

Cypridopsis flavicorpis sp.nov.(Crustacea:Ostracoda) from Iraq

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Abstract

The present study introduce Ostracoda description of a new species *flavicorpis* belong to the genus *Cypridopsis* Brady,1867. External morphological characters (shape, size and structure) of left and right valves of carapace and body appendages were discussed and illustrate .Locality and date of collection were given.

الخلاصة

تقدم الدراسة الحالية وصفاً لنوع جديد *flavicorpis* من القشريات صنف الدرعيات يعود للجنس *Cypridopsis* Brady,1867 وشملت وصف لصفات المظهر الخارجي للدرع من شكل وحجم وتركيب والذي شمل المصراع الايمن والايسر وكذلك لواحق الجسم الاخرى وتم اعطاء وصف تفصيلي ورسومات توضيحية .

Introduction

Ostracoda are small Crustacean, mostly 0.3-5mm long crustaceans .The body is totally enclosed within a carapace consist of two calcified valves, only the tips of various appendages protrude through the narrow gap when the valves opens(7).

The subclass ostracoda inhabits both marine and freshwater environments.The freshwater ostracods are mainly benthic while some of them occur among aquatic vegetation and algal mats and a few are planktonic.They look like seed,so called seed shrimps(9;4).

The word ostracod is prefer to spill it : it is derived from the Greek word ostrakon(a shell) this shell or carapace has numerous morphological characters which allow taxonomic and phylogenetic studies to be made on living and fossil specimens.(1).

The ostracoda have seven pairs of appendages. These are : 1st Antenna,2ndAntenna, Mandible ,Maxilla,1st Thoracopod,2nd Thoracopod,3rd Thoracopod, and uropod (13).

At present there are an estimated 50,000 named species from the six extant and extner order(12).

Nonmarine ostracodes have been used successfully to reconstruct past luustrine environments including estimates of paleotemperature,change in major ion chemistry, water source,paleosalinity and lake level(5;14;11).

Ostracods grow by passing throught 7-8 moulting stages befor reaching maturity after that does not moult again.(10).

The genus *Cypridopsis* Brady 1867(podocopida:cyprididae) consists of the following characters:

Carapace ovate in both lateral and dorsal views.LV slightly longer than RV .LV overlaps RV ventrally. Posterior marginal zone of LV with developed oblique double

inner list this list close to the slevage on the RV.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 traingular, distally progressively narrowing female genital fold with chitinous plate(7). Second Thoracopod five segmented. Species of *Cypridopsis* are known from the Australian and Oriental regions, with some distributed in other countries as well (2)

Materials & Methods

Specimens were collected by using zooplankton net during December ,2004 from different regions of Karbalaa governorate. They were preserved in vials contain 70% alcohol with few drops of glycerol to prevent dissection. Both right and left valves were removed using fine dissection needles and also the appendages. The dissected body parts were isolated from each other and mounted on microscopic slides with drops of glycerine. They were drawn by using compound microscope with ocular micrometer.

Keys for identification were used according to(2;3;6;7;8). Symbols determining different part of the body are shown in Table I .

Results & Discussion

Cypridopsis flavicorpis sp.nov.

The species has been firstly described to the science, its name derived from yellow body.

Carapace: Fig.1

Ovate and elongated, total length 0.64mm, dark yellow. Outer surface smooth and covered with small hairs, there are three dark regions on two sides. Left valve overlaps right valve slightly. Eyes fused.

Left and Right Valve: Fig.2

Left and right valve are similar in shape and structure, but inner anterior marginal zone of right valve with arrow of eight round tubercles, triangular in shape, surface smooth and covered with small hairs, posterior margin broad than anterior. Hairs covering all margins, four adductor muscle scars variable arrangement.

First Antenna: Fig.3

Seven segments, graduating in size toward smallest terminal, first(basal) segment is the larger, second bearing two setae on its outer margin, third and fourth bearing one setae , fifth bearing two long setae, sixth bearing three long setae, seven(terminal) bearing three long and two short setae.

