

## Provisional maps of the Ants of Highland

(revised March 2010)

Nineteen species of ant are known to occur in Highland, with another two species having been recorded in the past (>50y ago) but not apparently since then. The distribution of many of these is not well documented, in part because of lack of recording effort. Some species are of conservation interest because of rarity, decline or threat to habitat.

HBRG is running a project from 2006-2010, mapping the distribution of ants in Highland. Identification to species is not easy, and requires specimens, a microscope, and a technical key, but some narrowing down can be done in the field. A simple key to groups of species for worker ants follows. Young queens and males of most species can be seen flying in large numbers in summer. Queens are generally similar to workers, but larger, while males are frequently very different in appearance. An excellent introductory book is Skinner, G. & Allen, G.W. 1996. *Ants*. Naturalists' Handbooks 24. Richmond. ISBN 0 855463 05 8.

- |   |   |   |   |
|---|---|---|---|
| 1 | All black (under microscope, may be dark brown) | <i>Formica lemani</i> , <i>F. fusca</i> , <i>Lasius niger</i> , <i>L. platythorax</i> ,<br>[ <i>L. fuliginosus</i> ]. | 2 |
|   | Not all black                                   |   | 2 |
| 2 | Robust ants, reddish & black, some workers >5mm |   | 3 |
|   | Smaller, more slender ants                      |   | 4 |
| 3 | Mound builders                                  | Wood ants: <i>F. exsecta</i> , <i>F. aquilonia</i> , <i>F. lugubris</i>   |   |
|   | Nests in soil or dead wood                      | Red Slave-making Ant <i>F. sanguinea</i>  |   |
| 4 | Yellow, petiole of 1 segment                    | <i>L. flavus</i> , <i>L. mixtus</i>   | 5 |
|   | Not yellow, petiole of 2 segments               |   | 5 |
| 5 | Very small, slender, <4mm                       |   | 6 |
|   | Most workers larger, robust, mainly reddish     | <i>Myrmica</i> (7 species)  |   |
| 6 | Free-living                                     | <i>Leptothorax acervorum</i> , [ <i>Tetramorium caespitum</i> ]   |   |
|   | Guest in <i>Formica</i> nests                   | <i>Formicoxenus nitidulus</i>   |   |

Species in [ ] have been recorded in Highland in the past.

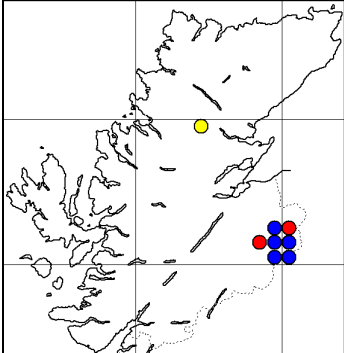
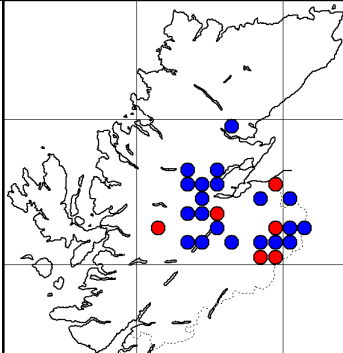
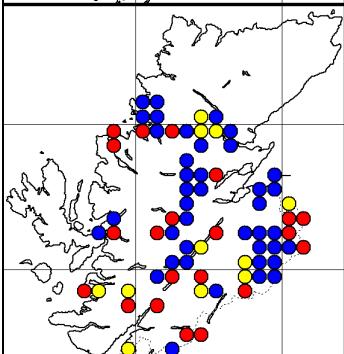
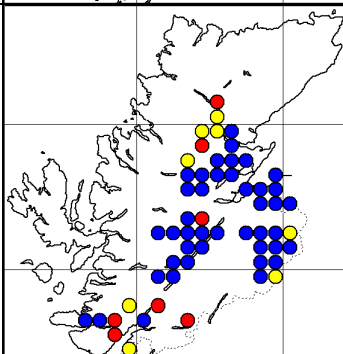
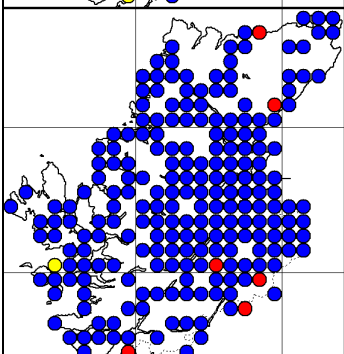
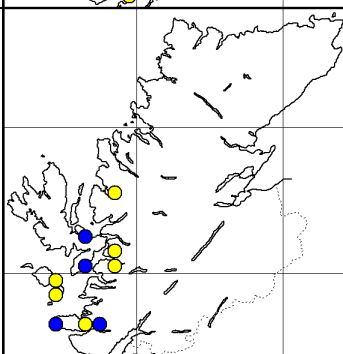
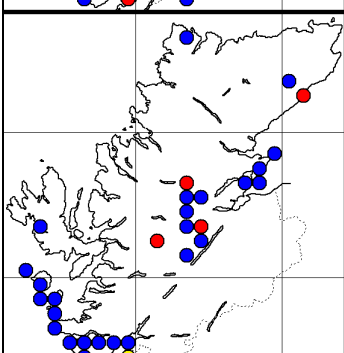
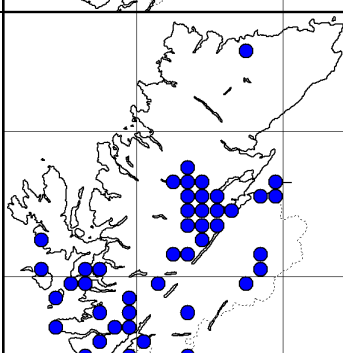
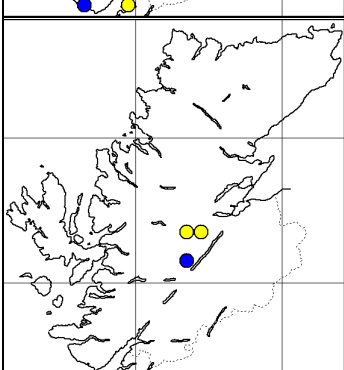
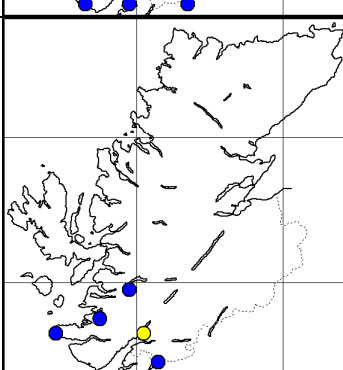
The species within each group are difficult to separate.

