

## BIOGEOGRAPHICAL PATTERNS IN INDO-MALAYAN *PHEIDOLE*

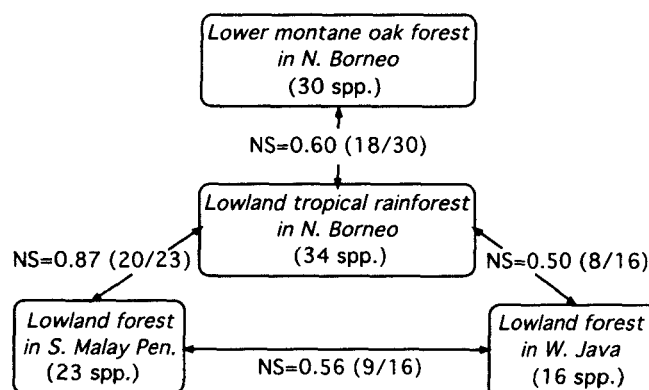
The Indo-Malayan subregion is defined as the area consisting of the southern Malay Peninsula, Borneo, Sumatra, Java, Bali, Philippines, and small islets associated with these main islands; and the Indo-Chinese subregion as the area consisting of the southern part of China, Taiwan, Indochina, Burma, Assam and Gangetic Plain (Lincoln *et al.*, 1998, Appendix 4). Species unknown from Borneo but Southeast Asia are included, and unpublished information of their ranges is utilised in the following discussion.

### Similarity among *Pheidole* faunas of some intensively studied areas within the Indo-Malayan subregion

Within the Indo-Malayan subregion, *Pheidole* fauna is relatively well known in the northern part of Borneo, and in lowlands of the southern Malay Peninsula and West Java, and can be compared among these regions. Collection sites covered with well-developed forests are classified into:

- 1) Lowland areas (up to 600 m alt.) in the northern part of Borneo (LNB; cf. Kobayashi & Hotta, 1978), represented by Belalong Forest Section, Danum Valley, Deramakot, Gunong Rara, Lambir N. P., Merimbun Heritage Park, Poring Hot Spring area, Sepilok forest, and Tawau Hills Park;
- 2) Lower montane areas (from 1800 m down to 900 m alt.) in the northern part of Borneo (MNB; cf. Kobayashi & Hotta, 1978), represented by Kinabalu Park Headquarters area, Mahua Waterfall area, Poring Hot Spring area, Ranau, and Sayap Kinabalu;
- 3) Lowland areas in the southern Malay Peninsula (LSMP), represented by Ulu Gombak; and
- 4) Lowland areas in W. Java (LWJ), represented by Bogor Botanic Garden, Pangandaran and Ujung Kulon. Bogor Botanic Garden is completely artificial, but, according to Ito *et al.* (2001), retains much of the original ant fauna of W. Javanese lowlands.

Fifty-six species (including many undescribed species) are considered in total, and 34 species are in LNB, 30 in MNB, 23 in LSMP and 16 in LWJ, respectively (Table 1; I omit *P. bugi*, *P. fervens* and



**Fig. 54.** Similarity of *Pheidole* species compositions among lowland N. Borneo (LNB), lower montane N. Borneo (MNB), lowland S. Malay Peninsula (LSMP) and lowland W. Java (LWJ).