

**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>Eukrohnia fowleri</i> Ritter – Zahony, 1909		
Common Name ( if available): Arrow worm		
Synonyms	Author( s)	Status
<i>Eukrohnia richardi</i>	Burfield and Harvey	1926
<i>Eukrohnia hamata</i>	Thiel	1938
	Thomsun	1947
Classification:		
Phylum: Chaetognatha	Sub-Phylum:	
Super class:	Class:	Sub- Class:
Super Order:	Sub Order:	
Super Family:	Family:	Sub-Family:
Genus: <i>Eukrohnia</i>	Species: <i>fowleri</i>	
Authority: Ritter – Zahony		
Reference No.:		
Ritter-Zahony, R., 1909. Chaetognathen Ber. Komm. Erf. des ostlichen Mittelmeeres. <i>Denkschr. Kais. Acad. Wiss. Wien</i> , <b>84</b> : 43-54		
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Geographical Location:		
This is an oceanic, cosmopolitan and bathyplanktonic species recorded from Arctic to Antarctic along Atlantic, Pacific and Indian Ocean. Distributional limit in the Indian Ocean extends 25° S.		
Latitude: Extends to 25° S	Place:	
Longitude:	State:	

Environment

Fresh water: Yes/ No

Brackish : Yes/ No

Salt water : Yes/No

Habitat : Marine

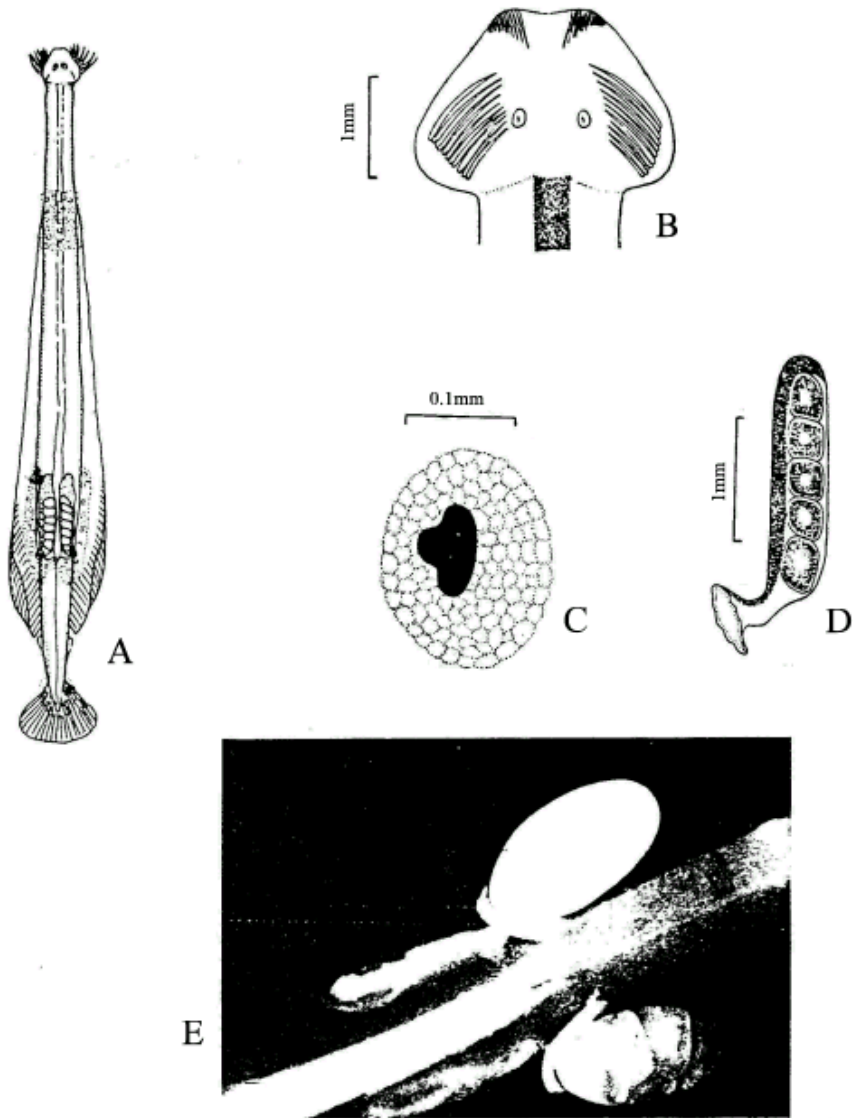
Migrations : Perform vertical migrations. This can be diurnal in relation to size/stage of maturity, light intensity or otherwise

Depth range : 500m and below. Most abundant below 1000m(Nair, 1978)

Salinity :

Temperature :

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



*Eukrohnia fowleri*

A – Dorsal view; B – Head; C – Eye;

D – Arrangement of ova in the ovary;

E – Posterior part (dorsal view) carrying eggs in marsupial sacs.

<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>Body is long, stout, opaque and firm due to strong thick longitudinal muscles. The body is orange in colour and widest region occupied by ovaries. Intestinal diverticula are absent.</p> <p>Head is large, wider than long and has a conspicuous neck. Tail segment is 22 to 25 per cent of the total length. Eyes are large and oval with longest axis parallel to longitudinal axis of body having small pigmented region. The collarette is absent at the neck region, but seen as a thick layer around the ventral ganglion at tail septum and at the tip of the tail segment. Tail segment occupies ¼ of the animal length and varies from 22 to 27 per cent of the animal. The constriction at the tail septum is clear. Ventral ganglion is found a little behind the ¼ distance from the anterior end of the animal. Digestive tube most often appears in red colour. Corona ciliata pear shaped reaching neck region. Lateral fin originates at the anterior region of the ventral ganglion and extends to the seminal vesicles. Anterior ¾ length of the fins are rayless.</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 short and thick. Ova are large, spherical and arranged in two rows. Seminal receptacle large with strong walls. The seminal vesicles are located close to the lateral fins, oval in shape and break open along the lateral margin through which the sperms are liberated.</p>			

Meristic characteristics:

Number of hooks vary from 10 to 13 and they are gently curved. Teeth up to 30 in number.

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.:

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

Ref. No.:

Range and average length : 12 - 35(av. 26.5)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.
<b>SPAWNING INFORMATION:</b>	
Locality: Season: Fecundity: Comment:	Main Ref:
<b>MAJOR PUBLICATIONS (INDIAN):</b> (include review articles, monographs, books etc.) 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.  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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<b>ACKNOWLEDGEMENT:</b> (List of persons who contributed , modified or checked information)	