A REDESCRIPTION OF *MACROPTHALMUS LATIPES* BORRADAILE, 1903: AN OCYPODID CRAB WITH PORTUNID-LIKE PADDLES (DECAPODA, BRACHYURA)

BY

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INTRODUCTION

In 1903, Borradaile described a crab on the basis of a single specimen dredged from 36 fathoms (66 m) at South Nilandu Atoll by the 1899-1900 Expedition to the Maldive and Laccadive Archipelagoes. This he named *Macrophthalmus latipes*. It excited the interest of carcinologists, as it appeared to possess flattened penultimate and terminal segments on its last pereiopod, in essence similar to those found on many portunids and on *Matuta*. *M. latipes* became the only known species of its genus with such appendages, and, indeed, the only known grapsoid crab so endowed. In *Portunus*, etc., and *Matuta*, the flattened segments enable their bearers to swim, which many species can do very effectively (Della Croce & Holthuis, 1965; Allen, 1968), especially *Polybius* in which all the pereiopods are so modified: their prime function, however, was probably concerned with burrowing into soft substrates (see Stephenson, 1961).

This paddle-bearing *Macrophthalmus* has not been seen again since the discovery of Borradaile's material; this consists of a single juvenile male holotype, housed in the University Museum of Zoology, Cambridge University, U.K. As Borradaile's (1903) description is rather inadequate, the author has taken the opportunity of redescribing and figuring it, through the courtesy of Dr. C. B. Goodhart of that museum, as part of his studies towards an eventual revision of *Macrophthalmus* (Barnes, 1966a; 1966b; 1967; 1968a; 1970; 1971). The description, together with camera lucida drawings, is given below. A key to the species of *Macrothalmus* seen by this author, including *M. latipes*, has been given earlier (Barnes, 1971).

*Macrophthalmus latipes* Borradaile, 1903

*Macrophthalmus latipes* Borradaile, 1903; Tesch, 1915.

Material examined. — 1 ♂ (holotype), dredged from 36 fathoms, South Nilandu Atoll, University Museum of Zoology, Cambridge.

Description. — Front broad; deflexed; slightly constricted between bases of
ocular peduncles; with smooth margins; anterior margin evenly and smoothly convex; median furrow extremely faint.

Upper orbital border backwardly sloping, with straight central region, without granules on margin. Lower orbital border without granules or tubercles on margin, except on outer quarter where a few, very small granules.

Carapace surface smooth and shiny; without granules; with hair only on extreme lateral borders, where hair short, fine and sparse; without any clumps or rows of granules or hairs on branchial regions; furrows extremely indistinct, excepting poorly marked cardiac, intestinal and anterior branchial; groove across carapace immediately behind the front clearly demarcating that region from remainder of carapace. Greatest carapace breadth across external orbital angles, behind which lateral margins only slightly convergent. Lateral margins with sparse hair and few very small granules, especially at posterolateral angle. Posterior margin without granules.

Two anterolateral teeth (fig. 1A). External orbital angle large, broad, strongly pointed, directed straight outwards; margins with few small granules and scattered hairs; separated from second lateral tooth by wide U-shaped incision. Second lateral tooth large, broad, blunt, wedge-shaped, directed outwards; margins with small granules and scattered hairs, long outer margin grades smoothly into lateral carapace margins, although tooth-like swelling may be present along posterior half of outer margin.

Ocular peduncles long and narrow, extending beyond tip of external orbital angle for just less than half their total length.

Male cheliped. (a) Merus. Upper and inner margins with rows of small granules and long fine hairs, those on upper margin mainly proximally, those on inner margin mainly distally; outer margin with row of small granules centrally and distally. All surfaces without granules, inner and outer surfaces without hair, lower surface with patch of hair distally.

(b) Carpus. Without granules, tubercles or spines, except for a row of very small granules along anterior margin of outer surface. Upper margin with fringe of long, fine, sparse hairs; lower margin with fine scattered hairs, mainly anteriorly.

(c) Palm. Outer surface with small scattered granules, with longitudinal ridge (fig. 1B) capped by row of granules very close to and subparallel with lower margin; inner surface without granules, without tubercle near joint with palm, with row of hairs close to and subparallel with upper margin, with scattered fine hairs over lower half. Upper margin without granules, with scattered fine hairs; lower margin smooth.

(d) Index. Undeflexed. Outer surface with continuation of longitudinal ridge of palm forming lower margin, without hairs except near cutting margin, without granules except on longitudinal ridge; inner surface without granules, with scattered hairs near cutting margin. Cutting margin with long low tooth, formed by row of separate granules, occupying all but extreme tip; lower margin curved and formed by longitudinal ridge.