A REVISION OF THE SUBSPECIES AND FORMS OF CHARAXES CITHAERON FELDER AND CHARAXES XIPHARES (CRAMER)

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(With 1 Text-figure and 4 Plates)

INTRODUCTION

The two species under discussion have been originally described from South Africa, but have a rather wide distribution northwards, the former mainly along the eastern coastal area of the African Continent as far as Kenya, the latter being also represented in Central and West Africa. The two species present, however, striking differences in their distribution which coincides only exceptionally where the food-plants of their larvae are found together or in very close proximity, for instance, in Pondoland (Port St Johns), Eshowe (Natal), the Chirinda Forest (S. Rhodesia) and the Nairobi district in Kenya. Generally speaking, however, the typical habitats of the two species are quite independent: while C. cithaeron prefers tropical low-country forests, C. xiphares is mainly found in cool evergreen forests of mountain ranges which only occasionally approach the domains of cithaeron. As these cool forests are often separated by greater or lesser gaps of drier low country, it is not surprising that many populations of C. xiphares have come to be reproductionally isolated from each other and thus enabled to form a number of distinct subspecies.

On the contrary, C. cithaeron enjoys a continuous distribution from Pondoland in the Eastern Cape Province to the coastal area of Kenya, and has apparently produced only two subspecies, one of which is described in this paper. The form kennethi Poulton, described from the coastal area of Kenya as a subspecies, is only a broad-banded variety of the nominal typical form, occurring together with the latter as far south as Natal, the type locality of cithaeron.

The form griseus Schultze, from Manow, Nyasaland, described as an aberration of cithaeron, may perhaps represent another subspecies, but in the absence of material of this form it is safer to postpone making any definite statements, except that brevicaudatus Schultze, also from Manow, was originally described as a subspecies of cithaeron, whereas it is undoubtedly a subspecies of xiphares. The position of C. maudei J. & T. from Tanganyika, is also very doubtful: the unique female type shows on the underside some features of xiphares (white area outside the discal streaks), but the excessively long tails and the strong shifting inward of discal streaks in area M₂ of hindwing underside are characters of cithaeron and militate against it being regarded as a synonym of brevicaudatus, the female of which has short tails. The type locality of maudei, stated to be Lindi, is
likewise open to serious doubt, because no race of *C. xiphares* has been found to occur on the coast anywhere north of Pondoland, the whole coastal area from Natal northwards being occupied by *C. cithaeron cithaeron*. It is therefore highly probable that *maudei* was captured in some mountainous area inland, and not at Lindi itself, and that its male, presumably long-tailed, is still to be discovered. The antenna-wing ratios of the males of *xiphares* and *cithaeron* are sufficiently distinct to be of use in identifications, but the females show no difference in this respect. I prefer therefore to regard *maudei* as an inland subspecies of *cithaeron*, somewhat similar to the subspecies *nairobicus* described in this paper. I am much indebted to Dr V. G. L. van Someren, Mr T. H. E. Jackson and Mr E. C. G. Pinhey for having supplied most important material from Kenya, Tanganyika and Uganda, without which the present revision would have been impossible to undertake.

**Charaxes cithaeron** Felder


**Charaxes cithaeron cithaeron** Felder (Pls. XVIII–XIX, figs. 1, 3, 2, ♀) *C. cithaeron kennethi* Poulton, 1926, *Verh. 3rd Int. Ent. Congr.* 11, 539 (Kenya); *id.*, van Someren & Rogers, 1929, *J. E. Afr. Ug. Nat. Hist. Soc.* 33–34, 17, pl. LXXXIII.

The nominotypical subspecies occurs over the whole eastern coastal area of Africa, from Pondoland (Port St Johns) to Kenya. The width of the white discal band of forewing upperside of the female varies in width from 9 to 13 mm. in area Cu₁. Although the more common form in Natal is rather narrow-banded, several specimens from Durban, Pietermaritzburg and Beira in the Transvaal Museum collection have the band 13 mm. wide, thus considerably wider than in the female *kennethi* illustrated by van Someren and Rogers.

The hindwing light area varies likewise from 9·5 mm. wide in the narrow-banded females to 14·5 mm. in the broad-banded ones, both measurements being taken in area M₉. Therefore, the name *kennethi* Poulton cannot be retained as a subspecific name, and should be used only as a varietal name applied to the broad-banded female form of *C. cithaeron cithaeron*. The males appear to be less subject to variation, the light area of the hindwing varying only between 10 and 12·5 mm. in area M₉. A female of the form *kennethi*, from Pietermaritzburg, Natal, is illustrated (Pl. XVIII, fig. 3).

