



Original article (Orijinal araştırma)

Six new records for the spider fauna of Turkey (Araneae: Salticidae)

Türkiye örümcek faunası için altı yeni kayıt (Araneae: Salticidae)

İlhan COŞAR^{1*}

Muhammed İsmail VAROL²

Summary

Six Salticidae spider species, *Evarcha laetabunda* (C. L. Koch, 1846), *Heliophanus verus* Wesolowska, 1986, *Pellenes seriatus* (Thorell, 1875), *Plexippoides flavescens* (O. Pickard-Cambridge, 1872), *Pseudicius palaestinensis* Strand, 1915 and *Saitis barbipes* (Simon, 1868) are new records for the spider fauna of Turkey. Their morphology is briefly described and illustrated.

Keywords: Araneae, Salticidae, fauna, new record, Turkey

Özet

Evarcha laetabunda (C. L. Koch, 1846), *Heliophanus verus* Wesolowska, 1986, *Pellenes seriatus* (Thorell, 1875), *Plexippoides flavescens* (O. Pickard-Cambridge, 1872), *Pseudicius palaestinensis* Strand, 1915 ve *Saitis barbipes* (Simon, 1868)'in yer aldığı altı örümcek türü Türkiye örümcek faunası için yeni kayıttır. Bu türlerin morfolojileri kısaca tanımlanmış ve tasvir edilmiştir.

Anahtar sözcükler: Araneae, Salticidae, fauna, yeni kayıt, Türkiye

¹ Department of Biology, Faculty of Arts and Sciences, Kırıkkale University, 71451, Yahşihan, Kırıkkale, Turkey

² Faculty of Medicine, Department of Medical Biology, Kırıkkale University, Kırıkkale, Turkey

* Corresponding author (Sorumlu yazar) e-mail: ilhancsr88@gmail.com

Received (Alınış): 28.03.2016 Accepted (Kabul edilisi): 06.05.2016 Published Online (Çevrimiçi Yayın Tarihi): 01.06.2016

Introduction

The Salticidae Blackwall, 1841 is the largest family in Araneae and currently represented by 5862 species belonging to 595 genera worldwide (World Spider Catalog, 2016). There are 106 species in 40 salticid genera listed for Turkey (Bayram et al., 2016). With latest records, the number of salticid species in Turkey has since increased to 128 in the same 40 genera. Logunov (2015) recorded; *Ballus rufipes* (Simon, 1868), *Evarcha armeniaca* Logunov, 1999, *Habrocestum egaeum* Metzner, 1999, *Habrocestum shulovi* Prószyński, 2000, *Heliophanus dunini* Rakov et Logunov, 1997, *Marpissa pomatia* (Walckenaer, 1802), *Neon rayi* (Simon, 1875), *Pellenes ostrinus* (Simon, 1868), *Phlegra cinereofasciata* (Simon, 1868), *Salticus ressli* Logunow, 2015, *Salticus tricinctus* (C. L. Koch, 1846), *Sitticus atricapillus* (Simon, 1882), *Sitticus inexpectus* Logunov et Kronestedt, 1997, *Sitticus saltator* (O. Pickard-Cambridge, 1868), *Sitticus zimmermanni* (Simon, 1877), *Talavera aperta* (Miller, 1971) and *Yllenus univittatus* (Simon, 1871). Coşar (2015) recorded; *Euophrys sulphurea* (L. Koch, 1867), *Neon levis* (Simon, 1871), *Pellenes brevis* (Simon, 1868) and *Sibianor aurocinctus* (Ohlert, 1865). Azarkina & Komnenov (2015) recorded; *Aelurillus alboclypeus* Azarkina & Komnenov, 2015.

