History of Medicine, 2023, 9(1): 1106–1109
DOI: 10.17720/2409-5834.v9.1.2023.131

Description of two new record species of the genus Asproparthenis (Coleoptera, Curculionidae) in Iraq

Hanan H. Al Saffar[1*], Ali N. Yaseen[2], Saadoun Obaed Ahmed[3]

[1] Natural History Research Center and Museum University of Baghdad, Baghdad Iraq
EM: dr.hanaa66@nhm.uobaghdad.edu.iq
[2] Department of Science, college of Basic Education, Mustansiriyah University, Baghdad, Iraq
EM: alinnazar.edbs@uomustansiriyah.edu.iq
[3] Ministry of Education, General Directorate of Diyala Education, Diyala, Iraq
EM: saadounalobaedi@gmail.com

*Corresponding author: Hanan H. Al Saffar (dr.hanaa66@nhm.uobaghdad.edu.iq)

Received: 20 January 2023 **Accepted:** 15 April 2023

Citation: Saffar HHA, Yaseen AN, Ahmed SO (2023) Description of two new record species of the genus Asproparthenis (Coleoptera, Curculionidae) in Iraq. History of Medicine 9(1): 1106−1109. https://doi.org/10.17720/2409-5834.v9.1.2023.131

Abstract

The species Asproparthenis vexata Gyllenhal,1834 and Asproparthenis omeri Korotyaev et al. (2020) belongs to Subfamily Molytinae family Curculionidae. In this study, two male specimens of Asproparthenis vexata and three male specimens of Asproparthenis omeri were used, which were obtained through field trips of Diyala farms, specifically in the district of Khalis, where these specimens were found near bushes (a mixture of plants). such as Atriplex halimus and some other plants.

Keywords
Asproparthenis vexata, Asproparthenis omeri Coleoptera, Curculionidae, Lixinae, , new records, Iraq

The Curculionidae are a family of weevils, commonly called snout beetles or true weevils , is one of the largest families of the order Coleoptera and the most widespread in the world, with a number of 51,000 species within 4,600 genera (Imms 1988; Anderson 2002). It was also shown in a study conducted by Oberprieler et al.(2014) that the superfamily Curculionoidea includes seven families with approximately 62,000 described species within 5,800 genera.

The scientist Leach (1817) was the first to call this family Curculionidae or true weevils, and Imms (1988) added that this family is characterized by the phenomenon of camouflage when it senses danger, as it falls to the ground and remains motionless, and is colored Where you are or live.

A family Curculionidae, of the order Coleoptera, is one of the polyphaga families, in which the adults feed on leaves, flowers, and other external parts of the plant, while the larvae feed internally, either in soil, roots, rotting wood, or stems (Bajtenov 1974; Anderson 1993, 1995).

Also, this family has common characteristics agreed upon by a large number of researchers, including Crowson (1953), Borror & Delong (1954), Ross (1965), Bishara (1968), Rizk (1980), Imms (1988), Thompson (1992), Araujo et al. (2011), Al-Ahmadi and Al-Jumaili (2013), and Korotyaev (2017). As pointed out by Borror et al. (1964) that this order is one of the largest insect orders, rather the largest in the animal kingdom in general, and studies are still continuing to discover new species, (Alonso-Zarazaga ,200 ; Bouchard et al. ,2011).

Material and Methods

In this study, two male of Asproparthenis vexata, and three male of Asproparthenis omeri

were selected , as they from field trips in Diyala farms, specifically in the district of Khalis, near (a mixture of plants) such as Atriplex halimus and some other plants . Specimens were stored in plastic bottles and freeze-killed, examined using a binocular dissecting microscope, and a Dino-lite digital microscope was used for species imaging as well. Finally, there are references containing species descriptions for identification and species diagnosis using Taxonomical keys such as Aslam (1963), Lyal & Curran (2000),Gultekin et al.(2019), This study showed the diagnostic characteristics of these species (Asproparthenis vexata , Asproparthenis omeri) through which they can be isolated and distinguished from other species.

Results and Discussion

In this study the survey show a new record species of the genus Asproparthenis vexata , Asproparthenis omeri

Common name: Asproparthenis vexata Gyllenhal,1834

Synonym: Bothynoderes amicus Faust, 1891
Bothynoderes impudens Reitter, 1905
Bothynoderes pusio Reitter, 1905
Bothynoderes solutus Reitter, 1905
Bothynoderes vexata Gyllenhal, 1834
Cleonus ambiguus Fahaeus, 1842
Bothynoderes impudens Reitter, 1905
Bothynoderes solutus Reitter, 1905

Asproparthenis omeri Korotyaev et al.2020

Material examined : (2 ♂♂) from Asproparthenis vexata : Diyala 7 / 3/ 2021 and (3♂♂♂) Asproparthenis omeri : Diyala, 17/4/2021

Distribution: This species is spread in many parts of the world, including Israel, Turkey, Iran, Russia, India, Ukraine, Libya, East and West Asia, China, Canada, and Australia. (Yunakov et al. 2018 ; (Korotyaev et al. 2020).

