

TWO MEXICAN GEOMETRIDAE NEW TO THE UNITED STATES, WITH A NEW SYNONYMY

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Abstract - The first United States records of geometrid moths *Zanclopteryx mexicana* Prout (Oenochrominae) and *Arcobara cavana* (Druce) (Sterrhinae) are reported. *Pigia calotis* Dyar, **n. syn.** is synonymized with *A. cavana*. Lectotypes are selected for *A. cavana* and *P. calotis*.

Key words: Lepidoptera, Geometridae, Oenochrominae, Sterrhinae, United States, Mexico

During the past few years of studying North American Geometridae, I have encountered two species that have not been previously recorded from the United States. They are documented and figured below, and in one case I found that a taxonomic change and lectotype selections were necessary.

Zanclopteryx mexicana Prout, 1910. Fig. 1

Type locality: Dos Arroyos, Guerrero, 1000', Mexico. One male, Madera Canyon, 4880', Santa Rita Mts., Santa Cruz Co., Ariz., 14 May 1963, was collected by the late John G. Franclemont. The specimen, which I found among *pro tempore* material in the U. S. National Museum collection (USNM), was determined as this species by the late Douglas C. Ferguson by comparison with the holotype in the U. S. National Museum. It was among specimens under study by Dr. Ferguson when he passed away in 2002, and I suspect he was planning to publish concerning its United States occurrence.

This is the first United States species in the genus *Zanclopteryx* Herrich-Schäffer [1855]. At present it is included in the subfamily Oenochrominae, and it is the third species in that subfamily to be recorded from the United States. Its number in the Hodges et al. (1983) checklist should be #6258.1. The immature stages are unknown. The specimen has been returned to the USNM.

Arcobara cavana (Druce, 1892), **New combination.** Fig. 2

Type locality: Presidio de Mazatlan, Mexico. Four male syntypes are in The Natural History Museum, London. I designate as lectotype male the specimen bearing the following labels: "Acidalia cavana Type Druce," "Presidio, Mexico, Forrer," and "Coll. 1903 - 4. B.C.A. Lep.Het., Acidalia cavana, Druce." There is also a circular red type label. This is the only one of the four which has its abdomen intact. I designate the other three syntypes as paralectotypes.

Pigia calotis Dyar, 1912. *Proc. U.S. N. M.* **42**: 89.
New synonymy.

Type locality: Since Schaus did not designate a holotype, I hereby designate as lectotype the female from Tehuacan, [Puebla] Mexico (collected in September 1909 by R. Müller)



Figure 1. *Zanclopteryx mexicana* Prout, male



Figure 2. *Arcobara cavana* (Druce), male

(USNM Cotype #14284; abdomen missing). Two males from Iguala, Guerrero, have the same USNM cotype number, and are mentioned in the original description but lack Dyar's type labels. I designate these two males as paralectotypes.

One male in the Canadian National Collection was collected at Linden, Cass County, Texas, on August 9, 1958, by Henry F. Howden. I recently spoke with Dr. Howden, who confirmed the collecting locality as labeled, and told me that he was not in Mexico that year. These two names were treated under *Scopula* by Scoble et al. (1999, p. 843). I compared the male

genitalia with that of *Arcobara multilineata*. The similarities (short, broad-based uncus; the long, lightly sclerotized valves; and a single large, thorn-shaped cornutus) made me feel certain that *A. cavana* belongs in *Arcobara* Walker (1863) (subfamily Sterrhinae). Schaus named *calotis* in *Pigia*, now considered to be a junior synonym of *Scopula* Schrank (Scoble et al. 1999). I recommend that this species be considered in the Hodges et al. (1983) catalogue as #7129.1.

The immature stages are unknown.

Because the Texas specimen is lacking its right hindwing, I used another male for Figure 2 (from Jesus Maria, Nayarit, Mexico, collected June 25, 1955, by G. Malkin; in the Essig Museum, University of California, Berkeley).

ACKNOWLEDGEMENTS

I am grateful for the loan of specimens by P.T. Dang, formerly of the Canadian National Collection, Ottawa; Patricia Gentili-Poole, National Museum of Natural History, Washington, D.C.; and Peter Oboyski, The Essig Museum, University of California, Berkeley. I also thank John Chainey, The Natural History Museum, London, England, for assisting me with a photograph of the lectotype of *P. cavana* and related matters; and John B. Heppner, McGuire Center for Lepidoptera and Biodiversity, for photographing the moths. I thank James E. Hayden and John B. Heppner for their helpful comments regarding this manuscript.

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