In this paper, six additional species of the spider fauna of Turkey are recorded. These are *Evarcha laetabunda* (C. L. Koch, 1846), *Heliophanus verus* Wesolowska, 1986, *Pellenes seriatus* (Thorell, 1875), *Plexippoides flavescens* (O. Pickard-Cambridge, 1872), *Pseudicius palaestinensis* Strand, 1915 and *Saitis barbipes* (Simon, 1868). These records bring the total number of salticid recorded in Turkey to 134 species.

Material and Methods

This study of specimens collected from different regions of the Turkish provinces of Kırıkkale, Manisa and Sinop. Specimens were collected either by sweep net from herbaceous plants or by hand aspirator from plants or under stones. Identifications were made using a Leica S8APO stereo microscope. The identification keys of Heimer & Nentwig (1991), Metzner (1999) and Prószyński (2003) were used to identify species. Specimens were preserved in 70% ethanol. All measurements are given in millimeters (\pm 0.01). Abbreviations used in the text are as follows; ALE, anterior lateral eyes and ME, anterior median eyes. Pictures were taken using a Leica DC 160 camera mounted on the stereo microscope. Specimens have been deposited in the collection of the Arachnological Museum of Kırıkkale University (KUAM).

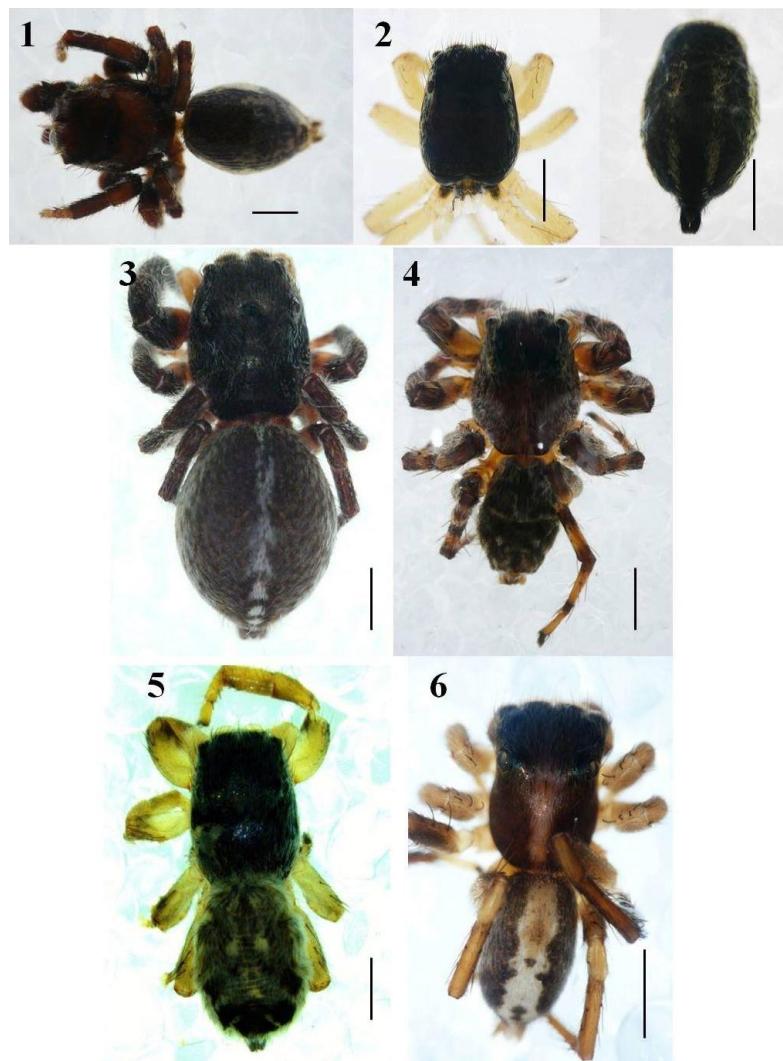
Results

Evarcha laetabunda (C. L. Koch, 1846)

Material examined : Manisa Province, Turgutlu District, pine forest (38°22'49" N, 27°52'12" E), 01.VII.2003, 3♂.

