

larvae from eggs laid on *Malva*, and older larvae, to feed on *Chenopodium*, but it was always rejected. The "mistake" by the June 17 female is of special interest as a number of other Pyrginae, including the genus *Pholisora*, routinely feed on Chenopodiaceae.

*P. communis* is abundant throughout the southern Finger Lakes region of New York, occurring in disturbed "dump-heap" habitats and in fallow fields. It has also been reared locally on garden hollyhock (*Althaea*). It appears to be at least partially triple-brooded (June 1—October 17).

#### PHOLISORA CATULLUS (Fabricius)

Larvae of this species were taken from *Celosia argentea* var. *cristata* (L.) Ktze. (cockscumb, Amaranthaceae) and *Chenopodium paganum* Reich. (Chenopodiaceae) at Ithaca. The larvae from *Celosia* accepted *Amaranthus hybridus* L. (pigweed) and fed to maturity on it. Two larvae from *C. paganum* refused to accept *Atriplex patula* L. (Chenopodiaceae).

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### VARIATIONS OF *CERCYONIS PEGALA PEGALA* (SATYRIDAE) IN NEW JERSEY

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I found Mather's article on *Cercyonis pegala pegala* (Fabricius) in the *Journal* (1966, vol. 20, p. 186) interesting, and believe it would be advisable to publish a somewhat similar diagnosis of *Cercyonis* specimens from New Jersey.

All specimens herein mentioned were caught on the southern coastal plain of New Jersey from Cape May, the most southern tip of New Jersey, (situated about as far south as Washington, D. C.), north to Chatsworth (Burlington County). The localities and collecting data are given below and the variations described.

No published record appears to exist of any catches of *Cercyonis pegala pegala* in New Jersey prior to this paper. Klots (1951: 72) mentions New Jersey as a blend zone only. Coastal specimens have heretofore been listed by Comstock (1940: 60) as *alope* (Fabricius).

The material examined consists of 48 specimens from the southern coastal plain, collected in about even numbers by Mr. F. Rutkowski and myself.

LOCALITIES AND DATA (numbers of specimens given in parentheses):

Cape May: (1) July 26, 1958; (8) July 19, 1961; (20) July 16, 1966; Bass River State Park (near Harrisville Pond, 60 miles north of Cape May): (5) July 16, 1966; New Gretna (about the same distance from Cape May): (2) July 16, 1966; Chatsworth (about 70 miles north of Cape May): (8) August 11, 1966; (4) July 16, 1966.

There are only four females in the lot, each with equally large ocelli in the yellow patch on the upper side of the primaries. They are included among the data from males below.

Variations in ocelli near the upper outer margin of the primaries:

	Two equal-sized ocelli (3 mm)	Lower ocellus smaller (1¾ mm)	Lower very small (1 mm)	One ocellus (2¼ mm)
Cape May (31 specimens)	17	5	6	3
Chatsworth & New Gretna (17 specimens)	13	2	2	0

Variations of the ocelli on the upper side of the secondaries:

	Two ocelli	Three ocelli	None
Cape May	2	3	1
Chatsworth	2	3	0

Nine specimens from Bass River and Chatsworth all show the yellow patch light yellow and ground color on upper outer margin of the primaries and underside of the secondaries much lighter. The ocelli on underside of secondaries vary from 2 to 6. Two of the 9 specimens have 2 ocelli; 4 specimens have 5 ocelli; and 3 have the ocelli large.

Variation in phenotype shown by *Cercyonis* specimens from Bass River State Park and Chatsworth, in color and ocelli, show a gradual blending from *C. pegala pegala* into *C. pegala alope*. This indicates that the blend zone starts about 60 miles north of Cape May.

The above descriptions show that the New Jersey population of *pegala* is variable in the size of ocelli. Specimens with one ocellus are scarce (3 in 48).

Curiously, all butterflies in Bass River State Park rested only on tree trunks, while those caught at Cape May were collected in open grassy meadow mixed with brush.

I want to thank Dr. Cyril F. dos Passos for determining my specimens.

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### MASS ONE-DIRECTIONAL FLIGHT OF CLOUDLESS SULFURS (PIERIDAE) IN ALABAMA AND MISSISSIPPI

A large flight of cloudless sulfur butterflies (*Phoebis sennae eubule* (L.)) was observed between 11:00 A.M. and 1:00 P.M. September 10, 1967 in west central Alabama and extending into Mississippi. This flight was unidirectional, moving toward the southeast, and was noted while the writer traveled westward from Tuscaloosa, Alabama, on U. S. Highway 11. That portion observed covered an airline distance of more than 80 miles. The flight bore many of the characteristics of migrating populations of this species previously described by other workers, namely a steadfast one-directional bearing, a rather uniform height of between five to ten feet above trees, ground and other surfaces, and steady but rapid forward speed estimated at five miles per hour. Williams (1937) referred to regular migrations of *P. sennae eubule* (which he called "The Traveling Butterfly") occurring in a southward direction in Georgia, Alabama, Arkansas, South Carolina, and New Jersey. These apparently occurred in a north to south movement in the fall, but the return spring flights were less well documented.

Although the number of insects was nowhere near the larger migrating hordes noted by other workers for the cloudless sulfur, several hundred individuals could be seen crossing the highway at a time along a distance of one quarter mile. This approximate density extended to the town of Eutaw, Alabama, where the density began to thin. The flight was, therefore, more abundant along its eastern edge, with the greatest number of individuals noted just west of the intersection of the Black Warrior River and U. S. 11 (U. S. 45). The western edge of the observed flight extended just westward of Meridian, Mississippi, where it was thinly populated, with just a few individuals per quarter mile of road.

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