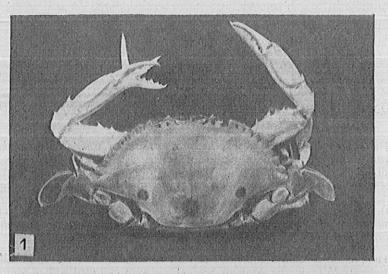
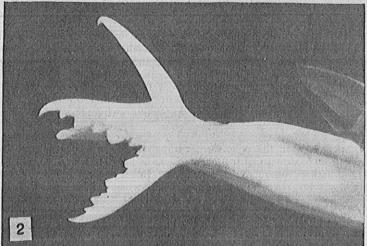
ABNORMALITY IN THE PORTUNID CRAB NEPTUNUS (NEPTUNUS) SANGUINOLENTUS HERBST

Numerous young Neptunus sanguinolentus appear in the shore seine (Yendi bale) at Karwar during June-August. One of them a female, caught on 7th July, 1964, showed the following abnormality.





Photograph 1. Dorsal view of Neptunus (Neptunus) sanguinolentus Herbst. (Natural size)
Photograph 2. Ventral view of the left chela (enlarged).

Its carapace measures 31 mm. long and 69 mm. broad. The length of the cheliped is 66 mm. The right chela in the specimen is normal with the palm (pro-

podite) extending further as the thumb, and the movable finger (dactylus) hinged to the palm to form a claw with the thumb. In the left chela also the finger is normal but there are two additional thumbs as seen in Photographs 1 and 2. The inner one of the three appears to be the original thumb, since the ridge that is present ventrally in the palm (Photograph 2) extends uninterruptedly into this. The outer two are extras fixed firmly to the inner one slightly ahead of the hinge of the finger. These two also have a ventral ridge (Photograph 2) continuing from one to the other, but not connected to the ridge of the palm and the thumb. Because of this extra attachment the original thumb is bent and the middle one comes in straight line with the palm. The finger and the middle one form the claw.

All these thumbs are well developed with the full compliments of teeth, and this abnormality appears to be congenital.

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ON THE OCCURRENCE OF *METAPENAEUS BURKENROADI* **KUBO** (FAMILY: PENAEIDAE, CRUSTACEA DECAPODA) **IN INDIAN WATERS**

The genus *Metapenaeus* is widely distributed in the Indo-Pacific. The species comprising the genus appear to be highly confused and several closely allied species have been recorded in different groups like 'mastersii' group, 'affinis' group and 'monoceros' group. Metapenaeus burkenroadi is one of the species included in the 'mastersii' group. Kubo (1949) described it extensively under the name of M. affinis and later (1954) separated it to a new species giving the name M. burkenroadi based on specimens collected from Japanese waters. Racek (1957) supplemented these observations making use of 2 male and 2 female specimens from Japanese waters, giving comparisons with the other members of the 'mastersii' group, namely M. mastersii (Haswell) and M. chili Racek. The present observation of the occurrence of the species from the S.W. coast of India is the next record of the species and the first ever from outside Japanese waters. Hall (1961) synony-

mised the species with *M. mastersii*. However, Racek (personal communication) is not inclined to agree with him and is of opinion that *M. mastersii* is an endemic species restricted to Australia.

Metapenaeus burkenroadi Kubo

Metapenaeus burkenroadi Kubo 1954 : 92-93 (with synonymy except de Man 1911)

Metapenaeus burkenroadi Racek 1957: 6-7.

Metapenaeus mastersii Hall 1961: 85.

Material: 1 male specimen,* 61 mm.

Locality: S.W. coast of India off Alleppey, Lat. $9^{\circ}30'$ N. and Long. 76° 15'E. 7 fathoms.

 \bullet Since communicating this note, 2 females, 64 mm. and 51 mm. were also obtained from Cochin backwaters.