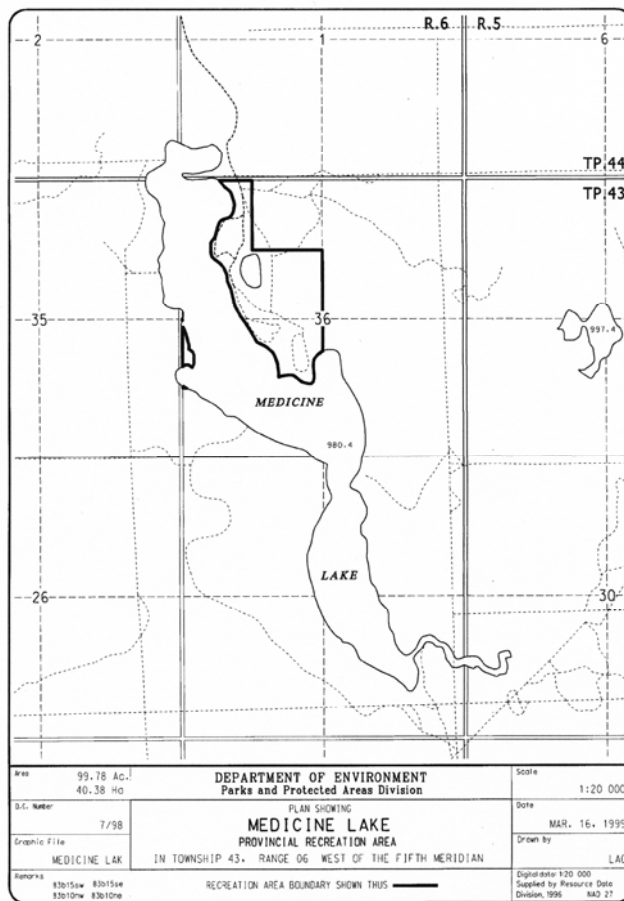


MEDICINE LAKE PROVINCIAL RECREATION AREA,
37 km NNW of Rimbey

Charles Durham Bird, 15 March 2010
Box 22, Erskine, AB, T0C 1G0
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THE AREA

The above area is located 37 km NNW of Rimbey, Alberta. The 40.38 ha (100 acre) area was designated a Provincial Recreation Area in 1998. No biophysical reports exist and, until the present one, no bioinventory studies have been carried out for the area.



The vegetation in the area is diverse, primarily mixed woods with White spruce, Aspen, Balsam Poplar, Lodgepole Pine and Paper Birch; lake edge with Willows and emergents; and some tamarack/black spruce/sphagnum bogs.



Medicine Lake, 6 Aug 2003. Tamarack/Black Spruce/Labrador Tea/Big Birch/Sphagnum bog.



Wet woods beside Medicine Lake with White Birch, 12 Jul 2009.

PERIODS OF STUDY

The Lepidoptera of the area was studied on 10 different days (21 trap nights) from July 11 to August 15 in the years 2003, 2004, 2006, 2008 and 2009 (see Appendix). All collected specimens were databased and information on most is available on the Virtual Museum website of the University of Alberta Strickland Museum. No collections were made in the spring, early summer or fall and thus many species remain to be documented.

THE FOLLOWING CHECKLIST

The order and terminology, is that of MONA (R.W. Hodges 1983) except where recent changes in taxonomy have occurred. While most of the larger (macromoths) are relatively well known, the same cannot be said for many of the smaller (micromoths) ones. Identifications, especially of the latter, can be difficult or are at present impossible, until such time as revisionary studies are made. Also, genitalic dissection and examination is necessary for positive identification in some groups. For these reasons, some of the determinations found herein should be regarded as tentative. The scientific names of the species are followed by the day-month-year of the collection and the number of individuals mounted; an "SR" indicates a sight record. Common names are mentioned in those cases where such names exist.

Pohl et al (2010) have put together an up-to-date annotated list of the Lepidoptera of Alberta. They include 2367 species, many more than those mentioned by Bowman (1951). The list incorporates recent changes in taxonomy of all groups according to various literature sources, including those listed for the Noctuoidea by Lafontaine & Schmidt (2010).

TINEIDAE – Clothes Moths and others

399. *Tinea irrepta* Braun – 22B-VII-2006 1 and 12C-VII-2009 1.
 412. *Nideitinea orleansella* (Cham.) - 22B-VII-2006 1.
 421. *Monopis spilotella* Tengström – 5-VIII-2003 1, 2-VIII-2004 3, 21C-VII-2006 2, 15A-VIII-2008 2 and 15B-VIII-2008 1.

GRACILLARIIDAE – Gracillariid Moths

587. *Caloptilia alnivorella* (Cham.) - 21C-VII-2006 1, 22A-VII-2006 1, 11C-VII-2009 1 and 12B-VII-2009 1.
 640. *Caloptilia strictella* (Wlk.) - 15B-VIII-2008 1.
 669. *Parornix conspicuella* (Dietz) - 22A-VII-2006 1.
Phyllonorycter sp. – 11B-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 2.
 798. *Phyllonorycter apparella* (H.-S.)? (*P.tremuloidella* (Braun)?) - 22B-VII-2006 1.

OECOPHORIDAE – Oecophorid Moths

855. *Agonopterix gelidella* (Bsk.) - 5-VIII-2003 2 and 7-VIII-2003 1.
 878. *Agonopterix canadensis* (Bsk.) - 21C-VII-2006 1.
 889. *Agonopterix argillacea* (Wlsm.) - 15A-VIII-2008 1.
 908. *Depressariodes ciniflonella* (Lienig & Zell.) - 7-VIII-2003 1 and 2-VIII-2004 1.
 911. *Bibarrambra allenella* (Wlsm.) – 11C-VII-2009 1 and 12C-VII-2009 1.

COLEOPHORIDAE – Casebearer Moths

Coleophora spp. - 15A-VIII-2008 2, 11B-VII-2009 1 and 12C-VII-2009 4. Dr. J-F Landry who is working on a Monograph of the genus.

MOMPHIDAE – Momphid Moths

Mompha spp. - 2-VIII-2004 1.

1423. Mompha albapalpella (Cham.) - 21B-VII-2006 1 and 21C-VII-2006 1.

COSMOPTERIGIDAE – Cosmopterigid Moths

1515. Limnaecia phragmitella Staint. - 21C-VII-2006 1.

GELECHIIDAE – Gelechiid Moths

indet Gelechiids - 5-VIII-2003 4, 7-VIII-2003 2, 2-VIII-2004 3, 21B-VII-2006 4, 21C-VII-2006 1, 22A-VII-2006 2, 15A-VIII-2008 2, 11C-VII-2009 2, 12B-VII-2009 1 and 12C-VII-2009 4. Little is known about many of the species in this family and it may be many years before some of these specimens are determined or even described.

