

Correspondence



https://doi.org/10.11646/zootaxa.5027.2.10

http://zoobank.org/urn:lsid:zoobank.org:pub:9DC5BC5C-62EB-4167-AF7D-227FDE9E1C12

The identity of *Hesperia curtius* Fabricius, 1793 and its synonymization with *Nisoniades mimas* (Cramer, 1775) (Lepidoptera: Hesperiidae: Pyrginae)

RICARDO RUSSO SIEWERT^{1,3}, JOSÉ RICARDO ASSMANN LEMES^{1,4}, GERARDO LAMAS², MIRNA MARTINS CASAGRANDE^{1,5} & OLAF HERMANN HENDRIK MIELKE^{1,6}

¹Laboratório de Estudos de Lepidoptera Neotropical, Departamento de Zoologia, Universidade Federal do Paraná, P.O. Box 19.020, ZIP Code 81.531-980, Curitiba, Paraná, Brazil.

²Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Apartado 14-0434, Lima, Peru.

- **■** glamasm@unmsm.edu.pe; **□** https://orcid.org/0000-0002-3664-6730
- ³ ricardo.siewert@gmail.com; https://orcid.org/0000-0001-6212-1746
- ⁴ iralemes@gmail.com; https://orcid.org/0000-0003-1107-7903
- ⁵ mibras@ufpr.br; https://orcid.org/0000-0003-3655-4606
- ⁶ omhesp@ufpr.br; https://orcid.org/0000-0002-6076-8463

Hesperia curtius Fabricius, 1793 was described based on the illustrations included by Jones in his unpublished "Icones" (1785–1787, Icones 6[5], pl. 70) (Fig. 1). Fabricius (1793) erroneously stated that the specimen was in the Jones collection, but Jones indicated that it was from the Drury collection, and did not mention any locality for H. curtius. Latreille ([1824]: 756) considered H. curtius as a variation of Hesperia virbius Cramer, 1777 and, later, Butler ([1870]: 286) treated it as a species of Achlyodes Hübner, [1819], indicating that there were no specimens of this species in the Natural History Museum, London, United Kingdom (NHMUK). It is worth mentioning that Scudder (1889: 1768) synonymized "Papilio curtius Abb[ot]." with Lerema accius (Smith, 1797) based on the notation written in a drawing made by John Abbot. However, this notation was not written by Abbot, but by John Francillon, and apparently is in reference to H. curtius (Calhoun 2019: 242). Furthermore, Evans (1953: 26) synonymized H. curtius with Telemiades vespasius (Fabricius, 1793) (actually, a misidentification of T. nicomedes (Möschler, 1879)), but the specimen illustrated by Jones clearly does not correspond to any species of Telemiades (Siewert et al. 2020: 70).

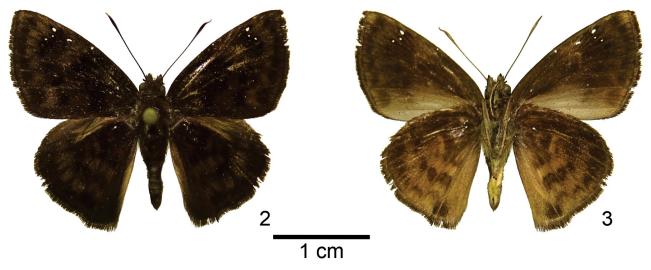
Here, *Hesperia curtius* Fabricius, 1793 is proposed as a junior synonym of *Nisoniades mimas* (Cramer, 1775) (Figs 2–8) due to the morphological similarities between the latter and the male illustrated by Jones (Icones 6[5], pl. 70). The specimen illustrated has the ground color dark brown, with three forewing apical hyaline spots, and apparently one hyaline spot in CuA₁–CuA₂ and, as in most cases concerning Jones' *Icones*, no type specimens have been identified matching Jones' illustrations (Vane-Wright 2021; O. Karsholt, pers. comm.). *Papilio mimas* Cramer, 1775 presents a similar case, as it was described based on an unspecified number of specimens from Surinam but there are no specimens that could correspond to this species at Naturalis Biodiversity Center, Leiden, Netherlands (NBC), where most of Cramer's extant type material is housed (de Jong 2005).

