

**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>Syngnathoides biaculeatus</i> (Bloch) 1785-Adult Common Name ( if available) : Two barbel pipe fish		
Synonyms:	Author(s)	Status
<i>Syngnathus tetragonus</i>	Linn – Gmelin	1788
<i>Syngnathoides blochii</i>	Bleeker	1851
<i>Gastrotokens biaculeatus</i>	Kaup	1856
Classification:		
Phylum: Vertebrata	Sub- Phylum	
Super Class : Pisces	Class : Osteichthyes	Sub- Class: Actinopterygii
Super Order: Teleostei	Order: Syngnathiformes	Sub Order :Syngnathoidei
Super Family:	Family : Syngnathidae	Sub-Family:
Genus : <i>Syngnathoides</i>	Species : <i>biaculeatus</i>	
Authority: <i>Syngnathoides biaculeatus</i> (Bloch) 1785		
Reference No.		
Bloch, M.E. 1785. <i>Nat. Ausl Fische</i> 1 p. 10.		
Sudarsan, D., 1968. On the early development of pipe fish <i>Syngnathoides biaculeatus</i> (Bloch). <i>J. mar. biol. Ass. India</i> 8 (1): 222-224.		
Geographical Location:		
Coastal eel grass and sea weed beds of the shallow waters, coral reef or pelagic drift algae.		
Latitude:	Place:	
Longitude:	State:	

Environment

Fresh water: Yes/ No

Habitat :

Salinity :

Brackish : Yes/ No

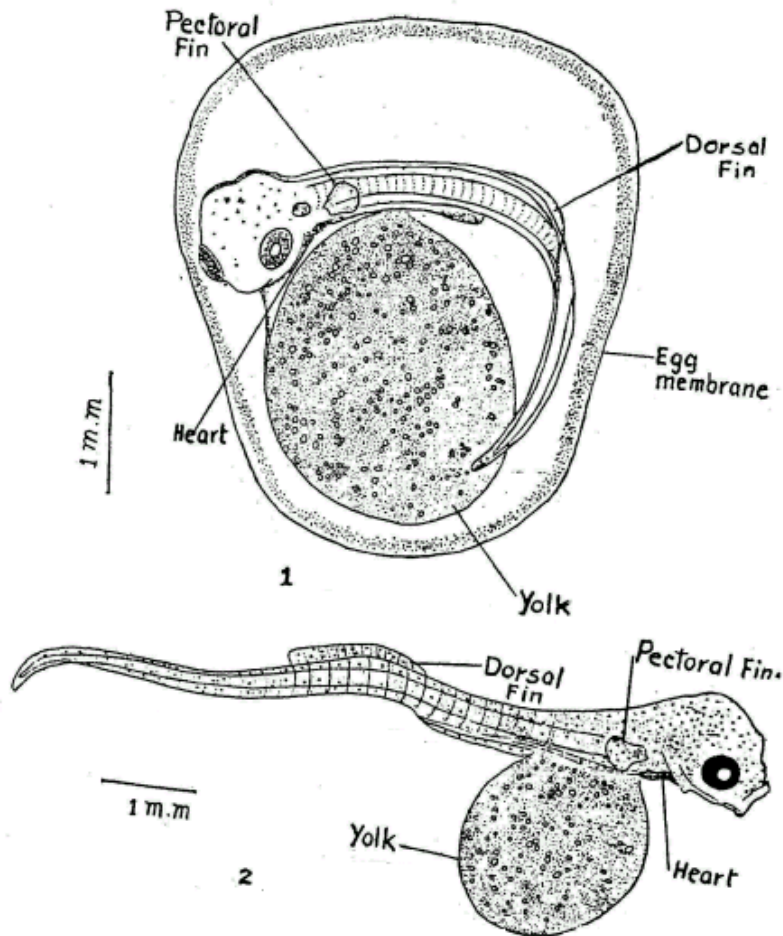
Migrations :

Temperature :

Salt water : Yes/ / No

Depth range :

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



Figs. 1- 2. Embryo and larva of *Syngnathoides biaculeatus* (Bloch).  
(Reproduced from Sudarsan, 1968)

Fig. 1. Embryo inside the egg membrane;

Fig. 2. Newly hatched larva 8.1 mm.

<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.:

Syngnathoides are oviparous with ellipsoidal to pear-shaped eggs found attached to the body of males or enclosed in brood pouch.

The embryo inside the egg membrane (fig. 1) of size 2.92 mm is in a fairly advanced stage. The dorsal and pectoral fins were clearly differentiated and the tail portion was free from opaque yolk mass having numerous tiny oil globules. Eyes were fairly well developed and already black in colour. The heart was also fully formed. The autocytes were clearly visible. Pigment spots could be seen all over the cephalic region and at a few places on the trunk and tail.

The newly hatched larva measured 8.1 mm (fig. 2). It had already attained a characteristic shape of the adult pipe fish, except that the pipe shaped snout was extremely short, and the yolk mass was still present, though very much reduced in size. Dorsal and pectoral fins were well developed with rudiments of rays visible. The whole body (including fins) was pigmented with a heavier concentration of spots in the cephalic region. Rudiments of abdominal and caudal annuli were discernible with seven of the latter under the dorsal fin. All syngnathids are encased in armour of bony rings. Snout is tubular with small terminal mouth. Postlarva resembles a miniature adult.

Characteristics:

Abundance:

Biochemical aspects:

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

Ref. No.

Electrophoresis:

Ref. No.

**SPAWNING INFORMATION:**

Locality:

Main Ref:

Residents of coastal sea weed beds of marine shallow waters. Fertilized eggs hatch out inside the brood pouch of male, one to two weeks after spawning.

Season:

Fecundity:

Comment:

MAJOR PUBLICATIONS (INDIAN):

(include review articles, monographs, books etc.)

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

Sudarsan, D., 1968. On the early development of pipe fish *Syngnathoides biaculeatus*  
(Bloch). *J. mar. bil. Ass. India* **8** (1): 222-224.

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