

NATIONAL BIORESOURCE DEVELOPMENT BOARD

Dept. of Biotechnology
Government of India, New Delhi

For office use:

MARINE BIORESOURCES

FORMS DATA ENTRY: Form- 1(general)

Fauna: <input checked="" type="checkbox"/>	Flora	Microorganisms															
General Category: Invertebrata (Zooplankton) Pelagic amphipod																	
<p>Scientific name & Authority: <i>Mimonectes sphaericus</i> Bovallius, 1885 Common Name (if available): Synonyms: Author(s) Status</p> <table border="0"> <tr> <td><i>Mimonectes sphaericus</i></td> <td>Bovallius</td> <td>1885a: 11, 1889: 66</td> </tr> <tr> <td><i>Mimonectes sphaericus</i></td> <td>Stephensen & Pirlot</td> <td>1931: 516</td> </tr> <tr> <td><i>Mimonectes sphaericus</i></td> <td>Behning</td> <td>1939: 364</td> </tr> <tr> <td>-<i>valdiviae</i></td> <td>Woltereck</td> <td>1904a: 621</td> </tr> <tr> <td>(<i>Sphaeromimonectes</i>)</td> <td>Woltereck</td> <td>1909: 148</td> </tr> </table>			<i>Mimonectes sphaericus</i>	Bovallius	1885a: 11, 1889: 66	<i>Mimonectes sphaericus</i>	Stephensen & Pirlot	1931: 516	<i>Mimonectes sphaericus</i>	Behning	1939: 364	- <i>valdiviae</i>	Woltereck	1904a: 621	(<i>Sphaeromimonectes</i>)	Woltereck	1909: 148
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<p>Classification:</p> <table border="0"> <tr> <td>Phylum: Arthropoda</td> <td>Sub- Phylum: Mandibulata</td> <td>Sub- Class: Malacostraca</td> </tr> <tr> <td>Super class:</td> <td>Class: Crustacea</td> <td>Sub Order: Hyperiidea</td> </tr> <tr> <td>Super Order: Peracarida</td> <td>Order: Amphipoda</td> <td>Sub-Family</td> </tr> <tr> <td>Super Family: Scinoidea</td> <td>Family: Mimonectidae</td> <td></td> </tr> <tr> <td>Genus: <i>Mimonectes</i></td> <td>Species: <i>sphaericus</i></td> <td></td> </tr> </table> <p>Authority: Bovallius 1885a Reference No.: Bovallius, C. 1885a. <i>Mimonectes</i>, a remarkable genus. <i>Nova Acta Sci. Reg. Soc. Upsala</i>, ser. 3, pp. 1-16.</p>			Phylum: Arthropoda	Sub- Phylum: Mandibulata	Sub- Class: Malacostraca	Super class:	Class: Crustacea	Sub Order: Hyperiidea	Super Order: Peracarida	Order: Amphipoda	Sub-Family	Super Family: Scinoidea	Family: Mimonectidae		Genus: <i>Mimonectes</i>	Species: <i>sphaericus</i>	
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Super Family: Scinoidea	Family: Mimonectidae																
Genus: <i>Mimonectes</i>	Species: <i>sphaericus</i>																
<p>Geographical Location: Northern and tropical regions of the Atlantic Ocean (Bay of Biscay, Canary Islands, Madeira Island, Bermuda Islands); tropical regions of the Indian Ocean from 6° N to 30° S; various regions of the Pacific Ocean (Bering Sea and Kuril-Kamchatka Trench, Philippine Sea, Galapagos Islands, Tonga Trench); Antarctic waters: 64°03' S, 161°59' E. Young specimens are found in catches from depths of 200 to 2,000m but sexually mature females or the casts of spawned females have been found repeatedly right at the surface.</p> <p>Latitude: Place:</p>																	

Longitude:

State:

Environment

Freshwater: Yes/ No

Habitat: Marine

Salinity:

