

- ROTHSCHILD, W. 1898. Some New Lepidoptera from the East. *Novit. zool.* 5: 216-219.
- 1915. On the Lepidoptera in the Tring Museum sent by Mr. A. S. Meek from the Admiralty Islands, Dampier, and Vulcan Islands. *Novit. zool.* 22: 192-208, 387-402, etc.
- SEITZ, A. 1927. *Macrolep. World.* 9, The Indo-Australian Rhopalocera. Stuttgart.
- STRAND, E. 1926. Liste des Rhopalocères et Grypocères exotiques décrits dans mes travaux jusqu'en 1926. *Bull. Soc. Zool. Fr.* 51: 397-418.
- Talbot, G. 1932. New Forms of Lepidoptera from the Oriental Region. *Bull. Hill Mus. Witley* 4: 155-169.

A NOTE ON "MATING FLIGHT OF BUTTERFLIES WITH MIMETIC FEMALES AND NON-MIMETIC MALES"

My friend R. H. Carcasson's note under the above heading (1970, *Journ. Lep. Soc.*, 24: 72) caused me to look up my own records; the following may be of interest:

- Belenois thysa* Hpffr. (Pieridae)—Nyali, 4.vii.70. Male flew.
- Acraea encedon* L. (Acraeidae)—Kampala, 8.v.49 and 30.vii.49 (two pairs). Female flew.
- Euryphene mardania orientis* Karsch (Nymphalidae)—Shimba Hills, 31.v.70. Female flew.
- Precis clelia* Cr. (Nymphalidae)—Kampala, 8.v.49. Female flew.
- Hypolimnas misippus* L. (Nymphalidae)—Kampala, 8.v.49. Female flew.
- Castalius calice* Hpffr. (Lycaenidae)—Nyali, 9.vii.70. Female flew.
- Both sexes of *A. encedon*, the female of *H. misippus* and the female of *E. mardania* mimic *Danaus chrysippus* L. *P. clelia* and *C. calice* are not mimetic and both sexes of *B. thysa* might be said to mimic *Mylothris*.
- My own feeling is that the flying position of mated pairs is more of a family, or possibly subfamily, characteristic, and has no direct relationship with mimicry.

D. G. SEVASTOPULO, *P. O. Box 5026, Mombasa, Kenya.*

SOME RECORDS OF *EURISTRYMON ONTARIO* (LYCAENIDAE)

Euristrymon ontario ontario Edwards is rare enough in eastern North America that any captures deserve to be put on record, particularly when the associated environmental circumstances also can be given.

On the basis of what little habitat information I had, the shale barrens of the mid-Appalachians seemed to be an appropriate place for this little-known species. An opportunity to look for it there came in June 1968 when my wife and I drove from Florida to Pittsburgh. We planned our route to cross the Appalachians in Virginia at a point where shale barrens were known to occur, and on 14 June we stopped in the late afternoon to collect in a typical barrens area in Alleghany County, Virginia, near Clifton Forge. Between 4 and 6 PM EDST I took five nearly fresh specimens of *ontario*.

All were on the newly opening flowers of Dogbane (*Apocynum cannabinum*)

which grew in a large, dense stand on a steep, east-facing slope of road fill, the rays of the late afternoon sun just grazing the plants. Only a few feet away was a low, open forest of hard pine and oaks. One of the latter, *Quercus ilicifolia* (or *marilandica*), is a low shrubby species that may possibly be the larval foodplant of *ontario*. Also taken at the same time and place were: *Satyrrium calanus falacer* Godart (2 ♂, fresh), *S. liparops strigosum* Harris (1 ♂, fresh), both taken on Dogbane; *Achalarus lyciades* Geyer (fresh) and *Thorbyes* (apparently both *pylades* Scudder and *bathyllus* Smith), on the flowers of Viper's Bugloss (*Echium vulgare*); *Epargyreus clarus* Cramer and *Speyeria cybele* Fabricius, both on a single plant of Common Milkweed (*Asclepias syriaca*) growing among the Dogbane. A pair of rather worn *Hesperia sassacus* Harris was also taken.

My favorite shale barrens area is in Green Ridge State Forest, Allegany County, Maryland. Rumor has long had it that *ontario* occurs here, and the general habitat is similar to the Virigina locality. So as soon as possible after we reached Pittsburgh, and armed with my newly augmented knowledge of the environmental choice of *ontario*, my wife and I headed for Green Ridge and spent a day (22 June 1968) looking for it, but absolutely in vain.

The next year, 1969, I was unable to visit Green Ridge at the right time, but in 1970 I went there again and spent 19–20 June combing the area carefully over a wide range of possible habitats. On the 19th I found none at all, even though several of the places searched seemed ideal. But on the 20th my luck changed: in three different locations I took a total of four specimens, all rather worn.

