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Abstract

A new species of satyrid butterfly, *Calisto neochma*, is described from the northern Cordillera Central in the República Dominicana.

Introduction

Schwartz (1989) recognized 35 species of the satyrid genus *Calisto* on Hispaniola, and since that time still another species has been named by Gonzalez, Schwartz, and Wetherbee (1991). The Hispaniolan *Calisto* can be grouped into a series of assemblages (Gonzalez and Schwartz, MS), one of which is composed of only two members: *C. clydoniata*, Schwartz and Gali, 1984, and *C. clenchi*, Schwartz and Gali, 1984; these are together considered the *clydoniata* group.

In one sense, the *clydoniata* group has an unusual distribution: *C. clydoniata* is known only from the higher elevations of the Sierra de Neiba (1586-1891 m; Schwartz, 1989) in mixed pine-broadleaf forest; it is very abundant in that habitat and within those elevational extremes. The other species, *C. clenchi*, occurs on the Massif de la Selle (1671-1950 m in both Haiti and the República Dominicana; Schwartz, 1989) where it is unaccountably rare (six specimens, four of which have come from the same precise spot over a period of five years) in mesic broadleaf forest. The two species are distinct but not strikingly so; they have in common the scalloped edges of the HW, the scallops very obviously "filled in" with yellow.

Such a montane distribution is not unusual on Hispaniola; what is unusual is the combination of ranges. The Sierra de Neiba is on the Hispaniolan north paleoisland, the Massif de la Selle on the south paleoisland. The montane center of Hispaniolan *Calisto* is the Dominican Cordillera Central, which harbors 11 endemic species and two endemic subspecies. The absence of a *clydoniata* group member on that range prompted Schwartz's (1989) comment; "it is surprising that there is not a similar species [to *C. clydoniata*] in the Cordillera Central."

David K. Wetherbee, while a resident of the village of El Rubio, ascended Monte El Rubio and made a small collection of butterflies there. Among them is a single *Calisto* which pertains to the *clydoniata* group but is quite different from the previously named two members. Accordingly, I propose for it the name:

Calisto neochma, new species Fig. 1

Female, FW (forewing) length 16 (all measurements in millimeters); UPFW (upper side forewing) and UPHW (upperside hindwing) medium brown (Pl. 47L11; all color designations from Maerz and Paul, 1950); UPHW distinctly scalloped, the scallops filled with pale yellow; anal lobe red (Pl. 8L6), elongate; UN medium brown, slightly lighter than UP; UNFW with a single subapical ocellus (diameter 3.2) from just anterior to M1 to just posterior to M3, black, outlined with dull yellow and with a single whitish "pupil," displaced slightly anteriad of center of ocellus; no postocellar red blush; no UNFW submarginal or discal lines; UNHW likewise without submarginal or discal lines but with a single small ocellus (1.6) in Cu1-Cu2, colored like UNFW large ocellus and with white "pupil" displaced basad; a small white dot in Cu1-2A; M3-Cu1 and Cu1-Cu2 each with a postdiscal to marginal faint pale brown widely opened V, to give a widely opened W; anal lobe concolor with UNHW, not red.

Male. Unknown.

HOLOTYPE female: REPÚBLICA DOMINICANA: PROVINCIA DE SANTIAGO: Monte El Rubio, 900 m; 22.viii.1990 (D.K. Wetherbee); ex coll. A.

Schwartz, now in collection of Milwaukee Public Museum. Original number AS 26657.

Comparisons. Calisto neochma, with its constellation of unique characters, really requires no comparison with species from Hispaniola or elsewhere. Phenotypically, it most closely resembles C. clydoniata from the Sierra de Neiba, some 115 km airline distant to the SSW. Fourteen C. clydoniata have the FW length 15-18 (x = 16.7), UNFW ocellus diameter 1.9-2.7 (2.2), and UNHW ocellus 1.1-1.6 (1.3). The FW length of C. neochma falls toward the lower extreme of that measurement in C. clydoniata, and the UNHW ocellus in C. neochma falls at the upper extreme of that measurement in C. clydoniata. The UNFW ocellus (3.2) in C. neochma is beyond the upper extreme of that measurement in C. clydoniata (1.9-2.7). In addition, C. clydoniata is rich orange-brown on the UN and lacks a prominent red anal lobe on the HW.

Etymology. The name neochma is from the Greek for "new, unusual, strange," in allusion to the uniqueness of this species; neochma is adjectival and feminine to agree with the gender of Calisto.

Remarks. Since Wetherbee, when he collected the holotype of *C. neochma*, was unaware that he had taken a new species, there are no special notes on the specimen. The habitat on Monte El Rubio is mesic broadleaf forest, and it seems likely that the specimen was taken in that situation.

Acknowledgements. My thanks are due to David K. Wetherbee for sending me this unique individual and to Susan Borkin for taking the photograph of the UN.

Literature Cited

- Gonzalez, F.L., and A. Schwartz. MS. The unity and diversity of Hispaniolan Calisto.
- Gonzalez, F.L., A. Schwartz, and D.K. Wetherbee. 1991. A new species of *Calisto* (Lepidoptera: Satyridae) of the *lyceia* complex on Hispaniola. Contr. Biol. and Geol. Milwaukee Public Mus., 80:1-8.
- Maerz, A., and M.R. Paul. 1950. A dictionary of color. New York: McGraw-Hill Book Co. vii + 208 pp.
- Schwartz, A. 1989. The butterflies of Hispaniola. Univ. Florida Press, Gainesville: xiv + 580 pp.
- Schwartz, A., and F. Gali. 1984. Five new species of *Calisto* (Satyridae) from Hispaniola. Bull. Allyn Mus. 85:1-18.

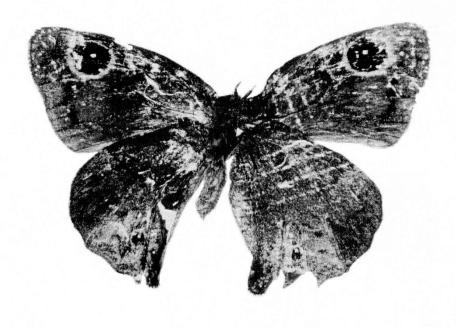


Figure 1. Calisto neochma, female holotype (AS 26657), view of underside.