Distribution: Palearctic (World Spider Catalog, 2016).

Comments : Total length 4.60, prosoma length 2.20, prosoma width 1.70, abdomen length 2.40, abdomen width 1.80. Prosoma dark brown with vivid and light black color laterally (Figure 1). AME and ALE surrounded by dense white hairs. Chelicerae narrow, with light brown and white haired dorsally (Figure 7). Abdomen grayish. First legs black and thicker than other legs (Figure 1). Tibial apophysis apex forked. Embolus sclerotized, and sperm ducts not clearly distinguishable. Terminal and median apophysis absent. Tegulum bulging laterally and distal tegular projection light colored (Figure 13-14). Spinnerets dark brown. Male palp as in Figures 13-14.



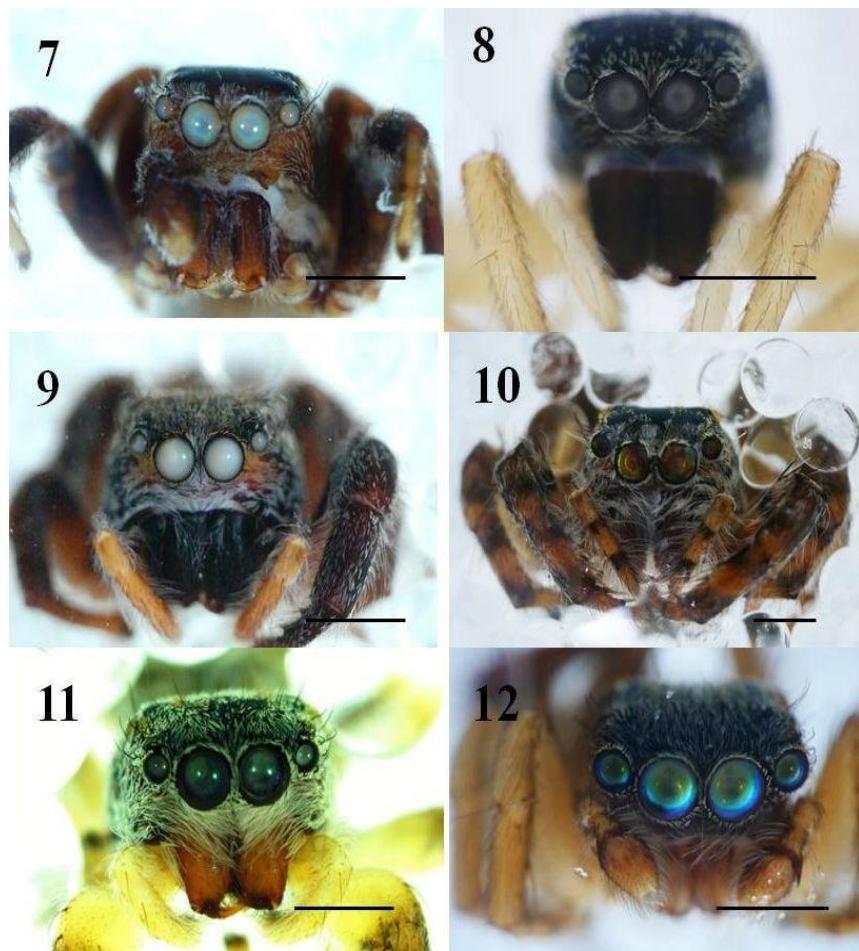
Figures 1-6. Dorsal views; 1: *Evarcha laetabunda* (δ), 2: *Heliophanus verus* (φ), 3: *Pellenes seriatus* (φ), 4: *Plexippoides flavesiensis* (φ), 5: *Pseudicius palaestinensis* (φ), 6: *Saitis barbipes* (δ) (Scale: 1.0 mm).

***Heliophanus verus* Wesolowska, 1986**

Material examined : Kırıkkale Province, Karacalı Village (39°53'01" N, 33°32'25" E), 11.V.2014, 2 φ .

