



## New Record Aquatic Species of Genus *Pseudocypretta* Klie, 1932 (Ostracoda: Cyprididae) From Iraq

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### Abstract

*Pseudocypretta* Klie, 1932 is one of the few species that spread in aquatic environments; for the first time the genus *Pseudocypretta* was recorded from Iraq. The samples were collected in August 2004, Al -Hindiyah, Karbala Governorate (32°32'43.18"N, 44°13'24.97"E). *Pseudocypretta maculata* Klie, 1932, was recorded for the first time from Iraq. Some taxonomic characteristics were relied upon, such as carapace with reticulate ornamentation and six spots on each side, right carapace different from the left, and some hairs on the basal segment of the First Antenna, dorsal margin of respiratory plate of the Maxilla with one seta.

**Keywords:** Cyprettinae, *Pseudocypretta*, new record, Iraq, Cyprididae.

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## Introduction

Ostracoda is small crustaceans surrounded by a closed calcified shield with two valves and are of great ecological and taxonomic diversity. Ostracoda lives in all fresh and marine aquatic environments, where they are abundant in warm tropical waters and very cold waters, in the depths of the seas, as well as in fresh waters such as ponds and lakes, and sometimes in moist forests (Saucède et al. 2014). There are more than 30,000 described species, most of which are fossils dating back to the Paleozoic, which is essential in reconstructing the ancient environment and climate. (Yasuhara et al. 2009).

There are approximately 200 genera and 2,000 species of non-marine Ostracoda. Candonidae and Cyprididae constitute more than 75% of the diversity, while the rest (11 families) includes 25% of species. About 60% of genera and 90% of species are found in one geographical area (Martens et al. 2007).

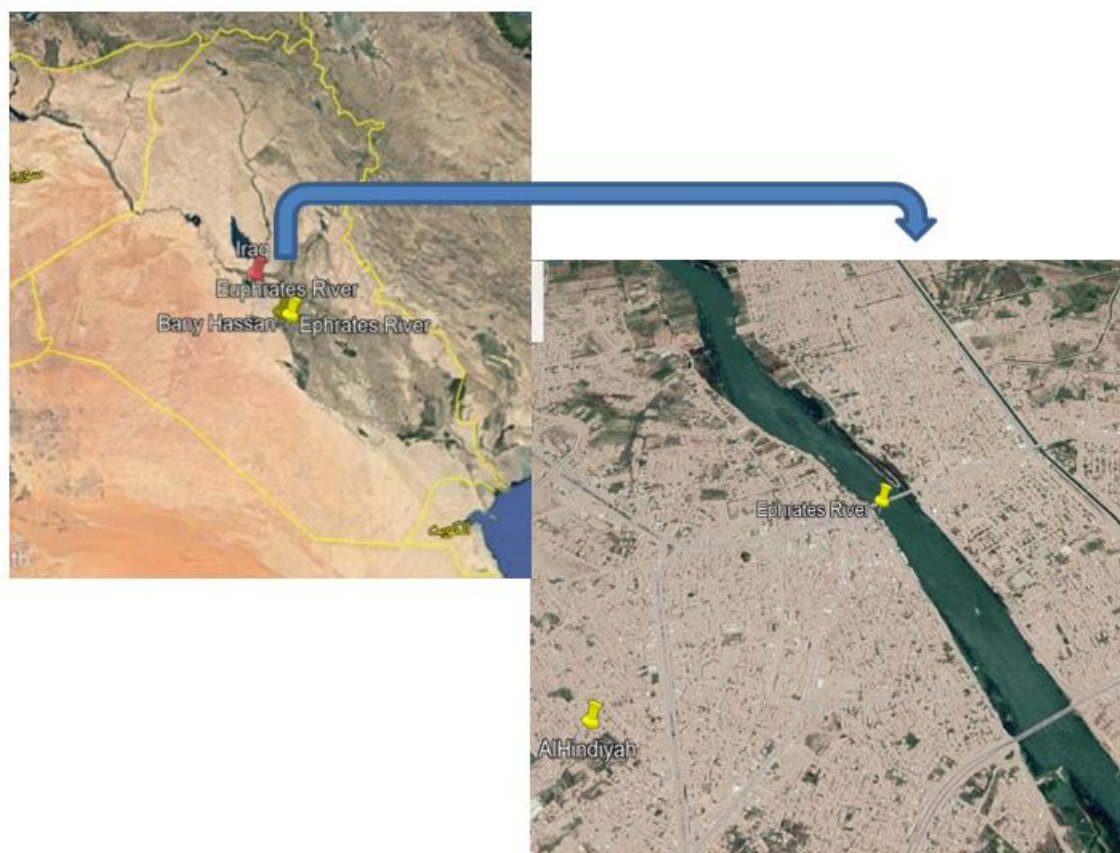
Ostracoda is important in various environmental and evolutionary studies (Marten, 1998) and depends on environmental and climatic changes