*Antenna-wing ratio: 0·49 (♂), 0·40 (♀♀)*

**Charaxes cithaeron nairobicus** n.subsp. (Pls. XVIII–XIX, fig. 4, holotype ♂; fig. 5, allotype ♀) *C. cithaeron cithaeron* van Someren & Rogers, 1929, loc. cit, p. 12, pl. LXXXII (nec Felder).

**Diagnosis.** Differs from *C. cithaeron cithaeron* Felder in both sexes on upperside by the distinctly more incurved post-discal series of spots in the forewing, by the comparatively larger light area of hindwing, and by the shorter tails, and in the female by the distinctly separated, proximally rounded spots of the white discal band of forewing. Antenna-wing ratio considerably lower in the male, but higher in the female, than in *c. cithaeron*.

*Holotype ♂, allotype ♀ and 2 paratypes, ♂ and ♀, Nairobi, Kenya, Sept. 1937 (Dr V. G. L. van Someren) are in the Transvaal Museum collection; 3 ♂♂,
3 ♂ paratypes, same locality and date, are in Dr van Someren's collection; and a ♀ paratype (Nairobi, Oct. 1937), (T. H. E. Jackson), is in Mr Jackson's collection.

Description of holotype ♂

Upperside: ground-colour and markings of forewing as in c. cithaeron, but discal spot in $M_2$ much more elongate, post-discal spots much larger than in c. cithaeron and those in areas $M_3$ and $Cu_2$ placed more basad, the series being therefore more incurved than in c. cithaeron.

Hindwing with the light area more extensive than in c. cithaeron, more violet in colour, and diffuse along its outer margin; submarginal spots in the posterior half of the wing larger than in c. cithaeron, those in the anal area fused together. Marginal spots much broader than in c. cithaeron, and tails shorter and broader basally, especially those at the end of vein $Cu_2$.

Underside: as in c. cithaeron, but the post-discal series of yellowish spots more incurred in area $Cu_1$, the discal streak in area $RS$ excurved (strongly angled inwards in c. cithaeron), the white edging of the discal streaks thinner than in c. cithaeron, the post-discal row of lunules paler and further removed from the discal streaks at the anal margin.

Length of forewing: 46 mm. Antenna-wing ratio: 0.46.

Description of allotype ♀

Upperside: ground-colour and markings as in c. cithaeron, with the following differences:

Forewing: post-discal series placed more basad, is more incurred below vein $M_2$, and is completely fused with the discal spots below vein $Cu_1$; discal spots separated by dark suffusion with ground colour along the veins, except in the proximal half of area $A_2$, and are distinctly more rounded along their inner sides than in c. cithaeron. The white suffusion along costa is much less extensive, but is produced distally a little farther than in c. cithaeron.

Hindwing: light discal area distinctly wider costally than in c. cithaeron, and the marginal spots are transversely elongate. Tails broader and shorter than in c. cithaeron, those at the end of vein $Cu_2$ being only about half the length of those in c. cithaeron.

Underside: as in c. cithaeron, but post-discal series of forewing more incurred as on upperside, and the discal streak in $RS$ of hindwing excurved in the lower half; the white edging of the discal streaks is very much thinner than in c. cithaeron, and is obsolete below middle of area $Cu_2$.

Length of forewing: 51 mm. Antenna-wing ratio: 0.41.

Remarks. This subspecies, as seen from the synonymy, has been described and figured by van Someren and Rogers, who unfortunately mistook it for the nominotypical form. They point out interesting differences in the early stages and food-plants compared with the nominotypical cithaeron (which they give as subspecies kennethi Poulton). It is very probable that the late Sir Edward Poulton, when describing kennethi, was misled by some narrow-banded females from Durban which made him believe that the wide-banded Kenya coastal form represented a distinct subspecies, whereas the really distinct Nairobi subspecies escaped his attention.

Charaxes cithaeron maudei (J. & T.) (Text-fig. 1)


As explained in the introduction, there is very strong reason to assume that maudei is a subspecies of cithaeron, and that the type was actually taken in some
inland mountain range, as Lindi itself is on the coast which is populated by *C. cithaeron cithaeron*.

