

NATIONAL BIORESOURCE DEVELOPMENT BOARD

Dept. of Biotechnology
Government of India, New Delhi

For office use:

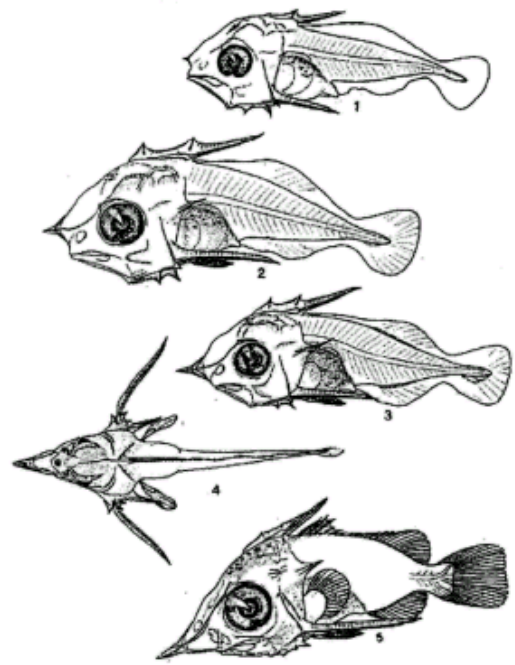
MARINE BIORESOURCES

FORMS DATA ENTRY: Form- 1(general)

Fauna: <input checked="" type="checkbox"/>	Flora	Microorganisms
General Category: Vertebrata (Zooplankton) Fish larvae		
Scientific name & Authority: <i>Myripristis murdjan</i> (Forsk.) 1775 – Adult		
Common Name (if available): Soldier fish		Language: English
Synonyms:	Author(s)	Status
<i>Myripristis</i>		
<i>Sciaena murdjan</i>	Forsk.	1775
<i>Myripristis murdjan</i>	Bleeker	1877
Classification:		
Phylum: Vertebrata	Sub-Phylum:	
Super class: Pisces	Class: Osteichthyes	Sub- Class: Actinopterygii
Super order: Teleostei	Order: Beryciformes	Sub-Order:
Super Family:	Family: Holocentridae	Sub-Family:
Genus: <i>Myripristis</i>	Species: <i>murdjan</i>	
Authority: <i>Myripristis murdjan</i> (Forsk.) 1775		
ReferenceNo. Forsk., 1775. <i>Descript Animal.</i> , p.48.		
Jones, S. and M. Kumaran, 1964. Notes on eggs, larvae and juveniles of fishes from the Indian waters. XII. <i>Myripristis murdjan</i> (Forsk.) and <i>Holocentrus sp.</i> Indian J. Fish., 1962, 9(1) : 157-167		
Geographical Location: Tropical waters of Indian, Atlantic and Pacific Oceans.		
Latitude:		Place:
Longitude:		State:

Environment		
Freshwater: Yes/ No	Habitat: Marine	Salinity:
Brackish: Yes/No	Migrations:	Temperature:
Salt Water: Yes/ No : Yes	Depth range : Epipelagic	

Picture (scanned images or photographs of adult/ larval stages)



Figs. 1-5. Post larvae of *Myripristis murdjan*(from Jones & Kumaran,1964).
Fig.1. 2.72 mm. Fig.2. 3.4 mm. Fig.3. 4.71 mm.
Fig.4. Dorsal view of larvae, Fig.5. 6 mm

DATA ENTRY FORM: Form –2 (Fish/ Shell fish/ Others) Ref. No.: (Please answer only relevant fields; add additional fields if you require) Form- 1 Ref. No.:	
IMPORTANCE Landing statistics (t/y): from to Place: Ref . No.: Main source of landing: Yes/ No Coast: east/ west Importance to fisheries: Main catching method: Used for aquaculture: yes/ never/ rarely Used as bait: yes/no/ occasionally Aquarium fish: yes/ no/ rarely Game fish: yes/ no Dangerous fish: poisonous/ harmful/ harmless Bioactivity: locally known/ reported/ not known Details: Period of availability: Throughout the year – yes/ no If no, months:	
SALIENT FEATURES: Morphological:	
Sex attributes: Descriptive characters:	

Meristic characteristics:	
Feeding habit:	
Main food:	
Feeding type:	
Additional remarks:	
Size and age:	
Maximum length (cm) (male/ female/ unsexed)	Ref. No.:
4.5-11mm	
Average length (cm) (male/female/unsexed)	Ref. No.:
Maximum weight: (g) (male/female/unsexed)	Ref. No.:
Average weight: (g) (male/female/unsexed)	Ref. No
Longevity (y) (wild): (captivity)	Ref. No
Length/ weight relation ships:	

