Journal of Research on the Lepidoptera 11(3):175-182, 1972(1973)

1160 W. Orange Grove Ave., Arcadia, California 91006, U.S.A.

BUTTERFLY RECORDS FOR THREE NORTHWEST WISCONSIN COUNTIES

JOHN H. MASTERS

Lemon Street North, North Hudson, Wisconsin

A recent book (Ebner, 1970) on butterflies of Wisconsin is almost devoid of records or other information regarding the northwest portions of the state. During the past five seasons, I have conducted quite a bit of field collecting in 18 Wisconsin counties. Very little of this was general collecting, but in most cases I had a specific objective such as documenting the range of *Erebia discoidalis* (see Masters, 1971) or collecting bog species. At least 75% of my collecting efforts were expended in Burnett, Rusk and St. Croix counties and I have accumulated enough data from these counties to provide preliminary lists of their lepidopterous faunas. Hesperids have been collected to a very limited extent and are excluded from this treatise.

BURNETT COUNTY

Burnett County is primarily transition zone forest including extensive areas of seral birch-aspen associations, and smaller areas of basswood-maple-oak association and some red or jack pine forests. Most of my collecting has been done in the jack pine forests just to the east of Danbury. This area has been very productive in producing *Incisalia* species (see Masters, 1970), *Euchloe olympia* and *Hesperia metea* Scudder (Hesperiidae) during late May and I have also collected it extensively during late June searching, thus far in vain, for *Oeneis macounii* (Edwards). Forty-four species are recorded for Burnett County and another nine are considered as possible. There is also a possibility that *Pieris virginiensis* and *Polygonia satyrus* are to be found here in maple forests and *Chlosyne harrisii* in marshy areas. The total list for Burnett County should reach 60 species. Ebner (1970) had very few records in Wisconsin for several species that are fairly abundant in Burnett County, these include: *Phyciodes batesii, Incisalia polios, Incisalia henrici* and *Incisalia augustinus.*

Table one. Butterfly records for Burnett, Rusk and St. Croix counties, Wisconsin: Papilionidae, Pieridae, Danaidae, Satyridae and Libytheidae.

SPECIES	BURNETT COUNTY	RUSK COUNTY	ST. CROIX COUNTY
Papilio polyxenes asterius St.	Upr	A-ds; 6.7	A-ws; 7.8.9.10
Papilio glaucus canadensis R.&J.	SII-wc; 6.7	SII-wa; 6.7	Uu
Papilio glaucus glaucus L.	Up	Uu	SIII-wc; 6.7.8
Pieris protodice protodice B.&LC.	Upr	P,A-dr; 5	P,A-ds; 5.6.8
Pieris napi oleracea Harris	SII-ds; 5.6.7.8	SII-dc; 5.6.7.8	Uu
Pieris rapae rapae L.	A-wc; 5-9	A-wc; 5-9	A-wa; 5-10
Colias eurytheme eurytheme Bois.	A-wa; 6-9	A-wa; 6-9	A-wa; 6-10
Colias philodice philodice Gdt.	A-wa; 5-9	A-wa; 6-9	A-wa;
Colias interior interior Scud.	SII-ls; 7	SII/B-dc; 7	Uu
Nathalis iole Bois.	Poly-mr; 8	Up	Poly-mc; 8.9.10
Euchloe olympia anniha dP.&Kts.	SII-da; 5.6	SII-dr; 6	SII-dc; 5.6
Danaus plexippus L.	Poly-mc; 6-9	Poly-mc; 6-9	Poly-mc; 6-10
Lethe anthedon borealis Clark	Up	SII-dc; 6.7	Uu
Lethe anthedon anthedon Clark	SIII-ls; 7	Up	SIII-wc; 6.7
Euptychia cymela cymela Cram.	SIII-ls; 6	Up	SIII-wa; 6
Lethe eurydice eurydice Joh.	PIII-lr; 7	PIII-lc; 7.8	PIII-lc; 7
Coenonympha tullia inornata Edw.	PII-lr; 7	Up	Uu
Cercyonis pegala nephele Kby.	A-wc; 7.8	A-wc; 7.8	A-wc; 7.8
Oeneis jutta ascerta M.&S.	Up	BII-lc; 6	Uu
Libythea bachmanii bachmanii Kirt.	Up	Up	Poly-mr; 8

RUSK COUNTY

The forests of Rusk County are of Transition Zone character, but are more boreal appearing than those of Burnett County. There are also numerous sphagnum bogs in Rusk County and it is these that have received most of my attention in collecting. Rusk County bogs have yielded good numbers of *Oeneis jutta, Boloria eunomia, Incisalia augustinus* and *Lycaena epixanthe. Erebia discoidalis, Boloria freija* and *Boloria frigga,* are also bog inhabiting species that should occur in Rusk County. The Blue Hills region, to the west of highway 40 between Bruce and Exeland, provides excellent upland forest collecting areas. The banks of the Chippewa and Thornapple Rivers turned out to be excellent collecting areas for *Feniseca tarquinius* during the summer of 1971. They were fairly abundant, on several occasions, on small trees and shrubs (especially American Hazel *Corylus americana* Walt.) right on the rivers' banks, but were absent on similar vegetation 20-30 feet back from the rivers.

