



FIGURE 1. The relationship of area to number of ponerine and cerapachyine ant species in the faunas of various Moluccan and Melanesian islands. 1. Ternate; 2. Malapaina; 3. Ugi; 4. Florida; 5. Kandavu; 6. Taviuni; 7. Ndeni; 8. Amboina; 9. Rennell; 10. Vanua Levu; 11. Espiritu Santo; 12. San Cristoval; 13. Santa Isabel; 14. Malaita; 15. Waigeo; 16. Viti Levu; 17. New Hebrides (entire); 18. Ceram; 19. Halmahera; 20. Fiji (entire); 21. New Britain; 22. Solomons (entire); 23. Bismarcks (entire); 24. Moluccas (entire); 25. New Guinea; 26. central tropical Asia. The cumulative New Guinea localities given in the upper curve are as follows: lower Busu River; triangle formed by the lower Busu River, Didiman Creek, and Bubia; all of the Huon Peninsula; northeast New Guinea; northeast New Guinea plus Papua; all of New Guinea.

and which have been reasonably well collected, a much stronger correlation appears, with a slope ( $k$ ) of about 0.6 and an origin ( $b$ ) of between two and three. If literally true, this would mean that an island one square mile in area can hold only two or three species, while one under one-tenth of a square mile could hold only one species. These predictions fit very closely the actual faunal size of very small islands in Polynesia, which has been better analyzed (Wilson and Taylor, ms.).

From the details of this analysis, an interesting fact emerges: the size of individual faunas is not correlated with their nearness to the source areas of tropical Asia and New Guinea. Intuitively, one might expect the Moluccas, which are main stepping stones of faunal movement to and from New Guinea, to have a larger fauna than the more remote, peripheral Solomons and Fiji. Yet the reverse is true. The best collected Moluccan Islands (Ternate,