© 2016. Indian Journal of Arachnology 5 (1-2): 79-83 ISSN 2278-1587 (Online)

A NEW SPECIES OF *Cheiracanthium* (ARANEAE: CHEIRACANTHIIDAE) FROM MONGOLIA

Yuri M. Marusik[1,2,3] and Alexander A. Fomichev[4]
[1]Institute for Biological Problems of the North RAS, Portovaya Str. 18, Magadan 685000, Russia
[2]Department of Zoology & Entomology, University of the Free State, Bloemfontein 9300, South Africa
[3]Zoological Museum, University of Turku, FI-20014 Turku, Finland
[4]Altai State University, Lenina Pr., 61, Barnaul, RF-656049, Russia
yurmar@mail.ru, a.fomichov@mail.ru

ABSTRACT

A new species *Cheiracanthium vankhedei* sp. n. is described from Southwestern Mongolia based on 3 males. The new species is related to *C. gratum* Kulczyński, 1897, *C. oncognathum* Thorell, 1871 and *C. kazachstanicum* Ponomarev, 2007 and differs from them by the shape of chelicera and male palp. A kind of stridulatory ridges are documented for the first time in *Cheiracanthium*.

Keywords: Araneae, spider, Asia, Gobi Desert, Knovd Aimag

INTRODUCTION

Cheiracanthium C. L. Koch, 1839 is a large genus with 209 valid species distributed in the Old World and one species is known from Australia (World Spider Catalog, 2016). Currently, this genus is placed in Eutichuridae Lehtinen, 1976, although it is a type genus for Cheiracanthiidae Wagner, 1887, the family name lacking in World Spider Catalog (2016). There are no proper morphological or any molecular evidences that *Eutichurus* Simon, 1897, a genus known from the Neotropics and *Cheiracanthium* are related (Marusik & Kovblyuk, 2011). These two genera have entirely different copulatory organs.

Cheiracanthium was never revised on a broad scale, and judging from the palpal and epigyne morphology, it is not monophyletic.

While examining the spiders collected in Mongolia by the junior author, we found three male specimens of *Cheiracanthium* with unusual combination of characters in morphology of palp and chelicera. Further investigation of literature and consultation with a leading expert in *Cheiracanthium* Jan Dolanský reveals that the Mongolian specimens belong to a new species, described herewith.

MATERIAL AND METHODS

Specimens were photographed with a Canon EOS 7D camera attached to an Olympus SZX16 stereomicroscope at the Zoological Museum, University of Turku, Finland. Digital images were montaged using Combine ZP image stacking software. All measurements are given in millimeters. Length of leg segments were measured on the dorsal side.

Types will be deposited in Museum of the Institute of Systematics and Ecology of Animals, Novosibirsk, Russia (ISEA) and Zoological Museum of the Moscow State University, Russia (ZMMU).

Taxonomy

Cheiracanthium C.L. Koch, 1839

Cheiracanthium vankhedei sp. n.

(Figures 1–12)

Types. Holotype ♂ (ISEA), MONGOLIA: ***Khovd*** Aimag, 36 km SW from Altai Village, Bodonchiyn-Gol River Valley, 45°46'N, 92°12'E, tugay (gallery forest), night, attracted by light, 1280 m, 17–18.05.2015 (A. A. Fomichev). Paratypes: 1♂ (ZMMU), 38 km SW from Altai Village, Bodonchiyn-Gol River Valley, 45°45'N, 92°11'E, stony desert, 1300 m, 08.05.2012 (A. A. Fomichev); 1♂ (ISEA) foothill of Ovkhood-Uul Mt., 45°49'N, 91°06'E, *Caragana* thickets, sweeping, 1250 m, 26–27.05.2015 (R. V. Yakovlev).

