

Observations on and a description of a race of *Thestor basutus** (Wallengren) (Lepidoptera : Lycaenidae)

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Specimens of this butterfly from various localities may show some quite noticeable variation beyond the usual individual variation which occurs — as for instance up-country ones in comparison with those from near the coast of Natal. Female examples from Zeerust in the Transvaal have the whitish markings of the upperside enlarged and very prominent, while the males themselves exhibit some features which distinguish them from males from the Natal coastal belt. Comparatively small differences which have been found in the male genitalia are not sufficiently marked to be of any specific significance. Though known to earlier observers, there does not appear to have been any critical, published reference, to this type of variation in *Thstor basutus*—apart from Trimen's remarks in *South African Butterflies*; II (1887) concerning some Potchefstroom females he had examined. For reasons that are given later, it is concluded that specimens from near the coast of Natal answer, at least closely, to nominate *Th. basutus*. Material from other inland localities besides Zeerust has also been studied. In the meantime, the representative of this butterfly from Zeerust seems sufficiently distinct to be regarded as a separate race—and a description of which is given hereunder.

Thestor basutus capeneri subsp. nov.

Male

The forewing is more pointed than in the male type of nominate *basutus*.

Upperside

All wings marked similarly to those of the type but the dark markings in general, especially in areas 2 and 3 at distal end of sex-patch, though certainly elsewhere also are more pronounced; while the light markings bounding outwardly the dark discal series in the forewing diminish in size or almost disappear towards the innermargin—whereas those in the male type remain relatively large and prominent. Cilia, in all wings, darkened less noticeably at ends of veins than in the type.

Underside

Apparently no constant difference apart from the dark discal series of spots of the forewing being decidedly better developed than in the male type; and the remaining spots, in

**Zeritis* ? *basuta* Wallengren, *Bih. K. svenska VetenskAkad. Handl.*, 1857, *Lep. Rhop. caffr.*, p. 46.

some cases, larger.

Length of forewing: 17·0-19·0 mm (the former measurement, that of holotype).

Female

Upperside.

The dark spotting in all wings, as a whole relatively reduced in size, with a corresponding expansion of the white or whitish areas, taken as an aggregate; and the dark discal series of the hindwing more outwardly placed than in the female type of nominate *basutus*.

Underside

Fairly close to that of female type, especially as regards forewing, in which some of the dark spots are, however, less elongated and extended distally. The hindwing much more irrorated with greyish-brown scaling, lacking the noticeably whitish background present in the female type; and the spots, in which the actual edges are less dark than in the type, not contrasting as clearly with this background.

Length of forewing: 21·25-22·0 mm (the former measurement, that of allotype).

Body and ancilliary parts, in both sexes, as in the types of *basutus*.

♂ Holotype, TRANSVAAL: Lucerne, near Zeerust, 15.XI.1948 (A. L. Capener); in author's collection.

♀ Allotype, TRANSVAAL: data as holotype, 16.XI.1948; in author's collection.

Paratypes in author's collection: data as holotype, 1 ♂, 1 ♀.

Paratype in Coll. Naturhistoriska Riks-Museum, Stockholm, as holotype 1 ♂.

Paratypes in Coll. Transvaal Museum, as holotype 16.XI. 1948, 1 ♂, 15.XI.1948, 1 ♀.

Paratype in Coll. National Museum, Salisbury, Rhodesia, as holotype, 16.XI.1948, 1 ♂.

The male holotype of *Arrugia basuta* Wallengren is very similar on the upperside to Natal males from the Botha's Hill-Drummond-Inchanga area in which the light postmedial markings of the forewing are clearly developed and which have the forewing of a less pointed shape. In these specimens the dark marking at the end of the sex-patch is, however, normally quite prominent. The underside also, although the forewing in particular is very light, resembles that of this taxon. There is, however, less irroration between the markings of the hindwing than usually occurs in the above Natal males. After some 130 years, general fading is naturally apparent in the type-specimen.

Length of forewing, in the male type: 17 mm. This specimen is in very good condition for its age, as is the female type.

Of the six labels on the above specimen, one is inscribed "Caffraria" and another "J. Wahlb" [=J. Wahlberg]. Dr

Persson has informed the writer that the area in which Wahlberg travelled lay between $30^{\circ} 25'$ and 23° South lat.; and 27° and $32^{\circ} 40'$ East long. These particulars show clearly that the designation "Caffraria" as applied to Wahlberg's travels can be misleading, since one usually visualises the large tract of country once known as Caffraria as not extending beyond the southern boundary of Natal.

Length of forewing, in the female type: 17 mm. The specimen is very small, for a female of *Th. basutus*. Although attention has been drawn to the resemblance of the types to Natal specimens procured by the writer in the area mentioned, the absence of any precise data precludes the original locality necessarily falling, with any certainty, into this general area of Natal.

