

## ANTS IN THE SCOTTISH HIGHLANDS

C. A. COLLINGWOOD

Woolley,

Barth

*Received 2nd August 1959*

SINCE my earlier paper (Collingwood 1951) much fresh information has accumulated on the distribution of ants in Scotland. In addition, important changes in nomenclature in the *Formica fusca* and *F. rufa* groups by Yarrow (1954, 1955) and the correction of earlier misidentifications render a fresh discussion of the subject desirable. Eighteen species have now been recognised from the area north of the Clyde and Forth considered in this paper.

The four most generally distributed species are *Myrmica ruginodis* Nyl., *M. scabrinodis* Nyl., *Leptothorax acervorum* Fab. and *Formica lemni* Bond. *Formica lemni* was formerly referred to as the similar *F. fusca* L. which it replaces in most of North Britain (Yarrow 1954). These four species are found throughout moorland Britain as far south as Dartmoor in Devon. Their ecology in West Scotland has been studied by Brian & Brian (1951, 1952, 1955). In sheltered areas other species such as *Lasius niger* L., *Myrmica sabuleti* Mein. and *M. rubra* L. may be locally dominant. *Lasius flavus* Fab. is rare in the north but becomes abundant in the South Perthshire Highlands. *Myrmica sulcinodis* Nyl. is frequently common on the drier heather moors. *M. lobicornis* Nyl. is a more occasional species but widely distributed. Many areas of old forest, especially in the Eastern Highlands, are dominated by one or other species of the *Formica rufa* group. In Scotland these are *F. aquilonia* Yarrow and *F. lugubris* Zett. They have similar habits to *F. rufa* which does not occur further north than Northumberland in Britain (Collingwood 1956). Other species occasionally found in these forests include *Formica exsecta* Nyl., *F. sanguinea* Latr., and the inquiline *Formicoxenus nitidulus* Nyl.

*Tetramorium caespitum* L., *Formica fusca* L. and *Lasius umbratus* Nyl. have all been found fringing the Highlands but they are very local in Scotland and not typical of the area. *Myrmica schencki* Em. was recorded in an earlier paper (Collingwood 1951) but this was a misidentification of a form of *M. sabuleti* with a pronounced antennal lobe. True *M. schencki* has not been found further north than the English Midlands or Galway in Ireland.

The climate, vegetation, topography and other features are similar to those of parts of West Norway to which the Highland