM.

Pterophoridae, Pterophorinae, Oxyptilini

818. *Dejongia lobidactyla* (Fitch) (6102. *Trichoptilus lobidactyla* (Fitch)) – 3/4-VII-2000 1 EM OLDS.

PYRALIDAE – Pyralid Moths

Pyralidae, Pyralinae, Pyralini

- Not in Pohl et al. *Aglossa* new sp. Originally thought to be *Achyra bifidalis* (F.) (4974. *Achyra bifidalis* (F.)) – 9-VIII-2002 1 CDB BIRD. This has turned out to belong to an undescribed Pyralid which Dr. Alma Solis thinks may be in the genus *Aglossa*.
852. *Aglossa cuprina* Zell. (5518. *Aglossa cuprina* Zell.) (Grease Moth) – 9-VIII-2002 1 CDB BIRD. Tentatively identified by Brian Scholtens. Confirmed by Charles Bird on the basis of specimens in the Canadian National Collection. This is a first for Alberta.

Pyralidae, Epipaschiinae

856. *Toripalpus trabalis* Grt. (5585. *Jocara trabalis* Grt.) (Jocara Moth) – 8/9-VII-2001 1 EM OLDS.

Pyralidae, Phycitinae, Phycitini

861. *Acrobasis tricolorella* Grt. (5655. *Acrobasis tricolorella* Grt.) (Tricolored Acrobasis Moth, Destructive Prune Worm) – 21/22-VII-1999 1 EM OLDS and 3/4-VII-2001 1 EM OLDS.

863. *Myelopsis minutularia* (Hulst) (5719. *Myelopsis coniellea* (Rag.)) – 24A-VIII-2003 1 CDB BIRD, 23-24-VII-2003 BL and 24-VII-2003 1 BS.
864. *Myelopsis subtetricella* (Rag.) (5718. *Myelopsis subtetricella* (Rag.)) – 3/4-VII-2000 1 EM OLDS, 18/19-VI-2001 1 EM OLDS, 9-VIII-2002 CDB BIRD and 24-VIII-2002 CDB BIRD.
- Pima* spp. – 13/14-VI-2002 1 EM OLDS and 9-VIII-2002 CDB BIRD. These are *Pima boisduvaliella* (Gn.), or *P. fulvirugella* (Rag.). Though there are some general features that separate these two species, examination of the female genitalia is necessary to tell them apart (Neunzig 2003).
881. *Pima fulvirugella* (Rag.) (5751. *Pima fulvirugella* (Rag.)) – 4/5-VI-2000 1 EM OLDS, 12/13-VI-2000 1 EM OLDS and 3/4-VII-2000 1 EM OLDS. Neunzig made *P. vividella* a synonym of *P. fulvirugella*. 5749. *Pima vividella* (McD.) – 12/13-VI-2000 1 EM OLDS, 23/24-VI-2000 1 EM OLDS and 8/9-VII-2001 EM BIRD.
884. *Interjectio niviella* (Hulst) (5758. *Interjectio niviella* (Hulst)) – 8/9-VII-2002 1 EM BIRD.
885. *Ambesa laetella* Grt. (5759. *Ambesa laetella* Grt.) – 21/22-VII-1999 1 EM OLDS and 23/24-VII-2003 BL.
891. *Sciota basilaris* (Zell.) (5799. *Nephopterix basilaris* Zell.) – 22/23-VII-1999 1 EM OLDS, 18/19-VI-2000 1 EM OLDS, 27/28-V-2001 1 EM OLDS, 6/7-VI-2001 1 EM OLDS and 8/9-VII-2002 1 EM BIRD.
901. *Pyla aenigmatica* Heinr. (5827. *Pyla aenigmatica* Heinr.) – 9-VIII-2002 CDB BIRD.
903. *Pyla fusca* (Haw.) (5829. *Pyla fusca* (Haw.)) (Speckled Black Pyla Moth) – 23/24-VIII-2001 1 EM BIRD, 9-VIII-2002 CDB BIRD and 24-VIII-2002 CDB BIRD.
907. *Dioryctria reniculelloides* Mut. & Mun. (5843. *Dioryctria reniculelloides* Mutuura & Mun.) (Spruce Coneworm Moth) – 9-VIII-2002 3 and 24-VIII-2002 CDB BIRD. Determined by Amanda Roe.
915. *Lipographis fenestrella* (Pack.) (5886. *Lipographis fenestrella* (Pack.)) – 24-VIII-2002 1 CDB BIRD. Described as new to Alberta from this and other areas in Pohl et al. (2005).
918. *Hulstia undulatella* (Clem.) (5918. *Hulstia undulatella* (Clem.)) (Sugarbeet Crown Borer Moth) – 30/31-VII-2000 1 EM OLDS, 27/28-V-2001 1 EM OLDS, 23/24-VIII-2001 1 EM BIRD and 24-VIII-2002 CDB BIRD.
921. *Melitara dentata* (Grt.) (5971. *Melitara dentata* (Grt.)) – 3/4-VIII-2000 1 EM OLDS, 5-VIII-2001 1 GGA UASM, 3/4-IX-2001 1 EM OLDS, 9-VIII-2002 CDB BIRD and 24-VIII-2002 CDB BIRD.
928. *Phycitoides mucidella* (Rag.) (5946. *Phycitoides mucidella* (Rag.)) – 24-VIII-2002 2 CDB BIRD.

Pyralidae, Phycitinae, Anerastiini

930. *Anerastia lotella* (Hbn.) (6038. *Anerastia lotella* (Hbn.)) – 3/4-VII-2000 1 EM OLDS and 23/24-VIII-2001 1 EM OLDS.

Pyralidae, Phycitinae, Peoriini

933. *Peoria approximella* (Wlk.) (6053. *Peoria approximella* (Wlk.)) (Carmine Snout Moth) – 3/4-VII-2000 1 EM OLDS, 8-VII-2001 CDB BIRD and 23/24-VIII-2001 1 EM OLDS.

CRAMBIDAE - Snout Moths

Crambidae, Scopariinae

934. *Gesneria centuriella* (D. & S.) (4703. *Gesneria centuriella* (D. & S.)) – 23/24-VIII-1999 1 EM OLDS.
935. *Scoparia biplagiata* (Wlk.) (4716. *Scoparia biplagiata* (Wlk.)) (Double-striped Scoparia Moth) – 20/21-VIII-2001 1 EM OLDS, 9-VIII-2002 2 CDB BIRD, 24-VIII-2002 1 CDB BIRD, 24B-VII-2003 1 CDB BIRD, 23/24-VII-2003 BL and 24-VII-2003 4 BS.

Crambidae, Crambinae, Crambini

942. *Euchromius californicalis* (Pack.) (5455. *Euchromius californicalis* (Pack.)) (California Grass-veener Moth) – 3/4-VII-2000 1 EM OLDS.
946. *Catoptria latiradiellus* (Wlk.) (5408. *Catoptria latiradiella* (Wlk.)) – 5/6-VIII-1999 1 EM OLDS, 15/16-VIII-1999 1 EM OLDS, 9-VIII-2002 CDB BIRD, 10-VIII-2002 1 GGAC NFRC, 23/24-VII-2003 BL and 24-VII-2003 1 BS.
948. *Chrysoteuchia topiarius* (Zell.) (5391. *Chrysoteuchia topiaria* (Zell.)) (Cranberry Girdler, Topiary Grass-veener Moth) – 22-VI-2000 CDB BIRD, 3/4-VII-2000 1 EM BIRD and 23/24-VII-2003 BL.
953. *Crambus perlella* (Scop.) (5343a. *Crambus perlellus innotatellus* Wlk.) (Immaculate Grass-veener Moth) – 3/4-VII-2000 1 EM BIRD, 8/9-VII-2001 3 EM BIRD and 9-VIII-2002 2 CDB BIRD.
955. *Crambus whitmerellus browni* Klots (5345a. *Crambus whitmerellus browni* Klots) – 12/13-VI-2000 1 EM OLDS and 22-VI-2000 6 CDB BIRD.
959. *Crambus ainsliellus* Klots or 961. *Crambus leachellus* (Zinck.) (5354. *Crambus ainsliellus* Klots or 5357. *Crambus leachellus* (Zinck.)) – 3/4-VIII-2000 1 EM OLDS and 23/24-VIII-2001 1 EM BIRD.
964. *Rhaphiptera argillaceellus* (Pack.) (5393. *Rhaphiptera argillaceella* (Pack.)) – 24-VII-2003 1 BS. One specimen was collected at a MV sheet by Dr. Brian Scholtens on the night of the Lepidopterist's Society "Mothing" on the east side of the Tolman Bridge Recreation Area. The specimen is in his collection. Brian is familiar with the species and is certain of the determination. This is a most unusual collection as the species is ordinarily associated with bogs.
967. *Agriphila ruricolellus* (Zell.) (5399. *Agriphila ruricolella* (Zell.)) (Lesser Vagabond Sod Webworm Moth) – 22-VI-2000 CDB BIRD, 10-VIII-2002 1 GGAC NFRC, 23/24-VII-2003 BL, 24B-VII-2003 1 CDB BIRD and 24B-VIII-2003 1 CDB BIRD.
969. *Agriphila attenuatus* (Grote) (5404. *Agriphila attenuata* (Grote)) – 24B-VIII-2003 2 CDB BIRD. Not previously known from Alberta.
970. *Neodactria luteolellus* Clem. (5379. *Neodactria luteolellus* Clem.) (Mottled Grass-veener Moth) – 15-VI-2002 1 GGAC NFRC.
- Pediasia* sp. – 9-VIII-2002 5 and 23-VII-2003 2 CDB BIRD. These could be *Pediasia aridella edmontella*, *Pediasia laciniella*, or *Pediasia ericellus*.
976. *Pediasia trisecta* (Wlk.) (5413. *Pediasia trisecta* (Wlk.)) (Sod Webworm Moth) – 23/24-VIII-2001 1 EM BIRD, 9-VIII-2002 CDB BIRD and 24B-VIII-2003 4 CDB BIRD.
978. *Pediasia ericellus* (B. & McD.) (5415. *Pediasia ericella* (B. & McD.)) – 5-VIII-2002 1, 23-VII-2003 2 and 24B-VIII-2003 1.
979. *Pediasia abnaki* (Klots) (5416. *Pediasia abnaki* (Klots)) – 3-VII-2000 3 EM OLDS. Reported as new for Alberta from this and other localities in Pohl et al. (2005).
980. *Pediasia dorsipunctellus* (Kft.) (5417. *Pediasia dorsipunctella* (Kft.)) – 9-VIII-2002 CDB BIRD, 10-VIII-2002 1 GGAC NFRC, 24-VIII-2002 CDB BIRD and 24-VII-2003 2 BS.

984. *Thaumatopsis fernaldella nortella* Kft.) (5441a. *Thaumatopsis fernaldella nortella* Kft.) – 8/9-VII-2001 1 EM BIRD, 9-VIII-2002 CDB BIRD and 23/24-VII-2003 BL.

Crambidae, Schoenobiinae

985. *Donacaula melinellus* (Clem.) 5316. *Donacaula melinella* (Clem.) (Delightful Donacaula Moth) – 22/23-VII-1999 1 EM OLDS, 3/4-VII-2000 1 EM OLDS, 8/9-VII-2001 1 EM OLDS and 9-VIII-2002 1 CDB BIRD. The BIRD specimen and the next have been sent for study by Edda Martinez at the Mississippi Entomological Museum as she is monographing the North American species of the genus.
986. *Donacaula longirostellus* (Clem.) (5319. *Donacaula longirostellus* (Clem.)) – 3/4-VII-2001 1 EM OLDS.

Crambidae, Acentropinae, Acentropini

987. *Acentria ephemerella* (Dernis & Schiff.) (5299. *Acentria nivea* (Olivier) – 24A-VIII-2003 1 CDB BIRD. Reported as new to Alberta from this and other areas in Pohl et al. (2005)

Crambidae, Acentropinae, Argyractini

991. *Petrophila kearfottalis* (B. & McD.) (4773. *Petrophila kearfottalis* (B. & McD.)) – 5/6-VIII-1999 1 EM OLDS, 16/17-VIII-1999 1 EM OLDS, 3/4-VII-2000 1 EM OLDS, 8/9-VII-2001 4 CDB BIRD, 23/24-VII-2003 BL and 24-VII-2003 6 BS.

Crambidae, Pyraustinae, Pyraustini

1012. *Perispasta caeculalis* Zell. (4951. *Perispasta caeculalis* Zell.) (Titian Peale's Pyralid Moth) – 23/24-VI-2002 1 EM OLDS.
1018. *Sitochroa chortalis* (Grt.) (4987. *Sitochroa chortalis* (Grt.)) – 21-VI-2000 2 CDB BIRD, 3/4-VII-2000 1 EM OLDS, 3/4-VII-2001 1 EM OLDS, 23/24-VI-2002 1 EM OLDS and 9-VIII-2002 2 CDB BIRD.
1021. *Loxostege sticticalis* (L.) (5004. *Loxostege sticticalis* (L.)) (Beet Webworm) – 3/4-VII-2000 2 EM BIRD, 9-VIII-2002 CDB BIRD, 23/24-VIII-2002 2 EM BIRD and 24A-VIII-2003 1 CDB BIRD.
1025. *Loxostege cerealalis* (Zell.) (5017. *Loxostege cerealalis* (Zell.)) (Alfalfa Webworm) – 23/24-VIII-1999 1 EM OLDS and 3/4-VII-2000 1 EM BIRD.
1034. *Pyrausta unifascialis* (Pack.) (5068. *Pyrausta unifascialis* (Pack.)) (Pussytoes Pyrausta Moth) – 22-VI-2000 1 CDB BIRD and 3/4-VII-2000 1 EM OLDS.
1035. *Pyrausta fodinalis* (Led.) (5074. *Pyrausta fodinalis* (Led.)) – 3/4-VII-2000 2 EM BIRD, 8/9-VII-2001 3 EM BIRD, 23/24-VIII-2001 1 EM BIRD and 9-VIII-2002 1 CDB BIRD.