Distribution : Azerbaijan, Iran (World Spider Catalog, 2016).

Comments : Total length 4.50, prosoma length 2.0, prosoma width 1.15, abdomen length 2.50, abdomen width 2.0. Prosoma black, bright, with few white hairs and long dark colored hairs on anterior part. White hairs located on lateral side of prosoma (Figure 2). AME and ALE covered by white hairs. Chelicerae dark brown. Clypeus narrow, dark colored, and has intense white hairs (Figure 8). Abdomen with black and white hairs on lateral part and middle section. White hairs central forming two striped patterns. Legs light yellow and covered with dark colored hairs. Spinnerets black and hairy (Figure 2). Female epigyne as in Figures 18-19.



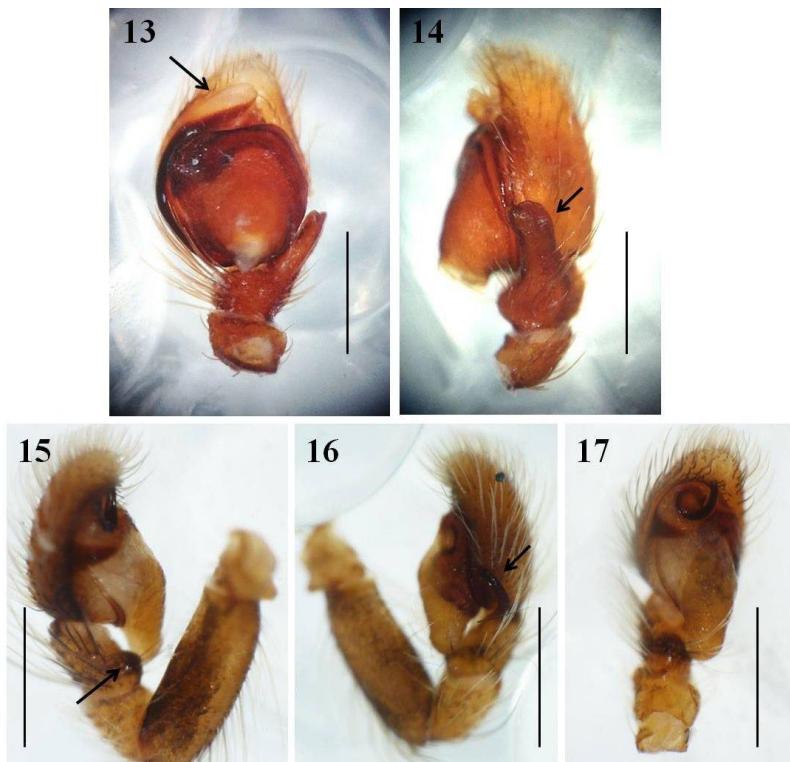
Figures 7-12. Ocular area; 7: *Evarcha laetabunda* (♂), 8: *Heliophanus verus* (♀), 9: *Pellenes seriatus* (♀), 10: *Plexippoides flavescentis* (♀), 11: *Pseudicius palaestinensis* (♀), 12: *Saitis barbipes* (♂) (Scale: 1.0 mm).

