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CARCINOLOGICAL NOTES

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ASSOCIATE, DIVISION OF LOWER INVERTEBRATES

While setting in order the small miscellaneous accumulation of crustaceans in Field Museum's reference collection, I found a stomatopod which requires comparison with the available descriptions, and a new brachyuran, both from the Fiji Islands. My work on the collection has been under the direction of Dr. Fritz Haas, Curator of Lower Invertebrates, and I am indebted to him for aid and advice in drawing up the present brief paper.

Gonodactylus glyptocercus Wood-Mason.

Gonodactylus glyptocercus Wood-Mason, Proc. Asiatic Soc. Bengal, p. 232, 1875.

Protosquilla cerebralis Brooks, Voy. H. M. S. *Challenger*, 16, Stomatopoda, p. 72, pl. 14, figs. 2, 3; pl. 16, figs. 2, 3, 1886.

Gonodactylus glyptocercus Kemp, Mem. Indian Mus., 4, p. 186, 1913; Bigelow, Bull. Mus. Comp. Zool., 72, p. 136, 1931.

Body form.—Not uniform in width from the anterior edge of the carapace to the posterior edge of the telson, but the exposed segments of the thorax quite slender in comparison with the carapace and abdomen. The entire animal is less compact than is pictured by Brooks and looks much more slender and graceful.

Carapace.—Greatest breadth approximately equals the median length; laminar-looking structure underneath the carapace in the reproduction of Brooks' drawing is, in reality, the raptorial limb (see appendages). The eyes are one-third the length of the carapace, with the median spine of the rostrum reaching about one-fourth the length of the eyestalk.

Abdomen.—In the fifth abdominal somite on each side of the two median parallel longitudinal grooves, 12 grooves radiate obliquely, posteriorly and dorsally for those eight which are dorsally situated, and posteriorly and ventrally for those four which are laterally situated. Each groove of the entire 26 is distinct in itself with no bifurcation.

In the sixth abdominal somite the ω -shaped ridge on either side near the anterior margin is quite obscured by a more complicated pattern, but the two submedian U-shaped ridges are readily visible.

The telson dentition of 9, 1, 0 corresponds to that given by Brooks, as does the entire design of the telson.

Appendages.—The uropod as well as the antennae is much larger in comparison with the total animal than is shown by Brooks. The outer spine of the process from its base is twice the length of the inner. As mentioned by Brooks, there are on the proximal segment of the exopodite ten conspicuous marginal spines, which also curve upwards towards the dorsal surface (see Brooks' description and figure).

The position of the raptorial limb in reference to the body is entirely different from that shown by Brooks. It is here compared in the drawings.

Color.—This particular specimen possesses the characteristic patches on the sixth and seventh thoracic and first and fourth abdominal somites, three distinct dark bands on the raptorial limb, a patch in each corner of the carapace and on the antero-median border, and scattered pigmentation on the remaining thoracic segment and the second, third, and fifth abdominal segments, but not on the sixth segment or telson.

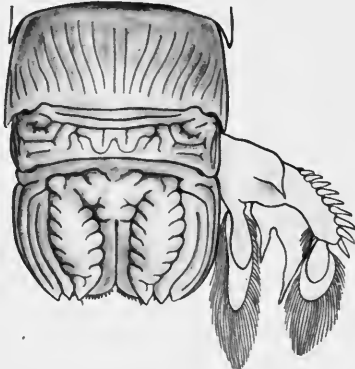


FIG. 10. Last two abdominal segments, telson, and right uropod of *G. glyptocercus*. $\times 4$.

Measurement.—The length is 32 mm. or approximately the same as the specimen described by Brooks. This specimen was also from the Fiji Islands.

Remarks.—The characteristics and range of variation of this species of *Gonodactylus* being under discussion, it seemed advisable

to supply additional information from the specimen (here figured) in Field Museum's collection, taken at Viti Levu, Fiji Islands, by the Crane Pacific Expedition of 1929 (No. 1904).