(Holmes & Chivas, 2002). Often found in very cold water (Delorm, 1991), and even in hot springs (Külköylüoğlu et al. 2003).

Ostracoda is an important indicator of water quality changes (Delorm, 1991). It is also essential in the aquatic food chain (Meisch, 2000). Living forms of them live in the ocean at a depth of 5000 meters (Benson, 1972), more than 4000 meters (Laprida et al. 2006) (Mischke et al. 2007), and on depth 600 meters in mountain lakes (Pinato, 2013).

## Materials and methods

The study was conducted in July 2006, where nine samples were collected from Karbala \ Al-Hindiyah \ Euphrates River (32°32'43.18"N, 44°13'24.97"E) Fig(1). The specimens were collected from the areas near the cliff and preserved after collection using a zooplankton net in 70% ethanol. Use a glass pipette to withdraw the specimens and place them on the slide for dissection. Using fine needles, the samples were dissected by lifting the left and right valves and setting them aside, then the internal parts were dissected, including the head and thorax appendages. Camera Lucida was used to draw specimens for their diagnosis by several taxonomic keys, including Pietrzeniuk (1977); Bronstein (1947), Meisch (2000); Victor (2004); and Fuhrmann (2012).



**Figure1: Study area showed region of collect specimens in Karbala\ Iraq**

## Results and Discussion

Subfamily Cyprettinae Hartmann

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Genus *Pseudocypretta* Klie

Class Ostracoda Latreille, 1802

Subclass Podocopa Sars, 1866

Order Podocopida Sars, 1866

Suborder Cypridocopina Baird, 1845

Superfamily Cypridoidea Baird, 1845

Family Cyprididae Baird, 1845

Subfamily Cyprettinae Hartmann, 1971

Genus *Pseudocypretta* Klie, 1932

Species: *Pseudocypretta maculata* Klie, 1932.

Type species: *Pseudocypretta* Klie 1932.

*Pseudocypretta* Klie, Archiv FUr. Hydrobiol.

Stuttgar. Suppl. Bd. 11: 484. Type species: *Pseudocypretta maculata* Klie, 1932.