These captures were as follows. (a) "Boy Scout Meadow" [my term]: one each in two different stands of Dogbane, a moderate-sized stand at least 50 feet from the forest, and a large stand immediately adjoining the forest; the forest is low and open, dominantly hard pine with oak and hawthorn admixed, in the valley of Fifteen-Mile Creek (elevation 790 ft.); (b) Sugar Bottom Road: one on the white flowers of Wild Quinine (*Parthenium integrifolium*) along the roadside at the edge of a tall, fairly dense forest of mixed pine, oak and probably hickory along the crest of a ridge (elevation 940 ft.); on the other side of the road was a large cut-over area of stumps, low shrubs and forbs; (c) White Sulphur Community Pond: one on flowers of Dogbane growing in a moderate-sized stand about 25 feet from the edge of a low forest of pine and oak (elevation 750 ft.). *Quercus ilicifolia* is a common species in the Green Ridge area and formed part of the forest in several of the above areas, perhaps all of them. In addition to *ontario*, 28 species of butterflies were taken during these two days. The more significant of these are: *Limenitis arthemis astyanax* Fabricius (the commonest butterfly at the time); *Epargyreus clarus* (common, on flowers of both Dogbane and Viper's Bugloss); *Speyeria cybele* (rather common, on flowers of Dogbane and Butterfly Weed, *Asclepias tuberosa*); *Achalarus lyciades* (one only); *Satyrrium calanus falacer* and *S. liparops strigosum* (both somewhat worn, on Dogbane, *falacer* much the commoner and also on leaves at woods edges); *Chlosyne nycteis* Doubleday (fairly common and fresh); *Thorybes pylades* (worn). *Lethe portlandia anthedon* A. H. Clark was just beginning to appear (only a single specimen was seen), as was *Pompeius verna* Edwards.

Our preparator, Mr. John Bauer, has long been interested in *ontario*, and after I had brought back the Maryland specimens he went out to try his luck, despite the already late date. On 28 June, the first day with favorable weather, he went west of Pittsburgh and at a spot near the common boundary point of Allegheny, Beaver and Washington Counties he took a single, much worn specimen, a new species record for Pennsylvania. Western Pennsylvania is an area of essentially deciduous forests of various kinds, and this locality is in a small area of mixed maple and White Oak forest; it is quite different from the Virginia and Maryland localities. His single specimen was taken on the flowers of Common Milkweed. At the same time and place Mr. Bauer also took *Satyrrium calanus falacer* (common, somewhat worn, on

leaves), *S. liparops strigosum* (somewhat worn) and *Harkenclenus titus* Fabricius (fresh) (the latter two on Butterfly Weed), a single female of *S. acadica* Edwards (on milkweed), along with *Chlosyne nycteis* (fresh), *Polites peckius* Kirby and *Pompeius verna* (both fresh), *Lethe portlandia* (fresh) and *Thorybes pylades* (very worn).

These several records of *ontario* permit some generalizations on habitat and flight period that may be of help to others in searching for it. Proximity to a forest, preferably low and rather open, of hard pine (*Pinus virginiana* is probably the species most often involved) and oak (*Quercus ilicifolia* presumably one of them) is a common factor for most of the records. So, too, is a nearby open meadow, or other suitable open area, where Dogbane grows. Dogbane seems to be by far the most favored food flower, although single captures in Green Ridge and in Pennsylvania indicate that other flowers may occasionally be visited. Dr. C. F. dos Passos informs me that Dogbane is the favored food flower of *ontario* in New Jersey, and Professor Ernest M. Shull makes the same observation for northern Indiana.

In view of the condition of the specimens and their dates of capture I would estimate that normally the flight period of *ontario* in the Virginia-Pennsylvania region begins on the 10th to 15th of June (possibly a little earlier) and lasts no more than about 20 days, an exceptionally short flight period for a butterfly. The 15th-20th of June seems to be about the optimum time for seeking it in reasonable numbers and in good condition. It appears just about when *Hesperia sassacus* is ending its flight, perhaps about 10 days after *Thorybes pylades* has begun to fly, and just before the appearance of *Speyeria cybele*, *Satyrium falacer*, *S. liparops* and *Lethe portlandia*.

E. ontario is always uncommon, and usually rare. Perched on Dogbane flowers it is usually not reliably distinguishable from *falacer* or *liparops* which occur with it. In the Green Ridge area I searched approximately 15 moderate to large-sized stands of Dogbane and found *ontario* in only three. In its daily behavior it may resemble *falacer* in making use of the forest for roosting at night, and perhaps for mating, but feeding much of the day at flowers usually in nearby fields or other open areas.

The records discussed above may be summarized as follows:

Virginia: Alleghany Co.: 4 mi E of Clifton Forge, on Va. 42 about ½ mi N of jct. with US 60; 14.vi.1968, 3 ♂ 2 ♀ (H. Clench).

Maryland: Allegany Co.: Green Ridge State Forest, 6 mi E of Flintstone, 20.vi.1970 (H. Clench): (a) "Boy Scout Meadow" on Fifteen-Mile Creek Rd. about 1.5 mi N of US 40, 1 ♂ 1 ♀; (b) Sugar Bottom Road, ca. 1 mi S of US 40, 1 ♀; (c) White Sulphur Community Pond, ca. 2 mi S of US 40, 1 ♀.

Pennsylvania: Allegheny Co.: Murdocksville, ca. 3 mi WNW of Clinton, about at common point of Allegheny, Beaver and Washington Cos., 28.vi.1970, 1 ♂ (John Bauer).

HARRY K. CLENCH, Carnegie Museum, Pittsburgh, Penna.

SHAPIRO COLLECTION AT CORNELL

The Arthur M. Shapiro collection of about 13,000 mounted and determined Rhopalocera has been placed in the Department of Entomology and Limnology at Cornell University. It includes 9436 specimens (108 species) from upstate New York and Pennsylvania, of which highlights include long series of all the northeastern *Lethe* (including the newly recognized species, *L. appalachia*), *Limenitis arthemis/astyanax* intergrades, representatives of the newly discovered *Lycaeides melissa samuelis* population from western New York, the unique McLean Bog, N. Y. population of