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A new and the southernmost species of *Zaitunia* Lehtinen, 1967 (Araneae: Filistatidae) from the United Arab Emirates

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ABSTRACT

Zaitunia arabica n. sp., the southernmost member of the genus, is described from Rub ʻAl Khali Desert, the United Arab Emirates. The new species is assigned to *Z. persica* species-group, and it is most similar to *Z. medica* Brignoli, 1982 in having solid receptacles, which are wider than long and have no stalks. *Zaitunia arabica* n. sp. differs from the latter species by the lack of a carapace pattern, having no leg annulation, by much smaller size, as well as by a different shape of the receptacles and by a smaller distance between them.

KEYWORDS: Arabian Peninsula, Aranei, Asia, Filistatinae, spiders, taxonomy.

INTRODUCTION

Zaitunia Lehtinen, 1967 with 29 named species is the most speciose genus in Filistatidae (WSC 2023). Its range spreads from the Eastern Mediterranean (Greece, Turkey, Cyprus and Egypt) to the northeastern Kazakhstan (Zonstein & Marusik 2016). *Zaitunia* and *Filistata* Latreille, 1810 are the only genera occurring in the Palearctic that have been recently revised (Zonstein & Marusik 2016, 2019). The greatest number of *Zaitinia* species (8) has been reported from Iran (Zamani & Marusik 2018; WSC 2023). While studying material from the United Arab Emirates, we discovered an undescribed filistatid species belonging to *Zaitunia*; so the goal of this study is to diagnose and describe the noted species, as well as to provide comments on the informal species grouping based on the shape of the endogyne.

MATERIAL AND METHODS

The holotype female was photographed using a Canon EOS 7D camera attached to an Olympus SZX16 stereomicroscope at the Zoological Museum of the University of Turku. Digital images were stacked using CombineZP and edited using CorelDraw graphic design software packages. Lengths of leg segments were measured on the dorsal side. All measurements are given in mm. The type specimens used in the study are deposited in the Zoological Museum of Moscow state University (ZMMU).

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TAXONOMY

Genus *Zaitunia* Lehtinen, 1967

Zaitunia Lehtinen, 1967: 275; Zonstein & Marusik, 2016: 6.

Type species: *Filistata schmitzi* Kulczyński, 1911, by monotypy.

Comments: Diagnosis and description of the genus were provided by Zonstein and Marusik (2016). Since the revision by Zonstein and Marusik (2016) only three species have been described, and they agree to the characters described before. It is worth mentioning that of 29 named species most (18) are known from females (WSC 2023). One species is known from male and the rest are known from both sexes (WSC 2023). Regarding the species distributed in southern part of the genus range, only the type species, which occurs in the Eastern Mediterranean, is known from both males and females. All other southern species distributed in Syria, Iran, Afghanistan and India, are known only from females. Iran has the highest species diversity of the genus; currently eight species are known across the whole country (Zamani & Marusik 2018; WSC 2023) and all of them are known from females.

Zonstein and Marusik (2016) recognized and then considered six species-groups in the genus. The offered splitting was based primarily on the males, although these males were known only in 10 species and only in five species-groups. The *persica*-group, known only from females, has a rather diverse structure of the endogyne; the included species share a single common character – one pair of the receptacles (vs. 2 pairs in other species-groups). This sole pair of the receptacles can be digitiform, wider than long or long and wavy.

Distribution: The genus is known from Kerkyra (=Corfu) Isl. (ca. 19°E, *Z. kerkyra* Lecigne, 2023) to Eastern Kazakhstan (81°E, *Z. zonsteini* Fomichev & Marusik, 2013). The southernmost distribution records were noted for south Sinai Peninsula (28°33'N, *Z. schmitzi)* and southern Iran (27°14'N, *Z. brignoliana* Zonstein & Marusik, 2016) (Zonstein 2009; Zamani & Marusik 2016; Zonstein & Marusik 2016). The northernmost points of the genus distribution are 48°33'N for *Z. inderensis* Ponomarev, 2005, and 47°14'N for *Z. zonsteini* Fomichev & Marusik, 2013 in the northwestern and eastern parts of Kazakhtsan, respectively (Ponomarev 2005; Fomichev & Marusik 2013; Zonstein & Marusik 2016).

Zaitunia arabica n. sp.

(Figs 1–9)

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Types: Holotype ♀ and paratype ♀ [or subadult] (ZMMU), United Arab Emirates, Rub ‘Al Khali Desert, ca 4 km NW of Maleha, W foothills of Jebel Maliha Mt. Ridge, ca. 175 m, 25°09'50"N 55°50'07"E, sands, 31.03.2003 (A.V. Gromov).

