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## A NEW *IOLAUS* FROM THE SHABA PROVINCE OF ZAIRE (LEPIDOPTERA; LYCAENIDAE)

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### Introduction

Some years ago, COLLINS received from the late Vincent ALLARD a pair of *Iolaus* from the Shaba Province of Zaïre. The pair carries a note that they had once been determined by R. H. CARCASSON as *Iolaus aelianus* Staudinger, 1891. Given that the male has a small white discal patch, most unusual among the *Iolophilus*, this did not seem a satisfactory conclusion. We decided to study the male genitalia which proved to be very different from that species, and indeed from any other described *Iolaus*. Though only a single pair is on hand, the genitalia are so characteristic that we have no hesitation in describing it as a new species.

### *Iolaus shaba* sp. nov.

The general appearance and appendages are like that of the *Iolophilus*-section of the genus. The frons is white.

**Male upperside:** Forewing 19 mm. The male ground-colour is blue, not very brilliant, with a blueish-white discal patch covering the lower extremity of the cell and the basal half of spaces 3 and 4. The costa is dark brown to the end of the cell. There is a medium-sized apical and marginal dark patch, the inner edge of which follows the end of the cell and then vein 4. About 4 mm from the margin, it continues as a 4 mm wide margin to vein 2, then tapers to almost the margin at vein 1, before projecting slightly along the inner margin to form a small tooth. The male hindwing is blue with the following dark brown markings: The costa above vein 7 is brown, but a modest, defined dark apical patch includes part of space 6. The margin is finely black. There are three black anal spots, only that on the lobe crowned with red. The androconial patch is small, dark brown with a warmer brown centre.

**Male underside:** The forewing underside is white with no defined markings, but with faint darker shading along the apical margin. The androconial hair-pencil is russet in colour. The hindwing, too, is almost unmarked, being reduced to the finest of black postdiscal streaks in spaces 1a to 2 and two minute tornal spots; again, only that on the anal lobe is crowned with red. It is one of the least marked undersides in the genus.

**Male genitalia:** The male genitalia differ from all other described species. The shape of the uncus and the sub-unci is not remarkable, but the shape of the massive vinculum is, being extended to two massive lobes before recurving to form a more narrow saccus. Furthermore the vinculum has two pointed lobes midway, of the type usually associated with the *Argiolaus*-section of the genus (it is interesting to note that these structure are

also present in *Iolaphilus maritimus* Stempffer & Bennett, 1958, though the vinculum is much narrower). The fultura inferiora is massive and complex, fully enveloping the penis, which is proportionately much longer than in any other species of the genus. Finally, the valves are unremarkable, but different in shape from those of any other species known to us (preparation SCC 275).

**Female upperside:** The dark markings of the female upperside are almost exactly like in the male, though slightly wider in the discal area, so that its inner edge does not quite run parallel to the margin in between veins 2 and 4. The rest of the forewing is pure white, except that the basal fourth of the cell is blue, as is the base of space 1b, the lower third of space 1b, and all of 1a, to the dark margin. The dividing line between white and blue is fairly precise. The discal veins appear to have been black, but there are very few scales remaining. The hindwing costa is white. The base of space 6 is blue, the remainder brown. The abdominal fold is light greyish-brown, the rest of the wing a light sky-blue, lighter than the male. There are three small tornal spots, only that of the tornal lobe crowned with red.

**Female underside:** The female underside is also very lightly marked, but the forewing has a faint orange-brown submarginal line, beginning in the middle of space 1b, the distance to the margin widening towards the costa. There is faint dark apical suffusion as in the male. The hindwing has a minute tornal spot in space 2 and a larger one on the anal lobe, only the latter distinctly crowned with red. There is a diffuse orange submarginal line, parallel to the margin. The black postdiscal striae are slightly more developed than in the male and continue into space 3.

**Holotype male:** Musononu, Congo, Katanga (Zaire, Shaba), 9 Sep. 1963 (V. Allard leg.) (to be deposited in the Natural History Museum, London).

**Paratype:** One female, same data.

## Discussion

The morphological similarities and the fact that the male and the female were captured on the same day make it practically certain that the holotype and the paratype pertain to the same species. The sexual dimorphism is exactly what one would expect in the *Iolaphilus*-section.

The male genitalia are so distinctive that we have no reservations against describing the species on the basis of a single pair. The long penis alone would be sufficient to identify a male from the genitalia alone. The species does not seem closely related to any other that we know.

Shaba lies in the transition zone between the miombo woodlands of Zambia, Angola, and Zaire, and the equatorial forests. This area remains poorly explored for butterflies and further research will turn up additional interesting new species.

## Acknowledgements

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## Captions

Fig. 1 Male (top) and female (bottom) of *Iolaus shaba*.

Fig. 2 The male genitalia of the holotype of *Iolaus shaba*.