

***Morpho egyptus* Deyrolle, 1860, the forgotten name of the largest South American butterfly (Lepidoptera, Nymphalidae)**

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Abstract. – The name *Morpho egyptus* Deyrolle, 1860, is shown to be a senior subjective synonym of *Morpho cisseis* Felder & Felder, 1860, but the former does not take precedence over the latter because *M. egyptus* is hereby declared a *nomen oblitum*.

Résumé. – *Morpho egyptus* Deyrolle, 1860, le nom oublié du plus grand Papillon d'Amérique du Sud (Lepidoptera, Nymphalidae). En 1860, le jeune naturaliste Émile Deyrolle décrivait, dans les *Annales de la Société entomologique de France*, cinq nouvelles espèces du genre *Morpho* Fabricius, 1807, dont *Morpho Egyptus*, d'après deux mâles que Jean-Baptiste Boisduval avait nommés *Ægyptus* dans sa collection. En août 1860, Cajetan Felder et Rudolf Felder créaient le nom *Morpho cisseis* pour la même espèce. Le nom donné par Deyrolle a été considéré comme un synonyme plus récent de *cisseis*, la date précise de sa publication étant restée ignorée. En réalité, la publication de Deyrolle est parue le 13 juin 1860, et *Morpho egyptus* a donc priorité sur *Morpho cisseis*. Cependant, le premier n'a pas été utilisé comme nom valide depuis 1899, tandis que l'utilisation du second satisfait aux conditions de l'Article 23.9 du Code International de la Nomenclature Zoologique. En application de cet article, *Morpho egyptus* Deyrolle, 1860, est déclaré *nomen oblitum*. Un mâle et une femelle syntypes de *Morpho cisseis* Felder & Felder, 1860, sont conservés au Natural History Museum (Londres). La femelle correspondant à la figure illustrant la description originale est désignée comme lectotype.

Keywords. – *Morpho*, nomenclature, lectotype designation, history, Neotropical Region.

At a meeting held in the *Société entomologique de France*, in Paris, on 23 November 1859, the young French naturalist Émile Deyrolle [1838-1917] read a “descriptive note” concerning five [*sic!*] new species of the Neotropical butterfly genus *Morpho* Fabricius, 1807 (DEYROLLE, 1860a), referred to as “*M. Eugenia* Boisd., *Ægyptus* Boisd., *Amathonte* Deyr., et *Theseus* Boisd.” Shortly afterwards, Deyrolle’s “descriptive note” was published as a complete article (DEYROLLE, 1860b), this time including full descriptions for five new taxa, namely *Morpho Eugenia* Boisduval, *Morpho Hebe* Boisduval, *Morpho Egyptus* Boisduval, *Morpho Amathonte*, and *Morpho Theseus* Boisduval. This was apparently Deyrolle’s first entomological article, the next one having been published in 1867, and then many others afterwards (DERKSEN & SCHEIDING, 1963).

DEYROLLE (1860b) indicates explicitly that he received permission to describe and publish the new species of *Morpho* which the famous French entomologist Jean-Baptiste Boisduval [1799-1879] had in his own collection, and to which the latter had applied manuscript names. Deyrolle duly proceeded to do so, and utilized four Boisduval’s manuscript names (*eugenia*, *hebe*, *egyptus* and *theseus*), besides introducing a fifth name of his own (*amathonte*). Of those five names, three (*eugenia*, *theseus* and *amathonte*) are today attributed to Deyrolle and currently accepted as valid for three separate species (BLANDIN, 2007). The name *hebe* was not mentioned in DEYROLLE’S (1860a) initial communication, but Deyrolle included a description of that taxon in his full article (DEYROLLE, 1860b), although indicating that the name had already been published (and briefly described) by WESTWOOD (1851), who also had examined the specimens deposited in Boisduval’s collection. Therefore, the correct authorship and date for *Morpho hebe* are “Westwood, 1851”; this name is currently regarded as a junior subjective synonym of *Morpho portis* (Hübner, [1821]) (LAMAS, 2004; BLANDIN, 2007).

MORPHO EGYPTUS

The last species treated by Deyrolle was initially spelled *Ægyptus* but afterwards changed to *Egyptus*. Since the name *Ægyptus* was not accompanied by a description, it is unavailable as a *nomen nudum*, and the correct original spelling to be used is *egyptus*. *Morpho egyptus* Deyrolle, 1860, is currently regarded as a junior subjective synonym of *Morpho cisseis* Felder & Felder, 1860 (LAMAS, 2004; BLANDIN, 2007; NEILD 2008), and has been treated as such almost universally ever since BATES (1865) established that synonymy. Only HEWITSON (1869) was of the opinion that *egyptus* Deyrolle had priority over *cisseis* Felder & Felder, whereas KIRBY (1871) expressed doubts about the relative priority of both names (“*Au [sic] nom. vetust. rest.?*”)

