

During our comparative studies on the systematics and behavioural ecology of this genus we observed two species which have rather unusual life habits: they are restricted to bamboo plants as habitat and live in a tight trophobiosis with homopterans which they cultivate in silk pavilions. The two species, *Polyrhachis arachne* Emery 1896 and *Polyrhachis hodgsoni* FOREL 1902, form the *arachne* species-group. They belong to the subgenus *Myrmhophla*, which is characterized by a lack of margination on the sides of the thorax and by spines on thorax and petiole (a revision of the subgenus is in preparation by the senior author). Both species have hooklike spines on the propodeum. The gaster of *P. arachne* is smooth and shiny black, that of *P. hodgsoni* dull and somewhat pubescent.

Little is known about the distribution of the two species. Very few geographic records are given in the literature; a few more have been added after our identification of hitherto undetermined museum material. *P. arachne* is now known from Burma: Karen Hills, Tenasserim; Ruby Mines, Upper Burma; Shan States; Thailand: Bandon; Malaysia: Tapah Mountains, Perak; Kepong, Selangor; Ulu Gombak, Selangor; Genting Highlands, Selangor; Indonesia: Panti, Sumatra; Buitenzorg, Java; Palabuan, Java (Holotype) (ANDRE, 1896; BINGHAM, 1903; EMERY, 1896; FOREL, 1911; KARAVAEV, 1928).

P. hodgsoni had been known only from Burma: Moulmain (Holotype); Yunzalin River, Tenasserim; Papun (BINGHAM, 1903; FOREL, 1902), until we found it in Malaysia: Ulu Gombak, Selangor.

MATERIALS AND METHODS

We studied 18 colonies of *P. arachne* and 6 of *P. hodgsoni* in West Malaysia. For evaluating the colony structure, nests and pavilions were put into plastic bags and the ants were narcotized with Enfluran. After censusing the ants were released at their original nest plant where the colonies soon resettled. Because the ants are polydomous it was impossible in many cases to determine whether or not a whole colony had been collected. But for each species at least one isolated colony could be censused completely.

RESULTS

Plant specificity

We collected several hundreds of nests of *Polyrhachis* species, mostly on various trees and shrubs, including palms and ginger plants, which highly resemble bamboo in leaf shape, but we never observed any kind of plant specificity in a *Polyrhachis* species except in the *arachne*-group, where the two species were restricted to broad-leaved species of bamboo (*Gigantochloa scortechinii* Gamble 1896, *Schizostachyum* sp.).