SOME NOTES ON CALLOPHRYS (MITOURA) JOHNSONI (LYCAENIDÆ) IN CALIFORNIA

by Paul A. Opler

Since Callophrys (Mitoura) johnsoni (Skinner) has been a rather scarce insect in collections until recent years, and because its exact habitat has not been described in the literature, I believe that the following observations will be not only of interest to all collectors but of great aid to western collectors in obtaining this species.

Some years ago Robert G. Wind of Monterey, California, took about ten specimens of Callophrys johnsoni in the vicinity of Gold Lake Lodge, Sierra County, California. He relayed this information in 1962. During 1960 and 1961, I collected nineteen specimens of C. johnsoni at three separate localities in Sierra County; when these collections were made I was able to make observations which should increase the available knowledge of this species.

On June 13, 1960, a single male was taken 1½ miles east of Bassets, Sierra County, California. The insect was visiting Ceanothus cordulatus Kell. Several specimens of Callophrys (Mitoura) nelsoni (Boisduval) were collected at this time visiting Ceanothus cordulatus and Calyptridium umbellatum (Torr.). On June 17, 1961 at the above locality, two fresh females of C. johnsoni were collected. The first specimen was caught while visiting the flowers of Calyptridium umbellatum; the second specimen was observed and taken while it was flying.

On July 1, 1961 fifteen males and one female of C. johnsoni were collected in the vicinity of Gold Lake Lodge, Sierra County, near the Plumas County line. The specimens were fairly worn and were collected mainly on Ceanothus cordulatus. Two very fresh examples of Callophrys (Mitoura) spinetorum (Hewitson) were collected at this time also visiting C. cordulatus. No C. nelsoni were seen at this locality. Since C. spinetorum is known to feed on several species of the genus Arceuthobium as recorded by Comstock and Dammers (1938), Garth (1950), and Remington (1958), and since the original description of C. johnsoni by Skinner (1903) lists the foodplant as being a mistletoe, a search of the area for a possible foodplant was conducted with the above facts in mind. It was found that Arceuthobium campylopodum Engelm. was present in fair abundance on Abies magnifica Murr.

The Gold Lake Lodge locality is the same one where Robert Wind had taken his series several years before. The specimen used as the
model for Mrs. EHRICH's drawing of *Callophrys johnsoni* possibly came from the above collection (Ehrlich 1961). Also on July 1, 1961 one male and one female of *C. johnsoni*, both worn, were collected on *C. cordulatus* at the summit of Yuba Pass, Sierra County.

At all three localities stands of mature *Abies magnifica* were present. The *C. johnsoni* were always found in areas of partial shade along the edges of the above stands. Most specimens were collected while visiting *Ceanothus cordulatus*, probably because this plant grows in partial shade and is in bloom at the time when *C. johnsoni* is in flight. It seems probable that *C. johnsoni* is restricted to some species of *Arceuthobium* in the larval stage, and the adult is therefore not to be expected far from these plants. On the other hand, it would be surprising if the distribution of the butterfly was found to be limited only by the distribution of the foodplant. Doubtless, factors which are now unknown are limiting the occurrence of this insect. In the future *Callophrys johnsoni* should be collected in California more frequently since its ecological requirements are better known.

**Summary**

1. Collection data: 1 ♂, 1½ mi. E. Bassets, 5460', Sierra Co., Calif., VI-13-60 (OPLER); 2 ♀♀, same locality VI-17-61 (OPLER); 15 ♂♂ 1 ♀, Gold Lake Lodge, 6560', Sierra Co., Calif., VII-1-61 (OPLER); 1 ♂ 1 ♀, summit Yuba Pass, 6708', Sierra Co., Calif., VII-1-61 (OPLER).

2. The foodplant of *C. johnsoni* is probably *Arceuthobium campylopodum*.

3. *C. johnsoni* and *C. spinetorum* were found together, possibly for the first time. No published record of this sympatry has been seen by me.

4. *C. johnsoni* is a Canadian Zone forest species with an early flight period.

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**References**


