

them paying little or no attention to the fungus-growers. As a rule the two species are indifferent to one another. One may watch them for hours without observing anything more than rather distant, mutual antennal salutations. On rare occasions a worker *Cepobroticus* may be seen licking the gaster of a *Sericomyrmex* worker or of the sluggish queen. More frequently one of the host workers may be observed in the act of lavishing similar but more elaborate attentions on a *Cepobroticus* worker. The fungus-grower begins by licking the feet or tarsi, the tibiae and femora, then the thorax or abdomen and finally the head and even the mandibles of the guest. During this operation the latter remains motionless and inclines its body somewhat to one side.

The *Sericomyrmex* never feed their guests by regurgitation. This is not surprising because they never feed one another thus, but resort individually to the growing fungus bromatia. When hungry the *Cepobroticus* workers and queen also crop the fungus mycelium, but they do this rather roughly, using their mandibles and even shaking or disturbing the substratum. The guests very rarely transport or rearrange the particles of the substratum or take the slightest interest in the garden, except as a source of nourishment. Only on one occasion did I see a *Cepobroticus* carry a particle of the substratum to another spot, insert it and pat it down with her fore feet. When fresh fruit was introduced into the nest, it was much less frequently visited and eaten by the guests than by their hosts."

Numerous collections from Pipeline Road and vicinity (Panama) by R. Adams and colleagues have all been from nests of *Sericomyrmex amabilis*. At La Selva Biological Station in Costa Rica, alate queens and males have been collected at blacklights. Males and queens were common at the lab clearing blacklight on 4 Aug 1992. A lone worker was obtained by Ronald Vargas, during general collection of ants from trail surfaces and low vegetation.

Material examined. COSTA RICA: Heredia: La Selva Biological Station, 10°26'N, 084°01'W, 50 m, 1 May 1994 (J. Longino); Puntarenas: 15 km SSW Pto. Jimenez, 08°24'28"N, 083°19'41"W, 170 m, mature wet forest, 7 Mar 2010 (J. Longino); PANAMA: Canal Zone: Pipeline Road, 09°09'36"N, 079°44'42"W, 50 m, wet forest, 29 Jul 2005 (R. Adams); Barro Colorado Island, 09°09'N, 079°51'W, 100 m, 12 Dec 2003.

Megalomyrmex wallacei Mann

(Fig. 2A)

Megalomyrmex wallacei Mann, 1916: 445, pl. 3, fig. 28. Lectotype queen (designated by Brandão 1990: 426): Porto Velho, Rondonia, Brazil [MCZ] (not examined). Paralectotype worker: same data [MZSP] (not examined). Brandão, 2003: 150, description of male. See also: Brandão, 1990: 426.

Measurements. Worker: HW 0.98–1.03, HL 1.13–1.18, SL 1.50–1.58, ML 1.78–1.85 (n=30, from Brandão, 1990).

Geographic range. Brazil (Amazonas, Rondonia, Pará, Tocantins), Guyana, Colombia, Costa Rica (Brandão 1990, 2003).

Biology. This species occurs in mature wet forest, usually low-elevation rainforest. Brandão (2003) reports the species nesting under leaves on the forest floor, in colonies of up to 300 workers. In Costa Rica, workers have been collected at baits on the forest floor, and one nest was observed at La Selva Biological Station. It was inside a 6cm long rotten cacao pod on the trunk of a cacao tree. The nest contained 93 workers. There was no morphologically distinct queen, but there was abundant brood of all sizes, from eggs to pupae. The workers showed considerable size variation, and larger workers had an enlarged mesonotum.

Material examined. COSTA RICA: Heredia: La Selva Biological Station, 10°26'N, 084°01'W, 50 m, 29 Jul 1995 (J. Longino); Puntarenas: Los Planes, Corcovado National Park, 08°38'N, 083°40'W, 100 m, 4 Dec 1981 (J. Longino); GUYANA: Rupununi: Karanambo, 03°45'N, 059°20'W, 100 m, 16 Jan 1981 (J. Longino).

Megalomyrmex wettereri Brandão

Megalomyrmex wettereri Brandão, 2003: 155, figs 1–4. Holotype worker: La Selva, 10°26'N 84°01'W, 50–150 m, Heredia Prov., Costa Rica, 2 Mar 1993 (Wetterer) [MCZ] (paratypes examined). Paratype queen: km 7 of El Llano Carti Suitupo Road, Panama, 7 Jun 1998 (U. Mueller 980607–01) [MZSP] (not examined).

Megalomyrmex sp. nov.: Adams *et al.* 2000: 549–554.