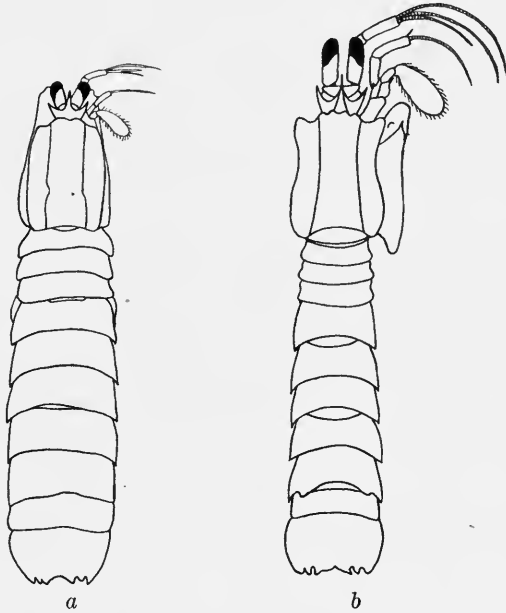


FIG. 11. *G. glyptocercus*. a. After Brooks. $\times 2$. b. Field Mus. 1904. $\times 2$.

Uca ischnodactylus sp. nov.

Material.—Twelve specimens (1 female and 11 males) from Suva Harbor, Fiji Islands, in mangrove; Crane Pacific Expedition, March 16, 1929. Type (male, Field Museum 1971). Paratypes (Field Museum 1972).

Diagnosis.—Allied to *U. arcuata* De Haan and *U. inversa* Hoffmann; front spatuliform and very narrow; movable finger quite slender, with a curved, toothed blade at extremity.

Carapace.—Convex in both directions; H-marking visible but not strongly defined; strongly convergent posteriorly; entirely smooth except for a few minute granules at the anterolateral angles; front spatuliform, about one-twentieth the width of carapace; fronto-orbital width great, meeting lateral margins to form an acute, prolonged antero-lateral angle; orbital margins sinuous, raised borders finely serrate.

Ambulatory legs.—Minutely granular, especially the meral joints; hair sparse and short, found principally on the meral joints.

Chela.—Outer surface of palm and carpal joint roughly tuberculate, the internal lateral margins of the carpus and palm being fringed with a row of hairs; the oblique tuberculate ridge of the inner surface of the palm terminates at carpal cavity; fingers slender and gaping except at tips, which overlap; inner edge of fixed finger finely dentate throughout entire length, the size of the tubercles decreasing somewhat distally; principal teeth of dactylus in two main groups of two proximal and one distal; extreme distal portion of dactylus ends in a definite, toothed, blade-like projection, the proximal and distal teeth of which are the largest; this projection

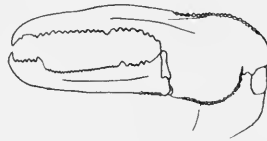


FIG. 12. *U. ischnodactylus*, hand of large cheliped. $\times 2$.

is prolonged into a curved spine which overlaps the tip of the fixed finger.

Color.—Carapace (in alcohol) dull green-brown; upper internal surface of palm red-orange, the color extending a short distance up into the fingers; orange patch also on the under surfaces of all the joints of the cheliped except the carpus; remainder of cheliped and the ambulatory legs a yellow-white.

Measurements of type and allotype.—Length of carapace of type 12.5, of allotype 11.8; width of carapace of type 21, of allotype 17.

Variation.—No great divergence from the type except for the principal teeth groups which can be, besides the 2:1 ratio, 3:1, 3:0, or even 0:0; seven males found to be left-handed, four right-handed.

Remarks.—There appears to be no close resemblance to any single species, but the general body form is similar to that of *U. arcuata* De Haan and *U. heterochelos* Lamarck, although tapering more posteriorly. The shape of the chela is, as a whole, that of *U. inversa* Hoffmann, while the dentition of the hand follows that of *U. arcuata* with the exception that the dactylus only, and not the fixed finger, has the curved blade.

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