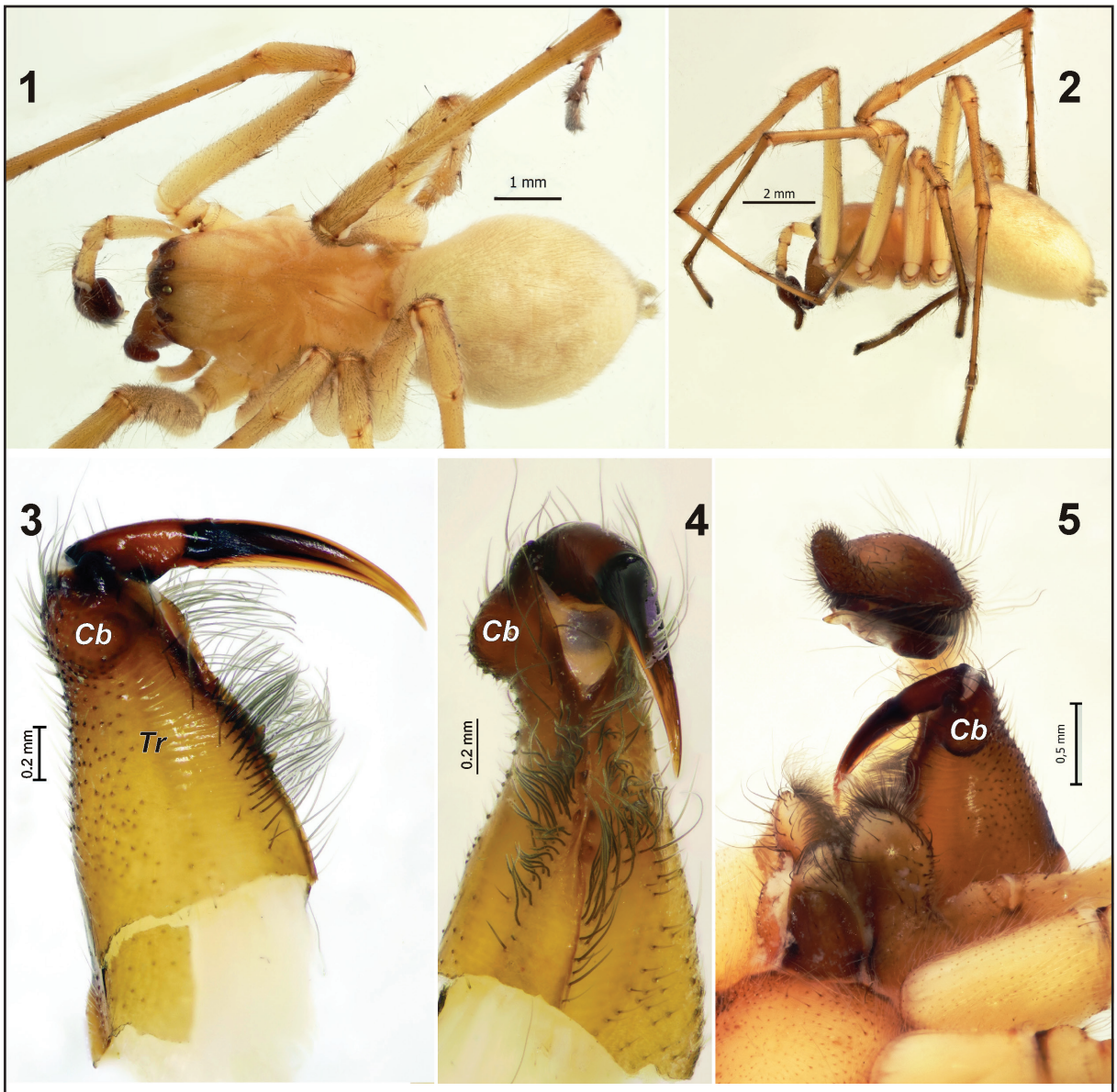
Etymology. The species is named in honour of prominent Indian Arachnologist late Dr. Ganesh Vankhede, founder of the Indian Society of Arachnology and Professor and ex-head of the department of Zoology, S.G.B. Amravati University, Amravati, Maharashtra, for his innumerable contribution in popularizing the subject in India.

