

## A new species of the genus *Ummeliata* Strand 1942 (Araneae: Linyphiidae) from China

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**Abstract** — A new species of the genus *Ummeliata* Strand is described from Xiaowutai Mountains, China, under the name of *Ummeliata xiaowutai*. Distributional data and illustrations of somatic and genitalic morphology are provided.

**Key words** — spider, *Ummeliata*, taxonomy, new species, China

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### Introduction

The genus *Ummeliata* was erected by Strand in 1942. Currently 8 species are reported only from Asia, including China, Russia, Japan, Korea and Vietnam (Platnick 2013). Bösenberg & Strand (1906) described two new species from Japan, *Oedothorax femineus* and *O. insecticeps*, then they were transferred to *Ummeliata* by Irie & Saito (1987) and Chikuni (1989) respectively. In 1960, Oi described three new species, *Oedothorax angulituberis*, *O. erigonoides* and *O. osakaensis*, and later also were transferred to *Ummeliata* by Namkung (2002), Ono, Matsuda & Saito (2009) and Chikuni (1989) respectively. The other three species are *U. sibirica* (Eskov 1980), *U. onoi* Saito 1993 and *U. saitoi* Matsuda & Ono 2001 (Platnick 2013). Among them, *U. feminea* and *U. insecticeps* are known from China.

The genus *Ummeliata* has some unique characters. The male cephalic portion usually elevated to a large hump behind ocular area; male chelicerae with tooth-like process prolaterally; male palp with an obvious dorsal tibial apophysis; embolus curved. Dorsal median plate of epigyne partly exposed outside the ventral plate.

During the examination of spider specimens collected from Xiaowutai Mountains, Hebei Province, China, a new species is recognized and described here.

### Materials and methods

All specimens are preserved in 75% alcohol and examined, drawn, and measured under a Nikon SMZ1500 stereomicroscope equipped with an Abbe drawing device. Photographs were taken using the Leica M205A stereomicroscope equipped with a DFC450 CCD. The epigyne was cleared in warm solution of potassium hydroxide (KOH), transferred to 75% alcohol for drawing. All

specimens studied are deposited in the Museum of Hebei University (MHB), Baoding, China.

All measurements given in the text are in millimeters. Carapace length was measured medially from the anterior margin to the rear margin of the carapace. Eye sizes were measured as the maximum diameter of the lens in dorsal or frontal view. MOA length was measured medially from the anterior margin to the rear margin of MOA. The leg measurements are given in the following sequence: total length (femur, patella + tibia, metatarsus, tarsus).

The following abbreviations are used: ALE, anterior lateral eye; ALE–PLE, distance between ALE and PLE; AME, anterior median eye; AME–ALE, distance between AME and ALE; AME–AME, distance between AMEs; ARP, anterior radical process; CO, copulatory opening; DMP, dorsal medial plate; DSA, distal suprategular apophysis; DTA, dorsal tibial apophysis; E, embolus; EM, embolic membrane; FD, fertilization duct; MOA, median ocular area; P, paracymbium; PLE, posterior lateral eye; PME, posterior median eye; PME–PLE, distance between PME and PLE; PME–PME, distance between PMEs; R, radix; S, spermathecae; ST, subtegulum; T, tegulum; VP, ventral plate.

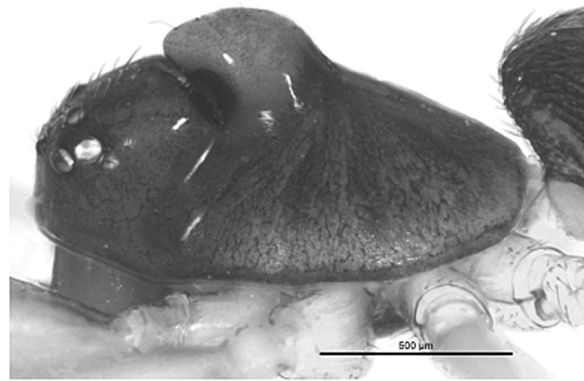
### Taxonomy

*Ummeliata xiaowutai* sp. nov.

