

ON THE OCCURRENCE OF *ACETES JOHNI* NATARAJ AND
A. JAPONICUS KISHINOUE IN BOMBAY WATERS

ABSTRACT

Acetes indicus H. Milne Edwards constitutes an important fishery in Maharashtra State. On a close study of samples collected from Sassoon Dock and Versova, two principal landing centres for *Acetes*, it was observed that two more species were present in the catches. They were identified as *Acetes johni* Nataraj and *Acetes japonicus* Kishinouye. Though a formal record exists for *A. johni* from plankton collection off Saurashtra and Kerala Coasts, the fishery value for the species is reported for the first time.

THE OCCURRENCE of *Acetes indicus* H. Milne Edwards has been reported by Kunju (1967). It forms nearly 20% of the prawn fishery of Maharashtra (George, 1969). The fishery which is solely by bag nets in the State, continues throughout the year though the principal months of its capture are from December to March (Kunju, 1967). A close examination of 'Dol' net samples from Versova and Sassoon Dock during 1983 and

1984 respectively revealed that two more species of *Acetes* namely *A. johni* Nataraj and *A. japonicus* Kishinouye were also present in considerable quantities so as to support a fishery. The former species was found to occur either exclusively or mixed with *A. indicus* and *A. japonicus*.

The presence of *A. johni* in the offshore waters of Maharashtra and its possible signi-

ficance to the existing inshore fishery has been recorded by Nair (1977). The area of collection indicated by Nair (1977) can be considered more as coastal region of Saurashtra than off Maharashtra Coast. This species has been earlier recorded from South-west coast of India by Nataraj (1949). The *Acetes* spp. are largely coastal (Omori, 1974) and are fished from a depth range of

only one large and curved clasping spine with serrated inner margin, while the other two species have two smaller clasping spines. Serrated margins were noticed in *A. japonicus* on the distal inner surface of clasping spines, while they are less prominent in *A. johni*. *A. johni* can be distinguished from *A. japonicus* by the presence of a thumb like projection in the segment preceding the

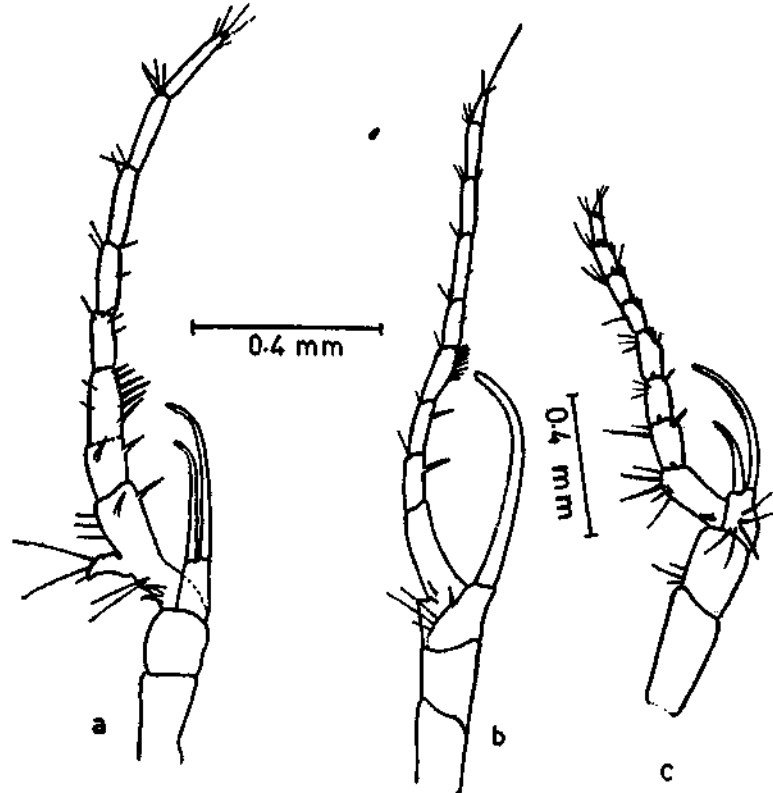


Fig. 1. a. Lower antennular flagellum of adult male of *Acetes johni* Nataraj; b. same of *A. indicus* H. Milne Edwards and c. *A. japonicus* Kishinouye.

0-55 m (Holthuis, 1980). The present report of *A. johni* and *A. japonicus* are from the coastal regions of Maharashtra since 'Dol' nets are operated upto a maximum depth of 40 m.

The three species of *Acetes* can be distinguished by the structure of the lower antennular flagellum of males. *A. indicus* has

one with the clasping spines (Fig. 1a, b, c). Differences are also noticed in the structure of petasma and telson as given in FAO identification sheets (1984).

The presence of more than one species in the fishery is significant. It calls for a reassessment of the 'Dol' net fishery for *Acetes* in Maharashtra. Detailed studies are requi-

red to assess the contribution made by each species.

It is of interest to note that during the 9th cruise of FORV *Sagar Sampada* conducted by CMFRI in October 1985, shoals of *A. johni* were caught by IKMT net (about 10 kg in a single haul of 30 minutes' duration) at shallow stations (40-50 m depth) between Lat. 12°00' and 12°30'N and Long. 74°00' and 74°45'E.

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The actual depth sampled was 30 m. This indicates that this species enjoys a wide distribution.

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