# NATIONAL BIORESOURCE DEVELOPMENT BOARD

Dept. of Biotechnology Government of India, New Delhi

For office use only

## MARINE BIORESOURCES

pp.577-628, figs.1-52, pls. 1-8.

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

Fauna : √	Flora	Microorganisms		
General Category : Vertebrate (Zooplankton) Fish larvae				
Scientific name & Authority: <i>Psettina iijimae</i> (Jordan and Starks) 1904 - Adult Common Name ( if available) :				
Synonyms:		Status		
Engyprosopon iijimae	Jordan and Starks	1904, 1906		
	Franz	1910		
	Jordan, Tanaka and Synder	1913		
Psettina iijimae	Hubbs	1915		
·	Jordan and Hubbs	1925		
	Norman	1931, 34		
	Kamohara	1936, 38, 50, 58, 64		
	Okada and Matsubra	1938		
	Kuronuma	1940		
	Kuroda	1951		
	Mori	1952		
	Amaoka	1963, 69		
Classification:				
Phylum: Vertebrata	Sub- Phylum	Sub- Class:		
Super Class : Pisces	Class: Osteichthyes			
Super Order: Teleostei	Order: Pleuronectiformes			
	Sub Order: Pleuronectoidei			
Super Family:	Family : Bothidae	Sub-Family:Bothinae		
Genus: Psettina	Species: iijimae			
Authority: Jordan and Starks				
Reference No.				
Jordan and Starks, 1904. List of fishes dredged by the steamer "Albatross" off the coast of Japan in the Summer of 1990, with description of new species and a review of the Japanese Macrouridae. <i>Bull. U.S. Fish Comm. For 1902</i> , <b>22</b> ,				

# Geographical Location:

Larvae of these species were very rare in the Indian waters. They were found in Strait of Malacca and near the north east coast of Sumatra (Indonesia). But were recorded abundantly from the waters of Gulf of Thailand.

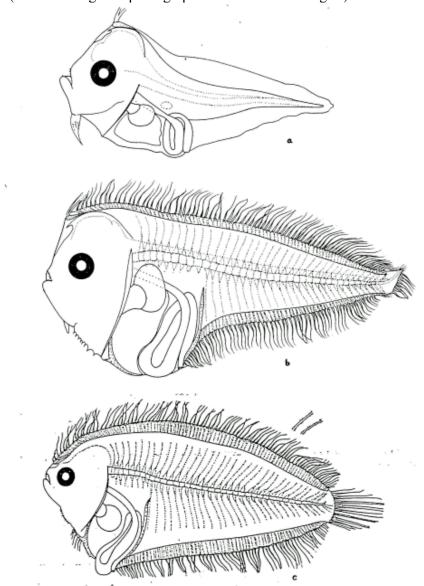
Latitude: 04°00'00" N Place: Longitude: between 99° and 105° 00" E State:

## Environment

Fresh water: Yes/ No Habitat: Salinity: 32-35 PSU Brackish: Yes/ No Migrations: Temperature: 29-30°C

Salt water : Yes/ No Depth range : 60-2000 m

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



Larvae of *Psettina iijimae*, a : 3.0mm NL, b: 5.7 mm NL, c : 19.7 mm SL with enlarged view of spinules on rays, from Lalithambika Devi,1999.

DATA ENTRY FORM: Form-(please answer only relevant fields; a Form-1 Ref.No.:		llfish / others ) al fields if you require)	
IMPORTANCE			
Landing statistics (t/y): from Main source of landing: Yes/ No Importance to fisheries: Main catching method: Used for aquaculture: yes/ never/ rare Used as bait: yes/no/ occasionally Aquarium fish: yes/ no/ rarely Game fish: yes/ no Dangerous fish: poisonous/ harmful/! Bioactivity: locally known/ reported/ Period of availability: Throughout th	harmless onot known		· <del>·</del>
SALIENT FEATURES : Morphological:	See first column of last page		
Diagnostic characteristics: -		cc	
Sex attributes:			
Descriptive characters:		u	

Meristic characteristics: Dorsal fin rays 82-93, Anal fin rays 6	8-70, Vertebrae 10+28-30
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 relationalships:	

Eggs and larvae:

Characteristics:

Larval body thin, transparent. Anterior portion of the alimentary canal runs slightly slanting downwards towards the ventral aspect and makes an elliptical coil at the posterior end of the abdominal cavity. The antero-posterior axis of the liver is longer than the dorso-ventral axis in early stages. A pigmented diverticulum hangs down just in the front of the first spine on the urohyal in the early stages which shrivels up growth progresses. Brownish black pigment is present at the base of the appendage which disappears along with the appendage. Spines appear late on urohyal and posterior basipterygial processes. Spines are found distributed near to the baseosts and along the fin rays. The dorsal and anal fin rays ranges from 82-93 and 68-70 respectively. There are 10+28-30 vertebrae including urostyle.

Ref. No.:

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., 1981. Developmental characters of Bothid flat fishes of the genus *Psettina*. *Rapp. P-v. Reun. Cons. int. Explor. Mer.*, 178: 588-589.

Lalithambika Devi, C.B., 1989. Developmental characters of *Psettina iijimae* (Jordan and Starks). Bothid flat fishes - Pisces. *Journal of the Indian Fisheries Association.*,19. 7-17.

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.)

Dr.C.B.Lalithambika Devi, National Institute of Oceanography, Kochi-14, Phone :off: 390814 / Res. 348004, Fax :390618, cbldevi@niokochi.org

#### ACKNOWLEDGEMENT:

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

Late Dr. E.H. Ahlstrom, Southwest Fisheries Centre for confirming the identification