

A Preliminary Survey of Moths in Cedar Glades and Adjacent Forests of Central  
Tennessee

A Report to the  
Tennessee Division of Natural Heritage  
and  
The Nature Conservancy of Tennessee

Richard L. Brown  
Mississippi Entomological Museum  
Box 9775  
Mississippi State, MS 39762

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## Introduction

The fauna of moths (Lepidoptera) is poorly known for most of the southeastern United States. Distribution records are scattered among many publications, and partial lists of species (usually the larger macrolepidoptera) are available for only a few habitats or locations. The smaller moths (microlepidoptera), which include about half of the moth species in North America, include many families that have never been taxonomically revised and for which no active worker is available to provide identifications. Unfortunately, the microlepidoptera include many of the undescribed species and species with restricted distributions that can indicate uniqueness of a habitat.

This report provides results of a preliminary survey of moths in the cedar glades and adjacent habitats in central Tennessee. Richard Brown and associates in the Mississippi Entomological Museum (MEM) have collected 470 identified species on nine nights since 1997. G.R. Pritts and J.W. Lamb of The Nature Conservancy collected 57 species of moths in six glades during August 19-28, 1996; 26 of these species were not collected by the MEM. Based on more intensive surveys of grassland and forest habitats in other areas of the Southeast, more than 1,200 species should be expected to occur in the cedar glades and adjacent forest.

## Objectives

The survey of moths in the cedar glades and adjacent forest in central Tennessee had the following objectives:

- 1) To provide a species inventory of moths (Lepidoptera);
- 2) To survey for species of insects previously undescribed and new to science;
- 3) To document occurrence of species not known from Tennessee;
- 4) To document occurrence of species with disjunct distributions.

## Methods

Survey sites and dates (Table 1). Collections were made by the MEM at 10 sites, which included seven in cedar glades (sites 1-7), two in oak-hickory forest near cedar glades in Cedars of Lebanon State Forest (sites 15 and 16), and one in mixed forest in Cedars of Lebanon State Park (site 17). The cedar glade sites included four in Cedars of Lebanon State Forest (although some of these were approximate to one another), one in Lane Farm glade, and two in Couchville glade. The Nature Conservancy also collected at seven cedar glades (sites 8-14) during August 19-28, 1996, but latitude and longitude were not recorded with the specimen data and some of these, e.g., Lane Farm glade, are the same as those surveyed by the MEM.

Collections in glades and forests by the MEM included 19 samples that were taken on nine nights in four months. Ten collection samples were taken in cedar glades on five nights as follows (with samples taken at more than one site

on some nights): Cedars of Lebanon State Forest glades (6 samples on 5 nights; March, May, June, and October), Lane Farm glades (2 samples on 2 nights; May, June), and Couchville glades (2 samples on 2 nights; June). Three collection samples were by the MEM in oak hickory forest in the Cedars of Lebanon State Forest on three nights in March, May, and June. Six samples were taken in mixed forest in Cedars of Lebanon State Park on six nights in June.

Sampling. Collection samples were made with 15-watt blacklights, either suspended in front of a bed sheet for selective collecting or used with a funnel and box trap for bulk samples. Each sheet sample for a given night combined all specimens collected at three lights that were located approximately 100 meters within each other. Collections at sheets were made for a part of one night, usually from sundown until 1 PM or later. Collections in mixed forest at the State Park were an exception in that only one sheet was operated for the entire night.

For sheet collecting, the blacklight was suspended about a foot in front of the top of the sheet, which was pinned to a cotton clothes line extended between two trees. The top seam of the sheet was pinned (with baby diaper safety pins) to the rope in such a way to avoid an overlap of the sheet where moths could become trapped and rubbed. The top of the sheet was six to seven feet from the ground and the bottom of the sheet was extended forward on the ground to form a shelf under the light. Metal tent pegs with diaper pins were used to secure the sheet to the ground and were positioned to minimize folds in the sheet. A 12-volt deep cycle marine battery was used as the power source.

Specimens at sheets were collected individually by hand with small potassium cyanide killing jars. After becoming quiescent, usually within 20 -30 seconds, moths were transferred into larger potassium cyanide holding jars. Each holding jar had a thin layer of cotton that was tamped tightly against the bottom to prevent entangling the specimens, yet hold them in place to prevent scale loss during transport. Specimens collected at sheets were placed into relaxing chambers the following morning and stored in a freezer until pinning and spreading. Relaxing chambers were made with plastic food storage boxes (appx. 7" x 5" x 4" ) that had a layer of wet paper towels in the bottom covered by a thin layer of polyethylene foam with a thin layer of cotton on top. A wet towel under the lid aided the relaxation of specimens.

An attempt was made to collect representatives of each species that was present at the sheet, but numbers of specimens collected were not related to actual numbers of each species at the sheet. Fewer specimens of common and easily recognized species were collected on a given night than specimens of less common species or species that required microscopic examinations for identification.

Seven samples were collected with a box trap, which operated from sundown to sunrise on each sampling night. Three box trap samples were taken in glades at Cedars of Lebanon S.F. (8 March, 9 June, 15 October), one in Lane Farm Glade (11 May), one in Couchville glade (12 June), and one in oak-hickory forest in Cedars of Lebanon S.F. (11 May).

The box trap consisted of an 18 gallon Rubbermaid® recycling container (#0141) with dimensions 15.5 x 23.5 x 16.25 in. A hole was cut in the lid of the container to fit a metal trap funnel, which extended about eight inches above the top of the box. The metal trap had four vanes, each of which was 6.25 inches

wide and 19.75 inches long (as measured from the top of the funnel). A 15 watt blacklight bulb was placed between the vanes. The inner bottom of the trap was covered with two Bio-Serve® cup trays to separate small moths and other insects and facilitate their retrieval. Screens with 1/4 in. and 1/2 in. mesh were placed inside the container above the trays to separate the sizes of specimens and decrease damage of moths by large beetles. Three tablespoons of calcium cyanide (A-dust) were placed in a small, perforated paper bag to serve as the fumigating agent inside the box. Duct tape was used to seal the lid and openings around the outside of the funnel. A 12 volt car battery was used as the power source. Upon retrieval of the trap in the mornings, a moist towel was placed between the lid and the box to keep the moths relaxed during subsequent processing. As moths were extracted, representatives of each species were placed in relaxing chambers and stored in a freezer until pinning and spreading.

Richard Brown identified most of the specimens by comparison with authoritatively identified species in the Mississippi Entomological Museum and with figures and descriptions in selected publications. Specimens of Gelechiidae were identified by SangMi Lee. All specimens are housed in the Mississippi Entomological Museum.

Data on distribution and rarity of specimens in collections (as opposed to rarity in nature) were obtained from publications on various taxa, regional lists, and from curators in the Smithsonian Institution and collections in various universities as well as private collectors. Regional lists included those for moths of Eastern United States (Covell, 1984), Florida (Kimball, 1965), Kentucky (Covell, 1999), Ohio (Rings et al, 1992), Portage Co., Ohio (Rings and Metzler, 2002), and the Black Belt prairie of Mississippi (Pollock, 2000). The collection of moths in the Mississippi Entomological Museum, which exceeds 200,000 specimens from the southeastern United States, was instrumental in determining distributions and abundance of some species.

## RESULTS

The survey of cedar glades and adjacent forests resulted in the collection of 2,489 specimens of moths that represented 495 identified species and 51 additional taxa identified only to tribe or genus (Table 2). These represent 275 species and unidentified taxa in 23 families of microlepidoptera and 271 species and unidentified taxa in 11 families of macrolepidoptera. More species were collected in glades than in forest. Of 467 species in ten samples collected in glades, 305 species were not collected in forest. In contrast, only 89 of the 242 species collected in forest were collected only in this habitat. However, more box trap samples, which usually yield more species than samples from sheets, were taken in glades than in forest. Based on comparative studies in other grasslands and adjacent forest, species richness is usually higher in forest than grasslands (Brown, 1997; Pollock, 2000).

This survey is very incomplete because of the few number of samples that were taken on only nine nights. Past surveys in other habitats have shown that 120 or more nights of collecting are needed to reach a plateau in species accumulation curves, the point at which few additional species are added to the list. Nonetheless, this survey yielded significant records that are tabulated below.

## Notable Species of Moths

The following 18 species are annotated here because they represent new species, disjunct species, or rare or uncommon species. Most of the annotated species as well as many others listed in Table 2 are new state records.

### ARCTIIDAE

#### *Crambidia pura* Barnes & McDunnough

*Crambidia pura* has been reported to occur from New York to Florida and in Kentucky, and the larval host is thought to be lichens (Covell, 1984). It is considered rare in Kentucky where it has been collected in only two locations (Covell, 1999). This species appears to be locally common in the Black Belt prairie of Mississippi and appears to be absent or rare elsewhere in the state. Six specimens of this species were collected at Lane Farm Glade (site 5) and Couchville Glade (site 6).

