

## **Progress report on the Ross-shire fungus survey**

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The survey began, after several years of planning, in 2010, by which time most of the literature records and my own personal records had been collated. Since then the accumulated records of the Highland Biological recording Group and the Foray Records Database of the British Mycological Society have been incorporated. The plan for field work was based on a desire to give an even coverage across the whole of vice-counties 105 and 106, West and East Ross, respectively. The region covers some 6500 square kilometres, 52 Munros and a vast coastline. The work required visits to all 98 10km grid squares of the National grid which are wholly or partly in the old county of Ross and Cromarty. Recent boundary changes have been ignored! To ensure adequate searching a target of one species of fungus for each one kilometre square was set. To date, 94 of the 10km squares have reached their target, often by a large margin. Of the remaining four squares only two, NH07 and NH12, have no records. Of the other two, NH03 has 36 species and NH38 has three. In the last two years alone 82 squares have been surveyed and a total of nearly three thousand records made. A record is a species in a different 10km square. Some squares have multiple sites for a species but I have only counted one for this purpose, although all sites for a species have been collated in the records.

This work would not have been possible without the help of several colleagues. Neil Roberts made several visits to NH02 and 03, by bicycle, and photographed everything! Stephen Bungard collected, and photographed, material along the west side of the Applecross peninsula, NG64, 65 and 75. Tony Lyon supplied regular records from south-west Ross from his base in Kishorn. Dave Genney, also on bicycle, penetrated the wilderness of NH38 and also made many interesting finds in the Strathpeffer area. Last, but by no means least, Murdo Macdonald, as well as making the HBRG records available to me, sends regular parcels of specimens from several parts of Easter Ross, especially from his own garden in Strathpeffer, and these have yielded numerous rarities. Many other naturalists in the region have made valuable contributions of records, often with photographs or specimens, and to all of these I offer my most grateful thanks. All will be acknowledged in the resulting book!

During the survey there have been several forays with local societies, the Highland Ranger service and the National Trust for Scotland, and these have not only been well attended but have helped to raise the profile of fungi and their importance in the natural world. My wife and I have explored the whole of the county, getting to remote valleys where no mycologist has been before! During the period of the survey I received two modest grants from the British Mycological Society and these helped to defray the costs of travel and also made possible visits to search the collections at the Royal Botanic Gardens at Kew and Edinburgh.

The number of species recorded in the county at the end of each year is shown in the following table.

<b>Fungus group</b>	<b>end 2014</b>	<b>end 2015</b>	<b>end 2016</b>	<b>end 2017</b>
Slime moulds	160	172	186	188
Simple fungi	41	50	55	56
Ascomycetes	736	984	1157	1291
Rust and allies	113	131	136	142
Smuts and allies	26	33	36	37
Agarics and allies	470	643	672	699
Boletes and allies	46	56	56	59
Brittlegills/milkcaps	105	129	135	157
Other macrofungi	138	181	188	195
<b>Total species:</b>	1835	2379	2631	2824
		<b>West Ross VC105:</b>	<b>2201</b>	<b>2353</b>
		<b>East Ross VC106:</b>	<b>1431</b>	<b>1557</b>

In the present year it is hoped to visit and record in NH07 and NH38 and to make extra visits to NH03. There is little chance of exploring the small area of NH12 in Ross as it only accessible across Loch Mullardoch! In addition there will be a focus on particular host plants for as yet unrecorded pathogens in the region, and special habitats where characteristic species are under-recorded, especially the mountains which have been much neglected by mycologists. Groups of simple fungi, especially those found in freshwater and the sea are almost unknown in the region so attention will be paid to these where possible. However, all records of fungi in the region will always be welcome. No survey can ever be complete, but we will do our best! Thanks again to all those who have made such a valuable contribution to the project. 2018 will be the last year of fieldwork and I hope to have a manuscript ready for publication by mid-2019.

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*If you think you can help with this survey, you can contact Bruce at [theings@btinternet.com](mailto:theings@btinternet.com) for detailed advice on how to collect and send specimens. Some larger fungi may be identifiable in the field or from photographs, but the rusts, smuts etc. will require a microscope and Bruce's expert eye. Samples can be wrapped in tissue (not plastic!) and will store dry for a long time. Any material sent should have the usual details (date, place, OSGR, name of collector, and any relevant ecological information such as the host plant of rusts and other microfungi).*