

**Description of a new species belonging to the genus  
*Bradleystrandesia* Broodbakker,1983(Crustacea : Ostracoda)  
from Iraq.**

**وصف نوع جديد يعود للجنس *Bradleystrandesia* Broodbakker,1983  
(Crustacea : Ostracoda) من العراق.**

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**Abstract**

The Present study provides description of a new species of Ostracods genus *Bradleystrandesia* Broodbakker,1983. External morphological characters particularly shape, size and structure of left and right valves of carapace and body appendages were described and illustrated. Locality and date of collection were given. This study showing some new and important characters such as:carapace with reticulate patterns anteriorly and posteriorly,first antenna:basal segment large, second antenna: natatory setae short ,mandible: first segment of pulp enlarged and irregular in shape, second thoracopod :six –segmented, third thoracopod: basal segment short.

**الخلاصة**

تقدم الدراسة الحالية وصفا لنوع جديد من القشريات صنف الدرقيات يعود للجنس *Bradleystrandesia* Broodbakker,1983. 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 : المنطقة الامامية والخلفية للدرع ذات تركيب شبكي. القطعة القاعدية للامس الاول كبيرة الحجم. اهلاب الاستشعار في اللامس الثاني قصيرة. القطعة القاعدية لملمس الفكوك كبيرة وغير منتظمة.القدم الصدري الثاني يتكون من ست قطع. القطعة القاعدية للقدم الصدري الثالث قصيرة.

**Introduction**

The ostracoda are small,bivalved crustaceans which are found in both freshwater and marine environments(1;3).

Ostracods(Class:Crustacea,Order:Ostracoda) are a diverse group of bivalve microcrustaceans ranging in size from 200um to 32mm.At present there are an estimated 50,000 named species from the six extant and extiner order(8;9).

The taxonomy of freshwater Ostracoda is based on the morphology of both carapace and appendages in addition, chitinous furcal attachments. Ostracoda form an important component in the food chain of some fish, larvae of some fish exclusively feed on ostracods(10).

The shell chemistry of ostracodes is a useful indicator of past environmental conditions especially where the chemistry data are considered along with.(5)

The genus *Bradleystrandesia* Broodbakker,1983 (Podocopida: Cyprididae) is characterized by:

Carapace symmetric in frontal view, triebel loop oval.Maxillula:teeth bristles of 3<sup>rd</sup> masticatory lobe serrated. Left valve slightly overlaps right valve anteriorly.ventro distal setae of the 3<sup>rd</sup> last A2 segment basally swollen, not spherically enlarged.*Bradleystrandesia* comprises ca 12 species and is distributed throughout the northern hemisphere (6)

Shell with reticulate patterns anteriorly and posteriorly ,second segment of second leg with a single large setae, Anterior and posterior extremity of each valve without such a ridge. (7.)

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

## **Materials &Methods**

Specimens were collected by using zooplankton net during July ,2004 from different regions of Babylon governorate. They were preserved in vials contain 70% alcohol with few drops of glycerol for dissection, Both right and left valves were removed using fine dissecting needles so as the appendages. The dissected body 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;4;6;7).

## **Materials Examined**

1 Male holotype, 1 Male and 1 allotype, 1 Male & 2 Female paratype, Babylon \_Iraq, Collected in July.2004.(Leg. Hanan Zwair)

## **Description**

*Bradleystrandesia bassati*; sp.nov.

### **Carapace:Fig.1**

Shape approximately ovate, total length 0.50mm, Brown. Outer surface with reticulate patterns anteriorly and posteriorly, covered with small hairs and pitted in the middle.Left valve slightly overlaps right valve.Eyes fused.

### **Left and Right Valve:Fig.2**

Left and right valve are similar in shape and structure, oval, anterior margin broader than posterior margin. Outer surface with reticulate patterns anteriorly and posteriorly, covered with small hairs and pitted in the middle . Six adductor muscle scars variably arranged.

### **First Antenna:Fig.3**

Six segment decreasing in size towards the tip, basal segment is the largest bearing five setae on its outer margin and one reversed seta on its inner margin, second segment bearing one setae, third without setae ,fourth segment bearing two setae on its outer and inner margin, fifth segment with three long setae, terminal segment bearing two long setae.

