separation of the British Isles from the European continent (EMERY 1920). The last land connection between England and the continent corresponds to the Dogger Bank formation dating back to at least 5 000 years ago (LINDROTH 1935). This fits with the analysis of subfossil insects recovered from deposits at Piilonsuo in South Finland by KOPONEN & NUORTEVA (1973) who found *Camponotus herculeanus* in deposits up to 4 000 years in age but not older, while ant remains older than 5 000 years were not detected. Since at least one very common *Camponotus* species (*C. mengei* Mayr) with over 100 specimens has been described from the Baltic amber of the lower Oligocene (WHEELER 1914) it seems reasonable to conclude that the genus was widespread in North Europe during tertiary times and disappeared during the Pleistocene glaciations, recolonising the area only during the fairly warm sub-Boreal period.

However the most interesting result from our analysis is that the four *Camponotus* species now living in North Europe pertain to three different distribution types. Thus there is not a single "*Camponotus* pattern" which excluded the British Isles from its colonisation range but the genus repopulated North Europe through at least three different paths and there seems no reason to postulate a similar reaction to past or present environmental situations for such ecologically disparate species as *C. herculeanus*, *C. vagus* and *C. fallax* or for their nearest hypothetical ancestors.

Another result from our analysis is worth comment. Both from the principal component analysis and from the cluster analysis, the British Isles are separated as the largest and most characteristic area within the boundary of our study with the exception of the myrmecologically poorest North Isles. Despite this there is no distribution type peculiar to this area and entirely missing from Scandinavia and only one indigenous species, *Ponera coarctata*, but no endemic species known only from the British Isles. Some of the distribution types separated out such as distribution types C, H and I have a statistically significant E-W pattern implying more or less important correlations with longitude but most of the species of these groups are present also in South England at least. However, distribution type G (Figure 50) shows a purely Scandinavian pattern and includes 7.5 % of the studied species. These species show a typical north-south distribution with factors such as sunshine and latitude contributing to the regression. Yet the absence of the species of this group presents the main peculiarity of the British fauna which is thus characterised more by its absences than by the presence of significant species.

There are at least three well known and documented attempts to explain the presence of some organisms in North Europe by a pre-glacial or inter-glacial origin (LINDROTH 1935, 1953; HOLDHAUS 1954). Probably the best known of these is the work of HOLDHAUS (op. cit.) on the boreo-alpine distribution type. This term is applied to many different organisms regularly present in North Europe and on the mountains of Southern Europe, in particular the Alps, and absent from or more local in Central Europe. Such a distribution pattern is shown also by some ant species as *Formica uralensis*, *F. aquilonia* and *F. lugubris*. This disjunction is supposed to have originated during the Riss glaciation although for some organisms the northern part of the area will also have been recolonised in post glacial times. (DE LATTIN 1966). However to postulate non glaciated refugia in North Europe during Pleistocene glaciations for animals with a high potential dispersal capacity such as ants seems unnecessary. Many such organisms indeed supposed to have had a Pleistocene origin fit at least equally well the contemporary distribution of the alpine climate as mapped by LANDSBERG et al. (1965).

The second distribution type of supposed Pleistocene origin in North Europe has been termed by LINDROTH (1935) as Boreo-British. Such species, of Würm origin, should be restricted now essentially to the British Isles and to Scandinavia but none of the North European ant species