

**NATIONAL BIORESOURCE DEVELOPMENT BOARD**  
 Dept. of Biotechnology  
 Government of India, New Delhi

For office use:
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**MARINE BIORESOURCES**

FORMS DATA ENTRY: Form- 1(general)

Ref. No.: (please answer only relevant fields; add additional fields if you require)

Fauna : √	Flora	Microorganisms
General Category : Invertebrata (Zooplankton), Pelagic amphipod		
Scientific name & Authority : <i>Iulopis lovenii</i> Bovallius, 1887		
Common Name ( if available) :		
Synonyms: <i>Iulopis lovenii</i>	Author(s) Bovallius	Status 1887a: 17, 1889: 118
Classification:		
Phylum: Arthropoda	SubPhylum: Mandibulata	Sub Class: Malacostraca
Super class	Class: Crustacea	Sub Order: Hyperiiidea
Super Order: Peracarida	Order: Amphipoda	Sub-Family
Super Family: Phronimoidea	Family: Hyperiididae	
Genus: <i>Iulopis</i>	Species: <i>lovenii</i>	
Authority: Bovallius, 1887		
Reference No: Bovallius, C. 1887. Contribution to a monograph of the Amphipoda Hyperiiidea. <i>Kongl. Svenska Vet. Akad. Handl.</i> , <b>21</b> : 1-72, 10 pls.		
Geographical Location: A surfacial circumtropical species known from the tropical regions of the Atlantic Ocean, the Mediterranean and Red seas, and tropical waters of the Indian and Pacific oceans.		
Latitude:	Place:	
Longitude:	State:	

Environment

Fresh water: Yes/ No

Habitat : Marine

Salinity :

Brackish : Yes/ No

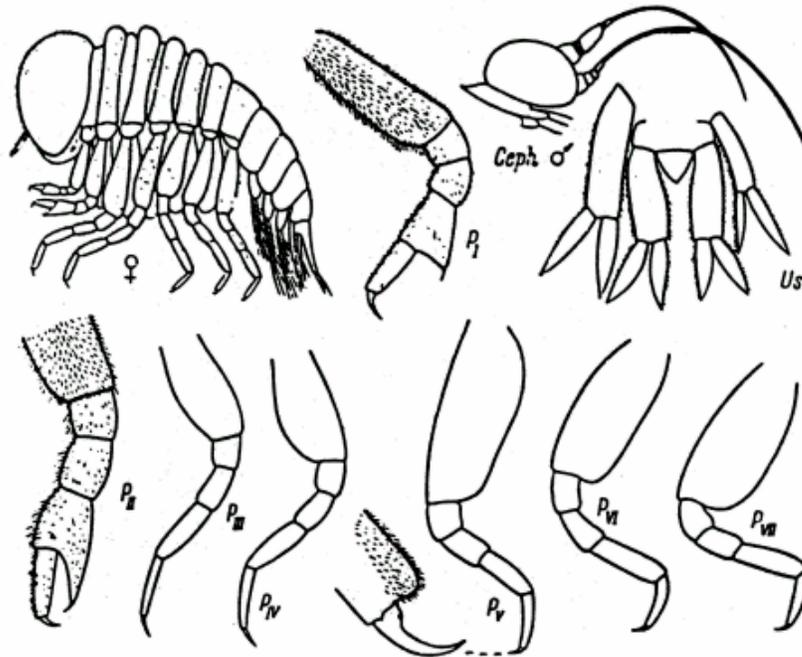
Migrations :

Temperature :

Salt water : Yes/ No

Depth range :

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



*Iulopis loveni* Bovallius (female, Ceph male PI-II  
-after Bovallius, 1889; rest-after Spandal, 1927)

DATA ENTRY FORM: Form- 2(Fish / shellfish / 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:

*Male* : The body is somewhat compressed laterally, the pleon is shorter than the pereon, the posterior angles of epimerons I-III are round, and the entire body, especially its anterior part, is covered with thin setae, which are solitary on the pleon and urosome .

The head is somewhat shorter than the first three somites of the pereon, large, round and its height more than its length. The entire surface of the head is covered with thin setae, located in the angles of the facets of the eyes.

Antennae I are shorter than antennae II; the 1<sup>st</sup> segment of the peduncle is strong, its length just a little more than its width, and both distal segments half the length of the 1<sup>st</sup> ; the segment of the flagellum is equal to the entire peduncle of the antennae and, like the remaining segments (12), is densely armed with thin setae. Antennae II are attached to the lower anterior angle of the head; the flagellum consists of 13 segments.

