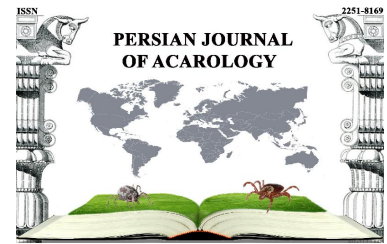




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A part of the Bdelloidea and Raphignathoidea fauna (Trombidiformes: Prostigmata) in Lorestan Province, with *Cyta kreiteri* recorded for the first time from Iran

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Prostigmata is the larger of the two suborders of the order Trombidiformes within the mite superorder Acariformes (Walter *et al.* 2009). The prostigmatic mites are a large assemblage of morphologically, biologically and ecologically diverse groups comprising 36 superfamilies, some of which consist largely of predatory or parasitic species. Most members of the Bdelloidea and Raphignathoidea are important predatory mites in suborder Prostigmata. These mites are mainly associated with a variety of habitats such as plant aerial parts and soil (Walter *et al.* 2009).

Cyta contains 19 species worldwide (Hernandes *et al.* 2016; Barber and Ueckermann 2017) and until the present study four species of *Cyta* have been recorded from Iran, namely: *Cyta coerulipes* (Dugès, 1834); *C. latirostris* (Hermann, 1804); *C. leiliae* Eghbalian, Khanjani & Ueckermann, 2014; *C. kurdistanicus* Eghbalian, Khanjani & Ueckermann, 2014 (Kamali *et al.* 2001; Beyzavi *et al.* 2011; Eghbalian *et al.* 2014).

This work is a part of the prostigmatic mite fauna of Lorestan Province (Iran) and includes data on the superfamilies Bdelloidea and Raphignathoidea (Acari, Prostigmata). During 2018–2019, a faunistic survey of bdelloid and raphignathoid mites associated with crop fields and orchards was conducted in Lorestan Province. Mites were extracted using a Berlese-Tullgren funnel and put into AGA solution (Smiley 1992). Specimens were cleared in Nesbitt's fluid, mounted in Hoyer's medium (Walter and Krantz 2009), and were examined under a phase contrast microscope. The material for this study was collected by the senior author. All specimens are deposited in the Acarological Collection, Department of Plant Protection, Faculty of Agriculture, Lorestan University, Khorramabad, Iran.

In this study, 18 species from six families were collected from Lorestan Province. *Cyta kreiteri* Barber & Ueckermann, 2017 was recorded for the first time from Iran. The list of the collected species is presented below.

Bdellidae

Bdella muscorum Ewing, 1909: 124.

Material examined – Two females from soil and rotten leaves under plum tree, Zereshkeh

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village, 5 September 2018, Boroujerd city, Lorestan Province, Iran.

***Bdella longicornis* (Linnaeus, 1758)**

Acarus longicornis Linnaeus, 1758: 618.

Material examined – Four females from soil and rotten leaves under walnut tree, Firouzabad town, 10 October 2018, Aleshtar city, Lorestan Province, Iran.

***Cyta kreiteri* Barber & Ueckermann, 2017: 1090. (Fig. 1)**

Diagnosis – Coxae and subcapitulum without reticulations; prodorsal seta *mps* not reaching the base of co-lateral *lps*; prodorsal setae *at*, *lps* and *mps* not longitudinally aligned; tibiae I and tarsus III each without trichobothria; coxae IV with 3 setae; trochanters I with 2 setae; basifemora III with 7 setae in female; basifemora IV with 4 (5) setae in female; telofemora II, III and IV with 7–7–4(5) setae in female; genu IV with 7 setae; trichobothrium present only on tibia IV.

Distribution – Syria (Barber and Ueckermann 2017).

Remarks – Until now, *Cyta kreiteri* was reported only from Syria (Barber and Ueckermann 2017). The characteristics of the specimens collected are very similar to those of the original description of Barber and Ueckermann (2017). This species is reported for the first time from Iran.

Material examined – Two females from soil and rotten leaves under walnut tree, Sarmargh village, 15 February 2019, Khorramabad city, Lorestan Province, Iran.



Figure 1. *Cyta kreiteri* Barber & Ueckermann, 2017 (Female) – Dorsal view of idiosoma.

***Cyta latirostris* (Hermann, 1804)**

Scirus latirostris Hermann, 1804: 62.

Material examined – One female from soil and rotten leaves under plum tree, Javanmard

village, 11 October 2018, Aleshtar city, Lorestan Province, Iran.