Crambidae, Pyraustinae, Spilomelini

1045. *Udea itysalis* (Wlk.) (5099. *Udea itysalis* (Wlk.)) – 9-VIII-2002 1 CDB BIRD.
1052. *Mecyna submedialis* (Grt.) (5135. *Mecyna submedialis* (Grt.)) – 8/9-VII-2001 3 EM BIRD, 9-VIII-2002 CDB 1 BIRD, 23/24-VII-2003 BL and 24-VII-2003 1 BS.
1053. *Mecyna mustelinalis* (Pack.) (5137. *Mecyna mustelinalis* (Pack.)) – 3/4-VII-2000 1 EM BIRD and 8/9-VII-2001 1 EM BIRD.

1054. *Nomophila nearctica* (Mun.) (5156. *Nomophila nearctica* (Mun.)) (Lucerne Moth, Celery Stalkworm Moth) – 8/9-VII-2001 1 EM BIRD and 23/24-VIII-2001 1 EM BIRD.

HESPERIIDAE - Skippers

Hesperiidae, Pyrginae, Erynnini

1059. *Erynnis icelus* (Scud. & Burg.) (3945. *Erynnis icelus* (Scud. & Burg.)) (Dreamy Duskywing) – 4-V-2004 BCS.
1060. *Erynnis afranius* (Lint.) (3960. *Erynnis afranius* (Lint.)) (Afranius Duskywing) – 27-VII-2003 AW and 11-VIII-2004 1 GGA UASM.
1061. *Erynnis persius* (Scud.) (3961. *Erynnis persius* (Scudder)) (Persius Duskywing) – 21-V-2000 CDB BIRD.

Hesperiidae, Pyrginae, Pyrgini

1065. *Pyrgus communis* (Grt.) (3966. *Pyrgus communis* (Grt.)) (Checkered Skipper) – 12-VI-1999 EMP, 22-VI-2000 CDB BIRD, 1-VII-2001 BCS BCSC and 27-VII-2003 AW.

Hesperiidae, Hesperinae, Thymelicini

1070. *Oarisma garita* (Reak.) (4007. *Oarisma garita* (Reak.)) (Garita Skipper) – 22-VI-2000 CDB BIRD.

Hesperiidae, Hesperinae, Hesperini

1076. *Hesperia assiniboia* (Lyman) (4020b. *Hesperia comma assiniboia* (Lyman)) (Assiniboine Skipper) – 27-VII-2003 AW and 11-VIII-2004 5 GGA UASM.
1081. *Polites themistocles* (Latr.) (4041. *Polites themistocles* (Latr.)) (Tawny-edged Skipper) – 27-VII-2003 AW.
1082. *Polites mystic* (Edw.) (4043. *Polites mystic* (Edw.)) (Long Dash Skipper) – 27-VII-2003 AW.

PAPILIONIDAE - Swallowtails

Papilionidae, Papilioninae, Papilionini

- 1089c. *Papilio machaon dodi* McD. (4165a. *Papilio oregonius dodi* McD.) (Old World or Artemisia Swallowtail) – 12-VI-1999 EMP, 1-VII-2001 BCS BCSC, 27-VII-2003 AW and 13-VIII-2004 1 GGA UASM. Felix Sperling collected 4, 5th instar larvae at Tolman Bridge on *Artemisia dracunculus* on 30 July 1981; and 1-3rd, 4-4th, and 20-5th instar larvae on 3 Sept 1982. Resulting adults were scored electrophoretically and morphometrically, and used in the Tolman Bridge 1981+1982 sample as part of Figure 15 (p. 237) of Sperling (1987).
1090. *Papilio zelicaon* Lucas (4167. *Papilio zelicaon* Lucas) (Anise Swallowtail) – 1-VII-2001 BCS BCSC.
1091. *Papilio canadensis* Roth. & Jord. (4176a. *Papilio glaucus canadensis* R. & J.) (Canadian Tiger Swallowtail) – 12-VI-1999 EMP.

PIERIDAE – Whites and Sulphurs

Pieridae, Coliadinae

- 1095b. *Colias philodice eriphyle* (Edw.) (4209. *Colias philodice* Godt.) (Clouded Sulphur) – 3-IX-1982 sight record FS, 21-V-2000 CDB BIRD, 27-VII-2003 AW and 4-V-2004 BCS.
1097. *Colias christina* Edw. (4211e. *Colias alexandra christina* Edw.) (Christina Sulphur) – 27-VII-2003 AW.
1098. *Colias alexandra* Edw. (4211. *Colias alexandra* Edw. (Edwards Sulphur) – 27-VII-2003 AW.

Pieridae, Pierinae, Pierini

1114. *Pieris rapae* (L.) (4197. *Pieris rapae* (L.)) (Cabbage Butterfly) – 27-VII-2003 AW and 4-V-2003 BCS.
- 1116a. *Pontia occidentalis* Reak. (4194. *Pontia occidentalis* Reak.) (Western Checkered White) – 1-VII-2001 BCS BCSC, 27-VII-2003 AW and 4-V-2004 BCS.

LYCAENIDAE – Blues and Coppers**Lycaenidae, Lycaeninae, Lycaenini**

1120. *Lycaena dione* (Scud.) (4253a. *Lycaena dione* (Scud.)) (Great Gray Copper) – 27-VII-2003 AW.
1124. *Lycaena hyllus* (Cram.) (4256. *Lycaena hyllus* (Cram.)) (Bronze Copper) – 27-VII-2003 AW.
1127. *Lycaena helloides* (Bdv.) (4262. *Lycaena helloides* (Bdv.)) (Purplish Copper) – 27-VII-2003 AW.

Lycaenidae, Theclinae, Eumaeini

1132. *Harkenclenus titus immaculosus* Clench (4275. *Harkenclenus titus* (F.)) (Coral Hairstreak) – 27-VII-2003 AW.
1133. *Satyrrium liparops* (LeConte) (4285. *Satyrrium liparops* (LeConte)) (Striped Hairstreak) – 1-VII-2001 BCS BCSC and 27-VII-2003 AW.
- 1136b. *Incisalia augustinus iroides* (Bdv.) 4322. *Incisalia augustinus* (Westwood) (Western Elfin) – 4-V-2004 BCS.

Lycaenidae, Polyommatae, Polyommataini

1143. *Celastrina lucia* (Kby.) (4363. *Celastrina ladon* (Cram.)) (Spring Azure) – 4-V-2003 BCS, 1-V-2004 1 GP POHL.
1148. *Glaucopsyche lygdamus afra* (Edw.) (4372a. *Glaucopsyche lygdamus couperi* Grt.) (Silvery Blue) – 12-VI-1999 EMP and 27-VII-2003 AW.
1150. *Plebejus melissa* (Edw.) (4375. *Lycaeides melissa* (Edw.)) (Melissa Blue) – 3-IX-1982 sight record FS, 12-VI-1999 EMP, 22-VI-2000 CDB BIRD, 1-VII-2001 BCS BCSC, 27-VII-2003 AW and 11-VIII-2004 1 GGA UASM.
1151. *Aricia saepiolus amica* (Edw.) (4376. *Plebejus saepiolus* (Bdv.)) (Greenish Blue) – 22-VI-2000 CDB BIRD.
1153. *Aricia shasta minnehaha* (Scud) 4379. *Icaricia shasta* (Edw.) (Shasta Blue) – 1-VII-2001 BCS BCSC.

1154. *Icaricia lupini* (Bdv.) 4380. *Icaricia acmon* (Westwood & Hewitson) (Acmon Blue) – 1-VII-2001 BCS BCSC.

1156c. *Agriades glandon rustica* (Edw.) (4384d. *Agriades franklinii rusticus* (Edw.)) (Rustic Blue) – 13-VI-1999 EMP and 21-VI-2000 CDB BIRD.

NYMPHALIDAE - Fritillaries

Nymphalidae, Danainae, Danaini

1157. *Danaus plexippus* (L.) (4614. *Danaus plexippus* (L.)) (Monarch) – 22-VI-2007 3 sight record by Nora Bryan.

Nymphalidae, Limenitidinae, Limenitidini

1158. *Limenitis arthemis rubrofasciata* (B. & McD.) (4522. *Limenitis arthemis* (Drury)) (White Admiral) – 1-VII-2001 BCS BCSC.

Nymphalidae, Heliconiinae, Argynnini

1162. *Euptoieta claudia* (Cram.) (4447. *Euptoieta claudia* (Cram.)) (Variegated Fritillary) - 3-IX-1982 copulating pair FS, 1-VII-2001 BCS and 27-VII-2003 AW.

1166. *Boloria bellona jenistai* (Stall. & Turn.) (4465b. *Boloria bellona jenistai* Stallings & Turner) (Meadow Fritillary) – 21-V-2000 CDB BIRD.

1174. *Speyeria cybele pseudocarpenteri* (Cherm. & Cherm.) (4450. *Speyeria cybele* (Fabr.)) (Great Spangled Fritillary) – 1-VII-2001 BCS BCSC and 27-VII-2003 AW.

1176b. *Speyeria aphrodite manitoba* (Cherm. & Cherm.) (4451. *Speyeria aphrodite* (F.)) (Aphrodite Fritillary) – 27-VII-2003 AW.

Nymphalidae, Nymphalinae, Nymphalini

1186. *Vanessa cardui* (Cram.) (4435. *Vanessa cardui* (L.)) (Painted Lady) – 1-VII-2001 BCS BCSC.

1189. *Aglais milberti* (Godt.) (4433. *Aglais milberti* (Godt.)) (Milbert's Tortoiseshell) – 1-VII-2002 BCS BCSC and 27-VII-2003 AW.

1194. *Polygonia satyrus* (Edw.) (4422. *Polygonia satyrus* (Edw.)) (Satyr Anglewing) – 10-IV-1999 EMP.

Nymphalidae, Nymphalinae, Melitaeini

1207. *Phyciodes tharos* (Drury) (4481. *Phyciodes tharos* (Drury)) (Pearl Crescent) – 12-VI-1999 EMP, 21-V-2000 CDB BIRD and 27-VII-2003 AW.

1208. *Phyciodes cocyta* (Cram.) (4481. *Phyciodes cocyta* (Cram.)) (Northern Pearl Crescent) – 1-VII-2002 BCS BCSC.

SATYRIDAE – Browns and Alpines

Satyridae, Satyrinae, Satyrini

- 1213a. *Coenonympha inornata benjamini* McD. (4583b. *Coenonympha inornata benjamini* McD.) (Common Ringlet, Inornate Ringlet) – 1-VII-2001 BCS BCSC and 27-VII-2003 AW.
1214. *Cercyonis pegala ino* Hall (4587. *Cercyonis pegala* (Fabr.)) (Common Wood Nymph) – 27-VII-2003 AW.
1218. *Erebia epipsodea* Butl. (4599. *Erebia epipsodea* Butl.) (Common Alpine) – 13-VI-1999 EMP.
1219. *Erebia discoidalis* (Kby.) (4596. *Erebia discoidalis* (Kby.)) (Red-disked Alpine) – 21-V-2000 CDB BIRD.
1228. *Oeneis alberta* (Elwes & Edw.) (4608. *Oeneis alberta* Elwes) (Alberta Arctic) – 4-V-2004 BCS.
1230. *Oeneis uhleri varuna* (Edw.) (4607b. *Oeneis uhleri varuna* (Edw.)) (Uhler's Arctic) – 12-VI-1999 EMP.

DREPANIDAE – Lutestrings and Hooktips

Drepanidae, Thyatirinae, Habrosyninae

1232. *Pseudothyatira cymatophoroides* (Gn.) (6237. *Pseudothyatira cymatophoroides* (Gn.)) (Tufted Thyatirid, Short-cloaked Lutestring) – 3/4-VII-2000 1 EM BIRD and 23/24-VI-2002 1 EM OLDS.

Drepanidae, Thyatirinae, Macrothyatirini

1234. *Ceranemota albertae* Clarke (6248. *Ceranemota albertae* Clarke) (Alberta Lutestring) – 7-IX-2000 GGA GGAC, 9-IX-2000 4 GGA UASM, 23/24-VIII-2001 1 EM OLDS and 6-IX-2002 CDB BIRD.

Drepanidae, Drepaninae, Drepanini

1236. *Drepana arcuata* (Wlk.) (6251. *Drepana arcuata* (Wlk.)) (Arched Hooktip) – 23/24-VI-2002 1 EM OLDS.
1237. *Drepana bilineata* (Pack.) (6252. *Drepana bilineata* (Pack.)) (Two-lined Hooktip) – 21/22-VII-1999 1 EM OLDS, 5/6-VIII-1999 1 EM OLDS and 23/24-VI-2002 1 EM OLDS.

GEOMETRIDAE – Inchworm or Geometrid Moths

Geometridae, Larentiinae, Cidariini

1252. *Eulithis propulsata* (Wlk.) (7199. *Eulithis propulsata* (Wlk.)) (Barred Yellow or Currant Eulithis) – 4-VIII-2001 1 GGA UASM.
1253. *Eulithis testata* (L.) (7201. *Eulithis testata* (L.)) (Chevron Moth) – 24A-VIII-2003 1 CDB BIRD.
1255. *Eulithis flavibrunneata* (McD.) (7205. *Eulithis flavibrunneata* (McD.)) – 9-VIII-2002 CDB BIRD.
1257. *Eulithis xyлина* (Hulst) (7207. *Eulithis xyлина* (Hulst)) (The Phoenix) – 8/9-VII-2000 1 EM OLDS, 3/4-VIII-2000 1 EM OLDS and 8/9-VII-2001 1 EM BIRD.
1264. *Thera otisi* (Dyar) (7219. *Thera otisi* (Dyar)) (Dyar's Carpet) – 3/4-VIII-2000 1 EM OLDS, 23/24-VIII-2001 6 EM OLDS, 9-VIII-2002 CDB BIRD and 11-VIII-2004 2 GGA UASM.

Geometridae, Larentiinae, Hydriomenini

1279. *Rheumaptera subhastata* (Nolcken) (7294. *Rheumaptera subhastata* (Nolcken)) – 13/14-VI-2002 1 EM OLDS.
1283. *Mesoleuca ruficillata* (Gn.) (7307. *Mesoleuca ruficillata* (Gn.)) (White-ribbed Carpet) – 8/9-VII-2001 1 EM OLDS.
1289. *Perizoma custodiata* (Gn.) (7328. *Perizoma custodiata* (Gn.)) – 24/25-VIII-1999 1 EM OLDS, 4/5-VI-2000 1 EM OLDS, 23/24-VIII-2001 3 EM BIRD, 7-IX-2001 1 GGA UASM, 24A-VIII-2003 1 CDB BIRD and 24B-VIII-2003 1 CDB BIRD.