Aristotelia sp. - 15B-VIII-2008 1.

1734. Aristotelia devexella Braun - 22B-VII-2006 1.

1946. Gelechia lynceella Zell. - 21C-VII-2006 1 and 22B-VII-2006 1.

2069.11. Chionodes sattleri Hodges - 21B-VII-2006 1, 21C-VII-2006 2, 22A-VII-2006 1, 11C-VII-2009 1 and 12C-VII-2009 1.

2111. Chionodes psilopterus (B. & Bsk.) - 2-VIII-2004 1, 21C-VII-2006 3 and 22A-VII-2006 1.

2235. Anacampsis fragariella Bsk. - 2-VIII-2004 1 and 22B-VII-2006 1.

2243. Anacampsis niveopulvella (Cham.) - 5-VIII-2003 1 and 15A-VIII-2008 1.

2300. Dichomeris levisella Fyles - 2-VIII-2004 1.

ALUCITIDAE – Many-plume Moths

2313. Alucita adriendenisi B. Landry & J.-F. Landry - 7-VIII-2003 1 and 15A-VIII-2008 1.

PLUTELLIDAE – Plutellid Moths

2365. Plutella (Greya) vanella Wlsm. - 5-VIII-2003 2, 2-VIII-2004 1, 21B-VII-2006 1, 21C-VII-2006 1, 22A-VII-2006 1, 15A-VIII-2008 1 and 15B-VIII-2008 1.

2366. Plutella xylostella (L.) (Diamondback Moth) - 5-VIII-2003 1, 6-VIII-2003 2 and 7-VIII-2003 1.

2371. Ypsolopha canariella (Wlsm.) - 5-VIII-2003 1 and 7-VIII-2003 1.

ARGYRESTHIIDAE – Argyresthiid Moths

2467. Argyresthia oreasella (Clem.) - 21C-VII-2006 1, 22B-VII-2006 1 and 15B-VIII-2008 1.

2474. Argyresthia pygmaeella (Hbn.) - 2-VIII-2004 1 and 22B-VII-2006 1.

SESIIDAE – Sesiid Moths

2555. Synanthedon fatifera Hodges - 23-VII-2006 1.

CHOREUTIDAE – Choreutid Moths

2651. *Choreutis diana* (Hbn.) - 6-VIII-2003 1, 21C-VII-2006 1 and 22B-VII-2006 2.

TORTICIDAE – Tortricid Moths

2707. *Bactra verutana* Zell. (Javelin Moth) - 5-VIII-2003 1.
 2743a. *Endothenia nubilana* (Clem.) - 2-VIII-2004 1.
 2753 - *Apotomis capreana* (Hbn.) (Sallow Apotomis Moth) - 2-VIII-2004 1, 21B-VII-2006 1, 21C-VII-2006 4, 22B-VII-2006 1, 15A-VIII-2008 2 and 15B-VIII-2008 1.
 2765. *Apotomis deceptana* (Kft.) (Deceptive Apotomis Moth) - 5-VIII-2003 1, 21C-VII-2006 1, 15A-VIII-2008 3, 15B-VIII-2008 1, 11B-VII-2009 1, 11C-VII-2009 1 and 12C-VII-2009 2.
 2766. *Apotomis dextrana* McD. (Green Aspen Leafroller Moth) - 21C-VII-2006 3 and 22B-VII-2006 2.
Olethreutes spp. - 2-VIII-2004 2, 11C-VII-2009 1, 12B-VV-2009 2 and 12C-VII-2009 1. Many of the species in this genus are difficult to identify and require genitalic examination.
 2848. *Olethreutes bipartitana* (Clem.) (Divided *Olethreutes* Moth) - 22A-VII-2006 1 and 11C-VII-2009 1.
 2860. *Hedya separatana* (Kft.) (Pink-washed Leafroller Moth) – 12C-VII-2009 1.
 2933. *Phaneta marmontana* (Kft.) - 5-VIII-2003 1 and 22B-VII-2006 1.
 2937. *Phaneta parmatana* (Clem.) - 5-VIII-2003 1 and 15A-VIII-2008 1.
 2969. *Phaneta indagatricana* (Heinr.) - 5-VIII-2003 2 and 6-VIII-2003 1.
 2980. *Phaneta pallidicostana* (Wlsm.) - 21C-VII-2006 1.
 3211. *Notocelia culminana* (Wlsm.) - 5-VIII-2003 2, 6-VIII-2003 2, 2-VIII-2004 2, 21C-VII-2006 2 and 15B-VIII-2008 2.
 3227. *Gypsonoma substitutionis* Heinr. – 12C-VII-2009 1.
 3240. *Zeiraphera canadensis* Mutuura & Free. - 15A-VIII-2008 1.
 3276. *Rhopobota naevana* (Haw.) (Holly Tortrix Moth) - 15B-VIII-2008 1.
 3302. *Epinotia rectiplicana* (Wlsm.) – 11C-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 1.
 3306. *Epinotia nisella* Cl. (Variable Tortrix Moth) - 5-VIII-2003 1, 6-VIII-2003 1, 7-VIII-2003 2, 2-VIII-2004 2 and 21C-VII-2006 2.
 3307. *Epinotia criddleana* Kft. - 22B-VII-2006 1 and 15B-VIII-2008 1.
 3344. *Epinotia medioplagata* (Wlsm.) - 22A-VII-2006 1.
 3354. *Ancylis nubeculana* (Clem.) – 12C-VII-2009 1.
 3355. *Ancylis subaequana* (Zell.) – 12C-VII-2009 1.
 3358. *Ancylis discigerana* (Wik.) – 11B-VII-2009 1.
 3374. *Ancylis comptana* Frölich (Strawberry Leafroller Moth) – 11C-VII-2009 1.
 3463. *Cydia populana* (Bsk.) - 21C-VII-2006 1.
 3465. *Cydia flexiloqua* (Heinr.) - 21C-VII-2006 1 and 22B-VII-2006 2.
 3467. *Cydia nigricana* (F.) (Pea Moth) - 21C-VII-2006 1.
 3502. *Croesia albicomana* (Clem.) - 5-VIII-2003 1, 2-VIII-2004 1, 21C-VII-2006 2, 22A-VII-2006 1, 22B-VII-2006 1, 15A-VIII-2008 1 and 15B-VIII-2008 1.
 3504. *Croesia curvalana* (Kft.) - 5-VIII-2003 1, 6-VIII-2003 1 and 2-VIII-2004 4.
 3548. *Acleris variana* (Fern.) (Black-headed Budworm Moth) - 15A-VIII-2008 3 and 15B-VIII-2008 1.
 3595. *Pandemis canadana* Kft. (Green Aspen Leafroller Moth) - 5-VIII-2003 1, 2-VIII-2004 1, 21B-VII-2006 1, 21C-VII-2006 2, 22B-VII-2006 1, 15A-VIII-2008 1 and 15B-VIII-2008 1.
 3637. *Choristoneura conflictana* (Wik.) (Larghe Aspen Tortrix) – 12C-VII-2009 1.
 3638. *Choristoneura fumiferana* (Clem.) (Spruce Budworm Moth) - 22B-VII-2006 1.
 3653. *Choristoneura pinus* Freeman (Pitch Pine Budworm Moth) - 22A-VII-2006 1.
 3648. *Archips argyrospila* (Wik.) (Fruit-tree Leafroller Moth) - 21C-VII-2006 3, 22B-VII-2006 1, 15A-VIII-2008 2 and 15B-VIII-2008 1.
 3682. *Clepsia persicana* (Fitch) (White-triangle Tortrix Moth) - 2-VIII-2004 2, 21B-VII-2006 1, 15A-VIII-2008 1 and 12B-VII-2009 1.
 3684. *Clepsia clemensiana* (Fern.) (Clemen's *Clepsia* Moth) - 2-VIII-2004 1, 21B-VII-2006 2 and 22B-VII-2006 1.

