

# SCIENTIFIC NOTE: RECENT RECORDS OF *MORPHO MENELAUS EBERTI* FISCHER (LEPIDOPTERA: NYMPHALIDAE), AN ENDANGERED BUTTERFLY IN NORTHEAST BRAZIL

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The Atlantic Forest is a highly endangered ecosystem which harbors a large proportion of the threatened species of animals and plants in Brazil (Machado et al. 2008, Martinelli & Moraes 2013). In butterflies, in particular, 47 out of the 55 threatened Brazilian species are Atlantic Forest endemics (Machado et al. 2008, Freitas & Marini-Filho 2011), and although this fact is arguably the result of a greater knowledge of this ecosystem, it is also a consequence of five centuries of occupation and the resultant conversion of almost 90% of the Atlantic Forest (Brown & Brown 1992, Ribeiro et al. 2009). The situation is even more critical in the Pernambuco Center of Endemism (*sensu* Brown 1977), comprising the coastal forest to the north of São Francisco River, where less than 12% of the Atlantic forest still persists and what remains is highly fragmented (Ribeiro et al. 2009). This portion of the Atlantic Forest is home to several threatened taxa of plants and animals, including three butterflies, namely *Scada karschina delicata* Talbot 1932, *Morpho epistrophus nikolajewna* Weber, 1951, and *Morpho menelaus eberti* Fischer, 1962 (Machado et al. 2008, Freitas & Brown 2008a,b,c).

The bright blue *M. menelaus eberti* (Fig. 1), once common in the humid forests of the Pernambuco Center of Endemism (Kesselring pers. com.) in altitudes from 0-600 m in the states of Pernambuco and Paraíba (there are two individuals from Bahia, but their identity as *M. menelaus eberti* remains to be confirmed) (Blandin 2007 and pers. comm.), is now rare and localized (Fig. 2). Several sites where the subspecies has been recorded in the past are now converted to anthropic habitats, and the taxon has been classified as “endangered” due to habitat loss (Machado et al. 2008, Freitas & Brown Jr 2008a, Freitas & Marini-Filho 2011). For example, the species is no longer present in the municipality of São Lourenço da Mata, its type locality in Pernambuco (AVLF pers. obs., Carlos Eduardo Nobre pers. comm.), as well as in several other places where it has been recorded in the past, that are now completely disturbed or deforested.

The butterfly had not been recorded for almost two decades until being sighted at the private reserve “Reserva Particular do Patrimônio Natural Frei Caneca”, in Jaqueira, Pernambuco (8°43'37.92”S, 35°50'22.74”W), on February 2004 (AVLF pers. obs.) and on February 2006 (Olaf H. H. Mielke pers. comm.), then a new locality for the species which was recently noted by Freitas & Marini-Filho (2011). Recently, the species has also been recorded in Coimbra Forest (8°59'53”S, 35°50'29”W), a 3,500 ha forest fragment which is part of the “Usina Serra Grande”, in the municipalities of Ibataguara and São José da Lage, in the state of Alagoas (Fig. 1). This forest fragment is the largest and best preserved remnant of Atlantic Forest in the Pernambuco Center of Endemism (Santos et al. 2008). Two individuals were captured in this site: one male, captured with entomological net on February 7, 2012 along a trail in the forest interior (Fig. 1), and one female, attracted by a trap baited with a mixture of banana and sugar cane juice and captured at the forest edge, December 13, 2012 (Fig. 1). Both specimens are deposited at the Museu de Zoologia, Unicamp, Campinas, São Paulo, Brazil. In addition to the two above individuals, numerous additional males of *M. menelaus eberti* were observed flying at the edge and interior of Coimbra Forest, with some encounters in three other nearby smaller fragments (DHAM and BKCF pers. obs.).

This new locality record is very important not only for adding information about the area of occurrence of this subspecies, but also because this is the first record of *M. menelaus eberti* in the state of Alagoas. The discovery of new localities for threatened butterfly taxa is among the actions scheduled by the ‘National action plan for conservation of Brazilian Lepidoptera threatened with extinction’ (a recent document containing revised and updated information on Brazilian endangered species; Freitas & Marini-Filho 2011), and this was a specific action cited for *M. menelaus eberti*. This information is extremely valuable not only for the conservation of this taxon in particular, but also to plan the future of the remaining Atlantic Forest in the entire Pernambuco Center of Endemism.