Geometridae, Larentiinae, Xanthorhoini

1306. *Xanthorhoe ferrugata* (Cl.) (7388. *Xanthorhoe ferrugata* (Cl.)) (Red Twin-spot) – 23/24-VI-2002 1 EM OLDS.
1311. *Euphyia unangulata* (Haw.) (7399. *Euphyia unangulata* (Haw.)) (Sharp-angled Carpet) – 5/6-VIII-1999 1 EM OLDS and 22/23-VI-2000 1 EM OLDS.
1312. *Zenopheps alpinata* (Cass.) (7408. *Zenopheps alpinata* (Cass.)) – 3/4-VIII-2000 1 EM OLDS.

Geometridae, Larentiinae, Eudelini

1325. *Eubaphe mendica* (Wlk.) (7440. *Eubaphe mendica* (Wlk.)) (The Beggar) – 3/4-VIII-2000 1 EM OLDS.

Geometridae, Larentiinae, Eupitheciini

1327. *Horisme incana* Swett (7446. *Horisme incana* Swett) – 22-VI-2000 CDB BIRD.
1336. *Eupithecia subfuscata* (Haw.) (7487. *Eupithecia subfuscata* (Haw.)) (Grey Pug) – 22-VI-2000 1 CDB BIRD.
1352. *Eupithecia niphadophilata* (Dyar) (7552. *Eupithecia niphadophilata* (Dyar)) – 24-VIII-2003 1 CDB BIRD.
1367. *Eupithecia lachrymosa* (Hulst) (7548. *Eupithecia lachrymosa* (Hulst)) – 15/16-VI-2002 1 GGA UASM.

Geometridae, Sterrhinae, Sterrhini

1379. *Idaea rotundopennata* Pack. (7125. *Idaea rotundopennata* Pack.) (Round-winged Wave) – 12/13-VI-2000 1 EM OLDS.

Geometridae, Sterrhinae, Scopulini

1383. *Scopula limboundata* (Haw.) (7159. *Scopula limboundata* (Haw.)) (Large Lace-border) – 3/4-VII-2001 1 EM OLDS.
1386. *Scopula junctaria* Wlk. (7164. *Scopula junctaria* Wlk.) (Simple Wave) – 3/4-VII-2000 1 EM OLDS.
1390. *Scopula inductata* Gn. (7169. *Scopula inductata* Gn.) (Soft-lined Wave) – 22-VI-2000 1 CDB BIRD, 3/4-VII-2000 1 EM OLDS, 8/9-VII-2001 1 EM OLDS and 8/9-VII-2001 1 EM BIRD.
1392. *Scopula sentinaria* (Gey.) (7172. *Scopula sentinaria* (Gey.)) – 22-VI-2000 CDB BIRD.

Geometridae, Geometrinae, Nemoriini

1394. *Nemoria unitaria* (Pack.) (7018. *Nemoria unitaria* (Pack.)) (Single-lined Emerald) – 21/22-VI-1999 1 EM OLDS and 3/4-VIII-2000 1 EM OLDS.

Geometridae, Geometrinae, Synchronini

1399. *Synchlora aerata* (F.) (7058. *Synchlora aerata* (F.)) (Wavy-lined Emerald) – 5/6-VIII-1999 1 EM OLDS, 3/4-VII-2000 1 EM OLDS and 3/4-VII-2000 1 EM BIRD.
 1400. *Synchlora bistriaria* (Pack.) 7065. *Chaetoscelis bistriaria* (Pack.) (Red-fringed Emerald) – 3/4-VII-2000 1 EM OLDS and 8/9-VII-2001 1 EM OLDS.

Geometridae, Ennomiinae, Macariini

1408. *Eumacaria madopata* (Gn.) (6272. *Eumacaria latiferrugata* (Wlk.)) (Brown-bordered Geometer) – 22/23-VI-2000 1 EM OLDS and 3/4-VII-2000 1 EM OLDS.
 1414. *Speranza bitactata* (Wlk.) (6304. *Macaria bitactata* (Wlk.)) – 15/16-VIII-1999 1 EM OLDS and 6/7-VI-2001 1 EM OLDS.
 1431. *Digrammia californiaria* (Pack.) (380. *Semiothisa californiaria* (Pack.)) – 18-V-2000 1 GGA UASM and 11/12-VIII-2004 2 GGA UASM.
 1433. *Digrammia denticulata* Grt. (6373. *Semiothisa denticulata* Grt.) (Striped Granite) – 5/6-VIII-1999 1 EM OLDS, 4/5-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD, 4-VIII-2001 2 GGA UASM, 15/16-VI-2002 1 GGA UASM, 9-VIII-2002 CDB BIRD and 11-VIII-2004 1 GGA UASM.
 1436. *Digrammia rippertaria* (Dup.) (6394. *Semiothisa hebetata* (Hulst)) – 27/28-V-2001 1 EM OLDS, 20/21-VI-2001 1 EM OLDS, 9-VIII-2002 CDB BIRD and 24-VIII-2002 CDB BIRD.
 1437. *Digrammia decorata* (Grossb.) (6389. *Semiothisa arubrescens* McD.) – 4/5-VI-2001 1 EM OLDS, 23/24-VI-2002 1 EM OLDS, 9-VIII-2002 6 CDB BIRD and 24-VIII-2002 CDB BIRD.
 1438. *Digrammia mellistrigata* (Grt.) (6397. *Semiothisa mellistrigata* (Grt.)) – 21/22-VII-1999 1 EM OLDS and 9-VIII-2002 CDB BIRD.
 1439. *Digrammia subminiata* (Pack.) (6399. *Semiothisa subminiata* (Pack.)) – 13-VI-2002 1 EM UASM.
 1440. *Digrammia neptaria* (Gn.) (6396. *Semiothisa neptaria* (Gn.)) – 5/6-VIII-1999 1 EM OLDS, 27/28-V-2000 1 EM OLDS, 15/16-VI-2002 1 GGA UASM, 9-VIII-2002 12 CDB BIRD, 24-VIII-2002 CDB BIRD, 1-V-2004 2 GP POHL and 11/12-VIII-2004 2 GGA UASM.

Geometridae, Ennomiinae, Boarmiini

1445. *Hesperumia sulphuraria* Pack. (6431. *Hesperumia sulphuraria* Pack.) (Sulphur Moth) – 5/6-VIII-1999 1 EM OLDS and 11/12-VIII-2004 1 GGA UASM..
 1456. *Protoboarmia porcelaria* (Gn.) (6598. *Protoboarmia porcelaria* (Gn.)) (Percelain Gray) – 8/9-VII-2001 1 EM OLDS.

Geometridae, Ennomiinae, Bistonini

1460. *Biston betularia* (L.) (6640. *Biston betularia* (L.)) (Salt-and-Pepper Moth) – 22-VI-2000 CDB BIRD and 3/4-VII-2000 1 EM BIRD.
 1461. *Lycia ursaria* (Wlk.) (6651. *Lycia ursaria* (Wlk.)) (The Bear, Stout Spanworm Moth) – 4/5-V-2000 1 EM OLDS, 1-V-2004 1 GP POHL and 4C-V-2005 1 CDB BIRD.

Geometridae, Ennomiinae, Caberini

1472. *Cabera erythemaria* Gn. (6677. *Cabera erythemaria* Gn.) (Yellow-dusted Cream Moth) – 3/4-VII-2000 1 EM OLDS and 6/7-VI-2001 1? EM OLDS.
1473. *Cabera variolaria* Gn. (6678. *Cabera variolaria* Gn.) (Pink-striped Willow Spanworm Moth) – 3/4-VII-2000 1 EM OLDS.

Geometridae, Ennomiinae, Angeronini

1480. *Aspitates aberrata* (Hy. Edw.) (6715. *Aspitates aberratus* (Hy. Edw.)) – 22-VI-2000 CDB BIRD and 3/4-VII-2000 1 EM BIRD.
1482. *Euchlaena obtusaria* (Hbn.) (6726. *Euchlaena obtusaria* (Hbn.)) (Obtuse Euchlaena) – 3/4-VII-2001 1 EM OLDS and 8/9-VII-2001 1 EM OLDS.
1483. *Euchlaena johnsonaria* (Fitch) (6729. *Euchlaena johnsonaria* (Fitch)) (Johnson's Euchlaena) – 21/22-VII-1999 1 EM OLDS and 12/13-VI-2000 1 EM OLDS.
1484. *Euchlaena madusaria* (Wlk.) (6731. *Euchlaena madusaria* (Wlk.)) – 3/4-VII-2000 1 EM OLDS and 8/9-VII-2001 1 EM OLDS.
1485. *Euchlaena marginaria* (Minot) (6734. *Euchlaena marginaria* (Minot)) (Ochre Euchlaena) – 4/5-VI-2000 1 EM OLDS and 13/14-VI-2002 1 EM OLDS.
1486. *Euchlaena tigrinaria* (Gn.) (6737. *Euchlaena tigrinaria* (Gn.)) (Mottled Euchlaena, Variable Thorn) – 22/23-VI-2000 1 EM OLDS and 10/11-VII-2000 1 EM OLDS.
1487. *Xanthotype urticaria* Swett (6740. *Xanthotype urticaria* Swett) (False Crocus Geometer) – 3/4-VII-2001 1 EM OLDS and 8/9-VII-2001 1 EM OLDS.
1488. *Xanthotype sospeta* (Drury) (6743. *Xanthotype sospeta* (Drury)) (The Crocus Geometer) – 8/9-VII-2001 1 EM OLDS.

Geometridae, Ennomiinae, Azelini

1490. *Pero morrisonaria* (Hy. Edw.) (6755. *Pero morrisonaria* (Hy. Edw.)) (Morrison's Pero, Lesser UMBER) – 21/22-VII-1999 1 EM OLDS, 22-VI-2000 CDB BIRD, 27/28-V-2001 1 EM OLDS and 15/16-VI-2002 1 GGA UASM.

Geometridae, Ennomiinae, Anagogini

1504. *Metanema determinata* Wlk.) (6820. *Metanema determinata* Wlk.) (Dark Metanema) – 6/7-VI-2001 1 EM OLDS and 23/24-VI-2002 1 EM OLDS.
1505. *Metarranthis warnerae* (Harv.) (6821. *Metarranthis warnerae* (Harv.)) – 4/5-VI-2000 1 EM OLDS and 23/24-VI-2002 1 EM OLDS.
1506. *Metarranthis duaria* (Gn.) (6822. *Metarranthis duaria* (Gn.)) (Ruddy Metarranthis) – 22/23-V-2001 1 EM OLDS and 23/24-VI-2002 1 EM OLDS.
1507. *Probole alienaria* (H.-S.) (6837. *Probole alienaria* (H.-S.)) – 22-VI-3000 1 CDB BIRD.
1508. *Probole amicaria* (H.-S.) (6838. *Probole amicaria* (H.-S.)) (Friendly Probole) – 6/7-VI-2001 1 EM OLDS, 3/4-VII-2001 1 EM BIRD and 13/14-VI-2002 1 EM OLDS.

Geometridae, Ennomiinae, Ourapterygini

1523. *Plataea trilinearia* (Pack.) (6926. *Plataea trilinearia* (Pack.)) (Sagebrush Girdle) – 5/6-VIII-1999 1 EM OLDS and 23/24-VI-2002 1 EM OLDS.
1524. *Tetracis jubararia* (Hulst) (6954. *Synaxis jubararia* (Hulst)) (October Thorn) – 12/13-IX-1999 1 EM OLDS.
1528. *Tetracis crocallata* Gn. (6963. *Tetracis crocallata* Gn.) (Yellow Slant-line) – 22/23-VI-2000 1 EM OLDS and 23/24-VI-2002 1 EM OLDS.
1529. *Tetracis cachexiata* Gn. (6964. *Tetracis cachexiata* Gn.) (White Slant-line) – 6/7-VI-2001 1 EM OLDS, 15/16-VI-2002 2 GGA UASM and 23/24-VI-2002 1 EM OLDS.
1531. *Prochoerodes lineola* (Göze) (6982. *Prochoerodes transversata* (Drury)) (Large Maple Spanworm) – 4-VIII-2001 1 GGA, UASM.

LASIOCAMPIDAE – Tent Caterpillar or Lappet Moths

Lasiocampidae, Lasiocampinae, Gastropachini

1536. *Phyllodesma americana* (Harr.) (7687. *Phyllodesma americana* (Harr.)) (Lappet Moth) – 19-V-2000 CDB BIRD, 19-V-2000 GGA SR, 12/13-VI-2000 1 EM OLDS and 4B-V-2005 2 CDB BIRD.

Lasiocampidae, Lasiocampinae, Lasiocampini

1537. *Malacosoma disstria* Hbn. (7698. *Malacosoma disstria* Hbn.) (Forest Tent Caterpillar) – 5/6-VIII-1999 1 EM OLDS and 3/4-VII-2001 1 EM OLDS.
1538. *Malacosoma californica* (Pack.) (7702. *Malacosoma californicum* (Pack.)) (Western Tent Caterpillar) – 21/22-VII-1999 1 EM OLDS, 3/4-VII-2001 1 EM OLDS and 8/9-VII-2001 1 EM BIRD.

SATURNIDAE – Giant Silk Moths

Saturniidae, Saturniinae, Saturniini

1542. *Antheraea polyphemus* (Cram.) (7757. *Antheraea polyphemus* (Cram.)) (Polyphemus Moth) – 4/5-VI-2000 1 EM OLDS and 3/4-VII-2001 1 EM OLDS.

Saturniidae, Saturniinae, Attacini

1544. *Hyalophora gloveri* (Stkr.) (7769. *Hyalophora gloveri* (Stkr.)) (*Hyalophora columbia* ssp. *gloveri*) (Glover's Silk Moth) – 18-V-2000 2 DL UASM and 22-VI-2000 BCS.

