

## A NEW GENUS RECORD FOR THE CORINNID SAC SPIDER FAUNA OF TURKEY (ARANEAE: CORINNIDAE)

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ABSTRACT: In this study, the knowledge belonging to descriptions, habitats and distributions of *Orthobula charitonovi* (Mikhailov, 1986) which is new records for Turkish spider fauna, is given.

KEY WORDS: Araneae, Corinnidae, *Orthobula*, new record, systematics, Turkey.

Corinnidae is currently represented by 1014 species belonging to 87 genera in the world (Platnick, 2011). The genus *Orthobula* Simon, 1897 in the Phrurolithinae subfamily includes 17 species of corinnid sac spiders. These species are found some islands and countries in Ethiopian region, Oriental region and Palearctic region (Deeleman-Reinhold 2001, Mikhailov & Fet 1994). Until now, three corinnid sac spider species of three genera have been recorded in Turkey (Bayram et al., 2008; Seyyar et al., 2008; Özkütük et al., 2011). One of them is the genus *Trachelas* L. Koch, 1872 (as *Trachelas minor* O. P.-Cambridge, 1872) and the second one is the genus *Phrurolithus* C. L. Koch, 1839 (as *Phrurolithus festivus* (C. L. Koch, 1835)), and the third one is the genus *Paratrachelas* Kovblyuk & Nadolny, 2009 (as *Paratrachelas maculatus* (Thorell, 1875)) and herein a species belongs the genus *Orthobula* Simon, 1897 as *Orthobula charitonovi* (Mikhailov, 1986) was described and illustrated, new records for Turkish spider fauna.

### MATERIALS AND METHODS

This study is based on the materials collected in 2010 and 2011 from different region of Turkey. A total of 21 specimens of *Orthobula charitonovi* (Mikhailov, 1986) (3 males, 17 females and 1 juvenile) were collected from Kırıkkale, Kayseri and Düzce provinces. The specimens were taken through leaf litter by means of hand aspirator and sifter. Chiefly well known identification keys were used for identification (Heimer & Nentwig, 1991; Roberts, 1995 and Tyschchenko, 1971). Specimens were preserved in 70% ethanol. Measurements are given in millimeter (Table 1). The specimens were deposited in the collection of the Arachnological Museum of Kırıkkale University (KUAM).

### RESULTS

#### **Genus *Orthobula* Simon, 1897**

Type species: *Orthobula impressa* Simon, 1897

The species of *Orthobula* are distinct from other corinnids sac spiders by their reduced thoracic groove and the absence of spines on femora. The spiders have spines on the anterior tibiae and metatarsi. The tegulum of the palp expanded and

slightly sclerotized, bulb is simple and lack of additional apophysis in males. Epigyne has a pair of transverse rod-shaped spermathecae.

***Orthobula charitonovi* (Mikhailov, 1986)**

Synonym: *Trachelas charitonovi* Mikhailov, 1986: 799

**Description**

Male abdomen and female epigastric area with scutum. Carapace and sternum punctuated. Prosoma orange colour. Legs yellowish-brown. Leg formula 4123. Leg I and II have spines on the tibiae and metatarsi. Abdomen with typical pattern and folium the top with four -point. Female abdomen yellowish-brown but male abdomen orange-brown colour. Anterior median eyes smaller than anterior lateral eyes. Posterior median eyes whitish. Male pedipalp with retrolateral tibial apophysis, without patellar apophysis, but with patellar depression. Palpal retrolateral tibial apophysis small and without spines. Male palpal femur with one small projection. Epigyne consist of a pair of rod-shaped spermathecae near the epigastric fold and membranous sacs attached to the connecting duct in females and there are intromittent orifices locating at anterior parts. (Figs. 1-5).

**Material examined**

3 females, Kayseri province, Hacilar district (38°39'32" N, 35°26'05" E, 1370 m), 19.05.2011, from grassland; 13 females, 3 males, 1 juv., Kırıkkale province, Karacalı village (39°52'19" N, 33°33'15" E, 755 m) 15.10.2011, 1 female, Sinop province, Boyabat district (41°33'59" N, 34°49'12" E, 625 m). (KUAM-COR. Ort. char. 01-02).

**Habitat, occurrence and ecology**

Species of *Orthobula* have been found in humid rainforest, dry steppes and deserts (Deeleman-Reinhold, 2001). These spiders generally wandering predators that build silken retreats, or sacs, usually between leaves. In this study, *O. charitonovi* is found in leaf litter on the ground.

**Distribution**

*O. charitonovi* was distributed in Eastern Mediterranean to Central Asia (Platnick, 2011).

