

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>Mugil cephalus</i> Linnaeus 1758 - Adult Common Name (if available) : Striped mullet		
Synonyms:	Author(s)	Status
<i>Mugil our</i>	Forskal	1775
<i>Mugil dobula</i>	Gunther	1877
<i>Mugil cephalotus</i>	Cuvier and Valenciennes	1836
<i>Mugil japonicus</i>	Temminck and Schlegel	1845
Classification:		
Phylum: Vertebrata	Sub- Phylum	
Super Class : Pisces	Class : Osteichthyes	Sub- Class: Actinopterygii
Super Order: Teleostei	Order: Mugiliformes	Sub Order :
Super Family:	Family : Mugilidae	Sub-Family:
Genus : <i>Mugil</i>	Species : <i>cephalus</i>	
Authority: <i>Mugil cephalus</i> Linnaeus 1758		
Reference No.		
Linnaeus, S.C. 1758. <i>Syst. Nat. ed 10</i> p. 316		
Anderson, M. 1958. Larval development, growth and spawning of striped mullet (<i>Mugil cephalus</i>) along the South Atlantic coast of the United States. <i>Fish Bull.</i> 58 : 501-519.		
Geographical Location:		
Cosmopolitan in coastal waters of the tropical and subtropical zones of all seas.		
Latitude:	Place:	
Longitude:	State:	

Environment

Fresh water: Yes/ No

Habitat :

Salinity :

Brackish : Yes✓/ No

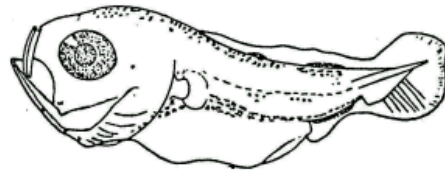
Migrations :

Temperature :

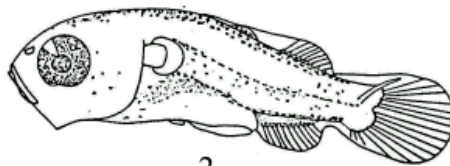
Salt water : Yes✓/ No

Depth range :

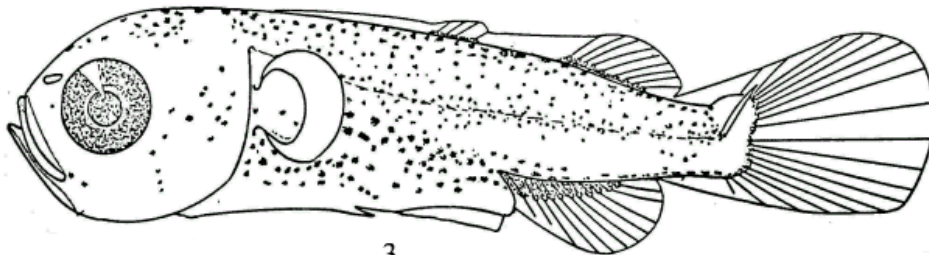
Picture (scanned images or photographs of adult / larval stages)



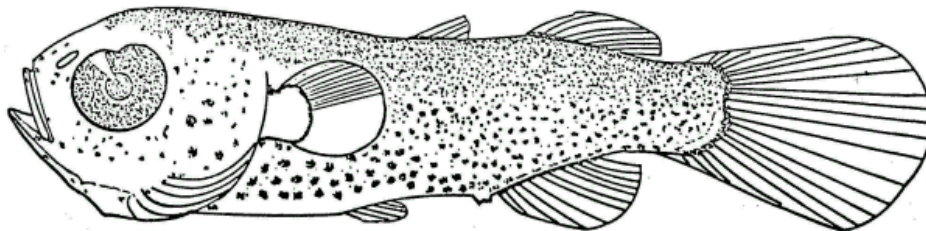
1



2



3



4

Figs 1-4. Larvae of *Mugil cephalus*,
Fig. 1 – 4.0 mm, Fig. 2 – 5.4 mm stage, Fig. 3 – 6.7 mm stage
Fig. 4 – 7.9 mm stage.

(Reproduced from Anderson, 1958)

<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>			
Landing statistics (t/y) :	from	to	Place :
Main source of landing:	Yes/ No		Coast: east/ west
Importance to fisheries:			Ref . No.:
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:
<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.:
Eggs are pelagic, spherical of diameter between 0.74 mm and 0.8 mm, with fine striations on the chorion, perivitelline space, homogenous yolk and pigmented single oil globule.	
Newly hatched planktonic larva with yolk sac measuring about 2.2 mm. Robust body with 24 myomeres, moderately to heavily pigmented with melanophores. Abdominal pelvic fins are widely separated, short based dorsal fin and lacks spines on the opercular series bones.	
In the 4.0 mm stage, mouth is terminal. Alimentary canal extends to $\frac{3}{4}$ of the total length of larva. Rudiments of dorsal and anal fin base are visible covered by membranous fold, but without any rays. Pectoral fin appears as a fleshy ray – less structure. In 6.7 mm larva no rays are formed. At this stage full compliments of dorsal, anal and caudal fins are already formed. The fin fold is lost between 6.7 and 7.9 mm stages. The larva moderately pigmented initially, subsequently becomes heavily pigmented. (Figs. 1-4).	
Characteristics:	
Abundance:	
Biochemical aspects:	
Proximate analysis: moisture/ fat/ protein/ carbohydrate/ash	Ref. No.
Electrophoresis:	Ref. No.

SPAWNING INFORMATION:	
Locality:	Main Ref:
Coastal waters, including bays and estuaries of the warmer region.	
Season:	
Fecundity:	
Comment:	

MAJOR PUBLICATIONS (INDIAN):
(include review articles, monographs, books etc.)

Kuthalingam, M.D.K., 1961. A contribution to the life history and feeding habits of *Mugil cephalus* (Linn.), *Treubia*, **27**(1) : 11-32.

Luther, G., 1967. The grey mullets. *Cent. Mar. fish. Res. Inst. 20th Anniv. Souv.* 70-74.

Nair, G.S., 1957. Notes on the early development of *Mugil cephalus*. *Bull. Cent. Res. Inst. Univ. Travancore*, **5 C** (1) : 77-84.

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

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