

Description of a new species of the genus *Cypridopsis* Brady,1867 (Crustacea : Ostracoda)from Iraq.

وصف نوع جديد يعود للجنس *Cypridopsis* Brady,1867 (Crustacea : Ostracoda) من العراق.

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Abstract

In the Present study a description of a new species of the genus *Cypridopsis* Brady,1867(Ostracoda). External morphological characters particularly the shape, size and structure of left and right valves of the carapace and body appendages were described and illustrated. Locality and date of collection were given. This study showing some new and important characters such us: Carapace, with 5 dark green regions ,outer surface pitted and covered with hairs. First segment of endopod of second antenna with one plumose setae. First thoracopod, vibratory plate bear three equal setae. Uropod, reduced , rhombus in shape.

الخلاصة

تقدم الدراسة الحالية وصفا لنوع جديد من القشريات صنف الدرغيات يعود للجنس *Cypridopsis* Brady,1867. شملت الدراسة وصفاً تفصيلياً وأشكالاً توضيحية لصفات المظهر الخارجي وخاصة شكل وحجم وتركيب المصراعين الأيمن والأيسر للدرع مع لواحق الجسم. وتم تسجيل موقع وتاريخ الجمع وقد لوحظ من خلال الدراسة بعض الصفات الجديدة والمهمة مثل: الدرع ذو خمس مناطق داكنة ومغطى بالنقرو الشعيرات. احتواء القطعة الأولى من القدم الداخلي للامس الثاني هلب ريشي. احتواء الصفيحة الاهتزازية للقدم الصدري الأول على ثلاثة اهلاب. القدم الذنبى مختزل, معيني الشكل.

Introduction

Ostracods were first formally described by O.F.Müller in 1776 (5). Ostracoda are one of the most diverse groups of the crustacea. At the time being between 3,000 to 5,000 living and 30,000 fossil species have been described from both marine and nonmarine environments (8;11).

The word ostracod(or Ostracode) is derived from the Greek word ostrakon (a shell).The body of an ostracod is enclosed by two valves and consists of the two main parts: the head(Cephalon) and the thorax separated by a slight construction (1).The Ostracoda have seven pairs of appendages. There are : 1st antenna,2nd antenna, mandible ,maxilla,1st thoracopod,2nd thoracopod,3rd thoracopod, and uropod (6;5).

The taxonomy of freshwater Ostracoda is based on the morphology of the carapace and appendages in addition to the chitinous furcal attachments(13). In the Cypridinidae the shell valves are strong and calcified(9).

Fossil Ostracodes offer an important tool of the reconstruction of the past environment, because ostracode ecology is sensitive to the same physical and chemical properties that characterize ground water.(4;10;12).

The genus *Cypridopsis* Brady, 1867(Podocopida : Cyprididae) is characterized by: Carapace ovate in both lateral and dorsal views. Left valve slightly longer than right valve . Left valve overlaps right valve ventrally. Posterior marginal zone of left valve with developed oblique double inner list this list close to the slevage on the right valve.A2 natatory setae usually well

developed, reduced in some species. Maxillulr palp: terminal segment cylindrical(not spatulate). Respiratory plate of maxilliped with 1-5 setae, uropodal ramus triangular, narrowing distally female genital fold with chitinous plate(6). Second thoracopod with five segments. Species of Cypridopsis are known from the Australian and Oriental regions, with some distributed in other countries as well (2).

The aim of this study is to describe a new species of Crustacea(Crustacea : Ostracoda which belongs to the genus Cypridopsis.The description based on external morphological characters particularly the carapace and body appendages .

Materials &Methods

Specimens were collected by using zooplankton net during October ,2004 from different regions of Karbalaa governorate. They were preserved in 70% alcohol with few drops of glycerol for dissection of both right and left valves were removed using fine dissecting needles together with the appendages.The dissected parts were isolated from each other and mounted on microscopic slide with a drop of glycerine. They were drawn by using compound microscope with ocular micrometer.