The problem can only be solved definitely by the discovery of the real habitat and the obtaining of further material of both sexes.

It is, however, reasonably certain that *maudei* cannot be regarded as a synonym of *C. xiphares brevicaudatus*, the female of which has very short tails.

Text-fig. 1. *Charaxes cithaeron maudei* (J. & T.), holotype female: a, upperside, b, underside (slightly enlarged).

**Charaxes xiphares** (Cr.)

Cramer, 1781, *Pap. Exot.* iv, 171, pl. CCCLXXVII, A, B, ♀<br>

The species was originally described from a single female, said to have been taken by Mr William Paterson about 400 miles from the Cape of Good Hope. The male, described by Stoll as *Papilio thyestes*, was stated to have been captured by Le Vaillant in Caffraria.

If the information given by Cramer is correct, we must assume that the nominotypical *xiphares* was taken considerably farther east than Knysna. Rothschild (1929) assumed that two subspecies of *xiphares* existed in the Cape Province, of which the western one he considered to be nominotypical (distribution: Knysna and forests westward of Knysna), and an eastern one (from Knysna eastwards) which he described as subsp. *reducta*, but he also stated that apparently specimens of the typical *x. xiphares* were found in areas inhabited by *x. reducta,*
and intermediate specimens occurred in the intervening areas. He even said that typical *x. xiphares* could be found in Natal.

An examination of a fairly extensive material from the coastal area of the southern and western Cape Province disclosed the fact that there existed two main variants of *x. xiphares*, but that Knysna could not be regarded as the eastern boundary of the nomino-typical subspecies, or the western boundary of his *x. reducta*. Indeed, there are no geographical barriers sufficiently great to ensure reproductive isolation in any population of *xiphares* from as far west as the forests of the Swellendam district to as far east as Van Stadens, near Port Elizabeth. Therefore we can rightly consider the whole of the specimens taken between these two points as belonging to a single subspecies, *xiphares xiphares* which shows a gradual trend to vary somewhat from west to east in certain details, which may well be ascribed to climatic causes: while the more western localities are situated in the area of constant rainfall, the eastern ones are already in the summer rainfall area.

**Charaxes xiphares xiphares** Cr. (Pls. XVIII–XIX, fig. 8, δ, fig. 9, ♂)

Cramer’s figure very closely agrees with the form found at the eastern end of the distributional area of *x. xiphares* (moderately broad and outwardly slightly crenulate hindwing yellow area in the female), while the males found in that particular area have the marginal lines of the hindwing yellowish mixed with blue and not pure blue as in the more western specimens; therefore, Rothschild’s statement that the blue marginal lines were a subspecific feature of *xiphares xiphares* was incorrect, as was his view that *x. xiphares* was distributed from Knysna westwards, whereas the opposite is the case, as far as the nomino-typical form is concerned.

A peculiar feature of *C. xiphares xiphares* is the outward curvature of the inner tail of hindwing in the female. The western form of *x. xiphares* has remained unnamed and is described below.

**Charaxes xiphares xiphares f. occidentalis**, forma nova (Pls. XVIII–XIX, fig. 6, holotype δ, fig. 7, allotype ♂)


**Diagnosis:** differs from f. *xiphares* in smaller size, lighter underside coloration, and particularly in the much wider space between the discalline and post-discal lunules of the anal areas of both wings.

**Holotype:** δ, Grootvadersbosch, Swellendam district, C.P., 1–6 Nov. 1940 (G. van Son).

**Allotype:** ♂, same locality and date.

**Paratypes:** 2 ♂♂, slightly damaged, same locality and date. 2 δ♂, without locality and date, found in the Brauns Collection.

All types are in the Transvaal Museum Collection.

**Description of holotype δ**

**Forewing** with the outer margin strongly concave and not crenulate on the veins.

**Upperside:** deep bluish black with a strong Alizarine Blue (Ridgway XXI) reflexion. Discal spots Cadet Blue, arranged as in *f. xiphares* except that the two upper ones are shorter; in addition, there are two discal spots in area A₂; post-discal series with the upper spot white, the second whitish blue, the remainder Cadet Blue. Marginal spots smaller than in *f. xiphares*, obsolete in the apical area.

