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**A new species, *Coccidohystrix burumandi* sp. n. (Hemiptera, Coccoidea, Pseudococcidae) from Iran**

**Abstract** - The mealybug species *Coccidohystrix burumandi* Moghaddam, sp. n. is described from the leaves of *Euphorbia* sp. (Family: Euphorbiaceae) in Iran. The adult female is illustrated in detail. The distribution of the genus *Coccidohystrix* is briefly discussed in the Palaearctic Region.

**Key words:** Hemiptera, Coccoidea, Pseudococcidae, *Coccidohystrix burumandi* sp. n., new species, Iran

## INTRODUCTION

The genus *Coccidohystrix* Lindinger, 1943 and its eight species have been extensively studied by Kozar and Pellizzari (1989) and a key to the five Palaearctic species of the genus is provided by Kozár and Konczné Benedicty (1997). Three species of the genus *Coccidohystrix* were transferred to the genus *Artemicoccus* Balachowsky, 1953 (Ben-Dov, 1994) and later Williams (2004) described a new species, *C. eleusines* Williams. The species *C. burumandi* is the second species to be recorded from the Irano-Turanica subregion. The first species, *C. artemisiae* (Kiritchenko) has been recorded from Armenia, Kazakhstan, Tajikistan, Turkey and Uzbekistan (Ben-Dov *et al.*, 2009). The genus *Coccidohystrix* is recorded here for the first time from Iran

## METHODS

The descriptions and records are based on slide-mounted specimens Williams & Willink (1992) and the terminology follows Williams (2004). The body measurements are given in millimeters (mm) and measurements of all other characters are given in microns (µm). The illustration shows the dorsum on the left and the venter on the right with enlargements of important characters around the edges. These enlargements are not drawn to scale.

The specimens are deposited at the Iranian Research Institute of Plant Protection (IRIPP), Tehran, Iran.

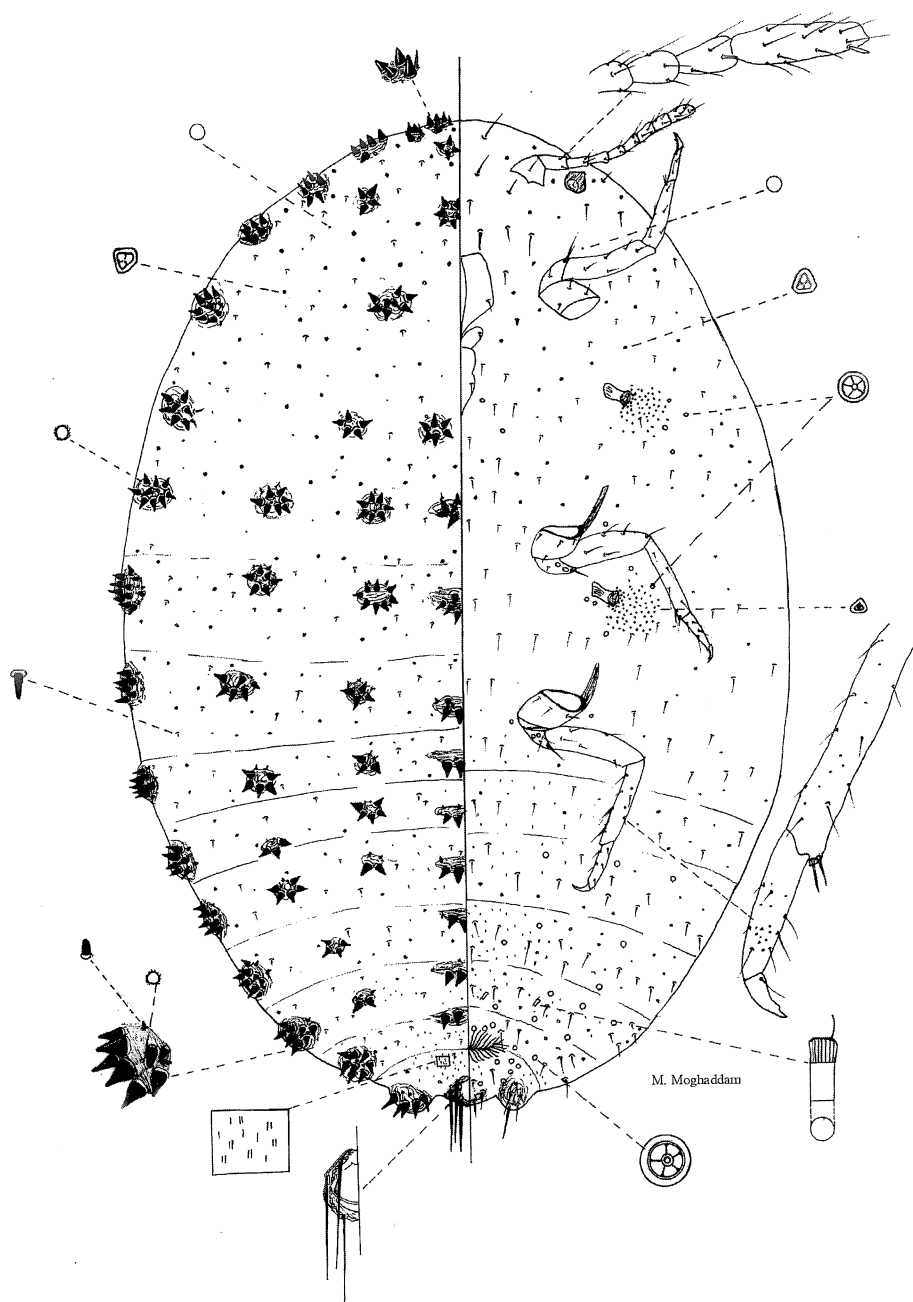
***Coccidohystrix burumandi* Moghaddam, sp. n. (Fig. 1)**