Keys for identification were used according to(2;3;5;6;7)

Materials Examined

1 Female holotype, 1 Female allotype, 5 Females paratype , Karbalaa ,Iraq,Collected in October.2004.(Leg. Hanan Zwair).

Results &Discussion

Cypridopsis hassani; sp.nov.

Carapace:Fig.1

Oval , total length 0.62mm, light yellow in clour. Outer surface with five dark green regions, pitted and covered with small hairs. Left valve overlaps right valve.Eyes fused.

Left and Right Valve:Fig.2

The left and right valve are similar in shape and structure, triangular, surface pitted and covered with small bristles hairs, anterior margin broader than posterior. Hairs covered all margins, three adductor muscle scars variably arranged.

First Antenna:Fig.3

Seven- segmented, basal segment is the largest squared bearing two setae on its outer margin, second segment naked, third with one short seta ,fourth and fifth segment each with a single long seta, sixth segment with three long setae, terminal bearing two long and two short setae.

Second Antenna:Fig.4

Four- segmented, basalsegment small ,second enlarged bearing one seta attached to the lower margin. Endopod composed of two segments ,first bearing a short sensory setae and a plumose seta with swollen basal portion on its free ventral surface, and with(5+1) subterminal natatory setae ,extending beyond the base of the terminal claws. Terminal segment bearing five terminal unequal claws. Exopod ,reduced to small lobe bearing one long and one short seta.

Mandible:Fig.5

Basal segment elongate, much broader in the middlewith two terminal setae, its base protrude to a short broad process bearing five sharp identical teeth. Palp of four segments, first elongate bearing vibratory plate which is consist of basal cylindrical segment bearing four long identical

filaments, second segment, small triangular with three setae, there are two groups of setae:, setal group1 consist of two setae (one of which plumose) attached to the inner margin of the first mandibular palp segment and setal group2 consist of two setae attached to the inner margin of the second mandibular palp segment,, third segment with three setae, fourth segment very small with 3+1 apical setae.

Maxilla:Fig.6

Two- segmented , the vibratory plate curved ,with 14 marginal filaments and five basal setae. Basal segment large and protrude, ending basally with three mastigatory process, first and second contain four short setae, third mastigatory process with two teeth bristles and two setae. The maxillary palp narrow consist of two segment, first bearing three setae, terminal bearing three setae.

First Thoracopod:Fig.7

The mastigatory process slightly elongate ending with five equal setae, its outer margin bearing one long setae, the mastigatory process jointed palp-like endopod ending with three setae(two long and one short setae) and a vibratory plate bearing three equal filaments.

Second Thoracopod:fig.8

Five -segmented, basal segment elongated, second protrude with one setae, third and fourth segments each with a single long seta ,fifth segment is the smallest triangular in shape and bearing a well developed apical claw and one short seta.

Third Thoracopod:Fig.9

Three -segmented. Basal segment forming right angle with the penultimate one, there are two long setae at the junction between the basal and penultimate segments, penultimate segment with a long apical seta, terminal segment its distal end bear long lateral seta and a small swollen one.

Uropod:Fig.10

Reduced, rhombus shaped bearing one short lateral setae, ending with a flagellum.

Etymology:

The species was named after the name of my supervisor Prof. Dr. Hassan Al-Asady.

Remarks:

The new species is closely related to *Cypridopsis vidua* O.F.MÜller,1776 but differ by the following notes:

Carapace, with 5 dark green regions ,outer surface pitted and covered with regularly distributed small hairs , three adductor muscle scars. First segment of endopod of second antenna with one plumose setae. First thoracopod, vibratory plate bear three equal setae.Uropod, reduced , rhombus in shape.

Acknowledgments

I am deeply indebted to Prof. Reginald Victor/University of Sultan Qaboos and Prof. Richard M. Forester/University of Denver United States,for the confirmation of the identification of the species .