Brackish: Yes/No

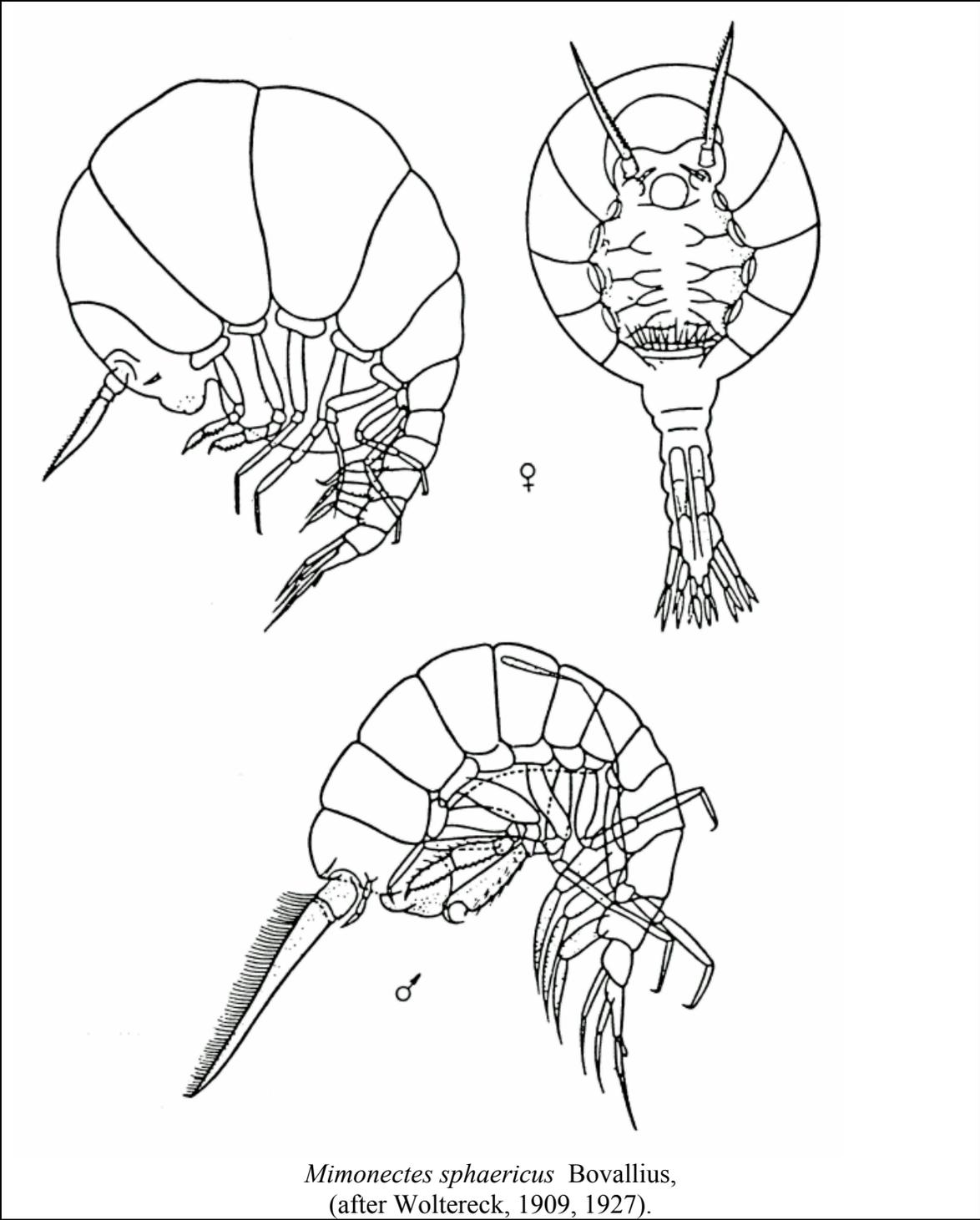
Migrations:

Temperature:

