

NATIONAL BIORESOURCE DEVELOPMENT BOARD

Dept. of Biotechnology
Government of India, New Delhi

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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>Arnoglossus imperialis</i> (Refinesque) 1810 - Adult Common Name (if available) :		
Synonyms:	Author(s)	Status
<i>Bothus imperialis</i>	Refinesque	1810
<i>Pleuronectes casurus</i>	Pennant	1812
<i>Arnoglossus lophotes</i>	Gunther	1862, 90
	Facciola	1886
	Collett	1896
<i>Arnoglossus grohmanni</i>	Day	1882
<i>Charybdia rhomboidichthys</i>	Facciola	1885
<i>Arnoglossus laterna</i>	Cunningham	1890
	Holt and Calderwood	1895
<i>Arnoglossu imperialis</i>	Kyle	1913
	Bertin	1929, 32
	Chabanaud	1930, 31
	Norman	1930, 34
<i>Arnoglossus (Arnoglossus) imperialis</i>	Chabanaud	1933
Classification:		
Phylum: Vertebrata	Sub- Phylum	
Super Class : Pisces	Class : Osteichthyes	Sub- Class:
Super Order: Teleostei	Order: Pleuronectiformes	Sub Order : Pleuronectoidei
Super Family:	Family : Bothidae	Sub-Family:Bothinae
Genus : <i>Arnoglossus</i>	Species : <i>imperialis</i>	
Authority: Refinesque		
Reference No.		
Refinesque, 1810. Car. N. gen., p. 23.		
Geographical Location:		
The larvae of <i>Arnoglossus imperialis</i> were found only in the Agulhas Bank.		
Latitude: 34°55'00" - 36°10' 00" S	Place:	
Longitude: 20°10'00" - 20°34'00" E	State:	

Environment

Fresh water : Yes/ No

Habitat :

Salinity : 35 PSU

Brackish : Yes/ No

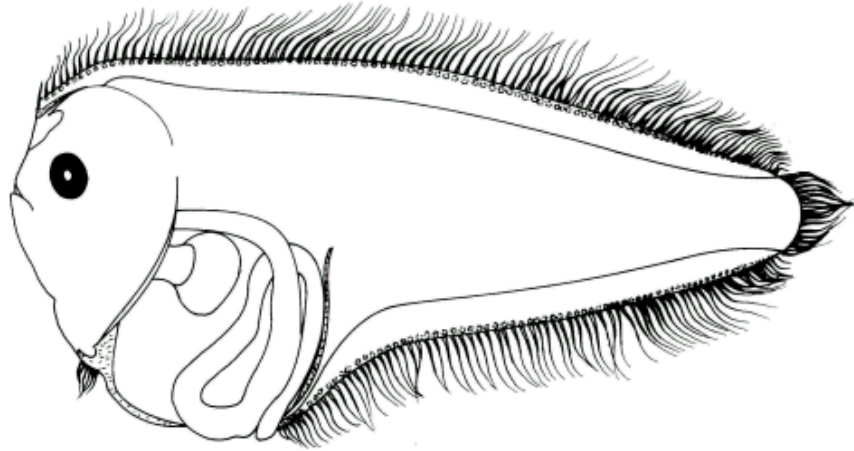
Migrations :

Temperature : 12-26°C

Salt water : Yes/ No

Depth range : 110 m

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



Arnoglossus imperialis 12.2 mm SL, 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 98-101, Anal fin rays 76-79, Vertebrae 10+32

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 thin, transparent, laterally compressed, long and leaf-like. Eyes black and symmetrical. Mouth small, lower jaw prominent and project beyond the upper with five and three pairs of teeth on upper and lower jaws respectively in early stages. Alimentary canal runs parallel to the notochord up to the level of sixth myotome and then runs down obliquely describing a single elliptical coil ending in a straight rectal portion lying vertically down, the anus opening on the 10th myotome in early stages. In later stage larvae, rectal portion is seen pushed forwards so that the anus opens at the level of eighth vertebral segment. Swim bladder present lying below the sixth and eighth myotome in early stages but pushed backward to lie between eighth and ninth vertebral segments in advanced stages. Liver well developed and its dorsoventral axis is about twice the antero-posterior axis. Spines are not found on the urohyal, cleithra or on posterior basipterygial processes. There are 98-101 dorsal and 76-79 anal fin rays and 10+32 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. and Rosamma Stephen 1998. First record of larvae of *Arnoglossus imperialis* (Rafinesque, 1810) (Bothidae, Pisces) Atlantic species from the Indian Ocean. Proceedings of the 2nd International Conference on Pelagic Biogeography ICoPB II IOC Workshop Report No. 142, 115-120.

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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