SPHINGIDAE – Sphinx Moths

Sphingidae, Sphinginae, Sphingini

1546. *Ceratomia undulosa* (Wlk.) (7787. *Ceratomia undulosa* (Wlk.)) (Waved Sphinx) – 3/4-VII-2001 1 EM OLDS.
1548. *Sphinx vashti* Stkr. (7803. *Sphinx vashti* Stkr.) (Vashti or Snowberry Sphinx) – 21/22-VII-1999 1 EM OLDS, 19-V-2000 GGA SR, 22/23-V-2001 1 EM OLDS, 23/24-VI-2002 1 EM OLDS, 1-V-2004 1 GP POHL and 4C-V-2005 1 CDB BIRD.

1551. *Sphinx drupiferarum* J.E. Sm. (7812. *Sphinx drupiferarum* J.E. Smith) (Wild Cherry Sphinx) – 17-V-1991 1 EMP UASM and 14/15-VI-2002 GGA GGAC.

Sphingidae, Smerinthinae, Smerinthini

1553. *Smerinthus jamaicensis* (Drury) (7821. *Smerinthus jamaicensis* (Drury)) (Two-spotted Sphinx) – 22/23-VII-1999 1 EM OLDS, 19-V-2000 GGA BCS, 3/4-VII-2000 2 EM BIRD and 27/28-V-2001 1 EM OLDS.
1554. *Smerinthus cerisyi* Kby. (7822. *Smerinthus cerisyi* Kby.) (One-eyed Sphinx) – 19-V-2000 CDB BIRD, 3/4-VII-2000 2 EM BIRD and 3/4-VII-2001 1 EM OLDS.
1556. *Paonias excaecatus* (J.E. Sm.) (7824. *Paonias excaecatus* (J.E. Smith)) (Blinded Sphinx) – 12-VI-1999 EMP 1 UASM and 3/4-VII-2001 1 EM OLDS.
1557. *Paonias myops* (J.E. Sm.) (7825. *Paonias myops* (J.E. Smith)) (Snall-eyed Sphinx) – 17-V-1991 EMP UASM, 21/22-VII-1999 1 EM OLDS, 22-VI-2000 CDB BIRD and 3/4-VII-2000 1 EM BIRD.
1558. *Pachysphinx modesta* (Harr.) (7828. *Pachysphinx modesta* (Harr.)) (Big Poplar Sphinx) – 23-VI-2002 EM OLDS.

Sphingidae, Macroglossinae, Macroglossini

1570. *Hyles gallii* (Rott.) (7893. *Hyles gallii* (Rottemburg)) (Galium Sphinx, Bedstraw Hawkmoth, White-lined Sphinx) – 13-VI-2002 EM OLDS.

NOTODONTIDAE – Prominent Moths

Notodontidae, Pygaerinae

1572. *Clostera albosigma* Fitch) (7895. *Clostera albosigma* Fitch) (Sigmoid Prominent) – 18/19-V-2000 1 EM OLDS, 17/18-VI-2000 1 EM OLDS and 3-VII-2000 CDB BIRD.
1575. *Clostera apicalis* (Wlk.) (7901. *Clostera apicalis* (Wlk.)) (Common Chocolate-tip, Red-marked Tentmaker) – 18/19-V-2000 1 EM OLDS, 19-V-2000 GGA SR and 12/13-VI-2000 1 EM OLDS.

Notodontidae, Notodontinae, Notodontini

1578. *Notodonta scitipennis* (Wlk.) (7926. *Notodonta scitipennis* Wlk.) (Base-streaked Prominent) – 3/4-VII-2000 1 EM OLDS.
1579. *Notodonta torva* (Hbn.) (7928. *Notodonta simplaria* Graef) (Simple Prominent) – 27/28-V-2001 1 EM OLDS and 15/16-VI-2002 1 GGA UASM.

Notodontidae, Notodontinae, Dicranurini

1580. *Gluphisia septentrionis* Wlk. (7931. *Gluphisia septentrionis* Wlk.) (Small Pebble, Common Gluphisia) – 12/13-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD and 3/4-VII-2000 1 EM BIRD.
1585. *Furcula occidentalis* (Lint.) (7939. *Furcula occidentalis* (Lint.)) (Willow Kitten) – 22-VI-2000 CDB BIRD.

1586. *Furcula scolopendrina* (Bdv.) (7940. *Furcula scolopendrina* (Bdv.)) (Poplar Kitten) – 3/4-VII-2000 2 EM BIRD.

Notodontidae, Heterocampinae

1591. *Schizura unicornis* (J.E. Sm.) (8007. *Schizura unicornis* (J.E. Smith)) (Variegated Prominent, Unicorn Caterpillar Moth) – 21/22-VII-1999 1 EM OLDS and 6/7-VI-2001 1 EM OLDS.

1593. *Oligocentria semirufescens* (Wlk.) (8012. *Oligocentria semirufescens* (Wlk.)) (Rusty Prominent) – 6/7-VIII-1999 1 EM GGAC.

EREBIDAE – Quadrifine Noctuids

Erebidae, Arctiinae, Lithosiini

1606. *Hypoprepia miniata* (Kby.) (8089. *Hypoprepia miniata* (Kby.)) (Scarlet-winged Lichen Moth) – 5/6-VIII-1999 1 EM OLDS, 8/9-VII-2001 4 EM BIRD, 4-VIII-2001 2 GGA UASM, 23-VII-2003 2 CDB BIRD.

1609. *Eilema bicolor* (Grt.) (8043. *Eilema bicolor* (Grt.)) (Yellow-edged Footman, Bicolored Moth or Smoky Moth) – 5/6-VIII-1999 1 EM OLDS, 9-VIII-2002 CDB BIRD and 24A-VIII-2003 1 CDB BIRD.

1610. *Crambidia casta* (Pack.) (8051. *Crambidia casta* (Pack.)) (Pearly-winged Lichen Moth) – 23/24-VIII-2001 1 EM BIRD, 7-IX-2001 2 GGA UASM, 9-VIII-2002 CDB BIRD, 24-VIII-2002 CDB BIRD, 24A-VIII-2003 3 CDB BIRD, 24B-VIII-2003 1 CDB BIRD and 11/12-VIII-2004 1 GGA UASM.

Erebidae, Arctiinae, Arctiini

1613. *Virbia ferruginosa* (Wlk.) (8123. *Holomelina ferruginosa* (Wlk.)) (Rusty Holomelina) – 3/4-VII-2000 1 EM BIRD, 3/4-VIII-2000 1 EM OLDS, 8/9-VII-2001 1 EM BIRD and 4-VIII-2001 1 GGA UASM.

1619. *Grammia virgo* (L.) (8197. *Grammia virgo* (L.)) (Virgin Tiger Moth) – 21/22-VII-1999 1 EM OLDS, 19-V-2000 CDB BIRD and 3/4-VII-2000 1 EM BIRD.

1620. *Grammia parthenice* (W. Kby.) (8196. *Grammia parthenice* (W. Kby.)) (Parthenice Tiger Moth) – 5-VIII-2001 1 GGA UASM.

1621. *Grammia virguncula* (W. Kby.) (8175. *Grammia virguncula* (W. Kby.)) (Little Virgin Moth) – 3/4-VII-2001 1 EM OLDS.

1625. *Grammia williamsii* (Dodge) (8186. *Grammia williamsii* (Dodge)) (William's Tiger Moth) – 22-VI-2000 CDB BIRD, 8/9-VII-2001 1 EM BIRD and 4-VIII-2001 1 GGA UASM.

1627. *Grammia blakei* (Grt.) (8185. *Grammia blakei* (Grt.)) – 15/16-VI-2002 1 GGA UASM.

1631. *Platarctia parthenos* (Harr.) (8162. *Platarctia parthenos* (Harr.)) (Saint Lawrence Tiger Moth) – 18/19-VI-2000 1 EM OLDS and 3/4-VII-2000 1 EM BIRD.

1635. *Phragmatobia assimilana* Wlk. (8158. *Phragmatobia assimilans* Wlk.) (Large Ruby Tiger Moth) – 19-V-2000 CDB BIRD.

1636. *Pyrrharctia isabella* (J.E. Sm.) (8129. *Pyrrharctia isabella* (J.E. Smith)) (Isabella Tiger Moth) – 21/22-VII-1999 1 EM OLDS, 4/5-VI-2000 1 EM OLDS, 17/18-VI-2000 1 EM OLDS, 3/4-VII-2000 1 EM BIRD and 15/16-VI-2002 1 GGA UASM.

1637. *Estigmene acraea* (Drury) (8131. *Estigmene acraea* (Drury)) (Salt Marsh Tiger Moth) – 5/6-VIII-1999 1 EM OLDS, 12/13-VI-2000 1 EM OLDS, 3/4-VII-2000 1 EM BIRD and 17/18-V-2001 1 EM OLDS.
1640. *Spilosoma dubia* (Wlk.) (8136. *Spilosoma dubia* (Wlk.)) (Dubious Tiger Moth) – 22-VI-2000 CDB BIRD.
1641. *Spilosoma virginica* (F.) (8137. *Spilosoma virginica* (F.)) (Virginian Tiger Moth, Red-marked Tentmaker, Yellow Woolly-bear) – 21/22-VII-1999 1 EM OLDS, 5/6-VIII-1999 1 EM OLDS, 4/5-VI-2000 1 EM OLDS and 12/13-VI-2000 1 EM OLDS.
1644. *Hypercompe permaculata* (Pack.) (8144. *Hypercompe permaculata* (Pack.)) (Many-spotted Tiger Moth) – 22-VI-2000 CDB BIRD and 3/4-VII-2000 2 EM BIRD.
1647. *Haploa lecontei* (Guér.-Méneville) (8111. *Haploa lecontei* (Guér.-Méneville)) (Leconte's Haploa) – 3/4-VII-2000 1 EM OLDS.
1649. *Lophocampa maculata* Harr. (8214. *Lophocampa maculata* Harr.) (Spotted Tussock Moth) – 22-VI-2000 CDB BIRD, 3/4-VII-2000 1 EM BIRD and 15/16-VI-2002 1 GGA UASM.
1652. *Ctenucha virginica* (Esp.) (8262. *Ctenucha virginica* (Esp.)) (Virginia Ctenucha) – 22-VI-2000 CDB BIRD.
1653. *Cisseps fulvicollis* (Hbn.) (8267. *Cisseps fulvicollis* (Hbn.)) (Yellow-collared Scape Moth) – 29-VII-1998 GGA GGAC and 3/4-VII-2000 1 EM OLDS.

Erebidae, Herminiinae

1654. *Idia americalis* (Gn.) (8322. *Idia americalis* (Gn.)) (American Idia or Snout Moth) – 17/18-VI-2000 1 EM OLDS and 3/4-VII-2000 1 EM BIRD.
1656. *Idia* sp. nr. *aemula* (8323.1. *Idia* sp. nr. *aemula*) – 21/22-VII-1999 1 EM OLDS, 10/11-VII-2000 1 EM OLDS, 5-VIII-2001 2 GGA UASM and 27B-VI-2003 1 CDB BIRD.
1657. *Idia lubricalis* (Gey.) (8334. *Idia lubricalis* (Gey.)) (Glossy Black Idia) – 5/6-VIII-1999 1 EM OLDS, 1-VII-1 2001 GGA & BCS GGAC, 8/9-VII-2001 1 EM BIRD, 5-VIII-2001 GGA UASM, 20/21-VIII-2001 1 GGA UASM, 23/24-VIII-2001 1 EM OLDS, 2-VIII-2002 1 GGA UASM and 11-VIII-2004 5 GGA UASM.
1663. *Chytolita petrealis* Grt. (8356. *Chytolita petrealis* Grt.) (Lesser Luteous Snout Moth) – 22-VI-2000 CDB BIRD.
1666. *Phalaenostola metonalis* (Wlk.) (8362. *Phalaenostola metonalis* (Wlk.)) (Tufted Snout, Pale Phalaenostola) – 8/9-VII-2001 1 EM OLDS.
1668. *Bleptina caradrinalis* Gn. (8370. *Bleptina caradrinalis* Gn.) (Bent-winged Owlet) – 21/22-VII-1999 1 EM OLDS, 22-VI-2000 CDB BIRD and 3/4-VII-2001 1 EM OLDS.
1669. *Palthis angulalis* (Hbn.) (8397. *Palthis angulalis* (Hbn.)) (Dark-spotted Palthis) – 22/23-VI-2000 1 EM OLDS.

Erebidae, Hypeninae

1676. *Hypena edictalis* (Wlk.) (8452. *Bomolocha edictalis* (Wlk.)) (Large Bomolocha) – 15/16-VIII-1999 1 EM OLDS.

Erebidae, Erebininae, Melipotini

1693. *Drasteria petricola* (Wlk.) (8631a. *Synedoida petricola athabasca* (Neum.)) (The Little Arches) – 20-V-2000 CDB GGAC, 21-V-2000 CDB BIRD and 23-VII-2003 1 CDB BIRD.

1694. *Drasteria hudsonica* (G. & R.) (8632. *Drasteria hudsonica* (G. & R.)) (Northern Arches) – 12/13-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD, 3/4-VII-2000 1 EM BIRD, 22/23-V-2001 1 EM OLDS, 4-VIII-2001 1 GGA UASM, and 11/12-VIII-2004 1 GGA UASM.
1695. *Drasteria perplexa* (Hy. Edw.) (8635. *Drasteria perplexa* (Hy. Edw.)) (Perplexing Arches) – 23/24-VI-2002 1 EM OLDS.

Erebidae, Erebininae, Euclidiini

1698. *Euclidea cuspidata* (Hbn.) (8731. *Euclidea cuspidata* (Hbn.)) (Pointed Grass Moth) – 23/24-VI-2002 1 EM OLDS.
1700. *Caenurgina crassiuscula* (Haw.) (8738. *Caenurgina crassiuscula* (Haw.)) (Clover Looper Moth) – 21/22-VII-1999 1 EM OLDS, 5/6-VIII-1999 1 EM OLDS, 23/24-VIII-1999 1 EM OLDS, 19-V-2000 CB GGAC, 3/4-VII-2000 1 EM OLDS, 10/11-VII-2000 1 EM OLDS, 3/4-VIII-2000 1 EM OLDS, and 20/21-V-2001 1 EM OLDS.
1701. *Caenurgina erechtea* (Cram.) (8739. *Caenurgina erechtea* (Cram.)) (Forage Looper Moth) – 3/4-VIII-2000 1 EM OLDS, 9-VIII-2002 1 CDB BIRD and 11/12-VIII-2004 1 GGA UASM.