The mandibles have a broad denticulate cutting edge and a three-segmented palp; the left mandible has an accessory-small plate. The narrow outer lobes of the maxillipeds taper sharply distally and the fused inner lobes are barely discernible.

The 2<sup>nd</sup> segment of pereopods I is equal in length to all the outer segments together; the 4<sup>th</sup> segment slightly broadens distally and its lower distal angle is stretched into a very short chisel-like process bearing a long and strong terminal spine; the narrowly oval 6<sup>th</sup> segment has a slightly curved posterior margin compactly pressed against the distal margin of the 5<sup>th</sup> segment to form the subchela; the claw is strong, curved, with short setae in the middle of its concave posterior margin. Pereopods II are somewhat longer than pereopods I; the 2<sup>nd</sup> segment is has a well-developed distal process exceeding the length of the segment its posterior margin bearing numerous short spinules, and the anterior side, with a dolabriform depression bearing a long strong terminal spine; the 6<sup>th</sup> segment is almost linear and three times longer than wide; the claw is deeply curved. Pereopods III and IV are equal is

length; the 2<sup>nd</sup> segment is somewhat longer than the 4<sup>th</sup>; the 6<sup>th</sup> segment is equal to the 5<sup>th</sup>, only slightly narrower, its posterior margin straight; the claw is weakly curved and 1/4 the length of the 6<sup>th</sup> segment; the surface of the segments is covered with short setae, particularly abundant in structure and equal in length; the 5<sup>th</sup> segment is longer than the 4<sup>th</sup> but much shorter than the 3<sup>rd</sup> and 4<sup>th</sup> segments together; the 6<sup>th</sup> segment is shorter than the 5<sup>th</sup> but only slightly narrower; the claw is strong and 1/3 the length of the 6<sup>th</sup> segment; the surface of the segments, particularly in the proximal part of the pereopods, is covered with numerous setae.

Both margins of the basipodite of uropods I bear strong setae; the rami are narrowly lanceolate, the outer ramus somewhat longer than the inner. The basipodite of uropods II is half as narrow as uropods I and the exopodite longer than the endopodite and equal to the basipodite. The broad basipodite of uropods III has a slightly curved outer margin and a straight inner margin; the exopodite is longer than the endopodite and 3/4 the length of the basipodite. The telson is triangular, its width at the base equal to its length, which is half that of the basipodite of uropods III.

*Female:* the body is somewhat broader than in the male. The head is larger and in length equal to the first three somites of the pereon, but its height almost two times its length. The 1<sup>st</sup> segment of the peduncle of antennae I is large, semicircular, much longer than the next two segments together; the one-segmented flagellum somewhat exceeds the peduncle in length. Antennae II are rudimentary and consist of just two small segments.

Pereopods I and II are identical in structure to the male. Pereopods III and IV are somewhat longer; the 2<sup>nd</sup> segment is much longer than in pereopods II, narrows proximally, and is almost 2.5 times broader in the distal part; the 5<sup>th</sup> segment is longer than the 4<sup>th</sup>; the 6<sup>th</sup> segment is shorter and much narrower than the 5<sup>th</sup>; the curved claw is 1/3 the length of the 6<sup>th</sup> segment. Pereopods V-VII are shorter than II and IV; the 6<sup>th</sup> segment broadens distally; the strong curved claw together with the broadened part of the 6<sup>th</sup> segment forms a unique prehensile organ. The basipodite of uropods I is relatively broader than in the male and three times longer than wide. The structure of the other legs does not differ significantly in the two sexes.

The oostegites are located on somites II-V of the pereon, irregularly triangular in shape, and much longer than the gill sacs.

Sex attributes:

Dimorphic

Male: 1<sup>st</sup> antenna well developed, female: 1<sup>st</sup> 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 specimens 4-6 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 relational ships:

Ref. No.:

Eggs and larvae: Characteristics: Abundance: Biochemical aspects: Proximate analysis: moisture/ fat/ protein/ carbohydrate/ash Electrophoresis:	Ref. No.:    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.)  <b>LIST OF INDIAN EXPERTS (Name, address, phone, fax, e-mail etc.)</b> Dr. K.K.C. Nair Scientist-In-Charge R.C. of NIO, Post Box-1616 Kochi – 682 014  Dr. N. Krishna pillai “Radhika” 65- Champaka Nagar Bakery Junction Trivandrum-695 001 Email <a href="mailto:kknair@niokochi.org">kknair@niokochi.org</a>	
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