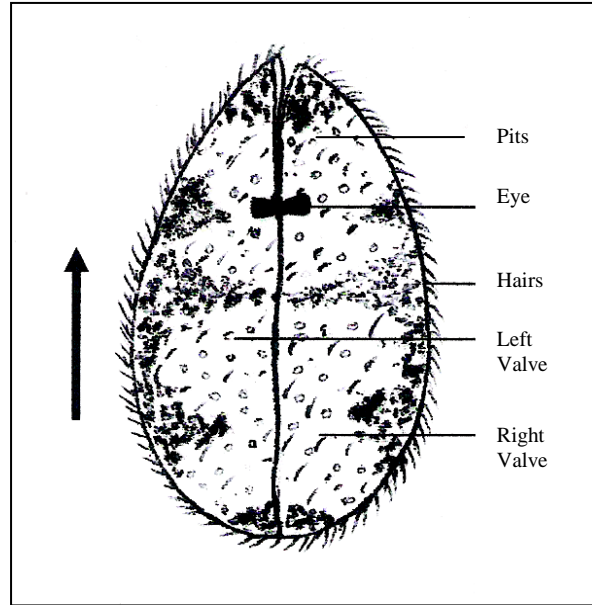


Fig.1 *Cypridopsis hassani*; sp.nov.
Surface view for carapace(Female)

0.1mm ———

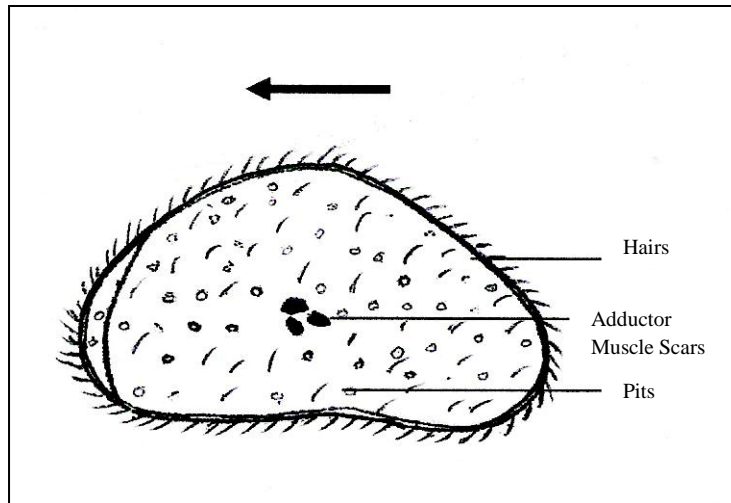


Fig.2 *Cypridopsis hassani*; sp.nov.
Lateral view for Left valve(Female)

