# NATIONAL BIORESOURCE DEVELOPMENT BOARD

Dept. of Biotechnology Government of India, New Delhi

For office use only	7
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MARINE BIORESOURCES
FORMS DATA ENTRY: FORMS DATA ENTRY: Form- 1(general ) Ref. No.: (please answer only relevant fields; add additional fields if you require)

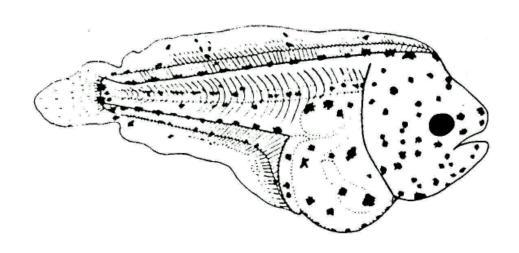
Fauna : √	Flora	Microorganisms				
	ate (Zooplankton) Fish larvae	wiiciooi gaiiisiiis				
Seneral Sandgery . Verveer	(2007:111101) 1:011:111:111					
•	Scientific name & Authority: Solea heinii Steindachner, 1902 - Adult					
Common Name (if available	e):					
Synonyms:	Author( s)	Status				
Solea heinii	Steindachner	1902				
Solea sindensis	Jenkins	1910				
Classification:						
Phylum: Vertebrata	Sub- Phylum					
Super Class: Pisces	Class: Osteichthyes	Sub- Class:				
Super Order: Teleostei	Order: Pleuronectiformes	Sub Order : Soleoidei				
Super Family:	Family : Soleidae	Sub-Family:				
Genus : Solea	Species: heinii					
Authority: Steindachner						
Reference No.						
Steindachner, 1902. Denkschr, K. Ak. Wiss. Wien. LXXI, p. 153, pl.i, fig. 3.						
Geographical Location:						
Cochin Backwaters - Vaduthala						
Coemin Bucky	vaters vadatilala					
Latitude:		Place:				
Longitude:		State:				

# Environment

Fresh water : Yes/ No Habitat : Salinity : 4.5PSU Brackish : Yes/ No Migrations : Temperature : 30.2°C

Salt water : Yes/ No Depth range :

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



Solea heinii, 3.2 mm from Balakrishnan and Lalithambika Devi, 1974.

DATA ENTRY FORM: Form- 2 (Fish / shellfish / others ) (please answer only relevant fields; add additional fields if you require) Form –1 Ref.No.:				
IMPORTANCE				
8	Place: Coast: east/ west  Details: If no, more	Ref . No.:		
SALIENT FEATURES:				
Morphological: See first column of last page				
Diagnostic characteristics: - " "				
Sex attributes:				
Descriptive characters: " "				

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Meristic characteristics: Dorsal fin rays 68-71, Anal fin rays 5	54-58, Vertebrae 37
Feeding habit:	
Main food :	
Feeding type:	
A 1177 1	
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) Length / weight relationalships:	Ref. No.:
Lengui / weight relationalships.	

Eggs and larvae: Ref . No.:

Characteristics:

Eyes are symmetrical and black. Alimentary canal consists of a single circular coil which soon transforms into an oval one and fills the space between the cleithrum and intestine, with rectal portion directed obliquely backwards. Ventral half of the cleithrum is obliquely bent forward, a snout which is almost equal to or exceeds the horizontal diameter of the eye. Swim bladder present. Median fin folds continuous and confluent with the caudal. Rectal portion is pushed forward by the forward extension of the anal fin. 37 vertebrae, including urostyle, are visible Median fins are continuous, but remain separate from the caudal. Dense dark brown pigment patches or sports all over the body.

Larvae of *Solea heinii* possess a hump at the posterior dorsal aspect of the skull (at least in early stages). The position of the left eye in 3.2mm larvae is an indication that metamorphosis has started. There are 68-71 dorsal and 54-58 anal rays.

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.)

Balakrishnan, K.P. and C.B. Lalithambika Devi, 1974. Larvae of some flat fishes from a tropical estuary. In: *The Early Life History of Fish*. Ed. J.H.S. Blaxter, Springer-Verlag, Berlin, 677-684.

Lalithambika Devi, C.B. 1993. Seasonal fluctuation in the distribution of Eggs and larvae of flat fishes (Pleuronectiformes - Pisces) in the Cochin backwater. Journal of the Indian Fisheries Association 23, 21-34.

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

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#### ACKNOWLEDGEMENT:

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