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**Replacement name for
Mitoura siva rhodope Clench (1981)
[*nec* Godman & Salvin, 1887]
(Lepidoptera: Lycaenidae)**

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Abstract

The extant holotype of *Thecla rhodope* G & S (Sonora, Mexico) is antonymous to characters attributed to the taxon by Clench. *M. s. clenchi* is described from Clench's Arizona study series; the status of *T. rhodope* is left unresolved.

Introduction

In a posthumous publication (Clench 1981) *Thecla rhodope* Godman & Salvin (1887)(type locality [TL] "N. Sonora, Mexico") was redescribed and the specific name used in combination with *Mitoura siva* W. H. Edwards. "*M. siva rhodope*" was used to refer to certain populations of *M. siva* from northern Mexico and the extreme southwestern United States which Clench considered sub-specifically distinct from *M. siva siva* (TL Fort Wingate, McKinley County, New Mexico [Brown & Opler, 1970] Fig. 1C). Unknown to Clench, the type of *T. rhodope* was extant in the British Museum (Natural History) (BMNH) (Fig. 1,D1,E,F) and antonymous in facies to those attributed to *rhodope* by him.

Some faunal studies or local lists have begun using Clench's misdiagnosis of *rhodope* (Austin, 1985). Recently, the Lepidopterists' Society solicited correction of this problem in supplementary papers to a Memoir updating Miller & Brown (1981) (C. D. Ferris, pers. com.), since The Code of the International Zoological Commis-

sion ("ICZN Code") requires that taxa be defined according to their primary type. Subsequently, however, this supplementary section was discontinued (C. D. Ferris, pers. com.). Since corrections according to the ICZN Code should precede the revised Miller & Brown list, the matter is treated here.

Reviewers of my initial text suggested it premature to discuss the problem of species statuses of *T. rhodope* and *M. siva*. Specimens similar to the type of *T. rhodope* are few, and from a small area of Sonora. Full study of variation in *M. siva* is hampered by a paucity of samples from regions intervening its southern range and *T. rhodope*'s type locality (J. Llorente Bousquets, Museo de Zoologia, Mexico City, and two anonymous reviewers, pers. comm.). I follow this suggestion and limit the treatment below to (a) correction of Clench's misdiagnosis and (b) description of a replacement name.

***Thecla rhodope* Godman & Salvin (1887) Figures 1D, 2E,F**

Fig. 1E and F respectively illustrate the figures of *T. rhodope* in Godman & Salvin (1887, plate 54, figs. 3-4) and Draudt (1919, plate 154, line g). The type (Fig. 1D) is labelled: [handwritten] "Type", "*Thecla rhodope*"; [type-set] "B.M. TYPE No. Rh 1079", "B.M. TYPE No. Rh 1030", "N. Sonora, Mexico. Morrison", "Godman- Salvin Coll.1911.-93/B.C.A. Lep. Rhop. *Thecla Rhodope*, G & S.",

