A new species of Australomymar (Hymenoptera: Mymaridae), with a key to species

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1. Introduction
The genus Australomymar Girault was established with A. aurigerum as the type species (Girault, 1929) and was redescribed by Annecke and Doultt (1961) and New (1974). Narendran et al. (2003) described A. formosum from India as the first record of Australomymar from the Oriental region. Viggiani (2003) described the male genitalia from a species from Chile. Lin et al. (2007) synonymized Nesetaerus Doultt and transferred the only included species, A. gressitti (Doultt), to Australomymar. They also transferred A. incerta (Girault) from Polynemoidea Girault to Australomymar. Narendran and Anjana (2013) described a fifth species, A. vietnamicum, and provided a key to all the species.

Currently, the genus contains 6 described species: 2 from Australia, 1 from Micronesia, 1 from India, 1 from Vietnam, and the new species described below from China. Five species are keyed, based on information extracted from their original descriptions or redescriptions. The sixth species of Australomymar, A. incerta (Girault), is known only from a male, and so it is not included in the key.

2. Materials and methods
The single specimen was dissected and mounted in Canada balsam on a slide following the method described by Noyes (1982) and modified for Mymaridae by Huber (1988).

Morphological terms follow Gibson (1997) and Huber (2012). All measurements are given in micrometers. The following abbreviations are used in the text:

YPT: Yellow pan trap.
OOL: Ocular–ocellar length.
POL: Postocellar length.

Mps: Multiporous plate sensilla.
Fl₁: Funicle segment.

The type specimen is deposited at Northeast Forestry University (NEFU), Harbin, China.

3. Results and discussion
Key to world species of Australomymar Girault (females) (Based on the key of Narendran and Anjana, 2013)

1. Fl₁ shorter than pedicel; exerted part of ovipositor sheath shorter than gaster .................. A. gressitti (Doultt)
2. Fl₁ longer than pedicel; exerted part of ovipositor sheath longer than gaster ................................. 2
3. Forewing with diagonal setal line absent; ovipositor sheath at most about 1.9× as long as gaster .................. A. aurigerum Girault
4. Forewing with diagonal setal line present; ovipositor sheath at least 2.5× as long as gaster ................................. 4
5. Metatibia with conspicuous setae on outer margin, the longest seta 2.5× as long as width of metatibia; clava slightly less than 4× as long as Fl₆ .... A. aurigerum Girault
6. Metatibia without such conspicuous setae on outer margin; clava about 2× as long as Fl₆ ................................. A. yunnanensis Jin & Li, sp. nov.
7. Forewing with 2 transverse brown bands; scape 5.4× as long as wide; face with a line of 3 setae on each inner side of antennal torulus .............................................. A. vietnamicum Narendran & Anjana
8. Forewing without any brownish band; scape about 10× as long as wide; face with a line of 4 setae on each inner side of antennal torulus .............................................. A. formosum Narendran & Hayat

Australomymar yunnanensis Jin & Li, sp. nov. (Figure 1)
Type material: Holotype ♀ (NEFU), China, Yunnan Province, Mannanxing, 11–13.I.2013. Huilin Han and Ye Chen, YPT.

Description: FEMALE. Color. Head almost black. Antenna yellowish-brown with clava brown and basal part of radicle dark brown. Mesosoma yellowish with anterior part of midlobe of mesoscutum, lateral sides of lateral lobes, sutures of sclerites, and anterior lateral part of propodeum brown, and posterior part of propodeum light yellow. Wings uniformly infumate; forewing with a diagonal brown fold extending from apex of the stigmal vein to posterior margin of wing. Legs light brownish yellow except for a small spot on extreme base of tibia and tip of last tarsus of all legs, and about basal half of metacoxa brown to dark brown. Metasoma dark brown, except for a large spot on middle of back; second valvifer yellow and ovipositor sheaths yellowish brown.

Head (Figure 1A). In anterior view 1.35× as wide as long, in dorsal view 1.67× as wide as long. Eye without

Figure 1. Australomyrmex yunnanensis sp. nov. (female): A) head (anterior view); B) antenna; C) mesosoma (except pronotum); D) wings; E) legs; F) metasoma (lateral view). Scale bars: 0.1 mm
setae. POL 1.5× OOL. Vertex with faint reticulate sculpture. Face with 2 pairs of setae between the toruli and 16–17 setae below the toruli.

Antenna (Figure 1B). Radicle about 6.11× as long as wide; scape about 1.67× as long as radicle, and about 6.13× as long as wide; pedicel longitudinally striate, about 2× as long as wide; fl1, the shortest funicular segment, about 0.6× as long as fl2, without mps; fl2, the longest funicular segment, with 1 mps; fl3 about 0.84× as long as fl2; fl4 about 0.72× as long as fl2; fl3–6 each with 2 mps; clava about 2.79× as long as wide, and about 2.17× as long as fl3, with 7 mps.

Mesosoma (Figure 1C). Pronotum reduced to a small band, not visible dorsally. Mesoscutum about 0.76× as long as wide. Midlobe of mesoscutum with strong reticulate sculpture in anterior one-fourth and with faint reticulate sculpture in posterior three fourths, with 1 pair of adnotaular setae; lateral lobes each with 1 seta. Scutellum about 0.86× as long as mesoscutum, scutellum with faint reticulate sculpture; distance between placoid sensilla slightly greater than 2× their own diameter; frenum with strong reticulate sculpture, slightly longer than those on scutellum. Propodeum shorter than scutellum, with curved submedian carinae and 2 pairs of propodeal setae, the anterior setae longer than the posterior setae.

Wings (Figure 1D). Forewing about 3.59× as long as wide, with venation about 0.57× wing length. Longest marginal seta about 0.3× as long as the maximum width of wing. Hindwing about 20× as long as wide, longest marginal seta about 3× as long as maximum width of wing.

Legs (Figure 1E). Metatibia without conspicuous setae on outer margin.

Metasoma (Figure 1F). Ovipositor sheath about 1.75× as long as gaster.

Measurements: Body: 1220; head: 347; mesosoma: 450; metasoma: 602; ovipositor sheath: 1050. Antenna: radicle: 138; scape: 231; pedicel: 75; fl1; 75; fl2; 126; fl3; 105; fl4; 100; fl5; 100; fl6; 90; clava: 196. Forewing: 1493: 416. Hindwing: 1105: 55.

MALE. Unknown.

Distribution: Only known from the type locality, Yunnan, China.

Host: Unknown.

Etymology: The specific name is derived from the type locality.

Comments. Doutt (1973) illustrated the forewing of Australian species *A. incerta* (Girault, 1938). It appears to lack a diagonal fold and row of setae. If the female is similar in this feature then it could be separated from the species keyed above by this feature.

The original description of *formosum* contains several errors. In contrast to what was stated by the authors of that species, *Australomymar* species have an entire frenum. All *Australomymar* (and probably all Mymaridae) have mps on the clava and an area of shorter and denser setae on the underside of the female clava, and there is only one pair of setae on the midlobe of the mesoscutum.

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References


