

Table 8.8 Percentage of Winkler Samples in Which One or More Species of a Given Subfamily Were Present

Subfamily	Nearctic	Neo-tropical	Malagasy	Indo-Australian
Cerapachyinae	0.0	0.0	10.5	15.8
Dolichoderinae	8.7	12.2	5.3	26.3
Ecitoninae	4.4	10.2	0.0	0.0
Formicinae	65.2	75.5	89.5	89.5
Myrmicinae	87.0	98.0	100.0	100.0
Ponerinae	21.7	93.9	100.0	100.0

The mean proportions of species, per sample, belonging to a given subfamily vary significantly among regions for the Cerapachyinae, Formicinae, Myrmicinae, and Ponerinae (Kruskal-Wallis tests, $P = 0.017, 0.011, 0.000, \text{ and } 0.000$, respectively; Table 8.10). These differences are sustained even if one excludes the Nearctic region. Thus even on the coarse scale of ant subfamilies there is significant regional heterogeneity in taxonomic composition. This finding cautions against the use of “indicator taxa” (i.e., the use of a small subset of tribes or subfam-

Table 8.9 Mean Number of Species per Subfamily per Winkler Sample

Subfamily	Nearctic	Neo-tropical	Malagasy	Indo-Australian
Cerapachyinae	0.00	0.00	0.11	0.16
Dolichoderinae	0.09	0.12	0.05	0.32
Ecitoninae	0.04	0.12	0.00	0.00
Formicinae	0.91	2.06	1.84	2.21
Myrmicinae	2.83	18.22	12.63	13.11
Ponerinae	0.26	6.27	5.16	7.63
All sub-families	4.13	26.80	19.79	23.47

lies) when making interregional comparisons of leaf litter ant communities.

Genera

For the analysis of genus-level differences in faunal composition among leaf litter ant assemblages I have used a finer subdivision of biogeographic regions. The 2 “standard” Winkler samples from Singapore and Malaysia have been combined with the 11 additional leaf litter samples from Pasoh Forest, Malaysia (collected by A. Malsch), to provide an assessment of the

Table 8.10 Mean Proportion of Species per Subfamily per Winkler Sample^a

Subfamily	Nearctic	Neotropical	Malagasy	Indo-Australian	P^b
Cerapachyinae	0.000	0.000	0.003	0.007	0.017
Dolichoderinae	0.012	0.006	0.003	0.018	ns
Ecitoninae	0.003	0.005	0.000	0.000	ns
Formicinae	0.278	0.066	0.102	0.112	0.011
Myrmicinae	0.667	0.695	0.624	0.520	0.000
Ponerinae	0.039	0.228	0.268	0.343	0.000

^aTwo samples (one Nearctic and one Neotropical) that yielded no ants are excluded.

^bKruskal-Wallis test. ns, Not significant.