

NEW RECORDS OF LARVAL HOST PLANTS OF *MITOURA SPINETORUM*
(LYCÆNIDÆ)

Dr. FRANCIS G. HAWKSWORTH, a member of the School of Forestry of Yale University, has kindly presented to the Yale collection of preserved immature Lepidoptera a larva of *Mitoura spinetorum* (Hewitson). We looked up the records of its food-plants, with the help of Dr. J. B. ZIEGLER. At my request Dr. HAWKSWORTH prepared the following notes on its foodplants which have been found by him and his colleagues. He is an authority on the Dwarfmistletoes (genus *Arceuthobium*).

"The recorded larval food plants of *Mitoura spinetorum* are Pine Dwarfmistletoe (*Arceuthobium campylopodum* Engelm.) in southern California (Comstock & Dammers, 1938) and Pinyon Pine Dwarfmistletoe (*A. campylopodum* f. *divaricatum*) in northern Arizona (Garth, 1950, p. 31). Two additional food plants are recorded here: the Ponderosa Pine Dwarfmistletoe (*A. vaginatum* Willd. f. *cryptopodum*) in Arizona and the Lodgepole Pine Dwarfmistletoe (*A. americanum* Nutt.) in Colorado. Reared adults were determined as *M. spinetorum* by Mr. W. D. FIELD, of the U. S. National Museum.

"Collections of the larvæ of *Mitoura spinetorum* were made on *Arceuthobium vaginatum* f. *cryptopodum* in two localities in Coconino County, Arizona. A single larva was found on June 20, 1956, in the Kaibab National Forest about 4 miles south of Williams. The collection was made in an open Ponderosa Pine stand at an elevation of about 7,000 feet. The larvæ were observed in several dwarfmistletoe-infected Ponderosa Pine stands on the Fort Valley Experimental Forest, about 9 miles northwest of Flagstaff, between July 15 and August 15 in 1956 and 1957. The elevation of the areas where the larvæ were found averages about 7,500 feet. The larvæ were very rare at both localities. Of about two dozen larvæ taken, not one was found more than 10 feet above ground. However, relatively fewer of the host plants were examined in the higher parts of the pines, and it may be that *M. spinetorum* larvæ occasionally occur much higher than any I found. The larvæ eat the entire external parts of the plant: — shoots, developing fruits, etc.

"*Mitoura spinetorum* larvæ were collected on Lodgepole Pine Dwarfmistletoe about 8 miles west of Redfeather Lakes, Larimer County, Colorado, by Mr. THOMAS E. HINDS of the Rocky Mountain Forest and Range Experiment Station. The locality was in a heavily dwarfmistletoe-infected stand on a south slope at about 9,300 feet.

"As noted by COMSTOCK and DAMMERS (1938) the coloration of the larvæ is similar to that of the dwarfmistletoe shoots. In the 1956-1957 collections, the larvæ from Ponderosa Pine Dwarfmistletoe were orange or reddish which is the color of the shoots of this species, whereas larvæ collected on Lodgepole Pine Dwarfmistletoe were green to greenish-brown which corresponds to the color of the shoots in this case also. A light orange larva collected from a similarly colored shoot of Ponderosa Pine Dwarfmistletoe was allowed to feed on dark red shoots, and the color of the larva changed to dark red within about two days.

"A single parasitized larva was found in the Arizona collections and several parasitized pupæ were collected at the Colorado locality. The larval parasite, a braconid, was not identified, but the pupal parasite from Colorado, also a braconid, was identified by Mr. C. F. W. MUESEBECK (of the Parasite Introduction and Insect Identification section of the U. S. Department of Agriculture) as an undescribed species of *Apanteles*."

References

- Comstock, J. A., & C. M. Dammers, 1938. Notes on the metamorphosis of *Mitoura spinetorum* Hew. *Bull. So. Calif. Acad. Sci.* 37: 30-32.
Garth, J. S., 1950. Butterflies of Grand Canyon National Park. *Grand Canyon Nat. Hist. Assoc. Bull.* 11: 52 pp.

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