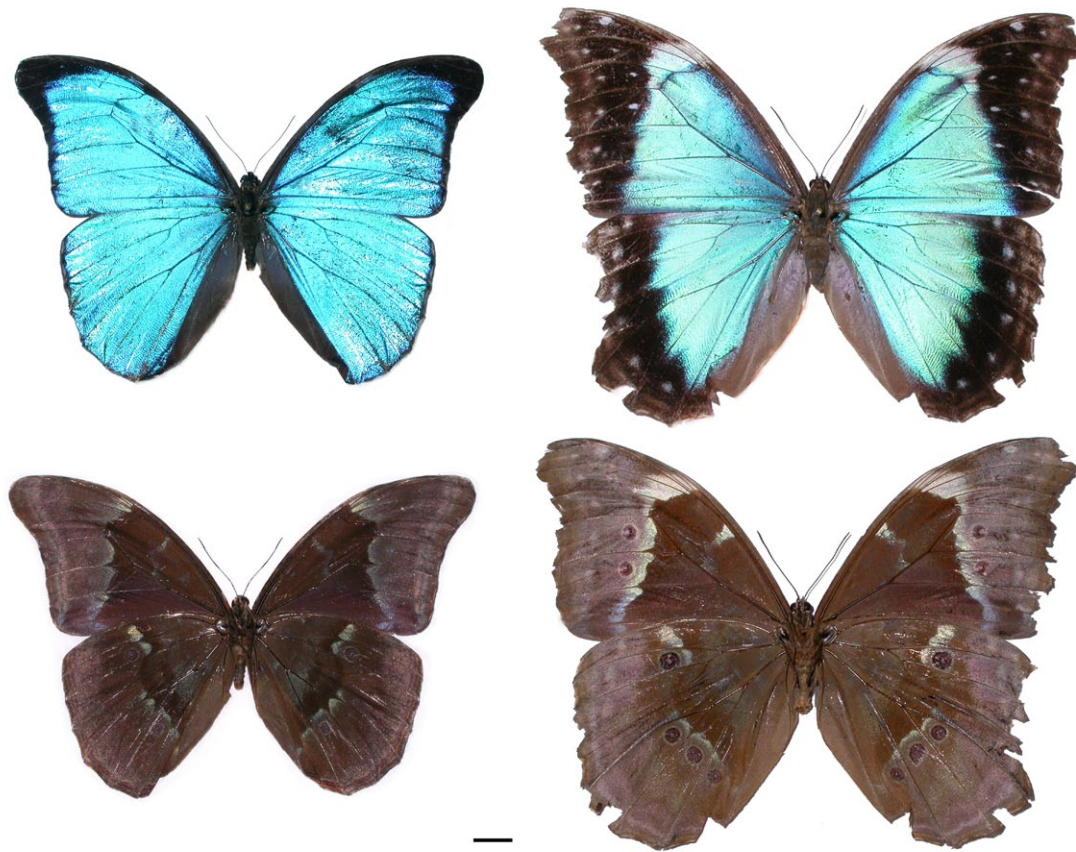


Figure 1. Male (left) and female (right) of *Morpho menelaus eberti* from “Usina Serra Grande”, Alagoas, Brazil (dorsal above, ventral below). Scale bar = 1 cm.

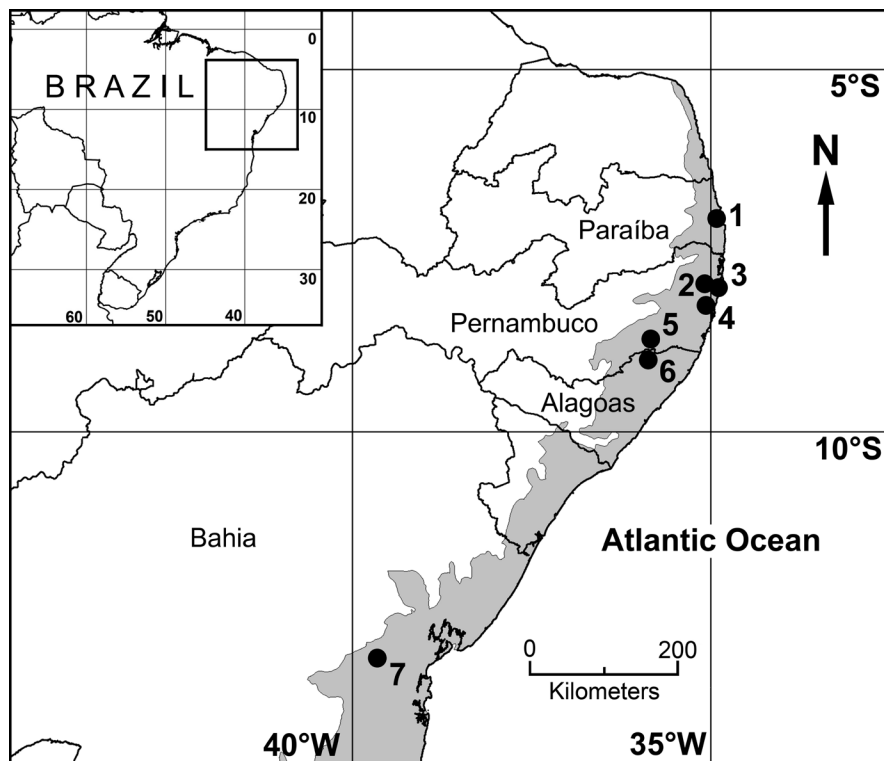


Figure 2. Distribution map for *Morpho menelaus eberti* in the Atlantic Forest of Northeast Brazil (the grey area): 1. Gargau Forest, Santa Rita, Paraíba; 2. São Lourenço da Mata, Pernambuco; 3. Chapéu de Sol, Recife, Pernambuco; 4. Gurjaú Reserve, Cabo de Santo Agostinho, Pernambuco; 5. Usina Frei Caneca, Jaqueira, Pernambuco; 6. Usina Serra Grande, São José da Lage, Pernambuco; 7. Timbó Forest, Amargosa, Bahia.

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