

A synopsis of the new forms described above is added to assist in the identification of individual members of this difficult group:—

- A. No fulvous suffusion on the sides, no spots on the flanks.
- a. Underfur on median line of back cinnamon-colour, forehead and nape not darker than back *F. o. ocreata.*
 - b. Underfur on median line dark brown or black, forehead and nape darker than back.
 - a'. Forearms conspicuously ringed with black, underside of forearms deep black all over *F. o. cafra.*
 - b'. Forearms inconspicuously ringed, underside of forearms partially black.
 - a''. General colour pale, ears yellowish *F. o. Mellandi.*
 - b''. General colour darker, ears rufous *F. o. ugandæ.*
- B. Sides and limbs suffused with fulvous, well-marked brown spots on the flanks. *F. o. rubida.*
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L.—On certain African Butterflies of the Subfamily Pierinæ. By ARTHUR G. BUTLER, Ph.D., F.L.S., &c.

I THINK every true naturalist will agree with me that fair criticism is valuable as a stimulus, and has the effect of making a good workman exert himself to avoid error as much as possible in his subsequent work. When, however, a man has spared no pains to arrive at the exact truth, has built up his facts brick by brick, until the edifice seems to be complete, and another workman, with all the facts before him, misrepresents them, it seems only right to expose the unfairness of such criticism.

In a paper by Prof. Aurivillius published in the Upsala 'Nya Tidnings Aktiebolag' last year, and entitled "Results of the Swedish Zoological Expedition to Egypt and the White Nile, 1901, under the direction of L. A. Jägerskiöld. —No. 8," the author records two forms of *Belenois* under the names *Pieris gidica*, God., var. *Westwoodi*, Wallengr., and *Pieris gidica*, God., var. (?) *abyssinica*, Lucas; and he observes, "It is very remarkable that *Westwoodi* also was taken in the dry season at nearly the same time as *abyssinica*. The relation between *P. Westwoodi* and *abyssinica* has been the subject of much discussion, and is not yet sufficiently cleared up. Butler says in 1894 (Proc. Zool. Soc. 1894, p. 579), 'I am quite satisfied that *B. gidica* and *B. abyssinica* cannot be regarded as distinct species'; and in 1898 (Trans. Ent. Soc. London, 1898, p. 436), 'I may begin by stating

emphatically that *gidica* is not the wet-season form of *abyssinica*.'”

The above statement does give the impression, whether intended or not, that in 1898 I flatly contradicted the statement made by myself in 1894; but Prof. Aurivillius, with both papers before him, is perfectly well aware that the *B. gidica* of the first and second papers were entirely different species or forms.

In 1894 we knew *B. gidica* from description only, and it was supposed by all lepidopterists to be identical with the *B. Westwoodi* of Wallengren; but Godart's type came into the possession of, I believe, the Edinburgh Museum, was brought to the British Museum for comparison, and thus the fact that it was quite distinct from *B. Westwoodi* (= *B. gidica* auct. plur.) was made evident.

In 1898, in the very paper to which Prof. Aurivillius refers as evidence of the instability of my emphatic utterances, I described the true *B. gidica* as explanation of the very sentence quoted, only part of which, moreover, was quoted, since to quote the whole would have made the misrepresentation of my assumed change of front evident: what I added is, “Furthermore, there are two South-African species of the group, easily separated by anyone who has an eye for form and pattern”; and I then proceeded to describe the differences between the typical *B. gidica* and the form previously regarded as that species by lepidopterists generally.

But, to make the point still more unmistakable, I in the same paper described the seasonal forms both of *B. abyssinica* and *B. Westwoodi*, showing that they are not, as I formerly supposed, mere seasonal phases of one species, but that the wet phase of each form is well marked, and indicates at least the local distinctness of the southern and northern representatives of this type.

Now, to examine Prof. Aurivillius's statement in detail. It is *not* very remarkable that dry and wet phases should both occur during the dry season. I have repeatedly shown that, although the dry phase of a species is prevalent in the dry season, examples of the wet phase are frequently present. We do not know, and can only surmise, the cause of this fact: it is possible that the position of a chrysalis near to or far from the earth may have some effect in determining the character of the developing butterfly; in heavy dews it is conceivable that the chrysalis near the surface of the earth might be more affected by the moisture than if situated at some height above the ground.

