

A NEW SPECIES AND TWO INTERESTING RECORDS OF THE BLACK-WIDOW SPIDERS FROM MIDDLE ASIA AND THE CAUCASUS (Aranei, Theridiidae)

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Abstract: Latrodectus tadjicus n.sp. (Aranei: Theridiidae) from Russia is described and compared with its sibling species L. dahl

Introduction

The members of the genus Latrodectus are of considerable importance as their venom is poisonous to mammals. Three species of karakurts (the local Asian name for widow spiders, which means "kara" - black, "kurt" small invertebrate or insect) are known to be distributed in what was formerly the USSR. They are: L. tredecimguttatus ROSSI, L. pallidus O.P.-CAMBRIDGE and L. dahl LEVI (TYSHCHENKO, ERGASHEV, 1974). Despite numerous publications devoted to the widow spiders of the Soviet Union (see references in MARIKOVSKI, 1956 and ERGASHEV, 1990), this group of spiders is still poorly known. Poor knowledge of karakurts can be illustrated by the present paper, in which a new species is described

from Tajikistan and two new points of L. dahli distribution are recorded. The new species described below is the first sibling species of L. dahli, which belongs to the separate species group.

Before going further we wish to thank S.L. ZONSHTEIN and S.V. OVCHINNIKOV, Bishkek, for the Tajikistan material used in the paper, as well as to A.A. ZYUZIN, Alma-Ata for his help in the field work. English was kindly checked by Ms. Molly DAVENPORT.

All measurements are given in mm. The scale is 0.-1 mm. Type material is deposited in IBPN, specimens of L. dahli from Kazakhstan in IZA, and the male from Azerbaijan in the Zoological Institute, St. Petersburg.

Latrodectus tadzhicus sp.n. Figs. 1-4, map

Material: Holotype ♀ and paratype 1♂: South Tajikistan, Pyandjin-ski Karatau Mt. Range, west slope of Astana Mt., 1500m, 24. 04. 1991 (S. L. ZONSHTEIN).

Derivatio nominis. The species is named after the type locality.

Description. Male. Total length 3.4. Carapace 1.43 long, 1.19 wide, yellow with short black stripe from median groove to eye field. Sternum yellow with wide white median band. Abdomen white-yellow with 4 pairs of small black spots. Book lungs and genital area light-brown. Spinnerets light-brown. Legs, chelicerae, maxillae yellow. Palp as in figs. 1-2, with expanded embolus. Embolus wide, with broken apical part. It winds only once around bulb. Female. Total length 12.0. Carapace: 4.05 long, 3.18, wide, uniformly brown. Median groove transverse and deep. Sternum, legs, chelicerae brown. Abdomen grey brown, with thin white stripe near epigastric furrow. It is covered with few long setae (bristles). Epigyne as in figs. 3-4, with thin and wide fovea, ducts of spermathecae form only two loops.

Diagnosis and comments. L. tadzhicus sp.n. is closely related to L. dahli LEVI, from which it can be easily distinguished by the wider ducts of spermathecae, smaller epigyne opening and epigynal tubercle and by the yellow colouration of the male. Colouration of the male is very similar to that in L. pallidus O.P.-CAMBRIDGE. The two species can be separated by the length of embolus. The male of the new species has a short embolus which winds around the bulb only once, while 3 times in L. pallidus.

Distribution: type locality only.

Latrodectus dahli LEVI, 1959 Figs. 5-6, map

L. dahli LEVI, 1959: 42, figs. 11-12 (9). TYSHCHENKO, ERGASHEV, 1974: figs. 1-5, 9 (♂ & ♀). LEVY, 1983: 55-56, figs. 37-41 (♂ & ♀), ERGASHEV, 1990: 111-125, figs. 1-5, 9, 57-61 (♂ & ♀).

Several papers were published on L. dahli from Middle Asia. All records of this species are only from Uzbekistan (TYSHCHENKO, ERGASHEV, 1974, 1983; ERGASHEV, 1978, 1990; ADYLBKOV, 1983 etc.). According to ERGASHEV, 1990 L. dahli was known to be distributed in the South of Uzbekistan (Karshyn Steppe) only. Any record was known from Karakalpak Autonomous Area or other administrative areas (ERGASHEV, 1990).

Working on the black widow spiders from Kazakhstan, an expedition from the Institute of Zoology, Kazakh Academy of Sciences found two females of L. dahli in the Chimkent Area, 17 km South of Karaozek (77.5 NW of Chardary Vill.), Kyzylkum Desert, 5-6.06.1989. Thus, Kazakhstan's record is the north- and easternmost point of the known range of L. dahli.

