

## First record of *Mexcala monstrata* (Araneae: Salticidae) from Egypt

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**Abstract.** The jumping spider *Mexcala monstrata* Wesolowska & van Harten, 1994 is recorded for the first time from Egypt and Africa. The record is based only on male specimens. It is the second species of the genus *Mexcala* in Egypt after *Mexcala nigrocyanea* (Simon, 1886) known from the Siwa Oasis.

**Keywords:** Africa, jumping spiders, taxonomy

**Zusammenfassung. Erstnachweis von *Mexcala monstrata* (Araneae: Salticidae) in Ägypten.** Die Springspinne *Mexcala monstrata* Wesolowska & van Harten, 1994 wird erstmals für Ägypten und Afrika nachgewiesen. Es wurden nur Männchen erfasst. Es ist der zweite Nachweis einer *Mexcala*-Art in Ägypten nach *Mexcala nigrocyanea* (Simon, 1886), die von der Oase Siwa bekannt ist.

The family Salticidae Blackwall, 1841 is the species-richest spider family containing 6108 species in 636 genera (World Spider Catalog 2019). In Egypt, 74 species from 33 genera are recorded (El-Hennawy 2017). The genus *Mexcala* was established by Peckham & Peckham (1902) for *M. rufa* Peckham & Peckham, 1902 from South Africa. Later, they included *M. elegans* Peckham & Peckham, 1903 from Zimbabwe (Peckham & Peckham 1903) and the third species *M. agilis* Lawrence, 1928 was described from Namibia (Lawrence 1928). From all of them only males were described. Currently, the genus *Mexcala* includes 21 species, recorded from Africa, the southern part of the Arabian Peninsula and Iran. Of these, only *Mexcala nigrocyanea* (Simon, 1886) is known from Egypt from the Siwa Oasis (El-Hennawy 2017). *Mexcala monstrata* Wesolowska & van Harten, 1994 is hitherto known only from Yemen (Wesolowska 2009, World Spider Catalog 2019). *Mexcala monstrata* was described from a single adult female (Wesolowska & van Harten 1994). Wesolowska & van Harten (2007) first described the male and redescribed the female from Yemen. Wesolowska (2009) provided a revision of the genus *Mexcala*. The aim of the present paper is to report newly found specimens of *M. monstrata* from Egypt.

### Material and methods

The specimens in this paper are part of the Ph.D. thesis collection by Amr El-Gendy. All specimens were collected by hand aspirator, are preserved in 75% ethanol and deposited at the Faculty of Agriculture, Al-Azhar University, Egypt. For study an OPTIKA SZM-2 Stereomicroscope was used. Digital photographs were taken using a ToupCam S3CMOS Microscope camera.

The identification of *M. monstrata* is based on the descriptions, drawings and photographs in Wesolowska & van Harten (1994, 2007) and Wesolowska (2009). One male pedipalp was removed for study. Terminology follows Jocqué & Dippenaar-Schoeman (2006). Length of prosoma, legs and opisthosoma were measured (Tabs 1-2). All measurements are given in millimetres.

### Taxonomy

Family Salticidae Blackwall, 1841

Genus *Mexcala* Peckham & Peckham, 1902

*Mexcala monstrata* Wesolowska & van Harten, 1994 (Figs 1-5)

**Specimens examined.** EGYPT, Menoufiya, El-Sadat City, Al-Azhar University, Farm of Faculty of Agriculture, Orchards of peach and pomegranate (30.42028°N, 30.54296°E, 29 m a.s.l.), 20. Nov. 2016: 1 ♂, 25. Dec. 2016: 1 subadult ♂ (died before moulted to adult), 15. Jun. 2017: 1 ♂, 12. Mar. 2017: 1 ♂, leg. A. El-Gendy.