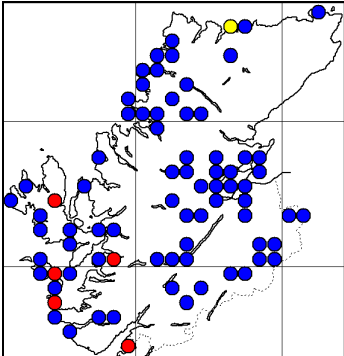
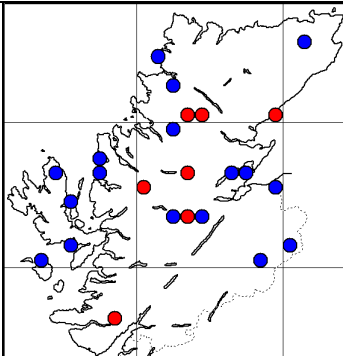
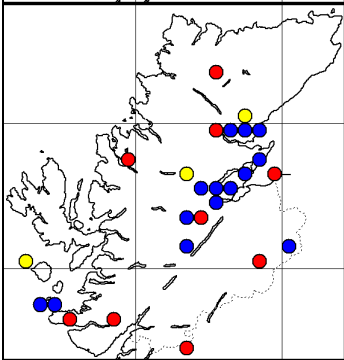
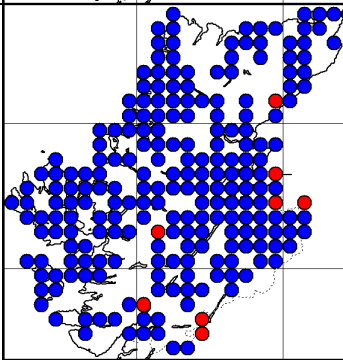
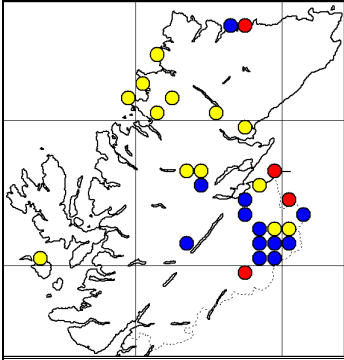
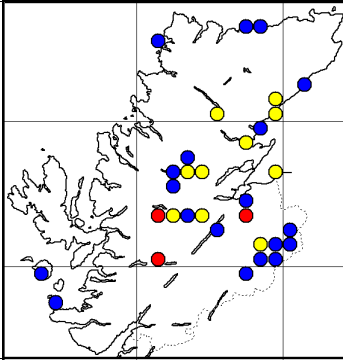
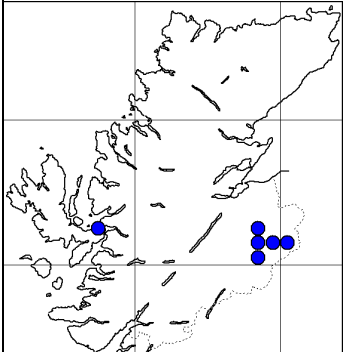
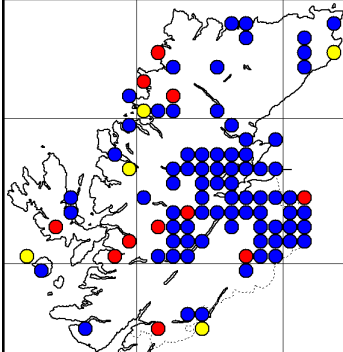
Priority should be given to collecting in Lochaber, Caithness, inland Sutherland (which are poorly covered), dry heaths, and anywhere in warm dry sandy places (e.g. sand pits, dunes, riverbanks, areas of alluvial sandy soils) where the scarcer species are most likely to be encountered.