I have recorded 50 species for Rusk County and three more are indicated as probable. In addition, *Pieris virginiensis, Lycaeides argyrognomon, Polygonia satyrus* and *Chlosyne harrisii* are likely here. The total county list should total at least 65.

ST. CROIX COUNTY

Although I reside in St. Croix County, I have never undertaken intensive collecting here. Quite a few of my records are from butterflies that my children or neighbor children have collected in North Hudson, other records (of easily distinguishable species) are of sight observations.

In St. Croix County, the dominant hardwood forests are typical of the Upper Austral Zone; these forests are broken by marshes and agricultural areas. In North Hudson there is quite a bit of land that has been turned back from agricultural usage but which has not yet been converted to houses. This "vacant lot" habitat is very well suited for a number of species including: *Papilio polyxenes, Nymphalis antiopa, Nymphalis milberti, Polygonia comma, Polygonia interrogationis, Nathalis iole* and *Cercyonis pegala.* Other choice species that have been taken in my "back yard" include *Euchloe olympia, Incisalia henrici* and the "hybrid" *Limenitis arthemis/astyanax.* Other collecting in the county has been in the lowland marshy areas along the lower Kinnickinnic River at River Falls and along

Table two. Butterfly records for Burnett, Rusk and St. Croix counties, Wisconsin: Nymphalidae in part.

SPECIES	BURNETT COUNTY	RUSK COUNTY	ST. CROIX COUNTY
Asterocampa celtis celtis B.&LC.	Up	SIII-ds; 7.8	Upr
Limenitis arthemis arthemis Dry.	SII-wa; 6.7	SII-wa; 6.7	SIII-wa; 6.7.8
Limenitis arthemis astyanax Fab.	Up	Up	SIII-ws; 6.7.8
Limenitis archippus archippus Cr.	PIII-ds; 8	PIII-ds; 6.8	PIII-ds; 6.7.8
Vanessa atalanta rubria Fruh.	S-ws; 8	S-ws; 7.8	S/A-ws; 5.7.8.9
Cynthia virginiensis Dry.	Poly-wc; 8	Poly-wc; 6.7.8	Poly-wc; 5.6.9
Cynthia cardui L.	Poly-mc; 5	Poly-mc; 6.8	Poly-mc; 5.6.8
Junonia coenia coenia Hbn.	Up	Poly-mr; 6	Upr
Nymphalis j-album j-album B.&LC.	SII-dr; 5	SII-dr; 8	Up
Nymphalis milberti milberti Gdt.	PIII-dc; 8	PIII-dc; 7.8	A/P-wc; 7.8.9.10
Nymphalis antiopa antiopa L.	SII-ds; 8	SII-dc; 7.8	A/SII-wc; 5-9
Polygonia interrogationis Fabr.	S-ds; 7	S/A-ds; 6.7.8	S/A-wc; 5.7.8
Polygonia comma Harris	S-ds; 7.8	S-ds; 5.7.8	S/A-wc; 5.7.8
Polygonia faunus faunus Edw.	Upr	SII/SI-ds; 5.7.8	Uu
Polygonia progne Cr.	S-wc; 5.7.8	S-wc; 5.7.8.9	S/A-dc; 5.7.8
Chlosyne nycteis nycteis Dby.	S/PIII-lc; 6	S/PIII-lc; 6	PII-dc; 6
Phyciodes tharos tharos Dry.	Poly-wa; 5-9	Poly-wa; 5-9	Poly-wa; 5-9
Phyciodes batesii Rkt.	SII/PIII-dc; 7	SII/PIII-ds; 7	Up
Euphydryas phaeton borealis C.&C.	Upr	PIII-ls; 6.7	Upr
Boloria selene atrocostalis Hd.	B/PIII-da; 6.8	B/PIII-da; 5.6.8	Up

Table three. Butterfly records for Burnett, Rusk and St. Croix counties, Wisconsin: remaining Nymphalidae and Lycaenidae in part.