***Pellenes seriatus* (Thorell, 1875)**

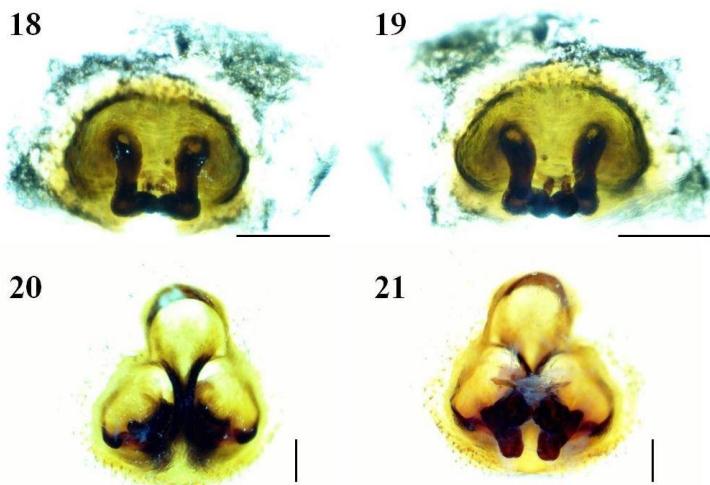
Material examined : Sinop Province, Boyabat District, Drannaz Mountain (41°41'40" N, 34°52'50" E), 07.VI.2013, 3♀.

Distribution : Bulgaria, Central Asia, Greece, Macedonia, Romania, Russia (World Spider Catalog, 2016).

Comments : Total length 7.84, prosoma length 3.28, prosoma width 2.56, abdomen length 4.56, abdomen width 3.52. Prosoma black, sparsely covered with white hairs. Clypeus reddish, densely covered with white hairs (Figure 3). AME surrounded by dense white hairs. Chelicerae black and white haired dorsally (Figure 9). Abdomen dorsum dark brown, with a white longitudinal line, ventral yellowish gray and covered with white hairs. Legs dark brown, only femur and tarsus yellowish brown. Spinnerets light brown (Figure 3). Female epigyne as in Figures 20-21.



Figures 13-17. Palps, *Evarcha laetabunda* (♂), 13: ventral view, 14: retrolateral view, *Saitis barbipes* (♂), 15-16: retrolateral view, 17: ventral view (Scale: 0.5 mm).



Figures 18-21. *Heliophanus verus* (♀), 18: ventral view of epigyne , 19: dorsal view of vulva, *Pellenes seriatus* (♀), 20: ventral view of epigyne , 21: dorsal view of vulva (Scale: 0.2 mm).

***Plexippoides flavescens* (O. Pickard-Cambridge, 1872)**

Material examined : Kırıkkale Province, Ahili Village (39°47'41" N, 33°32'42" E), 15.V.2014, 1♀.

Distribution : Greece to Central Asia, Pakistan, Sudan (World Spider Catalog, 2016).

Comments : Total length 3.40, prosoma length 1.80, prosoma width 1.40, abdomen length 1.60, abdomen width 1.10. Prosoma dark brown, eye area blackish brown and intensively covered with grayish hairs (Figure 4). AME and ALE covered with white hairs. Chelicerae dark brown with white hairs located in the dorsal direction. Clypeus dark brown, narrow, intensely covered with long white hairs (Figure 10). Abdomen blackish brown with patterns formed by grayish hairs localized on dorsal part. Coxa and trochanter parts of the legs yellow, remaining parts brown and covered with white hairs. Spinnerets light brown (Figure 4). Female epigyne as in Figures 22-23.

***Pseudicius palaestinensis* Strand, 1915**

Material examined : Kırıkkale Province, Karacalı Village ($39^{\circ}53'50''N$, $33^{\circ}32'30''E$), 25.VI.2015, 1♀.

Distribution : Iran, Israel (World Spider Catalog, 2016).

