

Myrmecaria ants of Asia

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In Asia, the existence of this clumsy walking ant stretched from Pakistan in the west to the the Moluccan archipelago (Batjan Island) in the east. The genus also exists in Afrotropical region except the Malagasy. When it was first established in 1842 by Saunders, the genus was based on a male specimen of *Myrmecaria brunnea* from India. The genus was of course recognized as *Myrmecaria* then. Few years later, Smith (1857) created two new genera, *Physatta* and *Heptocondylus*. Eventually Smith (1865) combined the three genera into one genus known until now as *Myrmecaria*. The genus *Myrmecaria* was earlier confused with *Physatta* and *Heptacondylus* due to its different antennal segment number. The male of *Myrmecaria* possess 13 antennal segments while the females possess 7 antennal segments.

In 1925, Santschi revised the genus mainly for the African ones. He also presented identification key to Indo-Australian fauna in the same work. However, the revision was considered "out of date" by Bolton in 1995. The genus was left unrevised for over fifty years when we started to collect the ants in various places in Sabah. Working together with Prof. Yamane from Kagoshima University with his rich *Myrmecaria* collection, our collection grew and more specimens were gathered from friends and colleagues from around the world over four years.

We now have clearer pictures of the genus. As suggested by Emery (1922), further clear evidence that we have found support that *Myrmecaria* can be divided into two species groups. *Arachnoides* species group *Myrmecaria* are mainly slender bodied members of *Myrmecaria* that exclusively build their polygynous (multi nest colony) on the underside of leaf surface on trees. To date, six species have been identified under this species group with one new to science. The species are *M. adpressipilosa*, *M. arachnoides*, *M. birmana*, *M. lutea*, *M. maryatiae* sp. nov. and *M. melanogaster*.



M. ampla sp. nov. (*brunnea* species group)



M. maryatiae sp. nov. (*arachnoides* species group)

The second species group is the *brunnea* species group. Members of this group are generally larger in size. They build huge nests and galleries under the ground. Sixteen species have been recognized so far with 9 species new to science. The species are *M. ampla* sp. nov., *M. bicolor* sp. nov., *M. borneensis* sp. nov., *M. carinata*, *M. densistriata*, *M. flava*, *M. gagatina*, *M. gibbosa*, *M. makilingensis* sp. nov., *M. pseudoflava* sp. nov., *M. rugosa*, *M. subcarinata*, *M. vidua*, *M. BC05*, *M. BC06* and *M. BC07*.

Most of the new species are awaiting publication. It may take a few more years before a complete revision is published. Meanwhile, *Myrmecaria* collection in BORNEENSIS is now being fully organized and updated.



Nest of *M. maryatiae* sp. nov. (*arachnoides* species group) on the underside of leaf surfaces.



Nest of *M. pseudoflava* sp. nov. (*brunnea* species group)