By the way, this species (one male) was found in Azerbaijan by D.V. LOGUNOV (Talysh, Zuvand, environs of Gosmal'yan Vill., 21. 07. 1983).

So, until now, L. dahli is known to be distributed from South Israel and Sokotra Island on the southwest, through Iran, South Uzbekistan (LEVY, 1983) and Azerbaijan, north and east to the Chimkent Area of Kazakhstan.

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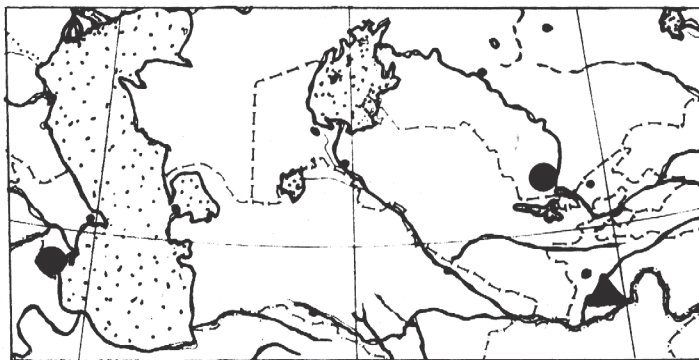
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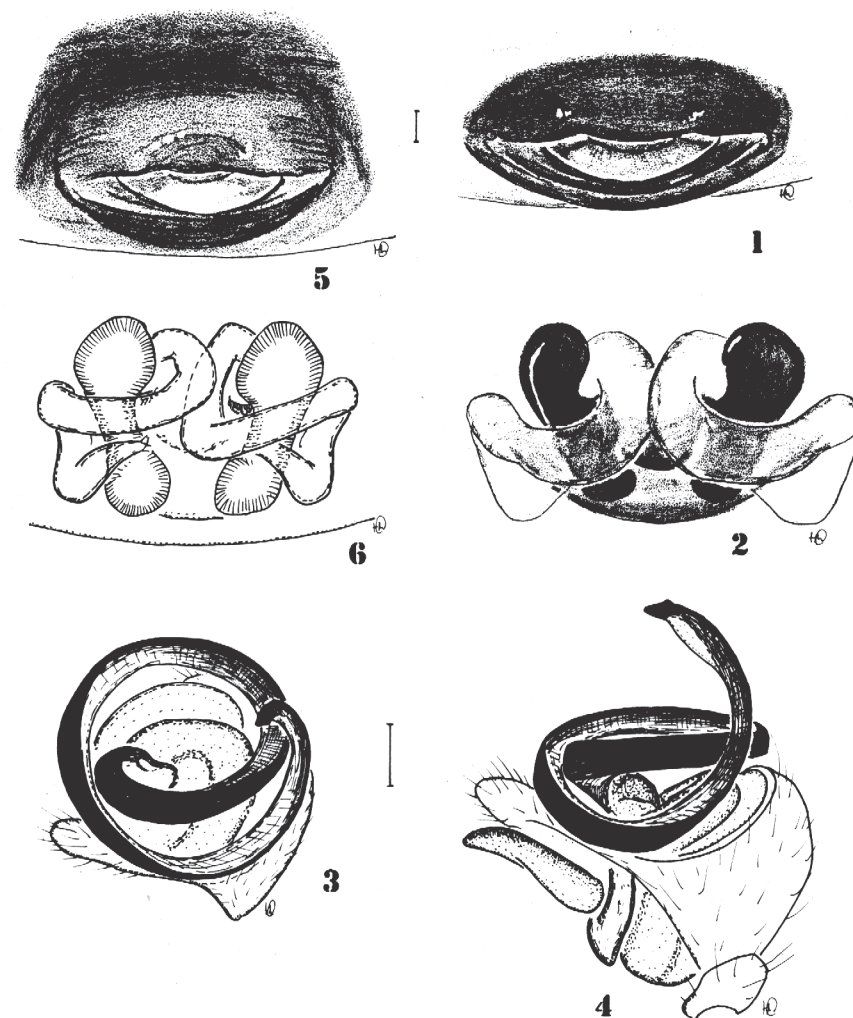
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Map. Type locality of L. tadjhicus sp.n. (triangle), and new localities of L. dahli (circles).



Figs. 1-6. Latrodectus tadjhicus sp.n. (1-4) and L. dahli (5-6) 1, 5 - epigyne, ventral view; 2, 6 - epigyne, dorsal view; 3, 4 male palp, from above and laterally respectively.