

species than it does — and considerably more than Lord Howe. The reason for the apparently sub-normal size of the Norfolk Island fauna may be sought in the correlation between faunal size on the two islands and the following two factors:

1. Ecological Diversity: The published reports of the terrain and the state of the vegetation on these islands suggest that Lord Howe is ecologically much more diverse than is Norfolk Island. In spite of its much smaller size it may, therefore, be capable of supporting a larger and more varied ant fauna. Conversely, Norfolk Island may have a lower carrying capacity due to its lower ecological diversity, so that its fauna, although proportionately smaller than that of Lord Howe, is nevertheless saturated.

2. Distance from Australia: The apparent correlation between faunal sizes on these islands and their distances from Australia contrasts with Wilson's (1961) finding in Melanesia, where such correlation is lacking. This situation may be due to the absence of intermediate islands between those under discussion and Australia — islands which might provide assistance as "stepping stones" to colonists. According to this hypothesis the small size of the Norfolk ant fauna is due to the fact that too few species have reached the Island to saturate its carrying capacity.

If mere distance from Australia does have the filtering effect envisaged it may be assumed that there is a maximum range of natural overseas dispersal of the Australian fauna. As far as the ants are concerned, Raoul, in lacking indigenous Australian elements, may be considered to be outside this range.

It is not possible, at present, to evaluate the relative importance of these two factors in determining the size of the Norfolk Island ant fauna, but the problem would certainly be worthy of attention by future field workers in these areas.

Lord Howe Island also has significantly more endemic ant species than has Norfolk; each of these represents a stock which has diverged from its Australian progenitor and in no case has splitting or radiation taken place *in situ* on the island. The ecological diversity of the island, coupled with the competitive pressures which must arise in such a dense fauna, has probably caused this specialization of stocks, with consequent phyletic change to the point of formation of an endemic species in some lineages.

CLIPPERTON ISLAND

Clipperton Island is a lonely coral atoll about four miles in diameter, lying at N. lat., 10.18 and W. long., 109.15. It is 1,800