It is not to be doubted that Jones' *Icones* is of remarkable importance for many reasons, but there might have been some cases in which Jones' illustrations were perhaps enhanced from a damaged specimen, as apparently happened with *Papilio homerus* Fabricius, 1793 (Papilionidae), *Heteronympha merope* (Fabricius, 1793) (Nymphalidae) and *Urania leilus* (Linnaeus, 1758) (Uraniidae) (Vane-Wright 2021: 36). This could also be the case of *Hesperia curtius*, in which no Neotropical or extra-Neotropical specimen does fully match the illustration, which lead us to suspect that the presence of the hyaline spot in forewing cell CuA₁–CuA, may be due to an accidental damage.

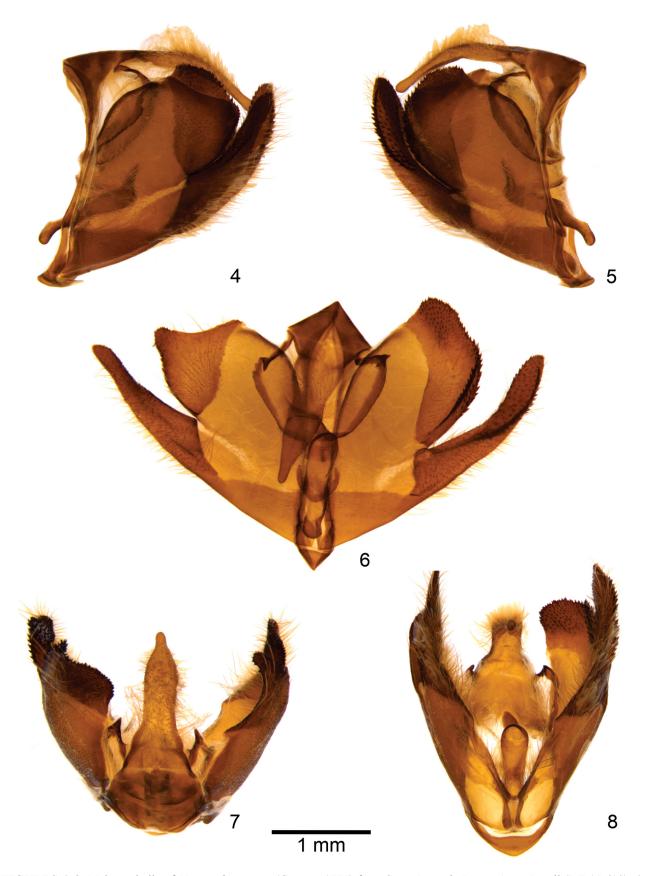
Thus, a male neotype for both *Papilio mimas* and *Hesperia curtius* is designated herein, aiming to establish the taxonomic identity of these names. The chosen neotype specimen for *P. mimas* (Figs 2–3) has the same morphological pattern of the specimen illustrated in its original description and the same genitalic characteristics (Figs 4–8) as the male illustrated by Evans (1953). The same specimen is chosen as the neotype for *H. curtius*, which has the same morphological characteristics of the male illustrated by Jones (Icones 6, pl. 70) (except for the hyaline spot in CuA₁–CuA₂), and is deposited in the Coleção Entomológica Padre Jesus Santiago Moure, Universidade Federal do Paraná, Curitiba, Paraná, Brazil, with the following labels: / Neotypus/ 10-VIII-2008 5,8 Km SW Santa Rosa do Purus, Acre [Brazil], Mielke & Carneiro *leg.*/ Neotypus *Papilio mimas* Cramer 1775 Siewert, Lemes, Lamas, Mielke & Casagrande det. 2021/ Neotypus *Hesperia curtius* Fabricius, 1793 Siewert, Lemes, Lamas, Mielke & Casagrande det. 2021/ DZ 44.661/.



FIGURE 1. Illustration of [*Hesperia*] *curtius* in the unpublished Jones' *Icones* 1785–1787? (volume V). The translation of the notation is: wings entirely and uniformly black, the anterior ones with four white spots, the posterior ones immaculate. ©Oxford University Museum of Natural History.



FIGURES 2–3. Neotype male of *Papilio mimas* Cramer, 1775 and *Hesperia curtius* Fabricius, 1793 (DZ 44.661), dorsal and ventral views.



