

New data on the Jumping spiders from northeast of Iran (Aranei: Salticidae)

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New faunistic records for 15 species of Salticidae for the spider fauna of Iran are presented. Five species (*Langona aperta*, *Mogrus antonius*, *Pellenes bonus*, *P. geniculatus* and *Sitticus karakumensis*) are new records for the spider fauna of Iran.

Key words: Salticidae, Iran, faunistics, new records, distribution.

INTRODUCTION

According to the literature data the family Salticidae seems to be the most studied taxon of the Iranian spiders with more than 80 species and 35 genera (Roewer, 1955; Wesolowska, 1996; 2000; Mozaffarian & Marusik, 2001; Logunov *et al.* 2001, 2006; Azarkina, 2002; Mirshamsi, 2005; Ghavami, 2006, 2007a, b; Logunov, 2001, 2010; Ghahari & Marusik, 2009; Logunov *et al.*, 2013; Azarkina & Mirshamsi, 2014), however, the fauna of jumping spiders in Iran should be considered poorly known. The spider fauna of NE Iran has not been studied thoroughly (Logunov *et al.*, 2013); therefore, any newly collected material from this region is valuable and could be considered as new record or species. In this paper we present new faunistic records for 15 spider species of the family Salticidae collected from different localities of Khorasan Province, of which four species are new records for the spider fauna of Iran. The purpose of this study is to summarize new faunistic records and distributional information of the recorded species in NE Iran.

MATERIAL AND METHODS

All specimens were collected in daytime by turning stones. Illustrations were produced using a camera lucida attached to Olympus SZH-10 stereomicroscope. The drawings were edited with Adobe Photoshop and Capture NX2. The specimens examined are preserved in the Zoological Museum, Ferdowsi University of Mashhad, Mashhad, Iran (ZMFUM).

RESULTS

Cyrba algerina (Lucas, 1846)

Material: 1♂ (ZMFUM), Khorasan Prov., Sarakhs, Mazdavand (36.10°N, 60.44°E), 929 m a.s.l., 17.vi.2012, S. Musavi.

Comments: This species is widespread in the Mediterranean, north of Africa, Near East, Central and Southeast Asia. Previously, this species has been recorded from Fars, Tehran (Logunov et al, 2001; Ghavami, 2006), Kermanshah, Golestan (Logunov et al, 2006; Kashefi et al, 2013) Provinces.

***Cyrba ocellata* (Kroneberg, 1875)**

Material: 1♂ (ZMFUM), Khorasan Prov., Mashhad (36.18°N, 59.30°E), 980 m a.s.l., 22.iv.2012; 2♀ (ZMFUM), Khorasan Prov., Sarakhs, Bazangan, (36.3097°N, 60.4694°E), 861 m a.s.l., 19.vi.2012, S. Musavi.

Comment: This species is widely distributed in Central and Southeast Asia, east of Africa and Australia (Wanless, 1984; Logunov and Rakov, 1998) as well as the records from Middle East (Andreeva, 1976; Nenilin, 1984). Previously, reported from Tehran, Mazandaran (Logunov et al, 2001; Ghavami, 2006) and Golestan Provinces (Kashefi et al, 2013).

***Langona aperta* (Denis, 1958) (Fig. 1)**

Material: 1♀ (ZMFUM), Khorasan Prov., Mashhad (36.18°N, 59.30°E), 980 m a.s.l., 26.ix.2012, O. Mirshamsi.

Comments: Previously, this species has been recorded from Afghanistan (Logunov & Zamanpoore, 2005; Platnick, 2014). New record for the spider fauna of Iran.

***Menemerus marginatus* (Kroneberg, 1875)**

Material: 2♂3♀ (ZMFUM), Khorasan Prov., Gonabad (34.20°N, 58.42°E), 1100 m a.s.l., 5.ix.2012, S. Musavi; 7♂4♀ (ZMFUM), Khorasan Prov., Torbat Heidarieh (35.15°N, 59.12°E), 1367 m a.s.l., 14.v.2012, S. Musavi; 4♂2♀ (ZMFUM), Khorasan Prov., Sarakhs (36.31°N, 61.09°E), 19.vi.2012, S. Musavi.

Comments: This species has been described and repeatedly recorded from Central Asia, known from the eastern Caucasus in the west to Tajikistan and Afghanistan in the east (Logunov and Rakov, 1997; Logunov and Zamanpoore, 2005). Previously, reported from Khozestan Province (Logunov et al., 2006).