*Habit.* It occurs on the upper surface of the leaves.

*Diagnosis.* Appearance of adult female in life not recorded. Body of adult female on microscope slide broadly oval, 2 - 2.12 mm long and 1.4 - 1.8 mm wide. Body with prominent marginal lobes. Eyes 60 - 65  $\mu\text{m}$  wide. Antennae 9-segmented, 400 - 420  $\mu\text{m}$  long; apical segment 60 - 65  $\mu\text{m}$  long, 45 - 48  $\mu\text{m}$  wide. Compact small trilocular pores more than 100 and 2 - 5 quinquelocular pores situated adjacent to anterior and posterior spiracular openings. Circulus and ostioles absent. Legs well developed; hind trochanter + femur 215 - 250  $\mu\text{m}$  long, hind tibia + tarsus 30 - 320  $\mu\text{m}$  long, hind claw 35  $\mu\text{m}$  long, with a denticle. Ratio of lengths of hind tibia + tarsus to hind trochanter + femur 0.72 - 0.78; ratio of lengths of hind tibia to tarsus 1.4 - 1.6, ratio of length of hind trochanter + femur to greatest width of femur about 19.5. Translucent pores scattered, few on hind tibia and on posterior surface of hind tarsus. Trochanter with 2 campaniform sensilla on each surface and with one long apical seta. Tibia cylindrical, as long as femur, with two apical spines and lateral spines flexible. Anal ring about 75  $\mu\text{m}$  wide, bearing 6 setae, each seta about 110  $\mu\text{m}$  long.

*Dorsum.* Cerarii 17 pairs, each situated on a sclerotized prominence. Anal lobe cerarii each comprising 4 - 5 blunt conical setae of various sizes, each with concave sides; the largest seta about 35  $\mu\text{m}$  long and 15  $\mu\text{m}$  wide at base; each cerarius containing 2 - 3 very small blunt setae and 1 - 2 small discoideal pores. Cerarii on head usually with 3 - 5 setae and 1 - 2 discoidal pores present. Cerarii on thorax each comprising 7 - 11 conical setae, situated on protruding sclerotized areas, each cerarius with 2 - 3 small blunt setae and 1 - 3 discoidal pores; single cerarius on each side of metathorax usually larger than other cerarii and with 11 conical setae; dorsal cerarii similar to lateral cerarii but smaller, present on midline from head to abdominal segment VII; submedial series of dorsal cerarii situated from head to abdominal segment VI, and intermediate cerarii occurring between medial and submedial cerarii on mesothorax to abdominal segment IV. Dorsal surface with minute and sparse lanceolate setae. Multilocular disc pores absent. Trilocular pores large, evenly distributed. Minute discoidal pores scattered. Tubular ducts absent.

*Venter.* Ventral surface with slender flagellate setae. Cisanal seta usually about 50 - 53  $\mu\text{m}$  long. Quinquelocular disc pores, few, present on abdominal segments posterior to vulva; across posterior edges of abdominal segments V - VIII, also present across anterior edges of abdominal segments IV - VI, absent from margins. Trilocular pores large, evenly distributed. Quinquelocular pores, wider than trilocular pores, present mainly near anterior and posterior spiracles and near the mouthparts. Discoidal pores sparse, located on whole body. Tubular ducts numbering 4 across abdominal segment VI, each wider than trilocular pores. Each anal lobe ventral surface bearing an apical



seta, 49 – 51  $\mu\text{m}$  long, shorter than anal ring setae, present on a wide sclerotized area; anal lobe without anal lobe bars.

#### COMMENTS

The species *C. burumandi* differs from *C. samui* Kozár & Konczné Benedicty and *C. echinatus* Balachowsky; in having translucent pores on hind tibia and hind tarsus; at most 8 setae on each plate, and more than 100 trilocular pores adjacent to spiracular opening. *C. burumandi* differs from *C. echinatus* in possessing shorter apical seta than anal ring setae.

#### MATERIAL EXAMINED

Holotype adult ♀, IRAN. Markazi province, Arak, on the leaves of *Euphorbia* sp., 25.v.2009, Leg. M. Alikhani (IRIPP).

Paratypes, IRAN. Same data as holotype, 1 adult female, on same slide as holotype (IRIPP); 8 adult females (IRIPP).

#### ETYMOLOGY

This species is named in honor of our Coleopterist colleague Hoshang Burumand who passed away in 2009.

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