The identity of Eudamus valeriana Plötz (Lepidoptera, Hesperiidae, Pyrginae) 1

Olaf H. H. Mielke ² & Andrew D. Warren ³

ABSTRACT. *Codatractus valeriana* (Plötz, 1881) **comb. nov.** is confirmed as a senior synonym of *Thorybes mysie* Dyar, 1904. A lectotype for *Eudamus valeriana* Plötz is designated. KEY WORDS. Nearctic, Neotropical, taxonomy, type specimen.

RESUMO. *Codatractus valeriana* (Plötz, 1881) **comb. nov.** é confirmado como sinônimo senior de *Thorybes mysie* Dyar, 1904. Um lectótipo para *Eudamus valeriana* Plötz é designado. PALAVRAS CHAVE. Neártico, Neotropical, taxonomia, exemplar tipo.

The examination of type specimens of various Hesperiidae in European museums by the senior author has resulted in many recent changes in the synonymies of the Neotropical and Nearctic species (MIELKE & CASAGRANDE 2002). This note concerns identity of *Eudamus valeriana* Plötz, 1881; its syntype specimen was examined by the senior author in 1979 at the "Museum für Naturkunde der Humboldt Universität" in Berlin, Germany.

The true identity of Eudamus valeriana has been confused in recent decades. Being a species reported from the United States of America, it has been mentioned in many Nearctic publications, even though its identity has been uncertain (see Burns 1996 for a review). Evans (1952) treated Thorybes mysie Dyar, 1904 as a synonym of T. valeriana, and this arrangement was generally followed (Miller 1970, MacNeill 1975, Miller & Brown 1981, Scott, 1981, 1986) until Burns (1996) reviewed the "cyda group" of Codatractus, and concluded that T. mysie was a species of Codatractus, and that it was not conspecific with E. valeriana. Burns' conclusion that mysie and valeriana are not conspecific was based on differences in the structure of the antennal club and apiculus, as well as of the wing pattern, shown by the lectotype of T. mysie and an unpublished painting supposedly of the type of E. valeriana. Since 1996, Codatractus mysie has been recognized as part of the fauna of the United States of America, and E. valeriana has been excluded from the Nearctic fauna (OPLER & WARREN 2002). However, the true identity of valeriana was not revealed by Burns (1996), and the taxon has therefore remained in *Thorybes* until now (MIELKE, in press).

Burns' (1996) conclusions were based on an unpublished color painting (subsequently published by Burns 2001), supposedly of the type specimen of *E. valeriana*, housed at "The Natural History Museum" in London, England. However, Burns

(1996) did not mention the existing syntype specimen of *E. valeriana* in Berlin, and apparently, all efforts he may have made to locate the syntype specimen were unsuccessful. Once the syntype specimen of *E. valeriana* is known to exist, the conclusions made by Burns (1996, 2001) based on a color painting supposedly of the type, are irrelevant.

The syntype of *Eudamus valeriana* (Figs 1, 2) is clearly conspecific with *T. mysie* (see illustrations of lectotype of *T. mysie* in Burns 1996: 208). The two taxa share the same details of antennal structure (note that the club of the left antenna of the syntype of *E. valeriana* is broken), and agree in all details of wing markings. The painting of *E. valeriana* in the "The Natural History Museum", London (a copy of Plötz's original unpublished figures), examined by Burns (1996, 2001) is clearly a very poor and inaccurate reproduction, if it is even of the syntype of *valeriana*. With the true identity of *Eudamus valeriana* revealed, based on the examination of a syntype specimen, the following synonymy is proposed.

Codatractus valeriana (Plötz, 1881), comb. nov.

Eudamus valeriana Plötz, 1881. Stett. ent. Ztg. 43: 99; number 5050, Mexico; Mus. Berol.

Thorybes mysie Dyar, 1904. **Jour. N. Y. Ent. Soc. 12**: 40; 2 males, numbers 7,737, Patagonia Mountains, Arizona, [USA], E. J. Oslar *leg.*, USNM.; **confirmed synonymy**.

Codatractus mysie; Burns, 1996. Jour. Lep. Soc. 50: 197, 198, 199, 203, 210, figs 52, 53 (genitalia male), 59, 60 (genitalia male), 66, 67 (genitalia male), 73 (genitalia female), 79, 80 (male dorsal, ventral), 93 (geographical distribution); Lectotype male, USNM.

¹ Contribution number 1482 of the Departamento de Zoologia, Universidade Federal do Paraná.

