NATIONAL BIORESOURCE DEVELOPMENT BOARD
Dept. of Biotechnology
Government of India, New Delhi

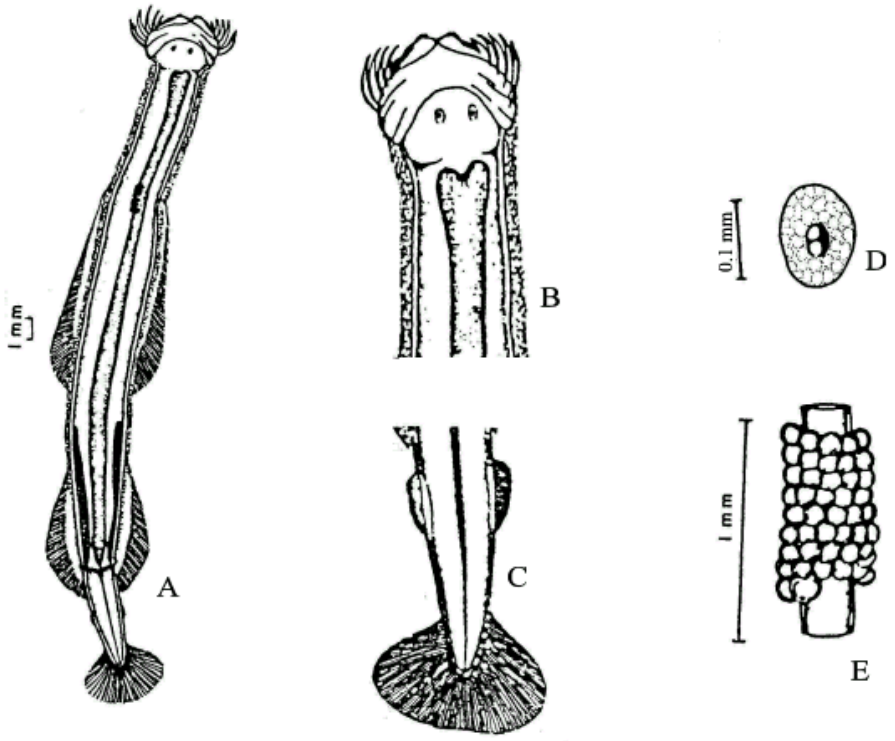
For office use:

MARINE BIORESOURCES
FORMS DATA ENTRY**:** Form- 1(general **)** Ref. No.:
(please answer only relevant fields;add additional fields if you require)

Fauna : √	Flora	Microorganisms
General Category : Invertebrata (Zooplankton), Chaetognatha		
Scientific name &Authority : *Sagitta planctonis* Steinhaus, 1896 Common Name (if available) : Arrow worm		
Synonyms:	Author(s)	Status
Sagitta moreauensis	Gray	1922
Sagitta zetesios	David	1958
Classification:		
Phylum: Chaetognatha	Sub- Phylum	
Super Class :	Class :	Sub- Class:
Super Order:	Order:	Sub Order :
Super Family:	Family :	Sub-Family:
Genus : *Sagitta*	Species : *planctonis*	
Authority: Steinhaus		
Reference No.		
Steinhaus, O., 1896. Die Verbreitung der Cheatognathen im Sudatlantischen und indischen ozean. *Inaug. Diss. Kiel*, L.Handorff, Kiel,49 pp.		
Geographical Location: The mesoplanktonic species extends along the southernmost part of the Atlantic, Indian and Pacific Oceans and into the Subantarctic waters.		
Latitude:	Place:	
Longitude:	State:	

Environment			
Fresh water: Yes/ No	Habitat : Marine		Salinity :
Brackish :Yes/ No	Migrations : Perform Vertical migrations. This can be diurnal in relation to size/stage of maturity, light intensity or otherwise		Temperature :
Salt water :Yes√/ No	Depth range : Subantarctic, 600-300 m.		