**Description of male.** General appearance as in Fig. 1a slender spider with long legs. Prosoma pear-shaped, widest posteriorly, coloured dark brown, clothed with delicate short brilliant hairs as in Fig. 1c. Opisthosoma elongated, pointed posteriorly, orange with a brown anterior margin and a narrow transverse band halfway along its length, sometimes opisthosoma blackish at posterior margin (Fig. 1). Spinnerets orange-brownish. Legs thin and very long, legs IV longest, femora brown, tarsi whitish-yellow, remaining segments orange with brown lines along lateral surfaces. Palpal organ as in Figs 2-5, and measurements as in Tabs 1-2.

### Distribution

*Mexcala monstrata* was known only from Yemen (Wesolowska 2009, World Spider Catalog 2019). This is the first record of the species for Egypt and for Africa. Twenty of the 21 species

**Tab. 1:** Measurements of *Mexcala monstrata*

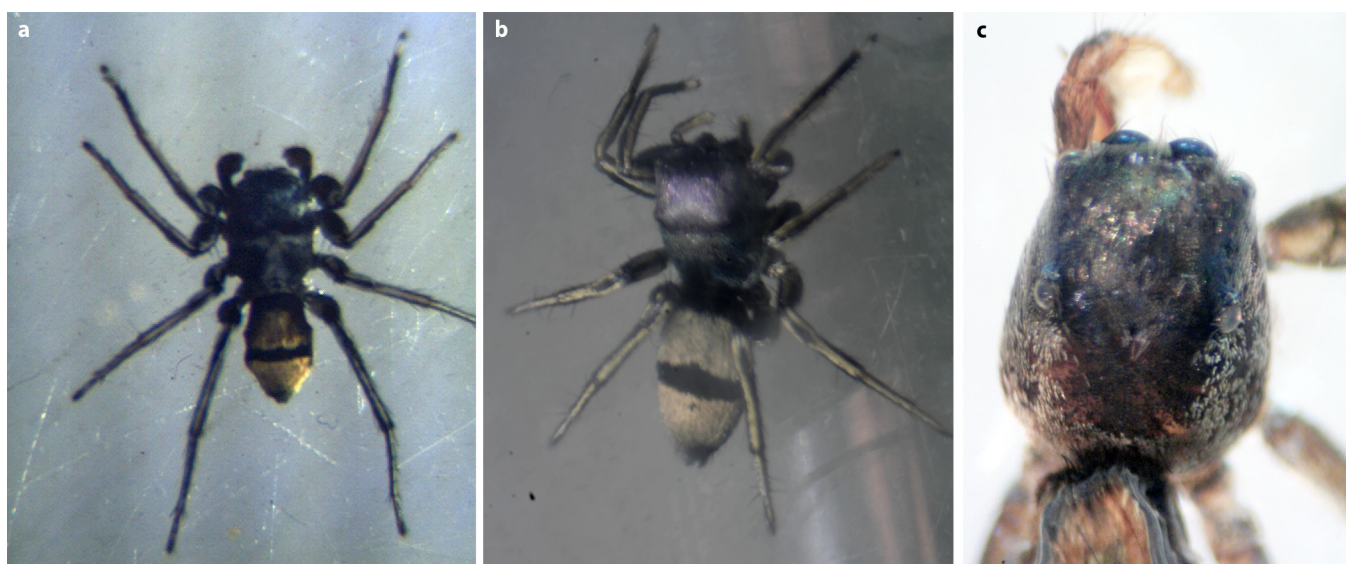
TL = total length, PL = prosoma length, PW = prosoma width, OL = opisthosoma length, OW = opisthosoma width

