

## First description of the female of *Echinax panache* Deeleman-Reinhold, 2001 (Aranei: Corinnidae: Castianeirinae)

### Первое описание самки *Echinax panache* Deeleman-Reinhold, 2001 (Aranei: Corinnidae: Castianeirinae)

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**ABSTRACT.** The female of *Echinax panache* Deeleman-Reinhold, 2001 is described for the first time. Diagnostic figures for *E. panache* and sibling *E. oxyopoides* (Deeleman-Reinhold, 1995) are provided.

**РЕЗЮМЕ.** Приведено иллюстрированное описание ранее неизвестной самки *Echinax panache* Deeleman-Reinhold, 2001 и даны диагностические рисунки двух близких видов *E. panache* и *E. oxyopoides* (Deeleman-Reinhold, 1995).

*Echinax* Deeleman-Reinhold, 2001 is one of few non-ant mimicking Castianeirinae genera. It was recently established for *Copa oxyopodes* Deeleman-Reinhold, 1995 (Central Kalimantan and northern Sumatra) as the type species and three additional species *C. bosmansii* Deeleman-Reinhold, 1995 (northern Sulawesi), *C. javana* Deeleman-Reinhold, 1995 (East Java) and new species *E. panache* Deeleman-Reinhold, 2001 (northern Thailand) [Deeleman-Reinhold, 2001]. Soon after *E. oxyopoides* and *E. panache* were found in south China, Yunnan, as well as a new species, *E. anlongensis* Yang, Song & Zhu, 2004, from Guizhou Province [Yang et al., 2004]. Five species of *Echinax* now known [Platnick, 2008].

An extensive survey of spider fauna from Xishuangbanna rainforest in south Yunnan over a period of one year (June 2006 – August 2007) using various collection techniques, i.e., fogging, pitfall traps, trunk traps and direct searching, brought large and diverse material. Among the spiders collected were more than a dozen males and females of *Echinax*. Males were easily identified as *E. panache* because of a specific

pattern, the characteristic shape of the male palp, and especially thick macrosetae (spines) on the cymbium. Because all the males belong to one species, and because the females have no variation in epigyne and are identical to the body pattern of males, we came to conclusion that these females belong to *E. panache*, whose females were not previously known. Therefore goals of this paper were first to describe the female and to redescribe the male. When epigyne of this species was studied, we recognized that females illustrated by Yang et al. [2004] as *E. oxyopoides* in fact belong to *E. panache*. At present, only two species of *Echinax* are known in China.

#### *Echinax panache* Deeleman-Reinhold, 2001 Figs 1–9.

*E. p.* Deeleman-Reinhold, 2001: 365, f. 569–571 (D♂).

*E. p.*: Yang et al., 2004: 68, f. 2A–C (♂).

*E. oxyopoides*: Yang et al., 2004: 67, f. 1A–E (♀) [misidentification].

**MATERIAL.** Over 30 ♂♂ and ♀♀, China, Yunnan Province, Menglun Nature Reserve, 744 m, 21°57' N, 101°13' E; Xishuangbanna rainforest, 1 August, 2006 to 31 July, 2007 (G.Zheng and Z.Chen).

**DESCRIPTION.** Female. Total length 5.3. Carapace: 2.3 long, 1.88 wide. AME – 0.14. ALE – 0.10, PME – 0.11, PLE – 0.12. carapace yellow, with dark marginal stripes surrounded by light brown band formed by hairs, and dark long median stripe in posterior half. Two long light brown bands (formed by hairs) lying behind lateral eyes and two short coinciding light brown bands lying behind posterior median eyes. Width of light brown bands slightly thinner than submarginal light band. Abdomen yellow with brown — light brown pattern. Heart mark light, surrounded by dark band, heart mark is broken by transverse band. Anterior part of heart mark with most dark small spot. Legs yellow with

