

A NEW SUBSPECIES OF PAPILIO PHORCAS Cramer
(LEPIDOPTERA, PAPILIONIDAE)

By

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Papilio phorcas Cramer is a swallowtail butterfly widely spread throughout the forested areas of tropical Africa, from the western coast (Sierra Leone) to East Africa, excluding Ethiopia and the countries south of the Zambezi.

In the male, the ground colour of the wings is always black on the upperside and the markings are green; two types of the female are known, i.e.: a) the typical one, male-like, and b) the dimorphic form thersander F., dark brown with a yellow discal band and a complete series of yellow submarginal spots, on the upperside of the wings. Of these two forms, the male-like type occurs chiefly in West Africa, while the dimorphic female (thersander or the corresponding eastern forms) predominates from the Congo eastwards and southwards. Indeed, in the Congo the two types are known to occur together, but the male-like female is exceedingly rare.

The two sexes are tailed at vein 4 of hw., the tail being always more or less lobed, never straight and narrow.

Apart from the typical race, which ranges from Sierra Leone to Nigeria, several subspecies of this butterfly have been described, namely:

congoanus Rothschild 1896: Cameroons and Congo (dry-season form xera Storace 1955: Katanga)
niloticus Storace 1961: eastern Kivu, western and central Uganda.
ruscoei Krüger 1928: eastern Uganda and western Kenya.
ansorgei Rothschild 1898: Kenya highlands east of the Rift.
nyikanus Rothschild & Jordan 1903: Tanganyika.

Rather recently, Mr. R.H. Carcasson, the well known East African lepidopterist, Director of the Coryndon Museum, Nairobi, Kenya, has kindly submitted to me 2 ♂♂ and 1 male-like ♀ of this species from Nagichot, Didinga, S.E. Sudan, plus 1 ♂ from Moroto, Karamoja, eastern Uganda.

The comparison of these specimens to short series of the neighbouring races, leaves no doubt that the population of phorcas from Nagichot belongs to a new subspecies, still undescribed and unnamed.

PAPILIO PHORCAS Cramer, SUDANICOLA, ssp. nov.

Diagnosis: intermediate between the western phorcas and the eastern ansorgei; tails rather long and slender, thus approaching the western type; the green discal band on the upperside of the fw., rather narrow posteriorly and more or less strongly denticulated distad, except in

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areas 1-a and 1-b; lacks the spot in interspace 5, as in ansorgei from the Kenya highlands. The single ♀ available is male-like.

Male (Holotype)

Measurements: wing-span, 78 mm.; forewing, base to apex, 46 mm. The upperside of the wings is distinctly black, as usual in this species, with all the green markings of a tone warmer than in ansorgei, congoanus, nilotica and typical phorcas. The green discal band runs from vein M2 to the posterior margin of the fw. (no green spot, therefore, in area 5, as in ansorgei) and is rather strongly denticulated distad, except in areas 1-a and 1-b; this band is rather narrower, even posteriorly than in the other western and eastern subspecies. An approach to this condition may be seen in nilotica. On the hw., the discal band is clearly produced distad in area 1-c. Unlike ansorgei and typical phorcas, there is a single dot in area 3, just outside the discocellular space (i.e., round vein DC, distally) of hw, which shows an almost complete series of greenish submarginal spots, shaded over with brown scales.

Female (Allotype)

Measurements: wing-span, 84 mm.; forewing, base to apex, 48 mm. Male-like; differs from the Holotype as usual, in having lighter colours; upperside distinctly brownish, while the green markings are of a paler tone. The discal band, broader than in Holotype, is rather pale; no green discal spot in area 5 of the fw. An almost complete series of submarginal whitish spots, shaded over with brown scales, on all wings. Tails shorter than in the ♂, otherwise of western type.

Variation

The Paratype is quite smaller than the Holotype (measurements: wing-span, 74 mm.); forewing, base to apex, 42 mm. The discal band on the fw. even more denticulated distad than in the Holotype. Tails shorter than in the Holotype, otherwise rather western.

Holotype - ♂ - Nagichot (Didinga, S.E. Sudan), Sept. 3, J. P. Woodall;
Allotype - ♀ - Nagichot (Didinga, S.E. Sudan), Sept. 3, J.P. Woodall;
Paratype - ♂ - Nagichot (Didinga, S.E. Sudan), Sept. 3. J.P. Woodall.

Holotype and Allotype to be deposited in British Museum (Natural History)
Paratype to be deposited in Coryndon Museum, Nairobi.

The single ♂ from Moroto (Karamoja in Uganda, eastern Province), Oct. 1952, B. Verdcourt leg., agrees rather well with the two males from Nagichot, but its tails are of eastern type (measurements: wing-span, 79 mm.; forewing, base to apex, 47 mm.).

The late Prof. G.D. Hale Carpenter, who worked rather extensively on the diurnal Lepidoptera from S.E. Sudan, did not quote this species from that area; in his paper of 1938 (see: Trans. R. ent. Soc. London, 87 : 217-232) he listed specimens of swallowtails from several localities, even from Nagichot, but none of Papilio phorcas.

Mr. Carcasson sent also two ♀♀ of this species collected at Kabogo Head, on the eastern shore of Lake Tanganyika, by the Kyoto University Primate Research Expedition (1).

These ♂♂ do not seem to agree with those of the known eastern races, but the material is inadequate to decide whether they belong to a new geographical entity, still undescribed and un-named. One ♂ shows the discal band on the upperside of fw. broader than usual posteriorly; it is also clearly transitional to the individual form casphor Suffert described from Tabora in Tanganyika (see: D.E.Z. Iris XVII, 1904, p. 27). In the Museum of Milan, I have seen one ♂ transitional to casphor from Gabon, on the West African coast.

According to Carcasson, in litt., the two ♂♂ from Lake Tanganyika appear to agree very well with specimens of congoanus Roths. from the Cameroons, while race nyikanus Rothschild & Jordan appears to be confined to the highlands of eastern Tanganyika and of Nyasaland.

My three specimens of congoanus from the Cameroons are very large and quite different, but I cannot exclude the occurrence, in that country, for instance in the Mandara area, of forms approaching those from Kabogo Head.

The two males from Lake Tanganyika do not agree with specimens of congoanus from the southern Congo (Katanga), nor with its dry form xera Storace, with the type of which they have been confused.

(1) For the locality of Kabogo Head, see:
Carcasson, R.H. - 1964 - New Butterflies from the Kigoma area of Western Tanganyika - J.E.Afr.Nat.Hist.Soc. XXIV, No. 4 (108): 62-67.

(Received 29th June 1964)