Diagnosis. The new species is most similar to *C. gratum* Kulczyński, 1897, *C. oncognathum* Thorell, 1871 and *C. kazachstanicum* Ponomarev, 2007. All these species have a bulge on chelicera, well developed cymbial fold, relatively long and bent tip of cymbium. *Cheiracanthium vankhedei* sp. n. differs from these sibling species by a strongly bent tip of cymbium and possessing a cheliceral bulge not on lateral side, but on the posterior side. In addition, the new species differs from *C. oncognathum* by short cymbial spur, length 1/2 of tibial length vs. as long as tibia, and longer tip of cymbium (cf. figs 307b–c in Almquist, 2006). *Cheiracanthium vankhedei* sp. n. can be separated from *C. gratum* by the presence of more cheliceral teeth (6 in total vs. 3), less developed cymbial fold and shorter cymbial spur (cf. figs 2, 4–5 in Merkens & Wunderlich, 2000).

Description. Male (holotype). Total length 8.5. Carapace 3.75 long, 2.85 wide. Carapace yellowish, uniformly coloured, without any pattern. Chelicera, labium and endites brownish. Legs yellow with brownish metatarsi and tarsi. Fovea longitudinal, shallow, almost indistinct. Abdomen pale yellow, without pattern. Chelicera with 3 teeth on promargin and 3 on retromargin respectively, with bulge (Cb) on the posterior side of chelicera, posterior side of the chelicera with transversal ridges (Tr) resembling stridulatory file. All femora with 2 pro- and 2 retrolateral spines, tibia I with 1 prolateral spine and 2 pairs of ventral spines; metatarsus with 2 pro- and 2 retrolateral spines and 2 pairs of ventral spines.

Legs measurements

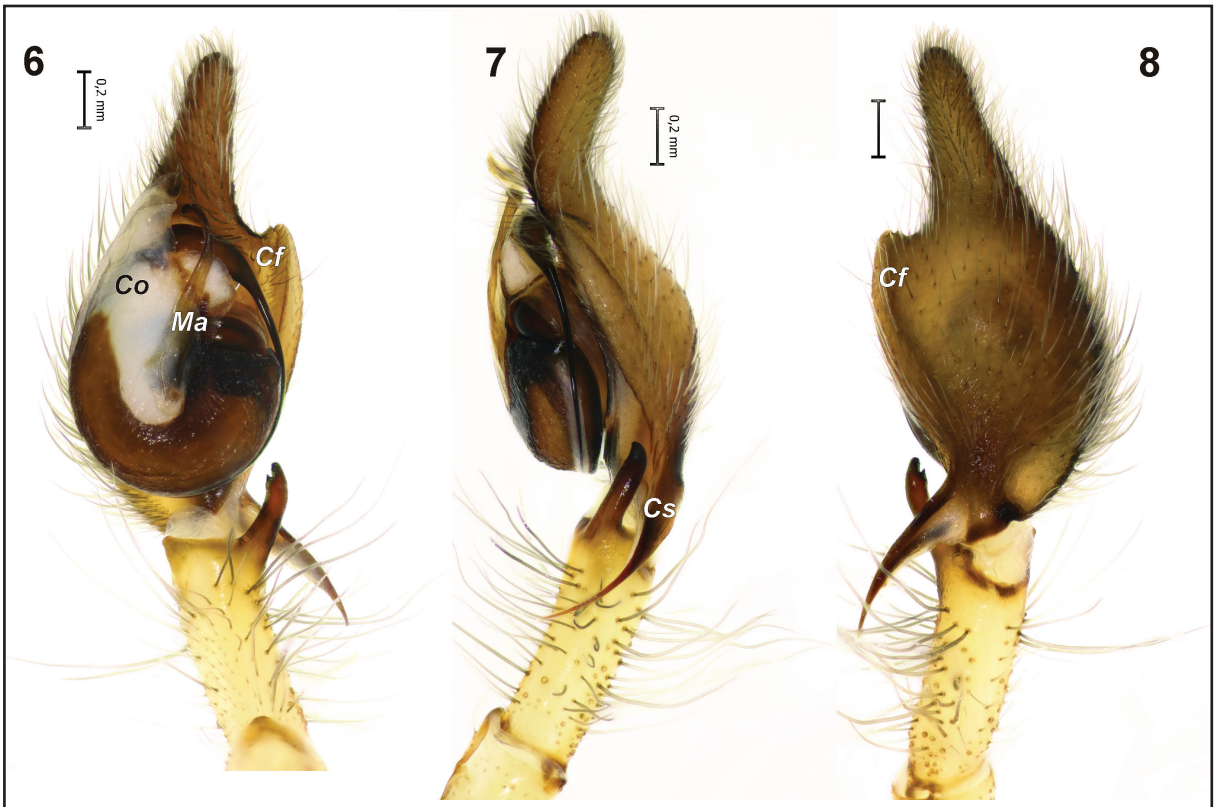
	Fe	Pt	Ti	Mt	Ta	Total
I	5.5	1.6	5.5	6.25	2.75	21.6
II	4.15	1.4	3.65	4.6	1.1	14.9
III	3.05	1.35	2.75	3.65	1.3	12.1
IV	5.5	1.6	4.3	5.75	1.75	18.9



