

PRELIMINARY EXPERIMENTS ON THE REARING OF THE OIL SARDINE, *SARDINELLA LONGICEPS* AND INDIAN MACKEREL, *RASTRELLIGER KANAGURTA* IN FLOATING CAGES

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ABSTRACT

Experimental cage culture of the oil sardine, *Sardinella longiceps* and the Indian mackerel, *Rastrelliger kanagurta* was conducted in the Vizhinjam Bay with regular artificial feeds. The oil sardines at high density showed a growth equal to what it would have been in the natural environment in low density. But the mackerel, during the period of 127 days of captivity, had attained a growth increment equal to what it would have attained over a period of 75 days in nature indicating poor growth rate.

INTRODUCTION

Foremost among the members of neritic pelagic fish complex of the seas around India are the oil sardines and the Indian mackerels. They together support about 25% of our country's marine fish landings. In the present study oil sardine, *Sardinella longiceps* and Indian mackerel, *Rastrelliger kanagurta* were reared separately in floating cages to study their growth rate and examine the possibility of keeping these pelagic fast moving fishes for an extended period in captivity.

MATERIAL AND METHODS

Wooden cages of 1.5 m³ size designed for the purpose were floated in

the Vizhinjam Bay where the depth was about 16 m. The frame of the cage was fitted with nylon netting of 2mm mesh and was provided with two 450 litre capacity tightly sealed wooden barrels fixed on top to serve as floats and an anchor to each corner. A door was provided on top between the floats. In order to protect the cage and floats from fouling organisms and corrosion from sea water, the frame of the cage and the wooden barrels were treated with anti-fouling paint. The cage was seasoned for a period of two weeks before stocking the fish. The netting of the cage was periodically brushed to prevent clogging and to ensure free flow of sea water.

RESULTS

The oil Sardines had a total length of 105-126 mm at the time of release and 115-138 mm after an interval of 60 days registering a length increment of 10-12 mm. The mackerels had a total length of 200-209 mm at release and 215-219 mm after an interval of 127 days. The experiment made on the oil sardines showed that these fishes could be grown in cages as their growth was similar to that of natural environment. On the other hand, the growth of mackerel was not appreciable in cages as evident by its poor growth.

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