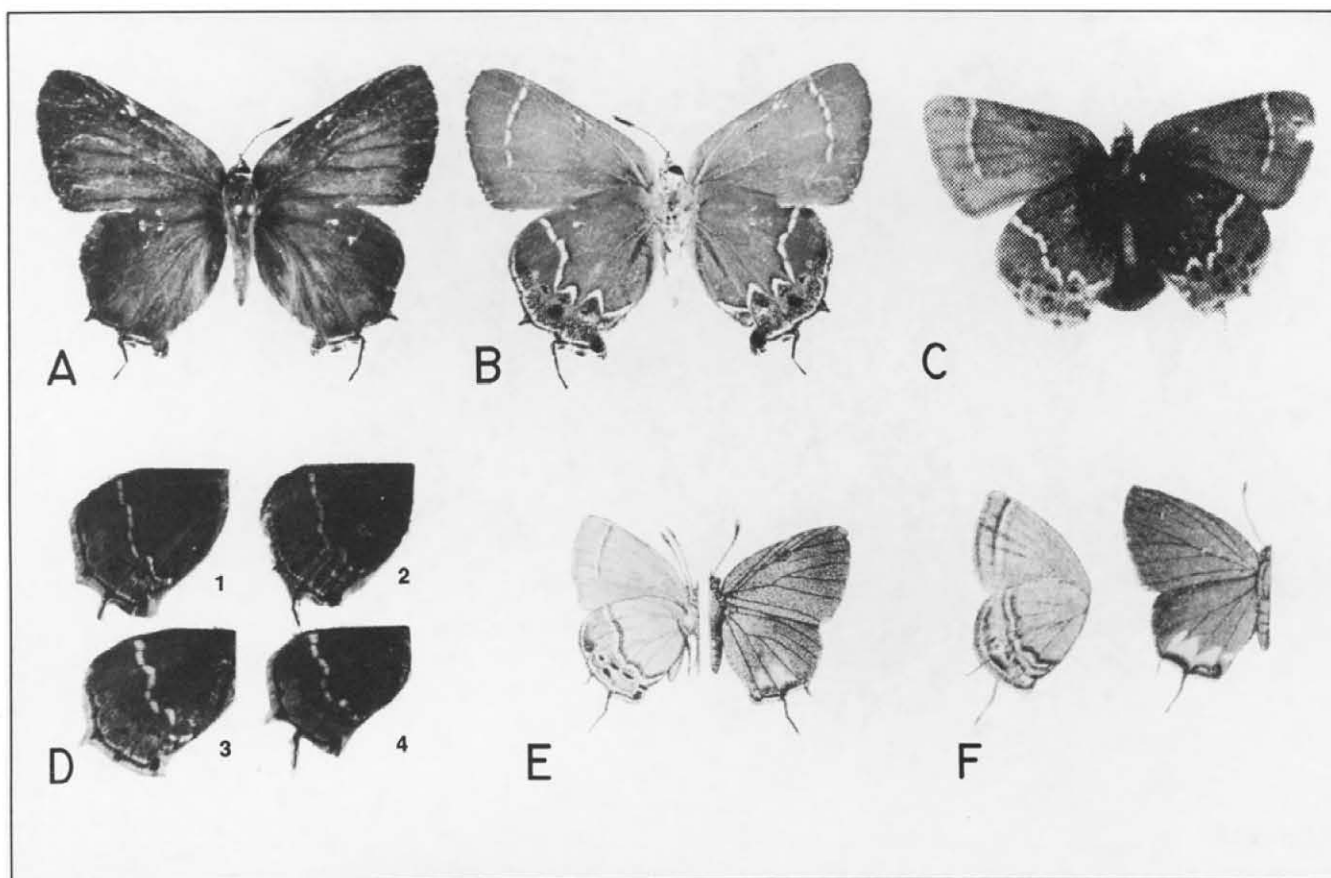


Figure 1. Type and other specimens of *Mitoura siva* and *Thecla rhodope*. A. Holotype male, *M. siva clenchi*, upper surface; B. same, under surface (CMNH). C. Neotype, *M. siva* (Brown & Opler, 1970), under surface. D. under surface hindwing patterns characterizing *T. rhodope*-- 1. the type (reproduced from BMNH color slide); 2-4. two males and a female, respectively, referenced in text. E. *T. rhodope* as figured by Godman & Salvin (1887), left, under surface, right, upper surface. F. same, as figured by Draudt (1919).

"Type, Sp. figured" [latter label is identical with others at BMNH indicating illustration by Draudt, 1919]. Clench was evidently unaware that the type was figured in both the Godman & Salvin and Draudt publications.

Upper surface: dark fuscous except for orange-colored scallop-like patches along the hindwing submargin.