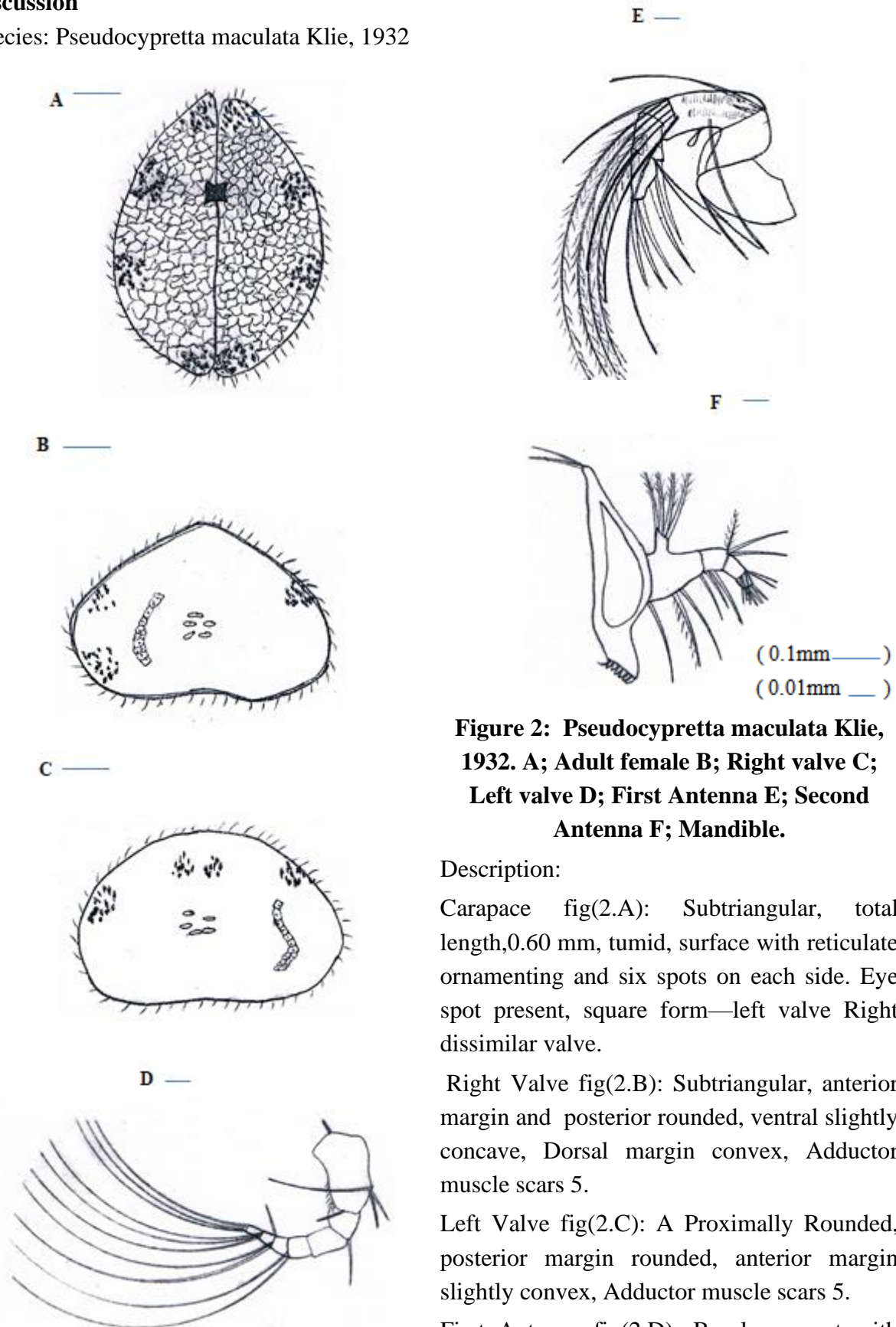
1932. *Pseudocypretta maculata* Klie, Arch. Hydrobiol. Suppl., 11 : 485. 1979. *Pseudocypretta maculata* Klie, Victor and Fernando Rec. zool. Surv. India, 74 : 213. (Chandra, 2011).

Genus *Pseudocypretta* Klie, 1932:

Tumid valves, subtriangular, dorsum boldly arched; Anterior margin and Posterior rounded, Ventral straight; right valve overlaps the left. Third masticatory process with tow teeth bristles. First Antenna with well-developed Natatory setae. Posterior and Anterior margin with septa .Uropod: reduced to flagellate. *Pseudocypretta maculata* Klie, 1932 was first described in Sumatra and Java. ( Sharma, S. and Sharma, 2013).

## Discussion

Species: *Pseudocypretta maculata* Klie, 1932



**Figure 2: *Pseudocypretta maculata* Klie, 1932. A; Adult female B; Right valve C; Left valve D; First Antenna E; Second Antenna F; Mandible.**

### Description:

Carapace fig(2.A): Subtriangular, total length, 0.60 mm, tumid, surface with reticulate ornamenting and six spots on each side. Eye spot present, square form—left valve Right dissimilar valve.

Right Valve fig(2.B): Subtriangular, anterior margin and posterior rounded, ventral slightly concave, Dorsal margin convex, Adductor muscle scars 5.

