
**IOLAUS (ETESIOLAUS) KYABOBO - A NEW BUTTERFLY FROM GHANA (LEPIDOPTERA; LYCAENIDAE)**

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**Introduction**

In late January, 1996 I was asked by the Kyabobo Conservation Project to visit the proposed Kyabobo Range National Park in the northern part of Ghana's Volta Region (nearest township Nkwanta, park centre at 08.25N 00.35E). The purpose was to assess the butterfly fauna in relation to the mosaic nature of the vegetation and to make the beginnings of a full list of butterflies in the area, to be continued by the project.

The Park is composed of a series of parallel rocky ridges with more level ground around the edges. Most of the vegetation consists of typical Guinea-savannah, while level ground often has open woodland. However, the numerous ravines often contain a more or less continuous belt of the northernmost outposts of dry semi-deciduous forest (HALL & SWAINE 1976, 1981), the driest of the rainforest types in West Africa. The visit was in the middle of the long dry season and very little was flying in the savannah and open woodland formations. The forested ravines, on the other hand, were very rich in butterflies, and 250 species were noted during a visit of only four days.

Among the butterflies collected was a beautiful blue-green *Iolaus* which could not be identified from my working manuscript on West African butterflies. It was evidently related to, but not identical with, *Iolaus (Etesiolaus) catori* Bethune-Baker, 1904. On arrival in London, it was immediately clear that the conclusion drawn in the field was correct, and the new species is hereby described:

**Iolaus (Etesiolaus) kyabobo** sp. nov.

**Male upperside:** Forewing: 16-18 mm. The ground-colour is the same vivid, iridescent green as *I. catori*, changing in tone depending on the angle of view. The black markings on all four wings are much more extensive than in *I. catori* (and in *I. pinheyi* Kielland, 1986 from the Usambara Mountains in Tanzania, the only other member of the subgenus). The green colour is limited to the cell, the base of spaces 3 and 4, and the basal half of space 2; space 1b is green except for a 2 mm margin, which in space 1a extends along the inner margin as a triangular projection. The dark apical area in *E. catori* is much smaller, there being no black margin at all in spaces 1b and 1a. The inner margin is much less strongly lobed. The hindwing costa is broadly dark brown, including half the cell and the area above vein 6. The androconial patch is uniformly
dark brown. There is a narrow (0.4 mm), but well-defined, dark margin. Tornal spots, black or red, are entirely missing. The abdominal fold is grey.

**Male underside:** The ground-colour is the usual white of the genus. The forewing is unmarked, except for a hint of brown marginal shading in the apical area. The androconial brushes are black. The hindwing, too, is almost unmarked. There are traces of a submarginal line from the abdominal fold to space 3. The two usual red tornal eye-spots are very small. The one in the anal angle is the largest, being orange with a few blue scales; between this spot and the margin is a small black spot with brilliant green scales. The underside is similar to that of *I. catori*.

**Male genitalia:** The genitalia (fig. 2) are of the highly specialized *Etesiolaus* type, characterized by a huge tegumen, the complete lack of sub-unci, and the lower fultura being carried on a short stalk (STEMPFFER 1967). However, all structures are very different in shape. The penis is much longer than *I. catori*. Two sets of genitalia studied are identical.

**Female:** A single female in poor condition was collected in the same locality. The ground-colour is fairly light blue (similar to the female *I. catori* figured by D’ABRERA (1980)), but there is no trace of a lighter discal area. The disposition of the dark markings is as in the male, except that the forewing margin is somewhat wider. Only a third of the cell is dark brown. The underside is exactly like that of the male. There can be little doubt that this is the true female.

**Holotype:** male, Ghana, Volta Region, Kyabobo National Park (Shiare), 22-25 January, 1996 (T. B. LARSEN leg).

**Paratypes:** two males, one female, same data. The type material will be placed in the Natural History Museum, London, except for a male paratype retained in coll. T. B. LARSEN.

**Discussion**

The discovery of a new *Etesiolaus* in Volta Region, and one that can be distinguished at a glance, is most interesting. *I. catori* is widely distributed throughout the forest region, while *I. pinheyi* - the only other member of the subgenus - is limited to the Usambara Mountains in Tanzania.

The Volta Region (or rather the mountainous terrain that straddles the Ghana/Togo border) has a very rich butterfly fauna. Thanks to the indefatigable efforts of the late Father Theodore MAESSEN, 600 species are known from the area, despite the absence of wetter rainforest formations. There are a dozen apparently endemic species (e.g. *Papilio maesseni* Berger, 1974, *Telipna maesseni* Stempffer, 1970, *Iolaus (Argiolaus) sp. nov.*, *Bicyclus maesseni* Condamin, 1970, *Junonia hadrope* Doubleday, 1847, *Fresna maesseni* Miller, 1971); there are many species from Nigeria, Cameroon, and the equatorial zone that cross the Dahomey Gap to the Volta Region, but which do not cross the Volta River into the rest of West Africa proper (e.g. *Deudorix dinochares* Grose-Smith, 1887, *Euphaedra ruspina* Hewitson, 1865). There are also species which seem to be remnants of periods when rainfall in the Volta Region was higher than it is to-day (*Papilio antimachus* Drury, 1782 being perhaps the best example).

This complexity is due to climatic fluctuations spanning millions of years, which at times have isolated the West African forest zone from the main equatorial forest zone. The mountainous areas of the Volta Region have on several occasions been islands of
forest in a seas of savannah, sometimes stretching from the Niger River to Côte d'Ivoire. This is when the endemic species evolved. The few remaining forests in the Volta/Togo mountains contain a snapshot of biogeographical dynamics that are still poorly understood. The Kyabobo National Park will be a great contribution to conservation efforts in the area, for which future generations will be grateful. It is a great pleasure for me to dedicate the beautiful *Iolaus kyabobo* to the National Park.

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**References:**


Fig 1. *Iolaus (Etesiolaus) kyabobo* sp. nov. Male holotype upperside (left), female upperside (right); the uns is so featureless that it is not figured.

Fig. 2 Male genitalia of *Iolaus (Etesiolaus) kyabobo* sp. nov. (right) compared with those of *I. catori* (left). Top: one of the two lobes of the symmetrical uncus. Bottom: one of the two symmetrical valves and the penis.