

XI.—May-flies and Caddis-flies from Natal, Basutoland and Pondoland,

BY

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A SMALL collection of May-flies and Caddis-flies, submitted to me for identification by Mr. E. C. Chubb, Director of the Durban Museum, contains some new locality records and three undescribed species. Investigation of the aquatic fauna of Pondoland and Basutoland should prove interesting. The material was chiefly collected by Mr. L. Bevis, a member of the Durban Museum staff. My thanks are given to Mr. Chubb for the opportunity of studying this collection.

EPHEMEROPTERA.

Cleon lacunosum Brnrd. (1932, Barnard, Tr. Roy. Soc. S. Afr. xx. p. 214, figs. 5a, 6.) Empangeni, Zululand (Miss E. Roberts, Febr. 1915, 2♂♂, 5 ♀♀, 1 subimago).

These specimens appear to belong to this Cape species, but the nymph stage of the Zululand form is not yet known. As nymphal characters should be included in the diagnosis of a species, the identification of these specimens can only be regarded as provisional.

TRICHOPTERA.

Chimarrha georgensis Brnrd. (1934, Barnard, Tr. Roy. Soc. S. Afr. xxi. p. 384, fig. 48 g-m.). Kloof, Natal (L. Bevis, 26.v.1927, 2 ♂♂, 1 ♀); Umtamvuna R., Pondoland (L. Bevis, 15.viii.1925, 1 ♂).

The venation of these specimens, including the clear white anastomosis, agrees with the type specimen. The genitalia are also in agreement, except for a slight variation in the prongs of the trifold process alongside the preanal appendage.

Chimarrha pondoensis n.sp. (Fig. A). Umtamvuna R., Pondoland (L. Bevis, 15.viii.1925, 1 ♂).

Tibial spurs 1, 4, 4. In fore-wing R straight, confluent distally with Sc.; Rs gently curved, arising proximally, discoidal cell thus

much shorter than its stalk. Median cell slightly shorter than discoidal cell, its distal cross-vein at vertical slightly distal to half length of discoidal cell. Fork 2 sessile. In hind-wing R confluent distally with Sc. Median cell open.

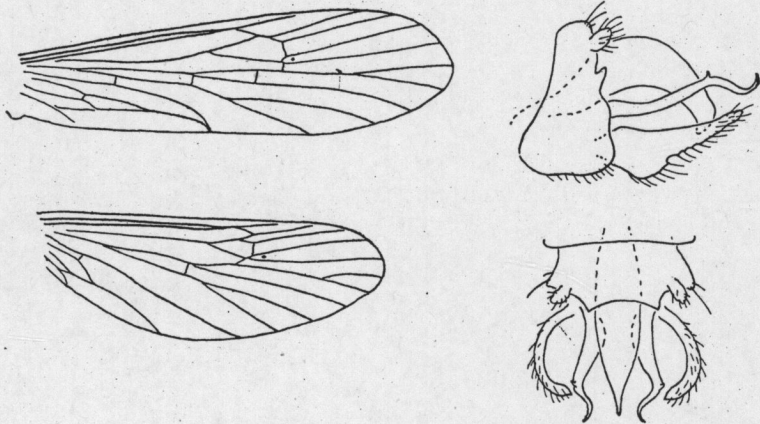


FIG. A.—*Chimarra pondoensis* n.sp. Fore- and hind-wings. Lateral and dorsal views of genitalia ♂.

Genitalia ♂, 10th tergite in dorsal view angularly projecting, with a few strong setae; preanal appendages lobe-like, setose; below the latter a sharp process on either side of penis; a long doubly-curved slender process arising from inner surface of lateral margin of segment, with a denticle on upper surface of first curve; penis robust, lenticular in dorsal view, down-curved, apex compressed; claspers subtriangular in lateral view, scalloped and setose on lower margin, strongly curved in dorsal view, with acute apices. Penis, claspers and the curved processes heavily chitinised and pigmented.

Fore-wing 7 mm. Sepia-brown, with pale hairs on thorax; legs fuscous; wings umber-brown, fore-wing with pale spot at junction of Cu_2 with hind margin; when denuded a pale spot at base of median cell, and distal cross-vein of median cell also pale.