Second Antenna: Fig.4

Four segments, first(basal) segment small bearing three setae, second segment enlarged. Endopod composed two segment , first bearing short sensory setae and one setae with swollen basal on its free ventral surface, the end of the segment which attached to the second segment bears(5+1) natatory setae well developed distinctly extending beyond the base of the terminal claws. Terminal segment last bearing five terminal unequal claws. Exopod: reduced to a small lobe bearing one long seta and other short.

Mandible: Fig.5

Basal segment elongated, much broader in the middle and narrowing gradually toward the apex, its base protrude to form short broad process bear six sharp identical teeth and two setae in one side. Palp consist of four segment, first enlarged bearing vibratory plate which is consist of short basal segment bearing four short identical filaments, second segment of the mandibular palp is small triangular with two identical setae, third segment long bearing six identical setae, there are two groups of setae:, setal group1 consist of two setae one of them plumose attached to the inner margin of the first mandibular palp segment and setal group2 consist of three setae attached to the inner margin of the second mandibular palp segment, fourth (terminal)segment very small its apex bear three identical setae and two long.

Maxilla:Fig.6

Two segments , The vibratory plate curved ,its apex bear 12 filaments graduating in length ,the base of the vibratory plate bear four equal setae. Basal segment large, ending basally with three mastigatory process, first bearing five short setae , second bearing 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

Two segments,the mastigatory process ending with seven equal setae, its outer margin bear one long setae, the mastigatory process jointed palp-like endopod slightly elongate consist of two segment ending with three setae two short and one long setae and vibratory plate bear three equal filaments.

Second Thoracopod:fig.8

Five segments, basal (first)segment short bearing one setae, second segment protrude with one plumose setae, third and fourth segments each bear single plomuse setae ,fifth segment is the smallest one triangular in shape and bear a well developed apical claw and one short seta .

Third Thoracopod:Fig.9

Three segments. Basal(first) segment forming right angle with the penultimate (second)segments, bearing one setae on its outer margine and two long setae at the junction between the basal(first) and penultimate(second) segments, penultimate segment(second) its apex bear long single setae, terminal (third) segment its distal end bear long lateral setae and other small swollen.

Uropod:Fig.10

Reduced, triangular in shape bear one short lateral seta, ending with flagellum.

Comparison notes:

The new species is closely related to the species *Cypridopsis hartwigi* G.W. MÜller,1900 but differ by the following notes:

1-Carapace with three dark regions .

2-Inner anterior marginal zone of RV with arrow of 8 round tubercles.

3-Teeth bristles of 3rd masticatory lobe with out serrated.

4- Vibratory plate with three equally filaments.