Please report records to [records@hbrg.org.uk](mailto:records@hbrg.org.uk). Specimens (a minimum of 5 workers, with males if they are flying, from a single colony, and kept in alcohol if possible) will be required for correct determination, and may be sent to Murdo Macdonald, 'Tigh nam Beithe', Strathpeffer, Ross & Cromarty IV14 9ET, with date, place and (if possible) 6 figure grid reference. More information can be found on [www.hbrg.org.uk](http://www.hbrg.org.uk).



The following maps are derived from the HBRG dataset, the BWARS dataset, the BWARS *Provisional Atlas of the aculeate Hymenoptera of Britain and Ireland* Parts 1-5, Barrett, K.E.J.(ed) (1979). *Provisional Atlas of the Insects of the British Isles, Part 5, Hymenoptera:Formicidae, Ants* (2nd edn) and other published notes. Yellow dots are pre-1980. The provenance of red dots is to be checked.

	<p><i>Formica exsecta</i> In Highland, now only known from Strathspey, where it is locally common. An old record from Ross-shire. UKBAP.</p>		<p><i>Formica sanguinea</i> This interesting ant should be sought in S facing open forest, forest tracks, clearings, and even roadside verges and waste ground in the eastern part of the area.</p>
	<p><i>Formica aquilonia</i> One of the two conspicuous mound-building wood ants. The species are very hard to distinguish, and some confusion with <i>F. lugubris</i> has occurred. Formerly UKBAP.</p>		<p><i>Formica lugubris</i> One of the two conspicuous mound-building wood ants. The species are very hard to distinguish, and some confusion with <i>F. aquilonia</i> has occurred. Formerly UKBAP.</p>
	<p><i>Formica lemani</i> Abundant and more or less ubiquitous.</p>		<p><i>Formica fusca</i> A very scarce ant in Scotland, and very difficult to distinguish from <i>F. lemani</i>. It is sparsely distributed in the west, and is easily confused with the much commoner <i>F. lemani</i>.</p>
	<p><i>Lasius flavus</i> Sparsely recorded. It is an underground feeder, and in this area rarely builds the mounds that are conspicuous in some places farther south. The lack of records to the SE of the Great Glen is surprising.</p>		<p><i>Lasius niger s.s.</i> This ant should be sought in dry sandy areas.</p>
	<p><i>Lasius mixtus</i> Recorded in the area in the past, it was thought to be extinct until rediscovered in 2009.</p>		<p><i>Lasius platythorax</i> Recently separated from <i>L. niger</i>, this ant appears to be very rare in Scotland except in the very far west, but it is probably much overlooked.</p>

	<p><i>Myrmica scabrinodis</i> Perhaps commonest near the west coast, though it is locally frequent in the east. It has proved to be the most frequent red ant on some coastal sites around the Moray Firth.</p>		<p><i>Myrmica rubra</i> A scarce ant, but widely distributed in Highland and perhaps commoner in the west.</p>
	<p><i>Myrmica sabuleti</i> A scarce red ant most often encountered in dry habitats in the east. The very similar and recently separated <i>M. lonae</i> has been recorded in NG97 and NH31.</p>		<p><i>Myrmica ruginodis</i> The commonest of the red ants, ubiquitous and frequently found nesting under stones.</p>
	<p><i>Myrmica sulcinodis</i> A distinctive dark and heavily sculptured species of dry heather moorland and sandy waste ground. Nests are often indicated by small heaps of fine soil, unlike other red ants.</p>		<p><i>Myrmica lobicornis</i> An attractive and very distinctive little 'red' ant, which is often nevertheless almost black. It is likely to have been overlooked, as it is scarce and elusive, with small colonies.</p>
	<p><i>Formicoxenus nitidulus</i> This tiny ant lives in the mounds of <i>Formica</i> spp., and wingless males may be found on the surface of the mounds in late summer. Only 7 nests are known in the area. UKBAP.</p>		<p><i>Leptothorax acervorum</i> Probably under-recorded because of its small size. Often nests in dry peat mounds and rotting wood, but can be common on the N coast in sand dunes.</p>

*M. lonae* has been recorded in NG97 and NH31.

Two other species were recorded in the past: *Tetramorium caespitum* on Canna (NG20) and in NW Sutherland (NC14), both before 1950; and *L. fuliginosus* in Glen Feshie in 1933. The continued presence of these species is to be confirmed.