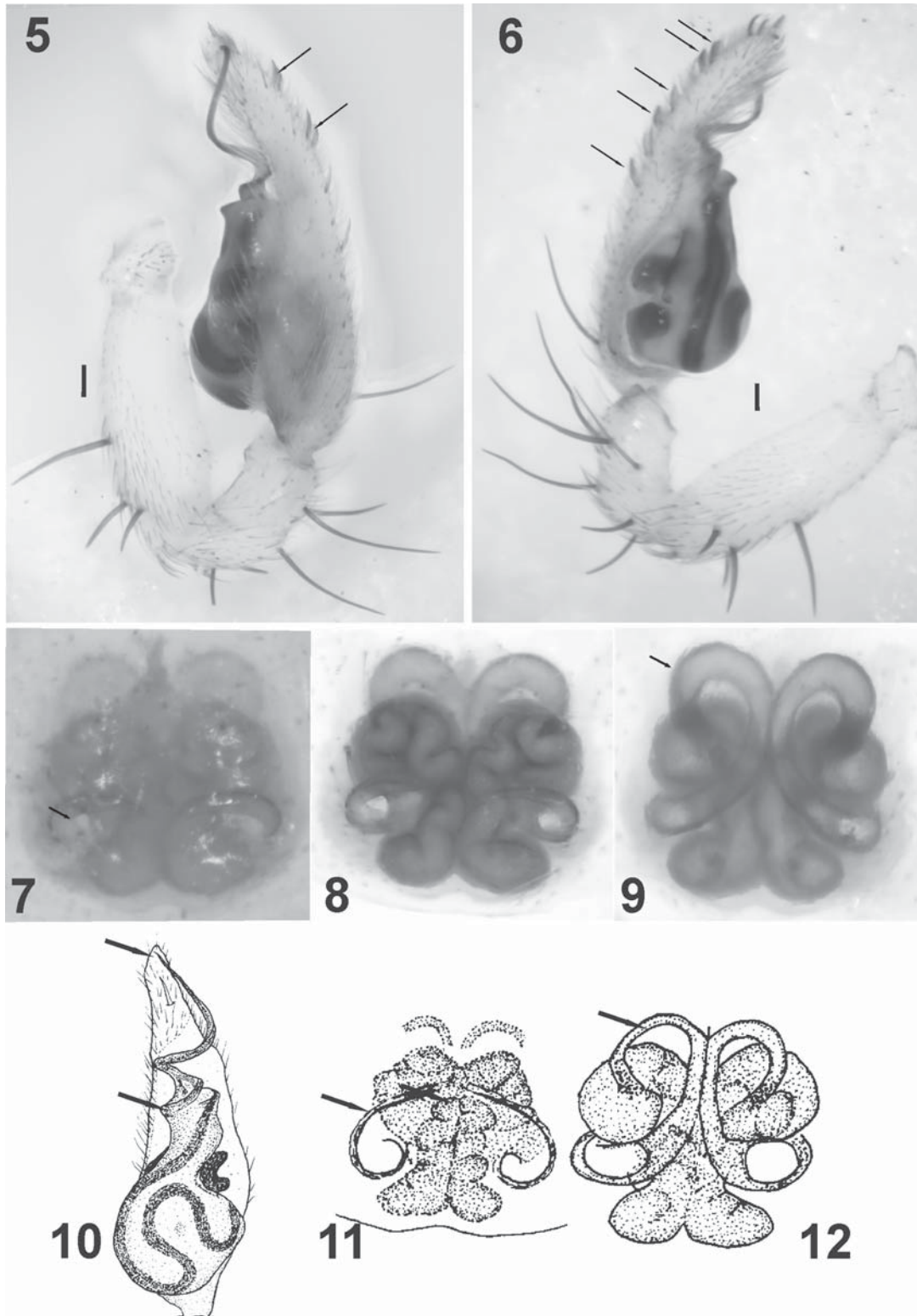


Figs 1–4. Male of *Echinax panache*. 1–2 — palp, ventral, different turns; 3 — habitus, dorsal; 4 — habitus, frontal. Scale: 1–2 — 0.1 mm, 3 — 1.0 mm. Arrows indicate differences between two species (cf. Figs 1–2 and 10).

Рис. 1–4. Самец *Echinax panache*. 1–2 — палпа, снизу, под разным углом; 3 — габитус, сверху; 4 — габитус, спереди. Масштаб: 1–2 — 0,1 мм, 3 — 1,0 мм. Стрелки указывают на отличительные признаки двух видов (ср. рис. 1–2 и 10).

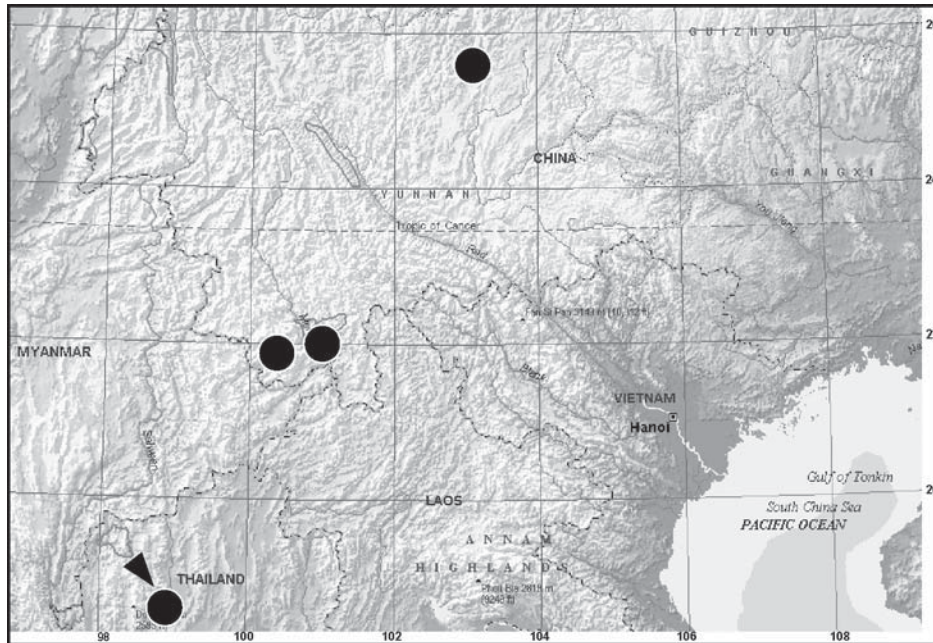
few dorsal spots and rings Femora with 3 dorsal spines, femora I–III with 2 prolateral and 2 retrolateral spines, femur IV with 2 prolateral and 1 retrolateral spines. Spines present

