

NATIONAL BIORESOURCE DEVELOPMENT BOARD

Dept. of Biotechnology
Government of India, New Delhi

For office use only

MARINE BIORESOURCES

FORMS DATA ENTRY: Form- 1(general) Ref. No.:
(please answer only relevant fields; add additional fields if you require)

Fauna : <input checked="" type="checkbox"/>	Flora	Microorganisms
General Category : Vertebrate (Zooplankton) Fish larvae		
Scientific name & Authority: <i>Bothus pantherinus</i> (Ruppell) 1830-31, Adult Common Name (if available) :		
Synonyms:	Author(s)	Status
<i>Rhombus pantherinus</i>	Ruppell	1830-31
<i>Rhombus parvimanus</i>	Bennett	1832
<i>Rhombus sumatranus</i>	Bleeker	1851
<i>Psetta pantherina</i>	Ruppell	1852
<i>Passer marchionessarum</i>	Valenciennes	1855
<i>Pleuronectes lunulatus</i>	Jouan	1861
<i>Rhomboidichthys marchionessarum</i>	Gunther	1862
<i>Rhomboidichthys pantherinus</i>	Gunther	1862, 1909
	Playfair and Gunther	1866
	Klunzinger	1871
<i>Pseudorhombus pantherinus</i>	Bleeker	1862
<i>Platophrys (Platophrys) pantherinus</i>	Bleeker	1866-72
<i>Citharichthys aureus</i>	Day	1877
<i>Platophrys pantherinus</i>	Day	1877
	Steindechner	1901
	Jordan and Evermann	1905
	Jordan and Seale	1906
	Jordan and Richardson	1908
	Kendall and Goldsborough	1911
	Weber	1913
	Ogilby	1913
	Gilchrist and Thompson	1917
	Mc Culloch	1922
	Von Bonde	1925
	Fowler	1926, 28, 31
	Schmidt	1930

<i>Platophrys mancus</i>	Jordan and Snyder	1904
<i>Pseudocitharichthys aureus</i>	Weber	1913
<i>Bothus pantherinus</i>	Regan	1920
	Barnad	1925
	Norman	1926, 27, 34, 39.
	Mc Culloch	1929
	Borodin	1932
	Rexas and Natub	1937
	Fowler	1938
	Okada and Matsubara	1938, 55
	Herre	1941
	Schultz	1943
	Smith	1949
	Munro	1955
	Nielsen	1961, 84
	Matsubara and Ochiai	1963
	Amaoka	1969
<i>Bothus (Platophrys) pantherinus</i>	Weber and Beaufort	1929
Classification:		
Phylum: Vertebrata	Sub- Phylum	
Super Class : Pisces	Class : Osteichthyes	Sub- Class:
Super Order: Teleostei	Order: Pleuronectiformes	
Super Family:	Sub Order : Pleuronectoidei	
	Family : Bothidae	Sub-Family:Bothinae
Genus : <i>Bothus</i>	Species : <i>pantherinus</i>	
Authority: Ruppell		
Reference No.		
Ruppell, 1830-31. Zoologischer Atlas zu RUPPEL Reisen. <i>Fische</i> , p.121. Senckenb. Nat. Ges. Frankfurt A.M.		
Geographical Location:		
Distributed extensively both in the coastal and oceanic waters in the Indian Ocean. Found off the coast of South Africa, Somali coast, Red sea, South of Peninsular India, Bay of Bengal and along the north west coast of Australia.		
Latitude:		Place:
Longitude:		State:

Environment

Fresh water : Yes/ No

Habitat :