### **Second Antenna:Fig.4**

Four -segmented, basal segment without setae, second segment bearing one setae on its outer margin.Endopod, consist of two segments first with short sensory seta 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 seta, not reaching beyond the end of the terminal claws. Terminal segment bearing four terminal unequal claws with outer margin protrude bearing one seta .Exopod, reduced to small lobe bearing one long and two short lateral setae.

### **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 five sharp identical teeth and two lateral setae.Palp consist of four segments, first enlarged and irregular, bearing vibratory plate consisting of basal segment bearing five plumose filaments , four long setae and one short, second segment of the

mandibular palp is small ,triangular ,with two identical setae, third segment bearing three identical setae, with 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 third mandibular palp segment, fourth (terminal)segment very small, its apex bear three identical setae .

**Maxilla:Fig.6**

Two- segmented , The vibratory plate curved ,its apex bear 15 filaments graduating in long . Basal segment large, ending basally with three mastigatory process, first bearing three setae, second bearing four setae, third mastigatory process with two teeth bristles one of them serrated and two setae on two sides. The maxillary palp ,narrow ,consist of two segment, first bearing two setae, terminal bearing three setae.

**First Thoracopod:Fig.7**

The mastigatory process slightly elongate ending with eight equal setae, its inner margin bear one short setae, the mastigatory process jointed palp-like, endopod with three terminal unequal setae, two long and one short setae and vibratory plate bearing two plumose equal filaments.

**Second Thoracopod:fig.8**

six -segmented, basal segment without setae, second segment small with one setae, third , fourth and fifth segments each bearing single long setae ,sixth segment is the smallest, triangular in shape bearing a well developed apical claw and one short seta .

**Third Thoracopod:Fig.9**

Three- segmented. Basal segment short, with two long setae at the junction between the basal and penultimate segments, penultimate segment bearing a single apical setae, terminal segment with a single median seta ,and with a long distal lateral seta and small protuberance.

**Uropod:Fig.10**

Uropod ramus ,rod shaped, with two terminal claws and posterior seta.Uropodal attachment with loop oval.

**Etymology:**

The name of the present species is after the name of my supervisor Prof.Dr.Sabah F. Bassat.

**Remarks:**

The new species is closely related to *Bradleystrandesia fuscata* Jurine,1820 but differ by the following:

Carapace with reticulate patterns anteriorly and posteriorly,adductor muscle with six scars ,first Antenna, basal segment large, second antenna, natatory setae short ,not reaching beyond the distal end of the terminal claws,mandible, first segment of pulp enlarged and irregular in shape, second thoracopod six – segmented, third thoracopod: basal segment short.

**Acknowledgments**

I would like to express my deep appreciation to Prof. Reginald Victor/University of Sultan Qaboos and Prof. Richard M. Forester/University of Denver United States,for their help in confirming the identification of the species .

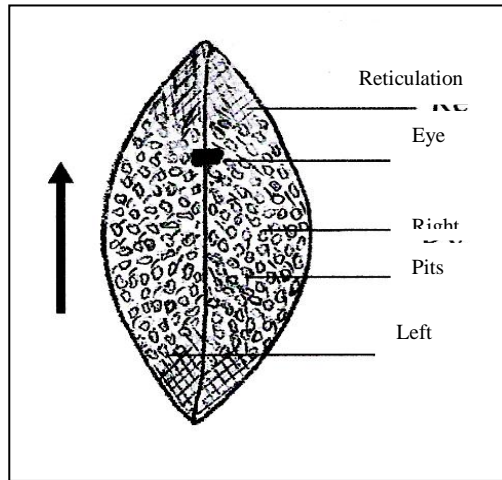


Fig.1 *Bradleystrandesia bassati*; sp.nov  
Surface view for carapace(Male)

