

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																																			
<p>Scientific name & Authority: <i>Scina spinosa</i> Vosseler, 1901 Common Name (if available):</p> <table border="0"> <thead> <tr> <th>Synonyms:</th> <th>Author(s)</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td><i>Scina spinosa</i></td> <td>Vosseler</td> <td>1901: 108</td> </tr> <tr> <td><i>Scina spinosa</i></td> <td>Shoemaker</td> <td>1945a: 230</td> </tr> <tr> <td><i>Scina spinosa</i></td> <td>Vinogradov</td> <td>1957: 214, 1960a: 231, 1964: 132</td> </tr> <tr> <td><i>Scina spinosa</i></td> <td>Wagler</td> <td>1926: 350,</td> </tr> <tr> <td>(spinosa subsp.)</td> <td>Wagler</td> <td>1927: 95</td> </tr> <tr> <td>(affinis subsp)</td> <td>Wagler</td> <td>1926: 352</td> </tr> <tr> <td>-uncipes</td> <td>Stebbing</td> <td>1904: 23</td> </tr> <tr> <td>(uncipes subsp.)</td> <td>Wagler</td> <td>1926: 345</td> </tr> <tr> <td>-lamperti</td> <td>Vosseler</td> <td>1901: 110</td> </tr> <tr> <td>-uncipes lamperti</td> <td>Wagler</td> <td>1926: 348</td> </tr> </tbody> </table>			Synonyms:	Author(s)	Status	<i>Scina spinosa</i>	Vosseler	1901: 108	<i>Scina spinosa</i>	Shoemaker	1945a: 230	<i>Scina spinosa</i>	Vinogradov	1957: 214, 1960a: 231, 1964: 132	<i>Scina spinosa</i>	Wagler	1926: 350,	(spinosa subsp.)	Wagler	1927: 95	(affinis subsp)	Wagler	1926: 352	-uncipes	Stebbing	1904: 23	(uncipes subsp.)	Wagler	1926: 345	-lamperti	Vosseler	1901: 110	-uncipes lamperti	Wagler	1926: 348
Synonyms:	Author(s)	Status																																	
<i>Scina spinosa</i>	Vosseler	1901: 108																																	
<i>Scina spinosa</i>	Shoemaker	1945a: 230																																	
<i>Scina spinosa</i>	Vinogradov	1957: 214, 1960a: 231, 1964: 132																																	
<i>Scina spinosa</i>	Wagler	1926: 350,																																	
(spinosa subsp.)	Wagler	1927: 95																																	
(affinis subsp)	Wagler	1926: 352																																	
-uncipes	Stebbing	1904: 23																																	
(uncipes subsp.)	Wagler	1926: 345																																	
-lamperti	Vosseler	1901: 110																																	
-uncipes lamperti	Wagler	1926: 348																																	
<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>SuperFamily: Scinoidea</td> <td>Family: Scinidae</td> <td></td> </tr> <tr> <td>Genus: <i>Scina</i></td> <td>Species: <i>spinosa</i></td> <td></td> </tr> </table> <p>Authority : Vosseler, 1901 Reference No: Vosseler, I . 1901. Die Amphipoden der Plankton-Expedition. 1. Hyperiidea, 1. Erg. Plankton-Exped. Humboldt-Stiftung, vol.2, G. e.l. 129 pp.</p>			Phylum: Arthropoda	Sub Phylum: Mandibulata	Sub- Class: Malacostraca	Super class:	Class: Crustacea	Sub Order: Hyperiidea	Super Order: Peracarida	Order: Amphipoda	Sub-Family:	SuperFamily: Scinoidea	Family: Scinidae		Genus: <i>Scina</i>	Species: <i>spinosa</i>																			
Phylum: Arthropoda	Sub Phylum: Mandibulata	Sub- Class: Malacostraca																																	
Super class:	Class: Crustacea	Sub Order: Hyperiidea																																	
Super Order: Peracarida	Order: Amphipoda	Sub-Family:																																	
SuperFamily: Scinoidea	Family: Scinidae																																		
Genus: <i>Scina</i>	Species: <i>spinosa</i>																																		
<p>Geographical Location: <i>S. spinosa</i> is known from the tropical regions of the Indian (except the northeastern part of the Arabian Sea) and Pacific oceans, from the northern part of the Pacific Ocean (including the deepwater regions of the Bering Sea) and from the southern regions of the Atlantic (up to 55° S) and Indian (up to 64° S) oceans. It is most frequently found at depths of 200-1,000 m, but also in deeper layers (1,000-4,000 m). Evidently, it does not rise to depths less than 200-500 m.</p> <p>Latitude: _____ Place: _____</p>																																			