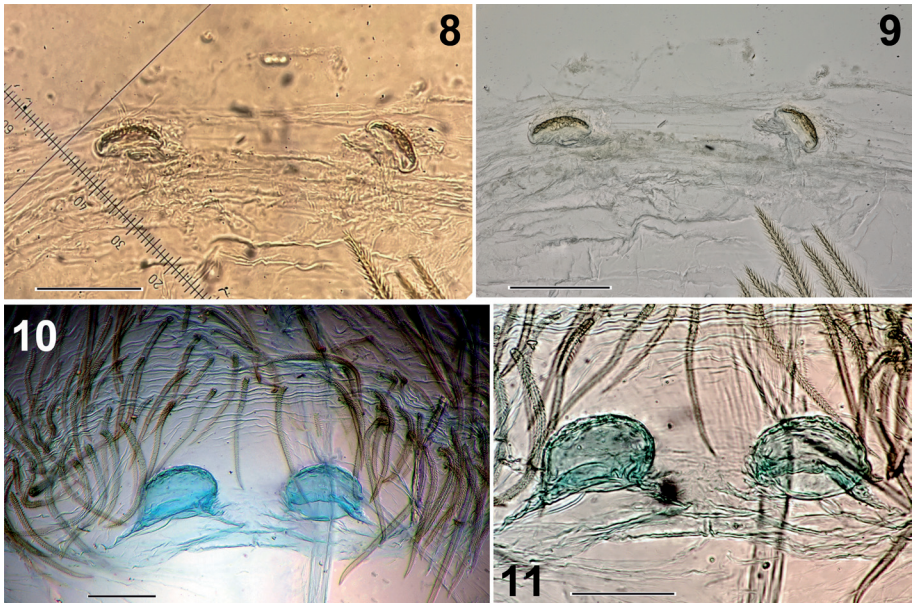
Etymology: The species name refers to the country and the region, where the specimens were collected, the United Arab Emirates and the Arabian Peninsula.

Figs 1–7. *Zaitunia arabica* n. sp., holotype female: (1, 4) prosoma, showing also palps and legs, lateral and dorsal aspects, respectively; (2) prosoma, ventral, close-up view; (3) clypeus and eye group, dorsolateral; (5–7) tibia and metatarsus IV junction, showing calamistrum, prolateral, dorsal and retrodorsal, respectively. Scale bars: Figs 1, 4 = 0.5 mm, Figs 2, 3, 5–7 = 0.2 mm.

Diagnosis: According to the characters provided by Zonstein and Marusik (2016), this species falls to the *persica* species-group, which is characterized by one pair of the receptacles. Within this group, the new species is most similar to *Z. medica* Brignoli, 1982 in having solid receptacles (which are wider than long) without stalks. *Zaitunia arabica* differs from *Z. medica* in the visible absence of leg annulation, much smaller size (carapace length ca. 1.5 vs. 3.0) and by the shape of the receptacles (low flattened oval vs. raised mound-like) (Figs 8–11) and the distance between them (3 widths vs. less than 1 width).

Description: ***Female*** (holotype). Habitus as in Figs 1 and 4. Total length ca. 3.18, carapace 1.53 long, 1.00 wide (possibly deformed); abdomen ca. 1.65.

Colour: Overall coloration pale yellowish. Carapace with dark lateral patches near lateral eyes and two poorly developed areas of darker brownish reticulate pattern adjoining clypeus laterally. Legs and abdomen lacking pattern (Figs 1–4).



Figs 8–11. *Zaitunia arabica* n. sp., holotype female (8, 9), and *Z. medica* Brignoli, 1982), holotype female (10, 11), endogynes in dorsal (internal) aspect. Scale bars: Figs 8, 9 = 0.05 mm, Figs 10, 11 = 0.1 mm.

Prosoma: Eye sizes and interdistances: ALE ca. 0.14, ALE–ALE 0.13, PME 0.09, PME–PME 0.11. Clypeus 0.23. Sternum nearly trapezoidal, widest between coxae II and III.

Legs and palps: Coxae IV not spaced. Metatarsi of all legs with pair of ventral distal spines. Calamistrum as in Figs 5–7. Legs and palp length as follows:

	Palp	I	II	III	IV
Femur	0.75	2.00	1.50	1.18	1.70
Patella	0.50	0.63	0.58	0.50	0.63
Tibia	0.50	2.00	1.13	0.88	1.50
Metatarsus	–	1.80	0.95	0.88	1.38
Tarsus	0.55	1.05	0.65	0.68	0.70
Total	2.30	7.48	4.81	4.12	5.91

Endogyne (Figs 8, 9): ca. 0.15 wide, receptacle oval, lacking distinct stalk, anterior half covered with dense pore glands; receptacles each ca. 0.030 wide and 0.013 high, spaced by 3 widths.

Male. Unknown.

Distribution: Only the type locality.

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