#### *Cygnia inopinatus* (Henry Edwards)

According to Covell (1984) this is an uncommon moth with a distribution from New Jersey to Florida, west to South Dakota and Texas (Covell, 1984). Larvae feed on *Asclepias* spp. (milkweeds). *Cygnia inopinatus* appears to be locally common in the Black Belt prairie of Mississippi (records for more than 100 specimens), but is rare in the remainder of the state. It is rare in Kentucky where only four specimens have been collected in three locations (Covell, 1999). Seven specimens of this species were collected in glades in Cedars of Lebanon S.F. (site 1), Lane Farm Glade (site 5), and Couchville Glade (site 6).

#### *Euerythra phasma* Harv. (Fig. 80)

This moth has been recorded from Kentucky to Florida and west to Missouri and Texas and has been reported to be uncommon throughout its range (Covell, 1984). The larvae are known to feed on *Bumelia* spp. (buckthorn) (J.G. Franclemont, personal communication). The species is considered rare in Kentucky where it has only been collected at one location (Covell, 1999). One specimen was collected at Lane Farm Glade (site 5).

### CRAMBIDAE

#### *Lygropia octonalis* (Zell.)

Published records of *Lygropia octonalis* in eastern United States are lacking. Available collection records indicate that it is distributed in the Great Plains from Texas to Wyoming. The host is unknown. Nine specimens of this species were collected in glades, including Cedars of Lebanon S.F. (site 1), Lane Farm Glade (site 5), Hall's Farm glade (site 12), and Flat Rock glade (site 13).

*Pyrausta inveterascalis* (B. & McD.).

One specimen of this species was collected in May in a cedar glade at Cedars of Lebanon State Forest (site 1). According to the latest treatment of this genus by Monroe (1976), *P. inveterascalis* has larvae that feed in seeds of a horsemint, *Monarda* sp., and it occurs from western Pennsylvania to southern Ontario, Illinois, and Missouri. Monroe speculated that it was more widely distributed, however, only one specimen has been collected in Mississippi in an old field near the Black Belt Prairie physiogeographic region. In Kentucky, this species has been recorded only from three grassland-glade sites in Boone Co., Bullitt Co., and Harlan Co.

GELECHIIDAE

*Dichomeris costarufuella* (Wlk.) (Fig. 31)

This species, which has been reared from *Rudbeckia*, occurs from Illinois and Louisiana west to Texas, Oklahoma, and Nebraska, with isolated records from New Mexico and Manitoba (Hodges, 1986). It has also been collected in Florida (Heppner, personal communication) and coastal North Carolina (Sullivan, personal communication). In Mississippi, it has been collected only from prairie remnants in the Black Belt. One specimen of this species was collected at Lane Farm Glade in May. This species has a disjunct distribution in grasslands of eastern United States including the Cedar Glades of Tennessee (Brown, 2003).

*Naera fuscocrisatella* Cham.

This species occurs in the Great Plains and has a disjunct population occurring in the Black Belt of Mississippi (Brown, 2003). The larval host is unknown. Four specimens of this species were collected in Cedars of Lebanon S.F. (site 1).

GEOMETRIDAE

*Nemoria tuscarora* Ferguson

This rare species was described in 1969 based on six specimens from three localities in North Carolina, Virginia, and West Virginia; single specimens have since been collected in Jefferson Co., Kentucky and two localities in Portage Co, Ohio (Ferguson, 1985; Rings and Metzler, 2002). The larval host is unknown. Two specimens of *N. tuscarora* were collected during this survey, one in a glade in Cedars of Lebanon S.F. (site 3) and one in mixed forest at Cedars of Lebanon State Park (site 17).

*Pimaphera sparsaria* (Wlk.)

Little is known about the distribution and habits of *Pimaphera sparsaria*. It has been reported from Florida (Kimball, 1965) and in Mississippi, it has been collected in only three counties. In the Black Belt of Mississippi, it is more abundant in oak hickory forests than in prairie remnants. In northwest Louisiana it is locally common in mixed prairie-calcareous forest. It is unrecorded from Kentucky and Ohio. Two specimens were collected in Cedars of Lebanon S.F. - one in a glade (site 1) and one in the nearby oak-hickory forest (site 16).

NOCTUIDAE

*Argillophora furcilla* Grt. (Fig. 87)

Forbes (1954) gave the range of this species as North Carolina to Georgia and west to Mississippi, and he considered it to be a rare species. The larval host is unknown. This species has not been reported from Ohio or Kentucky. One specimen was collected in glades at Cedars of Lebanon S.F. (site 1).

*Matigramma pulverilinea* Grt.

This species occurs in midwestern United States and along the lower Gulf coastal Plain from Texas to South Carolina. In Mississippi it occurs only in the coastal counties, the Jackson Prairie, and the Black Belt Prairie. It has not been recorded from Kentucky or Ohio. Three specimens were collected in glades in Cedars of Lebanon S.F. (site 1), Lane Farm glade (site 5), and Mt. View glade (site 8). This appears to be a localized species with a disjunct distribution from populations in other grasslands of eastern and midwestern United States.

*Oxycilla malaca* (Grt.) (Fig. 110)

This species has been reported from Southern Quebec to South Carolina and west to Missouri and Arkansas and has been considered uncommon in this range (Covell, 1984). The larval host is unknown. Three specimens were collected in glades at Cedars of Lebanon S.F. (site 3) and Cedars of Lebanon State Park (site 17).

*Phoberia "orthosioides"* (Gn.)

*Phoberia orthosioides* is currently considered a junior synonym of *P. atomaris* Hbn., a common species in eastern United States. However, the two species have wing pattern and genitalic differences and are considered separate species, although this distinction has not been published yet (Morton S. Adams; personal communication). Because published reports of *P. atomaris* may include records for its synonym, *P. orthosioides*, little is known about the actual distribution of the latter species. *Phoberia orthosioides* is included here as a significant record because of its rarity in Mississippi and other areas of the midsouth where only

five records are available in the MEM. The larval host is unknown. One specimen was collected in oak-hickory forest in Cedars of Lebanon S.F. (site 16).

*Phytometra ernestiniana* Blanch. (Fig. 112)

This uncommon species ranges from Georgia and Florida west along the Gulf Coast to Texas and north into Kansas, with strays recorded in New York, Kansas, and Ohio; the larval host is unknown (Covell, 1984; Rings et al, 1992). This species is common in the Blackbelt prairie of Mississippi, Elsewhere in Mississippi only five other specimens of this species have been collected, mostly in the Jackson Prairie. One specimen of this species was collected at Lane Farm Glade (site 10), which represents a disjunct distribution from populations in coastal savannahs, the Black Belt prairie of Mississippi, and the Central Great Plains (Brown, 2002).

## SPHINGIDAE

*Sphinx canadensis* Bdv.

This large moth has been recorded from New York to Michigan and south to Missouri and Arkansas (Hodges, 1971). It has not been reported from Kentucky, but it has been collected in the Huntsville, Alabama area (Howard Grisham, personal communication). This species has been reared on *Fraxinus americana* (white ash), but it is unknown if this is the preferred host. One specimen was collected in mixed forest at Cedars of Lebanon State Park (site 17). This is the only known record of this sphinx moth from Tennessee, and it should be considered uncommon.

## TORTRICIDAE

*Ancylis* new species

This undescribed species is widespread in the midsouthern states and is common in oak-hickory, mesophytic and bottomland forests in Mississippi. A manuscript describing this species has been prepared by R.L. Brown. A single specimen was collected in the glade at Cedars of Lebanon S. F. (site 1), but it probably originated from the adjacent oak hickory forest.

*Epiblema glenni* Wright

This species was described recently from Illinois, Kentucky, Michigan, Missouri, North Carolina, Ohio, and Tennessee (Wright, 2002). The larval host is unknown, but related species feed on Asteraceae. The two specimens collected in glades in Cedars of Lebanon S.F. (site 1) and Lane Farm Glade are the only known records for Tennessee.



## YPONOMEUTIDAE

### *Yponomeuta atomocella* Dyar

This striking moth with black spots on white forewings and orange hindwings is rarely collected, and little is known about its distribution or habits. In Kentucky it has been collected at only one locality in Woodford Co. (Covell, 1999). Prior to this survey, the Mississippi Entomological Museum had only five specimens, all collected in cedar glades on the tops of the two highest elevation points in Arkansas, Mt Magazine in Logan Co. and Pilot Knob in Johnson Co. This species was relatively common at Lane Farm Glade (site 5) where 15 specimens were collected on one night. Single specimens were also collected in oak hickory forest in Cedars of Lebanon S.F. (site 16) and mixed forest in Cedars of Lebanon State Park (site 17), with the single specimen in the State Park being a worn individual that was probably a vagrant from a nearby glade.

## CONCLUSIONS

The uniqueness of the cedar glades habitat is indicated by the large number of uncommon and disjunct species relative to the total number of species collected. More individuals of some species were documented for the glades than in any other location in North America.

