

ERYNNIS BRIZO LACUSTRA AND HESPERIA COLUMBIA IN THE
SIERRA NEVADA

Burns (1964, U. C. Publ. Entomol. 37: 1-214) reports no records for *Erynnis brizo lacustra* Wright for the Sierra Nevada, and MacNeill (1964, U. C. Publ. Entomol. 35: 1-221) lists no records for *Hesperia columbia* Scudder from there except one female in the AMNH from "Sier. Nev." Both are indicator species of the coast range serpentine belts north of San Francisco. Until recently, serpentine outcrops have been little collected in the western foothills of the Sierra Nevada of east-central California. Table 1 (next page) lists the new distribution records there.

Sometimes the adults may fly a few miles from their serpentine areas to hilltop: e.g., both hilltop on Rocky Ridge, 1700-1900', N. of Monticello Dam, Yolo Co., a non-serpentine area composed of Upper Cretaceous marine rocks of the Venado Formation. The nearest serpentine occurs in the extensive Mesozoic ultrabasic intrusive rocks and the Franciscan Formation some 6 miles to the west. Similarly, Footman Ridge, Mariposa Co., is Paleozoic marine (also the area to the N & E), and to the south is Mesozoic granitic rocks, with no serpentine nearby. The nearest serpentine is found 5 mi. W. as Jurassic-Triassic metavolcanic rocks and 8 mi. SW near Mariposa as Mesozoic ultrabasic intrusive rocks. In the meadows, forests, and canyon immediately adjacent to Footman Ridge on the W & N, neither species has ever been collected.

On 15 May 1970, E. slope Walker Ridge along Brim Grade, c. 1800', SW of Leesville, Colusa-Lake Co. line, I noticed a female *lacustra* ovipositing on the terminal growth of a *Quercus durata* Jepson bush growing on serpentine soil along a roadbank, at 1125. Burns (1964) says "the skipper invariably occurs in direct association with *Q. durata*, a serpentine obligate" (see Whittaker et al., 1954, Ecology 35: 258-288). However, in some areas, it may also use *Quercus dumosa* Nutt. which hybridizes with *Q. durata* and grows in strictly non-serpentine soils (see Forde & Faris, 1962, Evolution 16: 338-347).

Heretofore, these skippers were considered more coastal in their California distribution.

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TABLE 1. Distribution Records of *Erynnis brizo lacustra* and *Hesperia columbia* from the Sierra Nevada of California.

Species	County	Locality	Elevation	Collection Date	No. & Sex	Collector	Comments
<i>E. b. lacustra</i>	Placer	6.5 rd. mi. NE Foresthill	C.4100'	26 May 1975	—	S. R. Sims	commonly hill- topping on exposed serpentine ridge
				24 April 1976	—	S. R. Sims	
<i>E. b. lacustra</i>	Placer	summit of limestone outcrop above Murderer's Bar, 1½ mi. E. of confluence of No. & Middle FK. American River, E. of Auburn	C.800'	19 March 1977	1 ♂	O. Shields	hilltopping in serpentine terrain
<i>E. b. lacustra</i>	El Dorado	No. FK. Consumnes River on hilltop, vicinity of Mt. Aukum	C.2000'	1 May 1976	1 ♂	O. Shields	—
<i>E. b. lacustra</i>	El Dorado	Pine Hill summit, NE of Bass Lake	2050'	23 April 1972	1 ♂	O. Shields	serpentine
				14 April 1974	3 ♂ ♂	O. Shields	
<i>E. b. lacustra</i>	Mariposa	Footman Ridge summit, SE of Jerseydale	4600'	1 May 1974	2 ♂ ♂	O. Shields	—
				23 May 1974	1 ♂	O. Shields	
				15 May 1976	1 ♂	O. Shields	
<i>H. columbia</i>	Mariposa	Footman Ridge summit, SE of Jerseydale	4600'	23 May 1974	2 ♂ ♂	O. Shields	—
				15 May 1976	1 ♂	O. Shields	
<i>H. columbia</i>	Kern	hillside 3.2 mi. S. Bodfish on Bodfish-Caliente Rd.	3000'	31 March 1972	1 ♂	R. Wells	—