

This article was downloaded by: [Omid Mirshamsi]

On: 03 October 2014, At: 22:35

Publisher: Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK

Zoology in the Middle East

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/tzme20>

New data on the spider fauna of Iran (Arachnida: Araneae)

Alireza Zamani^a, Zahra Nikmagham^b, Maryam Allahdadi^b, Fereshteh Ghassemzadeh^b & Omid Mirshamsi^{bc}

^a Department of Animal Biology, School of Biology and Centre of Excellence in Phylogeny of Living Organisms in Iran, College of Science, University of Tehran, Tehran, Iran

^b Department of Biology, Faculty of Sciences, Ferdowsi University of Mashhad, Mashhad, Iran

^c Research Department of Zoological Innovations (RDZI), Institute of Applied Zoology, Faculty of Sciences, Ferdowsi University of Mashhad, Mashhad, Iran

Published online: 01 Oct 2014.

To cite this article: Alireza Zamani, Zahra Nikmagham, Maryam Allahdadi, Fereshteh Ghassemzadeh & Omid Mirshamsi (2014): New data on the spider fauna of Iran (Arachnida: Araneae), *Zoology in the Middle East*, DOI: [10.1080/09397140.2014.970383](https://doi.org/10.1080/09397140.2014.970383)

To link to this article: <http://dx.doi.org/10.1080/09397140.2014.970383>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms &

Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

New data on the spider fauna of Iran (Arachnida: Araneae)

Alireza Zamani¹, Zahra Nikmagham², Maryam Allahdadi²,
Fereshteh Ghassemzadeh², Omid Mirshamsi^{2,3*}

¹Department of Animal Biology, School of Biology and Centre of Excellence in Phylogeny of Living Organisms in Iran, College of Science, University of Tehran, Tehran, Iran. ²Department of Biology, Faculty of Sciences, Ferdowsi University of Mashhad, Mashhad, Iran. ³Research Department of Zoological Innovations (RDZI), Institute of Applied Zoology, Faculty of Sciences, Ferdowsi University of Mashhad, Mashhad, Iran.

(Received 8 August 2014; accepted 28 August 2014)

We present the results of some spider surveys that were conducted in different parts of Iran. Faunistic records for 30 species which are new to Iran are presented here. Biogeographic data are provided for each species. Two families, namely Liocranidae and Mimetidae, are recorded for the first time from the country.

Keywords: Fauna; Iran; new records; Liocranidae; Mimetidae; spiders.

Introduction

The first checklist of spiders (Arachnida: Araneae) of Iran was published by Mozaffarian and Marusik (2001), in which, they listed 141 species in 25 families. The checklist was later updated in Ghavami (2006), who provided data on the occurrence of 244 species in 33 families in this country. Now, some 480 species belonging to about 40 families are known (O. Mirshamsi, A. Zamani, & Y. Marusik, unpubl.). 78 species of these are endemic to Iran. The location of Iran between the European, Arabian and Oriental biogeographic regions is a good potential for a much higher species diversity; Ghahari and Marusik (2009) predicted that the actual diversity of the spider fauna of Iran should be not less than 900 species from over 40 families. The aim of this paper is to contribute to the knowledge of Iranian spider diversity by recording taxa new for the fauna of this country, as well as providing brief data on the distribution of each of these species.

Material and methods

All specimens were collected from various parts of Iran by hand or by means of entomological aspirators. The epigyne of females was removed and immersed in KOH for clearing and cleaning. Specimens were examined using either a Nikon SMZ-1000 or an Olympus SZH-10 stereomicroscope. – Depositories: Jalal Afshar Zoological Museum of the University of Tehran (JAZM), Naturhistorisches Museum Basel (NMB), and Zoological Museum of Ferdowsi University of Mashhad (ZMFUM).

Results and discussion

As a result of this study, the number of Iranian spider families and species is raised to 42 and 510, respectively.

