

## A NEW GENUS OF LOHMANNIIDAE (ACARI; ORIBATEI) FROM IRAQ.

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**ABSTRACT:** *Irakicarus*, a new genus of Lohmanniidae, with the type species *Irakicarus alai* is described from Basrah, Iraq.

### INTRODUCTION

Balogh (1963) in his survey of the genera of the oribatid mites of the Holarctic region listed only 4 genera of the family Lohmanniidae, but in 1972, he added 15 genera, so that the total number of genera of the world become 19.

In Palaearctic region, to which Iraq belongs, eight genera of Lohmanniidae were recorded (Balogh and Mahunka, 1983). In Iraq only 4 genera were recorded, two of them by Abul-Hab (1984), the other two by Kareem (1992). In Egypt Abdul-Hamid (1980) listed only 4 genera of Lohmanniidae. In Tunisia, Mahunka (1980) recorded only two genera.

Mahunka (1982, 1984) in his expedition to Ethiopia to region, has recorded only one genus belonging to the family Lohmanniidae.

The present work added a new genus to the list of genera of Lohmanniidae.

### MATERIALS AND METHODS

A sample of dates palm fiber was putted in a Berlese funnel for 24 hours. Specimens collected were transferred to a tube containing lactic acid and alcohol in a ratio of 1:1. For identification and drawing with camera lucida, the method of Balogh (1963) was followed.

### DESCRIPTION

#### *Irakicarus gen. nov.*

#### Diagnosis:

Prodorsum somewhat pointed at the front, with two pseudostigmatal organ situated in a cup-shaped invagination located near the dorsosejugal suture. Cutical with polygonal ornamentation. Notogaster with 16 pairs of setae, but without pygidial neotrichy, covered with polygonal ornamentation. Setae on prodorsum and notogaster all lightly pilose. Genital plate with 10 pairs of setae, divided by transverse suture. Anal and adanal plates fused, two anal setae and 4 adanal ones present. Praeanal plate narrow, present between genital and anal plates. Ventral side without polygonal ornamentation.

**Type species:** *Irakicarus alai sp. nov.*

Measurements: Length = 625um

Width: 300um

#### colour:

Specimens light brown in colour at time of collection from the field, becomes faint in the laboratory.

**Prodorsum:**

Smooth margin, except near the anterior exostigmatal hairs, a little bent present. Rostral setae long, uncurved, originated from notch far from the lateral margin. Lamellar hairs near the margin of the rostrum region, outwardly curved and barbed on inner margin, the distance between them, as the distance between lamellar and sensilli hairs. Anterior exostigmatal hairs situated at the half distance between lamellar and sensilli hairs. Sensilli hairs deeply pectinate, originated from a cup-shaped invagination (the bothridium). Interlamellar hairs originated between the sensilli, the distance between them double as the distance between interlamellar and sensilli hairs. Posterior exostigmatal hairs shorter than the other setae, situated just beneath the sensillum. Prodorsum without any porosae or sutures, but it is covered with polygonal ornamentation. The dorsosejugal suture continuous and concave in shape.

**Notogaster:**

More or less concave, covered with polygonal ornamentation, without any transverse furrows. with 16 pairs of setae. All setae short and pilose. Setae c in concave shape arrangement, c3 situated near the dorsosejugal suture, the distance between them is nearly the same. Setae d arranged on straight line, d3 far from the margin, distance between d1 double as the distance between d1 and d2. e1 and e2 widely separated, distance between e1 nearly 1/3 as that between e1 and e2. Setae f1 widely separated from each other, f2 originated near the margin, distance between f1 setae is the same as that between f1 and f2. Setae h longer than others, situated near the base of notogaster, distance between h1 is 1.5 as the distance between h1 and h2.

**Ventral side:**

Gnathosome deeply invaginated bearing small setae, retellum with shallow teeth, mentum with one pair of setae h. Epimeral boundaries 3 & 4 incomplete, epimeral setae small, but clearly barbed with high magnification with a formula of (6, 4, 3, 4). Genital plate divided unequally by transverse suture, the lower half broader but shorter than the upper one, each bearing 5 small setae, arranged 3 inward and 2 outward. All setae downwardly curved, barbed on both sides. Praeanal area narrow, not covered. Anal and adanal plates fused. with 2 & 4 setae, respectively. All setae barbed and longer than genital one.