SPECIES	BURNETT COUNTY	RUSK COUNTY	ST. CROIX COUNTY
Boloria selene nr. *myrina* Cr.	Up	Up	PIII-1a; 5.6.7.8.9
Boloria bellona nr. *toddi* Holl.	PII-dc; 5.6.8	PII-dc; 5.6.8.9	Up
Boloria bellona bellona Fabr.	Up	Up	PII-dc; 5.6.7.8.9
Boloria eunomia dawsoni B.&McD.	Up	BI-1s; 6	Uu
Speyeria atlantis atlantis Edw.	S/P-wa; 6.7.8	S/P-wa; 6.7.8	Up
Speyeria cybele krautwurmi Hol.	Up	PII-ds; 7	Uu
Speyeria cybele cybele Fab.	PII-ds; 7	PII-ds; 7	PII-wc; 6.7.8
Speyeria aphrodite aphrodite Fab.	PII-dr; 7	PII-ds; 7	PII/PIII-dc; 7.8
Speyeria aphrodite alcestis Edw.	Up	Uu	PII-ds; 7.8
Euptoieta claudia claudia Crm.	Upr	Upr	A-ms; 6.9
Harkenclenus titus titus Fabr.	PII-dc; 8	PII-dc; 7.8	PII-dc; 7.8
Satyrium calanus falacer Gdt.	SIII-ds; 7	Up	SIII-dc; 7
Satyrium acadica acadica Edw.	Upr	PIII-1c; 7	Upr
Callophrys (Inc.) polios C.&W.	SI/SII-1s; 5	Up	Uu
Callophrys (Inc.) h. henrici G.&R.	S/P-1c; 5	Up	S/P-1s; 5
Callophrys (Inc.) a. augustinus W.	BI; SII-da; 5.6	BI-1a; 5.6	Uu
Callophrys (Inc.) niphon clarki F.	SI/SII-1c; 5.6	Upr	Up
Callophrys (Mit.) g. gryneus Hub.	Up	Uu	PII/SIII-1s; 5
Feniseca tarquinius tarquinius F.	Up	SII/*-1c; 6.7.8	Up

*Riverbanks of cold-water rivers such as the Chippewa and Thornapple.

Table four. Butterfly records for Burnett, Rusk and St. Croix counties, Wisconsin: remaining Lycaenidae.

SPECIES	BURNETT COUNTY	RUSK COUNTY	ST. CROIX COUNTY
Lycaena thoe G-M.	Upr	PIII-1s; 8	Upr
Lycaena xanthoides dione Scud.	Upr	Up	PI-dc; 7.8
Lycaena helloides Bois.	Upr	Up	PII-m?r; 8
Lycaena dorcas dorcas Kby.	Upr	BI/PIII-1c; 6.7	Uu
Lycaena epixanthe (ssp. *michiganensis* Rawson?)	Up	BI-1c; 7.8	Uu
Lycaena phlaeas americana Har.	PII-ds; 8	Upr	A-wc; 7.8.9
Plebujus saepiolus saepiolus Bois.	SII-dc; 6.7	SII-dc; 6.7	Up
Everes comyntas comyntas Gdt.	Poly-wa; 5-9	Poly-wa; 5-9	Poly-wa; 5-9
Glaucopsyche lygdamus couperi Grt.	SII/P-ds; 5	SII-ds; 5.6	SIII/P-1s; 5
Celastrina argiolus pseudargiolus Bois. & LeC.	SII-dc; 5.6	SII-dc; 5.7.8	SIII-dc; 4.5.7

the Trout Farm Road just east of Hudson, in deciduous forests near Somerset and in pastures south of Houlton where *Mitoura gryneus* is found on Red Cedar.

I have recorded 42 species in St. Croix County, and indicated another five as probable. Additional species to be expected here include two that are not yet known in Wisconsin, *Lethe appalachia* and *Satyrium caryaevorus*. The county total should be around 58 species.

KEY TO TABLES

For simplicity, to facilitate comparison and to conserve space, I have put the list of species into tabular form (tables 1-4). The annotations on these tables are coded. The first symbol in the code indicates the preferred habitat as noted in that county, the key is as follows:

The last group of symbols is comprised of one or more numbers, these numbers represent the months in which the butterflies have been observed; 1 for January, 2 for February, etc. Where two numbers are separated by a hyphen, e.g. 6-9, this indicates that the species is present throughout the period between the two months indicated.

Poly —species being well at home in several plant formations.

S —for silva, forested area.

SI —coniferous forests exemplifying the Boreal Zone.

SII —mixed forest areas of Transition Zone character.

SIII —predominately deciduous forests characteristic of the Austral Zone.

P —prairie.

PI —virgin prairie.

PII —forest glade or savanna meadow.

PIII —cattail and sedge marsh.

B —acid bog.

BI —open muskeg with few or no trees.

BII —forested bog with moderate to heavy growth of Black Spruce and/or Tamarack.

A —agricultural area; pastures, cultivated fields or gardens.

Upr —unrecorded, but of probable occurrence.

Up —unrecorded, but of possible occurrence.

Uu —unrecorded and unlikely to occur.

In a few cases, two symbols are used, separated by a / mark. This indicates that the species is most prone to occur where these two habitats meet. Otherwise if two symbols are given, the species is equally at home in both habitats. The second set of symbols, consisting of one capital and one small letter, is an indication of the butterfles abundance.

The key is as follows:

L —local in occurrence.

D —discontinuous in occurrence.

W —widespread in occurrence.

M —migratory.

r —rare.

s —scarce.

c —not uncommon.

a —abundant.

REFERENCES CITED

EBNER, J. A., 1970. The buterflies of Wisconsin. Milwaukee Museum *Popular Science Handbook,* no. 12. 205 pp.

MASTERS, J. H., 1970. Records of *Incisalia* (Lycaenidae) from Wisconsin. *Bull. Assoc. Minnesota Ent.,* 4: pp. 37-40.

———, 1971. Ecological and distributional notes on *Erebia discoidalis* (Satyridae) in the north central states. *Jour. Res. Lepid.,* 9[1970]: pp. 11-16.