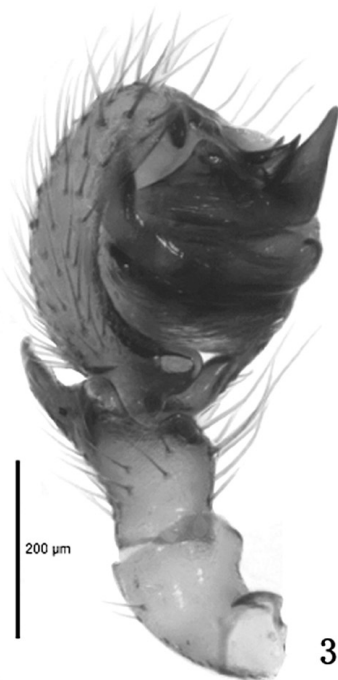
(Figs. 1–13)

**Type material.** Holotype male, Shanjiankou Forest Station, Xiaowutai Mountains, Yuxian County, Hebei Province, China (39°34'N, 114°53'E, alt. 1700–2000 m), 19 July 2012, F. Zhang leg. Paratypes: 3 females, same data as holotype.

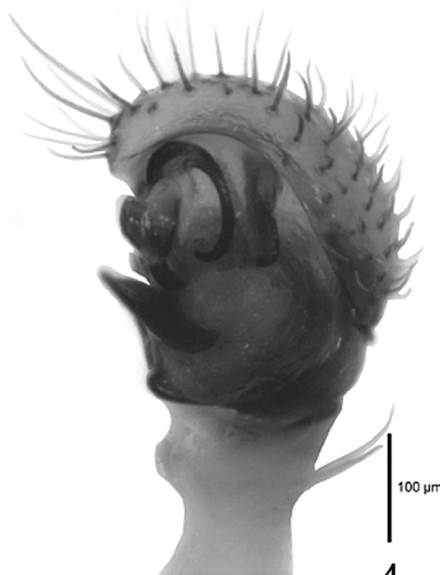
**Diagnosis.** The new species is similar to *Ummeliata*



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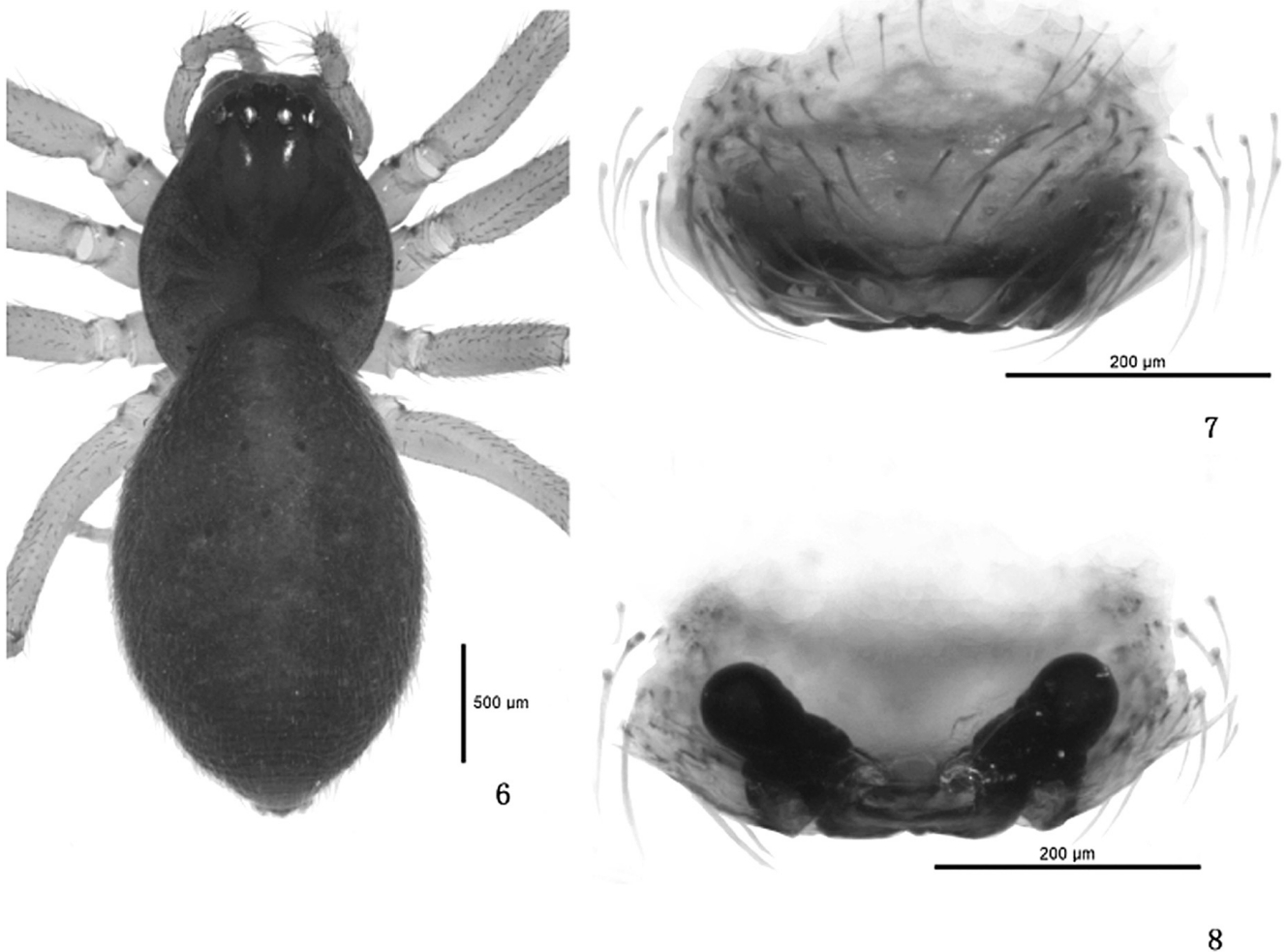
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**Figs. 1–5.** *Ummeliata xiaowutai* sp. nov., male holotype. 1, male habitus, dorsal view; 2, carapace, lateral view; 3, left palp, prolateral view; 4, same, ventral view; 5, same, retrolateral view.