**DISCUSSION**

Our specimen's morphometric measurements and other general features are little different from the other common specimens. Morphological features as colour, folium or scutum of all specimens were a little changed. Folium in Mikhailov's description similar to ours. The samples from different regions shows that the variation among them.

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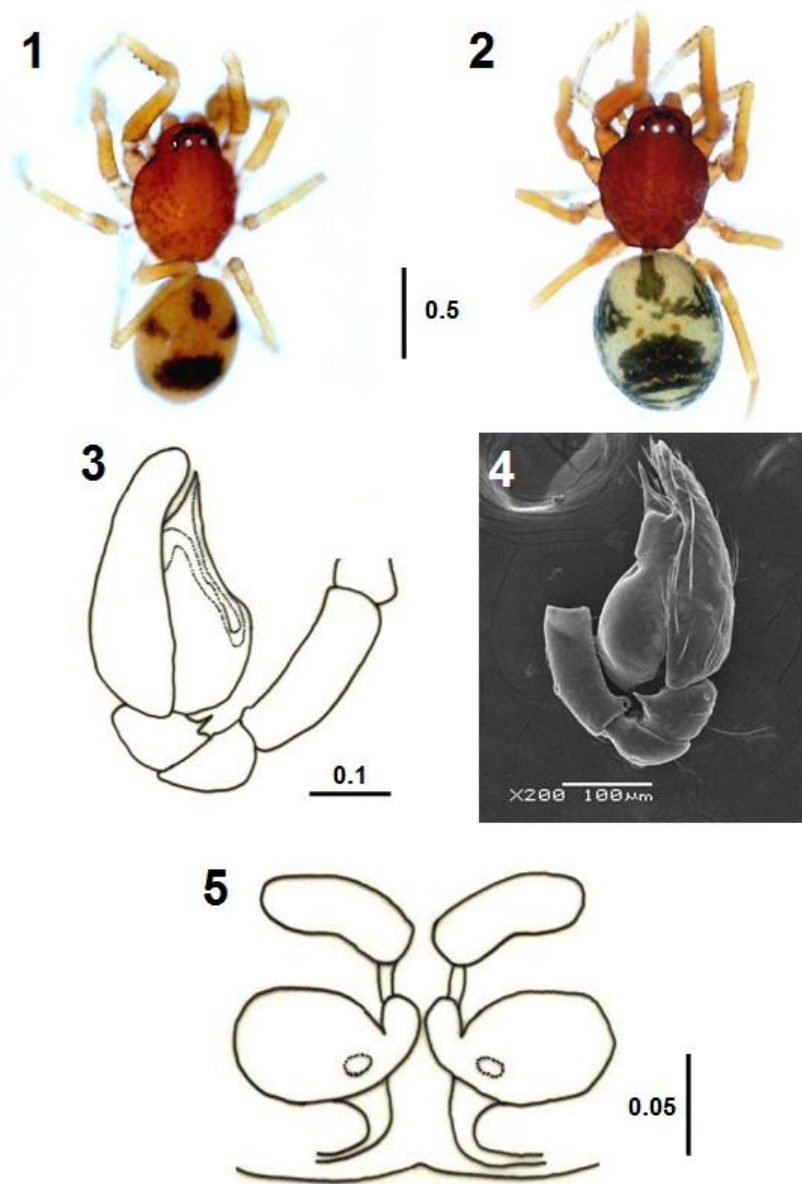
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Table 1. Measurements of *O. charitonovi*.

♂: n=3 / ♀: n=17	Length			Width		
	Total	Cephalothorax	Abdomen	Total	Cephalothorax	Abdomen
	1.518 / 1.914	0.792 / 0.891	0.726 / 1.023	1.221 / 1.518	0.594 / 0.693	0.627 / 0.825
Extremity	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
Leg I	0.528 / 0.627	0.165 / 0.231	0.495 / 0.594	0.396 / 0.462	0.264 / 0.264	1.848 / 2.178
Leg II	0.495 / 0.528	0.165 / 0.231	0.396 / 0.495	0.363 / 0.396	0.231 / 0.264	1.65 / 1.914
Leg III	0.429 / 0.528	0.165 / 0.198	0.33 / 0.396	0.33 / 0.363	0.231 / 0.231	1.485 / 1.716
Leg IV	0.528 / 0.627	0.165 / 0.231	0.495 / 0.594	0.495 / 0.528	0.264 / 0.264	1.947 / 2.244



Figures 1–5. *O. Charitonovi*, 1. male, dorsal view; 2. female, dorsal view; 3. male, left pedipalp, lateral view; 4. male, right pedipalp, lateral SEM view; 5. female, epigyne, ventral view.