

NATIONAL BIORESOURCE DEVELOPMENT BOARD

Dept. of Biotechnology
Government of India, New Delhi

For office use:

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 : Vertebrata (Zooplankton), Fish larvae		
Scientific name & Authority : <i>Euthynnus affinis</i> (Cantor) 1880-Adult Common Name (if available) : Mackerel tuna		
Synonyms:	Author(s)	Status
<i>Thynnus affinis</i>	Cantor	1850
<i>Euthynnus affinis</i>	Fraser-Brunner	1949
<i>Euthynnus yaito</i>	Clank and Postal	1958
Classification:		
Phylum: Vertebrata	Sub- Phylum	
Super Class : Pisces	Class : Osteichthyes	Sub- Class: Actinopterygii
Super Order: Teleostei	Order: Perciformes	Sub Order : Scombroidei
Super Family:	Family : Scombridae	Sub-Family: Thunninae
Genus : <i>Euthynnus</i>	Species : <i>affinis</i>	
Authority: <i>Euthynnus affinis</i> (Cantor) 1880		
Reference No.		
Cantor, T.E., 1850. <i>Jour. Asiatic Soc. Bengal</i> , 18 : 1088		
Gorbunova, N.N., 1974. A review of Scombroid fishes (Pisces, Scombridae). <i>Trudy. Inst. Okeanol</i> , 96 : 23-76 (in Russian).		
Matsumoto, W.M. 1959. Descriptions of <i>Euthynnus</i> and <i>Auxis</i> larvae from the Pacific and Atlantic Oceans and adjacent seas. <i>Dana Report</i> , 50 : 1-34.		
Geographical Location:		
Wide spread along the east coast of Africa, Red Sea, Gulf of Aden, West and east coast of India, Laccadives, Maldives, Srilanka, Andamans and Indonesian waters.		
Latitude:	Place:	
Longitude:	State:	

Environment

Fresh water: Yes/ No

Habitat :

Salinity :

Brackish : Yes/ No

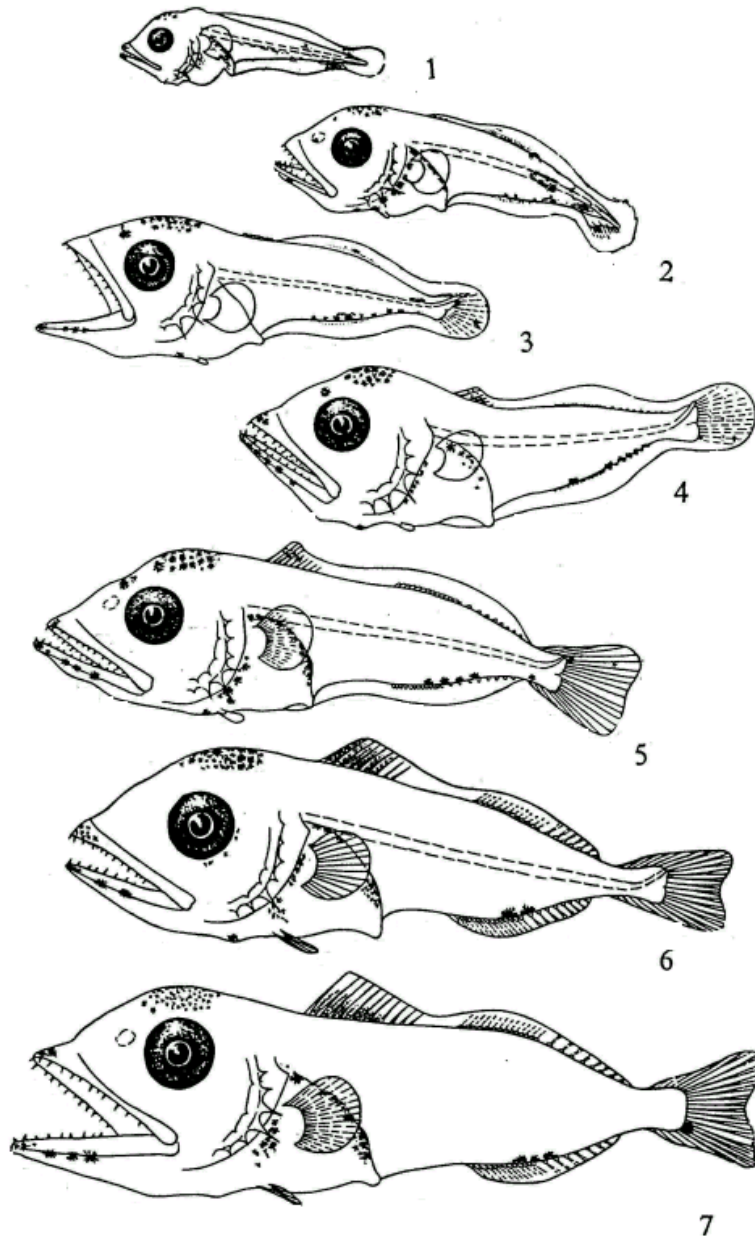
Migrations :

Temperature :

Salt water : Yes✓/ No

Depth range :

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



Figs. 1 – 6. Larvae of *Euthynnus affinis*

Fig. 1 – 3.45 mm; Fig. 2 – 4.8 mm; Fig. 3 – 5.4 mm

Fig. 4 – 6.1 mm; Fig. 5 – 7.1 mm; Fig. 6 – 8.4 mm; Fig. 7 – 9.1 mm.

(Reproduced from Gorbunova, 1974)

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

Meristic characteristics:

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.:

Information on eggs is not available. Ripe ovum is reported to be of having an average diameter of 0.99 mm with single oil globule of 0.25 mm.

Larval stages are characteristically long and slender and head conspicuously large. The abdominal sac is triangular, small and anteriorly situated. The vent is far forward of the mid point of total length. Eye diameter is more than the length of snout in early stages. Seven preopercular spines could be distinguished. There are 39 myomeres, of which 20 are precaudal and 19 caudal. Teeth are present on both jaws.

Pigments are present on the membrane covering the brain and the sides of the head. An important distinguishing character is the presence of an irregular row of dark chromatophores along the posterior portion of the ventral midline, and a series of 4 or 5 chromatophores in anterior half of the mandible. (Figs. 1-7)

Characteristics:

Abundance:

Biochemical aspects:

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

Ref. No.

Electrophoresis:

Ref. No.

SPAWNING INFORMATION:

Locality:

Main Ref:

Spawning ground appears to be within the 200 km line from the coast. Off Vizhinjam the probable period of spawning of this species is between April and September with peak in May – August. This differs in different parts of the Indian Ocean.

Season:

Fecundity:

Comment:

MAJOR PUBLICATIONS (INDIAN):

(include review articles, monographs, books etc.)

Jones, s. 1960. Notes on egg, larvae and juveniles of fishes from Indian waters.V .
Euthynnus affinis (Cantor). *Indian J. Fish.*, 7(1): 101-106.

Jones, S., and M. Kumaran, 1964. Eggs, larvae and juveniles of Indian Scombroid fishes. *Proc. Sym. Scomber. Fishes*, Mandapam Camp, (*Mar. Biol. Ass. India*)
1: 343-378.

Peter, K.J., 1977. Distribution of tuna larvae in the Arabian Sea. *Proc. Symp. Warm. WaterZool. Spl. Pbl. UNESCO/NIO*, pp. 36-40.

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

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