**Legs:**

All legs typically monodactylous, the claw slightly curved at the apex. Most of the setae normal, tarsus of leg 3 & 4 clearly longer than that of legs 1 & 2. Solenidium three (3) of tarsus near the claw, its length nearly equal to the length of tarsus and tibia. Trochanter with very long seta at its base.

**Remarks:**

In comparing this genus with at least the genera of the palaearctic region. It seems obvious that this genus differs from *Lohmannia* by its praeanal plate which is narrow, but wide in *Lohmannia*, and from *Thammacarus* by the presence of pygidial neotrichy and by the setae of notogaster which are 25 pairs. *Meristologmannia* can be easily distinguished from the present genus by the absence of the anal setae and the wide praeanal plate. *Cryptacarus* and *Heptacarus* have pygidial neotrichy which is absent in the present genus, as well as the wide praeanal plate of *Heptacarus*. *mixacarus* and *Javacarus* can be separated from the *Irakicarus* by the absence of the transverse suture of the genital

plate. The separation of anal and adanal plates in *Papillacarus*, is a good characters for discrimination of the above genus from *Irakicarus*.

**Materils Examined:**

Holotypus (19-HO-96) from date palm fiber, deposited at Department of Biology , College of Scince, University of Basrah, Basrah, Iraq.

The main distinguishing feature in the Lohmanniidae genera of the world

Character genera	suture on genital plate	praeanal plate	Anal and Adanal plate	Adanal setae	Anal setae	Pygidial neutrichi
Lohmanii*	+	1	1	4	2	-
Thamnacarus*	+	1	1	4	2	+
Meristolohmannia	+	1	1	4	0	-
Nesiacarus	+	1	0	4	2	+
Heptacarus*	+	1	0	5	2	+
Lepidacarus	+	0	1	4	2	-
Papillacarus*	+	0	0	4	2	+
Vepracarus	+	0	1	4	2	+
Cryptacarus*	+	0	0	4	2	+
Mixacarus*	+	1	1	4	2	-
Meristacarus	-	1	1	4	0	-
Euryacarus	-	1	0	4	0	-
Paulianacarus	-	1	0	4	2	-
Millotacarus	-	1	0	4	0	-
Javacarus*	-	1	0	4	0	-
Torpacarus	-	1	0	5	0	-
Haplocarus	-	1	0	4	1	-
Annectacarus	-	0	0	4	2	+
Dendracarus	-	0	0	4	1	+
Irakicarus**	+	0	0	4	2	-

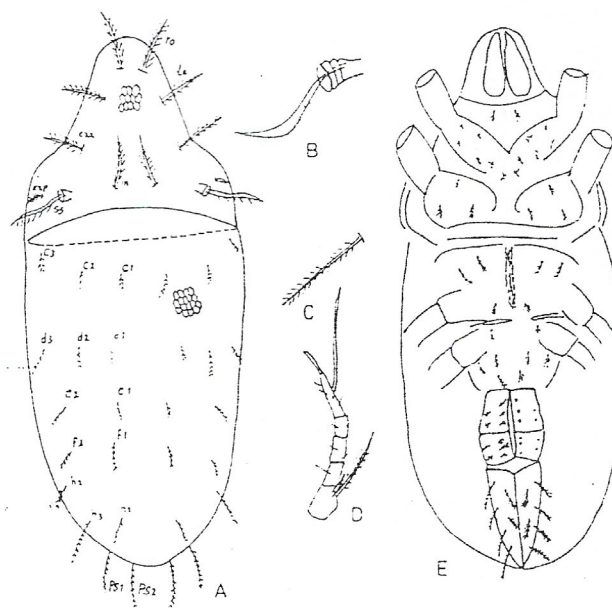
\* Palaearctic genera

\*\* The new taxa

Transver suture = +(present), -(absent).

Praeanal plate = 1(wide), 0(narrow).

Anal & Adanal plate = 1(separated), 0(fused). Pygidial neutrichy = +(present), -(absent).



**Irakicarus alai sp. nov.**

A=dorsl view, B=sensillus, C=seta, D=leg iv, E=ventral view.

### AKNOWLEDEGMENT

I am grateful to the Dept. of Biology for providing facilities. My thanks are also due to Dr. Salman D. Salman, of the Marine Science Center for critical reading of the manuscript.

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### المستخلص

تم وصف جنس جديد تابع للعائلة Lohmamiida مع نوعه Irakikarus alai وجد ضمن ليف النخيل من محافظة البصرة.