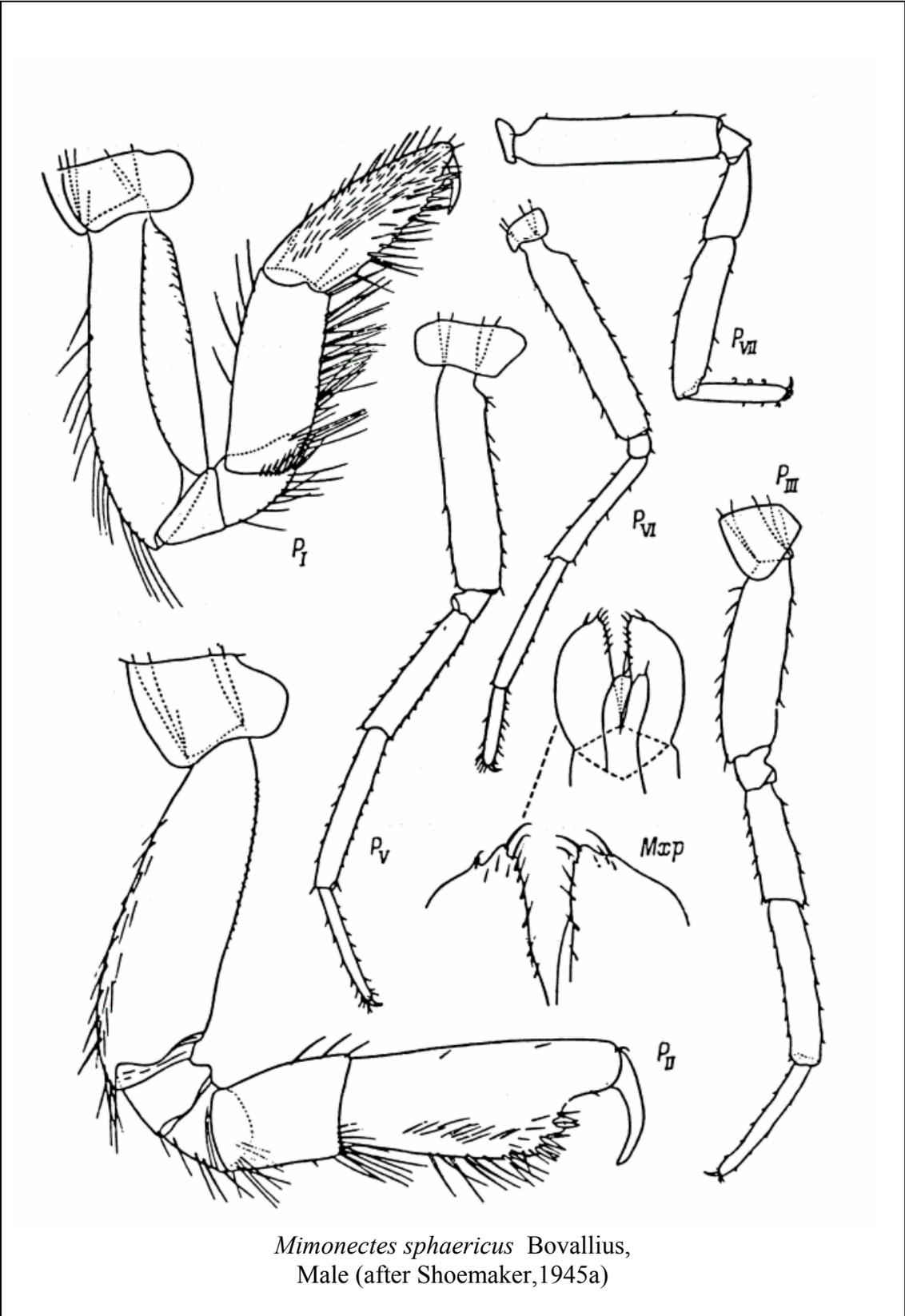
Salt Water: Yes/No

Depth range :

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



Mimonectes sphaericus Bovallius,
(after Woltereck, 1909, 1927).



Mimonectes sphaericus Bovallius,
Male (after Shoemaker, 1945a)

DATA ENTRY FORM: Form -2 (Fish/ Shell fish/ Others) Ref. No.:
(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:

Antennae I have a two-segmented peduncle; the flagellum has a long conical proximal segment with pubescence along the margin (especially in males); of the three distal segments, the Apical one is narrow but somewhat longer than the two preceding ones. In females the antennae are slightly longer than pereon somite I and in sexually mature males more than 5-6 pereon somites in length.