Asproparthenis vexata Gyllenhal,1834

The body (Fig: 1): It has an elongated oval shape, yellowish-earthy, and contains black spots distributed on the body from the middle to the end of the body, and a large black spot on the chest. This type was recorded for the first time in Iraq.

Head (Fig:2:A): Globular in shape, black in color, covered with thick brown hair, the snout covered with yellow hair, and the compound eyes were black in color, circular in shape, prominent.

Prothorax: (Fig: 2: B) Pronotum is almost square in shape, black at the top and base of a flat brown colour, thick white hair on the sides and light hair in the middle. Scutellum (Fig: 2: C) triangular in shape, black in color, containing small circular pits, as well as a longitudinal line in the middle.

Elytron (Fig:2:D) It is oblong in shape, its base is flat and its top is circular. It contains black spots on its inner edges, in addition to a transverse black line in the middle. It is covered with thick yellow and white-gray hair.

The legs (Fig:2:E) are reddish-brown, except for the thigh area, which is blackish-brown in color, covered with thick yellow hair. The claw is prominently split.

Abdomen (Fig:2:F) Oval in shape, black in color, covered with thick yellow hair. The sternal rings are rectangular, except for the sacral ring, which is round, and covered with thick yellow hair.

Male gentelia (Fig:2:G) Tubular, indented, yellowish-brown in color, the end of the penis tapering, free from fluff and bristles.

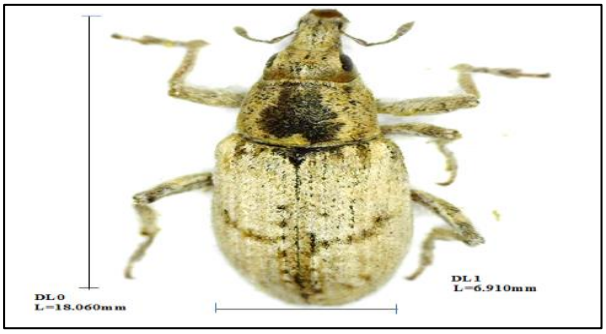

Figure (1) A dorsal view of the male of Asproparthenis vexata Gyllenhal,1834

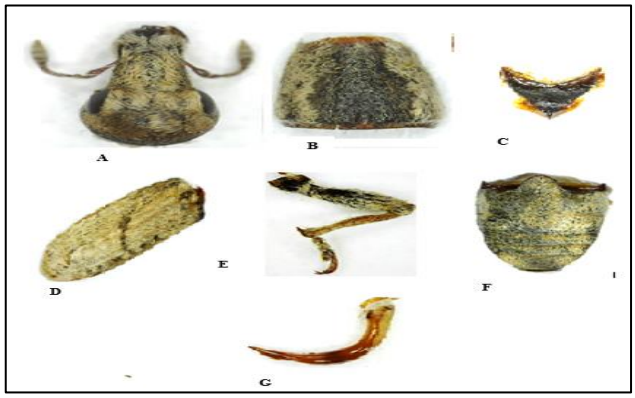

Figure (2): (A) Head (B) Prothorax (C) Scutellum (D) Elytron (E) Hind leg (F) Abdomen (G) Male genitalia

Asproparthenis omeri Korotyaev,Gultekin&Gultekin,2020

The body (Fig:3) It is blackish gray in color with two large black spots prominent on the sheath. This species was recorded for the first time in Iraq.

Head (Fig: 4: A) The head is almost triangular in shape with a black colour. The snout is short and covered with dense yellowish-silver hair. The compound eyes are clear black. The antennae are yellow with a dark brown end.

Prothorax (Fig: 4: B) The Pronotum is almost square in shape, with a dark brown color covered with yellow hair. Its base is round. Its apex is slightly convex. It contains a yellow spot in the middle. The Scutellum (Fig :4:C) has a yellowish-brown color. It is triangular in shape. It has white spots and yellow hair at its base. It also contains a line. Medial extends along its length and at its apex a small brownish protrusion.

The Elytron (Fig: 4: D) Almost elongated, with a flat base and a rounded top. It is brown in color, covered with yellow hairs, and contains white spots distributed at the edges.

The Legs (Fig: 4: E) It is brown in color covered with yellow hair, and middle legs is shorter than the front and hind legs, the tarsus (Fig: 4 :F) is brown in color with black spots, and the claw is prominently bisected.

Abdomen (Fig: 4: G) Almost triangular in shape, yellowish-brown in color, covered with fine, thick yellow hairs. The sacral ring is almost round in shape.

The male genitalia (Fig: 4: H) Yellow in color, except for the tip of the penis, black in color, tapering, free of hairs and fluff.

Figure (3) A dorsal view of the male of Asproparthenis omeri Korotyaev,Gultekin&Gultekin,2020

Figure (4) : (A) Head (B) Prothorax (C) Scutellum (D) Elytron (E) Hind leg (F) Tarsus (G) Abdomen (H) Male genitalia

Conclusion

1. The specimens were collected from agricultural lands and sites where bushes are found and near Atriplex halimus and some other plants.
2. These two species were recorded for the first time in Iraq in the genus Asproparthenis
3. These two species are accurately described and supported by pictures of the important parts.

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