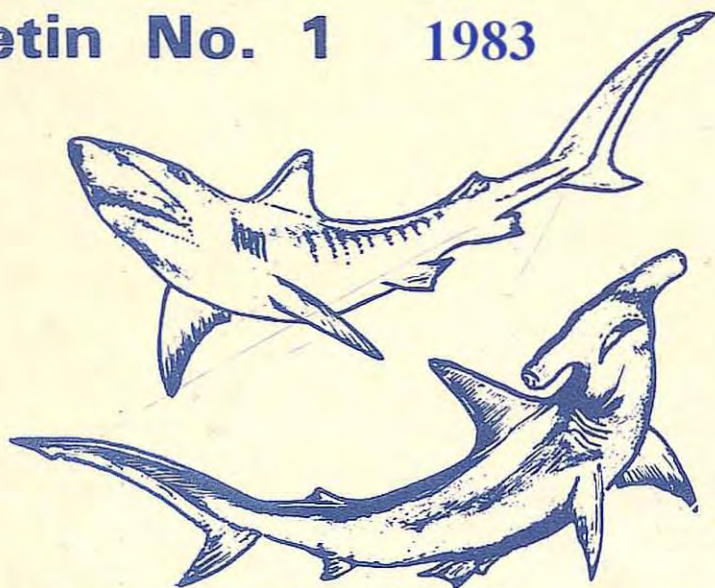


KENYA AQUATICA

Bulletin No. 1 1983



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RESEARCH INSTITUTE

EDITORIAL NOTE

The need has been felt for a long time for a bulletin covering aquatic resources out-puts of the country quickly and comprehensively. The Board of Management of Kenya Marine and Fisheries Research Institute realised this need and directed the Institute to take immediate action for ensuring that information on aquatic resources is compiled for easy communication to the people.

The editorial group has decided to start reporting activities related to aquatic resources under the title "KENYA AQUATICA". As far as possible efforts will be made to include short scientific communications, critical reviews, seminar proceeding and other ad hoc publications. This comprehensive coverage will be possible only through cooperation of various Institutions, Departments, Societies and individuals who are concerned with aquatic resources.

Kenya Aquatica is a technical and extension series for rapid dissemination of information on aquatic resources and allied information from Research Officers, Fisheries Officers and any individual for transfer of Technology to the fishermen and industry and any other relevant information needed for National Development.

Editorial Group

R. M. Nzioka (Editor)
J. Ogari
J. I. Ochieng
E. O. Odada

We appeal to all concerned to send us regularly such publications, at the following address:

Director
Kenya Marine & Fisheries Research Institute,
P. O. Box 81651,
M O M B A S A

PALINURID LABSTER BIOLOGY AND FISHERY IN KENYA WATERS

Appreciation of the presence and possible importance of crustacean resource (lobster, crab and prawn) came in 1946. In 1954 some experimental fishing using traps and various nets was tried out. Since then some trapping has been tried without much success. Trammel nets tried by Japanese fisheries workers and demonstrated to fishermen have never been adopted by fishermen due to high costs of purchase and maintenance of the nets due to damage at the coral reefs where most lobsters are caught. Due to its high price, there has been an increased fishing activity (about 18%) from, 1970 - 1980, with a result of decrease in size of the individuals caught.

To assess the state of fishery, data has been collected at Lamu - Pate archipelago. The commonest species caught were *Panulirus ornatus*, *P. hongipes*, *P. homarus* and *P. dasypus*, with *P. penicillatus* occasionally caught. Other palinurids found were deep sea species *Limuparus somuniosus*, *Puerulus angulatus* and *Palinustus mossambicus*. These are however, only caught by trawlers. The most abundant of the lobsters is *P. ornatus* which comprises over 60% and at times 90% of the catches. As one moves from Vanga in the South towards Kiunga in the north, the proportions of *P. homarus* and *dasypus* becomes greater and greater, until *P. homarus* becomes the chief species in Aden area.

Fishing Methods - Diving and catching live individuals. A few are accidentally caught in nets and traps set for fish. 80% of the fishing is during November to Mid-February (N.E. monsoon) when the sea is calm and diving conditions and visibility are at their best. S. E. monsoons churn up the sea causing much turbidity which temporarily closes the fishing.

Reproduction - Breeding occur all year round with peaks in November - April. Female mature at 62 mm carapace length for *P. longipes* and 85 - 90 mm for *P. ornatus* and *P. versicolor*. Life span has been estimated as 5 years. Larval life is long and complex with 10 recognized larval stages. Should overfishing occur in these organisms with such lengthy life cycle, recognition of the fact takes long and remedy steps may take as long to have effect on the fishery. **A 90 mm lower limit carapace length has been suggested.** **Molting and growth** - larval life is estimated as 11 months with several molts. Growth is greater in the earlier parts of the life. Towards sexual maturity females growth rate decreases considerably. Thus among mature individuals same size females will be older than males.