SHORTER NOTES

Ant-Fern Association in *Microgramma megalophylla*.—Association with ants in the genus *Microgramma* C.Presl (Polypodiaceae) is well known in the species previously segregated in *Solanopteris* Copel. [≡*Microgramma* subg. *Solanopteris* (Copel.) Lellinger; Lellinger, American Fern Journal 67:58–60. 1977]. Those epiphytes produce myrmecodomatia, which are hollow lateral rhizomatous sacs inhabited by ants and invaded by the fern roots (Rauh, Akademie der Wissenschaften und der Literatur 5:223–256. 1973; Gómez, Brenesia 4:37–61. 1974). Phylogenetic studies indicate that *Microgramma* species with sac-like myrmecodomatia (*M. bifrons* (Hook.) Lellinger, *M. brunei* (Wercklé ex Christ) Lellinger, *M. fosteri* B.León & H.Beltrán, *M. tuberosa* (Maxon) Lellinger) form a clade (Almeida, Systematic studies in the genus *Microgramma*, PhD. Thesis, 2014). Outside this clade, no other association between ants and *Microgramma* has been reported until now. *Microgramma megalophylla* (Desv.) de la Sota, a species occurring in flooded and non-flooded forested habitats throughout the Amazon lowlands in Bolivia, Brazil, Colombia, Ecuador, Guyana, French Guyana, Peru, and Venezuela, is peculiar in having broad flattened rhizomes up to 45 mm wide that grow attached to tree trunks (Fig. 1A), a character unique in the genus. *Microgramma megalophylla* was found to be associated with ants in plants growing at 4–10 meters above ground in a white-water flooded forest (varzea) at the margins of the Purus River, in Reserva Biológica do Abufari protected area, municipality of Tapauá, Amazonas state (INPA263345, Brazil, T.E. Almeida 3730). Seven clumps of plants (growing in different tree hosts) were observed in this population and were all colonized by ants. When detached from the tree, these specimens revealed a hollow cavity formed by the arched rhizome and the roots, the latter forming a network enclosing a tunnel-like chamber against the host tree trunk (Fig. 1B–D). Ants, ant waste, ant carton (cardboard like material built by the ants), and dozens of aggressive ant workers and ant pupae (*Camponotus* sp.) were observed inside this chamber, indicating that *M. megalophylla* housed an ant colony (Fig. 1C–D). Association of *Camponotus* species with ferns have already been documented elsewhere (e.g., Gómez, 1974; Mehltreter, Fern Ecology, p.243. 2010). Further detailed examination of *M. megalophylla* rhizomes in more than 600 herbarium specimens covering all its occurrence range revealed the presence of ant debris and remnant ant tunnels in less than 10% of them. Indications of ant association in, e.g., specimens from Peru (UC1733146, Amazonas, C. Díaz et al. 7232; UC1733064, Loreto, J. Revilla 3346) and Brazil (UC443238, Amazonas, Lutzelby 22726; IAN115067, Amazonas, E. Oliveira 2271), confirm that this association is more widespread. The paucity of herbarium specimens with obvious ant associations could indicate that this association is rare but may also be a bias created when the specimen is collected or mounted, when the rhizomes are usually cleaned, and any substrate or debris removed. Association between