3680. *Ptycholoma virescana* (Clem.) - 5-VIII-2003 1 and 2-VIII-2004 1.
 3706. *Sparganothis xanthoides* (Wlk.) (Mosaic Sparganothis Moth) - 21B-VII-2006 1.
 3710. *Sparganothis violaceana* (Rob.) - 2-VIII-2004 1.
 3740. *Platynota idaeusalis* (Wlk.) (Tufted Apple Bud Moth) - 15A-VIII-2008 1.

PIERIDAE – White and Sulphur Butterflies

- 4195d. *Pieris oleracea* Harr. (Mustard White) – 12A-VII-2009 1.
 4220. *Colias interior* Scudder (Pink-edged Sulphur) - 6-VIII-2003 2 and 21A-VII-2006 2.

LYCAENIDAE – Blue and Copper Butterflies

4262. *Lycaena helloides* (Bdv.) (Purplish Copper) - 6-VIII-2003 1.
 4376. *Plebejus saepiolus* (Bdv.) (Greenish Blue) – 11A-VII-2009 1.

NYMPHALIDAE – Fritillaries

4430. *Nymphalis j-album* (D. & S.) (Compton's Tortoiseshell) - 21A-VII-2006 1.
 4459s. *Speyeria electa* lais (Edw.) (Northwestern Fritillary) - 6-VIII-2003 1.
 4475. *Boloria chariclea* (Schneider) (Purple Fritillary) - 6-VIII-2003 3, 21A-VII-2006 1 and 15-VIII-2008 1.
 4481.1. *Phyciodes cocyta* (Cram.) (Northern Pearl Crescent) - 6-VIII-2003 1 and 12A-VII-2009 1.

PYRALIDAE – Pyralid or Snout Moths

4703. *Gesneria centuriella* (D. & S.) – 12B-VII-2009 1.
 4716. *Scoparia biplagiialis* Wlk. (Double-striped Scoparia Moth) - 6-VIII-2003 1, 7-VIII-2003 1, 2-VIII-2004 2, 21B-VII-2006 1, 22A-VII-2006 1, 15A-VIII-2008 1 and 15B-VIII-2008 1.
 4727. *Eudonia albertalis* (Dyar) - 21B-VII-2006 3 and 21C-VII-2006 1.
 4755. *Synclita oblitalis* (Wlk.) (Waterlily Leafcutter Moth) - 6-VIII-2003 1, 2-VIII-2004 3, 21B-VII-2006 2, 22A-VII-2006 1, 22B-VII-2006 2, 15A-VIII-2008 2 and 12-VII-2009 1.
 4773. *Petrophila kearfottalis* (B. & McD.) - 5-VIII-2003 1 and 29C-VII-2006 1.
 4950. *Fumibotys fumalis* (Gn.) (Mint Root Borer Moth) - 2-VIII-2004 1.
 4953. *Phlyctaenia coronata* (Hufn.) (Crowned Phlyctaenia Moth) – 11B-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 1.
 5004. *Loxostege sticticalis* (L.) (Beet Webworm) - 6-VIII-2003 1.
 5079. *Udea rubigalis* (Gn.) (Celery Leaf-tier Moth) – 11B-VII-2009 1.
 5099. *Udea itysalis* (Wlk.) - 5-VIII-2003 1, 22A-VII-2006 1, 22B-VII-2006 1, 11C-VII-2009 1 and 12C-VII-2009 1.
 5128. *Choristostigma plumbosignalis* (Fern.) - 2-VIII-2004 1 and 21C-VII-2006 1.
 5299. *Acentria ephemerella* (Denis & Schiffermüller) (Water Veneer Moth) - 5-VIII-2003 1, 22A-VII-2006 1 and 15B-VIII-2008 1.
 5316. *Donacaula melinella* (Clem.) (Delightful Donacaula Moth) - 6-VIII-2003 1, 2-VIII-2004 1, 21B-VII-2006 1 and 21C-VII-2006 1.
 5343a. *Crambus perlellus innotatellus* Wlk. (Immaculate Grass-veneer Moth) - 6-VIII-2003 2, 2-VIII-2004 3, 21B-VII-2006 1, 21C-VII-2006 1, 22A-VII-2006 1, 15A-VIII-2008 1, 11A-VII-2009 2, 11C-VII-2009 1 and 12A-VII-2009 1.
 5347. *Crambus awemellus* McD. - 6-VIII-2003 2 and 15A-VIII-2008 1.
 5379. *Neodactria luteolella* Clem. (Mottled Grass-veneer Moth) – 12B-VII-2009 1.
 5380. *Neodactria zeella* (Fern.) - 6-VIII-2003 1. Material thought to be this species now appears to be a species, perhaps undescribed, of *Pediasia*.