Materials Examined

Female holotype 1*

Female allotype 1*

Females paratype 12*

Karbala _Iraq*

(Coll ,December.2004.(Leg. Hanan Zwair

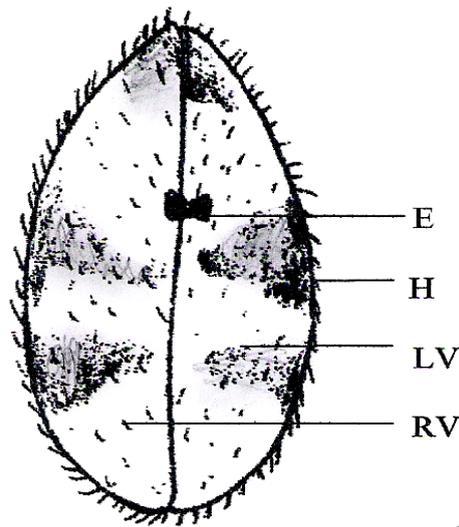
Acknowledgments

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Table I

Symbols	English Term
A1	1 st Antenna
A2	2 nd Antenna
AM	Anterior Margin
AMS	Adductor Muscle Scars
AC	Apical Claw
AS	Anterior Setae
BS	Basel Segment
Ca	Carapace
Cl	Claws
DE	Distal End
DM	Dorsal Margin
E	Eye
ExP	Exopod
EnP	Endopod
F	Flagellum
Fi	Filaments
H	Hairs
LV	Left Valve
Md	Mandible
MP	Masticatory Process
MX	Maxilla
3 rd MP	Third Masticatory Process
NS	Natatory Setae
Pa	Palp
Pi	Pit
PeS	Penultimate Segment
PM	Posterior Margin
PS	Posterior Setae
RV	Right Valve
SG1	Setal Group 1
SG2	Setal Group 2

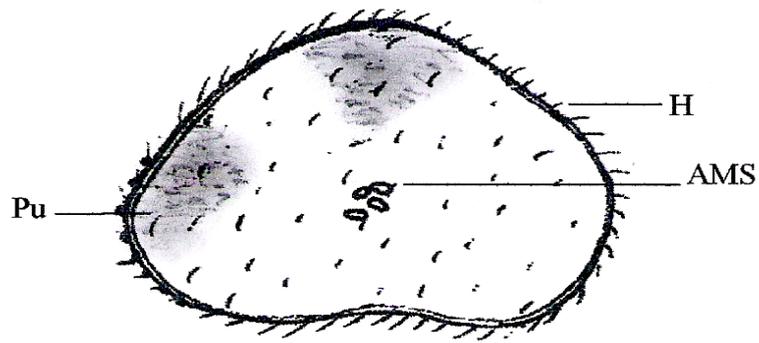
SS	Sensory Setae
T1	1st Thoracopod
T2	2nd Thoracopod
T3	3rd Thoracopod
Te	Teeth
TS	Terminal Segment
U	Uropod
VP	Vibratory Plate
VM	Ventral Margin



(Fig.1 Surface view of carapace(Female

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0.1mm



(Fig.2 Lateral view of Left valve(Female

Species; *Cypridopsis flavicorpis*; sp.nov.

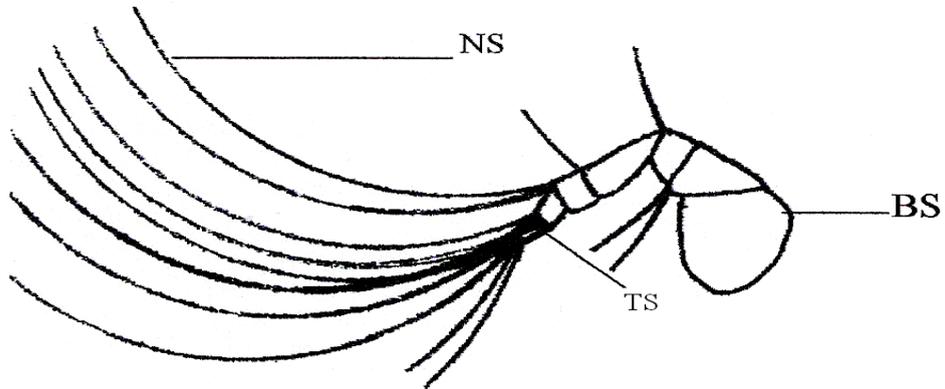
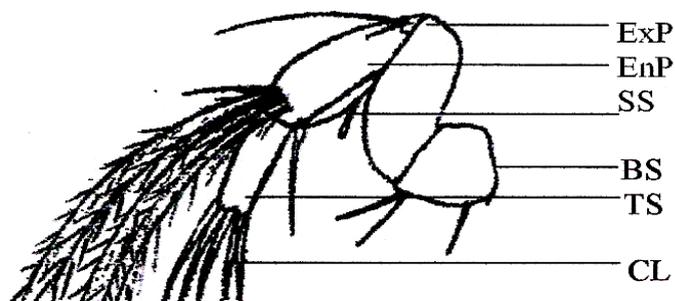