***Mogrus antoninus* Andreeva, 1976 (Figs. 2-4)**

Material: 3♂ (ZMFUM), Khorasan Prov., Sarakhs (36.31°N, 61.09°E), 274 m a.s.l., 24.iii. 2012, S. Musavi; 5♀ (ZMFUM), Khorasan Prov., Sarakhs (36.18°N, 60.42°E), 274 m a.s.l., 5.vi.2012, S. Musavi; 1♀ (ZMFUM), Khorasan Prov., Gonabad, vicinity of Kakhk, 24.05.2013, O. Mirshamsi.

Comments: This species has been recorded in Middle Asia (Andreeva, 1976; Nenilin, 1984; Logunov, 1995), Mongolia (Wesolowska, 1981; Proszynski, 1982), Afghanistan and China (Logunov, 1995). New record for the spider fauna of Iran.

***Pellenes bonus* Logunov, Marusik & Rakov, 1999 (Figs. 5-6)**

Material: 1♂ (ZMFUM), Khorasan Prov., 17 km NW Mashhad, Tous (36.28°N, 59.30°E), 1004 m a.s.l., 23.iv.2012, S. Musavi.

Comments: Previously, recorded from Turkmenistan (Logunov *et al.*, 1999). New record for the spider fauna of Iran.

***Pellenes epularis* (O. P. Chambridge, 1872)**

Material: 1♀ (ZMFUM), Khorasan Prov., Torbat Heidarieh, Dugheshk Vil. (35.18°N, 59.14°E), 1377 m a.s.l., 25.vi.2012, S. Musavi; 1♀ (ZMFUM), Fariman (35.42 N, 59.50 E), 1440 m a.s.l., 30.v.2012, S. Musavi; 3♂ (ZMFUM), Mashhad, Khalaj Mts. (36.13°N, 59.34°E), 1147 m a.s.l., 8.iv.2012, S. Musavi; 2♀ (ZMFUM), 17 km NW Mashhad, Tous (36.28°N, 59.30°E), 1004 m a.s.l.,

23.iv.April 2012, S. Musavi; 1♂ (ZMFUM), Sarakhs (36.31°N, 61.09°E), 274 m a.s.l., 18.vi.2012, S. Musavi; 1♂ (ZMFUM), Mashhad, Razaviyeh (36.14°N, 59.41°E), 953 m a.s.l., 19.vi.2012, S. Musavi; 1♀ (ZMFUM), Sarakhs, Mazdavand (36.10°N, 60.44°E), 929 m a.s.l., 19.vi.2012, S. Musavi; 1♀ (ZMFUM), Sarakhs, Jangal (36.18°N, 60.42°E), 975 m a.s.l., 5.vii.2012, S. Musavi.

Comments: According to Platnick (2013) this species has been recorded from Greece to Central Asia, Namibia and South Africa. Hitherto, recorded from Fars, East Azarbaijan and Tehran Provinces (Logunov *et al.*, 1999; Logunov and Marusik, 2000; Logunov *et al.*, 2001).

***Pellenes geniculatus* (Simon, 1868)** (Figs. 7-8)

Material: 1♂ (ZMFUM), Khorasan Prov., Fariman (35.42°N, 59.50°E), 1440 m a.s.l., 3.v.2012, S. Musavi; 2♂ (ZMFUM), Mashhad, Khalaj Mts. (36.13°N, 59.34°E), 1147 m a.s.l., 8.iv.2012, S. Musavi.

Comments: *P. geniculatus* has been distributed from France in the west to Central Asia in the east; where has previously been recorded from Azarbaijan, Kyrgyzstan, Turkmenistan, Tajikistan and Uzbekistan (Logunov *et al.*, 1999). New record for the spider fauna of Iran.

***Philaeus chrysops* (Poda, 1761)**

Material: 5♂6♀ (ZMFUM), Khorasan Prov., Mashhad, Khalaj Mts. (36.13°N, 59.34°E), 1147 m a.s.l., 8.iv.2012, S. Musavi; 10♂8♀ (ZMFUM), Khorasan Prov., Mashhad (36.19°N, 59.29°E), 980 m a.s.l., 7.iv.2012, S. Musavi; 1♂ (ZMFUM), Khorasan Prov., Torbat Heidariyeh (35.76 N, 59.25 E), 1367 m a.s.l., 26.v.2012, S. Musavi; 1♀ (ZMFUM), Khorasan Prov., Fariman (35.42°N, 59.50°E), 1440 m a.s.l., 30.v.2012, S. Musavi; 3♀ (ZMFUM), Khorasan Prov., Mashhad, Shandiz (36.23°N, 59.17°E), 1383 m a.s.l., 7.iv.2012, S. Musavi.