5391. *Chrysoteuchia topiaria* (Zell.) (Cranberry Girdler or Topiary Grass-veneer Moth) – 11B-VII-2009 1, 12A-VII-2009 1 and 12C-VII-2009 1.
5399. *Agriphila ruricolella* (Zell.) (Lesser Vagabond Sod Webworm) - 5-VIII-2003 2, 6-VIII-2003 3, 7-VIII-2003 1, 2-VIII-2004 6, 21B-VII-2006 1. 21C-VII-2006 2, 22A-VII-2006 1 and 22B-VII-2006 1.
- Pediasia* sp. - 6-VIII-2003 1. This could be either *Pediasia aridella* or *laciniella*.
5413. *Pediasia trisecta* (Wlk.) (Sod Webworm Moth) - 5-VIII-2003 2 and 7-VIII-2003 1.
5414. *Pediasia laciniella* (Grt.) – 12B-VII-2009 1.
5416. *Pediasia abnaki* Klots - 21B-VII-2006 1.
5417. *Pediasia dorsipunctella* (Kft.) - 6-VIII-2003 1, 2-VIII-2004 1 and 21B-VII-2006 1.
5606. *Tetralopha asperatella* (Clem.) (Maple Webworm Moth) - 22B-VII-2006 1.
5721. *Apomyelois bistriatella* (Hulst) - 22B-VII-2006 1.
5787. *Meroptera pravella* (Grt.) (Lesser Aspen Webworm Moth) - 22B-VII-2006 1.
5824. *Pyla aequivoca* Heinr. - 22B-VII-2006 1.
5829. *Pyla fusca* (Haw.) (Speckled Black Pyla Moth) - 21C-VII-2006 1.
5841. *Dioryctria abietivorella* (Grt.) (Evergreen Coneworm Moth) - 15A-VIII-2008 1.
5999. *Eulogia ochrifrontella* (Zell.) (Broad-banded Eulogia Moth) - 5-VIII-2003 1 and 2-VIII-2004 1.
6014. *Caudellia nigrella* (Hulst) - 2-VIII-2004 1.

PTEROPHORIDAE – Plume Moths

- Indet. - 2-VIII-2004 2 and 22-VII-2006 1.
6166. *Oidaematophorus mathewianus* (Zell.) (Mathew's Plume Moth) - 21-VII-2006 1 and 22-VII-2006 1.
6205. *Hellinsia pectodactylus* (Staudinger) – 12C-VII-2009 1.

THYATIRIDAE – Thyatirid Moths

6235. *Habrosyne scripta* (Gosse) (The Scribe or The Lettered Habrosyne) - 21C-VII-2006 1, 22B-VII-2006 1 and 12B-VII-2009 1.
6237. *Pseudothyatira cymatophoroides* (Gn.) (Short-cloaked Lutestring) – 11C-VII-2009 1 and 12C-VII-2009 1.

DREPANIDAE – Hooktip Moths

6252. *Drepana bilineata* (Pack.) (Two-lined Hooktip) – 11C-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 2.
6255. *Oreta rosea* (Wlk.) (Rose Hooktip) – 11C-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 1.

GEOMETRIDAE – Inchworm or Geometrid Moths

6279. *Macaria occiduaria* (Pack.) (Western Sulphur) – 12C-VII-2009 1.
6283. *Macaria sulphurea* (Pack.) (Spotted Sulphur) - 6-VIII-2003 2, 21A-VII-2006 1, 21B-VII-2006 2 and 22A-VII-2006 2.
6286. *Macaria brunneata* (Thunb.) (Striped Ochre) - 6-VIII-2003 1 and 2-VIII-2004 3.
6290. *Macaria loricaria* (Evers.) (False Bruce Spanworm) - 2-VIII-2004 2.
6330. *Macaria notata* (Pears.) (*Semiothisa ulsterata*)– 12C-VII-2009 1.
6344. *Macaria signaria* (Hbn.) (*Semiothisa signaria*) (Pale-marked Angle) – 11C-VII-2009 1 and 12C-VII-2009 1.
- 6346a. *Macaria unipunctaria perplexa* (*Semiothisa unitaria perplexa*) – 11B-VII-2009 1.
6394. *Digrammia rippertaria* (Dup.) (*Semiothisa hebetata*) - 21B-VII-2006 1 and 22B-VII-2006 1.
6588. *Iridopsis larvaria* (Gn.) (Red-tinged Carpet or Bent-line Gray) – 12B-VII-2009 1.
6640. *Biston betularia* (L.) (Salt-and-Pepper Moth) - 21B-VII-2006 1, 12B-VII-2009 1 and 12C-VII-2009 1.

