

***Mirococcopsis multicircularia* sp. nov. from Turkey  
(Sternorrhyncha: Pseudococcidae)**

***Mirococcopsis multicircularia* sp. nov. из Турции  
(Sternorrhyncha: Pseudococcidae)**

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An adult female of *Mirococcopsis multicircularia* sp. nov. is described and illustrated. The new species is similar to *M. teberdae* (Danzig, 1985), but differs from it by the number of circuli (three instead of one), small number of dorsal multicellular pores, the presence of simple tubular ducts of only one size (instead of two sizes) and the presence of several oral rim tubular ducts on the dorsum. The new species was collected from an undetermined Poaceae plant in Van-Bahçesaray in 2006.

В статье дается описание и рисунок взрослой самки *Mirococcopsis multicircularia* sp. nov. Новый вид близок к *M. teberdae* (Danzig, 1985), но отличается от него числом брюшных устьиц (три вместо одного), малым числом многоячеистых пор, наличием трубчатых желез лишь одного размера (вместо двух) и присутствием нескольких грибовидных желез на дорсальной стороне тела. Новый вид был собран с неопределенного злака в регионе Ван-Бахчесарай в 2006 году.

**Key words:** mealybugs, Pseudococcidae, *Mirococcopsis*, new species, fauna of Eastern Turkey

**Ключевые слова:** мучнистые червецы, Pseudococcidae, *Mirococcopsis*, новый вид, фауна Восточной Турции

## INTRODUCTION

According to recent revision by Gavrilo (2007), the Palaearctic genus *Mirococcopsis* Borchsenius, 1948 comprises 11 species characterized by the reduction of cerarii or the presence only  $C_{18}$  with 1–3 flagellate setae, usually simplified anal ring and simple tubular ducts. Most of species inhabit steppe and semi desert landscapes and live under the leaf sheaths or on underground stems of different grasses and perennial herbaceous plants. Here, a new species, collected in Eastern Turkey, is described.

## Order STERNORRHYNCHA

### Family PSEUDOCOCCIDAE

#### *Mirococcopsis* Borchsenius, 1948

#### *Mirococcopsis multicircularia* sp. nov. (Fig. 1)

*Holotype.* Adult female; **Turkey**, Bahçesaray-Van-Turkey, on undetermined Poaceae plant, 25 June 2006; coll. M.B. Kaydan; deposited in the Plant Protection Department, Faculty of Agriculture, Yüzüncü Yıl University, Van, Turkey (CCVT).

*Diagnosis.* The new species is similar to *M. teberdae* (Danzig, 1985), but differs from