Comments: This is a widespread trans-palaearctic species (Proszynski, 2003). Previously, recorded from Mazandaran and Tehran Provinces (Logunov *et al.*, 2001).

***Plexippoides flavescens* (O. P. Chambridge, 1872)**

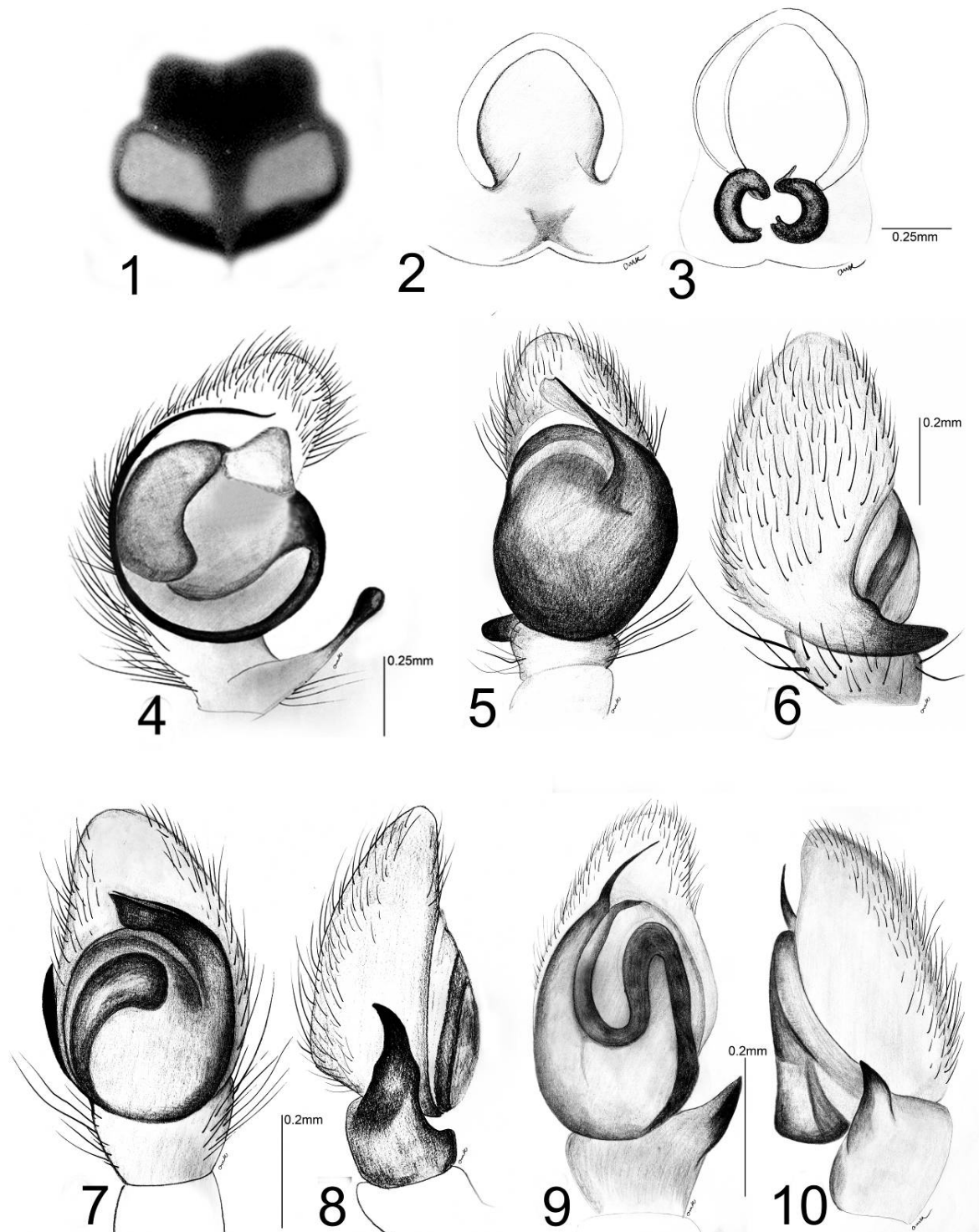
Material: 1♀ (ZMFUM), Khorasan Prov., Gonabad (34.21°N, 58.41°E), 6.ix.2012, S. Musavi; 2♂ (ZMFUM), Khorasan Prov., Mashhad, Khajeh Morad (36.08°N, 59.41°E), 1120 m a.s.l., 10.vi.2012, S. Musavi; 1♂ (ZMFUM), Khorasan Prov., Mashhad, Razaviyeh (36.14°N, 59.41°E), 953 m a.s.l., 17.vi.2012, S. Musavi; 1♂ (ZMFUM), Khorasan Prov., Mashhad (36.21°N, 59.28°E), 980 m a.s.l., 4.iv. 2012, S. Musavi; 4♂ (ZMFUM), Khorasan Prov., Mashhad, Chalidareh (36.19 N, 59.20 E), 1386 m a.s.l., 5.iv.2012, S. Musavi; 2♀ (ZMFUM), Khorasan Prov., Sarakhs (36.31°N, 61.09°E), 274 m a.s.l., 5.viii.2012, S. Musavi; 2♂ (ZMFUM), Khorasan Prov., Sarakhs (36.31°N, 61.09°E), 274 m a.s.l., 24.iii.2012, S. Musavi; 2♀(ZMFUM), Khorasan Prov., Sarakhs, Bazangan (36.3097°N, 60.4694°E), 861 m a.s.l., 24.iii.2012, S. Musavi; 1♀ (ZMFUM), Khorasan Prov., Sarakhs, Shirtapeh (35.50°N, 61.04°E), 362 m a.s.l., 24.iii.2012, S. Musavi.

