

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 neglecta</i> Aida, 1897 Common Name (if available): Arrow worm		
Synonyms	Author(s)	Status
<i>Sagitta trichodermis</i>	Oye	1918
<i>Sagitta tenuis</i>	John	1913
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>neglecta</i>	
Authority: Aida		
Reference No.:		
Aida, T., 1897. The Chaetognaths of Misaki Harbour. <i>Annotnes. zool. jap.</i> 1 : 13-21.		
Geographical Location:		
This is a tropic – equatorial Indo – pacific species with neritic tendencies or at least more numerous in neritic than in central part of the oceans. In the Indian Ocean extends along coastal regions to the Chagos Archipelago and Red Sea. Distributional limit in the Indian Ocean is 15° S and abundant towards the coastal area.		
Latitude: Extends to 15°S		Place:
Longitude:		State:

Environment

Fresh water: Yes/ No

Habitat : Marine

Salinity :

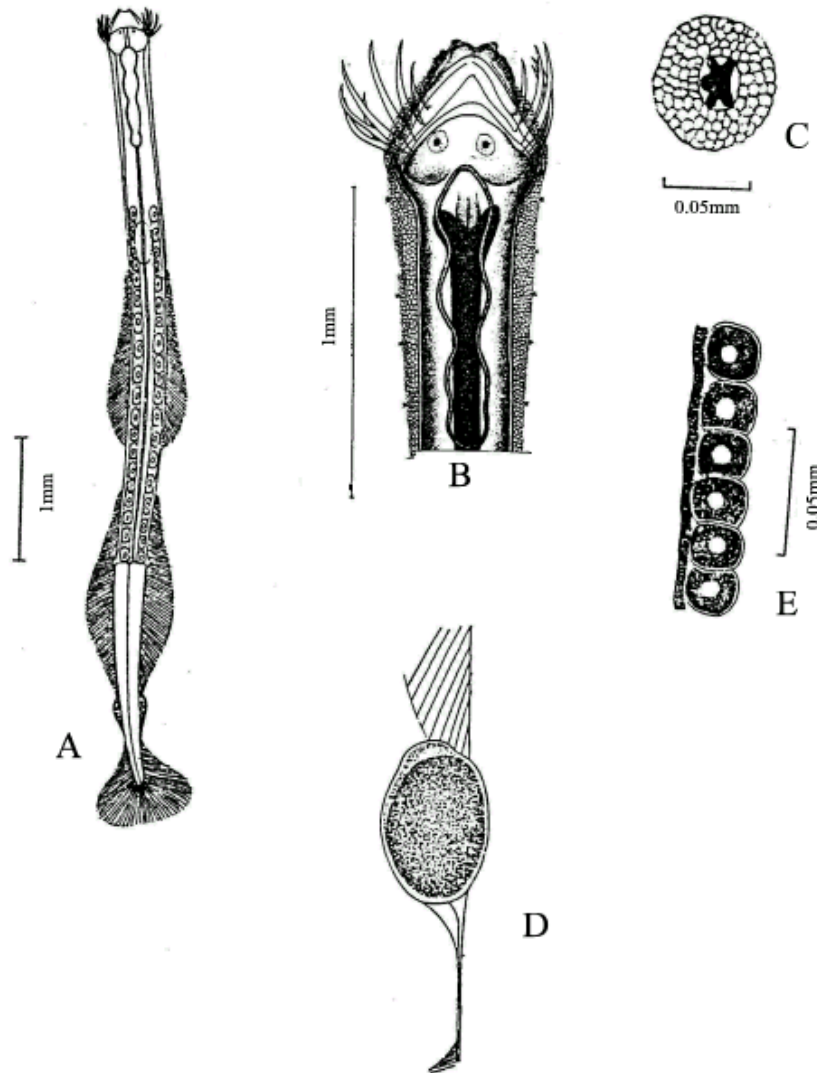
Brackish : Yes/ No

Migrations : Perform vertical migrations. Temperature :

This can be diurnal in relation to size/stage of maturity, light intensity or otherwise

Salt water : Yes ✓/ No Depth range: 200-0 m. Seldom below 250m.

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



Sagitta neglecta

A – Dorsal view; B – Head; C – Eye; D – Seminal vesicle;
E – 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 neglecta</i> is one of the smaller species of chaetognatha. Body is rigid, opaque and of uniform width from head to tail septum. Muscles are strong. Lateral fields are narrow. Intestinal diverticula is present.</p> <p>Head is elongated, longer than wide and slightly bigger than body. Neck is conspicuous. Tail constitutes 26 to 30 per cent of total length. Eyes are large and roundish. Pigment is a five lobed structure seen at the centre of the eye and of the five arms of the pigment three are larger than the other two. Collarette fills the neck region, extending to anterior end of anterior fins and then spreads as a thin layer to the tip of tail. Corona ciliata clearly visible and extends in a weaving pattern from the middle of the eyes to middle part of the neck and ventral ganglion. Anterior fins are shorter than posterior fins. Anterior fins begin at a short distance behind posterior end of ventral ganglion, and are fully rayed. Posterior fins begin at a short distance from posterior end of anterior fins. More than 60 per cent of these fins are seen on the tail segment and are fully rayed. The constriction of the tail septum is very clear.</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>Ovarian tubes are long, wide and extend beyond ventral ganglion in mature specimens. Ova are round, large and arranged in one row. Seminal vesicles are big and roundish and touch posterior end of posterior fins. It is separated from tail fin by a distance almost equal to the length of seminal vesicles. This region of tail segment is filled by thin layer of collarette tissue. Seminal vesicles are roundish with an anterior enlargement. They have a wide and short prominence at anterior part where a fission line is observed. This on bursting extends to posterior part of vesicles.</p>			

Meristic characteristics:

The prehensile hooks appear usually pleated together, partially or totally covered by the hood and the extension of collarete. They number from 6 to 7. Anterior teeth number is usually 7 at each side. Posterior teeth are as many as 18 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:

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

Ref. No.:

The total length at maturity reaches 8mm

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

Ref. No.:

Range and average length: 5-8 (6.5) 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.)	
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.	
Srinivasan, M. 1979. Taxonomy and ecology of Chaetognatha of the west coast of India in relation to their role as indicator organisms of watermasses. <i>Zool. Surv. India, Tech. Monogr.</i> No. 3. 1-47.	
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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