6654. *Hypagyrtis unipunctata* (Haw.) (One-spotted Variant) - 22A-VII-2006 1.
6677. *Cabera erythemaria* Gn. (Yellow-dusted Cream Moth) - 5-VIII-2003 1, 2-VIII-2004 1, 21B-VII-2006 1, 15A-VII-2008 2, 11B-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 1.
6678. *Cabera variolaria* Gn. (Pale-striped Willow Spanworm) - 7-VIII-2003 1, 2-VIII-2004 2 and 11C-VII-2009 1.
6726. *Euchlaena obtusaria* (Hbn.) (Obtuse *Euchlaena*) – 12B-VII-2009 1 and 12C-VII-2009 1.
6740. *Xanthotype urticaria* Swett – 12B-VII-2009 1.
6755. *Pero morrisonaria* (Hy. Edw.) (Lesser Umber) – 11C-VII-2009 1.
6796. *Campaea perlata* (Gn.) (Pale Beauty or Fringed Looper Moth) - 5-VIII-2003 1, 7-VIII-2003 1, 2-VIII-2004 1, 21B-VII-2006 1 and 22B-VII-2006 1.
6797. *Ennomos magnaria* Gn. (Maple Spanworm) - 21C-VII-2006 1.
6819. *Metanema inatomaria* Gn. (Pale *Metanema*) – 11C-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 1.
6837. *Probole alienaria* (H.-S.) – 11B-VII-2009 1.
6912. *Sicya macularia* (Harr.) (Pink-bordered Yellow) - 5-VIII-2003 1, 7-VIII-2003 2, 2-VIII-2004 3, 21B-VII-2006 1, 21C-VII-2006 1, 22A-VII-2006 1, 22B-VII-2006 2 and 15A-VIII-2008 1.
7009. *Nematocampa resistaria* (H.-S.) (Horned Spanworm Moth) - 5-VIII-2003 1, 7-VIII-2003 1, 2-VIII-2004 1, 21C-VII-2006 1, 22B-VII-2006 1, 15A-VIII-2008 1 and 15B-VIII-2008 1.
7125. *Idaea rotundopennata* (Pack.) (Round-winged Wave) – 11C-VII-2009 1.
7139. *Cyclophora pendulinaria* (Gn.) (Pearly-grey Wave or Sweetfern Geometer) – 12C-VII-2009 1.
7164. *Scopula junctaria* (Wlk.) (Simple Wave) - 5-VIII-2003 1 and 12C-VII-2009 1.
7166. *Scopula frigidaria* (Mösch.) (Frigid Wave) – 11B-VII-2009 1 and 12B-VII-2009 1.
7182. *Dysstroma citrata* (L.) (Dark Marbled Carpet) - 6-VIII-2003 1, 7-VIII-2003 1, 2-VIII-2004 3, 21C-VII-2006 1, 22A-VII-2006 1, 22B-VII-2006 2, 15A-VIII-2008 2, 15B-VIII-2008 1, 11B-VII-2009 1 and 12B-VII-2009 2.
7189. *Dysstroma hersiliata* (Gn.) (Orange-barred Carpet) - 2-VIII-2004 1 and 12C-VII-2009 1.
7199. *Eulithis propulsata* (Wlk.) (Barred Yellow or Currant *Eulithis*) - 2-VIII-2004 1 and 15B-VIII-2008 1.
7201. *Eulithis testata* (L.) (Chevron Moth) - 5-VIII-2003 1, 7-VIII-2003 1, 15A-VIII-2008 2 and 15B-VIII-2008 1.
7205. *Eulithis flavibrunneata* (McD.) - 7-VIII-2003 1, 22B-VII-2006 1 and 15A-VIII-2008 1.
7206. *Eulithis explanata* (Wlk.) (White *Eulithis*) - 5-VIII-2003 1, 2-VIII-2004 2, 21B-VII-2006 1, 22B-VII-2006 1, 15A-VIII-2008 1 and 15B-VIII-2008 1.
7207. *Eulithis xyliana* (Hulst) (The Phoenix) - 2-VIII-2004 1, 21B-VII-2006 1, 21C-VII-2006 1, 22A-VII-2006 1, 22B-VII-2006 1 and 15A-VIII-2008 1.
7210. *Eustroma semiatrata* (Hulst) (Black-banded Carpet) – 11C-VII-2009 1 and 12B-VII-2009 1.
7213. *Ecliptopera silaceata* (D. & S.) (Small Phoenix) - 21C-VII-2006 1.
7257. *Hydriomena furcata* (Thunb.) (Common Highflyer) - 5-VIII-2003 1, 6-VIII-2003 1, 7-VIII-2003 1, 2-VIII-2004 3, 21B-VII-2006 2, 21C-VII-2006 1, 22B-VII-2006 1, 15A-VIII-2008 1, 15B-VIII-2008 1 and 11B-VII-2009 1.
7294. *Rheumaptera subhastata* (Nolcken) – 12B-VII-2009 1.
7313. *Spargania luctuata* (D. & S.) (White-barred Black) – 11B-VII-2009 1 and 12C-VII-2009 1.
7316. *Perizoma basaliata* (Wlk.) (Twin-spot Wave) - 5-VIII-2003 1 and 2-VIII-2004 1.
7370. *Xanthorhoe abrasaria* (H.-S.) - 2-VIII-2004 1 and 12C-VII-2009 1.
7378. *Xanthorhoe algidata* (Mösch.) 11B-VII-2009 1 and 11C-VII-2009 1.
7384. *Xanthorhoe munitata* (Hbn.) (American Carpet) - 5-VIII-2003 1, 6-VIII-2003 1 and 2-VIII-2004 1.
- Not in MONA. *Xanthorhoe decoloraria* (Esper) - 21B-VII-2006 1.
7388. *Xanthorhoe ferrugata* (Cl.) (Red Twin-spot) – 11C-VII-2009 1.
7394. *Epirrhoe alternata* (Müller) (White-banded Toothed Carpet) – 12C-VII-2009 1.
- 7399a. *Euphyia intermediata* (Gn.) (*Euphyia unangulata*) (Sharp-angled Carpet) - 21B-VII-2006 1, 21C-VII-2006 1, 11C-VII-2009 1 and 12C-VII-2009 1.
7408. *Zenopheps alpinata* Cass. (Wood-colored Carpet) - 5-VIII-2003 1, 2-VIII-2004 1, 21B-VII-2006 1 and 21C-VII-2006 1.
7423. *Hydrelia albifera* (Wlk.) (Fragile White Carpet) - 15B-VIII-2008 1.
7425. *Venusia cambrica* Curt. (The Welsh Wave) – 11B-VII-2009 1, 11C-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 1.
- Eupithecia* spp. – 11B-VII-2009 1, 11C-VII-2009 2, 12B-VII-2009 6 and 12B-VII-2009 2.



Carsia sororiata, from Geometridae of Canada web site.

7626. *Carsia sororiata* (Hbn.) (Alpine Carpet) - 6-VIII-2003 6, 2-VIII-2004 2 and 22A-VII-2006 1. Found only in a Tamarack/Black Spruce/Labrador Tea/Bog Birch/Sphagnum bog.
 7640. *Lobophora nivigerata* Wlk. (Two-lined Aspen Looper) – 11C-VII-2009 1.

URANIIDAE – Uraniid Moths

7650. *Callizia amorata* (Pack.) (Gray Scoopwing) - 21C-VII-2006 1 and 12C-VII-2009 1.

LASDIOCAMPIDAE – Lappet Moths

7698. *Malacosoma disstria* Hbn. (Forest Tent Caterpillar) - 5-VIII-2003 1, 6-VIII-2003 1, 2-VIII-2004 1, 21B-VII-2006 1, 21C-VII-2006 1 and 22A-VII-2006 1.

SATURNIDAE – Giant Silk Moths

7757. *Antheraea polyphemus* (Cram.) (Polyphemus Moth) – sight record by Camp Operator in 2008.

SPHINGIDAE – Sphinx or Hawk Moths

7810. *Sphinx poecila* Stephens (Poecila Sphinx) - 22B-VII-2006 1.
 7821. *Smerinthus jamaicensis* (Drury) (Twin-spotted Sphinx) - 15A-VIII-2008 1 and 12B-VII-2009 1.
 7822. *Smerinthus cerisyi* Kby. (One-eyed Sphinx) – 11B-VII-2009 1 and 12B-VII-2009 1.
 7893. *Hyles gallii* (Rottemburg) (Galium Sphinx or Bedstraw Hawkmoth) - 22B-VII-2006 1.

