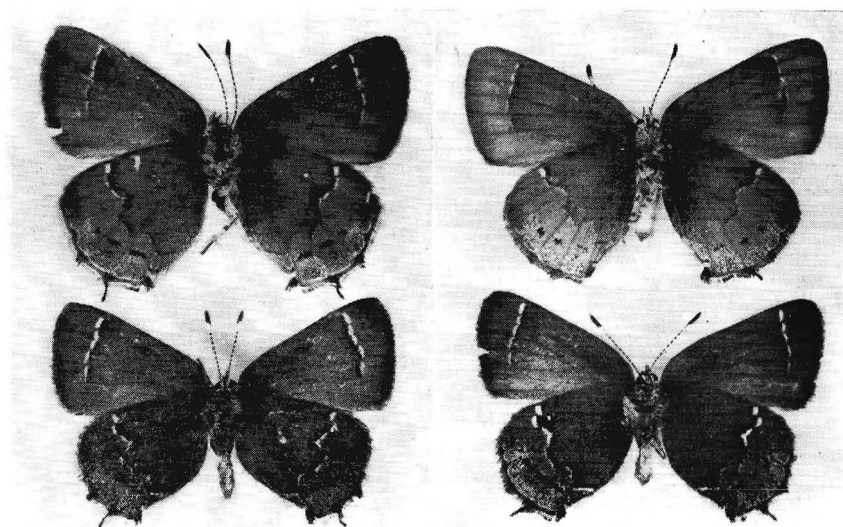


CONCERNING THE IDENTITY OF *MITOURA NELSONI MUIRI*

by J. W. TILDEN

The type locality of *Thecla muiri* as given by HENRY EDWARDS (*Papilio*, vol. 1: p. 53; 1881) in his original description of this species (as he regarded it) is Mendocino County, California. The author has made several attempts to locate colonies of *Mitoura nelsoni* subspecies in Mendocino County, so far without success. However, material from the Mt. St. Helena district of Lake and Napa Counties fits EDWARDS' description and is referable to *muiri*. This district is about forty miles airline distance from apparently suitable territory in Mendocino County, and lies inland (east) from it. The habitats and faunae are quite similar.



Upper figures *Mitoura nelsoni nelsoni*; lower figures *M. nelsoni muiri*;  
♂ ♂ on left, ♀ ♀ on right.

*M. n. nelsoni*: ♂: Scott River, Siskiyou Co., Calif., 21 June 1946; ♀: Greenhorn Mts., Calif., 25 June 1950. *M. n. muiri* ♂ and ♀: St. Helena Creek, Lake Co., Calif., 9 May 1952. All collected by J. W. TILDEN.

An examination of specimens placed as *muiri* in collections would seem to indicate that this race or subspecies has been misidentified on some occasions. It seems clear that EDWARDS had before him material from the coastal area of California when he wrote his description of *muiri*. The light material from inland localities cannot fit his description sufficiently to be referred to *muiri*. The accompanying figures show well the differences stressed by EDWARDS: the darker coloration of the inferior surfaces and the more irregular course of the macular band, as well as the smaller size.

*Mitoura nelsoni* is quite widely distributed in certain of the mountainous regions of western United States. As far as I can find, the early stages have never been described. However, I have found one common denominator in all localities of occurrence: *nelsoni* is always found in association with the Incense Cedar (*Libocedrus decurrens* Torr.). Since other members of the genus *Mitoura* are known to feed in the larval state on the foliage of trees of the family Cupressaceae, it is a reasonable assumption (by no means proven) that Incense Cedar is the food plant. Discussion with certain other collectors has shown that they have made a similar observation.

Incense Cedar grows at moderate elevations in the Sierra Nevada, but its range is extended to higher elevations in the mountains of southern California. Coastwise and northerly, the elevation at which this tree occurs is forced down by the cooler climate and the occurrence of summer fogs. In each case, the occurrence of *Mitoura nelsoni* is altered to coincide with that of the Incense Cedar. This tree is found in mixed coniferous forest, often as a "borderline" tree, growing on ecological interfaces where pine forest grades into chaparral, or on poor rocky ground in pine forests, or on steep rocky slopes of poor water content, and its distribution is therefore spotty or discontinuous. It seldom forms very large pure stands, although it is a common tree. The colonial or discontinuous distribution of *Mitoura nelsoni* may be due, at least in part, to this discontinuous distribution of the tree with which it is associated.

The area in the Mt. St. Helena district where the specimens of *muiri* were taken is formed of dark volcanic rock, and the flora consists of Ponderosa Pine, two species of cypress, Knobcone Pine and Douglas Fir, in addition to Incense Cedar, and with Live Oaks, Tan Oaks and Black Oaks, in addition to many species of bushes. The butterflies were found feeding on the blossoms of various species of *Ceanothus*, of which there are several in the area.

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