Comparisons of the quality of the glades at the various sites are limited because of the inequity in number of samples from the different sites. However, the Lane Farm Glade and the glade at Cedars of Lebanon State Forest (site 1) both had nine of the 18 notable species listed above.

The oak-hickory forests adjacent to the glades also have a number of notable species, although this survey did not discriminate between the origin of the moths. It is probable that some specimens collected in the glades, e.g., *Nemoria tuscarora*, flew to the light from the forest, and that some specimens collected in forest, e.g., *Yponomeuta atomocella*, originated in the glades.

Many uncommon and disjunct species that may occur in the glades were not collected because their flight periods are during September and October. Only one sample was taken during October, but it yielded only three species because of the cool temperature on that night.

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## RECOMMENDATIONS

1. Burning as a land management practice should be varied in time and extent of coverage to increase patchiness and avoid harmful effects on the fauna of moths and other insects, especially those that feed or overwinter inside portions of the plant above ground, especially stems. It is recommended that the glades not be burned every year or that burning be limited by fire breaks such that portions of the site are burned on alternate years. Additionally, the timing of burning before mid-March should minimize harmful effects on spring-flying species that oviposit eggs on plants during late March and early April.
2. Consideration should be given to burning portions of adjacent oak-hickory forest during early Spring to manage for species unique to this habitat.
3. Additional sampling of moths is needed to provide a better inventory of species in the glades and adjacent forests, especially with samples taken during April, July, September, and early October.
4. Research on the community ecology of moths in the different glades and forests is needed to determine comparative quality of the glades and habitat preferences of species.
5. Research is needed to determine host plants of species that are uncommon or have disjunct distributions.

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Table 1. Sites, dates and number of samples (s= sheet; b=box trap) for collection of moths in cedar glades and adjacent forest in central Tennessee by The Nature Conservancy (Pritts and Lamb) and Mississippi Entomological Museum (Brown et al).

Site	County	Location	Latitude-Longitude	dates	collectors	habitat	samples
1	Wilson	Cedars of Lebanon S.F.	36°05'25"N86°22'32"W	9-Jun-97	R.L.Brown & J MacGown	cedar glade	1s
				8-Mar-02	R.L.Brown	cedar glade	1s
				11-May-02	R.L.Brown & S.M.Lee	cedar glade	1s
2	Wilson	Cedars of Lebanon S.F.	36°05'40"N86°22'13"W	11-Jun-03	R.L.Brown & J MacGown	cedar glade	1s
3	Wilson	Cedars of Lebanon S.F.	36°05'43"N86°22'02"W	9 Jun 97	R.L.Brown & J MacGown	cedar glade	1b
4	Wilson	Cedars of Lebanon S.F.	1.3 mi W Hi 231	15-Oct-95	R.L.Brown	cedar glade	1b
5	Wilson	Lane Farm Glade	36°01'52"N86°22'12"W	12-Jun-97	R.L.Brown & J MacGown	cedar glade	1s
				11-May-02	R.L.Brown & S.M.Lee	cedar glade	1b
6	Davidson	Couchville Glade	36°06'05"N86°31'47"W	10-Jun-97	R.L.Brown & J MacGown	cedar glade	1s
7	Davidson	Couchville Glade	36°05'53"N86°31'58"W	12-Jun-97	R.L.Brown	cedar glade	1b
8	Davidson	Mt. View glade		19-28 Aug 1996	G.R. Pritts & J.W. Lamb	cedar glade	
9	Davidson	Couchville glade		19-28 Aug 1996	G.R. Pritts & J.W. Lamb	cedar glade	
10	Wilson	Lane Farm glade		19-28 Aug 1996	G.R. Pritts & J.W. Lamb	cedar glade	
11	Rutherford	Sunnybell Glade		19-28 Aug 1996	G.R. Pritts & J.W. Lamb	cedar glade	
12	Rutherford	Hall's Farm glade		19-28 Aug 1996	G.R. Pritts & J.W. Lamb	cedar glade	
13	Rutherford	Flat Rock glade		19-28 Aug 1996	G.R. Pritts & J.W. Lamb	cedar glade	
14	Rutherford	Overbridge Farm glade		19-28 Aug 1996	G.R. Pritts & J.W. Lamb	cedar glade	
15	Wilson	Cedars of Lebanon S.F.	36°05'27"N86°22'34"W	11-May-02	R.L.Brown & S.M.Lee	hickory forest	1b
16	Wilson	Cedars of Lebanon S.F.	36°05'26"N86°22'41"W	9-Jun-97	R.L.Brown & J MacGown	hickory forest	1s
				8-Mar-02	R.L.Brown		1b
17	Wilson	Cedars of Lebanon St. Pk.	36°04'56"N86°18'51"W	9-14 Jun 97	R.L.Brown & J MacGown	mixed forest	6s
	Total MEM Samples in Glades		6s,4b				
	Total MEM Samples in Forest		7s,2b				

Table 2. A list of moths with number of specimens and dates of collection in cedar glades and adjacent forest in central Tennessee. Site numbers are given in Table 1.

Family	Genus	species	author	glade sites	forest sites	# spec.	dates
Amphisbatidae	Psilocorsis	cryptolechiella	(Cham.)	5		1	May
Amphisbatidae	Psilocorsis	quercicella	Clem.	1		1	May
Apatelodidae	Olceclostera	angelica	(Grt.)	7	16,17	3	Jun
Arctiidae	Apantesis	oithono	(Stkr.)	5		2	May
Arctiidae	Apantesis	phalerata	(Harr.)	1,5,6,9,10,11,12,14		5	May, Jun, Aug
Arctiidae	Cisseps	fulvicollis	(Hbn.)	5		1	May
Arctiidae	Cisthene	packardii	(Grt.)	1,3,5,7,11,13	16	10	May, Jun, Aug
Arctiidae	Cisthene	plumbea	Stretch	1,3,5	16	10	Jun
Arctiidae	Clemensia	albata	Pack.	1,3,5,6		5	Jun
Arctiidae	Crambidia	cephalica sp. gp.	(G. & R.)	5,6,7	17	20	May, Jun
Arctiidae	Crambidia	lithosoides	Dyar	5,6,7	17	9	May, Jun
Arctiidae	Crambidia	pura	B. & McD.	5,7		6	May, Jun
Arctiidae	Crambidia	uniformis	Dyar	3,5,6,7	16	9	Jun
Arctiidae	Cycnia	inopinatus	(Hy.Edw.)	1,5,6		7	May, Jun
Arctiidae	Cycnia	oregonensis	(Stretch)	6		1	Jun
Arctiidae	Cycnia	tenera	Hbn.	3,5,6,7,14		5	May, Jun, Aug
Arctiidae	Ecpantheria	scribonia	(Stoll)	6	17	2	Jun
Arctiidae	Euchaetes	egle	(Dru.)		17	5	Jun
Arctiidae	Euerythra	phasma	Harv.	5		1	May
Arctiidae	Grammia	anna	(Grt.)	1,3	16	6	Jun
Arctiidae	Grammia	arge	(Dru.)	9		1	Aug
Arctiidae	Halysidota	tessellaris	(J.E. Smith)	1,3,5,6,7,10,11,12,13		7	May, Jun, Aug
Arctiidae	Haploa	clymene	(Brown)	5		1	Jun
Arctiidae	Haploa	lecontei ?	(Guer.-Me)	1,2,5,6,7		13	Jun
Arctiidae	Haploa	sp.		1,5,6,7		23	Jun
Arctiidae	Holomelina	aurantiaca	(Hbn.)	1,2,5		3	Jun
Arctiidae	Holomelina	laeta	(Guer.-Me)	1,2,5,6,7,9,10,11,12,13,14		1	May, Jun, Aug
Arctiidae	Holomelina	opella	(Grt.)	5		2	May
Arctiidae	Hyphantria	cunea	(Drury)	6		1	Jun
Arctiidae	Hypoprepia	fucosa	Hbn.	1,3,5,6,7	16	6	Jun
Arctiidae	Hypoprepia	miniata	(Kby.)	6		1	Jun
Arctiidae	Pagara	simplex	Wlk.	5,7	16	4	Jun

Table 2. A list of moths with number of specimens and dates of collection in cedar glades and adjacent forest in central Tennessee. Site numbers are given in Table 1.