Longitude:

State:

Environment

Freshwater: Yes/ No

Habitat: Marine

Salinity:

Brackish: Yes/No

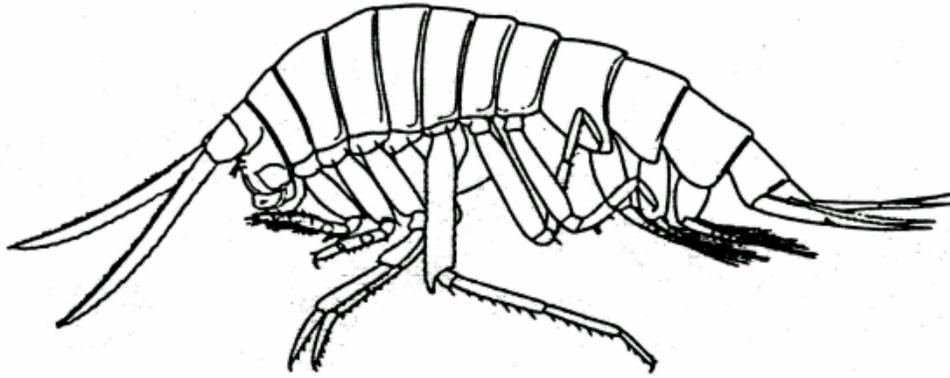
Migrations:

Temperature:

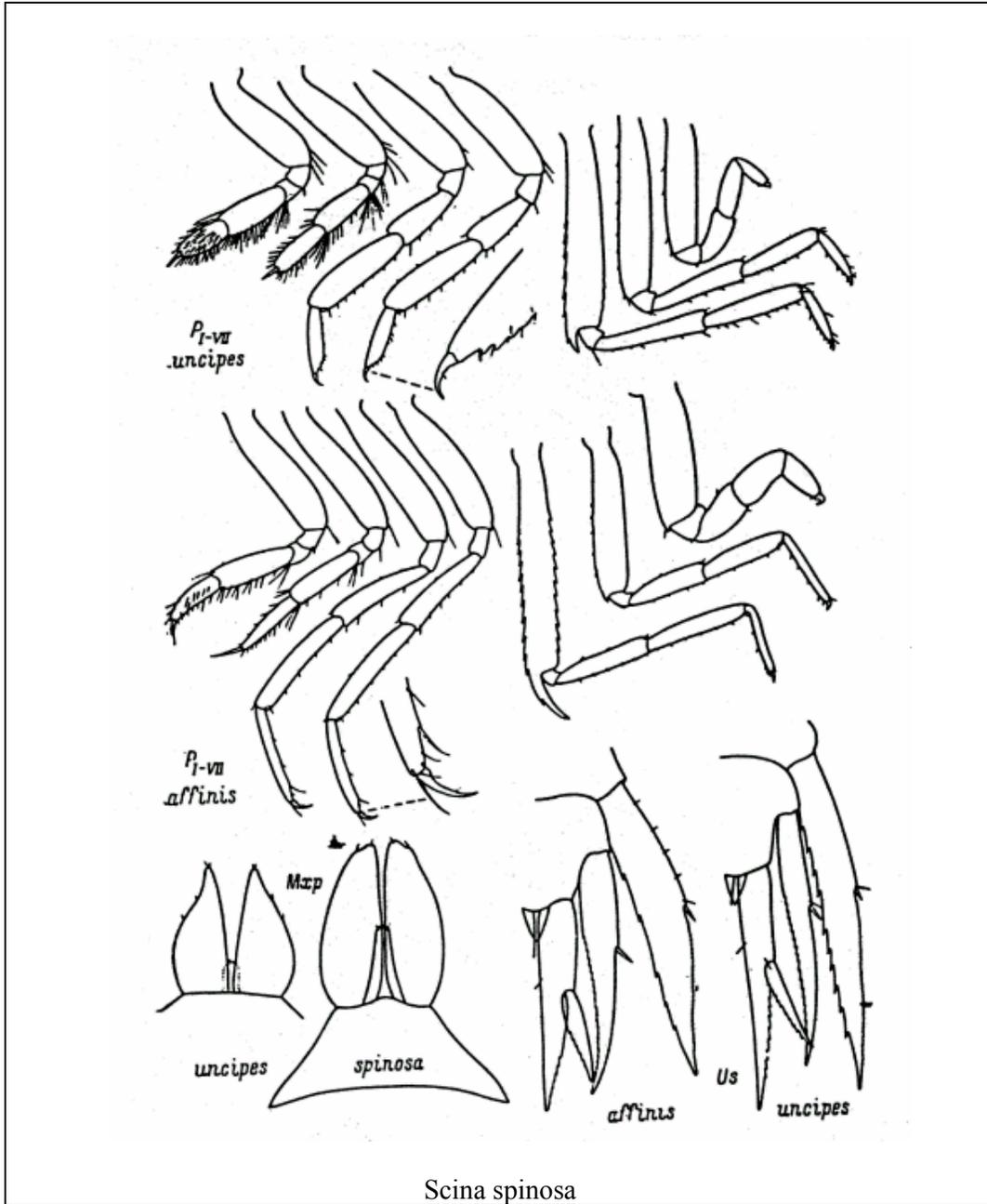
Salt Water: Yes/No

Depth range :

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



Scina spinosa Vosseler, female.



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:

The body is thickset, without keels. The eyes are small. Antennae I are strong but shorter than the pereon. The mouth cone protrudes markedly. The outer lobes of the maxillipeds are short and broad, tapering distally to some degree the length of the inner lobes varies greatly and may constitute 1/4-1/2 the length of the outer lobes.

Pereopods I and II have broad, highly pubescent 5th and 6th segments, of which the former is slightly longer than or equal to the 2nd segment. Pereopods III and IV are much longer than pereopods I and II; their 4th segment is notably shorter than the 5th and almost equal to the 6th in length; the distal part of the posterior margin of the 6th segment is curved. The 2nd segment of pereopods V is shorter than all the rest together, denticulate on the anterior and posterior margins, its distal process 2-3 times as long as the 3rd segment though it may also be shorter than it, and has one denticle on the anterior margins; the 4th segment is slightly longer than the 5th and 1.5-2.0 times longer than the segment, which is short and slightly curved. Pereopods VI have roughly the same proportions as pereopods V but are shorter, and the margins of their 2nd segment are not denticulate; the claw is short and slightly curved. Pereopods VII are slightly shorter but generally stronger than pereopods VI; the 4th and 5th segments are equal and each is slightly longer than the 6th segment, although there are specimens with a relatively longer 6th segment; the claw is short and uncinately curved.

The uropods are short and broad. Uropods I bear numerous large spines on the posterior margin; the endopodite has a finely denticulate anterior margin. Uropods II have a smooth anterior margin and are finely denticulate in the distal part of the posterior margin. In uropods III both the posterior and anterior margin of the basipodite are smooth; the posterior margin of the endopodite and the anterior margin of the exopodite are likewise smooth. The telson is large and oblong-triangular.

Sex attributes: Dimorphic
 Male: 1st antenna well developed , female: 1st antenna reduced.

Descriptive characters:

Meristic characteristics:

Feeding habit:

Main food:

Feeding type:

Additional remarks: *S.spinosa* is characterized by a thickset body, relatively short antennae., large protruding mouth cone, and strong short pereopods. Pereopods VII are strong, sometimes not shorter than pereopods VI, and their claw short and uncinately curved. However, the structural details of the maxillipeds, the relative length of the pereopods, the shape of the 6th segment of pereopods III, and IV, and the degree of ornamentation of the 2nd segment of pereopods V and of the uropods are all highly variable. This served as a basis for describing different specimens as independent species or subspecies. However, we often came across specimens occupying an intermediate position, which could not be assigned to a particular subspecies since in some characters they are close to one while in other characters they are closer to others. For example, the specimen found by us in the Indian Ocean, in the shape of the outer lobes of the maxillipeds and ornamentation of the uropods III is close to *S.uncipes uncipes*, in the shape of the 6th segment of pereopods III could be included under *S. spinosa affinis*, and in the structure of pereopods VII under *S. uncipes lamperti*, according to the illustration given by Wagler. This provides a basis for considering *S. spinosa* a single, highly variable species while bearing in mind that after a detailed analysis of a fairly large amount of material from different regions of the ocean, it might be possible to separate the actual subspecies that exist.

Scina Indica, *S. pubera*, *S. stebbing*, and *S. alberti* are quite close to *S. spinosa*. These species form a more or less compact group.

Size and age:

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

Ref. No.:

Length of sexually mature females ranges from 5.5 to 10.5 mm, of males from 8 to 9 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 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 Email kknair@niokochi.org</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)	