

HENHARRIER

Optimum scenarios for Hen Harrier conservation in Ireland

PROJECT TEAM

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COMPLETION DATE

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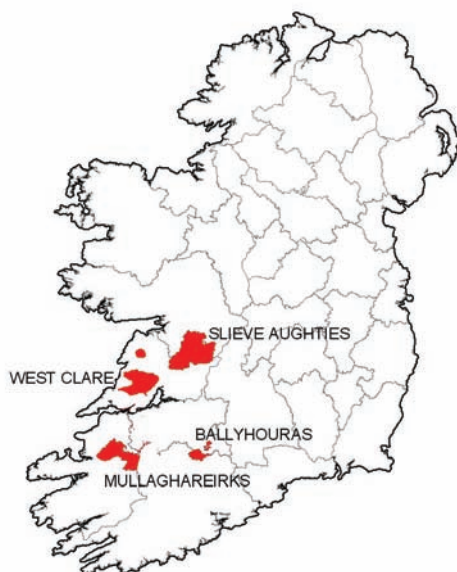


Figure 1: Sites selected for this study.

OBJECTIVES

- To increase our knowledge of Hen Harrier ecology and foraging behaviour.
- To determine the value to Hen Harriers of the main habitats in the SPAs.
- To improve our understanding of Hen Harrier habitat requirements at the landscape level, and revise recommendations accordingly, incorporating these into an Indicative Strategy for Hen Harrier management in the SPAs.
- To compile a GIS database of land use and habitat types within the SPAs, to function both as a tool for decision-making by SPA managers and stake-holders, and as a source of data for researchers.

PROGRESS

A geo-referenced database, with data on breeding Hen Harrier locations, has been compiled from the two national breeding surveys of Hen Harriers conducted in 2000 and 2005. Data from forest and land use databases held by Coillte, the Forest Service, and NPWS have been compiled into a habitat database for the Hen Harrier SPAs. These two databases have been used to conduct a preliminary analysis of Hen Harrier habitat preferences, which is being prepared for publication. The habitat database will ultimately be used to devise a GIS tool for assessing long-term impacts of specific land use changes on Hen Harriers. A review of remote tracking methodologies and capture techniques for Hen Harriers, including more than 400 papers using telemetry from the past two years, has been produced and will be submitted to *The Journal of Wildlife Management* for publication.

Four main sites were selected for the study of Hen Harrier breeding success (Figure 1) and the first fieldwork season was completed during the summer of 2007 in collaboration with the National Parks and Wildlife Service and the Irish Raptor Study Group. Fieldwork to locate nests began in late March when observers identified



Figure 2: Wing tag on Hen Harrier chick.

breeding pairs and pinpointed their nest sites and followed the fortunes of these pairs and their young throughout the summer. Where possible, nests were visited on three occasions to collect data on clutch size and laying date, brood size and fledging success. Following fledging additional information was recorded for each nest. The timing of breeding at each of the study locations differed slightly. The earliest observed hatch date occurred at a Hen Harrier nest in the Ballyhouras during the second week of May 2007, while hatching was completed in that area by the end of June. By contrast, the first chick did not hatch in the Clare study area until the first week of June, while hatching there was not completed until mid-July 2007. Timing of breeding in the Slieve Aughtys and Kerry study areas occurred between these two extremes.

Following training in tagging techniques during a study visit to Spain, tagging of Hen Harrier chicks at nests located in the four study areas was undertaken. A tagging scheme was drawn up to ensure that tag colour combinations were unique. The right wing tag represented the region of the nest from which the bird fledged (Ballyhouras – Yellow; Kerry – Red, West Clare – Green, Slieve Aughtys – Black). The left wing tag represents the year of tagging (2007 – Red). In addition an individual number was included on each tag to represent the individual bird. Each bird tagged was also fitted with a BTO ring on its leg, and several morphometric measurements (weight, wing length, tarsus length and tarsus width) were recorded. A total of 40 chicks were wing

tagged during the 2007 season, and of these 15 sightings have been confirmed to date.

ACTIVITIES PLANNED

Fieldwork on Hen Harrier breeding success will proceed as in 2007, with some minor amendments arising from experience to date. Fieldworkers will again collect comprehensive data on breeding biology from the four sites in Figure 1. The Hen Harrier foraging ecology section of this project will get underway and GPS tags to be used for remote tracking will be trialled during 2008. The detachable harness mechanism is still in the developmental stage and so data retrieval will initially be conducted using Bluetooth technology allowing the first GPS data for Hen Harriers in Ireland to be collected. Nest cameras will be deployed at Hen Harrier nests to collect data on food provisioning.

OUTPUTS

Popular articles:

Irwin, S. 2007. Sky Dancer project. *Wings* 46: 17.

Presentations at conferences:

O'Donoghue, B. 2007. *Research on Hen Harriers in Ireland*. Institute of Ecology and Environment Management Irish Section Conference, Dublin, October 2007.

Inputs to curriculum development and teaching:

Wilson, M. 2007. *Hen Harrier and forestry*. Biodiversity Components of Forestry Certificate Course, UCC.