Arctiidae	Pyrrharctia	isabella	(J.E. Sm.)	1		2	May, Jun
Arctiidae	Spilosoma	congrua	Wlk.		17	3	Jun
Arctiidae	Spilosoma	virginica	(F.)	5		1	May
Argyresthiidae	Argyresthia	freyella	Wlsm.	1,5,6		12	Jun
Coleophoridae	Blastobasinae	unidentified		1,5		8	May
Coleophoridae	Coleophora	sp.		1,5		16	May
Coleophoridae	Coleophora	spissicornis	(Haw.)	5,6,7		3	Jun
Coleophoridae	Mompha	eloisella	(Clem.)	5		1	May
Coleophoridae	Mompha	sp.		5		1	May
Cosmopterigidae	Perimede	spp.		1		2	Mar
Cosmopterigidae	Stagmatophora	sexnotella	(Cham.)	5		2	Jun
Cosmopterigidae	Walshia	sp.		6		1	Jun
Cosmopterygidae	Cosmopterix	pulchrimella	Cham.	5		4	May
Cosmopterygidae	Periploca	sp.		1,5		3	May
Cosmopterygidae	Stagmatophora	sexnotella	(Cham.)	5		2	May
Cosmopterygidae	Walshia	miscecolorella gp.	(Cham.)	1,5		9	May
Cossidae	Givira	anna	(Dyar)	5		2	Jun
Cossidae	Prionoxystus	robiniae	(Peck.)	6		1	Jun
Crambidae	Aethiophysa	lentiflualis	(Zell.)	5		2	Jun
Crambidae	Anageshna	primordialis	(Dyar)	1		4	Jun
Crambidae	Blepharomastix	ranalis	(Gn.)	1,2,5,6		8	Jun
Crambidae	Compacta	capitalis	(Grt.)	1,2,5	16	6	Jun
Crambidae	Conchylodes	ovulalis	(Gn.)	1,6		3	May
Crambidae	Crambus	agitatellus	(Clem.)	1,2,7		5	Jun
Crambidae	Crambus	albellus	Clem.	1,2,6	17	37	Jun
Crambidae	Crambus	caliginosellus	(Clem.)	1,5,6,7	16	25	Jun
Crambidae	Crambus	laqueatellus	Clem.	1,5,6		3	May
Crambidae	Crambus	luteolellus	Clem.	5,6		4	Jun
Crambidae	Desmia	maculalis	Westwood	1		1	May
Crambidae	Desmia	sp.		1,6	16	3	Jun
Crambidae	Desmia	funeralis	(Hbn.)	12		1	Aug
Crambidae	Diacme	adipaloides	(G. & R.)	6	16	3	Mar, Jun
Crambidae	Diacme	elealis	(Wlk.)	5,10		3	Jun, Aug
Crambidae	Diatraea	grandiosella	Dyar	5		1	Jun

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Crambidae	Dicymolomia	julianalis	(Wlk.)	1,6		2	May
Crambidae	Dolichomia	olinalis	(Gn.)	1,5,6,7	16	8	Jun
Crambidae	Donacaula	sp.		1		1	May
Crambidae	Eustixia	pupula	(Hbn.)	5	17	3	Jun
Crambidae	Evergestis	unimacula	(G. & R.)		17	1	Jun
Crambidae	Fissicrambus	mutabilis	(Clem.)	1,5		2	May
Crambidae	Fissicrambus	mutabilis	(Clem.)	1,5,6,7		7	May,Jun
Crambidae	Herpetogramma	pertextalis	(Led.)	1,5		3	May,Jun
Crambidae	Lipocosma	sicalis	(Wlk.)	1		1	Jun
Crambidae	Loxostege	cereralis	(Zell.)	5		3	May
Crambidae	Lygropia	octonalis	(Zell.)	1,5,12,13		9	May,Jun,Aug
Crambidae	Lygropia	rivulalis	Hamp.	1	17	3	Jun
Crambidae	Microcrambus	biguttellus	(Fbs.)	1,5	17	3	Jun
Crambidae	Microcrambus	elegans	(Clem.)	1,5,6,7		11	Jun
Crambidae	Microcrambus	kimbali	Klots	1,2,5	17	13	Jun
Crambidae	Nemophila	nearctica	(Mun.)	7,11,13		3	Jun,Aug
Crambidae	Nephrogramma	reniculalis	(Zell.)	1,6	17	3	Jun
Crambidae	Palpita	arsaltealis	(Wlk.)	1,6,7	16	36	Mar, Jun
Crambidae	Palpita	magniferalis	(Wlk.)	1,5,2		5	May,Jun
Crambidae	Parapediasia	teterrella	(Zinck.)	6		1	Jun
Crambidae	Perispasta	caecululis	Zell.	1	16,17	4	May,Jun
Crambidae	Pyrausta	acrionalis	(Wlk.)	2	16	3	Mar, Jun
Crambidae	Pyrausta	homonymalis	Mun.	1,5		10	May,Jun
Crambidae	Pyrausta	inveterascalis	(B. & McD)	1		1	May
Crambidae	Pyrausta	signatalis	(Wlk.)		17	1	Jun
Crambidae	Pyrausta	tyralis	(Gn.)	5		1	May
Crambidae	Saucrobotys	futilalis	(Led.)	5		1	May
Crambidae	Scoparia	sp.			15	1	May
Crambidae	Sericoplaga	externalis	(Warr.)	1		1	Jun
Crambidae	Synclita	obliteralis	(Wlk.)	5	15	2	May,Jun
Crambidae	Thaumatopsis	sp.		5		1	Jun
Crambidae	Udea	rubigalis	(Gn.)	1,5,6,7		9	May,Jun
Crambidae	unidentified			5		1	May
Crambidae	Urola	nivalis	(Drury)	1,5,6,7	16,17	14	Jun

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Drepanidae	Oreta	rosea	(Wlk.)	5		1	Jun
Elachistidae	Agonopterix	pulvipennella	(Clem.)		16	1	Mar.
Elachistidae	Depressaria	sp.		1	16	4	Mar.
Elachistidae	Elachista	angularis	Braun	6		1	Jun
Elachistidae	Elachista	sp.		1,5		3	May
Elachistidae	Ethmia	longimaculella	(Cham.)	1,2,5	15,17	27	Jun
Elachistidae	Ethmia	trifurcella	(Cham.)		16	1	Jun
Elachistidae	Semioscopis	megamicrella	Dyar		16	1	Mar.
Elachistidae	Semioscopis	packardella	(Clem.)		16	1	Mar.
Epermeniidae	Epermenia	sp.		1,7	16	3	Jun
Epiplemidae	Calledapteryx	dryopterata	Grt.	1	16,17	18	Jun
Epiplemidae	Callizzia	amorata	(Pack.)	1,2,3	15,16,17	21	May, Jun
Family	Genus	species	author	glade sites	forest sites	# spec.	dates
Gelechiidae	Anacamptis	conclusella sp gp		6,7	15	5	Jun
Gelechiidae	Anacamptis	rhoifruetella	(Clem.)	1,6		3	Jun
Gelechiidae	Aristotelia	pudibundella	(Zeller)	3,7		14	Jun
Gelechiidae	Aristotelia	roseosuffusella	(Clem.)	2		1	Jun
Gelechiidae	Aristotelia	sp.		1		2	Jun
Gelechiidae	Aroga	trialbamaculella		5		1	Jun
Gelechiidae	Arogalea	christifasciella	(Chamb.)	5	16	2	Mar, May
Gelechiidae	Caryocolum	pullatella		1		1	Jun
Gelechiidae	Chiodones	adamas	Hodges	1	16	5	Mar
Gelechiidae	Chionodes	bicostomaculella	(Cham.)	2,5,7		4	Jun
Gelechiidae	Chionodes	fuscomaculella	(Cham.)	1,7		4	Jun
Gelechiidae	Chionodes	obscurusella	(Cham.)	1,7	17	3	Jun
Gelechiidae	Chionodes	pereyra	Clarke	6	16	3	Jun
Gelechiidae	Coleotechnites	obliquistrigella	(Chamb.)	1,5,7		6	Jun
Gelechiidae	Coleotechnites	sp.		1,5	15	25	May
Gelechiidae	Dichomeris	costarufoella	(Cham.)	5		1	May
Gelechiidae	Dichomeris	georgiella	(Wlk.)		16	2	Mar
Gelechiidae	Dichomeris	gleba	Hodges	2,7		2	Jun
Gelechiidae	Dichomeris	inversella	(Zell.)	5,6		2	Jun
Gelechiidae	Dichomeris	isa	Hodges	1		3	Jun
Gelechiidae	Dichomeris	juncidella	(Clem.)	6		1	Jun