Erebidae, Erebininae, Ophiuini

1703. *Zale minerea* (Gn.) (8697. *Zale minerea* (Gn.)) (Colorful Zale) – 12/13-VI-2000 1 EM OLDS.

Erebidae, Erebininae, Catocalini

1705. *Catocala relictata* Wlk. (8803. *Catocala relictata* Wlk.) (White Underwing) – 24A-VIII-2003 1 CDB SR and 24B-VIII-2003 1 CDB SR.
1706. *Catocala unijuga* Wlk. (8805. *Catocala unijuga* Wlk.) (Once-married Underwing) – 4-VIII-2001 1 GGA UASM.
1709. *Catocala hermia* Hy. Edw. (8812. *Catocala hermia* Hy. Edw.) (Hermia Underwing) – 4-VIII-2001 3 GGA UASM, 23/24-VIII-2001 1 EM OLDS, 15/16-IX-2001 1 EM OLDS, 24-VIII-2002 5 CDB BIRD, 6-IX-2002 3 CDB BIRD, 24A-VIII-2003 1 CDB BIRD, 24B-VIII-2003 1 CDB BIRD and 11/12-VIII-2004 2 GGA UASM.
1711. *Catocala briseis* Edw. (8817. *Catocala briseis* Edw.) (Briseis Underwing) – 29-VII-1998 GGA GGAC and 6-IX-2002 CDB BIRD.
1713. *Catocala semirelictata* Grt. (8821. *Catocala semirelictata* Grt.) (Semirelict Underwing) – 11/12-VIII-2004 1 GGA UASM.
1714. *Catocala meskei* Grt. (8822. *Catocala meskei* Grt.) (Meske's Underwing) – 29-VII-1998 GGA YALE.
1718. *Catocala praeclara* G. & R. (8865. *Catocala praeclara* G. & R.) (Praeclara Underwing) – 9-IX-2000 1 GGA UASM.
1719. *Catocala blandula* (Hulst) (8867. *Catocala blandula* (Hulst)) (Charming Underwing) – 4-VIII-2001 1 GGA UASM.

NOLIDAE – Nolid Moths

Nolidae, Nolinae

1721. *Nola cilicoides* (Grt.) (8990. *Nola cilicoides* (Grt.)) (Blurry-patched Nola) – 5/6-VIII-1999 1 EM OLDS and 8/9-VII-2001 2 EM BIRD.

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

1722. *Nycteola frigidana* (Wlk.) (8975. *Nycteola frigidana* (Wlk.)) (Frigid Owlet) – 7-IX-2000 GGA GGAC, and 18/19-VI-2000 1 EM OLDS.
1723. *Nycteola cinereana* N. & D. (8977. *Nycteola cinereana* N. & D.) (Grey Midget) - 9-IX-2000 1 GGA UASM.

Noctuidae, Plusiinae, Abrastolini

1725. *Abrastola urentis* Gn. (8881. *Abrostola urentis* Gn.) (Variegated Brindle) – 8/9-VII-2001 1 EM BIRD and 23/24-VI-2002 1 EM OLDS.

Noctuidae, Plusiinae, Plusiini

1729. *Pseudeva purpurigera* (Wlk.) (8899. *Pseudeva purpurigera* (Wlk.)) (Straight-lined Looper Moth) – 15/16-VIII-1999 1 EM OLDS and 11/12-VIII-2004 1 GGA UASM..
1737. *Autographa bimaculata* (Steph.) (8911. *Autographa bimaculata* (Steph.)) (Two-spotted Looper Moth) – 5-VIII-2001 1 GGA UASM.
1738. *Autographa mappa* (G. & R.) (8912. *Autographa mappa* (G. & R.)) (Wavy Chestnut Y Moth) – 3/4-VII-2000 1 EM BIRD.
1740. *Autographa californica* (Speyer) (8914. *Autographa californica* (Speyer)) (Alfalfa Looper Moth) – 6/7-VI-2001 1 EM OLDS and 23/24-VIII-2002 1 EM BIRD.
1744. *Autographa ampla* (Wlk.) (8923. *Autographa ampla* (Wlk.)) (Large Looper Moth) – 5/6-VIII-1999 1 EM OLDS, 22-VI-2000 CDB BIRD, 3/4-VII-2000 1 EM BIRD and 2/3-VII-2001 1 EM OLDS.
1745. *Anagrapha falcifera* (Kby.) (8924. *Anagrapha falcifera* (Kby.)) (Celery Looper Moth) – 12/13-VI-2000 1 EM OLDS and 23/24-VIII-2001 1 EM BIRD.
1746. *Syngrapha octoscripta* (Grt.) (8926. *Syngrapha octoscripta* (Grt.)) (Dusky Silver Y) – 24-VIII-2002 CDB BIRD.
1748. *Syngrapha viridisigma* (Grt.) (8929. *Syngrapha viridisigma* (Grt.)) (Green-marked Looper Moth) – 20/21-VIII-2001 1 EM OLDS.
1763. *Plusia putnami* Grt. (8950. *Plusia putnami* Grt.) (Putnam's Looper Moth) – 22-VI-2000 CDB BIRD, 3/4-VII-2000 1 EM BIRD and 4-VIII-2001 1 GGA UASM.

Noctuidae, Eustrotiinae

1767. *Protodeltote albidula* (Gn.) (9048. *Lithacodia albidula* (Gn.)) (Common Midget) – GGAC.

Noctuidae, Dilobinae

1778. *Raphia frater* Grt. (9193. *Raphia frater* Grt.) (The Brother) – 21/22-VII-1999 1 EM OLDS, 4/5-VI-2000 1 EM OLDS, 3/4-VII-2000 1 EM BIRD and 27/28-V-2001 1 EM OLDS.

Noctuidae, Acronictinae

1780. *Acronicta dactylina* Grt. (9203. *Acronicta dactylina* Grt.) (American Dagger Moth) – 5/6-VIII-1999 1 EM OLDS, 18/19-VI-2000 1 EM OLDS, 3/4-VII-2001 1 EM OLDS and 13/14-VI-2002 1 EM OLDS.
1781. *Acronicta lepusculina* Gn. (9205. *Acronicta lepusculina* Gn.) – 3/4-VII-2001 1 EM OLDS.
1784. *Acronicta innotata* Gn. (9207. *Acronicta innotata* Gn.) (Unmarked Dagger Moth) – 5/6-VIII-1999 1 EM OLDS.
1787. *Acronicta grisea* Wlk. (9212. *Acronicta grisea* Wlk.) (Gray Dagger Moth) – 12/13-VI-2000 1 EM OLDS.
1789. *Acronicta quadrata* Grt. (9224. *Acronicta quadrata* Grt.) (Quadrate Dagger Moth) – 21/22-VII-1999 1 EM OLDS.
1790. *Acronicta superans* Gn. (9226. *Acronicta superans* Gn.) (The Chieftain Dagger Moth) – 21/22-VII-1999 1 EM OLDS and 23/24-VI-2002 1 EM OLDS.
1791. *Acronicta hasta* Gn. (9229. *Acronicta hasta* Gn.) (Speared Dagger Moth) – 22/23-VI-2000 1 EM BIRD and 13/14-VI-2001 1 EM OLDS.
1794. *Acronicta impleta* Wlk. (9257. *Acronicta impleta* Wlk.) (Yellow-haired Dagger Moth) – 6/7-VI-2001 1 EM OLDS.
1795. *Acronicta sperata* Grt. (9258. *Acronicta sperata* Grt.) (Sperata Dagger Moth) – 4/5-VI-2000 1 EM OLDS, 6/7-VI-2000 1 EM OLDS and 12/13-VI-2000 1 EM OLDS.
1796. *Acronicta impressa* Wlk. (9261. *Acronicta impressa* Wlk.) (Impressa or Willow Dagger Moth) – 19-V-2000 CDB BIRD, 5-VIII-2001 1 GGA UASM and 4B-B-2005 2 CDB BIRD.
1801. *Simyra insularis* (H.-S.) (9280. *Simyra henrici* (Grt.)) (Henry's Marsh Moth) – 27/28-V-2001 1 EM OLDS, 5-VIII-2001 1 GGA UASM and 20/21-VIII-2001 1 EM OLDS.

Noctuidae, Cuculliinae

1808. *Cucullia intermedia* Speyer (10194. *Cucullia intermedia* Speyer) (Intermediate Cucullia or Goldenrod Cutworm Moth) – 12/13-VI-2000 1 EM OLDS.

Noctuidae, Amphipyrinae, Amphipyryni

1817. *Amphipyra glabella* (Morr.) (9640. *Amphipyra glabella* (Morr.)) – 5-VIII-2001 1 GGA UASM.

Noctuidae, Oncocnemidinae

1828. *Pleromelloida conserta* (Grt.) (10028. *Pleromelloida obliquata* (Sm.)) (Oblique Rover) – 1-V-2004 3 GP POHL, 4B-V-2005 1 CDB BIRD and 4C-V-2005 4 CDB BIRD.
1836. *Sympistis stabilis* Sm. (10062. *Homohadena stabilis* Sm.) (Brown Sallow) – 22-VI-2000 CDB BIRD, 4-VIII-2001 1 GGA UASM and 3/4-VII-2002 2 EM OLDS.
1837. *Sympistis basistriga* (Grt.) (10059. *Homohadena badistriga* (Grt.)) (Brown-lined Sallow) – 5-VIII-2001 1 GGA UASM.
1838. *Sympistis dinalda* (Sm.) (10065. *Homohadena infixa* (Wlk.)) (Broad-lined Sallow) – 3/4-VII-2000 1 EM OLDS and 4-VIII-2001 1 GGA UASM.
1844. *Sympistis mackiei* (B. & Benj.) (10143. *Oncocnemis mackiei* (B. & Benj.)) (Mackie's Beauty) – 13-IX-2000 CDB BIRD, 23/24-VIII-2001 2 EM OLDS, 3/4-IX-2001 1 EM OLDS, 24A-VIII-2003 1 CDB BIRD and 24B-VIII-2003 1 CDB BIRD.
1845. *Sympistis cibalis* Grt. (10124. *Oncocnemis cibalis* Grt.) (Delicate Beauty) – 24/25-VIII-1999 1 EM OLDS and 3/4-IX-2001 1 EM OLDS.

1852. *Sympistis riparia* (Morr.) (10135. *Oncocnemis riparia* Morr.) (Greater Beauty) – 3/4-VII-2001 1 EM OLDS.
1853. *Sympistis chionanthi* (Sm.) (10067. *Adita chionanthi* (J.E. Smith)) (Fringed Tree Sallow) – 5/6-VIII-1999 1 EM OLDS, 17/18-VIII-1999 1 EM OLDS, 5-VIII-2001 2 GGA UASM and 23/24-VIII-2001 1 EM OLDS.
1864. *Sympistis pallidior* Barnes (10130. *Oncocnemis figurata* (Harv.)) (Figured Beauty) – 12/13-VI-2000 1 EM OLDS, 3/4-VII-2000 1 EM OLDS, 3/4-VII-2001 1 EM OLDS and 24/25-VIII-2001 1 EM OLDS.

Noctuidae, Condicinae, Condicini

1868. *Condica videns* (Gn.) (9690. *Condica videns* (Gn.)) – 3/4-VII-2000 1 EM OLDS.

Noctuidae, Heliiothinae

1874. *Helicoverpa zea* (Boddie) (11068. *Helicoverpa zea* (Boddie)) (Corn Earworm) – 7-IX-2001 1 GGA UASM.
1883. *Schinia meadi* (Grt.) (11175. *Schinia meadi* (Grt.)) (Mead's Flower Moth) – 3/4-VII-2000 1 EM OLDS.
1892. *Schinia cumatilis* (Grt.) (11192. *Schinia cumatilis* (Grt.)) (Silver-banded Gem) – 29-VII-1998 4 GGA GGAC, 21/22-VII-1999 1 EM OLDS, 14/15-VIII-1999 1 EM OLDS, 23/24-VIII-1999 1 EM OLDS, 3/4-VIII-2000 1 EM OLDS and 11/12-VIII-2004 1 GGA UASM.

Noctuidae, Noctuinae, Pseuostrotiini

1897. *Pseudostrotia carneola* (Gn.) (9053. (Gn.)) (Pink-barred Lithacodia) – 21/22-VII-1999 1 EM OLDS, 21/22-VII-1999 1 EM OLDS, 3/4-VII-2000 1 EM OLDS, 27/28-V-2001 1 EM OLDS, 3/4-VII-2001 1 EM OLDS and 23/24-VI-2002 1 EM OLDS.
1898. *Anterastria teratophora* (H.-S.) (9284. *Agriopodes teratophora* (H.-S.)) (The Gray Marvel) – 22-VI-2000 CDB BIRD and 23/24-VI-2002 1 EM OLDS.

Noctuidae, Noctuinae, Elaphriini

1900. *Elaphria alapallida* Pogue & Sull. (9681. *Elaphria festivoides* (Gn.)) (Festive Midget) – 4/5-VI-2000 1 EM OLDS, 13/14-VI-2002 1 EM OLDS and 23/24-VI-2002 1 EM OLDS.

Noctuidae, Noctuinae, Caradrini

1904. *Caradrina meralis* (Morr.) (9654. *Platyperigea meralis* (Morr.)) – 5-VIII-2001 GGA UASM and 9-VIII-2002 1 CDB BIRD.
1905. *Caradrina montana* (Bremer) (9656. *Platyperigea montana* (Bremer)) (Civil Rustic) – 12/13-VI-2000 1 EM OLDS, 17/18-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD, 3/4-VII-2000 2 EM OLDS, 13-IX-2000 CDB BIRD, 5-VIII-2001 2 GGA UASM, 20/21-VIII-2001 1 EM OLDS, 9-VIII-2002 CDB BIRD, 24-VIII-2002 CDB BIRD, 24A-VIII-2003 2 CDB BIRD and 11/12-VIII-2004.
1906. *Proxenus miranda* (Grt.) (9647. *Proxenus miranda* (Grt.)) (Glistening Rustic) – 4/5-VI-2000 1 EM OLDS, 12/13-VI-2000 1 EM OLDS, 17/18-2000 1 EM OLDS, 22-VI-2000 CDB BIRD, 3/4-VII-2000 2 EM OLDS and 28/29-V-2001 1 EM OLDS.