0.1mm ———

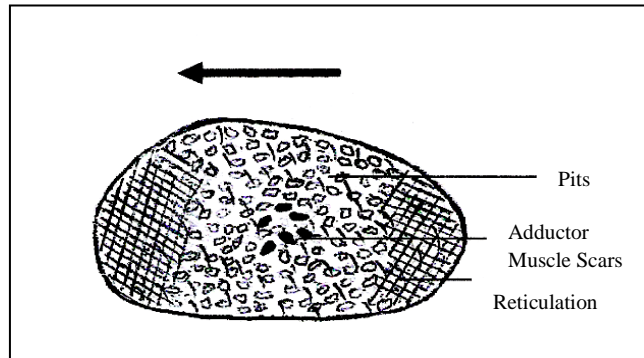


Fig.2 *Bradleystrandesia bassati*; sp.nov  
Lateral view for Left valve(Male)

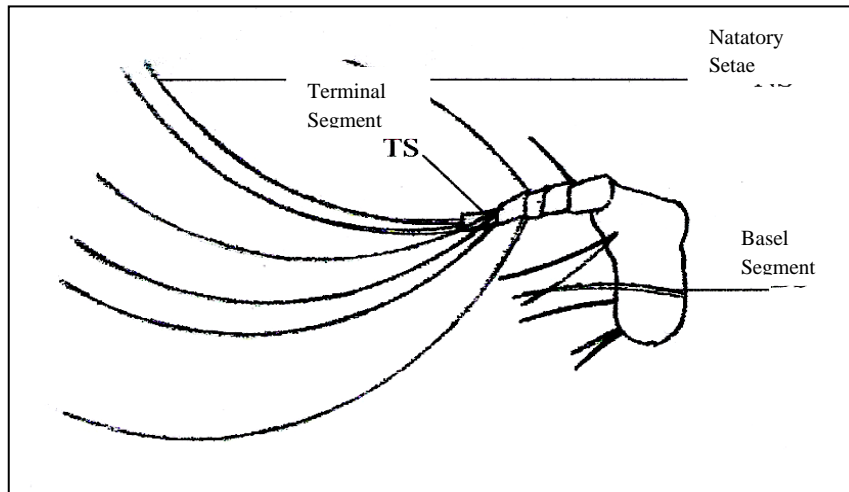


Fig.3 First Antenna of *Bradleystrandesia bassati*; sp.nov  
from Babylon , Iraq

0.5mm—

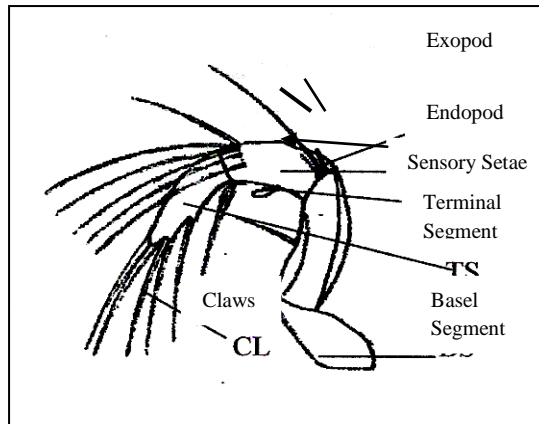


Fig.4 Second Antenna of *Bradleystrandesia bassati*; sp.nov from Babylon , Iraq

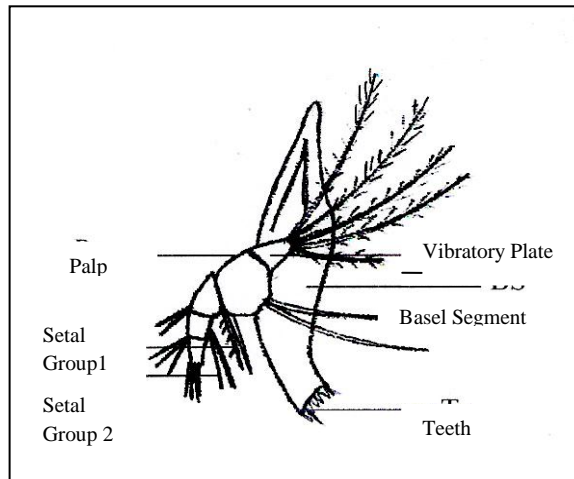


Fig.5 Mandible of *Bradleystrandesia bassati*; sp.nov from Babylon , Iraq

0.5mm—

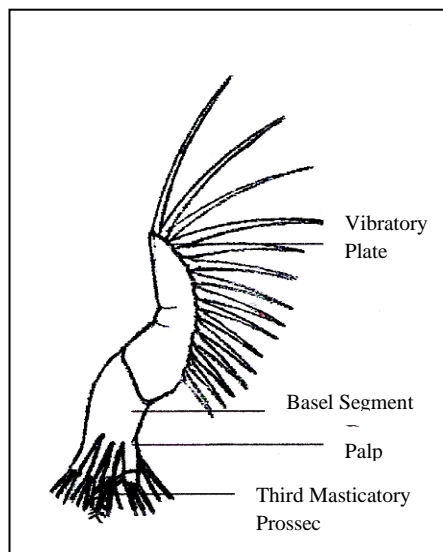


Fig.6 Maxilla of *Bradleystrandesia bassati*; sp.nov

