

**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), Pelagic amphipod		
Scientific name & Authority : <i>Paraphronima gracillis</i> Claus, 1879 Common Name ( if available ) :		
Synonyms:	Author(s)	Status
<i>Paraphronima gracillis</i>	Claus	1879: 65
<i>Paraphronima gracillis</i>	Bovallius	1887b: 27
<i>Paraphronima gracillis</i>	Chevreur & Fage	1925: 391
<i>Paraphronima gracillis</i>	Spandl	1927: 165
<i>-edwardsi</i>	Bovallius	1885b: 12
Classification:		
Phylum: Arthropoda	Sub Phylum: Mandibulata	Sub Class: Malacostraca
Super class	Class: Crustacea	Sub Order: Hyperiidea
Super Order: Peracarida	Order: Amphipoda	Sub-Family
Super Family: Vibilioidea	Family: Paraphronimidae	
Genus: <i>Paraphronima</i>	Species: <i>gracillis</i>	
Authority: Claus, 1879		
Reference No: Claus, C.1879a. Der Organismus der Phronimiden. <i>Arb. Zool. Inst. Univ. Wien</i> , vol. 2, pp. 59-146.		
Geographical Location: Tropical and subtropical waters of the three oceans; it does not occur beyond the limits of the Subtropical Convergences. It has also been recorded from the eastern part of the Mediterranean Sea. It is found up to a depth of 500 m, rarely deeper, and possibly undergoes diurnal vertical migrations (Brusca, 1967a).		
Latitude:	Place:	
Longitude:	State:	

Environment

Fresh water: Yes/ No

Habitat : Marine

Salinity :

Brackish : Yes/ No

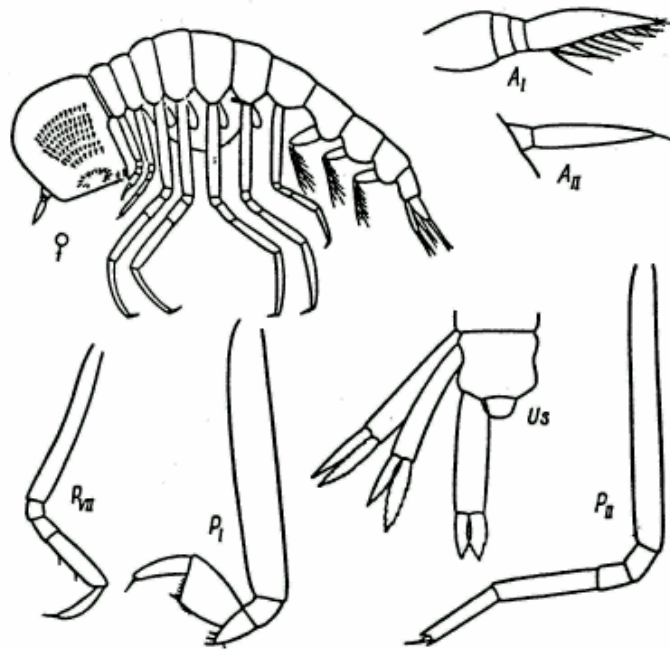
Migrations :

Temperature :

Salt water : Yes/No

Depth range :

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



*Paraphronima gracilis* Claus (after Bovallius, 1889)

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: The head is disproportionately large and massive compared to the thin body and weak extremities, its height slightly more than the length somites I-IV of the pereon, and its height slightly more than the length and more than twice the height of the pereon somites. Antennae I in females are at least 1/3 the head in length and the single segment of the flagellum does not differ in width from the segments of the peduncle, while in males it is broadened and elongated but the whole antenna slightly shorter than the head. Antennae II in females are two-segmented but in males with a highly elongated 1st segment in the peduncle.

Somites I-II; of the pereon are approximately equal in total length to somite III; somite VII is shorter and lower than the preceding ones and its length twice its height. The coxal plates of all pereopods in males are fused with the pereon but in females the coxae of pairs II-V are free. Pereopods I and II are very small and their 2<sup>nd</sup> segment is narrow. The 4<sup>th</sup> segment of pereopods I forms in the posterior distal part a spoon-shaped projection with several setae along the margin; the 5<sup>th</sup> segment is distally broadened and its length about twice its width; the 6<sup>th</sup> segment is narrow, slightly shorter than the 5<sup>th</sup>, and movably articulated with its anterior distal angle in such a way that in a bent position it forms a sort of weak double subchela; the claw is very short and thickened at the base. Pereopods II are simple and have narrow virgate segment. Pereopods III-VI have a long narrow 2<sup>nd</sup> segment and long 5<sup>th</sup>-6<sup>th</sup> segment. Pereopods VII are shorter and somewhat narrower than the preceding ones but in general similar to them.

The pleon is shorter than the pereon by about the length of the first three somites of the pereon; somite I of the pleon is lower and slightly longer than the other two. The urosome is shorter than the pleon; urosomite I is equal in length to the last (geminate) urosomite. The basiopodites of all the uropods are approximately equal in length or that of uropods III is slightly shorter; the width of the basiopodites noticeably increases from pair I to pair III so that the ratio of length to width of the basiopodite

pair I is approximately 7:1, in pair II, 4:1, and in pair III, 3:1. The rami of all uropods are considerably shorter than the endopodite the exopodite of pair II is slightly shorter but distinctly narrower than the endopodite; which, in turn, is approximately two times narrower than the basipodite. The rami of uropods III are very short, Proximally broad, their maximum width slightly less than the length. The telson is almost three times narrower at the base than the distal margin of the last urosomite.

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: Reproduction probably takes at the end of the summer , in autumn, when the sex ratio in the population equalizes and the greatest number of females with eggs is found. The pereon of the egg-bearing females is usually highly bulged and the brood chamber well noticeable in a lateral view because not covered by the coxal plates.

Size and age:

Maximum length (cm) (male / female/ unsexed) Ref. No.:

Length of females up to 16.5mm, of males up to 11mm;  
the usual length of sexually mature specimens is about  
10mm

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:

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>  <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 <a href="mailto:kkenair@niokochi.org">kkenair@niokochi.org</a></p> <p>Dr. N. Krishna pillai            “Radhika”            65- Champaka Nagar            Bakery Junction            Trivandrum-695 001</p> </div>	
<b>ACKNOWLEDGEMENT:</b> (List of persons who contributed, modified or checked information)	