Th. b. capeneri is by no means restricted to the Zeerust district but the limits of its distribution have not as yet been determined. Specimens of *basutus* from Cathcart in the Eastern Cape, taken by Mr J. C. McMaster, are distinctive in their own way, rather approaching *capeneri*, but a single female from there is very dark, on the upperside. A male captured by Mr C. D. Quickelberge at Port St. Johns, in Pondoland, is similar to Natal specimens. Amongst material from the Transvaal Museum provided for examination by Dr L. Vári, a Kalahari male and female taken by the late Dr G. van Son in March 1930, are unusually pale on both surfaces. Rhodesian specimens have been loaned by Dr E. Pinhey, of the National Museum, Bulawayo. Several of the females are extensively marked with white and, in one specimen in particular, from the Sanyati Valley, caught by the late Capt. R. H. R. Stephenson in Sept-Oct., 1925, the underside is very light.

Since males from the Botha's Hill area are likely to have similar genitalia to the male type of *basutus*, those of one of the former are figured together with the genitalia of *Th. b. capeneri*. While the genitalia of these and other specimens dissected have varied within limits, individually, at least two of the differences noticed have been repeated in the preparations, anyway, so far made, these including the more produced shape of the *juxta*, in *capeneri*, below the point of angulation — although the general configuration of the *juxta* is far from stable, in different specimens. Except in one specimen in which normal development had not occurred, the *saccus* has been much broader (and spatulate) when viewed from above, in *capeneri* than in Botha's Hill males.

The present race is named with pleasure after Mr A. L. Capener, the well known authority on the Membracidae, who collected and also reared many interesting butterflies in the Transvaal and Natal, in the forties. Most of this material was incorporated in a collection of Mr A. J. Duke's which was subsequently presented to the writer.

Sincere thanks are due to the following persons who generously provided specimens for examination:—Mr W. H.

Henning and his sons Graham and Steven; Mr Cameron McMaster; Dr Inge Persson; Dr Elliot Pinhey; Mr C. D. Quickelberge; and Dr L. Vári. Dr Persson most kindly sent the types of *Th. basutus* on loan to the writer from Sweden. He had previously been unaware that these were in his Museum, owing to their being under the generic name of *Arrugia*.

The male genitalia of *Thestor basutus* have been briefly referred to and figured by the late Rev. Desmond P. Murray in *J. ent. Soc. S. Afr.*, X (2), 1948; while the life-history has been described and illustrated in colour by Clark and Dickson in *idem* 23 (2), 1960, and in *Life Histories of the South African Lycaenid Butterflies*, 1971, Cape Town.

Thestor basutus inhabits open country with short vegetation amongst which grass is usually prominent. In Natal, it has frequently been found in elevated situations and sometimes on rather rocky ground. The males are quick in their movements, taking short, irregular flights and then settling on the ground, with closed wings, while the females normally have a more wandering flight. From observations made in Natal, eggs are deposited on small plants infested by Homoptera, on the immature stages of which the young larvae feed, up to and including the 3rd instar; but the final part of the larval life is spent in ants' nests in the ground, under stones or rocks, and in which pupation also takes place.

"Blencathra," Cambridge Avenue, St. Michael's Estate, Cape Town.

EXPLANATION OF PLATES

PLATE XVI

- Fig. 1. *Thestor basutus* (Wallengren), ♂ type (upperside).
 Fig. 2. *Idem* (underside).
 Fig. 3. *Thestor basutus* (Wallengren), ♀ type (upperside).
 Fig. 4. *Idem* (underside).
 Fig. 5. ♂ Genitalia, *Thestor basutus* (from Natal), with dissected parts enumerated thus:—a. Basic portion of structure with some parts removed. b. Uncus. c. Falces. d. Labides. e. Valves. f. Aedeagus g, g. Juxta (two specimens represented). h. Saccus. Figures of imagines approximately 1.45 times natural size. Figures of genitalia approximately 19.5 times natural size.

PLATE XVII

Thestor basutus capeneri subsp. nov.

- Fig. 1. ♂ Holotype (upperside)
 Fig. 2. ♂ Holotype (underside)
 Fig. 3. ♀ Allotype (upperside)
 Fig. 4. ♀ Allotype (underside)
 Fig. 5. ♂ Genitalia, with dissected parts enumerated thus:—a. Basic portion of the structure with some parts removed. b. Uncus. c. Falces. d. Labides. e. Valves. f. Aedeagus. g, g. Juxta (two specimens represented). h. Saccus. Figures of imagines approximately 1.45 times natural size. Figures of genitalia approximately 19.5 times natural size.



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