from Babylon , Iraq

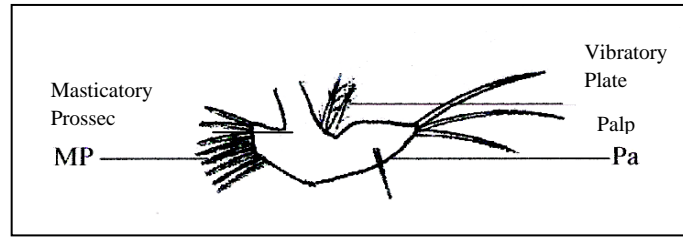


Fig.7 First Thoracopod of *Bradleystrandesia bassati*; sp.nov from Babylon , Iraq

0.5mm —

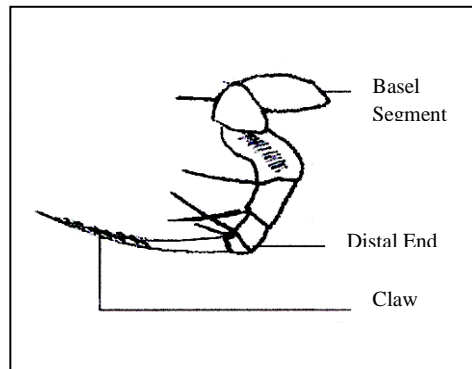


Fig.8 Second Thoracopod of *Bradleystrandesia bassati*; sp.nov from Babylon , Iraq

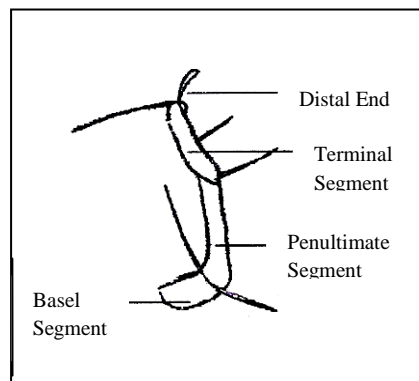


Fig.9 Third Thoracopod of *Bradleystrandesia bassati*; sp.nov from Babylon , Iraq

0.5mm —

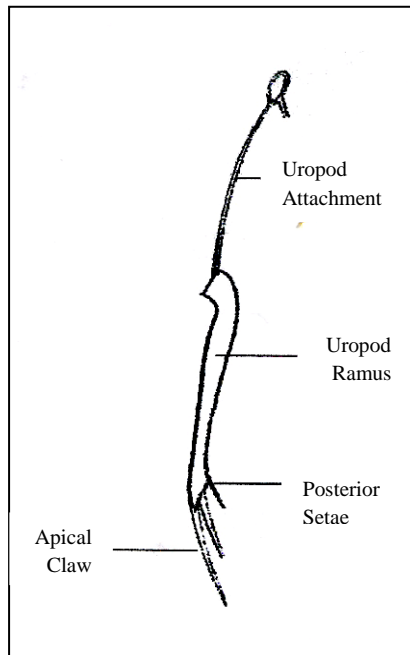


Fig.10 Uropod of *Bradleystrandesia bassati*; sp.nov  
from Babylon , Iraq

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