NOTODONTIDAE – Prominent Moths

7895. *Clostera albosigma* Fitch (Sigmoid Prominent) - 5-VIII-2003 1, 21B-VII-2006 1, 21C-VII-2006 1, 22B-VII-2006 1 and 12C-VII-2009 1.
 7922. *Pheosia rimosa* Pack. (Black-rimmed Prominent) - 22A-VII-2006 1, 22B-VII-2006 1, 11B-VII-2009 1 and 12B-VII-2009 1.
 7931. *Gluphisia septentrionis* Wlk. (Small Pebble or Common Gluphisia) - 22A-VII-2006 1, 11B-VII-2009 1 and 12B-VII-2009 1.
 7939. *Furcula occidentalis* (Lint.) (Willow Kitten) – 12B-VII-2009 1.
 8007. *Schizura unicornis* (J.E. Smith) (Variegated Prominent or Unicorn Caterpillar Moth) - 5-VIII-2003 1 and 12B-VII-2009 1.

ARCTIIDAE – Tiger Moths and others

8043. *Eilema bicolor* (Grt.) (Bicolored Moth) - 22A-VII-2006 1.
 8098. *Clemensia albata* Pack. (Little White Lichen Moth) - 22B-VII-2006 1.
 8143. *Holomelina ferruginea* (Wlk.) (Rusty Holomelina) - 6-VIII-2003 2, 2-VIII-2004 1 and 21C-VII-2006 1.

8162. *Platarctia parthenos* (Harr.) (St. Lawrence Tiger Moth) – 11C-VII-2009 1.
 8166. *Arctia caja* (L.) (Great Tiger Moth) - 21B-VII-2006 1, 21C-VII-2006 1, 22A-VII-2006 1 and 22B-VII-2006 1.
 8196. *Grammia parthenice* (W. Kby.) (Parthenice Tiger Moth) - 6-VIII-2003 1, 7-VIII-2003 1 and 2-VIII-2004 1.
 8197. *Grammia virgo* (L.) (Virgin Tiger Moth) – 11B-VII-2009 1 and 12C-VII-2009 1.



Lophocampa maculata caterpillar, Medicine Lake, 1 Aug 2002.

8214. *Lophocampa maculata* Harr. (Spotted Tussock Moth) – caterpillar 1-VIII-2002.
 8262. *Ctenucha virginica* (Esp.) (Virginia Ctenucha) – 11C-VII-2009 1 and 12B-VII-2009 1.

NOCTUIDAE – Owlets Cutworm and Noctuid Moths

8322. *Idia americalis* (Gn.) (American Snout Moth) - 5-VIII-2003 1, 6-VIII-2003 1, 2-VIII-2004 2, 21B-VII-2006 1, 22A-VII-2006 1, 22B-VII-2006 1, 11C-VII-2009 1, 12C-VII-2009 B and 12C-VII-2009 1.
 8323,1. *Idia* sp. nr. *aemula* - 21C-VII-2006 1.
 8354. *Zanclognatha lotalba* (Sm.) (The Canadian Zanclognatha) - 2-VIII-2004 2.
 8356. *Chytolita petrealis* Grt. (Lesser Luteous Snout) – 11C-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 1.
 8362. *Phalaenostola metonalis* (Wik.) (Pale Phalaenostola or Tufted Snout) - 2-VIII-2004 7, 21A-VII-2006 1, 15A-VIII-2008 1, 15B-VIII-2008 1 and 12C-VII-2009 1.
 8397. *Palthis angulalis* (Hbn.) (Angulated Snout Moth or Dark-spotted Palthis) – 11c-vii-2009 1.
 8404. *Rivula propinqualis* Gn. (Yellow Snout Moth) - 21C-VII-2006 2, 22B-VII-2006 1, 15A-VIII-2008 1 and 15B-VIII-2008 1.
 8421. *Hypenodes fractilinea* (Sm.) (Broken-line Hypenodes) - 5-VIII-2003 1, 6-VIII-2003 3, 2-VIII-2004 1, 22A-VII-2006 1, 15A-VIII-2008 1 and 15B-VIII-2008 1.
 8446. *Hypena deceptalis* (Wik.) - 7-VIII-2003 1 and 15B-VIII-2008 1.
 8450. *Bomolocha atomaria* Sm. (Pale-banded Snout) - 21C-VII-2006 1 and 22B-VII-2006 2.
 8452. *Bomolocha edictalis* (Wik.) (Large Bomolocha) - 7-VIII-2003 2.
 8455. *Lomanaltes eductalis* (Wik.) (Lomanaltes Snout Moth) – 11C-VII-2009 1.
 8803. *Catocala relictata* Wik. (White Underwing) - 7-VIII-2003 1.
 8817. *Catocala briseis* Edw. (Ribbed or Briseis Underwing) - 5-VIII-2003 2, 6-VIII-2003 1 and 7-VIII-2003 1.
 8821. *Catocala semirelictata* Grt. (Semirelict Underwing) - 7-VIII-2003 1.
 8896. *Diachrysia aeroides* (Grt.) (Dark-spotted Looper Moth) - 5-VIII-2003 1, 2-VIII-2004 1 and 21C-VII-2006 1.
 8909. *Autographa rubida* Ottol. (Rubida Looper Moth) – 11C-VII-2009 1.
 8911. *Autographa bimaculata* (Steph.) (Two-spotted Looper Moth) - 5-VIII-2003 1, 7-VIII-2003 1, 21C-VII-2006 1 and 22B-VII-2006 1.
 8914. *Autographa californica* (Speyer) (Alfalfa Looper) - 6-VIII-2003 1.
 8929. *Syngrapha viridisigma* (Grt.) (Green-marked Looper) - 5-VIII-2003 2 and 22B-VII-2006 1.

