

THE FIRST MYRMECOPHYTIC 2-PARTNER-SYSTEM IN THE GENUS *MACARANGA*: THE ASSOCIATION BETWEEN *MACARANGA PUNCTICULATA* AND A *CAMPONOTUS (COLOBOPSIS)* IN MALAYSIA

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In Peninsular Malaysia two myrmecophytic *Macaranga* species (Euphorbiaceae) exclusively occur in peat swamp forests: *Macaranga pruinosa* and *M. puncticulata*. *M. pruinosa* is associated with specific *Crematogaster* ants. Probably two similar *Crematogaster* species are involved, which can only be distinguished by morphometric characters of the queen ants. The ants feed on food bodies mainly provided on the stipules of the plants and in addition cultivate trophobiotic coccids in stem domatia. Thus, the association represents a three-partner-system. In the syntopic species *M. puncticulata*, we discovered a fully different myrmecophytic system. 65% of all *M. puncticulata* were inhabited by an as yet undescribed *Camponotus (Colobopsis)* of the *saundersi*-species group. Colonization of *M. puncticulata* was (contrary to *M. pruinosa*) restricted to shady forest sites. The high percentage of colonization as well as the mode of colony foundation indicate an obligatory association between the two species. Colonies are founded by queen ants which search for young host plants and chew entrance holes into the hollow stem domatia. The plants also provide food bodies and in addition offer nectar from glands situated along the whole leaf margin. In contrast to the so far investigated *Crematogaster* ants in *Macaranga*, *Colobopsis sp.* does not cultivate any trophobionts. This association is therefore the first record of a two-partner *Macaranga* myrmecophytic system. It also differs from *Macaranga-Crematogaster* in other characters e.g. large colonies may inhabit several neighbouring trees polydomously. The workers also collect insects as protein supplement, thus leaving their plants for foraging. Despite the differences, *Colobopsis sp.* fulfils the same protective role as already described for *Macaranga-Crematogaster*-associations.

References

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