

NATIONAL BIORESOURCE DEVELOPMENT BOARD

Dept. of Biotechnology
Government of India, New Delhi

For office use:

MARINE BIORESOURCES

FORMS DATA ENTRY: Form- 1(general)

Fauna: ✓	Flora	Microorganisms															
General Category: Invertebrata (Zooplankton) Pelagic amphipod																	
Scientific name & Authority: <i>Vibilia robusta</i> Bovallius, 1887 Common Name (if available): <table border="0"> <tr> <td>Synonyms:</td> <td>Author(s)</td> <td>Status</td> </tr> <tr> <td><i>Vibilia robusta</i></td> <td>Bovallius</td> <td>1887a: 7</td> </tr> <tr> <td><i>Vibilia robusta</i></td> <td>Behning</td> <td>1912: 213, 1927: 116</td> </tr> <tr> <td><i>Vibilia robusta</i></td> <td>Stephensen</td> <td>1918: 37</td> </tr> <tr> <td><i>-hirsuta</i></td> <td>Behning & Woltereck</td> <td>1912: 9</td> </tr> </table>			Synonyms:	Author(s)	Status	<i>Vibilia robusta</i>	Bovallius	1887a: 7	<i>Vibilia robusta</i>	Behning	1912: 213, 1927: 116	<i>Vibilia robusta</i>	Stephensen	1918: 37	<i>-hirsuta</i>	Behning & Woltereck	1912: 9
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Authority: Bovallius, 1887 Reference No: Bovallius, 1887. Contribution to a monograph of the Amphipoda Hyperiiidea. <i>Kongl. Svenska Vet. Akad. Handl.</i> , 21 : 1-72, 10 pls.																	
Geographical Location: Atlantic Ocean from 45° N to 30° S; Indian Ocean in the central part and also found in the southeastern coastal region of Africa. In the Pacific Ocean it is recorded from the eastern part of the tropical areas and southern coastal region of Tasmania. Latitude: _____ Place: _____ Longitude: _____ State: _____																	

Environment

Freshwater: Yes/ No

Habitat: Marine

Salinity:

Brackish: Yes/No

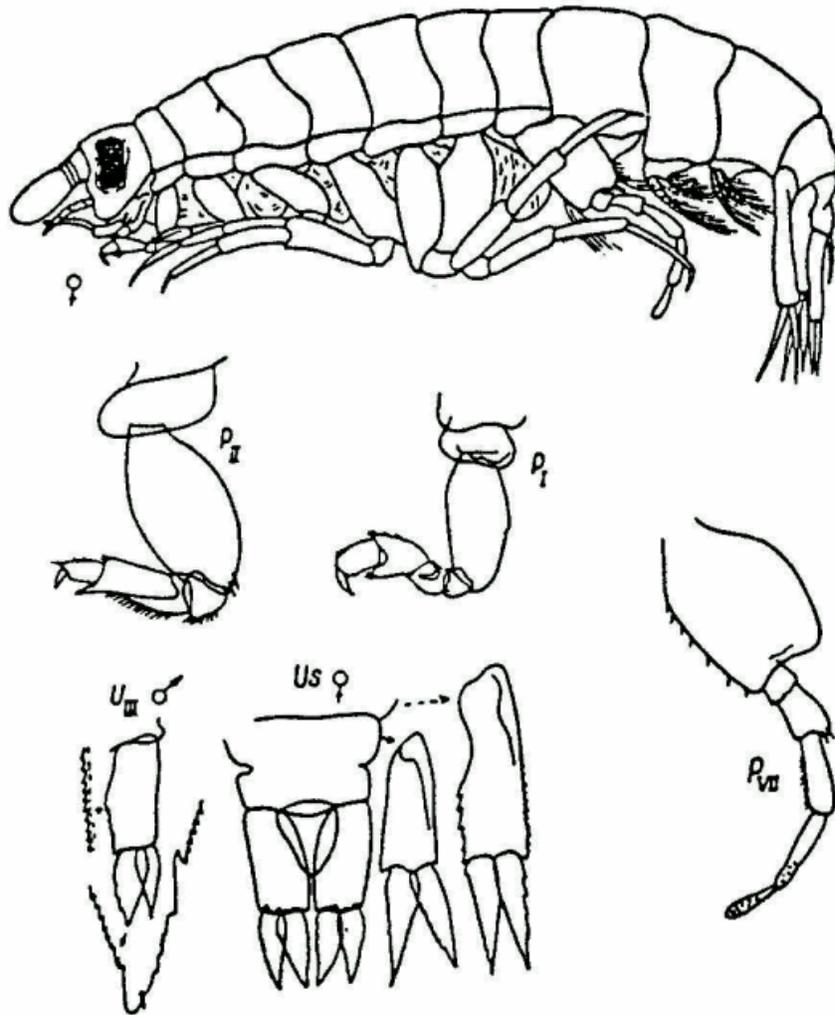
Migrations:

Temperature:

Salt Water: Yes✓/ No

Depth range :

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



Vibilia robusta Bovallius (Us, P1, PII- after Stephensen, 1918)

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:

Sexual dimorphism is manifest so weakly that only the presence of oostegites or their rudiments serve as a reliable indication of the sex. The body integument is very thick. The head is small, its height somewhat more than its length, and the latter less than the length of the first two somites of the pereon; the frons, particularly in large individuals, projects prominently over the base of antennae I. The eyes are very large, occupying half or more of the lateral surface of the head, elongated, and intensely pigmented. The base of antennae I is short; the 1st segment of the flagellum is not longer than the head, with parallel upper and lower margins, anteriorly rounded, and slightly inclined ventrally; the 2nd segment of the flagellum is subapical and highly reduced in large individuals and discernible only under a microscope; the two reduced apical segments are quite distinct in individuals less than 15 mm in length. Antennae II are not longer than antennae I and eight-segmented.

The pereon is equal in length to the pleon and urosome together. Somite I of the pereon is half the length of somite II. Somite III-VI are each slightly longer than somite II, while somite VII is equal to it. The 2nd segment of pereopods I is equal in length to the remaining segments together, its margins uniformly convex, and its maximum width more than half its length; the 4th segment is elongated along the posterior margin; contrarily, the 5th segment is longer along the anterior margin, the distal margin and the distal part of the posterior margin denticulate, and the posterior distal angle bears a group of several adjacent chitinized spines; the 6th segment is approximately the same length as the 5th and has a convex anterior margin bearing several setae and a straight posterior margin; the posterior and distal margins are denticulate; the claw is broadened at the base and denticulate posteriorly. Pereopods I like pereopods II might serve functionally as catching and grasping legs. The 2nd segment of pereopods II is longer than the rest of the leg, highly broadened (width 2/3 the length), with one-two spinules in the posterior distal angle; the lobe of

the 4th segment is long, 3-3.5 times longer than the basal part of the segment and armed posteriorly and distally with spines; the 5th segment is equal to the 4th but wedge-shaped its maximum width half its length, and its process hardly extends of the middle of the 6th segment; the distal margin of the 5th segment and both margins of the process are denticulate; the 6th segment is half the length of the 5th, with denticulate posterior and distal margins; the claw is strong, half the length of the 6th segment, and denticulate posteriorly. The 2nd segment of pereopods III is to the 4th-5th segments together, its length twice its maximum width, and the posterior margin more convex than the anterior; the 4th segment is equal to the 5th; the 6th segment is 1.5 times longer, weakly curved, its length about six times its width; the claw is smooth, slightly curved, and $\frac{1}{4}$ the length of the 6th segment; the distal part of the 5th-6th segments is finely denticulate. Pereopods IV are similar to pair III but the segments are slightly longer. The margins of the 2nd segment of pereopods V are weakly convex, the length twice the width and equal to the length of the 6th segment, and slightly less than the total length of the 4th-5th segments; the 4th segment is slightly shorter than the 5th; the 6th segment is slightly curved and finely denticulate anteriorly, its length almost ten times its width; the claw is smooth, weakly curved, and about $\frac{1}{5}$ the length of the 6th segment. Pereopods VI are similar to pereopods V but the 2nd and 5th segments are broader; the distal part of the anterior margin of the 2nd segment bears several spinules and the distal margin is the largest; the anterior margin of the 5th segment is armed with 8-10 strong short spines, while a few somewhat weaker spines occur in the distal half of the 4th segment. The 2nd segment of pereopods VII is $\frac{1}{3}$ the length of the rest of the leg and equal in length to the 3rd-5th segments together, broadly oval, its maximum width barely less than its length; the distal lobe of the posterior margin is broadly rounded and $\frac{1}{3}$ size of the 4th segment; the distal part of the anterior margin of the segment bears several minute spinules; the distal angles of the 6th segment protrude laterally from the narrow base of the 7th segment; the anterior distal angles of the 2nd-5th segment are armed with minute denticles; the clavate 7th segment has a squamose pattern on the surface.