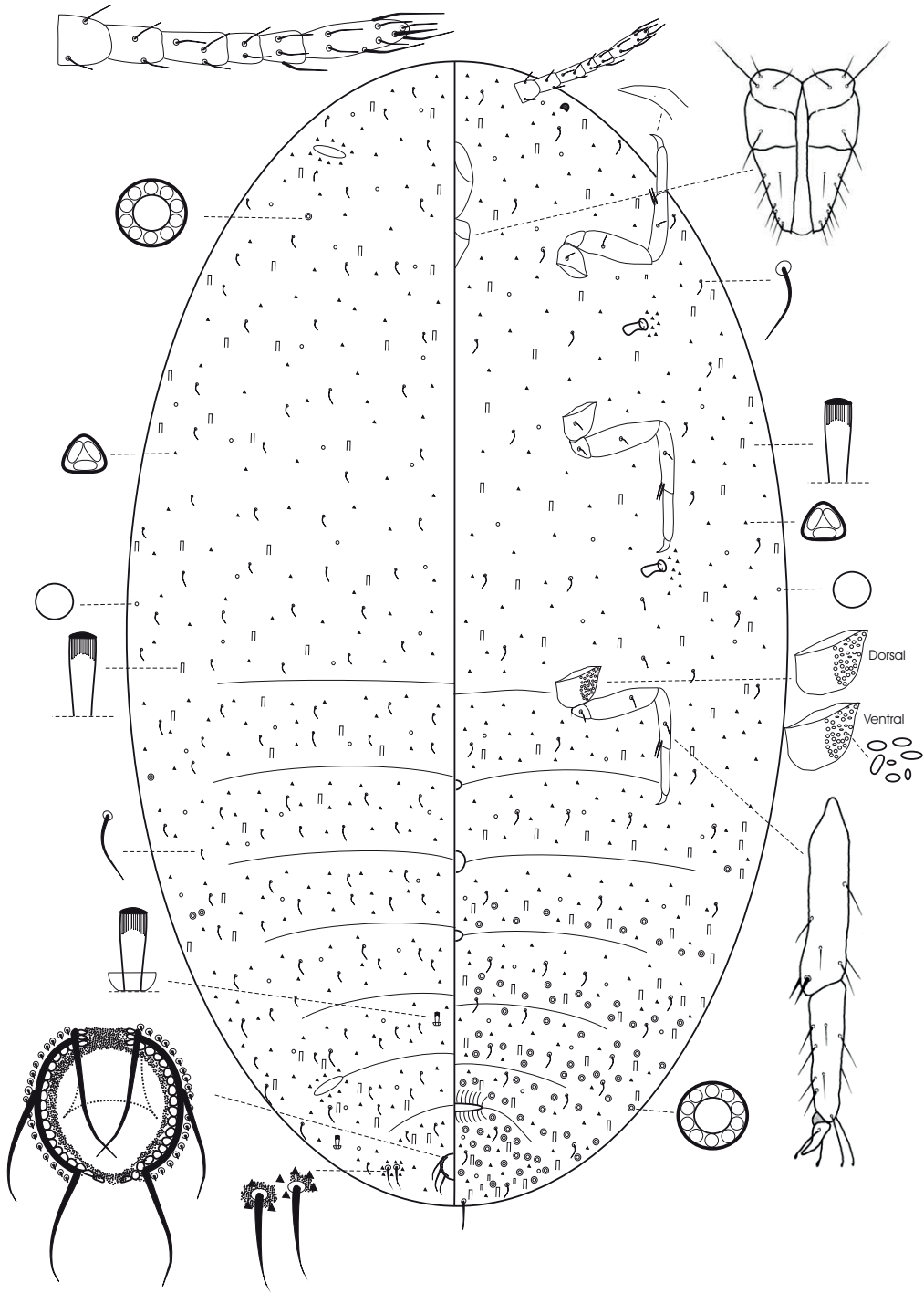


Fig. 1. *Mirococcopsis multicircularia* sp. nov., Turkey.

it in having three circuli (instead of one), small number of dorsal multiclocular pores and only one-sized oral collar tubular ducts (instead of two-sized) and the presence of several oral rim tubular ducts on dorsum.

