

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>Krohnitta pacifica</i> (Aida), 1897 Common Name (if available): Arrow worm		
Synonyms	Author(s)	Status
<i>Eukrohnia pacifica</i>	Michael	1911
<i>Krohnia kerberti</i>	Oye	1918
<i>Krohnitta subtilis</i>	Ritter-Zahony	1912
	Burfield and Harvey	1926
<i>Krohnia pacifica</i>	Varadarajan and Chacko	1943
Classification:		
Phylum: Chaetognatha	Sub-Phylum:	
Super class:	Class:	Sub- Class:
Super Order:	Sub Order:	
Super Family:	Family:	Sub-Family:
Genus: <i>Krohnitta</i>	Species: <i>pacifica</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 an oceanic, epiplanktonic species, cosmopolitan in tropico-equatorial belts of Atlantic, Indian and Pacific Oceans. In Indian Ocean the species extends upto 28°S with higher abundance north of 10°S especially on the western half.		
Latitude: Extends to 28°S	Place:	
Longitude: 40-100°E	State:	

Environment

Fresh water: Yes/ No

Brackish : Yes/ No

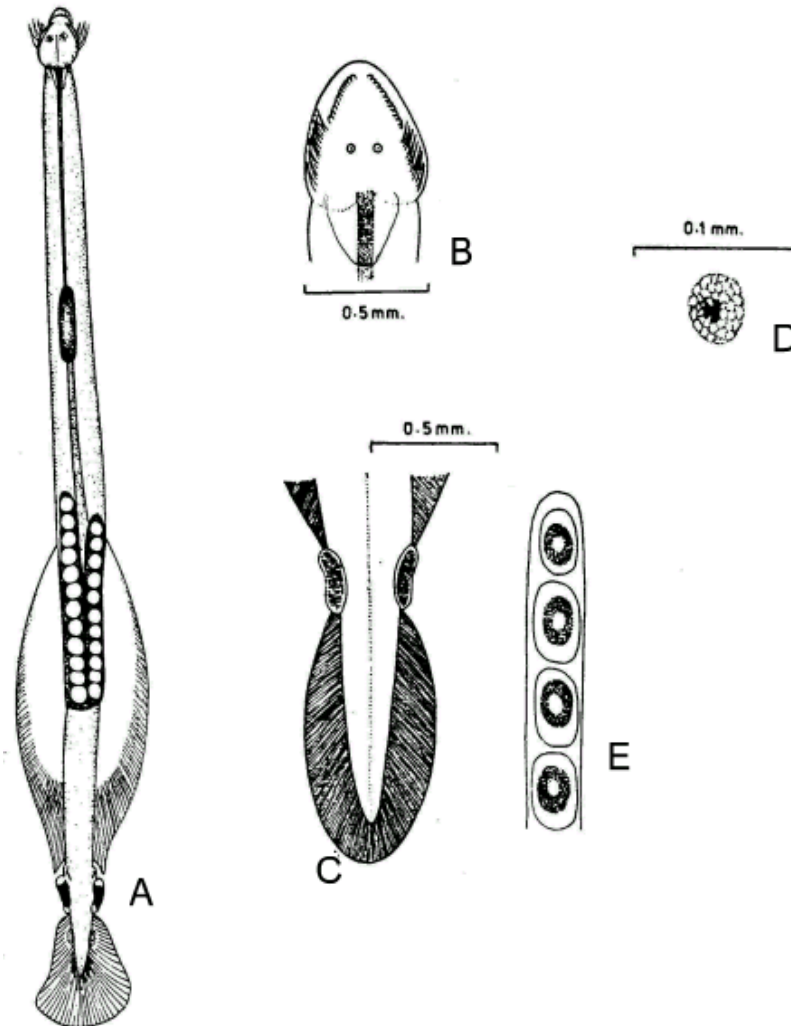
Salt water : Yes ✓/ No

Habitat : Marine

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

Depth range: 0-200m. Seldom found below 250m.

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



Krohnitta pacifica

A – Dorsal view; B – Head; C – Posterior portion of tail segment; D – Eye; 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>This species has a slender, transparent and flexible body with uniform width from neck to seminal vesicles. Longitudinal muscles are thin and weak. Intestinal diverticula are absent.</p> <p>Head is smaller than the body with conspicuous neck. Tail segment constitutes 27 to 34 per cent of total length. Eyes round, small with pigment in a kidney shape. Pigment is surrounded by three clear regions, two of which roundish and located towards center of head and the other elongated, located towards lateral side of head. Corona ciliata short, clove-shaped, extending into head but not reaching eyes. Collerette is absent. There is a single pair of fins. The fins originate at about the middle region of the body and extends to the seminal vesicles. Fins extend more on tail than on trunk. Fin rays occupy outer half of fin's surface leaving internal and most anterior part of fin rayless. Tail fin rounded spatuliform extending upto seminal vesicles. No rayless zone present in the tail fin.</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 and extend close to ventral ganglion in mature specimens. Ova small, roundish or spherical and arranged in a single row. The seminal vesicles touch both lateral and caudal fins. They are large, oval in shape and open along the anterolateral margin through which sperm is liberated.</p>			

Meristic characteristics:

Number of hooks ranged from 8 to 11. Hooks are fine plates with external outline formed by two parts of an arch.

Teeth are flat blades shaped like isosceles triangles and number up to 16 per set.

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.:

At maturity length varies from 6 to 8 mm

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

Ref. No.:

Range and average length: 4-8 (av. 6) 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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