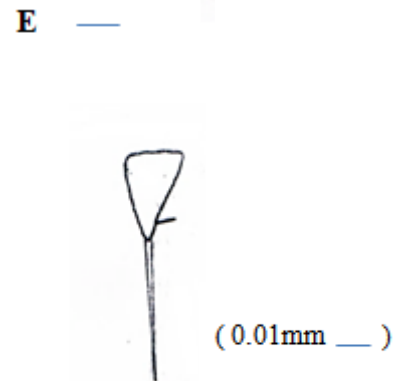
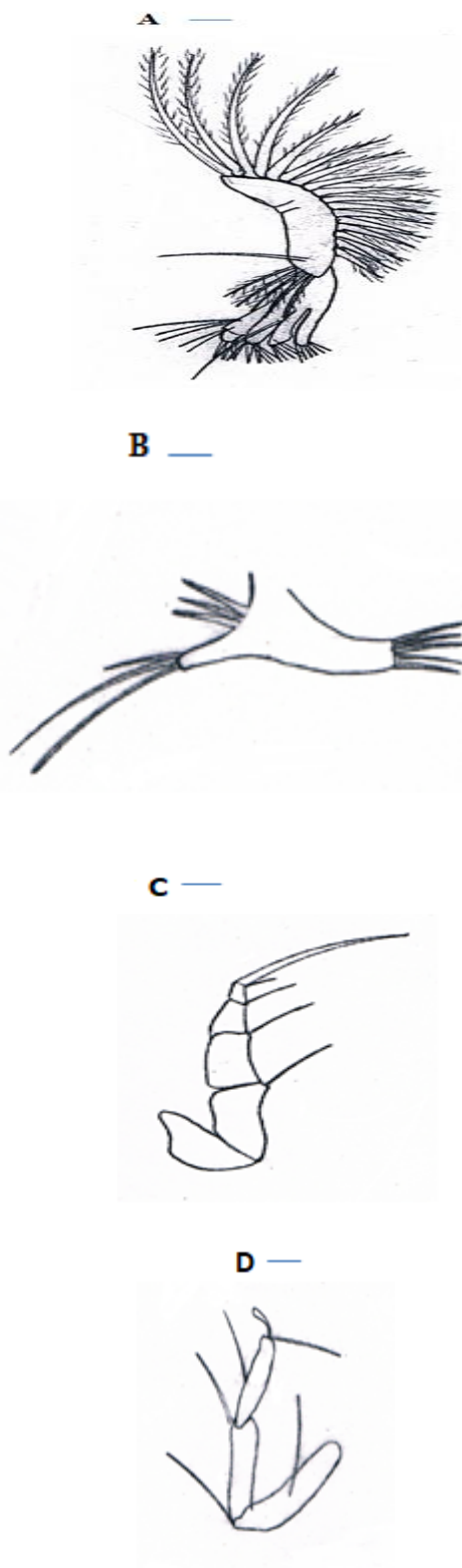
Left Valve fig(2.C): A Proximally Rounded, posterior margin rounded, anterior margin slightly convex, Adductor muscle scars 5.

First Antenna fig(2.D): Basal segment with small hairs, Natatory setae well-developed.

Second Antenna fig(2.E) :Natatory setae extending terminal segment. Terminal segment

with three claws.

Mandible fig(2.F): Six teeth at the base, vibrating plate with four setae.



**Figure 3** *Pseudocypretta maculata* Klie, 1932. A; Maxilla B; 1st Thoracopod C; 2nd Thoracopod D; 3rd Thoracopod E; Uropod.

Maxilla fig(3.A): vibrating plate with 17 feathery setae. Palp with three spines, third masticatory processes with two spine teeth.

1st Thoracopod fig(3.B): Vibrating plate with three setae.

2nd Thoracopod fig(3.C): Terminal with long claw and one short seta.

3rd Thoracopod fig(3.D): Terminal with long reflexes and other short seta.

Uropod fig(3.E): Reduced to flagellate bear long seta and short lateral seta.

### Conclusions

*Pseudocypretta maculata* Klie, 1932, was first recorded in Iraq. The genus *Pseudocypretta* is one of the few species widely distributed in aquatic environments. Species characterized by Subtriangular Carapace, surface with reticulate ornamenting and six spots on each side, Terminal of 2nd Thoracopod with two long reflexes seta and other short.

### Acknowledgments

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