The pleon is equal in length to the last four somites of the pereon. The urosome is the same length as somites II-III of the pleon; the geminate urosomite is equal in length to the last somite of the pleon while urosomite I is 1.7 into it; lateral notches divide the last urosomite almost in the middle; the distal angles are not prominent. The basipodites of the uropods are longer than the rami. The basipodite of uropods I is barely longer than the rami, coarsely denticulate distally from both sides, and 2.5 times longer than wide; the rami are narrow, with highly stretched ends; the margins of the endopodite and the inner margin of the exopodite are coarsely denticulate; the outer margin of the exopodite has faintly discernible adjacent denticles. The proportions of uropods II are the same; the endopodite is somewhat longer than the exopodite and proximally broader; the basipodite is smooth and the rami have similar ornamentation. The basipodite of uropods III is finely denticulate in the distal half of the inner margin and twice longer than wide; the rami are about half of the length of the basipodite; the endopodite is barely longer than the exopodite, proximally broader, and finely denticulate on the both sides; the exopodite is denticulate only on the inner side. The telson is roundish-triangular, its length barely exceeding its basal width and about half the length of the geminate urosomite.

Sex attributes: : Dimorphic

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

Descriptive characters:

Meristic characteristics:

Feeding habit:

Main food:

Feeding type:

Additional remarks: This species does not differ significantly from *vibilia hirsuta* Behning and Woltereck, 1912, which was described on the basis a single specimen; the latter is identified by the following characters; eyes large, antennae and legs with numerous minute setae, flagellum of antennae I with well-noticeable rudimentary segments, anterior margin of flagellum of antennae I round, maxillae *V. hirsuta* 4th segment of pereopods II highly setaceous, and pereopods VII with a relatively small basal segment. Most of these characters are age-related and observed in young individuals. If we consider that a young specimen of a large-sized species (*V.hirsuta* reaches 8.5 mm in length) was described, then in several characters it is closer to *V.robusta*: eyes large, posterior distal angle of the segment of pereopods II, absolutely straight posterior margin of 6th segment in pereopods II, some peculiarities in structure and ornamentation of the urosome etc. We compared a young specimen of *V.robusta* (10.8 mm) from the southwestern part of the Pacific Ocean with the drawing of *V.hirsuta* and established similarity of structure and ornamentation of pereopods II as well as densely pubescent maxillae. Thus, if we exclude the characters subject to age variability then *V.hirsuta* does not exhibit adequately significant difference from *V.robusta* to qualify for consideration as an independent species.

Size and age:

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

Ref. No.:

The largest species of *Vibilia*, with a body length up to 20 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): (captive)

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.) Dr. K.K.C. Nair Scientist-In-Charge R.C. of NIO, Post Box-1616 Kochi – 682 014 Email kkcnair@niokochi.org Dr. N. Krishna pillai “Radhika” 65- Champaka Nagar Bakery Junction Trivandrum-695 001	
ACKNOWLEDGMENT: (List of persons who contributed, modified or checked information)	