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A new species of ant mimicking spider, *Myrmecotypus jasmineae* (Araneae: Corinnidae: Castianeirinae), from Nicaragua

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Spiders of the corinnid genus *Myrmecotypus* Pickard-Cambridge, 1894 are known for being morphological and behavioral mimics of ants (Reiskind 1969, 1977; Cushing 1997, 2012; Rubio & Arbino 2009; Rubio *et al.* 2013). This genus currently includes nine species from to the New World. They occur from the United States (one species) to Argentina (one species), but most (seven species) occur from Mexico to Panama (Reiskind 1969; Rubio & Arbino 2009, Platnick 2014). A new species, *M. jasmineae*, from Nicaragua is described here from two males. A key to males and females of *Myrmecotypus*, adapted from Reiskind (1969), is modified to include all of the known species.

Materials and methods

Descriptions and terminology mostly follow Reiskind (1969). All specimens were illustrated, examined and measured using Olympus SZ60 and Zeiss Stereo Discovery V8 stereo microscopes equipped with ocular micrometers. Images were taken using a Visionary Digital BK Plus system (www.visionarydigital.com, R. Larimer). Several ratios used provide an index of shape including the following: cephalic index = cephalic width / carapace width × 100; carapace index = carapace width / carapace length × 100; sternum index = sternum width / sternum length × 100; abdominal index = abdominal width / abdominal length × 100. A high cephalic index represents a wide cephalic region and helps to distinguish *Myrmecotypus* from other corinnid genera (Reiskind 1969). The remaining ratios probably represent morphologic adaptation to ant mimicry since ants typically exhibit a thinner, more elongate body than do spiders (Reiskind 1969, 1970; Rubio *et al.* 2013). Cephalic width was measured as the distance across the dorsal carapace at the level of the posterior eye row. All leg and pedipalp measurements were taken from left appendages and measured with the leg in lateral aspect. Leg length is reported in the text as: total length (coxa, trochanter, femur, patella, tibia, metatarsus, tarsus). Pedipalp length denoted as: total length (trochanter, femur, patella, tibia, tarsus). Tibia I ventral spination is denoted by two numbers, the first the number of prolateral ventral spines and the second the number of retrolateral ventral spines. Abbreviations used in the text and figures are: AAS = anterior abdominal setae; AER = anterior eye row; ALE = anterior lateral eyes; AME = anterior median eyes; DS = dorsal sclerite; Em = embolus; ES = epigastric sclerite; ImS = inframamillary sclerite; PAS = posterior abdominal setae; PER = posterior eye row; PLE = posterior lateral eyes; PME = posterior median eyes; RTA = retrolateral tibial apophysis; VS = ventral sclerite. All measurements reported in millimeters. The holotype and paratype are deposited in the Museum of Southwestern Biology, University of New Mexico (MSBA, K.B. Miller, curator).

Corinnidae Karsch, 1880

Myrmecotypus O. Pickard-Cambridge, 1894

Myrmecotypus O. Pickard-Cambridge, 1894: 123; Reiskind, 1969: 270.

Type species by monotypy: *Myrmecotypus fuliginosus* O. Pickard-Cambridge, 1894.

Diagnosis. *Myrmecotypus* can be distinguished from other corinnid genera by: (1) the absence of a thoracic groove, (2) a narrowed carapace (carapace index less than 60), (3) wide cephalic region (cephalic index range 64–89), (4) PER nearly

- near lateral edge (Reiskind 1969, figs 258–261, 289) (Panama) *M. olympus*
- 4b. Dark brown-black carapace in both males and females; male with short pointed embolus, base of cymbium without spines (Reiskind 1969, figs 253–257, 288) (Panama) *M. orpheus*
- 5a. Large (carapace length 5.15–5.75 mm) with a longitudinal row of erect, dense hairs on thoracic region; male genital bulb globose, with thick neck distally twisted, terminating in a single small pointed embolus, no conductor evident; female epigynum ventrally with horizontal sclerotized ridge, two lateral openings, dorsally spermathecae moderately globose (Reiskind 1969, figs 262–265, 287) (Panama) *M. rettenmeyeri*
- 5b. Smaller (carapace length 2.45–2.65 mm); male genital bulb globose, with thick neck terminating in two structures, a straight embolus and a hooked conductor; female epigynum ventrally with two flared openings, dorsally with long globose spermathecae (Reiskind 1969, figs 241–244, 286) (Panama) *M. niger*
- 6a. Coxa II light yellow-white, rest of coxae dark 7
- 6b. Coxae II and III much lighter than coxae I and IV (Figs 1 A–C, 2 D–F) 8
- 7a. Large (carapace length 3.16–5.06 mm) male pedipalp with short blunt RTA, genital bulb globose with long neck terminating with a small, twisted embolus (Rubio & Arbino, 2009, figs 1–10) (Argentina) *M. iguazu*
- 7b. Smaller (carapace length 2.30–2.95 mm) male pedipalp without RTA, genital bulb globose with thick neck, terminating with a spiraled embolus (Reiskind, 1969, figs 245–248) (Mexico to Panama) *M. pilosus*
- 8a. Tibia I ventral spination 3–2; chelicerae with two promarginal teeth and a small promarginal denticle; female unknown (Nicaragua) *M. jasmineae*
- 8b. Tibia I ventral spination 3–3; chelicerae with two promarginal teeth, never a denticle; male unknown 9
- 9a. Female epigynum ventrally with small lateral openings at the edge of a horizontal lip, dorsally with two globose spermathecae, with wide posteriorly extending necks (Reiskind, 1969, figs 251–252) (Mexico) *M. fuliginosus*
- 9b. Female epigynum ventrally with two large flared openings, dorsally with two, slightly, globose spermathecae with thin posterior necks (Reiskind, 1969, figs 249–250) (Panama) *M. lineatipes*

Checklist of valid species of *Myrmecotypus*

- Myrmecotypus fuliginosus* O. Pickard-Cambridge, 1894; Mexico.
Myrmecotypus iguazu Rubio & Arbino, 2009; Argentina.
Myrmecotypus jasmineae, **sp. n.**; Nicaragua.
Myrmecotypus lineatipes Chickering, 1937; Panama.
Myrmecotypus lineatus (Emerton, 1909); U.S.A.
Myrmecotypus niger Chickering, 1937; Panama.
Myrmecotypus olympus Reiskind, 1969; Panama.
Myrmecotypus orpheus Reiskind, 1969; Panama.
Myrmecotypus pilosus (O. Pickard-Cambridge, 1898); Mexico to Panama.
Myrmecotypus rettenmeyeri Unzicker, 1965; Panama.

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