*saitoi* Matsuda & Ono 2001 in appearance, but can be easily distinguished from the latter by: 1) the anterior margin of copulatory opening recurved medially (corrugated in *U. saitoi*); 2) the embolus thin, long and spiraling no more than one circle (short, no spiral and basal part thick in *U. saitoi*); 3) anterior radical process long, its tip reaching on the same

horizontal plane as the apex of cymbium from lateral view (short and its tip obviously lower than the apex of cymbium in *U. saitoi*); 4) the middle part of paracymbium with a small tooth-like process (smooth in *U. saitoi*).

**Etymology.** The specific name is a noun in apposition derived from the type locality.



**Figs. 6–8.** *Ummeliata xiaowutai* sp. nov., female paratype. 6, female habitus, dorsal view; 7, epigyne, ventral view; 8, vulva, dorsal view.

**Description.** *Male* (holotype). Body length 2.57. Carapace length 1.27, width 1.00; abdomen length 1.37, width 0.88. Clypeus height 0.16. Carapace dark yellowish brown; cephalic portion elevated into a large hump behind ocular area; deep groove lying before the hump (Figs. 1–2). Eyes with black surroundings; anterior eye row recurved, posterior eye row straight. Eye sizes and interdistances: ALE 0.08, PLE 0.06, AME 0.05, PME 0.08; AME–AME 0.03, AME–ALE 0.06, PME–PME 0.09, PME–PLE 0.08; MOA length 0.18, front width 0.13, back width 0.21. Chelicera dark yellowish brown, with a tooth-like process on front face; fang groove with five promarginal and four retromarginal teeth. Sternum darker than carapace. Leg formula: 4123. Length of legs: I 3.98 (1.17, 1.42, 0.86, 0.53), II 3.85 (1.11, 1.38, 0.81, 0.55), III 3.49 (1.01, 1.16, 0.83, 0.49), IV 4.58 (1.30, 1.57, 1.08, 0.63). Abdomen oval, black gray without pattern. Palp with a large dorsal tibial apophysis. Paracymbium bent, medially with a small process, distally with a thumb-like process. Embolus thin and spiraling no more than one circle (Figs. 3–5, 11–12).

*Female.* One specimen measured. Body length 3.07.