Under surface: hindwing with median line entire and almost smoothly rounded, with little evidence of a "W"-shaped configuration along the median line in cells CuA1 and CuA2. Genitalia: Fig. 2E. Valvae, in ventral view, robust, with bilobed area widely shouldered, caudal extension greatly produced cephalad, tapering abruptly terminad; saccus funnel-shaped. As noted in Remarks below, these characters differ greatly from specimens in Clench's "*rhodope*" study series at the Carnegie Museum of Natural History (CMNH). These are used as type series for the replacement name described below.

***Mitoura siva clenchi*,
new subspecies
Figures 1A,B, 2A,B**

Mitoura siva rhodope: Clench, 1981, p. 14 [misidentification, preoccupied].

Diagnosis. From Clench, 1981, except as bracketed by the present author: "Subspecies [*clenchi*]: unhw Thecla spot with black core large and jet black, often capped (basad of fulvous lunule) by a thick, heavy st bar and in M3-Cul [Clench's usage predated current use of CuA1], a counterpart st bar nearly or quite as large; pm line forming a distinct 'W', the anterior point about as well developed as posterior and both of them touching the st line; unfw usually with a fulvous band along termen, replacing the green; unw terminal area broadly fulvous or dark from apex to M2. Subspecies *siva*: unhw Thecla spot with black core small, sometime absent, capped