**Hindwing** with the discal area pure white and 5 mm. wide in the upper half of the subcostal area, Cadet Blue elsewhere, with both the inner and outer edge straighter than in *f. xiphares*; submarginal spots smaller than in *f. xiphares*; marginal lunules blue.
Underside: much paler than in f. xiphares, with the discal streaks and post-discal lunules separated more widely, and the intervening space whiter.

Length of forewing: 43 mm. Antenna-wing ratio: 0.48.

Description of allotype ♀

Forewing: outer margin almost straight from apex to vein Cu₁, not crenulated on the veins, strongly angled outwards on vein Cu₂.

Upperside: discal spots in area A₂ prominent (rather obsolete in f. xiphares), post-discal spots and marginal dots in areas Cu₂ to M₁ all present (obsolete or absent in x. xiphares); discal yellow suffusion in supra-marginal area small (absent in paratypes; much larger in f. xiphares).

Hindwing: light discal area narrower than in f. xiphares; its outer border is very even (slightly crenulate in f. xiphares).

Underside: ground colour of both wings fuscous (light olivaceous green in f. xiphares).

Forewing: the area bordering discal spots Cu₁–A₂ on inner side much darker than in f. xiphares, and the tornal double black spot and the spot in area Cu₂ much longer than in f. xiphares.

Hindwing: black edging of discal streaks obsolete (prominent in f. xiphares), and the intervening space between discal and post-discal streaks lighter and much wider in the anal area; submarginal spots less prominent than in f. xiphares.

Length of forewing: 49.5 mm. Antenna-wing ratio: 0.41.

Charaxes xiphares thyestes (Stoll) (Pls. XVIII–XIX, fig. 10, ♂, fig. 11, ♀)

Charaxes xiphares reducta Rothschild, 1929, Tr. Ent. Soc. Lond. lxxvii, 481.
(W. Pondoland.)


The male illustrated by Stoll was stated to have been taken in Caffraria and the figure shows at least some features suggesting that this statement was true (strongly crenulated margin of forewing and prominent submarginal spots of hindwing underside); there are, however, some obvious inaccuracies, such as the longer inner tails and the absence of the black submarginal spot in area Cu₂ of forewing underside, and it is very probable that the marginal lines of the hindwing upperside were not so blue in the original. However, taking into consideration the itinerary of Le Vaillant, it is most probable that his specimen was not captured within the range of xiphares xiphares, but came from somewhere to the east of Bruintjes Hoogte, in the present Somerset East district.

The present subspecies is variable in the exact size and shape of the discal area of the hindwing upperside of both sexes, but differs from x. xiphares in the following points.

Male: tornal double black spot on forewing underside fused for the greater part (almost or wholly separated into two spots in x. xiphares), costal part of the discal band of hindwing not white, at most slightly tinged with whitish and is more or less separated into two spots; marginal spots of hindwing above larger and rounder than in x. xiphares.

Female: post-discal spots of forewing upperside reduced or obsolete from area M₂ to A₂, and discal spots in A₂ absent or very weak. Hindwing discal area comparatively larger, and in some specimens shows a tendency to become white.

Antenna-wing ratio: 0.46 (♂), 0.40 (♀).

Distribution: in all forests of the Eastern Cape Province, including Pondoland: Zuurberg, Hogsback, Katberg, Somerset East, Pirie Forest, Port St Johns.
The geographical barrier separating *x. xiphares* from *x. thyestes* is the wide stretch of dry karroid country between their nearest habitats, namely the coastal forests of Van Stadens Pass and the Zuurberg mountains.

**Note.** I have been informed by Mr G. C. Clark, of Port Elizabeth, that a female form with a white or whitish light area of the hindwing occurs in this subspecies, but it must be exceedingly rare, as I have seen no specimens of it among the material at hand.

**Charaxes xiphares penningtoni** n.subsp. (Pls. XVIII–XIX, fig. 12, holotype ♂, fig. 13, allotype ♀)

**Diagnosis:** differs from *x. thyestes* and *x. draconis* in the discal spot *M*₂ of forewing upperside of the male being longer than the spot in *M*₃, and in the female by the much reduced yellow area of hindwing upperside; and in both sexes by the much darker colour of the underside.

