

Acanthopagrus berda (Forsskal, 1775)

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IDENTIFICATION

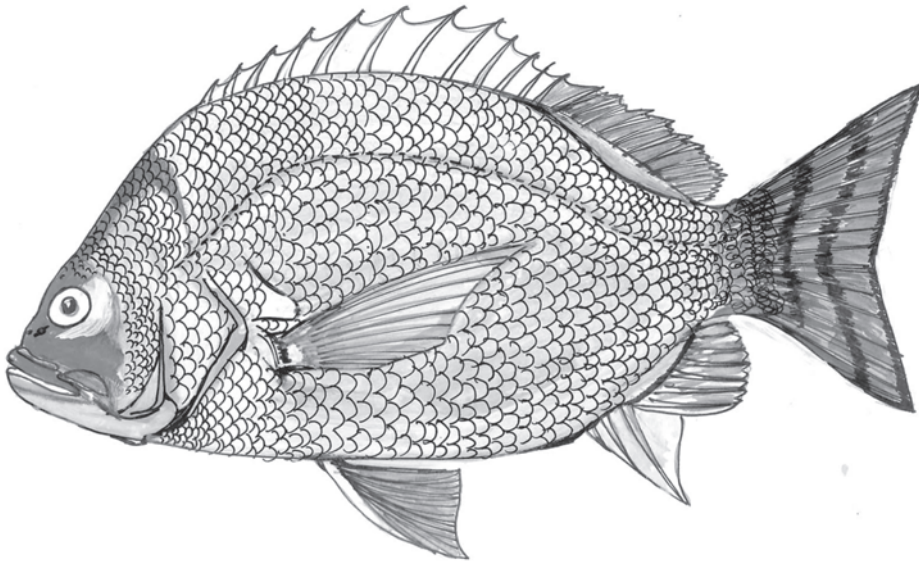
Order	: Perciformes
Family	: Sparidae
Common/FAO Name (English)	: Gold silk seabream



Local names: Kali kishi, Kharapla, (**Gujarati**); Kali kishi, Khadakpalu, Khadak-paalu (**Marathi**); Aree, Aaree, Karuthaaree (**Malayalam**); Aree, Cooree, Karuppu mattawa (**Tamil**); Calamara, Barrbal (**Telugu**)

MORPHOLOGICAL DESCRIPTION

Acanthopagrus berda has a fairly deep, compressed body with depth about twice in standard length. Head is about 3 or 4 times in standard length with straight upper profile (sometimes with a bulge above eye) and pointed snout. Both jaws contain 4-6 large, compressed teeth in front, followed by 3-5 rows of molar-like teeth; upper lateral teeth of outer row conical and blunt. There are about 9-11 gill rakers on the lower limb of first arch. The species has a single dorsal fin with 11 (rarely 12) spines and 10-13 soft rays. The spines of dorsal fin appear alternately broad and narrow on either side with 4th to 6th spines longest. Anal fin contain 3 spines and 8 or 9 soft rays. Caudal fin is slightly forked, with rounded lobes. Scales are large, 43-45 in lateral line; 4-4.5 scale rows between lateral line and 4th dorsal spine and presence of a scaly sheath at base of dorsal and anal fins. Pelvic fin contains a long axillary process. Colour is usually dark silver or dull brown with silvery reflections; upper part of body and base of scales darkest and a dark edge along opercle. Spinous part of dorsal fin with a dark edge; pectoral fins dusky with a yellow tinge and caudal fin grey with darker shading.



PROFILE

GEOGRAPHICAL DISTRIBUTION

Acanthopagrus berda is widely distributed throughout the tropical Indo-West Pacific region, occurring from South Africa to India and extending to Japan, East Indies and Northern Australia. In South Africa it is found along the east coast, where its range extends southwards to Port Elizabeth. This species commonly occurs in the Indian Ocean, along South Africa, Mozambique, the Red Sea, Phuket and Malaysia (Penang Island and Langkawi Island, near Singapore). In India, it is available in south-west coast as well as Andaman and Nicobar Islands.

HABITAT AND BIOLOGY

Acanthopagrus berda inhabits a very wide range of environments namely marine, freshwater and brackishwater and the species is known to tolerate low saline waters of estuaries and rivers. This species enters freshwaters of Zimbabwe and South Africa (Lower Zambezi, Lucuara River). They inhabit coastal shallow waters, with common occurrence in brackishwater swamps or estuaries at a depth range of about 50 m. Larger adults tend to be solitary and occur in deeper waters, while the smaller species and young ones form aggregations and are often found in estuaries. They are found abundant in tropical mangrove estuaries. In South Africa presence of this species from various estuarine systems has been reported.

It is a protandric hermaphrodite, changing sex from male to female. Males and juveniles dominate the smaller size classes and females dominate the larger size classes. It attains a maximum of 900 mm total length (TL) and 3.2 kg total weight. In Japan, Kuwait and South Africa lengths of 450-750 mm have been recorded; but the majority caught in South African waters are < 400 mm TL. Length at 50 % maturity of this species has been established at 220 mm TL. The maximum reported age is about 14 years. A popular angling species often caught with hook and line and locally exploited by artisanal fishers along the Indian coast. Spawning is known to occur between May-August, with peak spawning in May and June. An increase in abundance of this species is noted near the mouth of the St. Lucia Estuary, Republic of South Africa between April and July suggested that spawning occurs close to inshore in the vicinity of the bar mouth.

PRODUCTION SYSTEMS

BREEDING IN CAPTIVE CONDITIONS

Information not available

LARVAL REARING

Information not available

NURSERY REARING

Information not available

GROW-OUT

Information not available

FOOD AND FEEDING

The adult fishes feeds mainly on echinoderms, worms, crustaceans, molluscs and small fishes. A study conducted in Pakistan suggests that juveniles weighing from 10.2 g and 56.3 g can perform well on 42 % protein diet with 20 % lipid level under available laboratory conditions.

GROWTH RATE

Information not available

DISEASES AND CONTROL MEASURES

Caligus epidemicus infection was reported from Australian waters.

PRODUCTION, MARKET AND TRADE

PRODUCTION

FAO Regional Commission for Fisheries (RECOFI) reported that the landings of *A. berda* showed an overall increasing trend from 20 t in 2000 to 63 t in 2011.

MARKET AND TRADE

The fishes of genus *Acanthopagrus* have good consumer acceptability due to their excellent meat quality. Approximate price for the fish in local market in India is ₹ 470/ kg.

CHALLENGES TO MARICULTURE

Breeding and seed production of various *Acanthopagrus* spp. has been reported from different parts of the world. However reports on breeding and seed production of *A. berda* are scanty. The main researchable issues, which have to be sorted out for this species in India, are (i) Protocol for domestication and development of broodstock (ii) Larval rearing protocol (iii) Disease and feed management (iv) Aquaculture practices.

FUTURE PROSPECTS

Acanthopagrus berda is an important fish in fisheries and aquaculture because of its high recreational value, excellent meat quality, high economic value, ability to tolerate wide variations in environmental parameters such as salinity and temperature and fast growth. Therefore, this species in tropical Indian waters has the potential to attract commercial interests in the near future.

SUGGESTED READING

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