Comments: This species is known from the Near East and Sinai to Central Asia (Logunov and Zamanpoore, 2005); previously reported from Fars and Kerman Provinces (Logunov *et al.*, 2001).

***Plexippus devorans* (O. P. Chambridge, 1872)**

Material: 1♂ (ZMFUM), Khorasan Prov., Sarakhs, Bazangan (36.3097°N, 60.4694°E), 861 m a.s.l., 18.vi.2012, S. Musavi.

Comments: Distribution from Israel to Turkmenistan. Previously, reported from Kerman and Golestan Provinces of Iran (Ghahari and Marusik, 2009).



FIGURES 1-10. *Mogrus antoniui*: 1) epigynum; 2) vulva; 3) male palp, ventral aspect; *Pellenes bonus*: 4) male palp, ventral aspect; 5) male palp, lateral aspect; *P. geniculatus*: 6) male palp, ventral aspect; 7) male palp, lateral aspect; *Sitticus karakumensis*: 8) male palp, ventral aspect; 9) male palp, lateral aspect.

***Pseudicius spasskyi* (Andreeva, Hęciak, Prószyński, 1984)**

Material: 1 ♀ (ZMFUM), Khorasan Prov., Mashhad (36.18°N, 59.30°E), 980 m a.s.l., 26.ix.2012, O.

Comments: According to Platnick (2013) this is a Central Asian species. Previously, recorded from Mazandaran Province of Iran (Logunov et al., 2006; Ghahari & Marusik, 2009).

***Sitticus karakumensis* (Logunov, 1992) (Figs.9-10)**

Material: 1 ♂ (ZMFUM), Khorasan Prov., Sarakhs, Shirtapeh (35.833°N, 61.066°E), 362 m a.s.l., 24.iii.2012, S. Musavi.

Comments: Hitherto reported from eastern Karakum desert, Turkmenistan (Logunov, 1992). New record for the spider fauna of Iran. However, the present record is to be considered provisional, as this species was identified based on a single male specimen.

***Synangeles persianus* Logunov, 2004**

Material: 1 ♂ (ZMFUM), Khorasan Prov., Mashhad (36.350°N, 59.466°E), 980 m a.s.l., 4.iv.2012, M. Hatami.

Comments: Previously, this species has been recorded from its type locality in Tehran Province, Latian Dam, Iran and Azerbaijan (Logunov, 2004). It has been frequently recorded from Iran (Markazi, Tehran and Yazd Provinces) and Azerbaijan under the name its closely related species *S. dalmaticus* (Keyserling, 1863). The finding of *S. persianus* in Khorasan significantly extends the species' range and lies in its easternmost limit.

***Thyene imperialis* (Rossi, 1846)**

Material: 1 ♂ (ZMFUM), Khorasan Prov., Mashhad (36.350°N, 59.466°E), 980 m a.s.l., 4.iv.2012, S. Musavi.

Comments: This species is distributed in east of Africa, throughout the Mediterranean region and Central Asia to Afghanistan, China and India (Logunov and Zamanpoore, 2005); previously reported from Fars, Khuzestan, Markazi and Tehran Provinces (Logunov et al., 2001).

ACKNOWLEDGMENTS

The authors have special thanks to Dr. Dmitri V. Logunov (Manchester, UK) for his helpful critical comments on an earlier version of the manuscript. The authors also thank M. Hatami, E. Jamili and Z. Nikmagham for their help during field activities. The financial supports were provided by the Iran National Science Foundation (INSF- 90001780) which is gratefully acknowledged.

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