**Holotype:** ♂, Champagne Castle, Natal, Mar. 1951 (F. Pardoe).

**Allotype:** ♀, same locality and date.

**Paratypes:** 3♂♂, 3♀♀, same locality and date; ♂, Balgowan, 21 Feb. 1937 (K. M. Pennington); ♀, Balgowan, 16 Feb. 1947 (D. R. Currie); ♂, 1 Mar. 1936 (D. R. Currie); ♀, Balgowan, 21 Feb. 1937 (K. M. Pennington).

All the types are in the Transvaal Museum collection.

**Description of holotype ♂**

Apex of forewing and the angle of outer margin at end of vein *Cu*₂ more rounded than in the two foregoing subspecies, and tails of hindwing shorter, though longer than in the following subspecies.

**Upperside, forewing:** discal spot *M*₂ distinctly longer than *M*₃ (being produced basad).

**Hindwing:** blue discal area broader and much more even than in either *x. xiphares*, *x. thyestes* or *x. draconis*; its outer edge straight between *RS* and *M*₂, and also between *M*₂ and *Cu*₂; hairs between *Cu*₂ and anal fold much darker than in all other subspecies. Submarginal blue spots rounder than in other subspecies. Marginal lunules blue as in extreme western specimens of *x. xiphares* (in some paratypes they are more or less suffused with orange-yellow).

**Underside:** general colour much darker than in other subspecies, especially the space between the median and discal streaks of both wings.

**Length of forewing:** 45 mm. **Antenna-wing ratio:** 0.47.

**Description of allotype ♀**

**Upperside:** discal spots below vein *Cu*₂ reduced to a minute white dot placed below the outer edge of the discal spot in *Cu*₂ (in some paratypes this dot is absent); marginal spots limited to area *A*₂.

**Hindwing:** light discal area much smaller than in other subspecies, its outer edge diffuse, but not crenulate; it is suffused with black near its posterior angle along vein *Cu*₂; submarginal spots streak-like. Tails shorter and broader than in *x. thyestes*.

**Underside, forewing:** area between median streaks and white discal band and the space between the latter and post-discal series strongly suffused with dark fuscous-black; black portion of all transverse streaks very heavy.

**Hindwing:** ground colour very dark throughout, especially from base to as far as the discal band; outer edging of post-discal lunules very much thickened and deep black.

**Length of forewing:** 51.5 mm. **Antenna-wing ratio:** 0.39.

**Distribution.** This striking subspecies appears to occur in all higher forests of Natal.
The Transvaal Museum has specimens from the following localities: Cham­pagne Castle, Bulwer, Balgowan, Eshowe and Rietvlei.

Variability. There appears to be very little variation except in the size of the blue discal spots of forewing and in the colour of the marginal lunules of hind­wing in the male. The females are very constant as far as the pattern and colour of the underside are concerned, and show two distinct colour forms of the discal area of hindwing upperside.

While the usual female form is yellow-banded, there is also a white-banded form which is rarer than the former and is described below.

Charaxes xiphares penningtoni ♂, f. luminosa forma nova (Pls. XVIII– XIX, fig. 14)

Holotype: Balgowan, 22 Feb. 1926 (K. M. Pennington).
Paratype: Champagne Castle, Mar. 1951 (F. Pardoe).
The types are in the Transvaal Museum collection.

Description
Like the type form, from which it differs in the hindwing discal light area being white with a distinct lavender-blue gloss, irrorated along its outer edge with violet-blue scales; and in the presence of yellow marginal spots in the forewing, which are, however, very minute in areas C0 and obsolete between M2 and apex (in the paratype the marginal spots are absent except in area A0, as in the type form).

I have much pleasure in dedicating this fine subspecies to my friend Mr K. M. Pennington, of Michaelhouse, Balgowan, Natal.

Charaxes xiphares draconis Jord. (Pls. XVIII–XIX, figs. 15, 16 ♂♂, XX– XXI, fig. 1, ♀)

Type locality: Mariepskop, Lydenburg district, Transvaal.
Distribution: Forests of the Transvaal Drakensberg range from south of Olifants River to the Barberton district.

This subspecies is smaller in the male sex than x. penningtoni, but the females are of about the same size. The males differ from penningtoni-males in the smaller discal spot of area M2 and in the comparatively shorter tails, besides the much lighter, olivaceous ground colour of the underside. The females are characterized by very much enlarged post-discal spots of forewing and the very large light area of the hindwing which is bigger than in all other subspecies. Subterminal spots T-shaped, being extended distad at their middle. The length of the tails is rather variable in both sexes, as can be seen from the two males illustrated, but they are always shorter than in the Cape and Natal subspecies.