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Gelechiidae	Dichomeris	kimballi	Hodges	7		2	Jun
Gelechiidae	Dichomeris	leatitia	Hodges	7		1	Jun
Gelechiidae	Dichomeris	ligulella	Hbn.	1		9	May
Gelechiidae	Dichomeris	punctidiscella	(Clem.)	1	15,16	6	May, Jun
Gelechiidae	Dichomeris	serrativittella	(Zell.)	5,6,7	17	7	Jun
Gelechiidae	Dichomeris	ventrella	(Fitch)	1		1	Mar
Gelechiidae	Evippe	prunifoliella	Chamb.	1		1	Jun
Gelechiidae	Fascista	cercerisella	Cham.	1,5,6,7		8	Jun
Gelechiidae	Filatima	serotinella	(Bsk.)		16	1	Mar
Gelechiidae	Glauce	pectenalaeeella	Cham.	1,2,6		4	Jun
Gelechiidae	Helcystogramma	melanocarpum	(M.)	1,5,7	15	30	May, Jun
Gelechiidae	Isophrictis	sp.		6,7	16	4	Mar, Jun
Gelechiidae	Monochroa	quinquepunctella	(Bsk.)	1,5		3	Jun
Gelechiidae	Naera	fuscocrisatella	Cham.	1,7		4	May, Jun
Gelechiidae	Phthorimaea	operculella	(Zell.)	1,7		14	Mar, Jun
Gelechiidae	Polyhymo	luteostrigella sp gp		1, 6		2	May, Jun
Gelechiidae	Pseudochelaria	basifasciella	(Zell.)	1		1	Jun
Gelechiidae	Pseudochelaria	walsinghami	Dietz	1,5,6		12	Jun
Gelechiidae	Pseudotelphusa	spp.		1		2	Jun
Gelechiidae	Sinoe	robiniella sp.gp.			16	1	Mar
Gelechiidae	Sitotroga	cerealella	(Oliver)		16	1	Mar
Gelechiidae	Stegasta	bosqueella	(Cham.)	5		1	May
Gelechiidae	Strobisia	iridipennella	Clem.		17	2	Jun
Gelechiidae	Telphusa	latifasciella	(Cham.)		17	2	Jun
Gelechiidae	Theisoa	constrictella	(Zell.)	5		4	May
Gelechiidae	Trypanisma	prudens	Clem.	2		1	Jun
Gelechiidae	Untomia	albistrigella	(Cham.)	7		1	Jun
Gelechiidae	Xenolechia	sp.		1,5	15	20	May
Geometridae	Anacamptodes	defectaria	(Gn.)		16,17	2	Mar, Jun
Geometridae	Anavitrinella	pampinaria	(Gn.)	8,10,11,12,14	15	6	May, Aug
Geometridae	Antepione	thisoaria	(Gn.)	1,9,11,12,13,14		6	Mar, Aug
Geometridae	Campaea	perlata	(Gn.)		17	1	Jun
Geometridae	Ceratomyx	satanaria	(Gn.)	1	16	6	Mar
Geometridae	Chlorochlamys	chloroleucaria	(Gn.)	5		2	Jun

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Geometridae	Cleora	sublunaria	(Gn.)		16	1	Mar
Geometridae	Dichorda	iridaria	(Gn.)	9,14		2	Aug
Geometridae	Digrammia	continuata	(Wlk.)	1,3,5,11,13		3	Mar, Jun, Aug
Geometridae	Ectropis	crepuscularia	(D. & S.)	1,2,5,6	16	5	Mar, Jun
Geometridae	Epimecis	hortaria	(F.)	1	17	2	Jun
Geometridae	Euacidalia	sericearia	(Pack.)	3,6,7		4	Jun
Geometridae	Eubaphe	mendica	(Wlk.)	2,3,5,7	17	7	Jun
Geometridae	Euchlaena	amoenaria	(Gn.)	1,5,12,14	15	3	May, Jun, Aug
Geometridae	Euchlaena	obtusaria	(Hbn.)	2,3		2	Jun
Geometridae	Eugonobapta	nivosaria	(Gn.)	1,5,6	16,17	8	Jun
Geometridae	Eulithis	diversilineata	(Hbn.)	5,7	16	4	Jun
Geometridae	Eupithecia	miserulata	Grt.	5		1	May
Geometridae	Eupithecia	unidentified		1,3,5,6,7	16	12	Jun
Geometridae	Eusarca	confusaria	(Hbn.)	1,2,3,5,6,7	17	11	May, Jun
Geometridae	Eutrapela	clemataria	(J.E. Smith)		16	1	Mar
Geometridae	Exelis	pyrolaria	(Gn.)	2,3,5,6	15,16	10	May, Jun
Geometridae	Glena	cribrataria	(Gn.)	1	16,17	3	Jun
Geometridae	Glena	plumosaria	(Pack.)	1,3,5,6	15,17	16	May, Jun
Geometridae	Heterophleps	triguttaria	H.-S.		15	1	May
Geometridae	Horisme	intestinata		1	15	4	May
Geometridae	Hydrella	lucata	(Gn.)		17	1	Jun
Geometridae	Hydria	prunivorata	(Ferg.)	1		1	Jun
Geometridae	Hypagyrtis	ester	(Barnes)	1,3,5,14	15,16,17	26	May, Jun, Aug
Geometridae	Hypagyrtis	unipunctata	(Haw.)		17	2	Jun
Geometridae	Hypomecis	buchholzaria	(Lem.)		16	1	Jun
Geometridae	Hypomecis	unidentified		1,3		2	Jun
Geometridae	Idaea	demissaria	(Hbn.)	2,5,6,7		10	Jun
Geometridae	Idaea	eremiata	(Hulst)	1,3,5,6	16,17	18	Jun
Geometridae	Idaea	violacearia	(Wlk.)	6		4	Jun
Geometridae	Leptostales	ferruminaria	(Zell.)	1,3,5,6	15,16	31	May, Jun
Geometridae	Lobocleta	ossularia	(Gey.)	1,5		3	May
Geometridae	Lomographa	vestaliata	(Gn.)	1,2,3,5,6	17	9	Jun
Geometridae	Lophosis	labeculata	(Hulst)		17	2	Jun
Geometridae	Lychnosea	intermicata	(Wlk.)	1,3,5,6,7,10,11		10	Jun, Aug

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Geometridae	Lytrosis	permagnaria	(Pack.)		15	2	May
Geometridae	Lytrosis	unitaria	(H.-S.)	2,3,5,7	16,17	17	Jun
Geometridae	Macaria	multilineata	(Pack.)	1,5,6,9,11,14	16	15	May, Jun, Aug
Geometridae	Macaria	promiscuata	Fgn.	1	15	4	May, Jun
Geometridae	Melanolophia	canadaria	(Gn.)	1,3,5		6	May, Jun
Geometridae	Melanolophia	signataria	(Wlk.)	1,2,3,6,7	16,17	13	Mar, Jun
Geometridae	Mellilla	xanthometata	(Wlk.)	6,12	15,16,17	6	Mar, Jun, Aug
Geometridae	Metarranthis	angularia	B. & McD.	1,2,3,6	16,17	9	Jun
Geometridae	Metarranthis	hypochraria	(H.-S.)	1,3	17	4	Jun
Geometridae	Nematocampa	resistaria	(Haw.)	1,7	16	4	Jun
Geometridae	Nemoria	lixaria	(Gn.)	1,2,5	17	7	Jun
Geometridae	Nemoria	sp nr lixaria			16	2	Mar
Geometridae	Nemoria	tuscarora	Ferg.	3	17	2	Jun
Geometridae	Orthonama	centrostrigaria	(Woll.)	1,3,5,6,7	16	9	Mar, May, Jun
Geometridae	Orthonama	obstipata	(F.)	1,5,6,7		6	Jun
Geometridae	Paleacrita	vernata	(Peck)	1	16	4	Jun
Geometridae	Patalene	olyzonaria	(Wlk.)	1,2,3,5,6,7,13,14		20	May, Jun, Aug
Geometridae	Pero	honestaria	(Wlk.)	14		1	Aug
Geometridae	Phigalia	denticulata	Hulst		16	1	Mar
Geometridae	Phigalia	strigataria	(Minot)	1	16	4	Mar
Geometridae	Pimaphera	sparsaria ?	(Wlk.)	1	16	7	Mar
Geometridae	Plagodis	alcoolaria	(Gn.)		16	1	Mar
Geometridae	Pleuroprucha	insularia	(Gn.)	5		1	May
Geometridae	Protoboarmia	porcelaria	(Gn.)		15	1	May
Geometridae	Scopula	limboundata	(Haw.)	1,2,3,5,8	15,16	10	May, Jun, Aug
Geometridae	Selenia	kentaria	(G. & R.)		16	1	Jun
Geometridae	Tornos	scolopacinaris sp gp	(Gn.)	1,6,7	16	8	Jun
Geometridae	Trigrammia	quadrinotaria	(H.-S.)		17	1	Jun
Geometridae	Xanthotype	attenuaria	(Swett)	1,2,5		3	Jun
Glyphipterigidae	Diploschizia	impigritella	(Clem.)	5		1	May
Gracillariidae	Caloptilia	violacella ?	(Clem.)	1,6		4	Mar, Jun
Gracillariidae	Mamara	sp.		5		3	May
Gracillariidae	unidentified			1,5	15	14	May
Identified species			495				

