

# ***Sthenopsis auratus* (Grote, 1878), a junior and subjective synonym of *Sthenopsis pretiosus* (Herrich-Schäffer, [1856]) (Lepidoptera: Hepialidae)**

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A recent description of the new species *Pallas reynaudi* Mielke & Grehan, 2016 from Guatemala and the new species *Phassus violetteae* Mielke & Grehan, 2016 from Costa Rica required consideration of the taxonomic composition and phylogenetic scope of the Mexican-Central American genus *Phassus* Walker, 1856 (Mielke & Grehan, 2016). An earlier review of Latin American Hepialidae by Mielke & Grehan (2012) led to the conclusion that several species did not conform to or show evidence of close affinity with the type species (*Phassus triangularis* Edwards, 1885). These names were therefore classified as *incertae sedis* pending further investigation. Two of the problematic species were *Phassus eldorado* Pfitzner, 1906 from Venezuela and *Epialus* [sic] *pretiosus* Herrich-Schäffer, [1856] from Brazil. In our review of *Phassus* characteristics we realized that these two seemingly enigmatic species were in fact conspecific with each other and with a species found in the eastern United States and Canada.

The original publication of *Epialus* [sic] *pretiosus* illustrated the species but provided no written description whereas the first publication of *P. eldorado* did not illustrate the species, although Pfitzner (1906) did note that the forewings were shiny with gold glazing and patches of golden brown. Both species were subsequently illustrated by Pfitzner (1937-1938). The original illustration of *E. [sic] pretiosus* (Fig. 1a) shows a distinctive wing pattern that is unlike any other Hepialidae of South America. The illustration of *Phassus eldorado* (Fig. 1b) by Pfitzner (1937-1938) is less detailed, but it shows the same general wing pattern as illustrated for *E. [sic] pretiosus*. Pfitzner's (1937-1938) illustration of *Hepialus pretiosus* (Fig. 1c) is very similar to that presented by Herrich-Schäffer (1850-[1858]).

The holotype of *P. eldorado* (Fig. 2a) at the Senckenberg Museum, Frankfurt am Main, was examined by CGCM and although the abdomen was missing the body and wings were found to have an external appearance conforming in every apparent detail to *Sthenopsis auratus* (Grote, 1878) of the eastern United States and Canada (Fig. 2b). The type specimen of *E. [sic] pretiosus* has not been located, but the features illustrated for *E. [sic] pretiosus* show a detailed correspondence to the pattern found in *Sthenopsis auratus*. We concluded that the same species is represented under the three names and that *P. eldorado* and *E. [sic] pretiosus* represent mislabelled specimens from the United States or Canada.

Since their original publication, the names *P. eldorado* and *E. [sic] P. pretiosus* were included in several major taxonomic



Fig. 1a. *Epialus* [sic] *pretiosus* as illustrated by Herrich-Schäffer (1850-[1858]). Photo scan by John Rawlins.



Fig. 1b. *Phassus eldorado* as illustrated by Pfitzner (1938, Plate 99g).

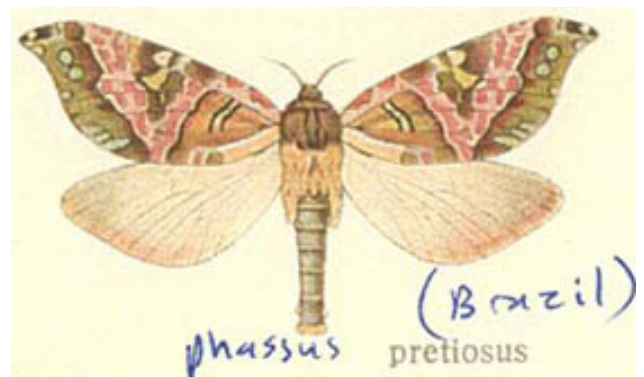


Fig. 1c. *Hepialus pretiosus* as illustrated by Pfitzner (1938, Plate 185a).



Fig. 2b *Sthenopis pretiosus* (Herrich-Schäffer, [1856]). Photo Carlos Mielke.



Fig. 2a Holotype of *Phassus eldorado*. Photo Carlos Mielke.

publications including Kirby (1892: 884), Wagner & Pfitzner (1911: 9), Pfitzner (1937-1938: 1291), Nielsen & Robinson (1983: 18), Robinson & Nielsen (1984: 16), Nielsen et al. (2000: 841), and Mielke & Grehan (2012). Under the rule of priority we therefore concluded that *Hepialus auratus* Grote, 1878 and *Phassus eldorado* Pfitzner, 1906 are junior and subjective synonymies of *Sthenopis pretiosus* (Herrich-Schäffer, [1856]). We anticipate the future possibility that the type specimen for *S. pretiosus*, if it still exists, will be found 'hidden' in plain sight among *Sthenopis* specimens in one of the European collections.

### ACKNOWLEDGEMENTS

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## From the Editor's Desk

James K. Adams

I've got nothing earthshaking to share, so I thought I'd share an image of a moth species, to go along with Alex Bic's images on the back. Thanks as always for all of the contributions. My job of filling pages of these Newsletters has been remarkably easy (not that the JOB is easy, but certainly filling the pages can be).



*Malacosoma disstria* bilateral gynandromorph, Micanopy, Alachua Co., FL, April. Photo by James K. Adams.