A new species of *Tetragnatha* Latreille, 1804 (Aranei: Tetragnathidae) from western Kazakhstan

Новый вид *Tetragnatha* Latreille, 1804 (Aranei: Tetragnathidae) из западного Казахстана

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KEY WORDS: new species, Aral Sea, Barsakelmes, spider.

КЛЮЧЕВЫЕ СЛОВА: новый вид, Аральское море, Барсакельмес, паук.

ABSTRACT. The new species *Tetragnatha kovbly-uki* sp.n. is described, based on two males collected from Barsakelmes Island, Aral Sea, Western Kazakhstan. The palp and chelicera of the new species are compared with those of *T. pinicola* L. Koch, 1870.

РЕЗЮМЕ. По двум самцам собранным на острове Барсакельмес в Аральском море описан новый вид *Tetragnatha kovblyuki* sp.n. Пальпа и хелицера самца нового вида сравниваются с таковыми у *T. pinicola* L. Koch, 1870.

Introduction

Tetragnatha Latreille, 1804 is one of the largest spider genera, with 344 species [Platnick, 2010]. It is also one of the few spider genera distributed worldwide, and perhaps the only genus occurring from the tundra zone in the Holarctic to Chile, Argentina and Tasmania. The genus is well studied in the Holarctic, South East Asia, Australia and South Africa, but relatively little is known about the South American fauna. Many Tetragnatha species have wide ranges and most live near water and make orb webs on grass.

Seventeen species of *Tetragnatha* are known from the former Soviet Union [Mikhailov, 1997]. Half of them are known exclusively from the south of the Russian Far East. Six species of *Tetragnatha* have been reported from Kazakhstan [Mikhailov, 1997]. All of them are widespread species. A few years ago I got specimens from Barsakelmes Island in the Aral Sea, collected in the early 1980s, a time when the Aral Sea had much more water (Fig. 14) and the island was really isolated. Detailed study reveals that two male specimens from Barsakelmes Island belong to an undescribed species, the description of which is given below.

Material and methods

Specimens were photographed using an Olympus Camedia E-520 camera attached to an Olympus SZX16 stereomicroscope. The images were montaged using "CombineZP" image stacking software. Photographs were taken in dishes of different sizes with paraffin in the bottom. Different sized holes were made in the paraffin to keep the specimens in the correct position. All measurements are given in mm. Type material will be deposited in the Moscow State University (ZMMU).

Species description

Tetragnatha kovblyuki **sp.n.** Figs 1–6, 9–11, 14.

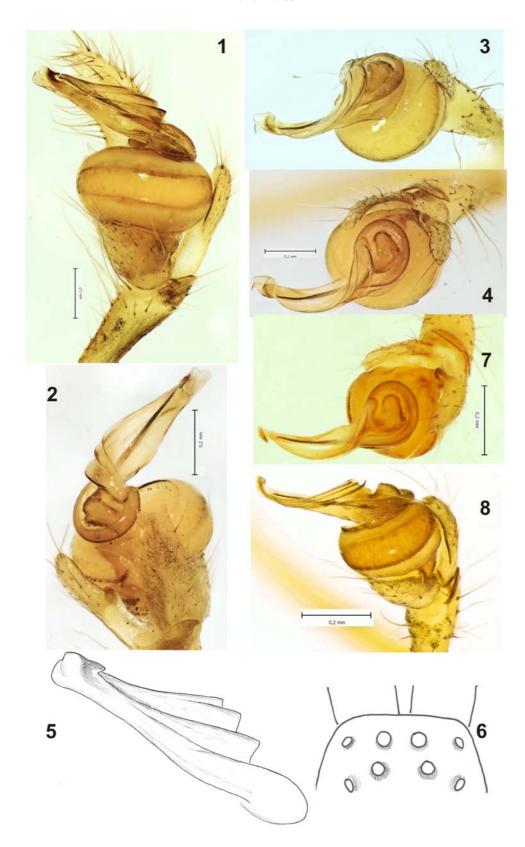
Tetragnatha sp.: Pavlenko, 1995: 153.

MATERIAL: Holotype of and paratype of (ZMMU), KAZA-KHSTAN, Aral Sea, Barsakelmes Island, bugut (=artificial hollow for collecting water) near Barsakelmes Reserve Campus, 23.05.1982 (D.D. Piryulin). Holotype male with detached left palp and detached and lost left chelicera. Paratype male with both palps detached, one of which is lost.

ETYMOLOGY. The specific name is a patronym in honour of my friend and colleague Mykola M. Kovblyuk (Simferopol, Ukraine).