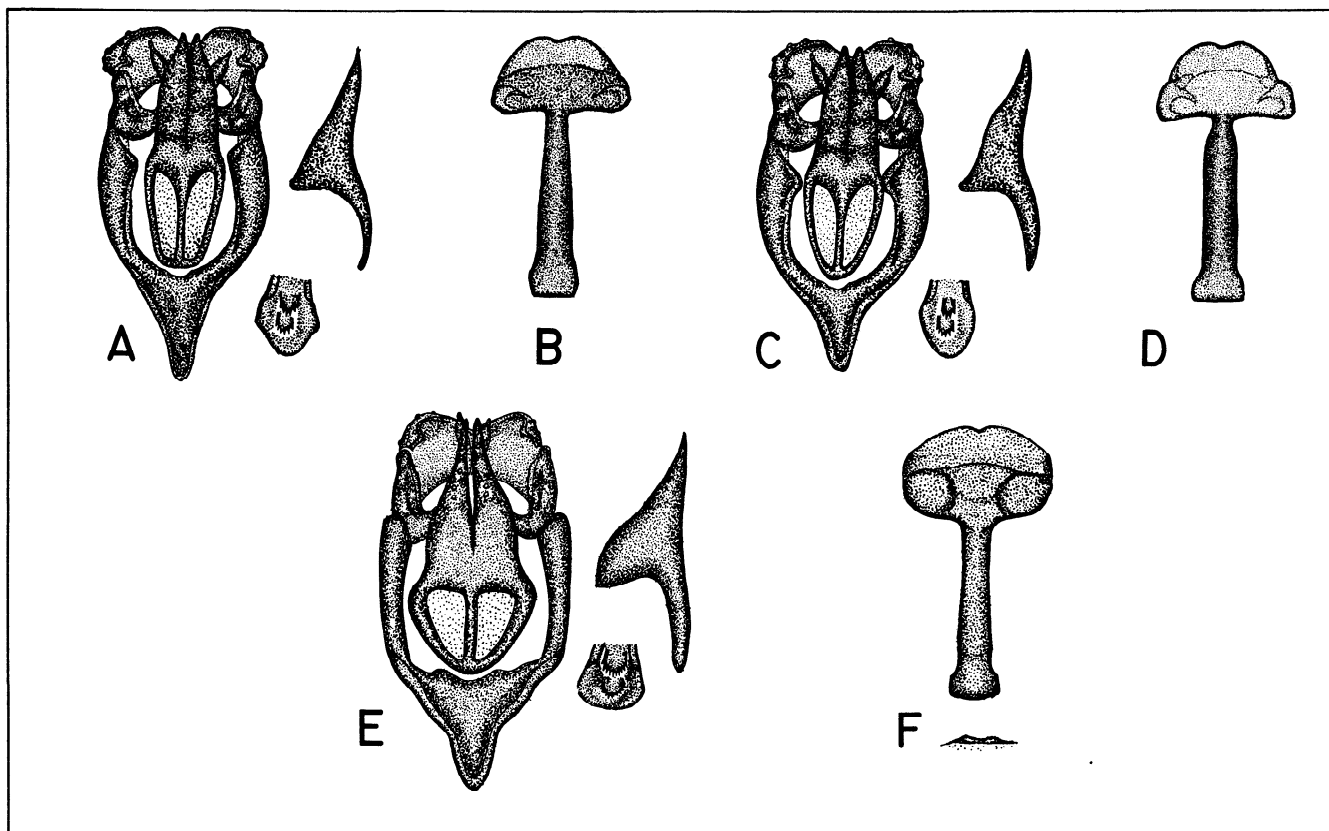


Figure 2. Male and female genitalia of *M. siva clenchi* (holotype male, A; allotype female, B), *M. siva siva* (topotypical male and female, C,D) and *T. rhodope* (holotype male, E; associated female, [see text], F). Display format: for each taxon-- left, male (ventral view, genitalia with aedeagus removed, left; lateral view, valvae, immediate right; ventral view, terminus of aedeagus, below, between left and immediate right); right, female (ventral view, genital plate; signum of corpus bursae [*T. rhodope* only] immediate left).

with small st black bar or none; pm line rarely forming a distinct 'W' because the anterior point is much smaller than the posterior and may be absent, and these points are usually well retracted from the st line; unfw with no fulvous band along termen, the green extending distad to termen; unhw terminal area from apex to M2 may be green or narrowly fulvous or dark."

Description. Male. Upper surface: ground color dark fuscous along margins, submargins and costa, much lighter shiny brown basad. Androconial scent patch distad in discal area. Tail at vein CuA2 terminus, occasional extension or tuft at vein CuA1 terminus. Under surface: ground color of forewing brown distad, flushed green to yellowish green basad. Hindwing green to yellowish-green basad a continuous mesial ["postmedial" Clench] tripartite line, black centrad, red-brown basad, white distad, extremely "W"-shaped between vein CuA1 and the anal margin. Limbal area variously suffused bluish or gray with emphatic orangish Thecla spot at sub-

margin of cell CuA1 and often submarginal black dots in cells CuA2 to M3. Length of forewing: 14.0 mm. (holotype).

Female. Similar to males but lacking androconial scent patch on forewing. Length of forewing: 14.0 mm. (allotype). Genitalia. Male, Fig. 2A, Female, Fig. 2B. As typical of the species, with valvae bilobed area parabolic in ventral view and caudal extension thickly tapered; saccus parabolic (Fig. 2C,D and Johnson, 1976, 1978).

Types. From the series listed by Clench, 1981, p. 15. Holotype, male, (Fig. 1A,B) "Pinery Canyon", 6500 ft. Chiricahua Mts., Cochise Col, Arizona, vi.23.1919, Witmer Stone, Exch. A.N.S.P., C.M. Acc. 20359" deposited CMNH. Paratypes: chosen from the same series, and from three localities within 10 km. of that of the primary type along the Pinery Canyon access road. Same data as holotype: 23 June 1919 (two males, one female); Onion Saddle, leg. H. A. Freeman, 11 July 1960 (two males, five

females), 12 July 1960) (one male); Paradise, leg. H. A. Freeman, 11 July 1960 (one male, one female), leg. Poling, no other data (one male, one female).

Distribution. Characterized by Clench (1981, p. 15) as including areas of the Santa Rita, Chiricahua and Guadalupe mountains of Arizona. Probably including the entire distribution of *M. siva* within the so-called "Chihuahuan subelement" characterized by Martin and Mehninger (1965) as a series of disjunct mountain ranges (a) distinct southward from the Mogollon Rim formation of Arizona and New Mexico state, United States, and (b) distinct northward from the Sierra Madre Occidentale of extreme eastern Sonora and central Chihuahua states, Mexico. Physiographic and ecological elements of this region have been further listed and characterized by Mayer (1979) and VanDevender and Spaulding (1979).

