

CAPTURE AND CULTURE FISHERIES

INTRODUCTION TO CAPTURE AND CULTURE FISHERIES-

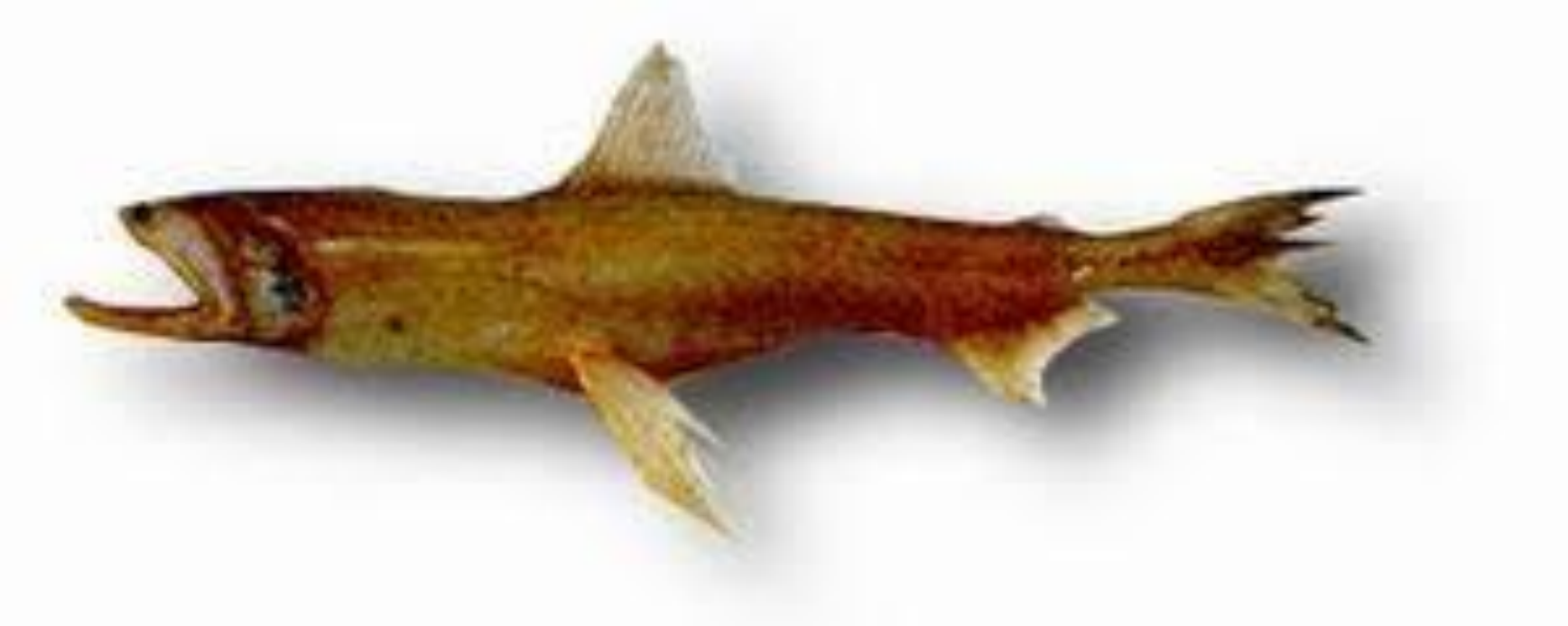
BOMBAY DUCK

IV SEMESTER MSc ZOOLOGY

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BOMBAY DUCK

BOMBAY DUCK- HARPODON NEHEREUS



The Bombay duck forms the major fishery product of the western coast of India . It contributes to about 10% of the estimated average annual marine fish landings of India of the all India, Bombay duck landings 90% is from the coasts of Gujarat and Maharashtra .

Distribution and Nomenclature

Widely distributed in the Indo-Pacific regions along the coasts and estuaries'

In India it has a discontinuous distribution and found only along the coasts of Bombay and Gujarat.

Temperature is believed to be the factor responsible for this discontinuous distribution. Some extend, Andhra pradesh , Orissa & West

Description

- ❖ Body is elongated and slender.
- ❖ Brownish to greyish white in colour .
- ❖ Appearing soft and gelatinous .
- ❖ Body appear phosphorescent in live condition .
- ❖ Head large with small eyes .
- ❖ Mouth is a deep and wide cleft .

Jaws toothed ; caudal fin trilobed ;

scales restricted to the posterior half of the body .

The fish attains a maximum length of 41 cm.

Food and feeding:

Young fishes feed on prawns and fishes.

Adults are voracious feeders, carnivorous and cannibalistic.

They feed on polychaetes , prawns , fish, crabs, squids and squilla .

The study of stomach content of fish reveals that it takes a mixed diet

The fish breeds continuously , these fore the fish stock always contains forms of different size and age.

The fishery of Bombay duck is mainly supported by one and two years old fishes of size 80 – 120 mm .

The fish attains an average length of 127 mm , at the end of the first year.

210 mm at the end of the second year and 290 mm at the end of the third of life .

Sexual maturity of fish attained when it completes two years of life a growth size of 210 mm.

Reproduction :

The sexes are separate and there is no sexual dimorphism .

In females when the fish reaches a length of 120 – 140 mm the ovary becomes conspicuous .

The egg has diameter of 0.26 – 0.37 mm in early stages .

The ova are spherical with macrolecithal and heterogenous yolk .

The yolk forms oil globules.

The number of ova produced by matured females range between 14,600 – 14,600 .

The fish breeds continuously throughout the years the spawning activity intense from *October - April* and slow from *May - September* .

Bapat et al suggest fish has is a continuous breeds with two peak breeding seasons, the first season *April , July* and the second during *November - December* .

The ratio of the two seasons in the fish population is not constant .

During the monsoon months of *July and August* , the male were predominant and from *September to May* the female predominant sexually .

Fishery :

Bombay duck fishery along both the coasts is supported by single species. *Harpodon nehereus*.

On an average , it forms nearly 8% of the total marine fish production in India; nearly 98% of the landings come from Gujarat and Maharashtra states.

The remaining 2% is contributed by Adhra pradesh, Orissa , and West Bengal .

During the last twenty years the catch has fluctuated between 51,570 and 91,657.

The gears used in fishery are dol net, gill net, boat seies.

Economic importance:

Bombay duck is a highly perishable fish and hence should be used immediately after landing.

Almost 80% of the catch is sun-dried .

As the dried fish possess a special flavour, they are cherished by a large section of the people .

Perished fishes are converted in to manure.

Landing

Estimated marine fish landing in India (in tonnes)

Resource	1996	97	98	99	2000	01	02				06	07	08	09	10	11
Bombay Duck	19655	104153	122804	94211	96682	85836	123026				118507	112273	104969	112279	108416	115594