

GENERAL NOTES

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DISCOVERY OF THE CARPENTER MOTH *MORPHEIS CLENCHI* (COSSIDAE) IN MEXICO

Additional key words: Zeuzerinae, Sierra Madre Occidental.

When I described *Morpheus clenchi* (Cossidae: Zeuzerinae) from southern Arizona (Donahue, J. P. 1980, *J. Lepid. Soc.* 34(2):173–181), I predicted that this large, striking, sphingid-like carpenter moth would undoubtedly be found in adjacent México. This prediction has been confirmed as a result of field work by members of the Sonoran Lepidoptera Survey, in cooperation with Sonoran Arthropod Studies, Inc. (SASI) of Tuscon, Arizona, and by Terry A. Sears et al., whose extensive moth collections from the Barrancas del Cobre ("Copper Canyon") region of the Sierra Tarahumara, Sierra Madre Occidental, are deposited in the Bohart Museum of Entomology, University of California, Davis (UCD). I thank Steve Prchal of SASI and R. O. Schuster and Adam Porter of UCD for loaning the specimens reported on here.

I have now examined 11 adult male specimens of *Morpheus clenchi* from the Mexican states of Sonora, Sinaloa, and Chihuahua, and which have been deposited in the following institutions: SASI, UCD, Natural History Museum of Los Angeles County (LACM), and Instituto de Biología, Universidad Nacional Autónoma de México, México, D.F., México (UNAM). Seven localities are represented, all west of the continental divide in the Sierra Madre Occidental; they are listed from north to south. Localities not readily found on road maps are annotated. The female and the larval food plant of this species remain unknown.

SONORA: ¼ mi (0.4 km) E of Rancho El Encino, elev. 3600 ft (1097 m), 29 July 1983, Steve Prchal (1 ♂ SASI, 1 ♂ LACM). [This locality is in the Sierra La Madera between Moctezuma and Huasabas, approx. 29°50'N, 109°20'W.]

SONORA: 17 mi (27 km) W of Moctezuma, to U.V. [light], 20 July 1984, Doug Mullins (1 ♂ LACM).

SONORA: 13 mi (21 km) E of El Novillo, Study Canyon, elev. 3600 ft (1097 m), 3–4 Aug. 1983, Steve Prchal (1 ♂ SASI, 1 ♂ UNAM). [This locality is in the Sierra La Campanera between Mazatán and Bacanora, approx. 29°00'N, 109°30'W.]

SONORA: Trinidad Mine Canyon, at house, elev. 3425 ft (1044 m), 30 July 1984, Steve Prchal (1 ♂ SASI); same locality and collector, 11–12 Aug. 1983 (1 ♂ SASI, 1 ♂ LACM). [This locality is ca. 5 road mi (8 km) E of Santa Rosa, between Santa Rosa and Yécora, approx. 28°27'N, 109°00'W.]

CHIHUAHUA: 3 mi (4.8 km) S Témoris, elev. 4700 ft (1433 m), 29 Aug. 1969, T. A. Sears, R. C. Gardner, C. S. Glaser (1 ♂ UCD). [Témoris and nearby Témoris Station, where the elevation is 3365 ft (1026 m), are at km 708 on the Chihuahua al Pacífico Railroad, approx. 27°15'N, 108°15'W.]

CHIHUAHUA: Santo Niño, 9 Aug. 1969, T. A. Sears, R. C. Gardner, C. S. Glaser (1 ♂, UCD). [Approx. elev. 1800 ft (550 m), very near the Sinaloa state line at km 737 on the Chihuahua al Pacífico Railroad, approx. 27°00'N, 108°22'W.]

SINALOA: 5.5 mi (8.9 km) NW Choix, 15 July 1968, T. A. Sears, R. C. Gardner, C. S. Glaser (1 ♂, UCD).

All of these localities, and the known localities for this moth in Arizona, are in the biotic community described as Madrean Evergreen Woodland, a mild winter/wet summer community characterized by evergreen oaks (*Quercus*) or a mixture of oaks, juniper (*Juniperus*) and Mexican pinyon (*Pinus cembroides*) (Brown, D. E., ed. 1982, *Biotic communities of the American Southwest—United States and Mexico*, Desert Plants 4(1–4):342 pp., and accompanying map by Brown, D. E. and C. H. Lowe 1980, *Biotic*

communities of the Southwest, Gen. Tech. Report RM-78, Rocky Mountain For. & Range Exp. Sta., Forest Service, U.S. Dept. Agric.).

Besides documenting the first, but not surprising, records of *Morpheis clenchi* from México, this note illustrates a distributional phenomenon that will be observed more commonly as surveys of the Lepidoptera fauna of northwestern México are intensified, namely that species presently known only from the southwestern United States may actually be widespread and common in adjacent northwestern México. Similarly, with more intensive faunal studies in the southwestern United States we may expect to find species presently known only from northwestern México, although perhaps only in isolated, relict populations or as strays. I urge lepidopterists from the United States and México to pool their talents and efforts to conduct a joint survey of this intriguing border-straddling region.

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A DESCRIPTION OF TOPOTYPICAL MALE *HEMILEUCA DIANA* (SATURNIIDAE)

Additional key words: Colorado, type locality, *Hemileuca grotei*, sister species.

Hemileuca diana Packard (Saturniidae) was first described in 1874 from a single female, collected in 1873; the locality was cited only as "Plum Creek" in Colorado (Packard, A. S. in Hayden, F. V. 1874, Annual Report of the United States Geological and Geographical Survey of the Territories embracing Colorado, being a report of progress of the exploration for the year 1873, Government Printing Office, Washington, D.C., 718 pp.). Prior to F. M. Brown (1972, J. Lepid. Soc. 26:245-247) a more precise location of the type locality of *H. diana* was largely in question because there are many streams in Colorado named "Plum Creek." According to the historical records of Hayden and A. C. Peale (in Hayden *op. cit.*), the most probable Plum Creek would be the northward flowing tributary of the segment of the South Platte River that flows through what is now Douglas County. The most likely *H. diana* type locality on this tributary is along the headwaters of Plum Creek in the area between Larkspur and Palmer Lake (Brown *op. cit.*). This location is slightly southwest of Castle Rock south of Denver, near present Interstate Highway 25. The study area where this research was conducted is along Plum Creek about 12 km W of Castle Rock at the junction of Douglas County roads 46 and 105 (Wolfensberger and Perry Park roads, respectively) very near or in the Christy Ridge housing development. This is about 8 km N of the probable location cited by Brown and well within the presumed type locality area.

Hemileuca diana is recorded from Colorado, Arizona, and Mexico (Ferguson, D. C. 1971, Bombycoidea, Saturniidae (in part), in Dominick, R. B., et al. (eds.), The moths of America north of Mexico, fasc. 20.2A:1-153, col. pls. 1-11, E. W. Classey, London; Tuskes, P. M. 1986, J. Lepid. Soc. 40:27-35), but until quite recently no other specimens were known to have been collected from the type locality. The biology of Arizona *H. diana* has been described (Tuskes *op. cit.*), although comparison of southern Arizona males to topotypical males was not made because such topotypical material was unknown at that time. Topotypical *H. diana* males are now known. At the Christy Ridge housing devel-