Remarks. Variation. Clench's extant study series at CMNH includes 12 males and 15 females from the localities listed by him (1981, p. 15). Of these 27 specimens, 19 display a radically "W"-shaped postmedian line; the remaining 8 specimens have a somewhat more weakly "W"-shaped configuration. None has a postmedian line like the type of *T. rhodope* (see Discussion below). All have genitalic typical of *M. siva*.

Etymology. Patronym, referring to Clench's original treatment of the type series.

Discussion

A number of issues have been raised in the review of this treatment. The following are most pertinent to brief discussion.

Circumstances concerning type of *T. rhodope*.

Clench visited the BMNH during his World War II service (Clench, 1944, 1946; R. I. Vane Wright, pers. comm.). The type of *T. rhodope* was not the only extant BMNH type which he construed as missing (see treatment of *T. longula* Hewitson, Clench, 1946). This resulted from World War II storage of types, some of which are still not fully reincorporated (Johnson, 1988). Clench's statement that the radical "W"-shape is visible in Godman & Salvin's original figure is inexplicable and probably resulted from the posthumous publication of his work. Clench may have assumed that the Godman & Salvin figure was crudely rendered.

Specimens similar to type of *T. rhodope*. The AMNH contains two males and one female labelled Hermosillo, Sonora, Mexico, 13 August 1952, Gertsch and Schrammel, which resemble the type of *T. rhodope*. This is arid lowland at 200-500 m. elevation. Facies of these specimens contrast others fitting the description of *M.*

s. clenchi from Metachic, Chihuahua, 8 July 1947, Gertsch and Cazier (in Sierra Madre Occidentale at 2000-3000 m.), and Alamos, Sonora, 10 August 1952, Gertsch and Schrammel (foothill locality at 1000-2000 m. elevation). Colleagues recently visiting these localities state that suitable foodplants (*Juniperus*) for occurrence of *Mitoura* are not evident today except at Metachic (anonymous reviewer, pers. comm.). The reputed Hermosillo specimens are of interest regarding the distinctness of *T. rhodope* because this locality characterizes a region with present ecology and paleoecology distinct from those typified by *C. m. clenchi* (VanDevender & Spaulding 1979; Brown & Lowe 1980).

Characters of *T. rhodope* and Nearctic *Mitoura*.

The type of *T. rhodope* and facies of females resembling it differ markedly in the genitalia from species of Nearctic *Mitoura*, except for the some populations of *M. nelsoni* Boisduval or the radical morph seen in the *Juniperus occidentalis* feeder named *M. barryi* by me (Johnson, 1976). Application of ICZN obligatory categories to *Mitoura* has been controversial (Shields, 1985). Traditionally, however, taxonomic work on Nearctic *Mitoura* has not included evaluation of types (Brown, 1982 (1983)) or consideration of the Mexican members of the genus (Scott, 1986, Johnson 1985 (1986)). This apparently results because North American butterflies are often considered "well-known" (Ehrlich & Murphy, 1981 (1982)) and the common usage thoroughly entrenched. There are a number of *Mitoura* taxa with limited and insular distributions in montane northern Mexico: *dospassosi* Clench, *searsi* Clench, *estela* Clench, *millerorum* Clench, and *turkingtoni* Johnson. All of these have major characters distinguishing them from United States congeners but, to date, have received no integration into Nearctic *Mitoura* taxonomies. Along with the paucity of specimens representing the *gryneus* group of *Mitoura* (*sensu* Scott, 1986) in northern Mexico (J. Llorente-Bousquets, pers. comm.), this suggests caution regarding premature synonymization of *T. rhodope* with *M. siva*. At present it is certain that Clench's (1981) redescription of *T. rhodope* does not resemble the type specimen, and thus warrants correction according to the ICZN Code. The future status of *T. rhodope* remains to be determined.