***Cyta coerulipes* (Dugès, 1834): 21.**

Material examined – Two females from rotten leaves under apple tree, Eyvandar village, 2 December 2018, Aleshtar city, Lorestan Province, Iran.

***Spinibdella cronini* (Baker & Balock, 1944)**

Bdella cronini Baker and Balock, 1944: 178.

Material examined – Six females from soil, Shahabad village, 5 May 2018; two females and one nymph from rotten leaves under apple tree, Kakareza village, 15 September 2018; four females and one nymph from rotten leaves under plum tree, Honam village, 24 September 2018, Aleshtar city; three females and two nymphs from soil, Makhmalkooh forest park, 4 October 2018; five females from soil, Faculty of Agriculture, Lorestan University, 20 October 2018; three females from rotten leaves under willow tree, Agricultural Research Center, 8 November 2018, Khorramabad city, Lorestan Province, Iran.

***Spinibdella tabarii* Paktinat-Saej & Bagheri, 2015: 696.**

Material examined – One female from soil and rotten leaves under walnut tree, Dartang village, 15 June 2018, Aleshtar city, Lorestan Province, Iran.

Cunaxidae

***Cunaxa capreolus* (Berlese, 1890)**

Scirus capreolus Berlese, 1890: 63.

Material examined – 18 females from rotten leaves under walnut tree, Bisheh village, 5 June 2018; 13 females from soil, Ghale-Sangi village, 12 September 2018, Khorramabad city; three females from soil, Golambahri village, 20 October 2018; Nurabad city; one female from rotten leaves under peach tree, Kakareza village, 20 October 2018, Aleshtar city, Lorestan Province, Iran.

***Cunaxa gordeevae* Sergeyenko, 2009: 2.**

Material examined – Two females from soil and rotten leaves under walnut tree, Eyvandar village, 20 September 2018, Aleshtar city, Lorestan Province, Iran.

***Cunaxa setirostris* (Hermann, 1804)**

Scirus setirostris Hermann, 1804: 62.

Material examined – Two females from rotten leaves under plum tree, Kakareza village, 1 September 2018; one female from soil, Eyvandar village, 8 September 2018, Aleshtar city; two females from soil, Agricultural Research Center, 20 October 2018; one female from rotten leaves under peach tree, Bisheh village, 20 October 2018, Khorramabad city, Lorestan Province, Iran.

***Pulaeus glebulentus* Den Heyer, 1980: 26.**

Material examined – Two females and one nymph from rotten leaves under apple tree, Bisheh village, 16 September 2018, Khorramabad city, Lorestan Province, Iran.

Caligonellidae

Molothrognathus azizi Ueckermann & Khanjani, 2003: 295.

Material examined – Two females from rotten leaves under plum tree, Eyvandar village, 4 July 2018, Aleshtar city, Lorestan Province, Iran.

Molothrognathus mehrnejadi Liang & Zhang, 1997: 22.

Material examined – Two females from soil, Ab-barick village, 14 June 2018, Aleshtar city, Lorestan Province, Iran.

Camerobeiidae

Tycherobius farsiensis Khanjani, Yazdanpanah, Ostovan & Asali-Fayaz, 2012: 36.

Material examined – One female from rotten leaves under apple tree, Bisheh village, 10 November 2018, Khorramabad city, Lorestan Province, Iran.

Raphignathidae

Raphignathus gracilis (Rack, 1962)

Acheles gracilis Rack, 1962

Material examined – Two females from rotten leaves under walnut tree, Dartang village, 13 September 2018, Aleshtar city; one female from soil and rotten leaves under plum tree, Barkhordar village, 22 September 2018, Nurabad city; five females from soil, Bisheh village, 4 October 2018, Khorramabad city; one female from rotten leaves under peach tree, Dehkord village, 20 October 2018, Boroujerd city, Lorestan Province, Iran.

Raphignathus zhaoi Hu, Jing & Liang, 1995: 23.

Material examined – Six females from rotten leaves under apple tree, Chalanchulan town, 20 October 2018, Doroud city, Lorestan Province, Iran.

Stigmaeidae

Eustigmaeus nasrinae Khanjani & Ueckermann, 2002: 321.

Material examined – Two females from soil and rotten leaves under pine tree, Faculty of Agriculture, Lorestan University, 24 May 2019, Khorramabad city, Lorestan Province, Iran.

Storchia robusta (Berlese, 1885)

Caligonus robustus Berlese, 1885: 22.

Material examined – One female and one nymph from rotten leaves under peach tree, Barkhordar village, 20 November 2018, Nurabad city, Lorestan Province, Iran.

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