Length of forewing: 45 mm. (♂), 53 mm. (♀).
Antenna-wing ratio: 0:48 (♂), 0:40 (♀).
The females have two colour forms which are, however, linked by transitions. The yellow-banded female form, being commoner, is regarded as the typical form, while the white-banded form is described here.

Charaxes xiphares draconis ♀, f. candida, forma nova (Pls. XX–XXI, fig. 2)

Holotype: Mariepskop, 31 Dec. 1925 (G. van Son).
Paratype: same locality, Apr. 1932 (G. van Son).

This form differs from the typical draconis-form in the white colour of the discal area of hindwing upperside which is also comparatively smaller than in the yellow form. The white colour of this area has a violet sheen which is, however,
lighter and more pinkish than in the 9-f. *luminosa* of *x. penningtoni*, from which it also differs in the shape of the subterminal spots which are T-shaped. The tails are conspicuously shorter than in the yellow form, both in the holotype and paratype.

**Charaxes xiphares kenwayi** Poulton (Pls. XX–XXI, fig. 3, δ, fig. 4, ⊙)


*Type locality*: Haenertsburg, Pietersburg district, Transvaal.

*Distribution*: Forests of the Wolkberg range, to the north of Olfants River.

The smallest subspecies of *xiphares*, distinguished by the stronger development of the blue markings in the male, particularly in the supramarginal area of forewing, and the large submarginal spots of the hindwing. In the female, the discal and post-discal spots are well-marked in the supramarginal area, but the discal spot in *M*₁ is much less developed than in both the foregoing or the following subspecies.

*Length of forewing*: 40 mm. (δ), 48 mm. (⊙).

*Antenna-wing ratio*: 0·475 (δ), 0·41 (⊙).

The fact that the discoverer of this subspecies, the late Mr H. C. Kenway, sent to Sir Edward Poulton a series of white-banded females resulted in the white female-form being designated as the nomino-typical one. The yellow form, which in this subspecies predominates as it does also in more southern races, is therefore described below.

**Charaxes xiphares kenwayi**, 9-f. *lutea*, forma nova (Pls. XX–XXI, fig. 5)

Holotype: Woodbush, Pietersburg district, Transvaal, Nov. 1942 (G. van Son).

*Paratype*: same locality and date.

The types are in the Transvaal Museum collection.

*Description*

This form can be distinguished from its southern neighbour, *x. draconis* 9-f. *draconis*, in being much smaller, in the much stronger development of the marginal yellow spots of forewing upperside and the more incurved post-discal series. From its northern neighbour, *x. bavenda*, it is easily distinguished by the much reduced discal spots *M₁–M₃* of forewing and the clearer yellow of the discal area of hindwing which in *bavenda* is strongly suffused with Isabella colour. The yellow area of hindwing is larger than in the white form.

**Charaxes xiphares bavenda** van Son (Pls. XX–XXI, fig. 6, 3)


*Type locality*: Entabeni, Zoutpansberg district, N. Transvaal.

*Distribution*: forests of the Zoutpansberg range.

In this subspecies a tendency to approach the S. Rhodesian subspecies *vumbui* is displayed in the whitish suffusion of the blue area of hindwing upperside in the male, and in the strong development of the discal spots *M₁–M₃* in the female which is polychromatic and displays one form in which the discal and post-discal spots are strongly developed in the supramarginal area of forewing, while the light discal area of hindwing is strongly suffused with deep lavender, therefore resembling the 9 of *vumbui* except for its smaller size.

The following three female forms have been described:

9-f. *bavenda* van Son (pls. XX–XXI, fig. 7); van Son, 1935, loc. cit. p. 488.

The predominant female form in which the discal spots of forewing upperside are white and the light discal area of forewing is yellow densely suffused with Isabella colour.
Charaxes xiphares vumbui van Son (Pls. XX–XXI, fig. 10, ♂, fig. 11, ♀) van Son, 1936, Proc. R. ent. Soc. Lond. B, p. 20, pl. 2, fig. 1.

*Type locality:* Elephant Forest, Vumbu Mountains, Umtali district, Southern Rhodesia.

*Distribution:* forests of the Eastern Border southwards to the Chirinda Forest.