Maxillae I have a pateloid palp and an elongated-roundish inner lobe. In females the inner lobe of maxillae II is nearly equal to the outer in width, in male 1.5-2.0 times broader, armed with three strong setae and pubescent in the distal part. The outer lobe of the maxillipeds is armed in the distal part of the inner margin with short setae, with somewhat larger setae present on the distal angle of each lobe; between the apical and the preceding setae there is a somewhat developed notch so that the outer seta seems as if attached to an independent prominence, which Woltereck (1909) considered a rudimentary maxillary palp; the inner lobe is long, deeply split, and a small apical seta is present on each lobe.

In males pereopods I are strong; the 2nd segment is shorter than the 5th and 6th together; the linear or distally very weakly broadened 5th segment is equal to or slightly shorter than the oval-conical 6th segment; the 6th segment is armed with numerous setae, with especially strong ones on the posterior margin; the distal part of the posterior margin, in addition to setae, bears a short blunt spines; the long, strong, slightly curved claw is apically attached. In females pereopods I are much weaker though the ratios of their segments are the same. Pereopods II are slightly longer than pereopods I; in sexually mature males the 6th segment is equal to or slightly shorter than the 2nd segment,

amygdaloid in shape, with a notch in the distal part of the posterior margin locking in the strong curved claw; the distal part of the posterior margin of the segment bears long setae and several short blunt spines. The notch in the distal part may vary in development; sometimes it is only weakly developed and sometimes in large sexually mature specimens markedly developed, in which case the segment broadens distally. Such an extreme form was described as a unique species, *M.valdiviae*. In young crustaceans and in females the 6th segment is always amygdaloid; the notch in the distal part of its posterior margin is developed to a lesser degree and the segment itself is relatively shorter. Pereopods III and IV are longer than the preceding ones, the 2nd segment may be broadened, shorter than the 4th and 5th segments together, or rarely equal to them; the 4th segment is either shorter than the 5th or nearly equal to it; the thin 6th segment may be shorter or slightly longer than the 5th; the variations in the length proportions of these segments are not sex related; the linear or narrow amygdaloid 6th segment is shorter than the 5th, and may be shorter or longer than the 4th segment. Pereopods VI are slightly thinner than pereopods V, the 2nd, 4th, and 5th segments are usually linear although in some specimens the 4th segment is markedly broadened distally while the 5th is broadened in its middle part; the 6th segment is narrowly oval; the 4th and 5th segments are roughly equal in length, or the 4th is somewhat longer than the 5th but the 6th is shorter than each of them³, although Woltereck (1909) illustrates on the total outline of the male an inverse length ratio of these segments, which is evidently explained by an inaccuracy in drawing-so characteristic of this author. Pereopods VII are shorter but stronger than pereopods VI; their 5th segment is considerably (1.4-1.8 times) longer than the 4th and slightly longer than the linear or narrowly oval 6th segment. The claws of pereopods V-VII are short, strong, and curved.

Sex attributes:

Dimorphic

Male: 1st antenna well developed , female: 1st antenna reduced.

Descriptive characters:

Meristic characteristics:

Feeding habit:

Main food:

Feeding type:

Additional remarks:

Size and age:

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

Ref. No.:

Length of sexually mature males 10mm, females 18mm`

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 relation ships:

Eggs and larvae: Characteristics: Abundance: Biochemical aspects: Proximate analysis: moisture/ fat/ protein/ carbohydrate/ash Electrophoresis:	Ref. No.: Ref. No: Ref. No.:
SPAWNING INFORMATION: Locality: Season: Fecundity: Comment:	Main Ref:
MAJOR PUBLICATIONS (INDIAN): (Include review articles, monographs, books etc.) LIST OF INDIAN EXPERTS (Name, address, phone, fax, e-mail etc.) <div style="margin-left: 40px;"> <p>Dr.K.K.C.Nair Scientist-In-Charge R.C. of NIO, Post Box-1616 Kochi – 682 014</p> <p>Dr. N. Krishna pillai “Radhika” 65- Champaka Nagar Bakery Junction Trivandrum-695 001</p> </div> ACKNOWLEDGMENT: (List of persons who contributed, modified or checked information)	