8939. *Syngrapha alias* (Ottol.) (Hooked Silver Y or Spruce Climbing Cutworm Moth) - 2-VIII-2004 1, 21A-VII-2006 1 and 15A-VIII-2008 1.
8943. *Syngrapha angulidens* (Sm.) - 21C-VII-2006 1.
8950. *Plusia putnami* Grt. (Putnam's Looper Moth) - 5-VIII-2003 1, 21C-VII-2006 1, 22B-VII-2006 1 and 11C-VII-2009 1.
8953. *Plusia venusta* Wlk. (White-streaked Looper Moth) - 21B-VII-2006 1.
8977. *Nycteola cinerea* N. & D. (Grey Midget) – 12B-VII-2009 1.
8990. *Nola cilicoides* (Grt.) (Blurry-patched Nola) - 22B-VII-2006 1.
9048. *Lithacodia albidula* (Gn.) (Common Midget) - 21B-VII-2006 1, 21C-VII-2006 1, 11C-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 1.
9207. *Acronicta innotata* Gn. (Unmarked Dagger Moth) – 11B-VII-2009 1 and 12B-VII-2009 1.
9212. *Acronicta grisea* (Wlk.) (Gray Dagger Moth) – 11C-VII-2009 1 and 12B-VII-2009 1.
9348. *Apamea amputatrix* (Fitch) (Northern Quaker or Dusky Sallow) - 2-VIII-2004 1.
9359. *Apamea commoda* (Wlk.) (Southern Quaker) - 2-VIII-2004 1.
9365. *Apamea scoparia* (Hufn.) (*Agroperina lateritia*) (Red-winged Quaker) – 11B-VII-2009 1.
- 9367a. *Apamea cogitata* (Sm.) (Ruby Quaker) - 2-VIII-2004 1, 21B-VII-2006 1, 21C-VII-2006 1, 22B-VII-2006 1 and 11C-VII-2009 1.
9369. *Apamea inficita* (Wlk.) (Inficita Quaker) - 2-VIII-2004 1.
9382. *Apamea devastator* (Brace) (Glassy Cutworm Moth or Destructive Quaker) - 2-VIII-2004 1.
9396. *Eremobina claudens* (Wlk.) (Alberta Quaker) - 7-VIII-2003 2.
9431. *Parastichtis suspecta* (Wlk.) (Mottled Quaker) - 7-VIII-2003 1 and 15A-VIII-2008 1.
9434. *Spartiniphaga includens* (Wlk.) (Silver-C Borer) - 7-VIII-2003 1.
9437. *Chortodes inquinata* (Gn.) (Sordid Wainscot) - 5-VIII-2003 1, 6-VIII-2003 1, 2-VIII-2004 4 and 21B-VII-2006 1.
9453. *Celaena reniformis* (Grt.) (Kidney-spotted Rustic) - 15A-VIII-2008 1.
9457. *Amphipoea americana* (Speyer) (American Ear Moth) - 7-VIII-2003 1.
9547. *Phlogophora periculosa* Gn. (Brown Angle Shades or Great Angle Shades) - 21C-VII-2006 1, 22B-VII-2006 1, 15A-VIII-2008 1 and 15B-VIII-2008 1.
9550. *Enargia infumata* (Grt.) (Lesser Angle-striped Sallow) - 5-VIII-2003 1, 6-VIII-2003 1, 7-VIII-2003 1 and 2-VIII-2004 5.
9555. *Ipimorpha pleonectusa* Grt. (Even-lined Sallow) - 5-VIII-2003 1 and 15A-VIII-2008 1.
9579. *Hyppa contrasta* McD. (*Hyppa nr xylinoides*) (Common Hyppa or Cranberry Cutworm) – 11C-VII-2009 1.
9656. *Platyperigea montana* (Bremer) (Civil Rustic) - 5-VIII-2003 1 and 6-VIII-2003 1.
9963. *Anathix aggressa* (Sm.) (Pale Sallow) - 2-VIII-2004 1.
10055. *Apharetra dentata* (Grt.) (The Toothed Apharetra) - 6-VIII-2003 1 and 21B-VII-2006 2.
10059. *Homohadena badistriga* (Grt.) (Brown-lined Sallow) - 22B-VII-2006 1.
10065. *Homohadena infixa* (Wlk.) (Broad-lined Sallow) - 7-VIII-2003 1, 2-VIII-2004 2, 21C-VII-2006 1 and 22B-VII-2006 1.
10275. *Polia nimbosea* (Gn.) (Stormy Arches) – 11C-VII-2009 1.
10277. *Polia rogenhoferi* (Mösch.) (Rogenhofer's Arches) – 12C-VII-2009 1.
10324. *Hada sutrina* (Grt.) (*Hecatera sutrina*) (The Cobbler) - 6-VIII-2003 1.
10397. *Lacinipolia renigera* (Steph.) (Kidney-spotted Arches or Bristly Cutworm Moth) - 6-VIII-2003 1, 21C-VII-2006 1, 15B-VIII-2008 1, 12B-VII-2009 1 and 12C-VII-2009 1.
10405. *Lacinipolia lorea* (Gn.) (Bridled Arches) - 21C-VII-2006 1, 11B-VII-2009 1, 11C-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 1.
10406. *Lacinipolia olivacea* (Morr.) (Olive Arches) - 5-VIII-2003 1, 21C-VII-2006 1 and 15A-VIII-2008 1.
10436. *Aletia oxygala* (Grt.) (Lesser Wainscot) - 6-VIII-2003 1, 7-VIII-2003 1, 2-VIII-2004 3, 21B-VII-2006 1, 21C-VII-2006 1, 22A-VII-2006 1, 22B-VII-2006 1 and 15B-VIII-2008 1.
10447. *Leucania commoides* Gn. (Comma Wainscot) - 6-VIII-2003 1.
10524. *Nephelodes minians* Gn. (Shaded Umber, Brown Cutworm Moth or Bronzed Cutworm Moth) - 5-VIII-2003 1, 6-VIII-2003 1 and 7-VIII-2003 1.
10676. *Feltia herilis* (Grt.) (Master's Dart) - 5-VIII-2003 1, 7-VIII-2003 1 and 27B-VII-2006 1.
10817. *Euxoa obeliscoides* (Gn.) (Obelisk Dart) - 5-VIII-2003 1.
10861. *Euxoa ridingsiana* (Grt.) (Riding's Dart) - 6-VIII-2003 1.

