Parastromateus niger (Bloch, 1795)

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IDENTIFICATION

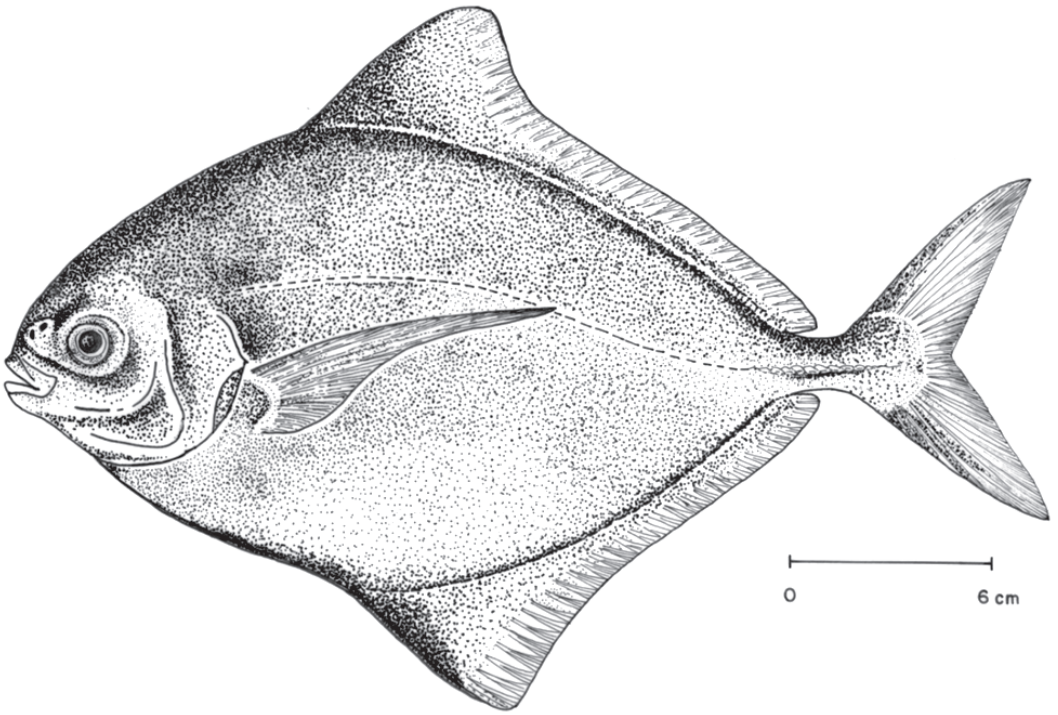
Order	:	**Perciformes**
Family	:	**Carangidae**
Common/FAO Name (English)	:	**Black pomfret**

Local names: Adadio, Halwa (**Gujarati**); Halwa (**Marathi**); Halwa (**Konkani**); Kari manji (**Kannada**); Avoli, Karutha, Maachan, Karuvoli, Vellavoli, Karauthakoli (**Malayalam**); Vaval, Karuvaval (**Tamil**); Nalla Chanduva (**Telugu**)

MORPHOLOGICAL DESCRIPTION

Body is rhomboid, scaly, strongly compressed and deep grey-brown to dark grey in colour. The head is blunt with a terminal mouth. Both dorsal and anal fins are triangular. The sickle-shaped slender pectoral fin extends beyond mid-body. A number of small scutes are present on the slender caudal peduncle. Dorsal fin is with 2-6 spines and 41-46 soft rays; anal fin is with 2 spines and 35-40 soft rays. Pelvic fins are absent in fish over 9 cm size. Body is silvery-grey coloured with four narrow white bars along the flanks; the first bar starting from just behind the opercle. Belly is white. The anterior parts of dorsal and anal fins are bluish-grey.

Source of image : CMFRI, Kochi



PROFILE

GEOGRAPHICAL DISTRIBUTION

The black pomfrets is distributed in the tropical, subtropical and temperate seas of the world; in Indian and Pacific oceans, across the Persian Gulf and Oman Sea, China and the Malay Archipelago. In India, it is widely distributed along both the east and west coasts.

HABITAT AND BIOLOGY

Parastromateus niger is the only known member of its genus. It is a mid-water pelagic species living in marine and brackishwater environments and inhabits depth ranges from 15-105 m. Mostly, the adults inhabit coastal areas with muddy substrate. It is found near the bottom during daytime and near the surface at night. It enters estuaries and normally forms large schools. It is carnivorous, feeding mainly on zooplankton, and small fishes, crustaceans and molluscans.

Size at first maturity for female is 32 cm and for male is 30 cm. Breeding periods varies with the

location. In Maharashtra, spawning is from October to December while in Gujarat, it is from February to August. Along east coast, spawning is observed from January to February. It is capable of multiple spawning throughout the reproductive season. Relative batch fecundity is 336 eggs/g ovary-free body weight and total average relative fecundity is 948 eggs/g ovary-free body weight. The observed swimming behaviour in the confined environment (cage) is different when compared to other carangids. It swims on its side with its dorsally oriented pectoral fin erected like a sail. The swimming behaviour helps it to feed on plankton and small pelagic invertebrates which migrate to shallow waters at night.

PRODUCTION SYSTEMS

BREEDING IN CAPTIVE CONDITIONS

Information not available

LARVAL REARING

Information not available

NURSERY REARING

Information not available

GROW-OUT

Scientific study on grow-out culture in confined environment is not available. Reports are available on cage farming in 2004 in Johore Strait, along the north coast of Singapore near Pulau Ubin, wherein a small school of 10-15 fishes caught near the cage site were transported to adjacent floating cages and reared to marketable sizes.

FOOD AND FEEDING

Food and feeding habit in confined environment has not been studied. In the wild, it is carnivorous, feeding on zooplankton with special preference for crustacean larvae.

GROWTH RATE

Growth rate in confined environment is not available. In wild, along the Iranian Coast of Oman Sea, it attained 21 cm and 190 g in 1 year and 56 cm and 2.16 kg in 6 years.

DISEASES AND CONTROL MEASURES

No report on diseases in culture is available, since culture in confined environment is not practiced. Reports of isopod parasitic infestation caused by *Cymothoa eremite* and parasitic copepod infestation are available. Digenetic parasite, *Lecithocladium bulbolabrum* is observed in the small intestine.

PRODUCTION, MARKET AND TRADE

PRODUCTION

Indonesia is the top producer in the world, followed by Thailand and Malaysia. Total catch globally in 2011 was 63,691 t. Landing in India has increased from about 13,315 t in 1997 to 20,493 t in 2011.

MARKET AND TRADE

It is a highly relished food fish, marketed fresh, dried or salted. It is an economically important fish in Singapore commanding a price range of around US $ 8-20/kg. In India, the price of fresh fish ranges from ₹ 250-300/kg.

CHALLENGES TO MARICULTURE

Broodstock development, breeding, larval rearing and culture in confined environment have not been initiated in India. Also information on behaviour and survival of adults and juveniles in captivity is not available. Therefore, basic studies on breeding and culture need to be initiated and technology needs to be developed in India.

FUTURE PROSPECTS

The fish has important traits like moderate growth, good taste, high price and good consumer acceptance which make it a suitable candidate for mariculture.

SUGGESTED READING

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