*Description. Mounted adult female.* Body elongate oval, 2.83 mm long, 1.74 mm wide. Eye marginal, 30  $\mu\text{m}$  wide. Antenna 6-segmented, 270–325  $\mu\text{m}$  long; apical segment 155  $\mu\text{m}$  long, 27.5  $\mu\text{m}$  wide. Clypeolabral shield 190  $\mu\text{m}$  long, 170  $\mu\text{m}$  wide. Labium 95  $\mu\text{m}$  long, 90  $\mu\text{m}$  wide. Anterior spiracles 50–60  $\mu\text{m}$  long, 27.5–30  $\mu\text{m}$  wide across atrium; posterior spiracles 60–65  $\mu\text{m}$  long, 40.0–42.5  $\mu\text{m}$  wide across atrium. Three circuli on third, fourth and fifth abdominal segments, circulus on third abdominal segment smallest, round 32.5  $\mu\text{m}$  wide; circulus on fourth abdominal segment largest, round 75  $\mu\text{m}$  wide; circulus on fifth abdominal segment, oval 42.5  $\mu\text{m}$  wide. Legs well developed; coxa 127.5  $\mu\text{m}$  long; hind trochanter + femur 185.0–187.5  $\mu\text{m}$  long, hind tibia + tarsus 205–210  $\mu\text{m}$  long, hind claw 20.0–22.5  $\mu\text{m}$  long. Ratio of lengths of hind tibia + tarsus to hind trochanter + femur 1.09–1.14, ratio of lengths of hind tibia to tarsus 1.42–1.5, ratio of length of hind trochanter + femur to greatest width of femur 4.35–4.41. Tarsal digitules subequal, each 32.5–35  $\mu\text{m}$  long slightly knobbed. Claw digitules subequal, each 20–22.5  $\mu\text{m}$  long, and knobbed. Duct-like translucent pores present on both side coxa of hind legs, numbering 53–63 on dorsal surface, 70–71 on ventral surface. Both pairs of ostioles present; each anterior ostiole, with 6–8 trilocular pores and 0–2 setae; each posterior ostiole with 12–13 trilocular pores without setae. Anal ring 75  $\mu\text{m}$  wide, with 6 anal-ring setae; each seta 130–155  $\mu\text{m}$  long; spanula outside with very small setae, reticulated network of large polygonal pores (see Fig. 1).

*Dorsum.* Only one pair of cerarii present,  $C_{18}$ , each with 2 flagellate setae, 32.5–40.0  $\mu\text{m}$  long. Dorsal body setae slender, each 12.5–37.5  $\mu\text{m}$  long. Trilocular pores each 3.5–4.0  $\mu\text{m}$  in diameter, scattered over all body. Oral rim tubular ducts totaling 5

on dorsum on last abdominal segments and on mesothorax; each duct 10 long, 3  $\mu\text{m}$  wide at mid-width, rim of duct opening 5  $\mu\text{m}$  wide. Oral collar tubular ducts scattered all body each 7.5  $\mu\text{m}$  long, 2.5–3.0  $\mu\text{m}$  (3  $\mu\text{m}$ ) wide, numbering 28.

*Ventrum.* Body setae slender, each 22.5–90  $\mu\text{m}$  long, longest setae medially on head. Multilocular disc pores present on abdominal III–VIII and IX abdominal segments only; a few on margin of I–II–III–IVth abdominal segments, 43 pores on segment V, 62 pores on segment VI, 37 pores on segment VII, 43 on segments VIII and IX; each pore 7.5–8.0  $\mu\text{m}$  in diameter. Trilocular pores each 3–4  $\mu\text{m}$  in diameter scattered over all body. Simple disc pores scattered, each 2.5–3.0  $\mu\text{m}$  in diameter. Oral-collar tubular ducts each 8–9  $\mu\text{m}$  long, 2.5–3.0  $\mu\text{m}$  wide, totaling 137, on scattered on all body surfaces; distributed as follows: 56 on head and thorax, and first two abdominal segments: 9 on segment III; 12 on IV; 17 on V; 17 on VI; 18 on VII; 8 on VIII.

*Comments.* Here we introduce a new term “spanula” instead of “microspine”, that was used by Gavrilov (2007).

Gavrilov (2007) indicated that *Mirococcopsis* includes species with either simple tubular ducts only or ducts with small cuticular collars around the duct opening. The similar genera *Humococcus* and *Cryptorippersia*, as they are currently accepted (Bendov, 1994), include species with simple tubular ducts, oral rim tubular ducts, tubular ducts with very deep collars, and tubular ducts with a flat ring around the duct opening (Gavrilov, 2007). This situation, denotes a mixed, unnatural composition. Because of this fact we decided that this new species should be assigned to *Mirococcopsis* because of the reduced cerarii and simple anal ring. In our opinion, in future, these genera should be studied in more details for clarifying their generic concepts.

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