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Incurvariidae	Prodoxus	quinquepunctellus		5		5	Jun
Incurvariidae	Tegeticula	yuccasella	(Riley)	5		9	Jun
Lasiocampidae	Artace	cribraria	(Ljungh)	5		1	Jun
Lasiocampidae	Malacosoma	disstria	Hbn.	7	17	2	Jun
Lasiocampidae	Phyllodesma	americana	(Harris)	1,3	16	4	Mar, Jun
Limacodidae	Apoda	biguttata	(Pack.)	5	16	3	Jun
Limacodidae	Apoda	y-inversum	(Pack.)	1,6,7		4	Jun
Limacodidae	Euclea	delphinii	(Bdv.)	6,14		2	Jun, Aug
Limacodidae	Heterogenea	shurtleffi	Pack.		15	1	May
Limacodidae	Isochaetes	beutenmuelleri	(Hy.Edw.)	5		2	Jun
Limacodidae	Lithacodes	fasciola	(H.-S.)		15	1	May
Limacodidae	Prolimacodes	badia	(Hbn.)	6		1	Jun
Limacodidae	Slossonella	tenebrosa	Dyar.	1,6	15	6	May, Jun
Limacodidae	Tortricidia	testacea	Pack.	1		1	May
Lymantriidae	Dasychira	tephra	Hbn.		17	1	Jun
Lymantriidae	Orgyia	leucostigma	(J.E. Smith)	1,3,5,7		7	Jun
MACROLEPIDOPTERA							
MICROLEPIDOPTERA							
Momphidae	Mompha	circumscriptella	(Zell.)	1,2,5,7		18	Jun
Momphidae	Mompha	murtfeldtella	(Cham.)	5		1	Jun
Noctuidae	Acontia	aprica	(Hbn.)	10		1	Aug
Noctuidae	Acronicta	afflicta	(Grt.)	1,5	17	4	May, Jun
Noctuidae	Acronicta	haesitata	(Grt.)	2	16	2	Jun
Noctuidae	Acronicta	inclara	(Sm.)	5,14	16	3	May, Jun, Aug
Noctuidae	Acronicta	laetifica	Sm.		16	1	Jun
Noctuidae	Acronicta	longa	Gn.	1		1	May
Noctuidae	Acronicta	modica	(Wlk.)	5,6	17	5	Jun
Noctuidae	Acronicta	morula	G. & R.		15	1	May
Noctuidae	Acronicta	radcliffei	(Harv.)		17	1	Jun
Noctuidae	Acronicta	rubricoma	(Gn.)	1,2,3,14	17	5	Jun, Aug
Noctuidae	Acronicta	vinnula	(Grt.)	7	16	2	Jun
Noctuidae	Acronicta	oblinita	(J.E.Sm.)	12		1	Aug
Noctuidae	Agriopodes	fallax	(H.-S.)	6		1	Jun
Noctuidae	Agriopodes	teratophora	(H.-S.)	3		1	Jun

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Noctuidae	Agrotis	gladiaria	Morr.	4		34	Oct
Noctuidae	Agrotis	subterranea	(F.)	14		1	Aug
Noctuidae	Agrotis	ipsilon	(Hufn.)	10,13		1	Aug
Noctuidae	Allotria	elonympha	(Hbn.)		16	1	Jun
Noctuidae	Apamea	sp.		1,5		4	Jun
Noctuidae	Argillophora	furcilla	Grt.	1		1	Jun
Noctuidae	Argyrostromis	anilis	(Drury)	1,7	16	5	May, Jun
Noctuidae	Arugisa	latiorella	(Wlk.)	1,2,3,5,6		8	Jun
Noctuidae	Athetis	miranda	(Grt.)	5		1	May
Noctuidae	Autographa	preactionis	(Gn.)	5,7		2	Jun
Noctuidae	Baileya	ophthalmica	(Gn.)	1		1	May
Noctuidae	Bleptina	caradrinalis	Gn.	1,3,5,6,7	16	11	Jun
Noctuidae	Bleptina	sangamonica	(B. & McD)	5		1	May
Noctuidae	Bomolocha	abalienalis	(Wlk.)	3,5	16	3	Jun
Noctuidae	Bomolocha	madefactalis	(Gn.)	1,5	16	9	Jun
Noctuidae	Bomolocha	palparia	(Wlk.)	3		2	Jun
Noctuidae	Caenurgia	chloropha	(Hbn.)	1,5,7	16	5	Mar, Jun
Noctuidae	Caenurgina	crassiuscula	(Haw.)	3,6,7		3	Jun
Noctuidae	Caenurgina	erechtea	(Cram.)	5,12,14		3	May, Aug
Noctuidae	Callopietria	mollissima	(Gn.)	2	17	3	Jun
Noctuidae	Catocala	clintoni	Grt.	1,3	17	4	Jun
Noctuidae	Catocala	ilia	(Cram.)		17	1	Jun
Noctuidae	Catocala	vidua	(J.E.Sm.)	13		1	Aug
Noctuidae	Catocala	piatrix	Grt.	14		1	Aug
Noctuidae	Cerastis	tenebrifera	(Wlk.)		16	1	Jun
Noctuidae	Charadra	deridens	(Gn.)	3		1	Jun
Noctuidae	Choephora	fungorum	G.&R.	4		5	Oct
Noctuidae	Chytolita	morbidalis	Gn.	1,3		2	Jun
Noctuidae	Chytonix	palliatricula	(Gn.)	1,3,5		5	Jun
Noctuidae	Cissusa	spadix	(Cram.)		16	1	Mar
Noctuidae	Cobubatha	sp.		1,3,5,6	16	7	Jun
Noctuidae	Condica	videns	(Gn.)	5		5	May, Jun
Noctuidae	Copivaleria	grotei	(Morr.)		16	1	Mar
Noctuidae	Crambodes	talidiformis	Gn.	5		2	May, Jun

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Noctuidae	Deltote	muscosula	(Gn.)	1	15	2	May
Noctuidae	Dypterygia	rozmani	Berio		17	1	Jun
Noctuidae	Dyspyralis	puncticosta	(Sm.)	1,12	16,17	13	Jun, Aug
Noctuidae	Elaphria	grata	Hbn.	6,7		2	Jun
Noctuidae	Elaphria	versicolor	(Grt.)	1,5	15	3	May, Jun
Noctuidae	Euagrotis	illapsa	(Wlk.)	5,2		3	May, Jun
Noctuidae	Eudryas	grata	(F.)		16	1	Jun
Noctuidae	Eupsilia	sidus ?	(Gn.)	1		1	Mar
Noctuidae	Faronta	diffusa	(Wlk.)	11		1	Aug
Noctuidae	Galgula	partita	Gn.	1		3	Mar
Noctuidae	Helicoverpa	zea	(Boddie)	9,12,13,14		4	Aug
Noctuidae	Hemeroplanis	scopulepes	(Haw.)	2		1	Jun
Noctuidae	Homohadena	infixa	(Wlk.)	1,2,3,5,6,7	17	102	May, Jun
Noctuidae	Hypena	madefactalis	(Gn.)	5,15		2	May
Noctuidae	Hypena	palparia	(Wlk.)		15	1	May
Noctuidae	Hypena	scabra	(F.)	5		1	May
Noctuidae	Hypenodes	fractilinea	(Sm.)	1,5		4	May, Jun
Noctuidae	Hyperstrotia	flaviguttata	(Grt.)	3		1	Jun
Noctuidae	Hyperstrotia	villificans	(B.&McD.)	1,3,6,7	15,16	12	May, Jun
Noctuidae	Hypsoropha	hormos	Hbn.	5,6		4	May, Jun
Noctuidae	Hypsoropha	monilis	(F.)		15	1	May
Noctuidae	Idia	aemula	Hbn.	1,2,5,6		6	Jun
Noctuidae	Idia	americalis	(Gn.)	3,11	17	3	Jun, Aug
Noctuidae	Idia	diminuendis	(B. & McD.)	1,5	17	4	Jun
Noctuidae	Idia	forbesi	(French)		17	2	Jun
Noctuidae	Idia	julia	(B. & McD.)	1,3,7	17	8	Jun
Noctuidae	Idia	lubricalis	(Gey.)	3		1	Jun
Noctuidae	Idia	rotundalis	(Wlk.)	2,3	17	5	Jun
Noctuidae	Idia	scobialis	(Grt.)	2,3	16,17	6	Jun
Noctuidae	Iodopepla	u-album	(Gn.)	1,3,5,7		7	Mar, Jun
Noctuidae	Isogona	tenuis	(Grt.)	1,2,3,5,6		12	May, Jun
Noctuidae	Lacinipolia	renigera	(Steph.)	1,3,5,6,7		17	May, Jun
Noctuidae	Ledaea	perditalis	(Wlk.)	5		1	Jun
Noctuidae	Lesmone	detrehens	(Wlk.)	3		1	Jun

