

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 : Invertebrata (Zooplankton), Chaetognatha		
Scientific name & Authority : <i>Sagitta oceania</i> Gray 1930 Common Name (if available): Arrow worm		
Synonyms <i>Sagitta lacunae</i>	Author(s) Tokioka	Status 1942
Classification: Phylum: Chaetognatha Sub-Phylum: Super class: Class: Sub- Class: Super Order: Sub Order: Super Family: Family: Sub-Family: Genus: <i>Sagitta</i> Species: <i>oceania</i> Authority: Grey Reference No.: Gray, B.B., 1930. Chaetognatha from the Society Islands. <i>Proc. roy. Soc. Qd</i> , 42 : 62-67.		
Geographical Location: This is a neritic chaetognath in Indonesian, Polynesian, Micronesian and South China Sea regions. Recorded from coastal neritic waters of South- Central west coast of India off Cochin and off Bombay.		
Latitude:	Place:	
Longitude:	State:	

Environment

Fresh water: Yes/ No Habitat : Marine

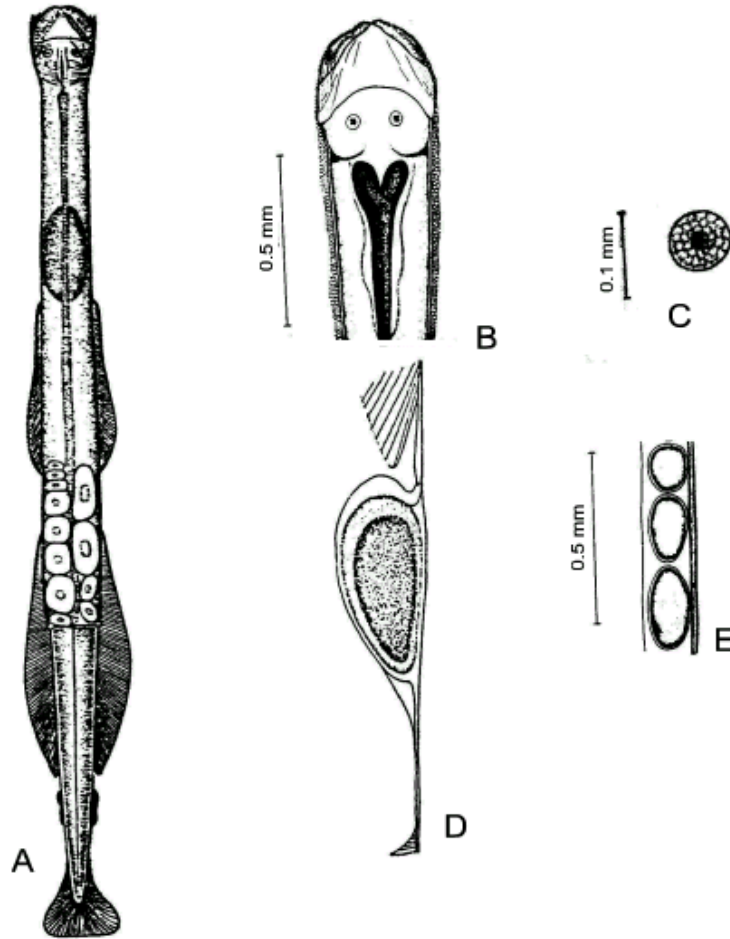
Brackish : Yes ✓/ No Migrations :

Salt water : Yes ✓/ No Depth range: 20-0 m.

Salinity :

Temperature :

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



Sagitta oecania

A – Dorsal view; B – Details of head, neck and corona ciliata (dorsal view);

C – Eye; D – Seminal vesicle (dorsal view);

E – Upper view of arrangement of ova in the ovary.

<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><i>Sagitta oceania</i> is a small chaetognath with a firm, opaque and flexible body. Muscles are strong. Lateral fields are narrow. Width of body is of same size from head to caudal septum. Intestinal diverticula is present.</p> <p>Head is of normal size with an inconspicuous neck. Tail segment constitutes 25 to 29 per cent of total length of animal. Eyes are large, with pigment in a large spot formed by three branches toward centre and two shorter ones toward sides. Collarlet is absent. Corona ciliata seen at from neck region, extending to about midway to ventral ganglion. Ventral ganglion is large for the size of the animal. Anterior fins are slightly shorter than posterior fins and begin just behind posterior end of ventral ganglion. A rayless zone is absent and at anterior end a small part of fin has rays perpendicular to body walls. Posterior fins are triangular in shape extending to seminal vesicles with widest region at the tail segment. About two thirds of the length of posterior fin is on tail. Rayless zone is absent and in the most anterior part there is a small region with rays directed perpendicular to body walls. Distance between paired fins is only about 2.8 per cent of total length. Tail fin is long.</p>			
<p>Sex attributes:</p> <p>Hermaphrodite. Male gonads being located in the tail segment, the female in the posterior part of the trunk. Though hermaphrodite cross – fertilization by copulation is the rule.</p> <p>Descriptive characters:</p> <p>When fully mature ovaries reach up to anterior end of ventral ganglion. Ova are large, elongated and oval. Ova are distributed unequally in one line with space in between the ova. Number of ova per ovary is usually 9 to 15. Seminal vesicles are close to posterior fins and away from tail fin. This gap is filled with a membrane, which holds the vesicle to the tail. Vesicles are pear – shaped and opens at anterolateral part on the dorsal side.</p>			

Meristic characteristics:

Hooks are slender and gracefully curved. Number of hooks vary from 6 to 7 at each side. Anterior teeth total 5 to 8 at each side. Posterior teeth total 15 to 20 at each side.

Feeding habit: Active, well armed, voracious animals.

Main food : Crustaceans, hydromedusae, other chaetognaths, fish larvae.

Feeding type : Carnivore.

Additional remarks:

Size and age: Total length at maturity: 6.5mm

Maximum length (cm) (male / female/ unsexed)

Ref. No.:

Average length (cm) (male / female / unsexed)

Ref. No.:

Range and average length: 4.5 – 6.5 (5.2) mm

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: Characteristics: Abundance:	Ref. No.:
Biochemical aspects: Proximate analysis: moisture/ fat/ protein/ carbohydrate/ash Electrophoresis:	Ref. No. Ref. No.
SPAWNING INFORMATION:	
Locality: Season: Fecundity: Comment:	Main Ref:
MAJOR PUBLICATIONS (INDIAN): (include review articles, monographs, books etc.) Gray, B.B., 1930. Chaetognatha from the Society Islands. <i>Proc. roy. Soc. Qd</i> , 42 : 62-67. Vijayalakshmi Nair, R. 1977. Chaetognaths of the Indian Ocean. <i>Proc. Symp. Warm Water Zoopl. Spl. Publ. UNESCO/NIO</i> . 168-195. Vijayalakshmi Nair, R. 1978. Bathymetric distribution of chaetognaths in the Indian Ocean. <i>Indian J. Mar. Sci.</i> 7 : 276-282. Pierrot – Bults, A.C and Vijayalakshmi Nair, R. 1991. Distribution patterns in Chaetognaths. <i>In: The Biology of Chaetognaths</i> . Q.Bone, H. Kapp and A. C. Pierrot – Bults (Eds.). Oxford Science Publications, Oxford University Press, Oxford, New York, Tokyo. 86-116.	
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