*Corresponding author. Email: mirshams@um.ac.ir

Family Agelenidae C. L. Koch, 1837

Tegenaria lenkoranica (Guseinov, Marusik & Koponen, 2005)

Material: *Tehran Province*: 1♀ (JAZM), Darakeh, 35°48'N, 51°22'E, 06/2014, Zamani leg.; 1♀ (NMB), Mount Tochal, 35°49'N, 51°24'E, 05/2013, Zamani leg.; 2♀ (JAZM), Roodafshan Cave, 35°37'N, 51°24'E, 12/2013, Zamani leg.; *Mazandaran Province*: 3♀ (JAZM), Nowshahr, Sisangan National Park, 36°34'N, 51°48'E, 03/2014, Zamani leg.; 1♀ (JAZM), Amol, Lahijan, Rineh, 35°25'N, 52°10'E, 06/2014, Zamani leg.; *Alborz Province*: 1♀ (JAZM), Chandar, 07/2014, Zamani leg. – This species was described and previously known only from the lowlands of Lenkoran, Azerbaijan (Guseinov, Marusik, & Koponen, 2005). New to Iran.

Tegenaria pagana C. L. Koch, 1840

Material: *Tehran Province*: 2♂ (JAZM), Tehran, 35°43'N, 51°25'E, 01/2014, Zamani leg. – This species has been reported from Southern and Central Europe and the Mediterranean. It has also been introduced into North and South America (Bolzern, Burckhardt, & Hänggi, 2013). New to Iran.

Family Araneidae Simon, 1895

Argiope trifasciata (Forsskål, 1775)

Material: *Hormozgan Province*: 1♀ (JAZM), Bandar-e-Lengeh, 1993/Sep, Savoji leg. – This is a widespread species with a cosmopolitan distribution (Platnick, 2014). New to Iran.

Family Eresidae C. L. Koch, 1845

Eresus kollari Rossi, 1846

Material: *Khorasan-e-Razavi Province*: 1♂ (ZMFUM), 20 km N of Mashhad, Kardeh Village, 11/2013, Hatami leg.; 1♂ (ZMFUM), 15 km W of Mashhad, Zoshk Village, 04/2001, Emamian leg.; 1♂ (ZMFUM), Mashhad, 12/2012, Nikmagham leg.; 1♂ (ZMFUM), vicinity of Sarakhs, 11/2012, Monfared leg.; 1♂ (ZMFUM), Torbat Jam, 04/2014, Jannesar leg. – This species is widely distributed from Europe to Central Asia (Platnick, 2014). New to Iran.

Family Gnaphosidae Pocock, 1898

Anagraphis pallens Simon, 1893

Material: *Khorasan-e-Razavi Province*: 1♂ (ZMFUM), Gonabad, Kakhk, 34°08'N, 58°38'E, 03/1998, Mirshamsi leg. – This species has been previously recorded from Libya, Malta, Syria, Israel, Crete and probably South Africa (Platnick, 2014). Genus and species new to Iran.

Aphantaulax trifasciata (O. P.-Cambridge, 1872)

Material: *Mazandaran Province*: 1♀ (JAZM), Noor, 07/2013, Zamani leg.; *Gilan Province*: 1♀ (JAZM), Rasht, 37°27'N, 49°33'E, 05/2012, Zareie leg. – This species has a Palearctic distribution, which extends from Southern Europe to Central Asia (Platnick, 2014). Previously, and without a species determination, only the genus *Aphantaulax* was reported from Iran (Ghavami, 2006). New to Iran.

Berlandina cinerea (Menge, 1872)

Material: *Khorasan-e-Razavi Province*: 1♂ (ZMFUM), Sarakhs, Shirtapneh, 36°07'N, 61°13'E, 1298 m a.s.l., 07/2012, Nikmagham leg.; 1♀ (ZMFUM), Sarakhs, Cheshmeh Shoor, 36°33'N, 60°36'E, 1802 m a.s.l., 11/2012, Nikmagham leg. – The distribution of this species extends from Europe to Kazakhstan (Platnick, 2014). Genus and species new to Iran.

