Additions to the Collection of Stomatopods in the Raffles Museum

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In 1934 a list of the Stomatopods in the Raffles Museum Collection was published (Tweedie 1934) and a year later (Tweedie 1935) two additional species of *Squilla* were added and described as new.

Six species of *Lysiosquilla* and *Gonodactylus* have since been collected and form the subject of the present paper.

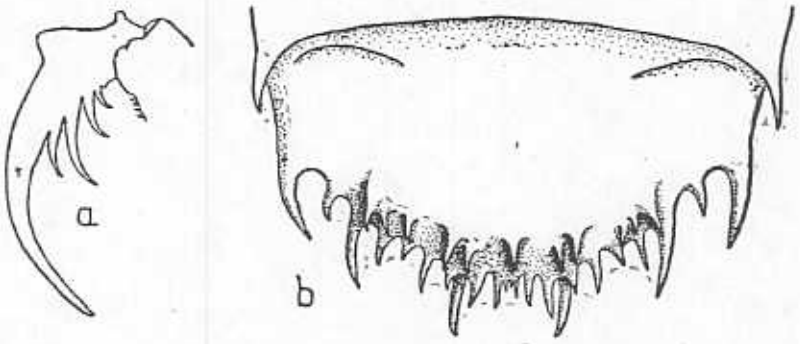

Fig. 1. *Lysiosquilla multifasciata*, raptorial dactylus and telson.

Lysiosquilla multifasciata Wood-Mason.

CHOPRA, 1939, p. 162.
HOLTHUIS, 1941, p. 274.

Material.—One female 75 mm. in length from Sandakan, British North Borneo, collected by Mr. H. G. KEITH in 1935.

Remarks.—This specimen is abnormal in having eleven instead of the usual five spines on the dorsal surface of the telson. Their arrangement is shown in fig. 1*b*, each of the outermost dorsal spines normally found in *multifasciata* is represented by a group of three, the intermediates by a pair of spines while the median spine is simple. Apart from this I can find no morphological feature of importance that is not characteristic of *L. multifasciata*, and I attribute the extra development of spines on the telson to the size and age of the specimen, which is considerably larger than any yet reported. The rostrum is rather narrower than is usual in this species. The raptorial dactylus is illustrated in fig. 1*a*.

Kemp (1915, p. 175) describes the colour pattern of the species, pointing out that adults have far more dark pigment than small specimens. The Sandakan specimen is more darkly and extensively pigmented than either of those figured by Kemp (l.c. pl. I, 2, 3) and than the type figured by Wood-Mason (1895, pl. I, 4). The carapace is darkly suffused everywhere except immediately behind the rostrum and along a narrow transverse band 1.5 mm. wide and 2.5 mm. from the posterior border and is much more darkly coloured behind the pale band than before it. The rostrum itself is also darkly suffused. The double bands on the first five abdominal somites are broadly connected mid-dorsally by a suffusion as dark as the anterior bands themselves. The telson is coloured as described by Kemp.

Lysiosquilla acanthocarpus Miers

KEMP, 1913, p. 120.

Material.—One specimen from Morib on the Selangor coast of the Malacca straits and one from Bachok, Kelantan on the east coast of the Malay Peninsula.

Lysiosquilla tigrina Nobili.

KEMP, 1913, p. 125.

Material.—One specimen from Morib on the Selangor coast of the Malacca strait collected by the writer in December 1934.

Remarks.—Smaller than the type and only other recorded specimen, it agrees well with Kemp's description and figures (l.c.). The spinules on the lower posterior margin of the sixth abdominal somite number six instead of nine; as in the type they are not symmetrically arranged. There are only five pairs of small denticles between the submedian teeth of the telson instead of six, and the dark pigmentation of the upper surface of the body is less developed. These may be considered juvenile characters well within the range of variation of the species.

Gonodactylus falcatus (Forskal).

CHOPRA, 1934, p. 40 (*G. glabrous*).
HOLTHUIS, 1941, p. 284.

Material.—12 specimens from Aor Island, South China Sea collected by the writer in June, 1938. Holthuis (l.c.) gives reasons for adopting the name *falcatus* for the species referred by Kemp (1913) and subsequent authors to *G. glabrous* Brooks.

Gonodactylus pulchellus Miers.

CHOPRA, 1934, p. 41.
HOLTHUIS, 1941, p. 288.

Material.—Two specimens from Labuan, off the north coast of Borneo.

Gonodactylus brooksii (de Man).

HOLTHUIS, 1941, p. 290.
DE MAN, 1888, p. 579 (*Protosquilla brooksii*).

Material.—Three specimens from coral reef at Aor Island, South China Sea collected by the writer in June, 1938; the largest is 24.5 mm. in length.

Remarks.—These specimens agree in almost every respect with de Man's description. The form and spinulation of the telson only differs in the number of lateral spines, which are three in every case except that of one side of the telson of one specimen where they number four; four to five is the number present in the original series from Edam Island. Of the two triangular teeth at the tips of the telson on each side of the median excavation, the outer is more salient than de Man's figure (l.c. pl. XXII*a*, 8 *a*) shows it, but his description suggests that the figure is inaccurate in this respect.

I am in complete agreement with Holthuis in regarding *G. brooksii* and *G. spinosissimus* as distinct.

LITERATURE

CHOPRA, B. N., 1934. On the Stomatopod Crustacea collected by the Bengal Pilot Service off the mouth of the River Hughli, together with notes on some other forms (Rec. Ind. Mus., Calcutta, XXXVI, pp. 17–43).

————. 1939. The John Murray Expedition 1933–34, Scientific Reports, Stomatopoda, Vol. VI., pp. 137–181 (London, 1939).

HOLTHUIS, L. B., 1941. The stomatopoda of the Snellius Expedition. (Temminckia, VI, pp. 242–294).

KEMP, S., 1913. An account of the Crustacea Stomatopoda of of the Indo-Pacific region (Mem. Ind. Mus., Calcutta, IV, pp. 1–217).

————. 1915. On a collection of Stomatopod Crustacea from the Philippine Islands (Philippine Journ. Sc., X (Section D), pp. 169–186).

DE MAN, J. G., 1888. Bericht über die im indischen Archipel von Dr. J. Brock gesammelten Decapoden und Stomatopoden (Archiv für Naturgeschichte, LIII, pp. 215–600).

TWEEDIE, M. W. F., 1934. Notes on Stomatopoda in the Raffles Museum (Bull. Raffles Mus., 9, pp. 33–41).

————. 1935. Two new species of *Squilla* from Malaysian waters (Bull. Raffles Mus., 10, pp. 45–52).

WOOD-MASON, J., 1895. Figures and descriptions of nine species of Squillidae from the collection of the Indian Museum, pp. 1–11 (Calcutta, 1895).