Figures 1–5 Habitus and somatic characters of *Cheiracanthium vankhedei* sp. n.
1 dorsal; 2 lateral; 3–4 right chelicera, posterior and mesal; 5 prosoma, ventro-lateral, showing mouthparts and bulge of chelicera. Abbreviation: *Cb* bulge of chelicera.

Palp as in Figures 6–8. Tibia twice shorter than cymbium, with only retrolateral apophysis; apophysis about 40% of tibia length; cymbial spur slightly shorter than tibia; cymbium with strongly developed fold (Cf) well visible in ventral and dorsal view; tip of cymbium long, about 1/3 of cymbium length, distinctly bent dorsally. Tegulum egg-shaped, about 1.3 longer than wide; median apophysis long, thin hook-shaped; conductor large, membranous; embolus originates at about 1 o'clock position.

Female unknown.



Figures 6–8 Palp of *Cheiracanthium vankhedei* sp. n. 6 ventral; 7 retrolateral; 8 dorsal. Abbreviations: *Cf* cymbial fold, *Co* conductor, *Cs* cymbial spur, *Ma* median apophysis.

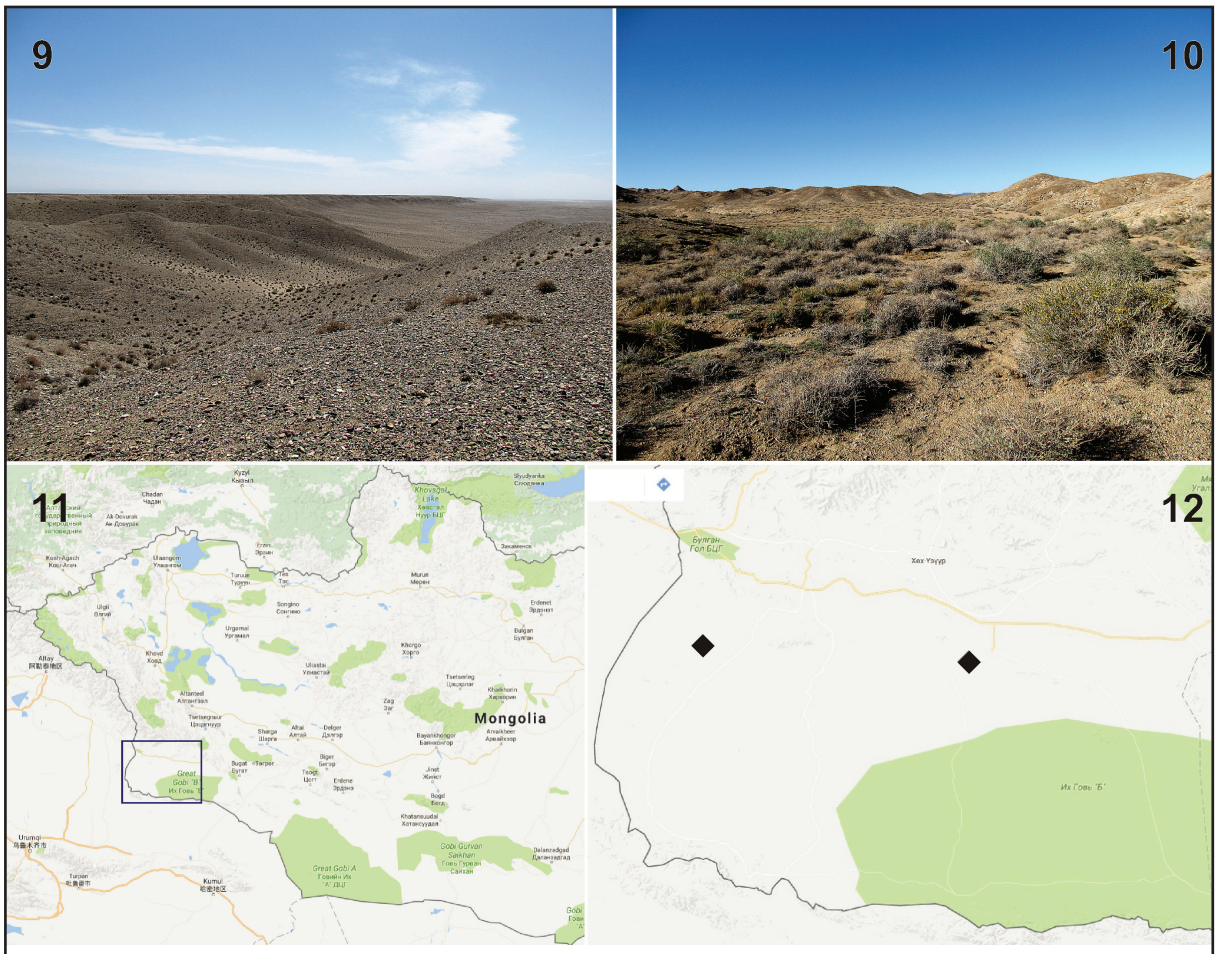
Comments. Transversal ridges on the chelicera look like stridulatory files; these were never documented in *Cheiracanthium* previously.