FIGURES 4–8. Male genitalia of *Nisoniades mimas* (Cramer, 1775) from Santa Rosa do Purus, Acre, Brazil (DZ 15.610). 4. Left lateral view of tegumen, saccus, uncus, gnathos, aedeagus, and valva. 5. Right lateral view of tegumen, saccus, uncus, gnathos, aedeagus, and valva. 6. Internal view of tegumen, saccus, uncus, gnathos, aedeagus, and valva. 7. Dorsal view of tegumen, saccus, uncus, gnathos, aedeagus, and valva. 8. Ventral view of tegumen, saccus, uncus, gnathos, aedeagus, and valva.

Besides *H. curtius*, the following names have also been placed in the synonymy of *Nisoniades mimas* (Evans, 1953: 49), and a taxonomic revision of the genus is highly desirable in order to establish their taxonomic statuses: *Papilio bromius* Stoll, 1787, *Achlyodes orsus* Mabille, 1889, *Pellicia inca* Lindsey, 1925, *Pellicia potera* Williams & Bell, 1939, and *Pellicia pollardi* Williams & Bell, 1940.

Acknowledgements

We would like to thank Michael Braby from the Australian National University, and Ole Karsholt from the Natural History Museum of Denmark, for the valuable discussions and suggestions. We thank Danielle Czerkaszyn from Oxford University Museum of Natural History for permission and facilities to access the requested plates from Jones' *Icones*. We also thank the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) and Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) for the following research fellowships: R.R.S. (CNPq—150360/2017-7), J.R.A.L. (CAPES—88882.382399/2019-01), O.H.H.M. (CNPq –304849/2019-7) and M.M.C. (CNPq—302084/2017-7).

References

- Butler, A.G. ([1870]) Catalogue of diurnal Lepidoptera described by Fabricius in the collection of the British Museum. Taylor and Francis, London, v + 303 pp., 3 pls.
- Calhoun, J.V. (2019) From oak woods and swamps: the butterflies recorded in Georgia by John Abbot (1751–c.1840) based on his drawings and specimens. *Journal of the Lepidopterists' Society*, 73 (4), 211–256. https://doi.org/10.18473/lepi.73i4.a8
- de Jong, R. (2005) *Metamorpha sulpitia* (Lepidoptera, Nymphalidae) en de lotgevallen van oude collecties. *Entomologische Berichten*, 65 (4), 124–127.
- Evans, W.H. (1953) A catalogue of the American Hesperiidae indicating the classification and nomenclature adopted in the British Museum (Natural History). Part III. Pyrginae. Section 2. British Museum, London, 246 pp.
- Fabricius, J.C. (1793) Entomologia systematica emendata et aucta. Secundum classes, ordines, genera, species adjectis synonimis, locis, observationibus, descriptionibus. 3 (1). Christian Gottlieb Proft, Fil. et Soc., Hafniae, [vi] + 488 pp. https://doi.org/10.5962/bhl.title.125869
- Jones, W. (1745–1818) *William Jones Collection [Jones' Icones]*. Unpublished manuscript, Hope Entomological Collection, Oxford University Museum of Natural History, Oxford, 20 pp.
- Latreille, P.A. ([1824]) s.n. *In*: Latreille, P.A. & Godart, J.B., *Encyclopédie Méthodique. Histoire naturelle. Entomologie, ou histoire naturelle des crustacés, des arachnides et des insectes. 9 (2).* veuve Agasse, Paris, pp. 711–793.
- Scudder, S.H. (1889) s.n. *In: The butterflies of the Eastern United States and Canada with special reference to New England. Vol. 2.* Author, Cambridge, pp. i–xii + 767–1774. https://doi.org/10.5962/bhl.title.40437
- Siewert, R.R., Mielke, O.H.H. & Casagrande, M.M. (2020) Taxonomic revision of the Neotropical genus *Telemiades* Hübner, [1819] (Lepidoptera: Hesperiidae: Eudaminae), with descriptions of fourteen new species. *Zootaxa*, 4721 (1), 1–111. https://doi.org/10.11646/zootaxa.4721.1.1
- Vane-Wright, R.I. (2021) Comment (Case 3767)—Support for the conservation of prevailing usage of the specific name *Papilio phoebus* Fabricius, 1793 (currently *Parnassius phoebus*), and that of *Doritis ariadne* Lederer, 1853 (currently *Parnassius ariadne*), by designation of a neotype. *Bulletin of Zoological Nomenclature*, 78, 36–37. https://doi.org/10.21805/bzn.v78.a010