

## SIX NEW STATE BUTTERFLY RECORDS FROM KENTUCKY<sup>1</sup>

CHARLES V. COVELL, JR.

Department of Biology, University of Louisville, Louisville, Kentucky 40208

LORAN D. GIBSON

30 Russell Street, Florence, Kentucky 41042

RICHARD A. HENDERSON

2609 Welsford Way, Louisville, Kentucky 40222

AND

MICHAEL L. MCINNIS

8503 Turnside Drive, Louisville, Kentucky 40222

**ABSTRACT.** Six species of butterflies are added to the Kentucky state list, and collection data are given. They include *Euphyes dion dion* (Edwards), *E. dukesi* (Lindsey), *Erynnis lucilius* (Scudder and Burgess), *Calephelis muticum* McAlpine, *Leptotes marina* (Reakirt), and *Lethe portlandia* (Fabricius) (subspecies *missarkae* Heitzman and dos Passos). A second state record of *Poanes viator* (Edwards) is also reported, probably representing subspecies *zizaniae* Shapiro. The Kentucky butterfly fauna now numbers 131 species.

The Kentucky Lepidoptera Survey was begun in 1964 with the goal of characterizing as completely as possible the Lepidoptera fauna of Kentucky through collection of records and specimens of butterflies and moths from the Bluegrass State. In a preliminary checklist of butterflies, Covell (1974) listed 123 species on record as of that year. Two species have been added more recently to the state list through published reports: *Amblyscirtes belli* Freeman (Henderson, 1976) and *Celastrina ebenina* Clench (Wagner and Showalter, 1976). While many exciting discoveries have been made with regard to butterfly species in Kentucky, notably the discovery of a substantial colony of *Erora laeta* (Edwards) in Harlan Co., this paper is confined to the formal report of six additional butterfly species. These additions bring the Kentucky list to 131.

### *Euphyes dion dion* (Edwards)

Two males were collected on flowers of *Trifolium hybridum* L. at the northern edge of Reelfoot Lake National Wildlife Refuge, Fulton Co., Kentucky on 29 May 1977, by Gibson and Henderson (one each). The site was an extensive grass and sedge marsh within a mile of the Tennessee border. *Poanes viator* (Edwards) was also taken there on that date, a second state record of the species; it probably represents subspecies *zizaniae* Shapiro.

<sup>1</sup> Contribution No. 194 (New Series) of the Department of Biology, University of Louisville.

*Euphyes dukesi* (Lindsey)

One male specimen of the Dukes' Skipper was found by Covell while examining the collections of the Biology Department, Western Kentucky University at Bowling Green. The specimen was taken by student Melinda Johnson in Webster Co., Kentucky on 6 July 1972. Efforts to locate the student to learn a more precise locality have not yet been successful. Webster County has much wet meadow habitat appropriate to *dukesi* populations. The specimen is now in the University of Louisville collection.

*Erynnis lucilius* (Scudder and Burgess)

Gerald Straley first reported this skipper from a site 7 mi W of Irvine, Estill Co., Kentucky, taken 20 April 1974. However, positive identification has not even now been made. Another possible collection reported by Straley was taken by him and W. H. Wagner, Jr. 1.2 mi S of Stanton on Route 213, Powell Co., 21 April 1974. Gibson took 4 males and a female in close proximity to the foodplant, *Aquilegia canadensis* L. (columbine), along Route 316, Trimble Co., 20 June 1976. Another specimen was taken by Gibson in Bracken Co. amid extensive columbine on 24 April 1977. Although separation of *lucilius* from *baptisiae* is apparently almost impossible on morphological grounds (Burns, 1964: 185), we feel that the specimens taken close to columbine are very likely to be *lucilius*. Burns (1964) was hesitant to name specimens from the Appalachian region of Virginia, West Virginia, and Tennessee as *lucilius*, feeling that they were "better placed as *baptisiae*." We feel that this ecological evidence justifies including *lucilius* on the Kentucky list.

*Calephelis muticum* McAlpine

A male of the Swamp Metalmark was collected in Otter Creek Park, Meade Co., 11 September 1976, by Gibson. It was taken on a flower of tickseed sunflower, *Bidens aristosa* (Michx.) Britt., in a low, poorly drained meadow. Covell verified the initial determination on the basis of forewing shape, coloration, and genitalic features. The specimen is in the University of Louisville collection (C. V. Covell Male Genitalia slide No. 1088). This record extends the known range of *muticum* to the southeast from central Ohio. In the western extremity of its range it is known to occur as far south as Arkansas.

*Leptotes marina* (Reakirt)

One male of the Marine Blue was taken in Louisville, Jefferson Co., 31 July 1978, by McInnis, and was determined by Covell. The site was along Interstate Route 71 at Mockingbird Valley Road near

the Ohio River. Crown vetch and other legumes were growing in the area, but no more specimens were seen on several subsequent visits to the site. The obvious conclusion is that this individual was a stray. The specimen is in the University of Louisville Insect collection.

*Lethe portlandia* (Fabricius)

The number of *Lethe* species known from Kentucky is now 4 with the addition of a male and a female of *L. portlandia missarkae* Heitzman and dos Passos on 27 May 1978 by Gibson and Henderson. The locality was in flat lowland woods with cypress, oak, hickory, and abundant cane where Route 94 crosses Bayou de Chien, Fulton Co., Kentucky. *Lethe creola*, *appalachia*, and *anthon* have also been taken in that locality; the *creola* was abundant on 18 August 1978. The pair of *missarkae* was determined by Covell from the original description. This record marks a new northeastward extension of the known range of this subspecies, although its presence in Kentucky had been predicted by Heitzman and dos Passos (1974). The male is in the Gibson collection; Henderson has the female.

LITERATURE CITED

- BURNS, J. M. 1964. Evolution in skipper butterflies of the Genus *Erynnis*. Univ. of Calif. Pubs. in Entomol. 37, 214 p.
- COVELL, C. V. JR. 1974. A preliminary checklist of the butterflies of Kentucky. J. Lepid. Soc. 28: 253-256.
- DOS PASSOS, C. F. 1964. A synonymic list of the Nearctic Rhopalocera. Mem. Lepid. Soc. 1, 145 p.
- HEITZMAN, J. R. & C. F. DOS PASSOS. 1974. *Lethe portlandia* (Fabricius) and *L. anthon* (Clark), sibling species, with descriptions of new subspecies of the former (Lepidoptera: Satyridae). Trans. Amer. Entomol. Soc. 100: 52-99.
- HENDERSON, R. A. 1976. *Amblyscirtes belli* (Hesperiidae): A new record for Kentucky. J. Lepid. Soc. 30: 68.
- HOWE, W. H. 1975. The butterflies of North America. Doubleday, Garden City, New York, xiii + 633 p., 97 pls.
- WAGNER, W. H. JR. & A. H. SHOWALTER, 1976. Ecological notes on *Celastrina ebena* (Lycaenidae). J. Lepid. Soc. 30: 310-312.