10891. *Ochropleura implecta* Laf. (*O. plecta*) (Flame-shouldered Dart) - 22A-VII-2006 1 and 11B-VII-2009 1.
10910. *Anicla tepperi* (Sm.) (*Euagrotis tepperi* (Sm.)) (Black-girdled Dart) - 5-VIII-2003 1.
10917. *Diarsia rubifera* (Grt.) (*Rubifera* Dart) - 6-VIII-2003 1, 2-VIII-2004 1, 15B-VIII-2008 1, 11C-VII-2009 1, 12B-VII-2009 1 and 12C-VII-2009 1.
10918. *Diarsia dislocata* (Sm.) (Dislocated Dart) - 2-VIII-2004 1 and 21B-VII-2006 2.
10923. *Protexarnis balanitis* (Grt.) (Acorn or Bracketed Dart) - 6-VIII-2003 1.
10926. *Spaelotis clandestina* (Harr.) (Clandestine Dart) - 21B-VII-2006 1 and 22B-VII-2006 1.
10928. *Graphiphora augur* (Grt.) (Soothsayer Dart) - 2-VIII-2004 1, 21C-VII-2006 2 and 22B-VII-2006 1.
10929. *Eurois occulta* (L.) (Great Grey Dart) - 5-VIII-2003 1, 21B-VII-2006 1, 21C-VII-2006 1, 22A-VII-2006 1, 22B-VII-2006 1, 15A-VIII-2008 1 and 15B-VIII-2008 1.
10930. *Eurois astricta* Morr. (Great Brown Dart) - 5-VIII-2003 2, 6-VIII-2003 1, 2-VIII-2004 3, 21B-VII-2006 2, 21C-VII-2006 2, 22A-VII-2006 1, 22B-VII-2006 1 and 15A-VIII-2008 1.
10944. *Xestia smithii* (Snell.) (Smith's or Spotted Clay Dart) - 2-VIII-2004 1, 21C-VII-2006 1 and 15A-VIII-2008 1.
10947. *Xestia oblata* (Morr.) (Rosy or Ruby Dart) - 21B-VII-2006 1 and 22A-VII-2006 1.
10951. *Pseudohermonassa tenuicula* (Morr.) (Hair-pin Dart) - 21C-VII-2006 1.
10954. *Agnorisma bugrai* Koçak (*Xestia collaris*) (Collared Dart) - 11C-VII-2009 1 and 12C-VII-2009 1.
- 10959b. *Xestia mixta* (Wik.) - 21B-VII-2006 1 and 22A-VII-2006 1.
10988. *Coenophila opaciformis* (Grt.) (The Black-fronted Dart) - 6-VIII-2003 1, 2-VIII-2004 2, 21B-VII-2006 2 and 22A-VII-2006 1.
10992. *Paradiarsia littoralis* (Pack.) (Labrador Dart) - 21B-VII-2006 1 and 22A-VII-2006 1).
11000. *Anaplectoides prasina* (D. & S.) (Green-winged Dart) - 15A-VIII-2008 1.
11004. *Protolampra rufipectus* (Morr.) (Red-breasted Dart) - 6-VIII-2003 1, 21C-VII-2006 1 and 15B-VIII-2008 1.
11012. *Cryptocala acadensis* (Bethune) (Catocaline Dart) - 5-VIII-2003 1, 6-VIII-2003 1, 2-VIII-2004 1, 21A-VII-2006 1, 21B-VII-2006 1 and 22C-VII-2006 1.

SUMMARY

The present report documents 237 species of moths and 8 of butterflies for the area. In addition there are some specimens that are still unidentified. If all of the unknowns were named, the actual total would be around 300. With further study and names on all of the undetermined specimens, the total would probably be over 500. To put things into perspective, Pohl et al (2010) document 2367 species of Lepidoptera for Alberta.

Of the 14 areas involved in the present study, five species of moths were found only in the Medicine Lake Provincial Recreation Area - *Choristoneura pinus* Free., *Xanthorhoe algidata* (Mösch.), *Carsia sororiata* (Hbn.), *Polia rogenhoferi* (Mösch.) and *Xestia mixta* (Wik.).

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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://www.entomology.ualberta.ca/>.

Illustrations of Alberta macromoths can be found at a site put together by D. Lafontaine and J. Troubridge called "The Moths of Canada":

http://www.cbif.gc.ca/spp_pages/misc_moths/phps/mothindex_e.php.

Illustrations on many of the western American macromoths can also be found on a site put together by The Moth Photographers Group:

<http://www.origins.tv/MothPhotographersGroup/WestPlates.htm>.

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

USEFUL BOOKS ON MOTHS

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APPENDIX

Collection dates, sites and other details

- 5 August 2003 – Unit 18, UV, aspen-alder woods beside lake, 52.749, 114.744, 950 m.
- 6 August 2003 – diurnals and 1 UV, tamarack-black spruce-labrador tea-bog birch-sphagnum, 52.750, 114.740, 992 m.
- 7 August 2003 - Unit 18, UV, aspen-alder woods beside lake, 52.749, 114.744, 950 m.
- 2A August 2004 – diurnals, mixed woods, 52.75, 114.74, 990 m.
- 2B August 2004 - diurnals and UV, tamarack/black spruce/labrador tea/bog birch/sphagnum, 52.750, 114.740, 992 m.
- 2C August 2004 – Unit 18, UV, aspen/alder woods beside lake, 52.749, 114.744, 950 m.
- 21A July 2006 – diurnals, mixed woods, 52.750,, 114.740, 990 m.
- 21B July 2006 – UV, tamarack/black spruce/labrador tea/bog birch/sphagnum, 52.750, 114.740, 992 m.
- 21C July 2006 – Unit 21, UV, aspen/alder woods beside lake, 52.749, 114.744, 950 m.
- 22A July 2006 – UV, tamarack/black spruce/labrador tea/bog birch/sphagnum, 52.750, 114.740, 992 m.
- 22B July 2006 – Unit 21, UV, aspen/alder woods beside lake, 52.749, 114.744, 950 m.
- 23 July 2006 - Unit 21, unitrap with currant clearwing moth – *Synanthedon tipuliformis*-PB-SYTI pheromone , aspen/alder woods beside lake, 52.749, 114.744, 950 m.
- 15 August 2008 – diurnal, *Populus tremuloides*/*Populus balsamifera* woods, 52.749, 114.742, 950 m.
- 15A August 2008 – east of Unit 44, UV, wet woods with *Betula papyrifera*/*Salix*/*Picea mariana*/sphagnum near lake, 52.749, 114.742, 950 m.
- 15B August 2008 – Unit 44, UV, *Populus tremuloides*/*Populus balsamifera* woods,, 52.749, 114.742, 950 m.
- 11A July 2009 – diurnal, mixed woods, 52.75, 114.74, 900 m.
- 11B July 2009 – UV, east of Unit 43, alder/birch/white spruce/balsam poplar near lake, 52.747, 114.739, 900 m.
- 11C July 2009 – UV, beside Unit 43, aspen/white spruce woods, 52.747, 114.739, 900 m.
- 12A July 2009 – diurnal, mixed woods, 52.75, 114.74, 900 m.
- 12B July 2009 – east of Unit 43, alder/birch/white spruce/balsam poplar near lake, 52.747, 114.739, 900 m.
- 12C July 2009 – Unit 43, aspen/white spruce woods, 52.747, 114.739, 900 m.