Habitats. Specimens were collected from different habitats, the holotype was found in tugay forest (gallery forest) near the river, while paratypes were present in xeric habitats: stony desert (Figure 9) and from *Caragana* bushes (Figure 10).

Distribution. So far, the species is known from 3 localities in SW Mongolia, two localities are close to each other (shown on the map as one, distance between them is about 2 km) and the third one is about 84 km west from the type locality.

ACKNOWLEDGEMENTS

We thank R. V. Yakovlev, A. I. Shmakov, A. N. Cherepanov (all from Barnaul, Russia), A. N. Nakonechnyi (Novosibirsk, Russia), R. Bakhanov, E. Ivanov (both from Gorno-Altaysk, Russia), G. G. Khabiev (Aktash, Russia) and U. Beket (Bayan-Ölgii, Mongolia) for organizing expeditions to Mongolia, in which the material studied was collected. We are grateful to Seppo Koponen (Zoological Museum, University of Turku) for providing museum facilities and Jan Dolanský (Pardubice, Czech Republic) for consultations regarding the Mongolian specimens.



Figures 9–12 Habitats and localities where *Cheiracanthium vankhedei* sp. n. was collected. 9 stony desert in Bodonchiyn-Gol River Valley; 10 *Caragana* thickets on Ovkhood-Uul Mt.;11 map of Mongolia, square refers to map 12; 12 showing exact localities where new species was collected.

REFERENCES

Almquist, S. (2006). Swedish Araneae, Part 2--families Dictynidae to Salticidae. *Insect Systematics & Evolution, Supplement*, 63: 285-601.

Marusik, Y. M. & Kovblyuk, M. M. (2011). *Spiders (Arachnida, Aranei) of Siberia and Russian Far East.* KMK Scientific Press, Moscow, 344 pp.

Merkens, S. & Wunderlich, J. (2000). Zwei für Deutschland neue Spinnenarten (Araneae): *Enoplognatha serratosignata* (L. Koch) (Theridiidae) und *Cheiracanthium gratum* Kulczynski (Clubionidae). *Arachnologische Mitteilungen*, 19: 41-48.

World Spider Catalog (2016). World Spider Catalog. Natural History Museum Bern, online at http://wsc.nmbe.ch, version 17.5, accessed on September 12, 2016.