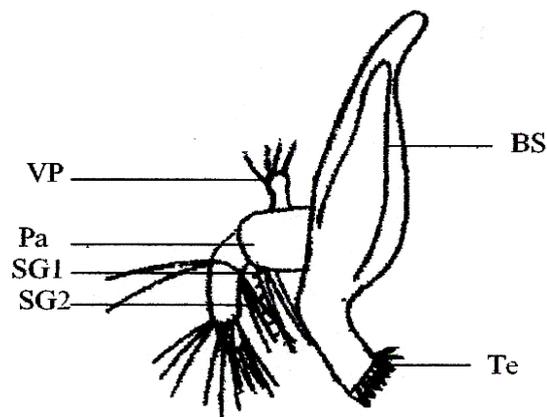
Fig.3 First Antenna



0.5mm

Fig.4 Second Antenna

Species; *Cypridopsis*



flavicorpis; sp.nov.

Fig.5 Mandible

—
0.5mm

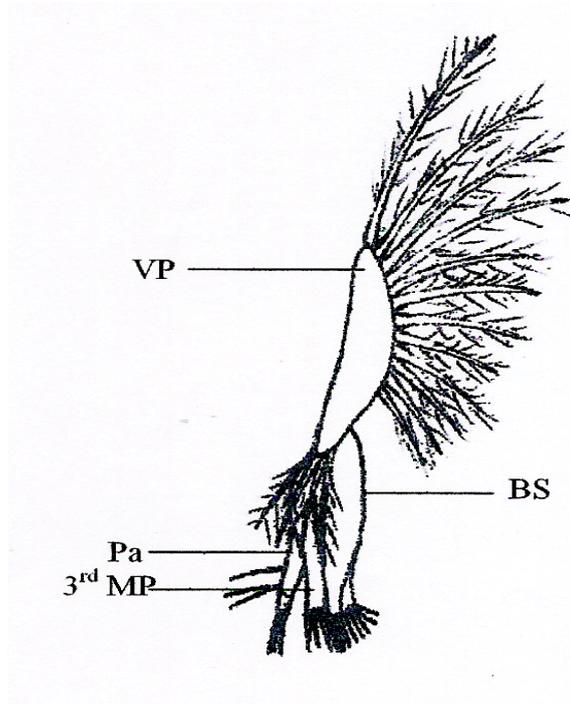


Fig.6 Maxilla

Species; *Cypridopsis flavicorpis*; sp.nov.

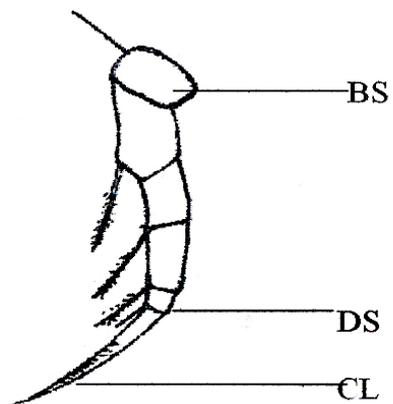


Fig.7 First Thoracopod

Fig.8 Second Thoracopod

0.5mm

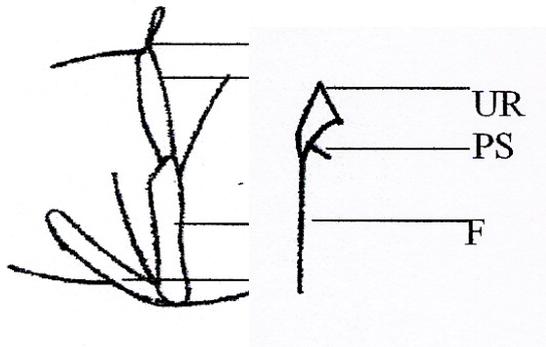


Fig.9 Third Thoracopod

Fig.10

Uropod

Species; *Cypridopsis flavicorpis*; sp.nov.

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