

ESPECIALLY FOR FIELD COLLECTORS

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MY HIGHEST CATCH OF *CATOCALA* SPECIES IN ONE EVENING AT BAIT

by M. C. NIELSEN

Ever since I began collecting *Catocala* at bait, I have wondered just how many species could be collected in one evening in a choice habitat under optimum conditions. During the 1957 season, I spent considerable time "sugaring" for these interesting moths throughout the lower peninsula of Michigan with excellent results: recording 31 species, largely from collecting at bait. On August 1 in Otsego County in the northern part of the lower peninsula, I recorded 13 species of *Catocala* during the evening from 7 P.M. to 10 P.M. — my highest catch of species in one night at bait.

The collecting was done in 4 separate locations along the old State road in the southern part of Otsego County from the State road dam to Douglas Lake — a distance of approximately 7 miles. Each location was visited at least twice (by car) during the evening. The bait consisted of ordinary cooking molasses mixed with beer and was applied to various species of trees before 7 P.M. The temperature at 7 P.M. was 84 degrees and eventually dropped to 55 degrees at 10 P.M. There was no appreciable wind and the sky overhead was clear; thunderheads were building up on the southern horizon. The moon was one-third full and remained low in the sky during the collecting hours. The area is typical of old pine plains now covered with second-growth Scrub Oak, Jack Pine, aspen, and miscellaneous trees and shrubs. The results at each location are described as follows:

A—Location just south of Douglas Lake in open Scrub Oak and Jack Pine with scattered aspen, cherry, blueberry, and Sweet Fern. Bait was applied to White and Black Oak and Jack and Red Pine along an old trail road (35 trees baited): *Catocala antinympha* Hbn., 2-fresh; *cerogama* Gn., 1-fresh; *coccinata* Grt., 1-fresh (my first); *concombens* Wlk., 1-fresh; *cratægi* Saund., 1-fresh; *gracilis* Edw., 1-fresh; *ilia* Cram., 1-fresh; *mira* Grt., 1-slightly worn; *relicta* Wlk., 2-immaculate; *ultronia* Hbn., 1-immaculate; *unijuga* Wlk., several-fresh to immaculate.

B—Location in Red Pine area just south of Little Bass Lake along road and east of large swamp. Bait was applied to Red Pine and Black Oak along old logging trail (20 trees baited): *Catocala antinympha*, 1; *cerogama*, 1; *ilia*, several; *ultronia*, 3; *unijuga*, several.

C—Location in White Pine area along road on east side of large open bog with numerous species of shrubs. Bait applied to White and Red Pine and White Birch (15 trees baited): *Catocala blandula* Hlst., 1-immaculate; *præclara* G & R., 1-immaculate (FW with much green scaling); *unijuga*, 1.

D—Location in open stand of aspen along road on west side of marsh-bog containing *Myrica gale* L. Bait applied to 7 aspens and a telephone pole: *Catocala unijuga*, 2.

This was the second attempt to collect *Catocala* in this area; the first time was two nights before on July 30 at which time I recorded 9 species including *C. similis* Edw. (taken at location "A"). I was hoping to collect *C. caelebs* Grt. in the vicinity of the bogs where its foodplant, *M. gale*, is abundant. On July 31, I collected at bait in Cheboygan County, some 50 miles north, along Elliott Creek and took an immaculate male *C. caelebs*.

The evening on August 1 was a "good night" for *Catocala* collecting, although not the best. Under ideal conditions, probably 15 species of *Catocala* could have been taken in this area in one evening. The total number of *Catocala* species recorded from Otsego County is 16.

Collecting at bait in southern Michigan should undoubtedly yield more *Catocala* species in one evening under ideal conditions, especially because of the greater variety of foodplants. My experiences, however, in Lenawee County (near the Ohio state line) during the past 6 years has resulted in not more than 11 species in one evening collecting at bait. It would be interesting to learn of similar experiences with bait collecting from collectors in other states and countries.

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MORE ON BUTTERFLY PREDATORS

While collecting butterflies on June 21, 1957, in Alcona County, Michigan, I observed an interesting phenomenon: a large dragonfly, *Gomphus fraternus* Say, female, (determination by HOMER F. PRICE of Payne, Ohio) capturing a female *Erynnis juvenalis* (Fabr.) in flight. I was momentarily standing in a large opening in mixed Scrub Oak — Jack Pine watching the flight of the skipper which was flying rather fast in one direction about 4 feet above the ground. In a split second, the dragonfly appeared from apparently nowhere and engulfed the skipper with its legs and then settled on a sweetfern branch near the ground to feast. I then collected both specimens with my net and cyanide jar. Before the dragonfly could be captured and subdued, it had devoured part of the skipper's head in such a manner that both antennae were missing. There were many dragonflies in this area darting back and forth searching for insects. This was my first experience with a dragonfly capturing a butterfly although it probably is a frequent occurrence.

On August 6, 1957, in Newaygo County, Michigan, I observed a white crab-spider clutching a live *Lycena phleas americana* (Harr.) on the stem of a *Helianthus* species. The spider was about 6 inches below the large orange blossom, probably because the struggling butterfly had dislodged the spider from its perch on the flower. At any rate, the butterfly succeeded in freeing itself of this predator with little damage (minus a few scales on its forewing).

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