Eggs and larvae :	Ref. No.
Eggs are pelagic.	
Larva has a very bizarre appearance with the spiny armature on the head and highly developed serrated opercular spines. Eyes are big and pigmented.	
The smallest larva recorded (Jones&Kumaran 1964) measured 2-7mm. Head is somewhat blunt and fairly large, being about 35% of the standard length. Body slender tapering posteriorly. Mouth terminal and oblique, maxillary reaching to a vertical from the anterior border of the pupil. Eye is about 11.4% of the standard length. A conical projection is present at the tip of the snout which is up of two compactly placed spinous structures. There is a long serrated spine at the angle of the pre-opercle directed backwards and outwards and measures about 24.4% of the standard length. There are two curved spines along the lower limb of the pre-opercle and a very small one at its angle just below the long pre opercular spine. On the supra occipital part, one long serrated spine measuring 30.7% of standard length is present with a short curved spine at its anterior part. A small spine is visible on the upper part of the operculum. Minute wart like thickenings are present over the upper part of the head. Twenty five myotomes could be counted. The median fin fold is continuous, but narrow in the region of the caudal peduncle. Pectorals are rounded and devoid of fin rays. Pelvic fin is absent. A group of pigments is visible over the eye on each side in front of the region of the forebrain. Small chromatophores are present on the dorsal aspect of the abdominal sac.	
The head length increased to 39.6% of the standard length, due to the elongation of the snout in the 3.4mm stage. The rostral spines are elongated and serrated. Mouth shifted to a slightly ventral portion. Pre opercular spines increased to 31.6% of the standard length. Lower limb of the pre opercle has three spines instead of two in the preceding stage. Another curved spine also appeared near the base of the supra occipital spine. Serrations have increased in the pre opercular and supra opercular spines. The opercular spines further increased in length. Pre anal portion also elongated considerably. Fin rays have not yet developed. Ventral fins are pigmented. Chromatophores on the head , peritoneal lining of the abdominal cavity are increased.	
The most striking developments in the 4.71mm stage are the elongation of the snout and thickening of the base of dorsal anal and caudal. Mouth has become inferior in position. The diameter of eye is also increased. Rostral spine is longer with more serrations. Twenty five myotomes plus the urostyle region of the caudal could be counted. Rudiments of fin rays are discernible. Fin rays are visible in the pectoral and ventral fins. Caudal fin heterocercal. Pigmentation is deeper on the head and prominent. In the 6.74mm larva, the dorsal fin is with five spines and fifteen dorsal rays. Anal has four spines and thirteen rays and pectorals with fifteen rays. Pelvic fins have grown conspicuously large. In a 51mm larva the rostral spine is absent and supraoccipital spine is very much reduced. Considerable developments are noticed as it approaches the juvenile stage and appears very similar to the adult in all essential features (Figures 1-5).	
Characteristics:	
Abundance:	
Biochemical aspects:	
Proximate analysis: moisture/ fat/ protein/ carbohydrate/ash	Ref.
No.	
Electrophoresis:	Ref. No.

SPAWNING INFORMATION:

Locality:

Main Ref:

Larvae are collected mainly from waters around tropical oceanic islands, off shore regions of Atlantic, Pacific and Indian Oceans, including Arabian Sea and Bay of Bengal.

Season:

Fecundity:

Comment:

MAJOR PUBLICATIONS (INDIAN):

(Include review articles, monographs, books etc.)

Jones, S and M. Kumaran, 1964. Notes on eggs, larvae and juveniles of fishes from the Indian Waters. XII. *Myripristis murdjan* (Forsk.) and *Holocentrus sp.* *Indian J. Fish.* 1962 **9** (1): 157-167.

Peter, K.J. 1982. studies on some fish larvae of the Arabian Sea and Bay Of Bengal . *Ph.D Thesis* Univ. of Cochin, 349pp

LIST OF INDIAN EXPERTS (Name, address, phone, fax, e-mail etc.)

1. M.Kumaran
Scientist, CMFRI. (Rtd)
Malaparambil Housing Colony
Calicut – 673 009
2. Dr. K.J.Peter
Scientist, NIO. (Rtd)
Koithara
54/2950, Kadavanthara South
Kochi-682020
Ph. (0484) 318036
e-mail: peterann@md4.vsnl.net.in

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(List of persons who contributed, modified or checked information)