

**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>Makaira mazara</i> (Jordan & Snyder) 1901-Adult Common Name ( if available) : Blue marlin Language: English		
Synonyms:	Author( s)	Status
<i>Tetrapturus mazara</i>	Jordan&Snyder	
<i>Eumakaira nigra</i>	Hiraska and Nakamura	
<i>Istiompax howardi</i>	Whitley	
Classification:		
Phylum: Vertebrata	Sub-Phylum:	
Super class: Pisces	Class: Osteichthyes	Sub- Class: Actinopterygii
Super order: Teleostei	Order: Perciformes	Sub-Order: Scombroidei
Super Family:	Family: Istiophoridae	Sub-Family:
Genus: <i>Makaira</i>	Species: <i>mazara</i>	
Authority: <i>Makaira mazara</i> (Jordan & Snyder) 1901		
Reference No.		
Jordan, D.S and J.O.Snyder, 1901. <i>A preliminary checklist of fishes of Japan</i> , <b>3</b> : 159pp.		
Ueyanagi,S. 1964. Description and distribution of larvae of five istiophorid species in the Indo-Pacific. <i>Proc.Symp.Scombr.fishes</i> , Mandapam Camp,( <i>Mar.Biol. Ass. India</i> ) 1962, <b>1</b> : 499-528.		
Ueyanagi,S.and H.Yabe, 1959. Larvae of the Black marlin( <i>Eumakaira nigra</i> Nakamura) <i>Rpt.Nanki.Reg.Fish.Res.Lab.</i> , <b>10</b> : 151-169.		
Geographical Location: Indo-Pacific		
Latitude:	Place:	
Longitude:	State:	

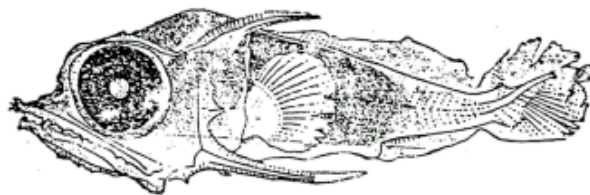
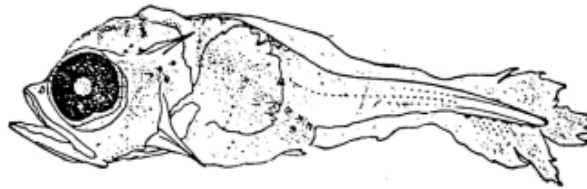
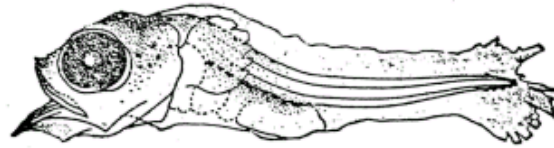
Environment

Fresh water : Yes/ No  
Brackish : Yes/ No  
Salt water : Yes

Habitat :  
Migrations :  
Depth range :

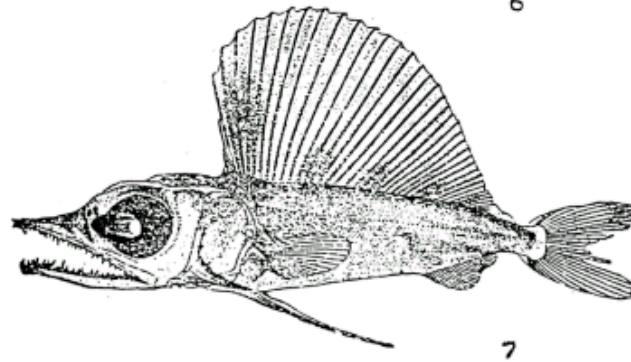
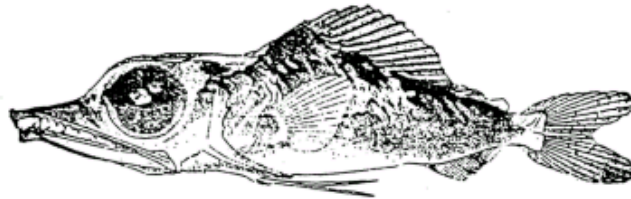
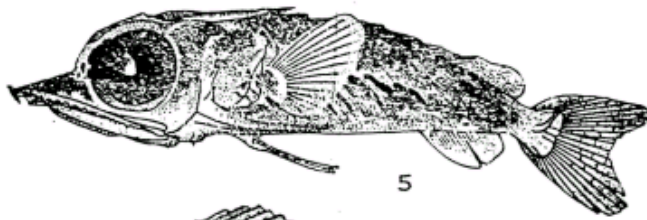
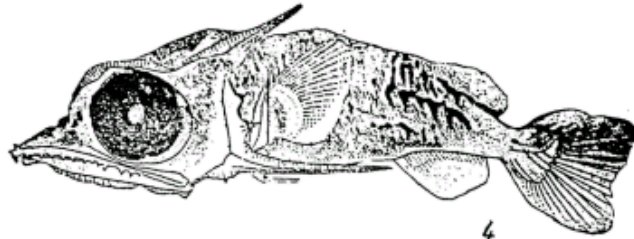
Salinity :  
Temperature :

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



Figs. 1-3. *Makaira mazara*

Fig. 1. 2.9 mm. Fig. 2 . 3.3 mm. (Reproduced from Ueyanagi and Yabe,1959)



Figs. 4-7 *Makaira mazara*  
Fig. 4. 8.6 mm. Fig. 5. 11.6 mm. Fig. 6. 16.3 mm.  
Fig. 7. 23.2 mm. (Reproduced from Ueyanagi and Yabe, 1959).

<p>DATA ENTRY FORM: Form- 2(Fish / shellfish / others )          (please answer only relevant fields ; add additional fields if you require)          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.:
Published information on eggs is not available.	
Deep bodied zoea type larva like that of sailfish which has close similarities in many respects. Characterised by the relatively short blunt snout, large eyes, and forward placement of anterior edge of orbit. Pterotic spines rise obliquely from its base and preopercular spines run nearly parallel to the ventral profile of body. No pigmentation on the lower part of head. The snout is blunt. Eyes are slightly larger and position of centre of eye is at a higher level from the horizontal line from snout. The ventral fin in later stages are longer than those of sail fish of comparable size. Body is pigmented. (Figs.1-7)	
Characteristics:	
Abundance:	
Biochemical aspects:	
Proximate analysis: moisture/ fat/ protein/ carbohydrate/ash	Ref. No.
Electrophoresis:	Ref. No.
<b>SPAWNING INFORMATION:</b>	
Locality:	Main Ref:
Tropical eastern Indian Ocean west of Sumatra and western Pacific.	
Season:	
Fecundity:	
Comment:	

**MAJOR PUBLICATIONS (INDIAN):**

(Include review articles, monographs, books etc.)

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

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

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