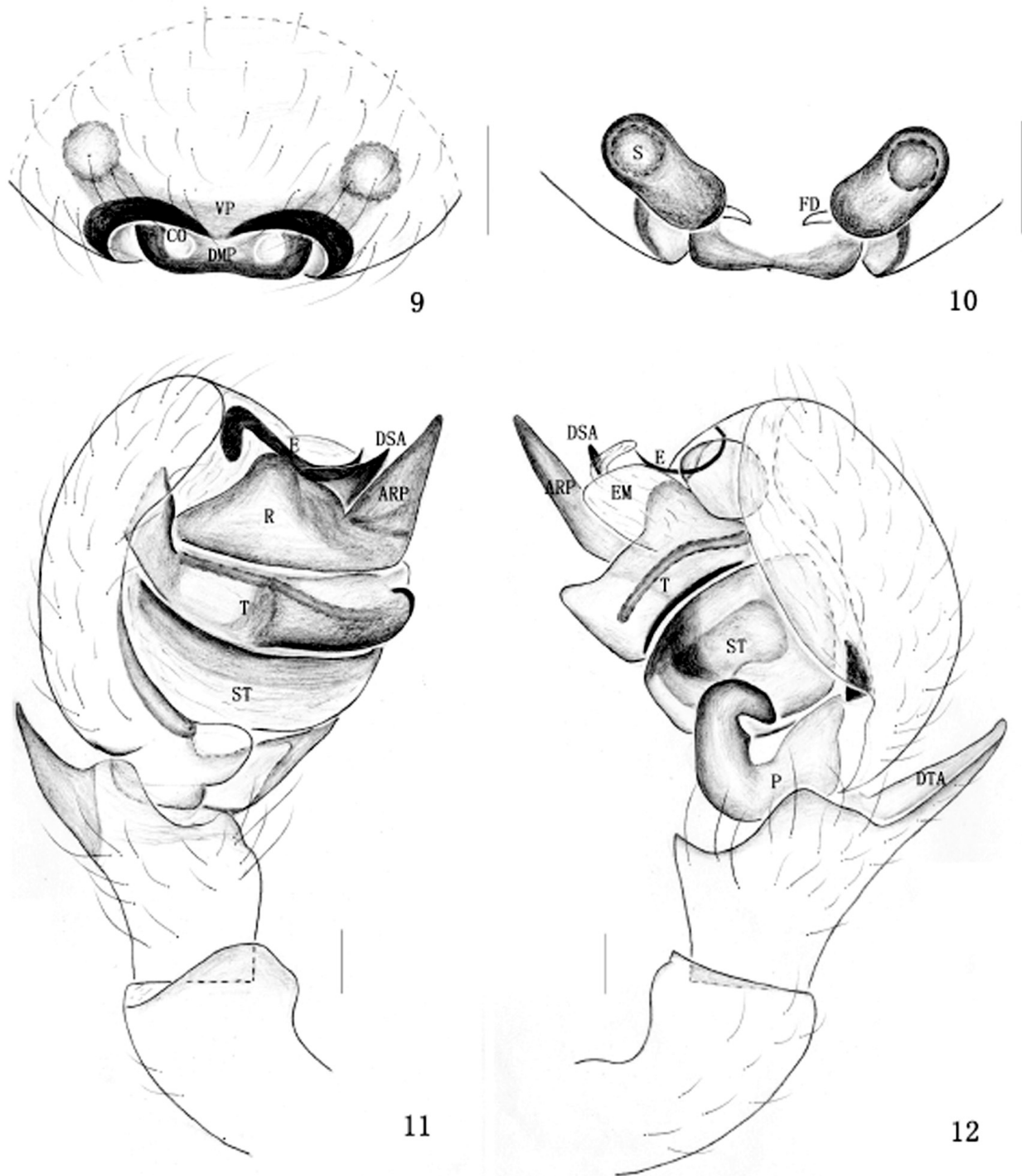
Carapace length 1.27, width 1.05; abdomen length 2.05, width 1.30. Clypeus height 0.15. Cephalic portion without hump (Fig. 6). Eye sizes and interdistances: ALE 0.08, PLE 0.07, AME 0.05, PME 0.08; AME–AME 0.04, AME–ALE 0.04, PME–PME 0.08, PME–PLE 0.06; MOA 0.21 long with front width 0.15 and back width 0.24. Chelicera without tooth-like process on front face. Leg formula: 4123. Length of legs: I 4.14 (1.16, 1.41, 0.96, 0.61), II 4.05 (1.15, 1.35, 0.94, 0.61), III 3.54 (1.08, 1.06, 0.85, 0.55), IV 4.56 (1.26, 1.47, 1.17, 0.66). Other somatic characters as in male (Fig. 6). Epigyne with an oblong dorsal medial plate, wider than long; copulatory openings depressed; spermathecae oval (Figs. 7–10).