This subspecies is characterized by the distinct violet tinge of the blue markings of the male upperside, and by the very extensive blue area of the hindwing of the male which is broader than in any other subspecies and is suffused with white in its posterior half. The female is monochromatic and agrees with the ♀ *bavenda* in the very strong development of the discal spots of forewing, but is much larger, has very much shorter tails, and the light area of the hindwing upperside is rather narrow, white internally, violet externally.

*Length of forewing:* 44 mm. (♂), 51 mm. (♀).

*Antenna-wing ratio:* 0.44 (♂), 0.40 (♀).

Charaxes xiphares brevicaudatus (A. Schultze) (Pls. XX–XXI, fig. 12, ♂)

*C. cithaeron* var. *brevicaudatus* A. Schultze, 1914, Arch. Naturg. 1913, LXXIX, A 8, 3, pl. 1, fig. (♂).


*Type locality:* Manow, Nyasaland.

*Distribution:* Nyasaland, W. Tanganyika.

The largest subspecies of *xiphares*, nearest to *vumbui*, from which it differs in the intense blue (not violet blue) of the sheen and of the discal markings of both wings of the male upperside; the hindwing blue area is much narrower than in *vumbui*, the black outer portion of the hindwing being almost twice as broad as in that subspecies; the blue discal markings in the supramarginal area are much narrower than in *vumbui* and do not extend to the level of the post-discal spots as in *vumbui*. The antenna-wing ratio is considerably higher than in *vumbui*, and the tails of hindwing are longer. The male from Iringa (Tanganyika), mentioned by Schultze as having been received together with the female, is undoubtedly a *brevicaudatus*-male, characterized by the very short tails.

The female differs from that of *vumbui* in the discal spots in *A₂–Cu₁*, being more separated from each other than in *vumbui*, and in the more uniformly coloured light area of the hindwing.

I have examined three males, of which the largest was taken in April 1932 in the Rungwe mountains, S.W. Tanganyika, by Mr J. G. Williams, a second and smaller one was taken together with it, while a third, also taken by J. G. Williams, came from the Morogoro-Korogwe road, probably near Turiani, and was captured in October 1945.
No females were available to me, and the remarks about the females are based on Schultze’s photograph.

\[ \text{Length of forewing: } 46-50 \text{ mm. (♂), 53 mm. (♀).} \]

\[ \text{Antenna-wing ratio: } 0.47 \text{ (♂), 0.42 (♀).} \]

**Charaxes xiphares burgessi** n.subsp. (Pls. XX-XXI, fig. 13, ♂, fig. 14, ♀)

**Diagnosis.** Differs from *x. brevicaudatus* (A. Schultze) by the greenish sheen of the basal areas of both wings and the lighter blue of the upperside markings of the male, and in the female by the fused discal spots Cu₁-Cu₂ of forewing upperside, as well as in the spot Cu₄ being placed more distad, its inner edge being at one-third from the outer edge of the spots in M₃ (at the middle of that spot in *brevicaudatus*). The tails of both sexes are longer than in *brevicaudatus*.

**Holotype:** ♂, Ruhiza Forest, Kigezi, Uganda, Jan.-Feb. 1952 (Dr V. G. L. van Someren), in the Transvaal Museum collection.

**Allotype:** ♀, Mafuga Forest, Kigezi, Uganda, May 1951 (T. H. E. Jackson) in the Transvaal Museum Collection.

**Paratypes:** ♂, same locality and date as holotype, in Dr V. G. L. van Someren’s collection; 2 ♂♂, same locality and date as allotype, in Mr T. H. E. Jackson’s collection.

**Description of holotype ♂**

**Upperside:** blue black, with a distinct greenish sheen in the basal areas of both wings, merging outwardly into bluish.

**Forewing:** discal and post-discal spots lighter blue than in *brevicaudatus*, the discal spot M₁ distinctly longer than in that subspecies, and there is a very narrow additional spot just above it (indistinct in two paratypes).

**Hindwing:** blue discal area lighter blue than in *brevicaudatus* and straighter outwardly; its costal portion is broader than in *brevicaudatus*; subterminal spot in area RS tinged with white (blue as the rest in *brevicaudatus*).

**Underside:** forewing: discal streak in M₃-M₄ further away from the disco-cellular streak than in *brevicaudatus*; the streak near base of area A₂ much weaker than in *brevicaudatus*.