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Noctuidae	Leucania	sp.		5		4	May
Noctuidae	Leucania	ursula	(Fbs.)	1,2		2	Jun
Noctuidae	Lithophane	bethunei	(G. & R.)		16	1	Mar
Noctuidae	Macrochila	hypocriticalis	Ferg.	5		1	May
Noctuidae	Maliattha	synochitis	(G. & R.)		15	1	May
Noctuidae	Marathyssa	basalis	(Wlk.)		16	2	Mar
Noctuidae	Marathyssa	inficita	(Wlk.)	9,14		2	Aug
Noctuidae	Matigramma	pulverilinea	Grt.	1,5,8		3	May, Aug
Noctuidae	Meganola	phylla	(Dyar)	1		1	May
Noctuidae	Metalectra	discalis	(Grt.)	1	15	2	May
Noctuidae	Mocis	texana	(Morr.)	5		1	May
Noctuidae	Nedra	ramosula	(Gn.)	1,13	16	2	Mar, Aug
Noctuidae	Nola	sorghiiella	Ril.	1,5		2	May
Noctuidae	Ogdoconta	cinereola	(Gn.)	11		1	Aug
Noctuidae	Oligia	chlorostigma	Harv.	1		2	Mar
Noctuidae	Orthosia	garmani	(Grt.)	1	16	30	Mar
Noctuidae	Orthosia	hibisci	(Gn.)	1		7	Mar
Noctuidae	Orthosia	rubescens	(Wlk.)		16	1	Jun
Noctuidae	Oxycilla	malaca	(Grt.)	3	17	3	Jun
Noctuidae	Paectes	pygmaea	Hbn.	5		1	May
Noctuidae	Palthis	angulalis	(Hbn.)	11		1	Aug
Noctuidae	Panopoda	carneicosta	(Gn.)		15	1	May
Noctuidae	Phalaenostola	larentoides	Grt.	5		1	May
Noctuidae	Phoberia	"orthosioides"	(Gn.)		16	1	Mar
Noctuidae	Phoberia	atomaris	Hbn.	1	16	2	Mar
Noctuidae	Phyprosopus	callitrichiodes	Grt.	1		1	May
Noctuidae	Phytometra	ernestinana	(Blanch.)	10		1	Aug
Noctuidae	Plathypena	scabra	(F.)	11		1	Aug
Noctuidae	Plusiodonta	compressipalpis	(Gn.)	5,9,11,12		1	May, Aug
Noctuidae	Polypogon	cruralis	(Gn.)	1		1	May
Noctuidae	Polypogon	obscuripennis	(Grt.)		15	1	May
Noctuidae	Polypogon	obscuripennis	(Grt.)	1	17	4	Jun
Noctuidae	Polypogon	protumnalis ?	(Wlk.)		17	1	Jun
Noctuidae	Properigea	sp.		11		1	Aug

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Noctuidae	Psaphida	rolandi	Grt.	1		1	Mar
Noctuidae	Psaphida	styracis	(Gn.)		16	1	Mar
Noctuidae	Pseudaletia	unipuncta	(Haw.)	14		1	Aug
Noctuidae	Ptichodis	herbarum	(Gn.)	11		1	Aug
Noctuidae	Renia	adspergillus	(Bosc)	2		1	Jun
Noctuidae	Renia	flavipunctalis	(Gey.)	1,3,5,6,7		7	Jun
Noctuidae	Renia	salusalis	(Wlk.)	1,3		2	Jun
Noctuidae	Rivula	propinqualis	Gn.	1		1	May
Noctuidae	Schinia	trifascia	Hbn.	12		1	Aug
Noctuidae	Sericaglaea	signata	(French)	1	16	2	Jun
Noctuidae	Sigela	sp.			15	1	May
Noctuidae	Spiloloma	lunilinea	Grt.	14		1	Aug
Noctuidae	Spodoptera	ornithogalli	(Gn.)	8,10		2	Aug
Noctuidae	Spragueia	leo	(Gn.)	1,5		3	May
Noctuidae	Tarachidia	candefacta	(Hbn.)	5		1	May
Noctuidae	Thioptera	nigrofimbria	(Gn.)	1,8,13		3	May, Aug
Noctuidae	Tricholita	signata	(Wlk.)	11		1	Aug
Noctuidae	Tripudia	quadrifera	(Zell.)	1,5		6	May
Noctuidae	unidentified			1		2	May
Notodontidae	Clostera	inclusa	(Hbn.)	5		1	Jun
Notodontidae	Datana	angusii	G. & R.	3	16,17	3	Jun
Notodontidae	Gluphisia	septentrionis	Wlk.	5		1	Jun
Notodontidae	Heterocampa	guttivitta	(Wlk.)	3	16	2	Jun
Notodontidae	Heterocampa	obliqua	Pack.	2		1	Jun
Notodontidae	Heterocampa	subrotata	Harv.	1,5		6	May
Notodontidae	Heterocampa	umbrata	Wlk.	3	17	3	Jun
Notodontidae	Hyperaeschra	georgica	(H.-S.)	3		1	Jun
Notodontidae	Lochmaeus	bilineata	(Pack.)	3,5,6,7	17	9	Jun
Notodontidae	Macrurocampa	marthesia	(Cram.)		16,17	2	Jun
Notodontidae	Nadata	gibbosa	(J.E. Smith)	1,3		2	Jun
Notodontidae	Oligocentria	lignicolor	(Wlk.)	3	17	2	Jun
Notodontidae	Oligocentria	semirufescens	(Wlk.)	3,5	16	3	Jun
Notodontidae	Peridea	basitriens	(Wlk.)	2,3	16	4	Jun
Notodontidae	Schizura	badia	(Pack.)		16,17	2	Jun



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Notodontidae	Schizura	leptinoides	(Grt.)		17	1	Jun
Notodontidae	Schizura	unicornis	(J.E. Smith)	1		1	Jun
Notodontidae	Symmerista	albifrons	(J.E. Smith)		16	1	Mar
Plutellidae	Plutella	sp.		5		1	May
Plutellidae	Plutella	xylostella	(L.)	1		1	Mar
Psychidae	Solenobia	walshella	Clem.		16	4	Mar.
Psychidae	Thyridopteryx	ephemeraeformis	(Haw.)	8		1	Aug
Pterophoridae	Geina	periscelidactyla	(Fit.)		17	1	Jun
Pterophoridae	Leioptilus	sp.		1	16,17	4	Jun
Pterophoridae	Paraplatyptilia	auriga	(B. & L.)		17	1	Jun
Pyralidae	Acrobasis	demotella	Grt.		15	1	May
Pyralidae	Acrobasis	exsulella	(Zell.)	6		1	Jun
Pyralidae	Canarsia	ulmiarrosorella	(Clem.)	1,5	17	5	May, Jun
Pyralidae	Ephesiodes	infirmella	Rag.	1		4	May
Pyralidae	Epipaschia	superatalis	(Clem.)	6		1	Jun
Pyralidae	Eudonia	heterosalis	(McD.)		17	1	Jun
Pyralidae	Eudonia	strigalis	(Dyar)	1		1	Jun
Pyralidae	Eulogia	ochrifrontella	(Zell.)		15,16	2	May, Jun
Pyralidae	Eurythmia	hospitella	(Zell.)	5,2		2	Jun
Pyralidae	Galasa	nigrinodis	(Zell.)	1,5,7		4	Jun
Pyralidae	Glaphyria	sequistrialis	Hbn.	1,2,5	16	6	Jun
Pyralidae	Glyptocera	consobrinella	(Zell.)	1		1	Jun
Pyralidae	Hypsopygia	costalis	(F.)	1,5		7	May, Jun
Pyralidae	Macrotheca	sp.		1		1	Jun
Pyralidae	Moodna	ostrinella	(Clem.)	5		1	May
Pyralidae	Nephopterix	celtidella	(Hulst)	1,5,6		14	May, Jun
Pyralidae	Nephopterix	subfascella	(Rag.)	5		1	May
Pyralidae	Oneida	lunulalis	(Hulst.)	15	17	2	May, Jun
Pyralidae	Peoria	approximella	(Wlk.)	1,5,7		8	May, Jun
Pyralidae	Peoria	roseotinctella	(Rag.)	1		1	Jun
Pyralidae	Phycitodes	reliquella	(Dyar)	1		3	May
Pyralidae	Pococera	expandens	(Wlk.)	6		1	Jun
Pyralidae	Pococera	sp.		1,5		2	May
Pyralidae	Salebriaria	atratella	Blanch. &	1	16	2	Jun