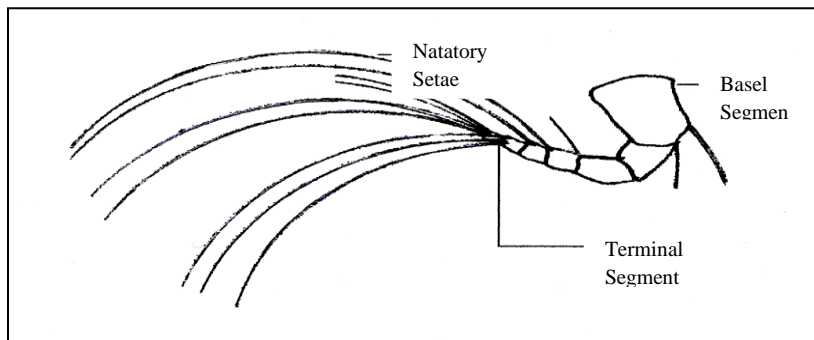


Fig.3 First Antenna of *Cypridopsis hassani*; sp.nov.
from Karbalaa,Iraq

0.5mm—

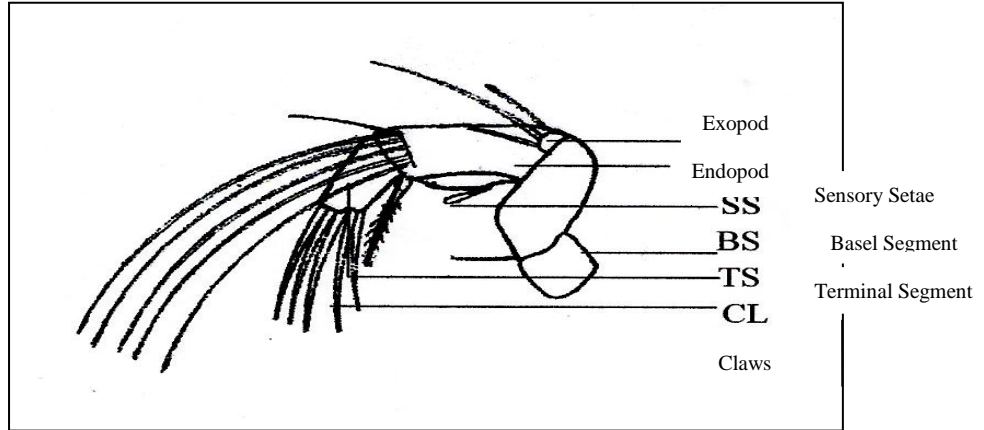


Fig.4 Second Antenna of *Cypridopsis hassani*; sp.nov. from Karbalaa,Iraq

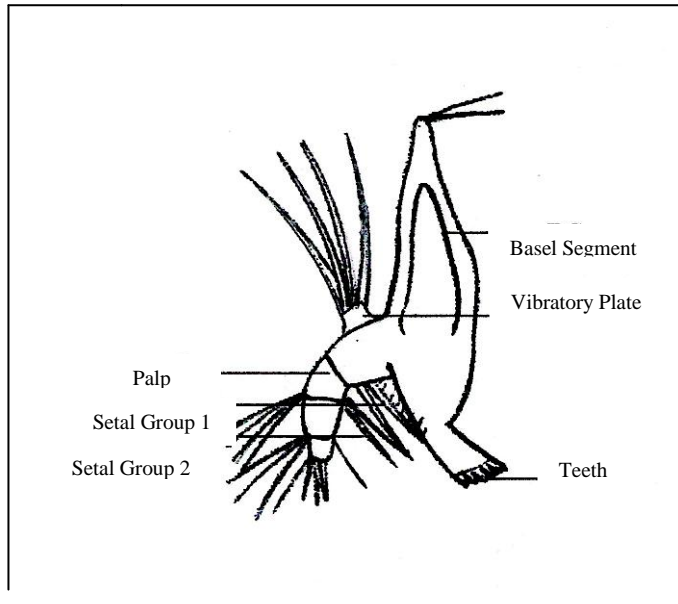


Fig.5 Mandible of *Cypridopsis hassani*; sp.nov. from Karbalaa,Iraq

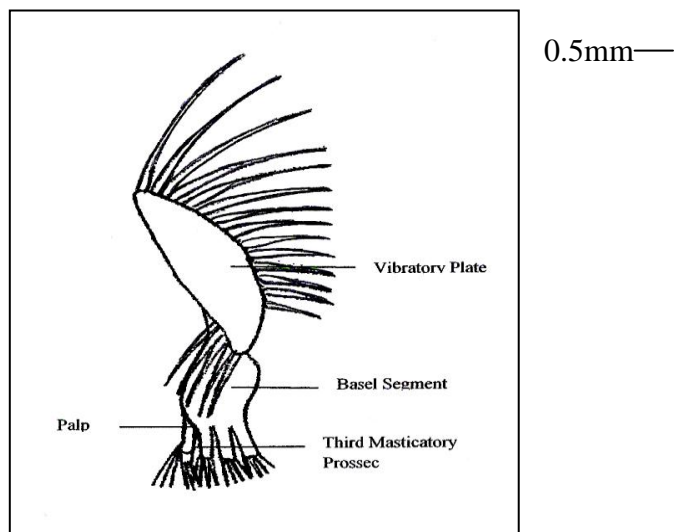


Fig.6 Maxilla of *Cypridopsis hassani*; sp.nov. from Karbalaa,Iraq

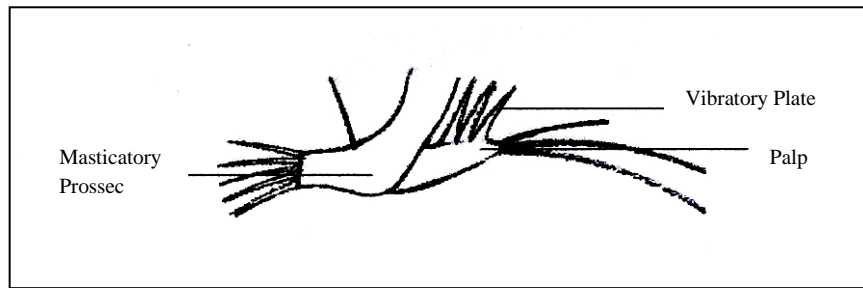