Acknowledgments

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Literature Cited

- Austin, G. T.**
1985. Nevada butterflies; preliminary checklist and distribution. *J. Lepid. Soc.* 39: 95-118.
- Brown, D. E. and C. H. Lowe.**
1980. Biotic communities of the southwest. Ser. Gen. Tech. Rep. RM-78, Rocky Mountain Forest and Range Experiment Station, Forest Service U.S.D.A., separatum of southwest summary map, 1 foldout p.
- Brown, F. M. and P. A. Opler.**
1970. The types of the lycaenid butterflies described by William Henry Edwards. Part II--Theclinae and Strymoninae. *Trans. Amer. Ent. Soc.* 96: 19-77.
- Brown, J. W.**
1982 (1983). A new species of *Mitoura* Scudder from Southern California (Lepidoptera: Lycaenidae). *J. Res. Lepid.* 21: 245-254.
- Clench, H. K.**
1944. Notes on lycaenid butterflies. *Bull. Mus. Comp. Zool.* 94: 217-245.
1946. Notes on the amnytor group of the genus *Thecla* (Lepidoptera, Lycaenidae). *Entomologist* 79: 152-191.
1981. New *Callophrys* (Lycaenidae) from north and middle America. *Bull. Allyn Mus.* 64: 1-31.
- Draudt, M.**
1919. *Thecla*, pp. 794-811, in Seitz, A. *Macrolepidoptera of the World*, Stuttgart, Alfred Kern Verlag, Vol. 5, pp. 593-1139, Vol. 6 Plates, 194 pls.
- Ehrlich, P. R. and D. D. Murphy.**
1981 (1982). Butterfly nomenclature: a critique. *Jour. Res. Lepid.* 20L 1-11.
- Godman, F. D. and O. Salvin.**
1887. *Biologia Centrali-Americana: Zoology: Insecta: Lepidoptera-Rhopalocera*, vol. 2, 728 pp.; vol. 3 [plates], 12 pls., privately printed.
- Johnson, K.**
1976. Three new Nearctic species of *Callophrys* (*Mitoura*), with a diagnosis (sic) of all Nearctic consubgenera (Lepidoptera: Lycaenidae). *Bull. Allyn Mus.* 38: 1-30.
1978. Specificity, geographic distribution, and foodplant diversity in four *Callophrys* (*Mitoura*) (Lycaenidae). *J. Lepid. Soc.*, 32, pp. 3-19.
1985 (1986). *Mitoura millerorum* Clench and its occurrence in the United States. *J. Lepid. Soc.* 39: 119-124.
1988. The types of Neotropical Theclinae (Lycaenidae) in the Museum National d'Histoire Naturelle, Paris. *J. Lepid. Soc.* (in review).
- Martin, P. S. and P. J. Mehringer.**
1965. Pleistocene pollen analysis and biogeography of the Southwest. p. 433-451 in Wright, W. E. and D. G. Freys, eds. *The Quaternary of the United States*. Princeton University Press, Princeton, New Jersey, x + 922 p.
- Mayer, L.**
1979. Evolution of the Mogollon Rim in central Arizona. *Tectonophysics* 61: 49-62.
- Miller, L. D. and F. M. Brown.**
1981. A catalogue/checklist of the butterflies of America north of Mexico. *Lepid. Soc. Mem.* no. 2, vii + 280 pp.
- Scott, J. A.**
1986. *The butterflies of North America, a natural history and field guid.* Stanford University Press, Stanford. x + 583 pp.
- Shields, O.**
1985. Comments on recent papers regarding western Cupressaceae-feeding *Callophrys* (*Mitoura*). *Utahensis* 4: 51-56.
- Van Devender, T. R. and W. G. Spaulding.**
1979. Development of vegetation and climate in the southwestern United States. *Science* 202: 701-710.