Leptocerus calcaratus n.sp. (Fig. B.) Mokhotlong R., Basutoland (L. Bevis, 15.ii.1939, 3 ♂).

These specimens agree with the Cape species *L. harrisoni* Brnrd. 1934, in all respects, including the genitalia, except for the presence of an acute process or spur on the lateral margin of the 10th tergite,

similar to that in the two species of *Leptecho*:—*scirpi* Brnrd. and *lupi* Brnrd. The distal portion of the clasper is a little more elongate.

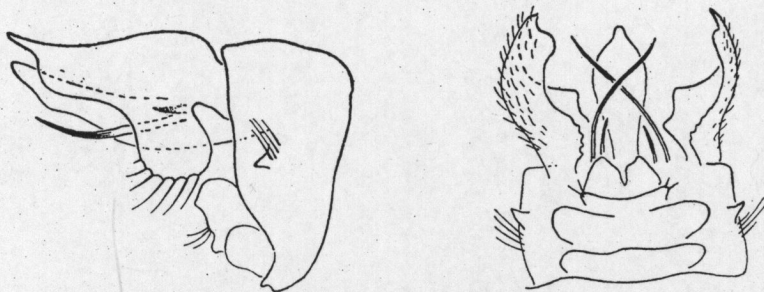


FIG. B.—*Leptocerus calcaratus* n.sp. Dorsal and lateral views of genitalia ♂. In the dorsal view the long setæ on the upper lobe of the claspers are not shown, and the left clasper is in a more vertical position than the right.

So far as is known *harrisoni* is confined to the S.W. Cape, west of Montagu, approx. 20° E' long.

Leptocerus quathlambæ n.sp. (Fig. C.) Giant's Castle, Drakensberg Mts. (L. Bevis, 16.ii.1939, 1 ♂, 1 ♀); Mokhotlong R., Basutoland (L. Bevis, 16.ii.1939, 5 ♂♂).

Tibial spurs 2, 2, 2. Venation of fore-wing as in *promontorii* Brnrd. 1934, the discoidal and thyridial cells arising at same level; anastomosis between R_{2+3} and Cu_1 stepped, oblique; stalk of fork 1 half length of lower branch (R_3) of fork; stalk of apical cell 4 about half the length of the cell. In hind-wing apical fork 1 subequal to its stalk; stalk of apical cell 4 about $1\frac{1}{2}$ times length of cross-vein between R_s and M .

Genitalia ♂, 10th tergite with transverse ridge, below which arise two knobs, or more or less elongate processes; preanal appendages ovate, setose; below these a transverse incised plate from which arise two pairs of slender processes, the outer pair somewhat clavate and setose apically; penis strongly curved, without titillators; claspers lamellate, spatulate, trifold; a semicircular process arising from upper margin, ending in a point with subapical brush of setæ; a process arising from middle of clasper and curving inwards, apically setose; the lower vertical portion ending in a small in-curved point.

Fore-wing 8.5-9.5 mm. Head, thorax, and abdomen piceous, head and thorax with pale grey or whitish hairs; antennæ and legs

fuscous, the antennæ proximally and tarsi faintly annulate; wings sepia.

Remarks.—The slender dorsal processes and the apex of the upper branch of the clasper in the ♂ genitalia are distinctive characters.

In the Giant's Castle ♂ the two processes arising just below the transverse ridge on the 10th tergite are mere knobs; in the Mokhotlong specimens they are variable, sometimes elongate, and sometimes asymmetrical in length. The slender dorsal processes are liable to be broken off in dried specimens, especially the more slender inner pair.

The two lots were taken on the same day, and the two localities are not far distant from one another. Quathlamba is the native name for the Drakensberg Mountains.



FIG. C.—*Leptocerus quathlambæ* n.sp. Dorsal and lateral views of genitalia ♂ of Giant's Castle specimen. Apex of upper branch of clasper further enlarged. Dorsal and lateral views of 10th tergite of a Mokhotlong River specimen, showing variation in the size of the processes arising below the transverse ridge (in the dorsal view the slender elongate processes are not shown, in the lateral view only partially shown). Ventral and lateral views of genitalia ♀.