Drassyllus sur Tuneva & Esyunin, 2003

Material: *Khorasan-e-Razavi Province*: 1♀ (ZMFUM), Gonabad, Kakhk, 34°08'N, 58°38'E, 04/1998, Mirshamsi leg. – This species has been previously recorded from Turkey, Russia and Kazakhstan (Platnick, 2014). New to Iran.

Gnaphosa leporina (L. Koch, 1866)

Material: *Khorasan-e-Razavi Province*: 1♀ (ZMFUM), Sarakhs, Kopet Dagh Mountains, 36°02'N, 60°56'E, 1726 m a.s.l., 09/2012, Nikmagham leg. – This species has a Palearctic distribution (Platnick, 2014). New to Iran.

Micaria subopaca Westring, 1861

Material: *Khorasan-e-Razavi Province*: 1♀ (ZMFUM), Sarakhs, Shirtapneh, 36°07'N, 61°13'E, 1298 m a.s.l., 07/2012, Nikmagham leg. – This species has a Palearctic distribution (Platnick, 2014). New to Iran.

Minosiella intermedia Denis, 1958

Material: *Khorasan-e-Razavi Province*: 5♂ (ZMFUM), Sarakhs, Khangiran, 36°34'N, 60°48'E, 1103 m a.s.l., 10/2012, Nikmagham leg.; 6♀ (ZMFUM), Sarakhs, Khangiran, 36°34'N, 60°48'E, 1103 m a.s.l., 2012/Oct, Nikmagham leg. – This species has been recorded from Central Asia and Afghanistan (Platnick, 2014). Genus and species new to Iran.

Synaphosus palearcticus Ovtsharenko, Levy & Platnick, 1994

Material: *Khorasan-e-Razavi Province*: 1♂ (ZMFUM), Sarakhs, Jahanbani, 36°34'N, 61°06'E, 884 m a.s.l., 10/2012, Nikmagham leg.; 1♀ (ZMFUM), Sarakhs, Bazangan Lake, 36°18'N, 60°28'E, 2782 m a.s.l., 04/2012, Nikmagham leg. – This species is distributed from Turkey to Central Asia, and has also been recorded from Crete (Platnick, 2014). New to Iran.

Talanites fagei Spassky, 1938

Material: *Khorasan-e-Razavi Province*: 1♂ (ZMFUM), Mashhad, 36°18'N, 59°35'E, 11/1997, Mirshamsi leg.; *Khorasan-e-Shomali Province*: 1♀ (ZMFUM), Vicinity of Espharaen, 37°05'N, 57°29'E, 05/2010, Jamili leg. – The distribution of this species includes Russia and Central Asia (Platnick, 2014). New to Iran.

Trachyzelotes adriaticus (Caporiacco, 1951)

Material: *Khorasan-e-Razavi Province*: 1♀ (ZMFUM), Sarakhs, Abgarm, 36°30'N, 60°04'E, 09/2012, Nikmagham leg. – The distribution of this species ranges from Italy to China (Platnick, 2014). Genus and species new to Iran.

Trachyzelotes lyonneti (Audouin, 1826)

Material: *Khorasan-e-Razavi Province*: 1♂ (ZMFUM), Gonabad, Kakhk, 34°09'N, 58°38'E, 03/1998, Mirshamsi leg. – This species is distributed from the Mediterranean

to Central Asia, but has also been recorded from Brazil and USA to Peru (Platnick, 2014). Genus and species new to Iran.

Family Liocranidae Simon, 1897

Mesiotelus scopensis Drensky, 1935

Material: *Tehran Province*: 1 ♂ (JAZM), Tehran, 35°47'N, 51°24'E, 10/2013, Zamani leg. – The distribution of this species extends from the Mediterranean to Turkmenistan (Bosmans et al., 2009). Family, genus and species new to Iran.

Family Mimetidae Simon, 1881

Mimetus laevigatus (Keyserling, 1863)

Material: *Tehran Province*: 1 ♀ (JAZM), Tehran, Mont Tochal, 35°49'N, 51°24'E, 03/2014, Zamani leg; *Alborz Province*: 1 ♂ (JAZM), Chandar, 07/2014, Zamani leg. – The distribution of this species extends from the Mediterranean to Central Asia (Platnick, 2014). Family, genus and species new to Iran.