1907. *Proxenus mendosa* McD. (9649. *Proxenus mendosa* McD.) – 5/6-VIII-1999 1 EM OLDS, 22-VI-2000 CDB BIRD, 4-VIII-2001 2 GGA UASM and 5-VIII-2001 2 GGA UASM.

Noctuidae, Noctuinae, Dipterygiini

1908. *Trachea delicata* (Grt.) (9626. *Trachea delicata* (Grt.)) – 6/7-VI-2001 1 GGA UASM.

Noctuidae, Noctuinae, Apameini

1912. *Apamea vultuosa* (Grt.) (9341. *Apamea vultuosa* (Grt.)) (Narrow-bordered or Airy Quaker) – 5/6-VIII-1999 1 EM OLDS, 18/19-VI-2000 1 EM OLDS and 3/4-VII-2001 1 EM OLDS.

1915. *Apamea indocilis* (Wlk.) (9362. *Apamea indocilis* (Wlk.)) (Broken-banded Quaker) – 12/13-VI-2000 1 EM OLDS.

1918. *Apamea sordens* (Hufn.) (9364. *Apamea finitima* Gn.) (Bordered Apamea) – 12/13-VI-2000 1 EM OLDS and 17/18-VI-2000 1 EM OLDS.

1919. *Apamea inordinata* (Morr.) (9353. *Apamea inordinata* (Morr.)) (Montana Quaker) – 12/13-VI-2000 1 EM OLDS.

1924. *Apamea commoda* (Wlk.) (9359. *Apamea commoda* (Wlk.)) (Southern Quaker) – 10/11-VI-2000 1 EM OLDS as *A. cinefacta*, 3/4-VII-2000 1 EM BIRD, 10/11-VII-2000 1 EM OLDS and 8/9-VII-2001 2 EM BIRD.

1927. *Apamea amputatrix* (Fitch) (9348. *Apamea amputatrix* (Fitch)) (Yellow-headed Cutworm Moth) – 3/4-VII-2000 1 EM BIRD and 11-VIII-2004 1 GGA UASM.

1929. *Apamea longula* (Grt.) (9383. *Apamea longula* (Grt.)) (Mountain Quaker) – 5/6-VIII-1999 1 EM OLDS, 5-VIII-2001 1 GGA UASM and 11-VIII-2004 1 GGA UASM.

1930. *Apamea scoparia* Mik., Must. & Laf. (9365. *Agroperina lateritia* (Hufn.)) (Red-winged Quaker) – 22-VI-2000 CDB BIRD, 22/23-VI-2000 1 EM BIRD and 3/4-VII-2000 1 EM BIRD.

1931. *Apamea cogitata* (Sm.) (9367a. *Agroperina dubitans cogitata* (Sm.)) (Ruby Quaker) – 22-VI-2000 CDB BIRD.

1932. *Apamea inficita* (Wlk.) (9369. *Apamea inficita* (Wlk.)) – 9-VIII-2002 1 CDB BIRD.

1933. *Apamea devastator* (Brace) 9382. *Crymodes devastator* (Brace) (Glassy Cutworm Moth) – 3/4-VII-2000 2 EM BIRD, 9-VIII-2002 CDB BIRD and 24-VIII-2002 CDB BIRD.

1938. *Resapamea passer* (Gn.) (9391. *Luperina passer* (Gn.)) (Dock Rustic) – 5/6-VIII-1999 1 EM OLDS, 10/11-VII-2000 1 EM OLDS, 15/16-IX-2001 1 EM OLDS and 11/12-VIII-2004 2 GGA UASM.

1939. *Eremobina claudens* (Wlk.) (9396. *Eremobina claudens* (Wlk.)) (Alberta Quaker) – 11-VIII-2004 1 GGA UASM.

1943. *Oligia egens* (Wlk.) (9417. *Oligia egens* (Wlk.)) (Neomogen's Quaker) – 11/12-VIII-2004 1 GGA UASM.

1944. *Oligia mactata* (Gn.) (9419. *Oligia mactata* (Gn.)) – 24A-VIII-2003 1 CDB BIRD.

1945. *Oligia illocata* (Wlk.) (9420. *Oligia illocata* (Wlk.)) – 22-VI-2000 1 CDB BIRD.

1950. *Photedes includens* (Wlk.) (9434. *Spartiniphaga includens* (Wlk.)) (Silver-C Borer) – 29-VII-1998 GGA and 9-VIII-2002 CDB BIRD.

1956. *Hypocoena rufostrigata* (Pack.) (9440. *Chortodes rufostrigata* (Pack.)) (Brown-streaked Rustic) – 17/18-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD, 3/4-VII-2000 1 EM OLDS, 4-VIII-2001 1 GGA UASM, 9-VIII-2002 CDB BIRD and 24-VIII-2002 CDB BIRD.

1957. "*Photedes*" *defecta* (Grt.) (9443. *Chortodes defecta* (Grt.)) (Narrow-winged Borer) – 9-VIII-2002 CDB BIRD.

1959. *Capsula subflava* (Grt.) (9450. *Archanara subflava* (Grt.)) (Subflava Sedge Borer) – 23/24-VIII-1999 1 EM OLDS, 3/4-VIII-2000 1 EM OLDS, 16/17-IX-2000 1 EM OLDS and 20/21-VIII-2001 1 EM OLDS.
1960. *Helotropha reniformis* (Grt.) (9453. *Celaena reniformis* (Grt.)) (Kidney-spotted Rustic) – 16/17-IX-2000 1 EM OLDS, 23/24-VIII-2001 1 EM OLDS, 9-VIII-2002 CDB BIRD and 24-VIII-2002 CDB BIRD.
1961. *Amphipoea interoceanica* (Sm.) (9456. *Amphipoea interoceanica* (Sm.)) – 4-VIII-2001 1 GGA UASM.
1962. *Amphipoea americana* (Speyer) (9457. *Amphipoea americana* (Speyer) (American Ear Moth) – 24A-VIII-2003 1 CDB BIRD.

Noctuidae, Noctuinae, Arzamini

1971. *Bellura obliqua* (Wlk.) (9525. *Bellura obliqua* (Wlk.)) (Cattail Borer Moth) – 13/14-VI-2002 1 EM OLDS.

Noctuidae, Noctuinae, Xylenini

1976. *Xylena curvimacula* (Morr.) (9874. *Xylena curvimacula* (Morr.)) (Dot-and-Dash Swordgrass Moth) – 1 V-2004 1 GP POHL.
1977. *Xylena curvimacula* (Put.-Cram.) (9875. *Xylena thoracica* (Putnam-Cramer)) (Gray Swordgrass Moth) – 19-V-2000 GGA SR.
1978. *Xylena cineritia* (Grt.) (9876. *Xylena cineritia* (Grt.)) (Western Swordgrass Moth) – 4C-V-2005 3 CDB BIRD.
1980. *Lithomoia germana* (Morr.) (9878. *Lithomoia solidaginis germana* (Morr.)) (American Peasant) – GGAC and 23/24-VIII-2001 1 EM OLDS.
1983. *Litholomia napaea* (Morr.) (9884. *Litholomia napaea* (Morr.)) (Dark Grey Peasant) – 19-V-2000 GGA GGAC and 4A-V-2005 1 CDB BIRD.
1986. *Lithophane amanda* (Sm.) (9891. *Lithophane amanda* (Sm.)) (Distant Pinion) – 4/5-V-2000 1 EM OLDS and 1-V-2004 1 GP POHL.
1991. *Lithophane fagina* Morr. (9917. *Lithophane fagina* Morr.) (Beech Pinion) – 4C-V-2005 2 CDB BIRD.
1999. *Eucirroedia pampina* (Gn.) (9952. *Eucirroedia pampina* (Gn.)) (Spotted Sallow) – 6-IX-2002 CDB BIRD and 24A-VIII-2003 2 CDB BIRD.
2002. *Sunira verberata* (Sm.) (9960. *Sunira verberata* (Sm.)) (Western Sallow) – 6-IX-2002 CDB BIRD.
2003. *Anathix puta* (G. & R.) (9962. *Anathix puta* (G. & R.)) (Putta Sallow) – 4-VIII-2001 1 GGA UASM and 24A-VIII-2003 1 CDB BIRD.
2005. *Xanthia tatago* Laf. & Mik. (9965. *Xanthia togata* (Esp.)) (Pink-barred Sallow) – 23/24-VIII-2001 1 EM OLDS.
2012. *Parastichtis suspecta* (Hbn.) (9431. *Parastichtis suspecta* (Hbn.)) (Mottled Quaker) – 4-VIII-2001 1 GGA UASM.
2014. *Aseptis characta* (Grt.) (9543. *Aseptis characta* (Grt.)) – 1/2-VII-2001 1 EM, OLDS and 8/9-VII-2001 1 EM OLDS.
2019. *Enargia decolor* (Wlk.) (9549. *Enargia decolor* (Wlk.)) (Angle-striped Sallow) – 24A-VIII-2003 1 CDB BIRD.
2022. *Andropolia contacta* (Wlk.) (9564. *Andropolia contacta* (Wlk.)) (Canadian Giant) – 17/18-VIII-1999 1 EM OLDS, 5-VIII-2001 1 GGA UASM and 9-VIII-2002 1 CDB BIRD.

2025. *Rhizagrotis cloanthoides* (Grt.) (9575. *Rhizagrotis cloanthoides* (Grt.)) – 18-VII-2003 1 GGA & BCS UASM.
2035. *Mniotype ducta* (Grt.) (9987. *Mniotype ducta* (Grt.)) (Alberta Rover) – 4/5-VI-2000 1 EM 2029. *Fishia yosemitae* (Grt.) (9974. *Fishia enthea* Grt.) (Dark Fishia) – 12/15-IX-1998 1 EM OLDS, ?-IX-1999 GGA GGAC, 1/2-IX-1999 1 EM OLDS, 12/13-IX-1999 1 EM OLDS and 7-IX-2000 1 GGA UASM.
2036. *Mniotype tenera* (Sm.) (9988. *Mniotype tenera* (Sm.)) (Miniota Rover) – 17/18-VI-2000 1 EM OLDS, 22-VI-2000 4 EM BIRD and 22-VI-2000 1 CDB BIRD.

Noctuidae, Noctuinae, Orthosiini

2042. *Stretchia plusiaeformis* Hy. Edw. (10471. *Stretchia plusiaeformis* Hy. Edw.) (Grey Spectacles) – 26/27-IV-2000 1 EM OLDS.
2044. *Orthosia revicta* (Morr.) (10490. *Orthosia revicta* (Morr.)) (Subdued Quaker) – 18-V-2000 GGA SR and 4B-V-2005 2 CDB BIRD.
2045. *Orthosia segregata* (Sm.) (10493. *Orthosia segregata* (Sm.)) (Segregate Penman) – 1-V-2004 1 GP POHL and 4B-V-2005 4 CDB BIRD. *Orthosia segregata* (Sm.) f. *negussa* (Sm.) – 1-V-2004 2 GP POHL and 4B-V-2005 1 CDB BIRD.
2046. *Orthosia hibisci* (Gn.) (10495. *Orthosia hibisci* (Gn.)) (Variable Penman or Speckled Green Fruitworm Moth) – 4B-V-2005 1 CDB BIRD and 4C-V-2005 4 CDB BIRD.
2047. *Crocigrapha normani* (Grt.) (10501. *Crocigrapha normani* (Grt.)) (Norman's Quaker) – 18/19-V-2000 1 EM OLDS and 19-V-2000 CDB GGAC.
2049. *Egira dolosa* (Grt.) (10513. *Egira dolosa* (Grt.)) (Grieving Woodling or Greater Black-letter Dart) – 4B-V-2005 1 CDB BIRD.

Noctuidae, Noctuinae, Tholerini

2053. *Nephelodes minians* Gn. (10524. *Nephelodes minians* Gn.) (Bronzed Cutworm Moth) – 15/16-VIII-1999 1 EM OLDS, 23/24-VIII-1999 1 EM OLDS, 29A-VIII-2003 1 CDB BIRD and 24B-VIII-2003 1 CDB BIRD.

Noctuidae, Noctuinae, Hadenini

2058. *Anarta trifolii* (Hufn.) (10223. *Discestra trifolii* (Hufn.)) (Clover Cutworm Moth) – 22/23-V-2001 1 EM OLDS, 13/14-VI-2002 1 EM OLDS, 4-VIII-2001 1 GGA UASM, 5-VIII-2001 1 GGA UASM, 9-VIII-2002 1 CDB BIRD and 11/12-VIII-2004 1 GGA UASM.
2059. *Anarta mutata* (Dod) (10224. *Discestra mutata* (Dod)) (The Changeling) – 24B-VIII-2003 1 CDB BIRD.
2060. *Anarta montanica* McD. (10228c. *Discestra oregonica montanica* McD.) – 19-V-2000 GGA GGAC.
2063. *Anarta obesula* (Sm.) (10231. *Discestra obesula* (Sm.)) (Obese Discestra) – 10/11-VII-2000 1 EM OLDS.
2064. *Anarta farnhami* (Grt.) (10232. *Discestra farnhami* (Grt.)) (Farnham's Discestra) – 19/20-V-2000 1 EM OLDS, 19-V-2000 GGA GGAC, 12/13-VI-2000 1 EM OLDS and 17/18-VI-2000 1 EM OLDS.
2065. *Anarta crotchi* (Grt.) (10233. *Discestra crotchi* (Grt.)) – 19-V-2000 GGA GGAC and 4B-V-2005 1 CDB BIRD.