Fig.7 First Thoracopod of *Cypridopsis hassani*; sp.nov. from Karbalaa,Iraq

0.5mm —

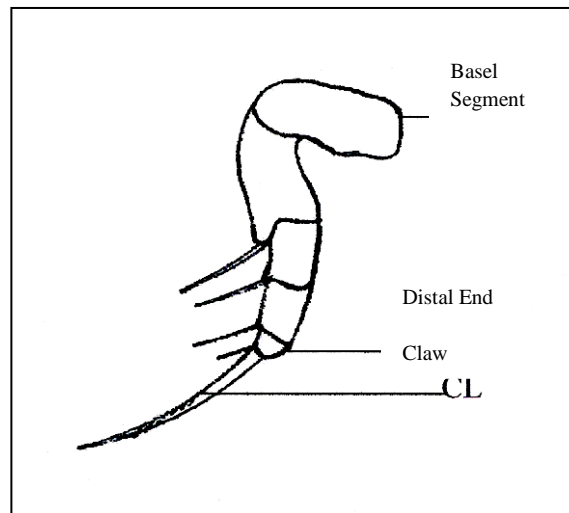


Fig.8 Second Thoracopod of *Cypridopsis hassani*; sp.nov. from Karbalaa,Iraq

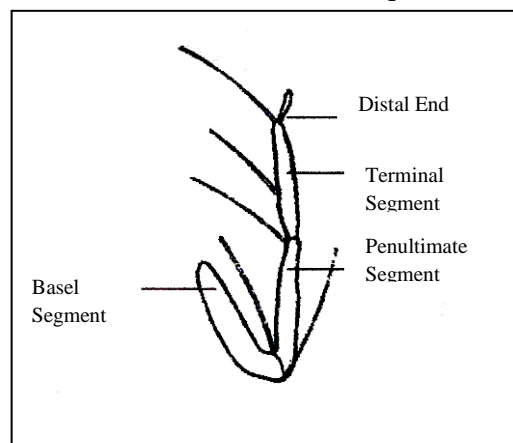


Fig.9 Third Thoracopod of *Cypridopsis hassani*; sp.nov. from Karbalaa,Iraq

0.5mm —

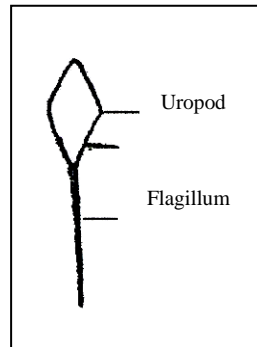


Fig.10 Uropod of *Cypridopsis hassani*; sp.nov.
from Karbalaa,Iraq

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