

NOTES

AN INGENIOUS METHOD OF COLLECTING POLYCHAETE WORMS FOR FISH BAIT

ONE often comes across fishermen along the sandy coast of Madras and other places digging for various kinds of fish baits, such as mole crabs and polychaete worms, for hook and line fishing. Among the polychaetes some of the larger eunicids, particularly *Marphysa* and *Onuphis*, and a few nereids constitute the favourite with the fishermen as each worm furnishes excellent bait for several hooks. While digging the sands to obtain them is the usual practice, a remarkable way of collecting *Onuphis* along the Madras beach is described here.

In order to collect these polychaetes, the fishermen first dig out one of the oecypod crabs from the shore. The crab is crushed in the hand, the juice thus obtained is augmented by a little sea water and is splashed or sprinkled on the intertidal area as the breakers recede. Presumably attracted by the crab juice these worms protrude their tentacles out of the sand when the observant fisherman deftly holds the head of the worm between his forefinger and thumb. Holding it still in position, a gentle and steady pull is exerted for a few seconds until the worm in its burrow relaxes and yields to the force. The entire worm is then pulled vertically up and out of the sand. Getting the worms entire thus involves the greatest care, for any hasty tugging would result in breaking it and only the anterior end would be obtained. Digging these worms out of the tide swept sands is rendered almost impossible by their quick withdrawal into the depths of the burrow even at the slightest disturbance at the surface. Further, like many of the eunicids, the posterior region of their body is highly brittle so that invariably only smaller bits can be obtained by mere digging. An experienced fisherman, however, finds no difficulty in filling his bait pot with as many as a couple of dozens of the entire worms within a short while by adopting the above method. These are then stored in mud pots together with moist sand in order to prevent subsequent autotomy. They remain alive in this condition for two or three days. By washing the worms with fresh sea water and changing the sand they may be kept alive for several days.

The worms have powerful jaws and are carnivorous, preying upon the smaller crustaceans and other animal forms inhabiting the sandy region. Apparently, they have keen chemoreceptors as indicated by their ready response to the crab juice sprinkled on the sand which induces them to come near the surface. Cope-land (1930, *J. Comp. Psychol.*, 10 : 339) has observed that *Nereis* can locate food at a distance with considerable accuracy and has described the presence of well developed chemoreceptors around the mandibular region. It would appear that this method of catching the worms is based on a sound knowledge of their habits and the fishermen engaged in collecting these baits know precisely the spot to look for them.

While *Onuphis eremita* Audouin & Milne-Edwards is more a marine form occurring along the sea coast, particularly in localities where loose sand accumulates, *Marphysa gravelyi* Southern, the other common eunicid is an inhabitant of

the backwaters with a clayey substratum. Aiyar (1933, *Rec. Ind. Mus.*, 35 : 28-7 323) has described how this polychaete is collected for bait from the Adyar estuary after searching lumps of clay dug out by means a flat wooden piece. The more common fishes obtained along the Madras coast in hook and line by using these polychaetes as bait are *Sillago*, *Polynemus* and the smaller carangids; the sand whiting particularly is known to search the bottom for such items of food. In the backwater regions, *Therapon*, *Lates*, *Chrysophrys* and *Etroplus* are known to take this bait with readiness.

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