2068. *Scotogramma submarina* (Grt.) (10238. *Scotogramma submarina* (Grt.)) – GGAC, 4/5-VI-2000 1 EM OLDS and 3/4-VII-2000 1 EM OLDS.
2075. *Polia imbrifera* (Gn.) (10276. *Polia imbrifera* (Gn.)) (Cloudy Arches) – 22-VI-2000 CDB BIRD.
2079. *Polia purpurissata* (Grt.) (10280. *Polia purpurissata* (Grt.)) (Purple Arches) – 21/22-VII-1999 1 EM OLDS and 3/4-VII-2000 1 EM OLDS.
2080. *Polia nugatis* (Sm.) (10281. *Polia nugatis* (Sm.)) – 11-VIII-2004 1 GGA UASM.
2081. *Lacanobia nevadae* (Grt.) (10296. *Lacanobia nevadae* (Grt.)) (Nevada Arches) – 5/6-VIII-1999 1 EM OLDS and 3/4-VII-2001 1 EM OLDS.
2082. *Lacanobia atlantica* (Grt.) (10297. *Lacanobia atlantica* (Grt.)) (Atlantic Arches) – 19-V-2000 2 CDB BIRD, 12/13-VI-2000 1 EM OLDS, 18/19-VI-2000 1 EM OLDS, 22-VI-2000 1 CDB BIRD, 3/4-VII-2000 2 EM OLDS, 3/4-VII-2000 EM BIRD, 6/7-VI-2001 1 EM OLDS and 1-V-2004 2 GP POHL.
2083. *Lacanobia radix* (Wlk.) (10298. *Lacanobia radix* (Wlk.)) (Garden Arches) – 19-V-2000 GGA GGAC, 12/13-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD, 3/4-VII-2000 2 EM OLDS and 13/14-VI-2002 1 EM OLDS.
2084. *Lacanobia subjuncta* (G. & R.) (10299. *Lacanobia subjuncta* (G. & R.)) – 22-VI-2000 1 CDB BIRD.
2086. *Melanchra picta* (Harr.) (10293. *Melanchra picta* (Harr.)) (Zebra Caterpillar Moth) – 12/13-VI-2000 1 EM OLDS.
2088. *Melanchra assimilis* (Morr.) (10295. *Melanchra assimilis* (Morr.)) (Black Arches) – 18/19-VI-2000 1 EM OLDS. 3/4-VII-2000 1 EM OLDS and 6/7-VII-2002 1 EM OLDS.
2089. *Spiramater grandis* (Gn.) (10300. *Spiramater grandis* (Gn.)) (Pale-banded Arches) – 4/5-VI-2000 1 EM OLDS, 3/4-VII-2000 1 EM OLDS, 6/7-VI-2001 1 EM OLDS and 13/14-VI-2002 1 EM OLDS.
2090. *Spiramater lutra* Gn. (10301. *Spiramater lutra* Gn.) (Darling Arches) – 12/13-VI-2000 1 EM OLDS, 18/19-VI-2000 1 EM OLDS, 22/23-VI-2000 1 EM OLDS and 3/4-VII-2000 1 EM OLDS.
2092. *Trichordestra tacoma* (Stkr.) (10303. *Lacanobia tacoma* (Stkr.)) (Tacoma Arches) – 12/13-VI-2000 1 EM OLDS and 22/23-V-2001 1 EM OLDS.
2094. *Trichordestra dodii* (Sm.) (10305. *Trichordestra dodii* (Sm.)) (Dod's Arches) – 4/5-VI-2000 1 EM OLDS, 18/19-VI-2000 1 EM OLDS, 22-VI-2000 2 EM BIRD, 3/4-VII-2000 4 EM OLDS and 8/9-VII-2001 1 EM BIRD.
2095. *Trichordestra lilacina* (Harv.) (10307. *Trichordestra lilacina* (Harv.)) (Lilac Arches) – 10/11-VII-2000 1 EM OLDS, 10/11-IX-2000 1 EM OLDS, 8/9-VII-2001 1 EM BIRD and 4-VIII-2001 1 GGA UASM.
2096. *Trichordestra liquida* (Grt.) (10308. *Trichordestra liquida* (Grt.)) (Liquid Arches) – 12/13-VI-2000 1 EM OLDS, 17/18-VI-2000 1 EM OLDS, 8/9-VII-2001 2 EM BIRD and 13/14-VI-2002 EM OLDS.
2097. *Papestra quadrata* (Sm.) (10310. *Papestra quadrata* (Sm.)) (Quadrate Arches) – 18/19-V-2000 1 EM OLDS, 19-V-2000 GGA GGAC, 29/30-V-2000 1 EM OLDS, 4/5-VI-2000 1 EM OLDS, 22/23-V-2001 1 EM OLDS and 27/28-VI-2001 1 EM OLDS.
2102. *Mamestra configurata* Wlk.) (10271. *Mamestra configurata* Wlk.) (Bertha Armyworm) – 15/16-VIII-1999 1 EM OLDS and 3/4-VII-2000 1 EM OLDS.
2107. *Sideridis rosea* (Harv.) (10265. *Sideridis rosea* (Harv.)) (The Rosewing) – 18/19-V-2000 1 EM OLDS, 18-V-2000 GGA UASM, 29/30-V-2000 1 EM OLDS, 12/13-VI-2000 1 EM OLDS, 18/19-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD, 3/4-VII-2000 2 EM OLDS and 13/14-VI-2002 1 EM OLDS.

2108. *Sideridis maryx* (Gn.) (10268. *Sideridis maryx* (Gn.)) (Ruby Penman) – 4/5-VI-2000 1 EM OLDS, 22/23-VI-2000 1 EM OLDS and 13/14-VI-2002 1 EM OLDS.

Noctuidae, Noctuinae, Leucaniini

2112. *Faronta diffusa* (Wlk.) (10431. *Faronta diffusa* (Wlk.)) (Wheathead Armyworm Moth) – 12/13-VI-2000 1 EM OLDS, 22/23-V-2001 1 EM OLDS and 13/14-VI-2002 1 EM OLDS.
2113. *Dargida procinctus* (Grt.) (10428. *Dargida procincta* (Grt.)) (The Girdler) – 6/7-VI-2001 1 EM OLDS, 20/21-VIII-2001 1 EM OLDS and 23/24-VIII-2001 1 EM OLDS.
2114. *Mythimna oxygala* (Grt.) (10436. *Aletia oxygala* (Grt.)) (Lesser Wainscot) – 3/4-VII-2000 1 EM OLDS and 10/11-VII-2000 1 EM OLDS.
2115. *Mythimna unipuncta* (Haw.) (10438. *Pseudaletia unipuncta* (Haw.)) (Armyworm Moth) – GGAC, 6/7-VI-2001 1 EM OLDS.
2118. *Leucania multilinea* Wlk. (10446. *Leucania multilinea* Wlk.) (Many-lined Wainscot) – 22-VI-2000 CDB BIRD, 3/4-VII-2000 1 EM OLDS and 9-VIII-2002 1 CDB BIRD.
2119. *Leucania commoides* Gn. (10447. *Leucania commoides* Gn.) (Common Wainscot) – 22-VI-2000 1 EM BIRD and 3/4-VII-2000 1 EM OLDS.
2120. *Leucania insueta* Gn. (10449. *Leucania insueta* Gn.) (Heterodox Wainscot) – 12/13-VI-2000 1 EM OLDS and 22-VI-2000 1 EM BIRD.

Noctuidae, Noctuinae, Eriopygini

2142. *Lacinipolia meditata* (Grt.) (10368. *Lacinipolia meditata* (Grt.)) (The Thinker, Pink-backed Cutworm Moth) – GGAC.
2143. *Lacinipolia lustralis* (Grt.) (10370. *Lacinipolia lustralis* (Grt.)) (Lustrous Arches) – 12/13-VI-2000 1 EM OLDS, 17/18-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD and 3/4-VII-2000 1 EM OLDS.
2145. *Lacinipolia anguina* (Grt.) (10372. *Lacinipolia anguina* (Grt.)) (Snaky Arches) – 19-V-2000 CDB BIRD, 19-V-2000 GGA SR, 4/5-VI-2000 1 EM OLDS, 12/13-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD, 18/19-V-2001 1 EM OLDS and 27/28-V-2001 1 EM OLDS.
2148. *Lacinipolia vicina* (Grt.) (10394. *Lacinipolia vicina* (Grt.)) (Small Grey Arches) – 12/13-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD, 3/4-VII-2000 1 EM OLDS, 3/4-VII-2001 5 EM OLDS and 5-VIII-2001 1 GGA UASM.
2149. *Lacinipolia pensilis* (Grt.) (10395. *Lacinipolia pensilis* (Grt.)) (Pacific Polia) – 3/4-VII-2000 1 EM OLDS and 24A-VIII-2003 1 CDB BIRD.
2150. *Lacinipolia renigera* (Steph.) (10397. *Lacinipolia renigera* (Steph.)) (Kidney-spotted Arches) – 3/4-VII-2000 2 EM OLDS and 9-VIII-2002 CDB BIRD.
2152. *Lacinipolia lorea* (Gn.) (10405. *Lacinipolia lorea* (Gn.)) (Bridled Arches) – 17/18-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD and 3/4-VII-2000 1 EM OLDS.
2153. *Lacinipolia olivacea* (Morr.) (10406. *Lacinipolia olivacea* (Morr.)) (Olive Arches) – 27-VIII-2002 CDB BIRD.
2157. *Anhimela contrahens* (Wlk.) (10530. *Anhimela contrahens* (Wlk.)) (Brown Stylus) – 5/6-VIII-1999 1 EM OLDS and 4-VIII-2001 1 GGA UASM.
2162. *Protorthodes oviduca* (Gn.) (10563. *Protorthodes oviduca* (Gn.)) (Ruddy Quaker) – 19-V-2000 GGA SR and 22-VI-2000 CDB BIRD.
2166. *Orthodes obscura* (Sm.) (10290. *Polia obscura* (Sm.)) (Obscure Arches) – 19-V-2000 1 GGA GGAC, 4/5-VI-2000 1 EM OLDS, 22-VI-2000 1 EM OLDS and 13/14-VI-2002 1 EM OLDS.

2168. "*Polia detracta* (Wlk.) (10288. *Polia detracta* (Wlk.)) Disparaged Arches) – 22-VI-2000 2 CDB BIRD and 23/24-VI-2002 1 EM OLDS.

Noctuidae, Noctuinae, Noctuini

2172. *Peridroma saucia* (Hbn.) (10915. *Peridroma saucia* (Hbn.)) (Variegated Cutworm Moth) – 6/7-VII-2001 1 EM OLDS.
2173. *Anicla exuberans* (Sm.) (10905. *Euagrotis exuberans* (Sm.)) – 4-VIII-2001 1 GGA UASM and 5-VIII-2001 1 GGA UASM.
2174. *Anicla tepperi* (Sm.) (10910. *Euagrotis tepperi* (Sm.)) (Black-girdled Dart) – 1/2-VIII-1999 1 EM OLDS, 12/13-VI-2000 1 EM OLDS, 18/19-VI-2000 1 EM OLDS, 22-VI-2000 2 CDB BIRD, 3/4-VII-2000 1 EM OLDS and 3/4-VII-2000 1 EM OLDS.
2176. *Actebia balanitis* (Grt.) (10923. *Protexarnis squalida* (Grt.)) (Acorn Dart) – GGAC, 3/4-IX-2001 1 EM OLDS and 24A-VIII-2003 2 CDB BIRD.
2184. *Protogygia querula* (Dod) (10894. *Protogygia querula* (Dod)) – 1-VII-2001 BCS GGAC.
2188. *Euxoa adumbrata* (Ev.) (Not in Hodges) – 3/4-VIII-2000 1 EM OLDS, 20/21-VIII-2001 1 EM OLDS and 23/24-VI-2002 1 EM OLDS.
2189. *Euxoa auxiliaris* (Grt.) (10731. *Chorizagrotis auxiliaris* (Grt.)) (Army Cutworm) – 13/14-VI-2002 1 EM OLDS and 24-VIII-2002 2 CDB BIRD.
2191. *Euxoa mimallonis* (Grt.) (10738. *Euxoa mimallonis* (Grt.)) (Ruddy Dart) – 23/24-VIII-2001 1 EM OLDS.
2194. *Euxoa messoria* (Harr.) (10705. *Euxoa messoria* (Harr.)) (Reaper Dart) – 3/4-VII-2000 2 EM OLDS and 9-IX-2000 GGA UASM.
2195. *Euxoa divergens* (Wlk.) (10702. *Euxoa divergens* (Wlk.)) (Divergent Dart) – 3/4-VII-2000 2 EM OLDS & BIRD, 16/17-VI-2000 1 EM OLDS and 22-VI-2000 1 CDB BIRD.
2204. *Euxoa tristicula* (Morr.) (10723. *Euxoa tristicula* (Morr.)) (Three-marked Dart, Early Cutworm) – 18-V-2000 1 BCS UASM, 12/13-VI-2000 1 EM OLDS, 17/18-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD and 3/4-VII-2000 1 EM OLDS.
2207. *Euxoa pestula* Sm. (10728. *Euxoa pestula* Sm.) (Pestula Dart) – 3-IX-2002 CDB BIRD.
2209. *Euxoa medialis* (Sm.) (10813. *Euxoa medialis* (Sm.)) (Median-banded Dart) – 16/17-IX-2000 1 EM OLDS and 15/16-IX 2001 1 EM OLDS.
2214. *Euxoa setonia* McD. (10794. *Euxoa setonia* McD.) (Seton Lake Dart) – 22/23-VII-1999 1 EM GGAC, 12/13-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD, 3/4-VII-2000 1 EM OLDS, 10/11-VII-2000 1 EM OLDS, 3/4-VIII-2000 1 EM OLDS, 6/7-VI-2001 1 EM OLDS, 1-VII-2001 1 GGA UASM, 3/4-VII-2001 1 EM OLDS, 4-VIII-2001 1 GGA UASM, 3/4-IX-2001 1 EM OLDS and 3/4-VI-2002 1 EM OLDS.
2215. *Euxoa declarata* (Wlk.) (10755. *Euxoa declarata* (Wlk.)) (Clear Dart) – 23/24-VIII-2001 2 EM OLDS & BIRD, 3/4-IX-2001 1 EM OLDS and 24-VIII-2002 1 CDB BIRD.
2216. *Euxoa campestris* (Grt.) (10756. *Euxoa campestris* (Grt.)) (Flat Dart) – 4-VIII-2001 1 GGA UASM, 23/24-VIII-2001 2 EM OLDS and 11/12-VIII-2004.
2220. *Euxoa tessellata* (Harr.) (10805. *Euxoa tessellata* (Harr.)) (Tessellate Dart) – 3/4-VII-2001 1 EM OLDS, 5-VIII-2001 4 GGA UASM, 20/21-VIII-2001 1 EM OLDS, 23/24-VIII-2001 1 EM OLDS and 3/4-IX-2001 1 EM OLDS.
2221. *Euxoa plagigera* (Morr.) (10804. *Euxoa plagigera* (Morr.)) (Plaited Dart) – 15/16-VIII-1999 1 EM OLDS, 19/20-VIII-1999 1 EM OLDS and 11/12-VIII-2004 1 GGA UASM.
2222. *Euxoa albipennis* (Grt.) (10807. *Euxoa albipennis* (Grt.)) (White-winged Dart) – 23/24-VIII-2001 1 EM OLDS.

