Capture Fisheries of India

2. BOMBAY DUCK FISHERY

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Bombay-duck, represented by a single species fishery, *Harpodon nehereus*, and remains distributed up to 50-70m depth. The fishery is mainly confined to northwest coast from Ratnagiri in Maharashtra to Gulf of Kutch in Saurashtra (88%). Sporadic (seasonal) appearance of this fishery is also witnessed along the coasts of West Bengal, Orissa, Pondicherry, and northern parts of Andhra Pradesh (Coromandal) (12%). Bombay-duck fishery is totally absent along the southwest and southeast coasts of India. Three prominent reasons have been attributed for this **discontinuous distribution** of *H. nehereus*:

- Availability of choice food
- Variation in surface temperature
- Surface temperature of the sea.

The last one seems to be most convincing.

There are wide fluctuations in annual production of Bombay-duck fishery. This fishery contributes about 5% of total all India fish landings. Annual Bombay-duck landings in 2017 were estimated at 11,068 tonnes as against 136,442 tonnes in 1991 (*Handbook of Fisheries Statistics-2018*, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India).

Though Bombay-duck fishery was solely represented by *Harpodon nehereus* along the north-east coast, another species, *Harpodon squamosus* was recently recorded at Kakinada coast in Andhra Pradesh contributing about 56% of total landings of Bombay-duck at Kakinada.

Fishing Seasons:

- September-January-more productive, adults predominant over juveniles
- February-March-less productive, juveniles predominant over adults.

Fishing gears: Traditional stationary bag net (*dol* net), Gill-nets, boat-seine and trawls are also used.

Scope: Bombay –duck is a very soft, highly perishable (high water content) and low quality fish, thus, needs quick marketing. Laminated fishes are in good demand abroad.

Bombay duck



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	Scientific classification		
٠	Kingdom	:	<u>Animalia</u>
•	Phylum	:	<u>Chordata</u>
٠	Class	:	<u>Actinopterygi</u>
•	Order	:	<u>Aulopiformes</u>
•	Family	:	<u>Synodontidae</u>
•	Genus	:	<u>Harpadon</u>
•	Species	:	H. nehereus

The **Bombay duck** or **bummalo** (*Harpadon nehereus*, <u>Bengali</u>: *bamaloh or loita*, <u>Gujarati</u>: *bumla*,<u>Marathi</u>: *bombil*) is, despite its name, not a <u>duck</u> but a <u>lizardfish</u>.

It is native to the waters between<u>Mumbai</u> (formerly Bombay) and <u>Kutch</u> in the <u>Arabian Sea</u>, and a small number are also found in the <u>Bay of Bengal</u>

Great numbers are also caught in the <u>China Sea</u>. The fish is often dried and salted before it is consumed. After drying, the <u>odour</u> of the fish is extremely powerful, and it is usually transported in air-tight containers.

The bombay duck is often considered as a delicious fish by connoisseurs of Indian cuisine.. Bombay duck is often dried and salted in open air sun drying, however, it suffers from serious drawbacks of contamination due to flies, insects and soil.

Solar drying is an excellent way to get rid of these problems as the fish is contained in cabinet or tunnel. In the present work, the solar drying was carried out in a pilot scale solar dryer provided with 20 m² solar collection area and having capacity to load upto 100 kg wet fish.

The role of pretreatment, the inlet air temperature and gas velocity on drying of Bombay duck was studied. The dried fish was tested for its physical and organoleptic properties, besides microbial analysis.