

Creating the archive

The original Birse and Robertson records were hand written onto paper records cards and stored in the basement of the James Hutton Institute, along with a herbarium of plant, bryophyte and lichen voucher specimens collected at the time of the surveys. The current project involves the transcription of the hand-written record cards into an electronic database, cross-linking of vegetation data with associated soils information, and cataloguing and preservation of the herbarium. Data from re-surveyed plots comprise electronic records of vegetation composition, associated soils and environmental information and digital photographs, and these are also being incorporated into the database. By 2016 the project aims to have created a complete digital archive of all information relating to the Birse and Robertson plots, to ensure its future preservation and accessibility for further study.



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Further Information

For further information about the Birse and Robertson Archive, or if you are interested in collaborating or using the data, please contact Dr Andrea Britton, Andrea.Britton@hutton.ac.uk

Sponsors

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The Scottish Government funds research at the James Hutton Institute on the multiple benefits of land management to society.



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Science connecting land and people

The Birse and Robertson Archive

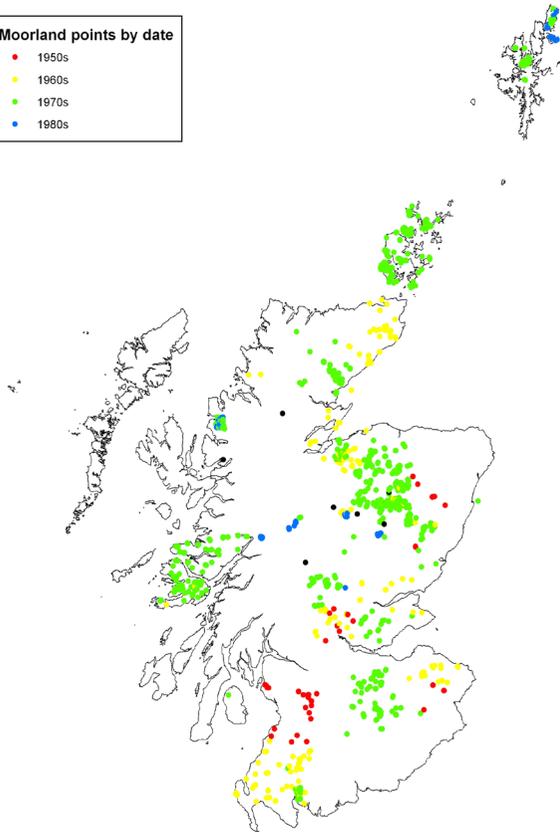
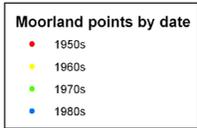


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Introduction

The Birse and Robertson archive is a unique collection of historical information on the status of Scottish plant communities, built up over the last 70 years. The project described in this leaflet aims to safeguard this valuable dataset, and make it more accessible for researchers wishing to study how Scottish vegetation has changed over this period; for example due to climate change and pollution impacts or changes in the way land is used and managed.

Moorland Points



Map of historical moorland records, one of several habitats included in the archive.

Historical surveys



A woodland survey plot, Rhododendron and Bracken are typical invasive species.

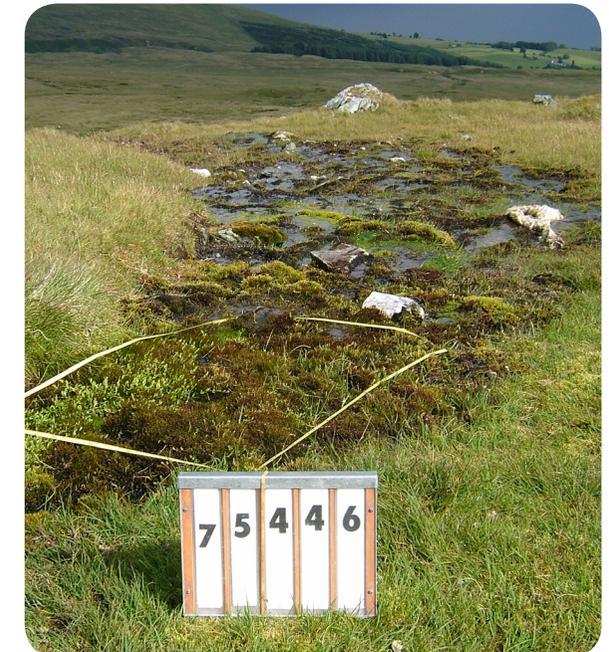
Eric Birse and Jim Robertson surveyed and studied Scottish vegetation between 1945 and 1985, firstly under the auspices of the Macaulay Institute for Soil Research, and later as part of the Macaulay Land Use Research Institute. During this period they collected almost 7000 records of vegetation composition, many with accompanying soil profile information. The records cover all major Scottish vegetation types and were collected throughout Scotland. This information was subsequently used to develop a vegetation classification for Scotland, published as 'Plant communities of Scotland' in 1980



Eric Birse (left) and Jim Robertson (right)

Long term vegetation change

Since the original surveys of Birse and Robertson were completed, there has been increasing awareness of, and interest in, the long term impacts of human activities on plant community composition. Climate change, deposition of pollutant sulphur and nitrogen, changes in land management priorities and agricultural practises all have the potential to impact on vegetation composition, with implications for biodiversity and conservation of important species and habitats. Historical datasets such as the one collected by Birse and Robertson provide an important baseline against which changes can be measured. Between 2004 and 2014 approximately 1500 of the original survey locations were re-visited and re-surveyed as part of Scottish Government and DEFRA funded projects to investigate long term change in Scottish vegetation. These more recent data add to the value of the archive for future research projects.



This mountain spring was first surveyed in 1975 and re-visited in 2008.