

THE ANTS OF THE GENUS *MYRMICA* IN BRITAIN

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INTRODUCTION AND ACKNOWLEDGMENTS

THE various species of the genus *Myrmica* show a diversity of form and colouring even within the comparatively small area of the British Isles. Confusion in nomenclature and the appearance of overlap in some of the commonly used distinguishing characters have combined to make this one of the more difficult groups of species to separate satisfactorily. In this paper the seven British species and their main variations are briefly discussed, and information is given on their distribution and habits.

In assembling the material for this paper the writer has collected widely throughout the British Isles including Ireland, and has also collected or seen material from other European countries. He is indebted to Messrs. M. Bibikoff, W. L. Brown of the Museum of Comparative Zoology, L. Christie, Holger Holgersen of Norway, and many others for the loan of additional specimens, and to their respective authorities for permission to examine various local museum collections including that of the City of Leicester, the National Museum of Wales, the Royal Scottish Museum and the City of Liverpool.

The seven British species comprise *Myrmica rubra* L., *M. ruginodis* Nyl., *M. sulcinodis* Nyl., *M. lobicornis* Nyl., *M. scabrinodis* Nyl., *M. sabuleti* Mein. and *M. schencki* Em. Another species, *M. rugulosa* Nyl. is found in N. Europe including Scandinavia and the Netherlands, and may yet be discovered in E. or SE. England. The nomenclature adopted in the present paper follows Holgersen (1944) in giving specific rank to *M. sabuleti* Mein. and Yarrow (1955) in substituting the name *rubra* L. for *laevinodis* Nylander, and differs in these respects from that employed by Donisthorpe (1927) and by Kloet and Hincks (1945). In addition no status is accorded to supposed interspecific intermediate forms. Forel (1874) erected a series of names to cover these forms which are still widely employed in the literature on *Myrmica*. Brian and Brian (1949) have already shown that apparent intermediates, recognised as such by Donisthorpe, between *rubra* and *ruginodis* were, in fact, clearly assignable to one or other of these species. The frequent occurrence of a mixture of species in *Myrmica* marriage swarms does not in itself provide evidence of interspecific crossing, and among the many hundreds of examples of the British species that have been examined by the writer the few that show abnormal features are clearly assignable to aberrations of one of the species and not to intermediates.

In the following keys, reliance has been placed on easily perceived qualitative differences. Head index measurements are given, however, as additional means of separation between some of the species. These include the frontal index (F.I.), which is the ratio of the minimum width between the frontal ridges and the maximum head width (excluding eyes) $\times 100$, and the scape index (S.I.), which is the ratio of scape length to head width $\times 100$.