Family Oonopidae Simon, 1890

Triaeris stenaspis Simon, 1891

Material: *Tehran Province*: 1 ♀ (JAZM), Tehran, 35°45'N, 51°24'E, 04/2014, Zamani leg. – This species has a Pantropical distribution and has also been introduced into European greenhouses (Platnick, Dupérré, Ubick, & Fannes, 2012). This is the second record of this species from Asia, after Taiwan (Platnick et al., 2012), and the first parthenogenetic spider species to be reported from Iran. Genus and species new to Iran.

Family Oxyopidae Thorell, 1870

Oxyopes badhyzicus Mikhailov & Fet, 1986

Material: *Alborz Province*: 1 ♀ (JAZM), Karaj, 35°44'N, 50°35'E, 08/2011, Zamani leg. – The species was known so far only from Israel and Turkmenistan (Levy, 1999). New to Iran.

Family Philodromidae Thorell, 1870

Philodromus buxi Simon, 1884

Material: *Tehran Province*: 1 ♂ (JAZM), Tehran, 35°47'N, 51°24'E, 06/2014, Zamani leg. – The global distribution of this species ranges from Europe to Kazakhstan (Platnick, 2014). New to Iran.

Family Salticidae Blackwall, 1841

Myrmarachne formicaria (De Geer, 1778)

Material: *Gilan Province*: 1 ♀ (JAZM), Anzali Lagoon, 02/1995, Savoji leg. – This species has a Palearctic range, but has also been introduced in USA (Platnick, 2014). New to Iran.

Family Sparassidae Bertkau, 1872

Cebrennus kochi (O. P.-Cambridge, 1872)

Material: *Bushehr Province*: 1 ♀ (JAZM), Bushehr, 11/2013, Jahan leg. – This species has been previously known only from Israel and Syria (Jäger, 2014). Our record sug-

gests that this species should be present in Iraq as well. This is the easternmost record of the known zoogeographic range of this species. Genus and species new to Iran.

Family Theridiidae Sundevall, 1833

Enoplognatha latimana Hippa & Oksala, 1982

Material: *Tehran Province*: 2♂ 2♀ (JAZM), Darakeh, 35°48'N, 51°22'E, 06/2014, Zamani leg. – This species has a Holarctic distribution, ranging from Western Europe to Central Asia (Huseynov & Marusik, 2007). New to Iran.

Family Thomisidae Sundevall, 1833

Monaeses paradoxus (Lucas, 1846)

Material: *Bushehr Province*: 1 ♀ (JAZM), Jam, 01/2013, Mirzaee leg. – This species is distributed from Europe to Azerbaijan, and has been also reported from Africa (Platnick, 2014). New to Iran.

Ozyptila lugubris (Kroneberg, 1875)

Material: *Khorasan-e-Jonoubi Province*: 1♂1♀ (ZMFUM), Qaen, 12/2012, Abedi leg. – This species is widely distributed in Russia, Central Asia and Afghanistan (Platnick, 2014). New to Iran.

Stiphropus strandi Spassky, 1938

Material: *Khorasan-e-Razavi Province*: 1♂, 2 juveniles (ZMFUM), Torbat-e-Heydarieh, 02/2012, Allahdadi leg. – So far, this species has been recorded from Turkmenistan, SW Tajikistan and Afghanistan (Platnick, 2014). Genus and species new to Iran.

Xysticus cor Canestrini, 1873

Material: *Tehran Province*: 1 ♂ (JAZM), Golab Darreh, 07/2014, Zamani leg. – This species has been reported from Southern Europe and the Azores (Platnick, 2014). New to Iran.

Xysticus edax (O.P.-Cambridge, 1872)

Material: *Khorasan-e-Razavi Province*: 1♀ (ZMFUM), Mashhad, 01/2012, Allahdadi leg. – Previously, this species has been recorded only from Turkey and Israel (Platnick, 2014). The present record is to be considered provisional, as this species was identified based on a single female specimen. New to Iran.