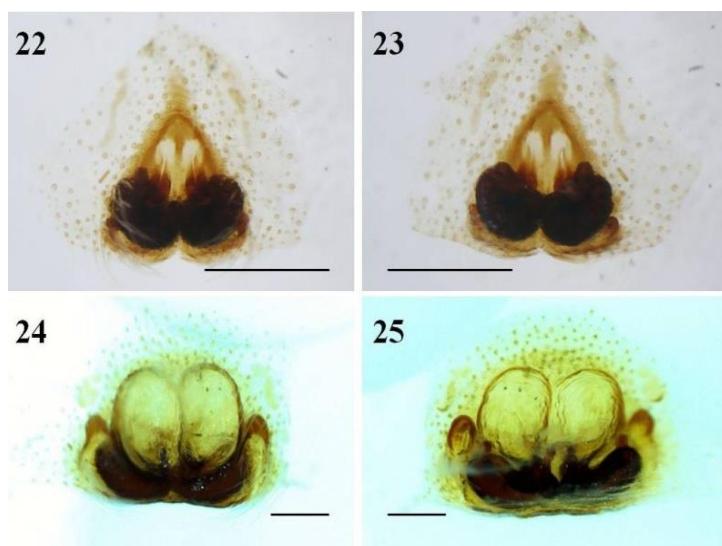
Comments : Total length 4.25, prosoma length 2.10, prosoma width 1.35, abdomen length 2.15, abdomen width 1.50. Prosoma black, covered with white hairs. Frontal eyes surrounded by white hairs (Figure 5). Clypeus brown, densely covered with white hairs. Chelicerae light brown and dorsum covered dark colored hairs (Figure 11). Sternum dark brown. Abdomen gray and covered with shiny grayish hairs. Locations close to spinnerets, intensely covered with black hairs. Spinnerets light brown (Figure 5). Legs light yellow. Female epigyne as in Figures 24-25.

***Saitis barbipes* (Simon, 1868)**

Material examined : Sinop Province, Boyabat District ($41^{\circ}50'32''N$, $35^{\circ}09'44''E$), 09.VI.2013, 3♂. Sinop Province ($42^{\circ}02'10''N$, $35^{\circ}11'24''E$), 18.IV.2010, 1♂.

Distribution : Central Europe, Mediterranean (World Spider Catalog, 2016).

Comments : Total length 3.90, prosoma length 1.90, prosoma width 1.30, abdomen length 2.0, abdomen width 1.10. Posterior of prosoma dark brown with white striped pattern centrally. Anterior of prosoma blackish brown and intensely covered with dark hairs (Figure 6). AME and ALE covered with white hairs. Clypeus narrow, dark brown with long white hairs. Chelicerae light brown (Figure 12). Abdomen dark brown with white striped pattern centrally. Brown pattern in the middle of stripe and close to spinnerets. Spinnerets light brown (Figure 6). Male palp as in Figures 15-17.



Figures 22-25. *Plexippoides flavescens* (♀), 22: ventral view of epigyne , 23: dorsal view of vulva, *Pseudicius palaestinensis* (♀), 24: ventral view of epigyne , 25: dorsal view of vulva (Scale: 0.5).

References

- Azarkina, G. N. & M. Komnenov, 2015. Descriptions of two new species of *Aelurillus* Simon, 1884 (Araneae, Salticidae) from the Mediterranean, with the synonymization of *A. steliosi* Dobroruka, 2002. Zookeys 516: 109-122.
- Bayram, A., K. B. Kunt & T. Danışman. 2016. The Checklist of the Spiders of Turkey. Version 2016. (Web page: <http://www.spidersofturkey.info>) (Date accessed: 15 March 2016)
- Coşar, İ., 2015. Four new records for the spider fauna of Turkey (Araneae: Salticidae). Turkish Journal of Zoology 39: 368-371.
- Heimer, S. & W. Nentwig, 1991. Spinnen Mitteleuropas. Verlag Paul Parey, Berlin, 543 pp.
- Logunov, D. V., 2015. Taxonomic-faunistic notes on the jumping spiders of the Mediterranean (Aranei: Salticidae). Arthropoda Selecta 24 (1): 33-85.
- Metzner, H., 1999. Die Springspinnen (Araneae, Salticidae) Griechenlands. Andrias 14: 1-279.
- World Spider Catalog, 2016. World Spider Catalog. Natural History Museum Bern. Version 17.0. (Web page: <http://wsc.nmbe.ch>) (Date accessed: 15 March 2016)
- Prószyński, J., 2003. Salticidae (Araneae) of the Levant. Annales Zoologici (Warszawa) 53: 1-180.