

[Short Communication]

## A new species of the genus *Araneus* (Araneae: Araneidae) from China

Guang-xin Han and Ming-sheng Zhu

College of Life Sciences, Hebei University, Baoding, Hebei  
071002, China  
mingshengzhu@263.net

**Abstract** — A new species of *Araneus* spiders collected from Hainan Island, China, *A. octumaculatus* sp. nov., is described with detailed illustrations.

**Key words** — Araneae, Araneidae, *Araneus*, new species, China.

The genus *Araneus* was erected by Clerck (1757) with *A. angulatus* as the type species. Up to the present, 674 species have been recorded under *Araneus*, and of these 105 species occur in China (Platnick 2009).

Hainan Island is situated at the southernmost of China. During expeditions to Hainan, some araneid specimens were collected. One new species is recognized and accommodated to the genus *Araneus* in this paper.

Terminology is standard for the Araneae. The specimens were examined and illustrated under a Tech XTL-II stereomicroscope. The type specimens are deposited in the Museum of Hebei University, Hebei University, Baoding, China (MHBU).

Leg measurements are shown as: total length (femur, patella + tibia, metatarsus, tarsus). Abbreviations used in the text: AME = anterior median eye; ALE = anterior lateral eye; PME = posterior median eye; PLE = posterior lateral eye; TA = terminal apophysis; ST = subterminal apophysis; MA = median apophysis; PCY = paracymbium.

### Taxonomy

*Araneus octumaculatus* new species  
(Figs. 1–6)

**Type series.** Female holotype, 2 male paratypes: Bawangling Town, Changjiang County, Hainan Province, China, 19°04'N 109°08'E; November 8, 2008; Ming-Sheng Zhu and Guang-Xin Han leg. (in MHBU).

**Diagnosis.** This new species closely resembles *A. pentagrammicus* (Karsch, 1879), but can be distinguished from the latter by epigynal scape tapered toward tip, base of epigynum narrow in female, whereas scape with more or less parallel sides, base of epigynum wide in *A. pentagrammicus*; and by subterminal apophysis short and triangular, embolus with relatively wide distal end in male,

whereas subterminal apophysis long and lobate, embolus with relatively narrow distal end in *A. pentagrammicus*.

**Description.** Female holotype. Total length 7.05; carapace 2.95 long, 2.42 wide; abdomen 4.10 long, 3.42 wide. From dorsal view, anterior eye row recurved, posterior row slightly recurved. Eye sizes and interdistances: AME 0.14, ALE 0.11, PME 0.12, PLE 0.11; AME-AME 0.25, AME-ALE 0.35, PME-PME 0.12, PME-PLE 0.42, ALE-PLE adjacent. MOA 0.35 long, anterior width 0.47, posterior width 0.34. Carapace yellow, longer than wide, covered with setae in cephalic region. Clypeal height about AME diameter. Clypeus with 7 setae on anterior margin. Chelicera with 4 promarginal and 3 retromarginal teeth. Labium wider than long. Sternum longer than wide. Leg formula: 1243. Leg measurements: I 10.77 (3.05 + 3.63 + 2.89 + 1.20); II 9.09 (2.84 + 3.16 + 2.26 + 0.83); III 6.10 (2.26 + 1.81 + 1.25 + 0.78); IV 9.00 (2.75 + 3.10 + 2.30 + 0.85). Abdomen longer than wide, white with 4 pairs of brown sigilla, furnished with small setae. Venter yellow. Colulus large. Scape wrinkled, long, distal end extending beyond epigastric furrow.

Male (based on a paratype). Total length 5.21; carapace 2.63 long, 2.00 wide; abdomen 2.58 long, 1.63 wide. From dorsal view, anterior eye row recurved strongly, posterior row slightly recurved. Eye sizes and interdistances: AME 0.19, ALE 0.09, PME 0.13, PLE 0.09; AME-AME 0.13, AME-ALE 0.21, PME-PME 0.08, PME-PLE 0.26, ALE-PLE adjacent. MOA 0.33 long, anterior width 0.43, posterior width 0.32. Ocular area narrow with setae, projecting forward. Clypeal height low, shorter than AME diameter. Chelicera with 4 promarginal and 3 retromarginal teeth. Leg with many spines. Leg formula: 1243. Leg measurements: I 10.42 (2.95 + 3.37 + 2.95 + 1.15); II 8.81 (2.58 + 2.84 + 2.42 + 0.97); III 4.90 (1.74 + 1.43 + 1.15 + 0.58); IV 7.42 (2.23 + 2.40 + 2.09 + 0.70). Abdomen longer than wide, white with 4 pairs of brown sigilla and 6 pairs of black spots, middle with brown dendriform marking. Other characteristics same as those in female. Palp: patella with 2 strong spines; tibia expanded, wider than long; subterminal apophysis quadrate at the top; the middle of median apophysis bears transverse wrinkle; paracymbium inverse boot-shaped.