Salinity : 32.25-35.82 PSU

Brackish : Yes/ No

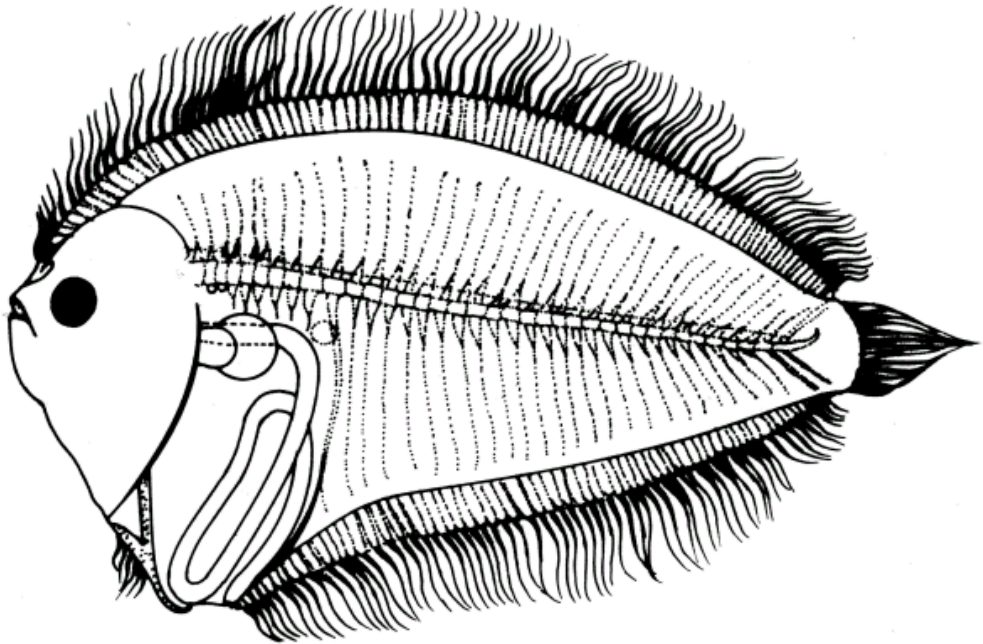
Migrations :

Temperature : 18-29°C

Salt water : Yes/ No

Depth range : 100 – 5658 m

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



Larva of *Bothus pantherinus* – 6.4 mm NL, from Lalithambika Devi, 1999.

DATA ENTRY FORM: Form- 2(Fish / shellfish / others)
(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: See first column of last page

Diagnostic characteristics: - “ “

Sex attributes:

Descriptive characters: “ “

Meristic characteristics : Dorsal fin rays 85-92, Anal fin rays 66-77, Vertebrae 10+27-29

Feeding habit:

Main food :

Feeding type :

Additional remarks :

Size and age :

Maximum length (cm) (male / female/ unsexed)

Ref. No.:

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 relationships:

Eggs and larvae: Ref . No.
Characteristics:

Larval body oval, thin, transparent and symmetrical in early stages. Cerebral hemispheres have truncated shape at the front end in all stages examined unlike in many other species, eyes black, symmetrical, small and squarish in early stages, becoming lenticular as growth advances, Jaws carry small teeth, alimentary canal runs obliquely downwards, makes an elliptical coil at the posterior end of the abdominal cavity in early stages and the anus opens at the level of ninth vertebral segment. In later stages, ventral portion of intestinal loop is pushed obliquely forwards and the anus which opens posteriorwards lies at the level of the sixth vertebral segment. Intestinal loop not smoothly curved but flat with a depression at its ventral portion, loop is not compact, the space between the ascending and descending loops being filled with glandular tissue. A pair of caecal outgrowths occur directed dorsalwards at the junction of the oesophagus and intestine. Swim bladder present between eighth and tenth vertebral segments in early stages, later shifting below seventh and tenth vertebral segments. Liver massive, its ventral posterior portion tapers to form a finger-shaped diverticulum, lying under the intestinal loop, dorsoventral axis more than twice the anteroposterior axis in advanced stages. Spines absent on the urohyal, cleithra, posterior basipterygial processes or on the body. Cleithra remains more less cartilaginous with a pitted appearance or tubercular projections even in advanced stages unlike in other species. The dorsal and anal fin rays ranges from 85-92 and 66-77 respectively. There are 10+27-29 vertebrae including urostyle.

Abundance:

Biochemical aspects:

Proximate analysis: moisture/ fat/ protein/ carbohydrate/ash

Ref. No.

Electrophoresis:

Ref. No.

SPAWNING INFORMATION:

Locality:

Main Ref:

Season:

Fecundity:

Comment:

MAJOR PUBLICATIONS (INDIAN):

(include review articles, monographs, books etc.)

Lalithambika Devi, C.B., 1986. Studies on the flat fish (Heterosomata) larvae of the Indian Ocean. Ph.D. Thesis, University of Kerala, India, 480 pp.

Lalithambika Devi, C.B., 1999. Bothid larvae (Pleuronectiformes-Pisces) of the Indian Ocean. *Indian J. Mar. Sci.*, **28** : 198-210.

Lalithambika Devi, C.B., 1999. Larvae of Bothidae (Pleuronectiformes-Pisces), Illustrated Key. Published by National Institute of Oceanography, Goa, pp. 35.

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

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

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