2224. *Euxoa comosa* (Morr.) (10780. *Euxoa comosa* (Morr.)) (Hairy Dart) – 4-VIII-2001 6 GGA UASM, 5-VIII-2001 7 GGA UASM, 23/24-VIII-2001 EM BIRD, 24-VIII-2002 2 CDB BIRD and 11/12-VIII-2004 7 GGA UASM.
2228. *Euxoa ochrogaster* (Gn.) (10801. *Euxoa ochrogaster* (Gn.)) (Red-backed Cutworm Moth) – 5-VIII-2001 2 GGA UASM, 9-VIII-2001 CDB BIRD, 20/21-VIII-2001 1 EM OLDS, 23/24-VIII-2001 1 EM OLDS and 2 BIRD, 24-VIII-2001 CDB BIRD, 9-VIII-2002 2 CDB BIRD, 24-VIII-2002 CDB BIRD, 6-IX-2002 1 and 24A-VIII-2003 1 CDB BIRD.
2232. *Euxoa obeliscoides* (Gn.) (10817. *Euxoa obeliscoides* (Gn.)) (Obelisk Dart) – 23/24-VIII-2001 1 EM OLDS, 23/24-VIII-2001 1 EM OLDS, 3/4-IX-2001 1 EM OLDS and 24-VIII-2002 CDB BIRD.
2233. *Euxoa basalis* (Grt.) (10798. *Euxoa basalis* (Grt.)) (Pale-based Dart) – 11/12-VIII-2004 1 GGA UASM.
2234. *Euxoa castanea* Laf. (Not in Hodges) – 4-VIII-2001 1 GGA UASM and 5-VIII-2001 GGA UASM.
2239. *Euxoa servitus* (Sm. or 2240. *Euxoa auripennis* Laf. (10854. *Euxoa servita* (Sm.) or 10852. *Euxoa auripennis* Laf.) – 23/24-VIII-2001 1 EM OLDS, 24-VIII-2002 CDB BIRD and 24A-VIII-2003 1 CDB BIRD.
2239. *Euxoa servitus* (Sm.) (10854. *Euxoa servita* (Sm.)) (Servita Dart) – 23/24-VIII-1999 1 EM OLDS.
2242. *Euxoa oblongistigma* Sm. (10834. *Euxoa oblongistigma* (Sm.)) (Oblong Dart) – 29-VII-1999 1 GGA UASM and 5-VIII-2001 1 GGA UASM.
2244. *Euxoa tronellus* Sm. (10842. *Euxoa tronella* (Sm.)) – 23/24-VIII-2001 1 EM, UASM.
2252. *Euxoa quadridentata* (G. & R.) (10830. *Euxoa quadridentata* (G. & R.)) (Four-toothed Dart) – GGAC, 23/24-VIII-1999 1 EM OLDS, 23/24-VIII-2001 EM BIRD and 24A-VIII-2003 1 CDB BIRD.
2254. *Euxoa dargo* (Stkr.) (10836. *Euxoa dargo* (Stkr.)) (Dargo Dart) – GGAC.
2257. *Euxoa aequalis* (Harv.) (10777. *Euxoa aequalis* (Harv.)) (Aequalis Dart) – 5/6-VIII-1999 1 EM UASM and 7-IX-2000 1 GGA UASM.
2266. *Euxoa perolivalis* (Sm.) (10860. *Euxoa perolivalis* (Sm.)) – 4-VIII-2001 1 GGA UASM and 5-VIII-2001 2 GGA UASM.
2269. *Euxoa flavicollis* (Sm.) (10864. *Euxoa flavicollis* (Sm.)) (Yellow-lined Dart) – 11/12-VIII-2004 1 GGA UASM.
2270. *Euxoa maimes* Sm. (10861.1. *Euxoa maimes* (Sm.)) – GGAC.
2271. *Euxoa ridingsiana* (Grt.) (10861. *Euxoa ridingsiana* (Grt.)) (Riding's Dart) – 29-VII-1998 1 GGA UASM, 4-VIII-2001 3 GGA UASM, 9-VIII-2002 2 CDB BIRD and 24B-VIII-2002 4 CDB BIRD.
2272. *Feltia mollis* (Wlk.) (10644. *Agrotis mollis* Wlk.) – 21/22-VII-1999 1 EM OLDS, 5/6-VIII-1999 1 EM OLDS, 8/9-VII-2001 2 EM BIRD and 4-VIII-2001 1 GGA UASM.
2274. *Feltia jaculifera* (Gn.) (10670. *Feltia jaculifera* (Gn.)) (Dingy Cutworm Moth) – 9-VIII-2002 CDB BIRD, 24-VIII-2002 CDB BIRD and 24B-VIII-2003 1 CDB BIRD.
2276. *Agrotis vetusta* Wlk. (10641. *Agrotis vetusta* Wlk.) (Old Man Dart) – 20/21-VIII-2001 1 EM OLDS, 23/24-VIII-2001 1 EM OLDS and 9-VIII-2002 CDB BIRD.
2280. *Agrotis orthogonia* Morr.) (10645. *Agrotis orthogonia* Morr.) (Pale Western Cutworm) – 20/21-VIII-2001 1 EM OLDS, 24A-VIII-2003 1 CDB BIRD and 11/12-VIII-2004 1 GGA UASM.
2281. *Agrotis robustior* (Sm.) (10650. *Agrotis robustior* (Sm.)) (Robust Dart) – 22/23-VIII-1999 1 EM OLDS, 24/25-VIII-1999 1 EM OLDS, 12/13-VIII-2001 1 EM OLDS, 20/21-VIII-2001 1 EM OLDS, 23/24-VIII-2001 1 EM OLDS and 14-VIII-2002 CDB BIRD.

2282. *Agrotis venerabilis* Wlk. (10651. *Agrotis venerabilis* Wlk.) (Venerable Dart) – 23/24-VIII-2001 1 EM OLDS, 24-VIII-2002 CDB BIRD, 6-IX-2002 CDB BIRD and 24B-VIII-2003 1 CDB BIRD.
2283. *Agrotis venerabilis* Grt. (10652. *Agrotis vancouverensis* Grt.) (Vancouver Dart) – 18-V-2000 1 GGA UASM, 22-VI-2000 2 CDB BIRD and 3/4-VII-2000 2 EM OLDS..
2289. *Ochropleura implecta* Laf. (10891. *Ochropleura plecta* (L.)) (Flame-shouldered Dart) – 22/23-VI-2000 1 EM OLDS.
2292. *Diarsia rubifera* (Grt.) (10917. *Diarsia rubifera* (Grt.)) (Rubifera Dart) – 29-VII-1998 GGAC.
2295. *Paradiarsia littoralis* (Pack.) (10992. *Paradiarsia littoralis* (Pack.)) (Labrador Dart) – 3/4-VII-2000 1 EM BIRD, 17/18-VI-2000 1 EM OLDS, 22-VI-2000 CDB BIRD and 3/4-VII-2002 2 EM OLDS.
2301. *Cryptocala acadensis* (Bethune) (11012. *Cryptocala acadensis* (Bethune)) (Catocaline Dart) – 4-VIII-2001 1 GGA UASM.
2302. *Spaelotis clandestina* (Harr.) (10926. *Spaelotis clandestina* (Harr.)) (Clandestine Dart) – 22/23-VI-2000 1 EM OLDS, 3/4-VII-2000 1 EM OLDS and 24-VIII-2002 CDB BIRD.
2303. *Spaelotis bicava* Laf. (Not in Hodges) – 17/18-VI-2000 1 EM OLDS.
2304. *Eurois occulta* (L.) (10929. *Eurois occulta* (L.)) (Great Gray Dart) – 24-VIII-2002 CDB BIRD, 6-IX-2002 CDB BIRD and 24A-VIII-2003 1 CDB BIRD.
2305. *Eurois astricta* Morr. (10930. *Eurois astricta* Morr.) (Great Brown Dart) – 21/22-VII-1999 1 EM OLDS and 10/11-VII-2000 1 EM OLDS.
2306. *Eurois nigra* (Sm.) (10931. *Eurois nigra* (Sm.)) (Great Black Dart) – 29-VII-1998 GGA GGAC and 3/4-VIII-2000 1 EM OLDS.
2312. *Eueretagrotis perattentus* (Grt.) (11008. *Eueretagrotis perattenta* (Grt.)) (Two-spot Dart) – 3/4-VII-2000 1 EM BIRD.
2313. *Xestia smithii* (Snell.) (10944. *Xestia smithii* (Snell.)) (Spotted Clay Dart) – 11/12-VIII-2004 1 GGA UASM.
2315. *Xestia oblata* (Morr.) (10947. *Xestia oblata* (Morr.)) (Ruby Dart) – 8/9-VII-2001 1 EM OLDS.
2322. *Xestia c-nigrum* L. (10942. *Xestia c-nigrum* L.) (Black-letter Dart) – 22-VI-2000 CDB BIRD and 24A-VIII-2003 1 CDB BIRD.
2335. *Agnorisma bugrai* (Koçak) (10954. *Xestia collaris* (G. & R.)) (Collared Dart) – 23/24-VIII-1999 1 EM OLDS, 9/10-VIII-2002 1 EM BIRD, 24A-VIII-2003 1 CDB BIRD, 24B-VIII-2003 2 CDB BIRD and 11/12-VIII-2004 1 GGA UASM.
2336. *Pseudohermonassa bicarnea* (Gn.) (10950. *Pseudohermonassa bicarnea* (Gn.)) – 2-VIII-2002 3 GGA UASM.
2337. *Pseudohermonassa tenuicula* (Morr.) (10951. *Pseudohermonassa tenuicula* (Morr.)) (Hair-pin Dart) – 2-VIII-2002 1 GGA UASM.
2344. *Protolampra rufipectus* (Morr.) (11004. *Protolampra rufipectus* (Morr.)) (Red-breasted Dart) – 4-VIII-2001 1 GGA UASM, 5-VIII-2001 1 GGA UASM and 9-VIII-2002 CDB BIRD.
2347. *Abagrotis trigona* (Sm.) (11018. *Abagrotis trigona* (Sm.)) – 5-VIII-2001 2 GGA UASM and 11/12-VIII-2004 2 GGA UASM.
2351. *Abagrotis reedi* Buckett (11040. *Abagrotis reedi* Buckett) (Reed's Dart) – 4-VIII-2001 1 GGA UASM, 5-VIII-2001 1 GGA UASM, 23/24-VIII-2001 1 EM BIRD and 9-VIII-2002 1 CDB BIRD.
2355. *Abagrotis hermina* Laf. (Not in Hodges) – 24-VIII-2002 CDB BIRD.
2357. *Abagrotis placida* (Grt.) group (11041. *Abagrotis placida* (Grt.)) (Placid Dart) – 4-VIII-2001 9 GGA UASM, 3/4-VII-2000 1 EM OLDS, 9-IX-2000 2 GGA UASM, 9-VIII-2002 3 CDB BIRD, 24A-VIII-2003 1 CDB BIRD and 11-VIII-2004 11 GGA UASM.
2364. *Abagrotis cupida* (Grt.) (11043. *Abagrotis cupida* (Grt.)) – 9-IX-2000 2 GGA GGAC.

2366. *Pronoctua peabodyae* (Dyar) 11049.1. *Pronoctua peabodyae* (Dyar) – 11-VIII-2004 1 GGA UASM.

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 (TB) is most similar to DI (47.33%), BL (44.92%), BK (43.61%) and AH (43.58%); and least similar to JC (25.68%) and LF (25.89%). The J.J. Collett Natural Area, has quite different habitats, especially spruce woods, than are present in TB.

SUMMARY

Four hundred and fifty-two species of moths and 33 species of skippers and butterflies are reported from The Tolman Bridge area (TB). It has many species in common with those of Dry Island Buffalo Jump Provincial Park (DI). The latter, however, has more habitats, especially north-facing slope, white spruce woods and thus has a greater number of species. The considerable biodiversity evident in TB is possible because of its varied terrain, soil types, and relatively undisturbed condition.

Of the 13 areas involved in this study, 23 species of moths are known only from Tolman Bridge: *Pigritia murtfeldtella*, *Sesia tibiale*, *Synanthedon proxima*, *Epiblema abruptana?*, *Aglossa cuprina*, *Raphiptera argillaceellus*, *Eupithecia niphadophilata*, *Digrammia subminiata*, *Metarranthis warnerae*, *Catocala praeclara*, *Acronicta lepusculina*, *Amphipyra glabella*, *Condita videns*, *Helicoverpa zea*, *Rhizagrotis cloanthoides*, *Anarta obesula*, *Sideridis maryx*, *Lacinipolia pensilis*, *Euxoa oblongistigma*, *Euxoa tronella*, *Euxoa perolivalis*, *Pseudohermonassa bicarnea* and *Pronoctua peabodyae*.

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

Entomological Museum of the Department of Biological Sciences at the University of Alberta: <http://www.entomology.ualberta.ca/>.

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

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

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

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- Covell, Charles V., Jr. 1984. A Field guide to Moths; Eastern North America. Houghton, Mifflin Co., Boston, New York.
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- Powell, J. A. & P. A. Opler. 2009. Moths of Western North America. Univ. California Press. 369 pp.