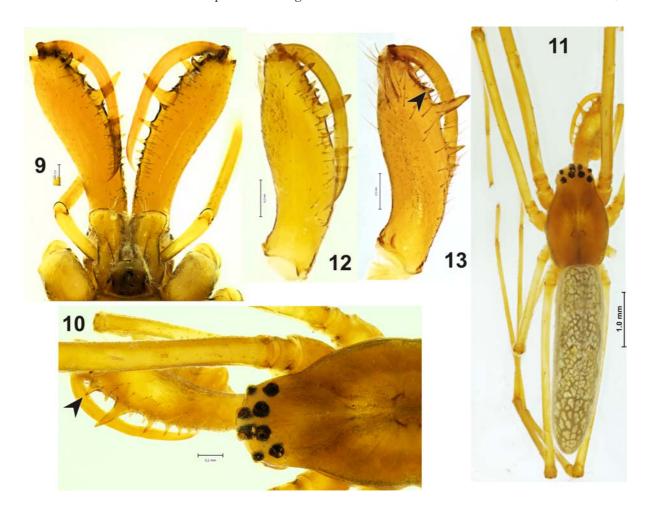
DIAGNOSIS. By the shape of the male palp the new species resembles *T. pinicola* L. Koch, 1870, a trans-Palaearctic species. The new species can be distinguished by its straight conductor (bent tip in *T. pinicola*, Figs 7–8). The two species have clear differences in colouration of sternum: light brown without a pattern in the new species and dark brown with yellow stripe in *T. pinicola*. *T pinicola* differs from the new species by the shape of "Schragzahn" tooth (sensu Wiehle [1963]) (cf. Figs 10 and 13) and also by smaller size (4.5–5 mm).

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Figs 1–6. Male palp and eye field of *Tetragnatha kovblyuki* sp.n. (1–6) and *T. pinicola* (7–8): 1, 8 — palp, ventral; 2 — palp, dorsal (terminal part of cymbium removed); 3–4, 7 — palp, subterminal view; 6 — eye field, dorsal.

Рис. 1–6. Пальпа самца и глазное поле *Tetragnatha kovblyuki* sp.n. (1–6) и *T. pinicola* (7–8): 1, 8 — пальпа, снизу; 2 — пальпа, сверху (верхняя часть цимбиума удалена); 3–4, 7 — пальпа, вид спереди; 6 — глазное поле, сверху.



Figs 9–13. Somatic characters of *Tetragnatha kovblyuki* sp.n. (9–11) and *T. pinicola* (12–13): 9 — mouth parts, ventral; 11 — body, dorsal; 12 — anterior part of cephalothorax, dorsal; 12, 13 — chelicera, posterior and anterior. Arrow shows differences in tooth. Рис. 9–13. Соматические признаки *Tetragnatha kovblyuki* sp.n. (9–11) и *T. pinicola* (12–13): 9 — ротовой аппарат, снизу; 11 — габитус, сверху; 12 — передняя часть головогруди сверху; 12, 13 — хелицера, сзади и спереди. Стрелка показывает различия.



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Fig. 14. Maps showing type locality and size of the Aral Sea in 70th (left) and now (right). Рис. 14. Карты показывают типовое местообитание и размер Аральского моря в 1970-е гг. (слева) и сейчас (справа).

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DESCRIPTION. Total length 5.35–6.0. Carapace 2.0–2.35 long, 1.23–1.4 wide; yellow without pattern. Lateral eyes widely spaced (Figs 6, 10–11). Sternum uniformly colored. Abdomen subcylindrical, without dorsal abdominal pattern.

Legs very long. Leg I in holotype (carapace 2.0 long) 4.3 + 0.85 + 2.5 + 4.65 + 1.5. Leg I in paratype (carapace 2.35 long) 6.25 + 1.1 + 6.5 + 7.25 + (missing). Carapace length/femur I ratio 2.15-2.66. Chelicera 1.85 long (in paratype). Fang without dorsal tooth.

Palp as in Figs. 1–5, conductor straight in ventral view, blunt and tip not bent.

DISTRIBUTION. Type locality only.

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References

- Mikhailov K.G. 1997. Catalogue of the spiders of the territories of the former Soviet Union (Arachnida, Aranei) // Sbornik trudov Zoologicheskogo Muzeya MGU. Moscow: Zoological Museum, Moscow State University. Vol.37. 416 pp.
- Pavlenko T.V. 1985. [Distribution of spiders in the natural complexes of the Barsakelmes Island (Aral Sea)] // Fauna i ekologia paukov. Trudy Zoologicheskogo Instituta AN SSSR. T.139. P.147–155 [in Russian].
- Platnick N.I. 2010. The World Spider Catalog, Version 10.5. American Museum of Natural History, online at: http://research.amnh.org/iz/spiders/catalog/ (accessed May31, 2010).
- Wiehle H. 1963. Spinnentiere oder Arachnoidea (Araneae). XII. Tetragnathidae – Streckspinnen und Dickkiefer // Tierwelt Deutschlands. Lfg.49. S.1–76.