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



Sagitta planctonis

A – Dorsal view; B –Head;

C – Details of posterior part of tail and seminal vesicles (dorsal view);

D –Eye; E – Arrangement of ova in the ovary.

DATA ENTRY FORM: Form- 2(Fish / shellfish / others)
(please answer only relevant fields ; add additional fields if you require)
Form –1 Ref.No.:

IMPORTANCE

Landing statistics (t/y) : from to Place : Ref . No.:
Main source of landing: Yes/ No Coast: east/ west
Importance to fisheries:
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:

SALIENT FEATURES :
Morphological:
Diagnostic characteristics:

Sagitta planctonis is a large chaetognath. Body is strong and opaque. The longitudinal muscles are strong. Body has almost same width from head to tail septum. Lateral fields are narrow. Intstinal diverticula are present.

Head is roundish and of medium size. The neck is conspicuous. Tail constitutes 19.2 to 21.4 per cent of total length. Eyes are small and oval. The pigmented region is formed of two large branches and a small one. Collarette extends along body as a thick and dense layer from head to tail. There is a connecting bridge joining the posterior and anterior part of paired fins. Thick layers of collarette extend along internal part of paired fins. Corona ciliata originates from the posterior end of the head and extends about half way between the head and ventral ganglion. Ventral ganglion is situated about one third distance between head and tail septum. Anterior fins begin from the middle of the ventral ganglion and are longer than posterior fins. Anterior fins are rayless at the anterior end and along the inner edge. Length of the fin is 24-32 per cent of body length. Posterior fins are triangular in shape with widest part along tail septum. About 75 per cent of the fin is in the trunk as compared to the tail segment.

Sex attributes:

Hermaphrodite. Male gonads being located in the tail segment, the female in the posterior part of the trunck. Though hermaphrodite cross – fertilization by copulation is the rule.

Descriptive characters:

Ovarian tubes fill completely the body cavity when fully mature and it extends to ventral ganglion. Ova are arranged in four or five rows. Seminal vesicles are oval in shape and close to posterior fins and away from the tail fin.

Meristic characteristics:

Hooks range between from 8 and 11. Anterior teeth range from 6 to 9 while posterior teeth 10 to 14.

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.:
Total length at maturity is 37 mm.

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 relationalships:

Eggs and larvae: Ref . No.:
Characteristics:
Abundance:

Biochemical aspects:
Proximate analysis: moisture/ fat/ protein/ carbohydrate/ash Ref. No.
Electrophoresis: Ref. No.

SPAWNING INFORMATION:
Locality: Main Ref:
Season:
Fecundity:
Comment:

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

Steinhaus, O., 1896. Die Verbreitung der Cheatognathen im Sudatlantischen und indischen ozean. *Inaug. Diss. Kiel*, L.Handorff, Kiel,49 pp.

Vijayalakshmi Nair, R. 1977. Chaetognaths of the Indian Ocean. *Proc. Symp. Warm Water Zoopl. Spl. Publ. UNESCO/NIO.* 168-195.

Vijayalakshmi Nair, R. 1978. Bathymetric distribution of chaetognaths in the Indian Ocean. *Indian J. Mar. Sci.* **7**: 276-282.

Pierrot – Bults, A.C and Vijayalakshmi Nair, R. 1991. Distribution patterns in Chaetognaths. *In*: The Biology of Chaetognaths. Q.Bone, H. Kapp and A. C. Pierrot – Bults (Eds.). Oxford Science Publications, Oxford University Press, Oxford, New York, Tokyo. 86-116.

LIST OF INDIAN EXPERTS(Name, address, phone, fax, e-mail etc.)

Dr. Vijayalakshmi R. Nair
HB/50, "Vijaya"
South Bridge Avenue,
Panampilly Nagar,
Kochi - 682036
Tel: 0484 - 2316999
Fax: 0484 - 2324972
e – mail: vijayalakshmi40@hotmail.com

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