Xysticus kempeleni Thorell, 1872

Material: *Khorasan-e-Jonoubi Province*: 1♀ (ZMFUM), Qaen, 07/2012/Jul, Abedi leg. – This species is distributed from Europe to Central Asia (Platnick, 2014). New to Iran.

Xysticus minor Charitonov, 1946

Material: *Khorasan-e-Jonoubi Province*: 1♂ (ZMFUM), Qaen, 07/2012, Abedi leg. – This is a widespread species in Central Asia, from South Kazakhstan to Afghanistan (Platnick, 2014). New to Iran.

Acknowledgments

The authors are grateful to Dr Barbara Thaler-Knoflach (Innsbruck, Austria), Dr Galina Azarkina (Novosibirsk, Russia), Dr Yuri M. Marusik (Magadan, Russia), Dr Angelo Bolzern (Wahlen,

Switzerland), Dr Sergei L. Esyunin (Perm, Russia) and Dr Peter Jäger (Frankfurt, Germany) for their invaluable comments on the specimens, and to Mrs Roghaieh Zareie, Mrs Zohre Mirzaee, Mrs Fatemeh Abedi, Mrs Sara Azghadi, Mrs Soodabeh Musavi, Mr Alireza Savoji and Mr Mohammad Jahan for access to their collected materials. The first author wishes to extend his sincere gratitude to the National Museum of Natural History and Genetic Resources for providing him with research supplements. This work was supported in part by the office of research affairs, Ferdowsi University of Mashhad (project no. 3/21961 & 3/17783) and the Iran National Science Foundation (INSF- 90001780) which are gratefully acknowledged.

References

- Bolzern, A., Burckhardt, D., & Hänggi, A. (2013): Phylogeny and taxonomy of European funnel-web spiders of the *Tegenaria-Malthonica* complex (Araneae: Agelenidae) based upon morphological and molecular data. *Zoological Journal of the Linnean Society*, 168, 723–848.
- Bosmans, R., Baert, L., Bosselaers, J., De Koninck, H., Maelfait, J. P., & Van Keer, J. (2009): Spiders of Lesbos (Greece). *Nieuwsbrief van de Belgische Arachnologische Vereniging*, 24, 1–70.
- Ghahari, H., & Marusik, Y. M. (2009): New data on spider fauna of Iran (Araneae). *Turkish Journal of Arachnology*, 2, 1-8.
- Ghavami, S. (2006): Renew Checklist of Spiders (Aranei) of Iran. *Pakistan Journal of Biological Sciences*, 9, 1839-1851.
- Guseinov, E.F., Marusik, Y. M., & Koponen, S. (2005): Spiders (Arachnida: Araneae) of Azerbaijan. 5. Faunistic review of the funnel-web spiders (Agelenidae) with the description of new genus and species. *Arthropoda Selecta*, 14, 153-177.
- Huseynov, E. F., & Marusik, Y. M. (2007): Spiders (Arachnida, Aranei) of Azerbaijan 3. Survey of the genus *Enoplognatha* Pavesi, 1880 (Theridiidae). *Arthropoda Selecta*, 16, 153–167.
- Jäger, P. (2014): *Cebrennus* Simon, 1880 (Araneae: Sparassidae): a revisionary up-date with the description of four new species and an updated identification key for all species. *Zootaxa*, 3790, 319–356.
- Levy, G. (1999): The lynx and nursery-web spider families in Israel (Araneae, Oxyopidae and Pisauridae). *Zoosystema*, 21, 29–64.
- Mozaffarian, F., & Marusik, Y. M. (2001): A checklist of Iranian spiders (Aranei). *Arthropoda Selecta*, 10, 67–74.
- Platnick, N. I. (2014): The world spider catalog, version 15. American Museum of Natural History. <http://research.amnh.org/iz/spiders/catalog>. DOI: 10.5531/db.iz.0001 [last access on 25 June 2014].
- Platnick, N. I., Dupérré, N., Ubick, D., & Fannes, W. (2012): Got males? The enigmatic goblin spider genus *Triaeris* (Araneae, Oonopidae). *American Museum Novitates*, 3756, 1–36.