	TL	PL	PW	OL	OW
MAX	5.22	2.82	1.91	2.40	1.99
MIN	4.58	2.46	1.63	2.13	1.74

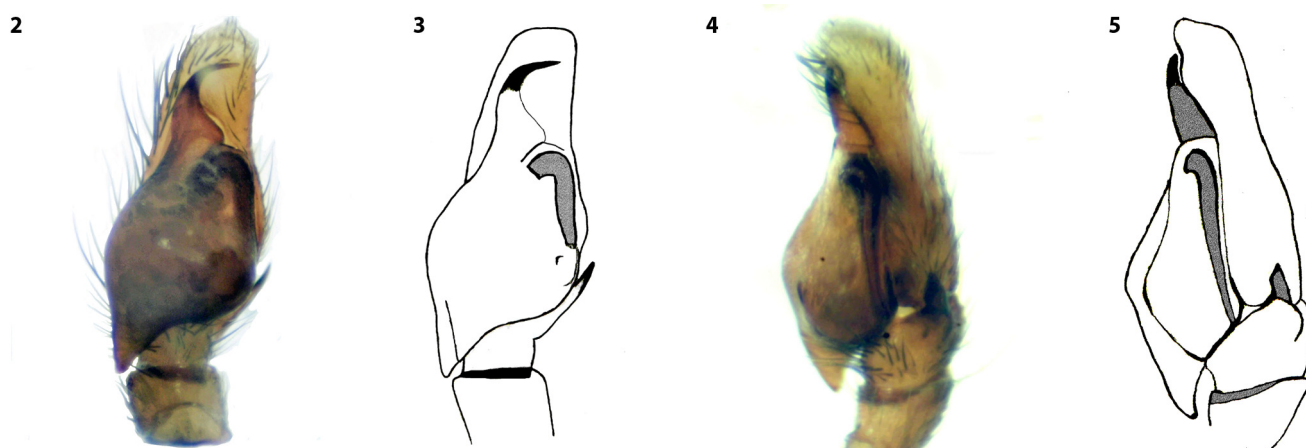
**Tab. 2:** Measurements of leg segments of *Mexcala monstrata* Wesolowska & van Harten, 1994

Leg	Femur	Patella	Tibia	Meta-tarsus	Tarsus	Total length
I	1.52	0.74	1.15	1.00	0.51	4.92
II	1.39	0.68	1.02	0.91	0.58	4.58
III	1.43	0.63	1.07	1.19	0.67	4.99
IV	2.28	2.23	0.86	0.94	0.70	7.01

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**Fig. 1:** *Mexcala monstrata*, habitus of a living spider. **a.** adult male; **b.** subadult male; **c.** prosoma of a preserved male



**Figs 2-5:** *Mexcala monstrata*, pedipalp. **2, 3.** ventral view; **4, 5.** lateral view

of *Mexcala* are known from Africa now (Wesołowska 2009, World Spider Catalog 2019) – and the last one (*Mexcala far-sensis* Logunov, 2001, described from Iran) is misplaced in the genus according to Wesołowska (2009: 185).

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**References**

Dippenaar-Schoeman AS & Jocqué R 2006 Spider families of the world. Royal Museum for Central Africa, Tervuren. 336 pp.  
 El-Hennawy HK 2017 A list of Egyptian spiders (revised in 2017). – Serket 15: 167-183

Lawrence RF 1928 Contributions to a knowledge of the fauna of South-West Africa VII. Arachnida (Part 2). – Annals of the South African Museum 25: 217-312  
 Peckham GW & Peckham EG 1902 Some new genera and species of Attidae from South Africa. – Psyche 9 (312): 330-335 – doi: [10.1155/1902/13502](https://doi.org/10.1155/1902/13502)  
 Peckham GW & Peckham EG 1903 New species of the family Attidae from South Africa, with notes on the distribution of the genera found in the Ethiopian region. – Transactions of the Wisconsin Academy of Sciences, Arts and Letters 14: 173-278  
 Wesołowska W 2009 A revision of the spider genus *Mexcala* Peckham et Peckham, 1902 (Araneae: Salticidae). – Genus 20: 149-186  
 Wesołowska W & Harten A van 1994 The jumping spiders (Salticidae, Araneae) of Yemen. Yemeni-German Plant Protection Project, Sana'a. 86 pp.  
 Wesołowska W & Harten A van 2007 Additions to the knowledge of jumping spiders (Araneae: Salticidae) of Yemen. – Fauna of Arabia 23: 189-269  
 World Spider Catalog 2019 World spider catalog. Version 19.5. Natural History Museum, Bern. – Internet: <http://wsc.nmbe.ch> (3. Jan. 2019) – doi: [10.24436/2](https://doi.org/10.24436/2)