on all legs joint except tarsi, their length exceed diameter of joints. Epigyne as in Figs 7–9, as long as wide, with two separate copulatory openings laced in basal 1/3 of epigynal



Figs 5–12. Copulatory organs of *Echinax panache* (5–9) and *E. oxyopoides* (10–12). 5 — male palp, retrolateral; 6 — male palp, prolateral; 7, 11 — epigyne, ventral; 8 — epigyne after maceration, ventral; 9, 12 — epigyne, after maceration, dorsal. Scale in Figs 5–6 — 0.1 mm. Figs 10–12 after Deeleman-Reinhold (2001). Arrows indicate flattened spines on cymbium, and differences between two species.

Рис. 5–12. Копулятивные органы *Echinax panache* (5–9) и *E. oxyopoides* (10–12). 5 — палпа самца, ретролатерально; 6 — палпа самца, пролатерально; 7, 11 — эпигина, снизу; 8 — эпигина после мацерации, снизу; 9, 12 — эпигина после мацерации, сверху. Масштаб на рис. 5–6 — 0,1 мм. Рис. 10–12 по Deeleman-Reinhold (2001). Стрелки показывают уплощенные шипики цимбума (5–6) и на отличительные признаки двух видов.



Map. Distribution records of *Echinax panache*. Triangle shows type locality.

Карта. Точки находок *Echinax panache*. Треугольник показывает типовое местообитание.

plate. Openings with sickle-shaped apical pocket. Edogyne formed by thin transparent insemination ducts and C-shaped receptacula, upper arm is larger than down. Receptaculum with long convoluted duct resembling a human brain's convolutions.

Leg joints length (♀).

	Femur	Patella	Tibia	Metatarsus	Tarsus
I	2.0	0.7	1.63	1.45	0.75
II	1.88	0.7	1.5	1.38	0.78
III	1.63	0.7	1.45	1.5	0.78
IV	2.25	0.8	2.83	2.3	0.8

Male. Total length 4.5. Carapace: 2.0 long, 1.58 wide. Coloration of male same as in female, but light-brown bands wider. Anterior half of abdomen with distinct lateral dark stripes.

Palp as in Figs 1–2, 5–6. Femur with 2 dorsal, 1 retro- and 1 prolateral spines, femur about 1.5 time shorter than cymbium. Patella short with 2 dorsal spines and 1 prolateral. Tibia short, equal in length to patella, with one dorsal and 2 prolateral spines. Tibial spines 2 times exceed diameter of tibia. Cymbium with one strong prolateral basal spine, and set of 7 dark flattened short dorsal spines arranged in 3 pars + one unpaired spine. Flattened spines easily lost. Bulbus typical for Castianeirinae, embolus makes two turns, apical turn two times higher than basal.

Leg joints length (♂).

	Femur	Patella	Tibia	Metatarsus	Tarsus
I	1.75	0.55	1.43	1.38	0.7
II	1.73	0.54	1.43	1.38	0.7
III	1.55	0.63	1.3	1.38	0.7
IV	1.88	0.6	1.75	1.88	0.78

DIAGNOSIS. *E. panache* is very similar to *E. oxyopoides* (Figs 10–12). Two species can be separated by body pattern and by the shape of copulatory organs. Male palp of

*E. oxyopoides* has no flattened scales-spines on cymbium, has longer seminal duct, upper turn of which is not straight (straight in *E. panache*), and shorter apical turn of embolus. Upper turn of embolus of *E. panache* is round, while in *E. oxyopoides* it is straight. Female of *E. oxyopoides* has thinner and shorter insemination ducts and larger pockets.

COMMENTS. Because of similarity of females of two species, *E. oxyopoides* and *E. panache*, females of the latter species found in Yunnan were misidentified by Yang et al. [2004]. Specimens recorded by Yang et al. [2004] have been restudied.

DISTRIBUTION. So far this species is known from the northern Thailand and three localities in Yunnan Province of China (Map).

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