Again, I have shown that in very dry countries a species

will frequently develop all the phases characteristic of the seasons simultaneously. Prof. Aurivillius cannot understand this; therefore he says of *Teracolus दौरα*:—"It is very peculiar to find this form, which is coloured like a summer form, flying in the middle of the dry season together with highly developed dry-season forms of other species. I therefore do not think that *T. nouna*, Lucas, is really a dry-season form of *دौरα*." If the Professor had paid more attention to my argument—that the seasonal phases of species are only variations formerly coexistent which have become more or less seasonally fixed—there would be nothing peculiar to him in the existence of a wet phase in the dry season, so long as it was not as abundant then as in the wet season; nor would he have any reason for coming to the conclusion, on such evidence, that *T. nouna* could hardly be the dry phase of *T. दौरα*.

In the second place, I do not agree that the relation between *B. Westwoodi* and *abyssinica* has not been cleared up. I consider that, as I have described the seasonal phases of both, the only question between lepidopterists is as to whether they shall be called species or local forms—a question of absolute unimportance, which can never be cleared up so long as naturalists hold different views as to what constitutes a species.

In the same page upon which Prof. Aurivillius makes the remarks above discussed he describes and figures a very pretty little species of *Herpænia*, to which he gives the unnecessarily descriptive name "*Herpænia eriphia*, God., var. hib. extrema straminea, n. var." Now, in the first place, it is not *Herpænia eriphia* at all, the dry phase of which barely differs from the wet, nor is it *H. melanarge*, the dry phase of *H. iterata* (which I suspect is the species recognized by Prof. Aurivillius as *nyassæ*, Lanz), but it is my *H. lacteipennis*, described from Abyssinia, and, I believe, sunk by Aurivillius as a synonym of *H. eriphia*, probably because my friend Trimen, in his 'South African Butterflies,' vol. iii. p. 78, says he should regard *H. melanarge*, judging from the description, as the same as var. *a* (the dry phase of *H. eriphia*), and *lacteipennis* from Abyssinia, notwithstanding its unusually small size, as referable to the same variety, if it were not for the description of the hind wings. Mr. Trimen had then not seen the types of either species or local representative (whichever one may please to call these closely related forms); and, therefore, when the Professor was in London he should have carefully examined them himself, and so at least saved himself from perpetrating so terrible a synonym for a pretty little butterfly

as that quoted above. It is a long time, since 1876, for my species to have remained unknown to one of the chief workers at the lepidopterous fauna of the dark continent; in twenty-seven years surely he should have gained some idea of the identity of a species the type of which he might have examined at the Museum on more than one fairly long visit to London.

LI. — *Notes on Phasmidæ in the Collection of the British Museum (Natural History), South Kensington, with Descriptions of new Genera and Species.*—No. II. By W. F. KIRBY, F.L.S., F.E.S.

Subfam. II. *BACTRICINÆ*.

I am obliged to form a new subfamily for my genus *Bactricia* (= *Scaphegyna*, Karsch), which agrees with the *Lonchodinæ* in its long antennæ and in the short median segment, but differs entirely in the large incurved cerci of the male and in the long operculum of the female.

The two known species are from Africa, and I now add one from Singapore. (By some error the name of this subfamily has been given as *Bacteriinae* in the list on p. 372 *antea*.)

Genus *BACTRICIA*, Kirb.

Bactricia Ridleyi, sp. n.

Male.—Greenish brown; head short, narrowed behind, and with two compressed obtuse horns between the eyes; space between the horns and the antennæ, sides of head, (probably) the propectus, and a lateral streak below the median segment white. Antennæ and legs long and slender, the latter nearly straight, and unarmed except for a sharp, flattened, curved tooth near the base of the middle femora beneath. Median segment half as long again as broad; abdominal segments 2–6 about three times as long as the median segment, the seventh about twice as long; segments 8 and 9 about as long, tenth rather shorter, concave at the extremity; cerci compressed, almost spatulate, incurved and crossed; operculum extending as far as the ninth abdominal segment.



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