**Hindwing as in *brevicaudatus*.**

**Tails almost twice as long as in *brevicaudatus*.**

**Length of forewing:** 48 mm. **Antenna-wing ratio:** 0.45.

**Description of allotype ♀**

**Upperside:** forewing: discal spots from costa to vein M₃ completely fused into a band which is prolonged basad along costa; those of area Cu₁ and Cu₂ also fused together, placed more distad and reaching vein Cu₂ (smaller, widely separated and not reaching vein Cu₂ in *brevicaudatus*). Post-discal spots much larger than in *brevicaudatus*. There is a small diffuse light spot near upper margin of cell, at two-thirds from base.

**Hindwing:** light discal area costally broader than in *brevicaudatus*, with an additional spot in area RS connected with the main area by some light suffusion. Marginal spots well developed (obsolete above area A₂ in *brevicaudatus*).

**Underside:** forewing: discal spots arranged as on upperside, those of area A₂ much narrower than in *brevicaudatus*, their black inner edging being placed much closer to the double tornal spots.

**Hindwing as in *brevicaudatus*.** The tails are one-third longer than in *brevicaudatus*.

**Length of forewing:** 52 mm. **Antenna-wing ratio:** 0.42.

**Note.** In one male paratype there is a blue spot near the upper margin of cell of forewing upperside, at about two-thirds from the cell’s base.
Charaxes xiphares nandina (Rothsch. & Jord.). (Pls. XX–XXI, fig. 15, 3, fig. 16, 9).

C. nandina Rothsch. & Jord. 1901, Novit. Zool. VIII, 403, pl. 9, fig. 2 (3).

C. nandina Rothsch. & Jord. 1895, XII, 78 (9).


Type locality: Nandi, Kenya.

Distribution: Nandi; Kikuyo Escarpment; Nairobi, Sotik Forest.

It is with much reluctance that the writer follows the late Sir Edward Poulton in treating nandina as a subspecies of xiphares. Compared with all other subspecies, nandina differs in several important features. The male has the discal and post-discal spots in areas C~–R5 of upperside of forewing white, or only slightly tinged with blue, and in the hindwing the blue discal area is separated from a post-discal series. In the female, the post-discal spots of forewing are placed farther away from the discal spots, and the supramarginal area is almost unmarked, unlike that of the other northern races of xiphares, though it superficially resembles the nomino-typical xiphares female, except for the much longer tails. The tails of both sexes are much longer than in any other known race of xiphares, including the rather long-tailed nomino-typical Cape form.

The food-plant (Craibia sp., Leguminosae) seems also to provide another point of difference from xiphares-forms which breed on Cryptocarya, at least in Southern Africa. However, in the absence of more exact distributional data, the writer must refrain from upsetting the present status of nandina. Should, however, localities be found where it occurs together with either brevicaudatus or burgessi, or with yet another form of xiphares related to these, then its original specific rank should be restored. The comparative study of the early stages would, of course, be the best way to solve this problem.

Antenna-wing ratio: 0.48 (3), 0.40 (9).

Charaxes xiphares wernickei Joycey & Talbot.


Type locality: South Cameroons.

Distribution: Not further known.

The authors did not give an illustration, and therefore the writer is reproducing the original description, for a copy of which he is greatly indebted to Mr H. Stempffer, of Paris.

‘9. Forewing above with white spots as in most specimens of the typical form; spot in 3 with a nick on its outer edge, spot in 2 a little larger than in typical form; no spot on inner margin. Hindwing with the discal patch reduced, white with a violet flush; distal area broader than in typical form, submarginal spots reduced. Underside of hindwing with discal line placed a little farther from the cell, and with slight whitish scaling on the disc. Post-discal line placed farther from the margin.

Hab.: South Cameroons. Described from a single female, ex Coll. Wernicke.’

As the size of the discal spots of the female varies individually in all races of xiphares, the only differentiating feature is the nick on the outer edge of the spot in 3 which the writer was unable to find in any females of all the races of xiphares examined by him. The placing of the post-discal line of hindwing underside ‘farther away from the margin’ is another peculiar feature: among all races examined by the writer, this line is placed farthest away in the nomino-typical xiphares, whereas in all other races its distance from the margin appears to be very constant, even in the case of the otherwise very distinct nandina.

The discovery of the male of wernickei would no doubt throw additional light on the relationship of this form to other xiphares-forms, and is therefore very desirable.