² Laboratório de Estudos de Lepidoptera Neotropical, Departamento de Zoologia, Universidade Federal do Paraná. Caixa Postal 19020, 81531-980 Curitiba, Paraná, Brasil. E-mail: omhesp@ufpr.br

³ Department of Zoology, Oregon State University. Corvallis, Oregon, 97331, USA. E-mail: warrena@science.oregonstate.edu



Figs 1-2. Codatractus valeriana, dorsal (1) and ventral (2) (lectotype of Eudamus valeriana Plötz, 1881); approximately natural size.

PLÖTZ (1881) did not state explicitly in his original description of *C. valeriana* that he was basing that name on a unique specimen ("Mus. Berol n. 5050" might be interpreted as meaning a series of specimens in the Berlin Museum); therefore the "type" in Berlin should be regarded as a syntype. This syntype of *Eudamus valeriana* Plötz, 1881 has the following labels: /5050/Typus/ Mexico Friedr./ *valeriana* Pl. type/; there is no abdomen. To preserve stability of nomenclature, this specimen is here designated **Lectotype**, and an appropriate label will be added.

ACKNOWLEDGMENTS

We thank Dr. Hans-Joachim Hannemann, curator (in 1979) of Lepidoptera at the "Museum für Naturkunde der Humboldt Universität" Berlin, Germany, for the permission to study the museum's skipper collection. The senior author thanks CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico) for providing a research fellowship. The junior author thanks the United States National Science Foundation (Doctoral Dissertation Improvement Grant), which provided funds to travel to Brazil in February and March of 2004. We also thank Dr. Gerardo Lamas, Museo de Historia Natural, Lima, Peru, and Dr. Albino M. Sakakibara, Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Brazil, for reviewing this paper and providing valuable suggestions.

REFERENCES

Burns, J.M. 1996. Genitalia and the proper genus: *Codatractus* gets *mysie* and *uvydixa*- in a compact *cyda* group- as well as a *hyster*ectomy, while *Cephise* gets part of *Polythrix* (Hesperiidae: Pyrginae). **Journal of the Lepidopterists' Society**, Los Angeles, **50** (3): 173-216.

Received in 03.II.2003; accepted in 31.V.2004.

- ------. 2001. Valeriana skipper: how its scientific name changed from *Thorybes valeriana* to *Codatractus mysie*. **American Butterflies**, Morristown, **9** (1): 36-37.
- Dyar, H.G. 1904. New species of N. American Lepidoptera and a new Limacodid larva. Journal of the New York Entomological Society, New York, 12: 39-44.
- EVANS, W.H. 1952. A Catalogue of the American Hesperiidae indicating the classification and nomenclature adopted in the British Museum (Natural History). Part II. Pyrginae. Section I. London, British Museum (Natural History), V+178 p.
- MacNeill, C.D. 1975. Hesperiidae, p. 423-578. *In*: W.H. Howe (Ed.). **The Butterflies of North America**. Garden City, Doubleday Inc., XIII+633p.
- MIELKE, O.H.H. (in press). Hesperiidae. *In*: G. LAMAS (Ed.). Checklist: Part 4A. Hesperioidea Papilionoidea. *In*: J.B. Heppner, (Ed.). **Atlas of Neotropical Lepidoptera**. Scientific Publishers, Gainesville, Florida.
- MIELKE, O.H.H. & M.M. CASAGRANDE. 2002. Notas taxonômicas em Hesperiidae neotropicais, com descrições de novos taxa (Lepidoptera). **Revista Brasilera de Zoologia**, Curitiba, **19** (Supl. 1): 27-76.
- MILLER, L.D. 1970. Reports on the Margaret M. Cary Carnegie Museum expedition to Baja California, Mexico, 1961. 7. The family Hesperiidae (Lepidoptera). **Annals of Carnegie Museum**, Pittsburgh, **41** (5): 169-200.
- Miller, L.D. & F.M. Brown. 1981. A Catalogue/Checklist of the Butterflies of America North of Mexico. Memoirs of the Lepidopterists' Society, Sarasota, 2: I-VII+ 1-280.
- OPLER, P.A. & A.D. WARREN. 2002. Butterflies of North America.
 2. Scientific Names List for Butterfly Species of North America, north of Mexico. Fort Collins, Contributions of the C.P. Gillette Museum of Arthropod Diversity, Colorado State University, 79p.
- PLÖTZ, C. 1881. Die Hesperiinen-Gattung *Eudamus* und ihre Arten. **Stettiner entomologische Zeitung**, Stettin, **42**(1881): 500-504; **43** (1882, but published in 1881): 87-101.
- Scott, J.A. 1981. Hibernal diapause of North American Papilionoidea and Hesperioidea. Journal of Research on the Lepidoptera, Santa Barbara, 18: 171-200.
- ------. 1986. The Butterflies of North America. A Natural History and Field Guide. Stanford University Press, Stanford, XV+583p.