

EARTHWATCH INSTITUTE FIELD REPORT

Project Title: Eagles of Mull

Principal Investigator: Paul F Haworth

Position/Affiliations: Research Associate, The Manchester Metropolitan University

Research Site: The Ross of Mull, Isle of Mull, Argyll

Local Management Status of the Research Site(s) (e.g. National Park, RAMSAR Site, World Heritage Site, IBA etc.): Much of the research site falls within the Hills and Coast of Mull Special Protection Area recently designated for its importance to breeding golden eagles

Scientific names of primary species being studied (if appropriate): *Aquila chrysaetos*

Key Research Objectives:

The primary research objective is more clearly to understand and define the habitat requirements of predatory and scavenging birds, particularly golden eagles, on the Isle of Mull.

In addition, work on golden eagles will make a substantial contribution to unravelling the importance of interactions involving competition, prey availability and land use within this important bird assemblage.

Raising awareness of the importance of predatory birds in general has always been a key consideration of this project.

Data Collection and Results

a) Give a concise account of the data you have collected during the past field season.

Data has been collected on the distribution and behaviour of all the birds of prey and diurnal owls encountered on the Ross of Mull. This will be added to the existing data set.

b) What progress have you made towards achieving your original objectives?

This research is long term in nature in order to take account of variation in weather and the longevity of some species such as golden eagles, which probably live in the wild for 25 years or more.

c) Please provide a summary of your results (even if they are preliminary).

Flight path data on golden eagles has enabled estimates of range size and configuration to be made for five pairs of resident golden eagles.

Significance/Benefits of Research

a) What is/are the significance/benefits of your research at the following levels?

- Local (in the area of the research site)

In the face of changing land use, especially grazing and forestry practice, this information represents an essential prerequisite for achieving sustainable conservation of golden eagles within the context of the Isle of Mull.

- National
- At a national level data gathered during this project has assisted in the development of a framework by Scottish Natural Heritage for the conservation management of the golden eagle population across Scotland.

b) How do your findings contribute to issues of sustainability?

Raising awareness of both the environmental and the economic value of birds of prey such as eagles is becoming increasingly important. Ecotourism on the Isle of Mull is now of major importance to the local economy and helps to maintain and enhance respect for wildlife and associated habitats.

Dissemination of Results

a) Have you provided details of results from your research to or within:

- Scientific papers (indicate status; e.g., peer reviewed or in progress/press)
 - Watson, J, Fielding, A.H., Whitfield, D.P., Broad, R.A., Haworth, P., Nellist, K., Crane, K. & Macdonald, E.J. 2003. Golden eagle breeding performance in relation to climate in western Scotland during the period 1981-2000. *In: Thompson, D.B.A., Redpath, S., Fielding, A.H., Marquiss, M. & Galbraith, C.A. (eds.). Birds of Prey in a Changing Environment.* The Stationery Office, Edinburgh, UK
- Management plans and reports (in progress or completed)
 - By who, for whom, and used by which agencies
 - Fielding, A.H., McLeod, D.R.A., Haworth, P.F. 2003. Analytical foundation for a conservation framework for the golden eagle. Report under contract BAT/AC309/01/02/46, Scottish Natural Heritage, Edinburgh, UK

All organisations with a direct involvement in the land use and management on Mull and elsewhere in the Hebrides (particularly landowners, Scottish Natural Heritage and Forestry Authority) will benefit from further definition of ranging behaviour in predatory birds. The research will make a direct and immediate input to work currently being developed by Scottish Natural Heritage aimed at developing a forestry strategy for the Isle of Mull. Results may also be published in journals such as *Bird Study*, *Biological Conservation*, *Journal of Applied Ecology*, *Conservation Biology* and *Journal of Raptor Research*.