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ON THE OCCURRENCE OF MATURE SPECIMENS OF *METAPENAEUS BURKENROADI* KUBO IN THE PULICAT LAKE

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Mature females and males of *Metapenaeus burkenroadi* with fully developed ovaries and petasmae were collected from the Pulicat lake in January 1972. The possibility of their breeding inside the lake and the feasibility of utilizing this species for culturing in the Pulicat lake are indicated. Some morphological features of the specimens which are at variance with previous descriptions of the species are pointed out.

Specimens of *Metapenaeus burkenroadi* Kubo, collected from the Pulicat lake near the bar mouth in January 1972 had well developed gonads. The dark green mature ovary was clearly visible through the transparent cuticle. The males had fully developed petasma and the spermatophore mass was visible at the base of the fifth pereopods. The possibility of their spawning inside the lake is suggested, but can be confirmed only if eggs and early larval stages are collected from the lake. De Bruin (1965) states that *M. burkenroadi* is abundant in the high salinity lagoons of Jaffna but he does not indicate whether they were juveniles or mature adults.

The presence of mature females of *M. burkenroadi* (90 — 100 mm T.L.) inside Pulicat lake is of interest since, so far, *Metapenaeus bennettiae* and *Metapenaeus elegans* are the only penaeid prawns that have been found to possess mature ovaries inside coastal lagoons. Morris and Bennett (1952) have shown that *M. bennettiae* from eastern Australia actually breeds in coastal lakes while De Bruin (1965) has recorded mature females of *M. elegans* inside low salinity lagoons of Ceylon. *M. burkenroadi* is very closely related to *M. bennettiae* and it is significant that, like the latter, it appears to mature (and possibly breed) inside a coastal lake. Culturing *M. burkenroadi* in the Pulicat lake appears to be feasible and efforts to breed them under controlled laboratory conditions are being made.

In the Indian region *M. burkenroadi* has so far been recorded from the sea and the backwaters of the South West coast of India (George 1969), from the tidal pools at Mandapam on the South East coast (Nair *et al* 1967) and from the coastal lagoons of Ceylon (De Bruin 1965). It has now been collected from the Pulicat lake as well as the coastal waters of Madras, Cuddalore and Porto Novo. Extensive collections around Visakhapatnam and Kakinada, however, have not so far revealed the presence of this species on the Andhra coast. The species appears to be restricted to the southern region of the Indian Peninsula as far as the Indian region is concerned.

The specimens in the present collection differ in some respects from the descriptions of *M. burkenroadi* given by earlier authors. The rostral teeth excluding the epigastric, vary in number from 7 - 10 with 9 as the most common number (see table below) while Kubo (1949) states that 7 is the typical number.

	No. of rostral teeth (excluding epigastric)				Total number examined
	7	8	9	10	
No. of specimens	1	14	24	1	40

Hall (1962) has also figured *M. burkenroadi* with 7 rostral teeth. Hall's Fig. 92 depicts the rostrum shorter than the antennular peduncle while in the present specimens as well as Kubo's specimens, the rostrum reaches or exceeds the tip of the antennular peduncle. The pubescence of the carapace and the abdominal somites, especially of the females, is quite considerable and is clearly at variance with the statement of Racek (1957) that "the pubescence is very scarce in this species". The three tubercles on the straight or slightly convex anterior margin of the median plate of the thelycum and the posterior lateral plates are exactly as shown in plate 4 by Racek (1957) for *M. burkenroadi*. The flat lateral plates, however, are glabrous and not pubescent as described by Racek (1957). Each of the distomedian lobes of the petasma has an

obliquely transverse serrated ridge near its base on the dorsal aspect. This very striking feature has not been referred to by previous authors.

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## A FISH MEASURING BOARD FOR RACIAL INVESTIGATIONS

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To measure the linear dimensions other than the total length of a fish for racial investigations, a board is designed and got fabricated. It has a mirror base and a half metre scale. There is a grooved wheel and two pulleys at its back, carrying a steel tape with a needle wire fixed at its zero. When the wheel is rotated the tape runs from left to right and the needle rides over the fish on the board. The tape gives the measurement and the rider helps to pin-point it avoiding parallax error. The board is waterproof, inexpensive and easy to make.