**Variation** of total length. 1♂ other than that above mentioned: 6.42.

**Distribution.** China (Hainan).

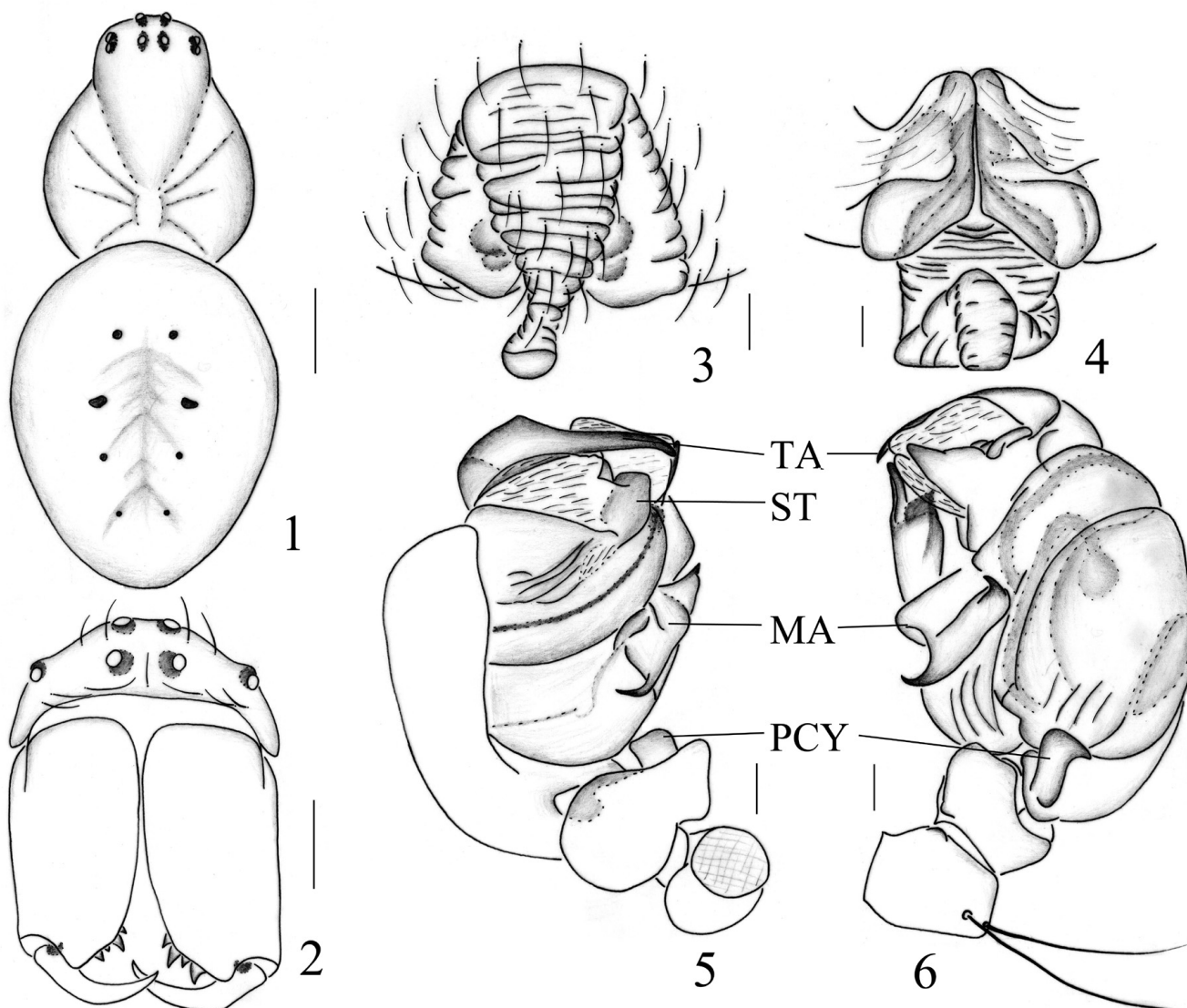
**Etymology.** The specific name *octumaculatus* refers to the 4 pairs of brown sigilla of abdomen.

### Acknowledgments

This work was supported by the Ministry of Science and Technology of the People's Republic of China (2006FY110500-3).

### References

- Clerck, C. 1757. Svenska spindlar, uti sina hufvud-slågter indelte samt under några och sextio särskildte arter beskrefne och med illuminerade figurer uplyste. Stockholmiae, 154 pp.



**Figs. 1–6.** *Araneus octumaculatus* n. sp. — 1, body of female, dorsal view; 2, cephalic portion and chelicera, front view; 3, epigynum, ventral view; 4, same, dorsal view; 5, male palp, prolateral view; 6, same, retrolateral view. (Scales: 1=1.0 mm, 2=0.5 mm, 3–6=0.1 mm.)

Received

Platnick, N. I. 2009. The world spider catalog, version 9.5. American Museum of Natural History, online at <http://research.amnh.org/entomology/spiders/catalog/index.html>.

Tanikawa, A. 2001. Twelve new species and one newly recorded species of the spider genus *Araneus* (Araneae: Araneidae) from Japan. *Acta Arachnol.*, 50: 63–86.

Tanikawa, A. 2007. An identification guide to the Japanese spiders of the families Araneidae, Nephilidae and Tetragnathidae.

Arachnological Society of Japan, 121 pp.

Yin, C. M., Wang J. F., Zhu M. S., Xie L. P., Peng X. J. & Bao Y. H., 1997. *Fauna Sinica: Arachnida: Araneae: Araneidae*. Science Press, Beijing, 460 pp.

Received April 27, 2009 / Accepted September 13, 2009