**Variation.** Female total length ranges from 2.62 to 3.07.

**Distribution.** China (Hebei Province) (Fig. 13).

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**Figs. 9–12.** *Ummeliata xiaowutai* sp. nov. (9–10, female paratype; 11–12, male holotype). 9, epigyne, ventral view; 10, vulva, dorsal view; 11, left palp, prolateral view; 12, same, retrolateral view. Scales=0.1 mm (9–10); 0.05 mm (11–12). For abbreviations see text.

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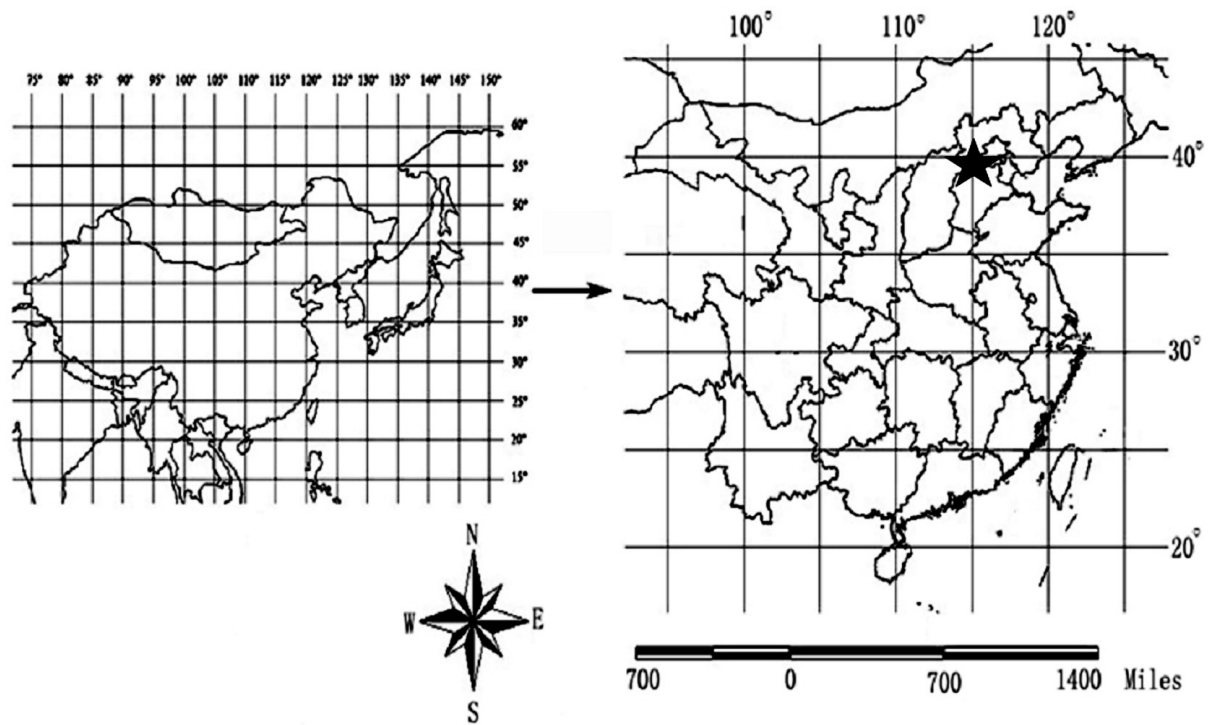


Fig. 13. The locality of *Ummeliata xiaowutai* sp. nov. in China.

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