

Pelamis platurus*, an unusual item of food of *Octopus spec.

by

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Representatives of the genus *Octopus* Cuv. are common along the rocky East coast of the Cape of Good Hope. Very probably most specimens occurring in the area around Port Elizabeth belong to *O. rugosus* (Bosc) as interpreted by ROBSON (1929). In this region *Octopus* feed mainly on Decapod Crustacea, although mollusks also form an important part of their diet. Specimens in the Port Elizabeth Oceanarium have been observed to attack and partially devour individuals of *Haliotis midae* L. of up to 150 mm long. Small fishes such as *Coryphopterus caffer* (Gunther) (fam. Gobiidae), juvenile Sparidae (particularly of the genera *Rhabdosargus* and *Diplodus*), etc., are also occasionally taken.

The sea snake *Pelamis platurus* (L.) (fam. Hydrophiidae) is a wide-spread Indo-Pacific species which is not uncommon along the East coast of southern Africa, especially in the summer season (October-April). All Hydrophiidae are highly poisonous, possessing a neurotoxic venom. According to VOLSØE (1956, p. 91) it is "particularly toxic to cold-blooded animals", which normally constitute the prey of sea snakes.

On 11th March, 1961, an apparently healthy specimen of *Pelamis platurus* of approximately 300 mm. long was found on one of the beaches of Port Elizabeth. After being delivered to the Port Elizabeth Oceanarium it was placed in a fairly large laboratory tank which already contained sea anemones, small crabs, some juvenile fishes and an *Octopus* with a mantle length of about 90 mm. A few hours later the snake had disappeared completely, but fortunately a technician happened to see the *Octopus* disgorge parts of the vertebral column and pieces of skin which apparently must have belonged to the snake.

Pelamis platurus is certainly not a regular item of food of the *Octopus* and a few points make this casual observation rather unusual. As a rule specimens of *Pelamis platurus* cast upon the South African beaches are in a weak condition, normally not inclined to bite, and do not survive for any length of time in captivity. However, the specimen in question was undamaged and exceptionally

lively, so that it is quite likely that it did bite the *Octopus* in the course of the latter's deadly embrace. It is indeed difficult to imagine how the *Octopus* enveloping its prey with its eight arms could have escaped a bite from a writhing snake.

CUMMINGS (quoted by LANE, 1957, p. 44) records that the sting of *Conus* is soon fatal to an *Octopus*. Members of the genus *Conus* are known to be able to inject a neurotoxic venom, the action of which can be compared to that of *Pelamis platurus*. Notwithstanding this and the above-mentioned remark by VOLSØE, the *Octopus* in question died only some ten days later, apparently from natural causes.

It is clear that further investigations are needed to see how *Octopus* reacts to the neurotoxic venoms of *Conus* and Hydrophiidae.

REFERENCES

- LANE, F. W., 1957. Kingdom of the Octopus. London.
ROBSON, G. C., 1929. A monograph of the recent Cephalopoda based on the collections in the British Museum (Natural History). Vol. 1, Octopodinae. Brit. Mus. (Nat. Hist.) London.
VOLSØE, H., 1956. Sea snakes. In: The Galathea Deep Sea Expedition 1950-1952, ed. by A. F. Bruun c. s. London.