Both myself (LAMAS, 2004) and BLANDIN (2007) followed customary usage, giving priority to *Morpho cisseis* Felder & Felder over *Morpho egyptus* Deyrolle, because it was known at that time that the Felders’ name had been published in August 1860 (as stated in the original publication), whereas no precise date of publication was found for Deyrolle’s work, and thus Article 21.3 of the *International Code of Zoological Nomenclature* (ICZN, 1999) was followed, to assign the date [31] August 1860 to *cisseis*, and [31 December] 1860 to *egyptus*. However, I recently discovered that Part 1 of Volume 8 (Third Series) of the *Annales de la Société entomologique de France*, where Deyrolle’s article appeared, had been published on 13 June 1860, as stated explicitly on page CXXXIV of the *Bulletin bibliographique* of the same Volume 8 of the *Annales* (ANONYMOUS, 1861). This means that Deyrolle’s publication has clear precedence over that of the Felders, and Article 23 of the *Code* (ICZN, 1999) mandates that *Morpho egyptus* Deyrolle should prevail, as senior synonym, over *Morpho cisseis* Felder & Felder. However, application of this *Principle of Priority* can be moderated under conditions specified in Article 23.9 of the *Code*, namely: a) that the senior synonym (in this case, *egyptus*) has not been used as a valid name after 1899, and b) that the junior synonym (*cisseis*) has been used for a particular taxon, as its presumed valid name, in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than ten years.

Both conditions are met in the present case, as an exhaustive bibliographic search has not provided a single instance of the use of *egyptus* as a valid name after 1899, whereas *cisseis* has been used repeatedly, either as a valid species or subspecies, during the immediately preceding half-century, as specified in the list of 31 references provided herein as an Appendix.

DISCUSSION

In a sense, it is to be regretted that this magnificent Amazonian butterfly which, with its sister species *Morpho hecuba* (Linnaeus, 1771) (CASSILDÉ *et al.*, 2010, 2012; PENZ *et al.*, 2012), shares the distinction of being the largest butterfly found in South America (some females reaching a wingspan surpassing 180 mm), will not bear the earliest name given to it, coined by the old savant Boisduval, and formalized by the young naturalist Deyrolle in his first publication. Also, the classical name *Ægyptus* is most appropriate for a butterfly species, since it honors the Greek mythological son of Belus (king of Egypt) and twin-brother of Danaus, while the equally appropriate, but lesser-known character, Cisseis (or Cisseus) was a Thracian king who, according to some accounts, was the father of Hecuba (SEYFFERT, 1995).

DEYROLLE (1860b) described *Morpho egyptus* based on two individuals (in all probability, males) in Boisduval’s collection, coming from “...l’Amazone” (they may have been collected originally by the celebrated English naturalist Henry Walter Bates [1825-1892]). Boisduval’s collection was eventually obtained by Charles Oberthür [1845-1924], and large parts of Oberthür’s Lepidoptera collections were later purchased by the Natural History Museum

in London (BMNH), in 1926. However, most of the *Morpho* specimens in Oberthür's collection had been acquired previously by collectors Robert Biedermann [1869-1954], Max Dingler [1883-1961], and John Levick [?-ca. 1941] (RILEY, 1927a, b). Unfortunately, none of the two syntypes of *egyptus* has been found in the BMNH (which also holds Levick's collection), either by NEILD (2008) or myself, and they may be held in the *Eidgenössische Technische Hochschule* in Zürich, Switzerland (which institution houses Biedermann's collection), or wherever Dingler's collection ended up.

On the other hand, two syntypes (one female and one male) of *Morpho cisseis* Felder & Felder are deposited in the BMNH (NEILD, 2008). The female syntype corresponds very well to the original illustration provided by FELDER & FELDER (1860), and is designated herein as the LECTOTYPE (**present designation**) of *Morpho cisseis*, in order to fix the identity of the name and provide a unique name-bearing type. This female bears five labels: 1) "FELDER / COLL^N"; 2) "Villa / nova / Bates"; 3) "Aegyptus Boisd."; 4) "SYN- / TYPE"; and 5) "Morpho cisseis / C. & R. Felder, 1860 / SYNTYPE ♀ / Det. A. Neild / 2003." By this action, the male syntype in the BMNH becomes a paralectotype of the name. Color images of both the lectotype and paralectotype are available in WARREN *et al.* (2014). The type locality ("Villa Nova") is today known as Parintins, and is located in Amazonas state, Brazil (2°38'S - 56°44'W).

CONCLUSION

Given the evidence provided above and in the Appendix, and following Article 23.9.2 of the Code (ICZN, 1999), I hereby state that *Morpho cisseis* Felder & Felder, 1860, is a valid name (a ***nomen protectum***), and its senior subjective synonym, *Morpho egyptus* Deyrolle, 1860, becomes a forgotten name (a ***nomen oblitum***).

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APPENDIX

List of 31 works using the name *Morpho cisseis* as valid

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