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Pyralidae	Salebriaria	turpidella	(Rag.)	5	16,17	4	May, Jun
Pyralidae	Tlascalala	reductella	(Wlk.)	1,2,5,6,7		10	May, Jun
Pyralidae	Tosale	oviplagalis	(Wlk.)	1,2,5	15,16	6	May, Jun
Pyralidae	Varneria	postremella	Dyar	1,2,5	15	17	May, Jun
Saturniidae	Actias	luna	(L.)	1	17	3	May, Jun
Saturniidae	Anisota	virginiensis pellucida	(J.E.Sm.)		17	2	Jun
Sphingidae	Ceratomia	undulosa	(Wlk.)	1,3,5	17	6	May, Jun
Sphingidae	Ceratomia	hageni	Grt.	13,14		1	Aug
Sphingidae	Darapsa	myron	(Cram.)	1,14		3	Jun, Aug
Sphingidae	Hyles	lineata	(F.)	12		1	Aug
Sphingidae	Laothoe	juglandis	(J.E. Smith)	1,3	17	3	Jun
Sphingidae	Sphecodina	abbottii	(Swain.)	5		1	Jun
Sphingidae	Sphinx	canadensis	Bdv.		17	1	Jun
Sphingidae	Sphinx	kalmiae	(J.E. Sm.)	5		1	May
Sphingidae	Sphinx	undulosa	(Wlk.)	5		1	May
Thyrididae	Thyris	sepulchralis	Guer.		15	1	Jun
Tineidae	Acrolophus	arcanella	(Clem.)	1,5,6		3	Jun
Tineidae	Amydria	effrentella	Clem.	1,2		4	Jun
Tineidae	Diachorisia	velatella	(Clem.)		17	1	Jun
Tineidae	Eudarcia	eunitariaeela	Cham.		15	1	May
Tineidae	Homostinea	curviliniella	Dietz	5,6		2	Jun
Tineidae	Monopis	dorsistrigella	(Clem.)	1	16	2	Jun
Tineidae	Niditinea	fuscella	(L.)	1		1	May
Tortricidae	Acleris	robinsoniana	(Fbs.)		17	2	Jun
Tortricidae	Aethes	argenteimitana	(Rob.)	7		1	Jun
Tortricidae	Aethes	sp.		1,5	15	5	May
Tortricidae	Aethes	spp.		1,2,7		22	Jun
Tortricidae	Ancylis	burgessiana	(Zell.)	1,2		2	May, Jun
Tortricidae	Ancylis	comptana	(Frolich)	1		2	Jun
Tortricidae	Ancylis	laciniana	(Zell.)	1	17	2	Jun
Tortricidae	Ancylis	n. sp.		1		1	May
Tortricidae	Archips	argyrospila	(Wlk.)		15	1	May
Tortricidae	Archips	grisea	(Rob.)	1,2,5	17	6	Jun
Tortricidae	Archips	nigriplagana	Franc.	1,2	16	13	Jun

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Tortricidae	Archips	semiferana	(Wlk.)	1,6	17	4	Jun
Tortricidae	Argyrotaenia	argyrosphilus	(Wlk.)	1,2,5,7		7	Jun
Tortricidae	Argyrotaenia	juglandana	(Fern.)	1	16	3	Jun
Tortricidae	Argyrotaenia	quercifoliana	(Fitch)	5,7		4	May, Jun
Tortricidae	Argyrotaenia	velutinana	(Wlk.)	1,2,5,6		14	May, Jun
Tortricidae	Bactra	furfurana	(Haw.)	1		1	Jun
Tortricidae	Bactra	verutana	(Zell.)	1		1	May
Tortricidae	Carolella	bimaculana	(Rob.)	1,6		2	Jun
Tortricidae	Chimoptesis	gerulae	(Heinr.)	1	16	4	Mar
Tortricidae	Chimoptesis	pennsylvaniana	(Kft.)	1	16	5	Mar.
Tortricidae	Choristoneura	fractivittana	(Clem.)	1		2	May
Tortricidae	Choristoneura	obsoletana	(Wlk.)	1	17	3	Jun
Tortricidae	Choristoneura	pinus	Free.		17	1	Jun
Tortricidae	Choristoneura	rosaceana	(Harr.)	1,2,6	16,17	12	Jun
Tortricidae	Cochylini	unidentified		1	15	2	May
Tortricidae	Cochylis	sp.		2,5,7		5	Jun
Tortricidae	Croesia	albicomana	(Clem.)	1,2,5,7	16,17	16	Jun
Tortricidae	Cydia	caryana	(Fit.)	1	17	3	May, Jun
Tortricidae	Endothenia	hebesana	(Wlk.)	5,7		3	Jun
Tortricidae	Epiblema	abruptana	(Wlsm.)	1,5,6		3	Jun
Tortricidae	Epiblema	boxcana	(Kft.)	1,2	15	4	May, Jun
Tortricidae	Epiblema	discretivana	(Hein.)	5,6		11	Jun
Tortricidae	Epiblema	glenni	Wright	1,5		2	May, Jun
Tortricidae	Epiblema	minutana		5,6,7		9	May, Jun
Tortricidae	Epiblema	otiosana	(Clem.)	1,5		2	Jun
Tortricidae	Epiblema	scudderiana	(Clem.)	1		2	May, Jun
Tortricidae	Epiblema	strenuana	(Wlk.)	5,7		3	May, Jun
Tortricidae	Epinotia	celtisana	(Ril.)	1	16	6	Mar
Tortricidae	Epinotia	sotipena	Brown		16	2	Mar
Tortricidae	Episimus	argutanus	(Clem.)	1,5,6,7		11	May, Jun
Tortricidae	Eucosma	cataclystiana	(Wlk.)	5,7		2	Jun
Tortricidae	Eucosma	dorsisignatana	(Clem.)	4		2	Oct.
Tortricidae	Eucosma	robinsonana	(Grt.)	5		3	Jun
Tortricidae	Grapholita	packardi	(Zell.)	1		3	May, Jun

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Tortricidae	Gretchena	amatana	Heinr.	2		1	Jun
Tortricidae	Gretchena	concitatricana	(Heinr.)	5,2		2	Jun
Tortricidae	Gretchena	concupitana	(Heinr.)	5,15		2	May, Jun
Tortricidae	Gretchena	deludana	(Clem.)	5		1	May
Tortricidae	Olethreutes	astrologana	(Zell.)	5	17	3	May, Jun
Tortricidae	Olethreutes	cespitana	(Hbn.)	5		6	May, Jun
Tortricidae	Olethreutes	fasciatana	(Clem.)	1,5,7	17	6	Jun
Tortricidae	Olethreutes	ferrolineana	(Wlk.)	1,5	15	11	May, Jun
Tortricidae	Olethreutes	griseoalbana	(Wlsm.)	1,5,6		4	Jun
Tortricidae	Pandemis	limitana	(Rob.)	5	17	2	May, Jun
Tortricidae	Pelochrista	womanana	(Kft.)	6,7		8	Jun
Tortricidae	Pelochrista	zomonana	(Kft.)	5,7		2	Jun
Tortricidae	Phaecasiophora	niveiguttana	(Grt.)	1,6	15	3	May, Jun
Tortricidae	Phaneta	kiscana	(Kft.)	1,2,5,6,7,15		17	May, Jun
Tortricidae	Phaneta	striatana	(Clem.)	1,6		2	Jun
Tortricidae	Platynota	exasperatana	(Zell.)	1,6	17	5	Mar, Jun
Tortricidae	Platynota	flavedana	(Clem.)	1,2,5,6		7	May, Jun
Tortricidae	Platynota	idaeusalis	(Wlk.)	1,5		8	May, Jun
Tortricidae	Pseudexentera	cressoniana	(Clem.)	1	16	7	Feb.
Tortricidae	Pseudexentera	faracana	(Kft.)	1	16	5	Feb.
Tortricidae	Pseudexentera	haracana	(Kft.)	1	16	1	Feb.
Tortricidae	Pseudexentera	hobsoni	Miller	1	16	4	Feb.
Tortricidae	Pseudexentera	sepia	Miller		16	1	Mar
Tortricidae	Ptycholoma	peritana	(Clem.)	1,5		4	May, Jun
Tortricidae	Ptycholoma	virescana	(Clem.)	1		2	May, Jun
Tortricidae	Recavicula	sp.		5,2		3	Jun
Tortricidae	Sereda	tautana	(Clem.)		16	2	Mar
Tortricidae	Sonia	constrictana	(Zell.)	1,5		2	Jun
Tortricidae	Sparganothis	belfrageana	(Zell.)	1,5		4	Jun
Tortricidae	Sparganothis	pulcherrimana	(Wlsm.)	2,5,6	17	7	Jun
Tortricidae	Sparganothis	sulfureana	(Zell.)	1,5,6	15	12	May, Jun
Tortricidae	Sparganothis	lentiginosana	(Wlsm.)	1,2,5,6		9	Jun
Tortricidae	Strepsicrates	smithiana	(Wlsm.)		17	1	Jun
Tortricidae	unidentified			5		1	May

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Total specimens			2489				
Unidentified taxa			51				
Yponomeutidae	Argyresthia	sp.		1,5	15	16	May
Yponomeutidae	Atteva	punctella	(Cram.)	5,8,10,12,14	15	2	May, Jun, Aug
Yponomeutidae	Lactura	pupula	(Hbn.)	6		1	Jun
Yponomeutidae	Yponomeuta	atomocella	Dyar	5	16,17	17	Jun
Zygaenidae	Harrisina	americana	(Guer.)	1,5		3	May, Jun
Zygaenidae	Pyromorpha	dimidiata	H.-S.		17	1	Jun