

4.2 Golden Eagle

4.2.1 Current Status

Golden eagle (*Aquila chrysaetos*) is listed in Annex 1 of the Birds Directive and on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). It is also listed in the Red list (2013) of birds of conservation concern. The UK population was estimated to be just 440 breeding pairs (4% of Europe's population) in 2003 with a short term trend of increasing and a long term trend of being stable 1982-2003. A national survey was undertaken in 2015 and this is expected to show an increase across northern Scotland. The global population is classed as stable¹⁷.

Golden eagle is an upland bird species and the second largest bird of prey in the UK. While historically found throughout the uplands, golden eagle populations have declined due to loss of habitat and persecution, with current distribution in the UK restricted to Scotland. Within the Biosphere, the population has declined from four breeding pairs in 1980 to 2 breeding pairs in 2015, due primarily to loss of open ground and moorland habitat to conifer afforestation¹⁸ but possibly also due to reductions in hares and rabbits. Winter carrion could also be an issue (D&G Raptor Study Group).

4.2.2 Ecology and Habitat Requirements

Golden eagle requires large expanses of open ground where there are abundant prey and suitable locations for nesting, such as crags or trees. Golden eagles are territorial and defend their territory, the core part of their home range. Home ranges have to be large enough to sustain a breeding pair and their young. Golden eagles are also slow breeders and their breeding success rate is often low.

Golden eagles are opportunistic feeders feeding on a wide range of prey, typically including grouse, hares and rabbits, deer and goat calves and carrion. It is therefore important that habitats supporting the above species are managed well. High Focus Habitats that may support golden eagle in the Biosphere include upland heath, raised and blanket bogs, acid grassland, montane scrub and heath and open areas within large woodland blocks.

4.2.3 Concerns

- Fragile population
- Habitat fragmentation/loss to forestry
- Persecution/disturbance
- Low productivity

¹⁷ BirdLife International 2013. *Aquila chrysaetos*. The IUCN Red List of Threatened Species. Version 2015.2. Available at www.iucnredlist.org

¹⁸ Marquiss, M., Ratcliffe, D.A. & Roxburgh, R. (1985). Breeding success and diet of Golden Eagles in southern Scotland in relation to change in land use. *Biological Conservation* 34, 121-40.

- Poor food supply

4.2.4 Conservation Objectives

To maintain and enhance the small and fragile breeding golden eagle population in the Biosphere, with an aspirational target of four breeding pairs.

4.2.5 Management

In addition to habitat management measures detailed for the relevant High Focus habitats in sections 2 and 3, golden eagle may require more specific management actions to safeguard and enhance their fragile population, such as:

- Supplementary winter feeding with carrion.
- Improving foraging opportunities by increasing the extent of open ground habitats and thereby prey e.g. mountain hare.
- Public education to reduce conflict with people.
- Creation of woodland fringe habitat and designed open ground corridors within large woodland blocks.

4.2.6 Example Projects

- There is an ongoing collaborative effort between Forestry Commission Scotland (FCS) and the Scottish Raptor Study Groups (South-West Scotland Groups) to protect and monitor the resident breeding pairs. During the breeding season, nest sites are under surveillance and feathers are submitted to Natural Research DNA project.
- During the winter, supplementary food (deer and wild goat carrion) is provided by FCS to support the birds and to ensure the birds' prime condition for the breeding season so far as possible. Two eaglets have been satellite-tagged (in 2010 and 2015) to study their movements and inform conservation measures for the species in the area.
- Open Habitat Mapping by FCS is a project to map all open unafforested ground under FCS ownership across Scotland. The result of the project is a comprehensive record of open ground, mapped to UK BAP Priority habitats level (where applicable) and from 2009 onwards also to NVC level.
- Bog restoration by FCS is increasing the percentage of open space within large woodland blocks.
- Current forest restructuring by FCS is recreating links between fragmented open ground to increase the scale of contiguous open range habitat.

- Scottish Government, RSPB Scotland, SNH, FCS, Buccleuch Estate and Scottish Land & Estates are partners in phase II of the Southern Scotland Golden Eagle Project, which aims to enhance the breeding golden eagle population across the area. This will involve a wider partnership with SRSG and will involve the release of young golden eagles from elsewhere in Scotland into suitable habitat. This could have positive implications for the small population of the Biosphere.

4.2.7 Opportunities

- Education and liaison with land managers to minimise disturbance.
- Potential PhD Research project on the provision of Upland Habitat Networks in the Biosphere.
- Open Habitat Mapping by Forestry Commission Scotland could be used to target areas for open habitat restoration and condition improvement.
- Creation of upland habitat networks, particularly through the significant woodland fringe project in Galloway Forest Park.
- Increased areas of open habitats (eg. forest to bog and heathland restoration in the core/buffer zones).
- The new South of Scotland golden eagle project, a partnership between Scottish Land & Estates, RSPB Scotland and Buccleuch Estates, working along with SNH.
- Potential for reintroduction of mountain hares and rabbits as sources of live prey.
- Consider providing winter carrion in selected areas.

4.2.8 Further Information

Scottish Natural Heritage Commissioned Report No. 626 (2015) Golden eagles in the south of Scotland: an overview. Available at:

http://www.snh.org.uk/pdfs/publications/commissioned_reports/626.pdf

Scottish Raptor Study Group <http://www.scottishraptorstudygroup.org/goldeneagle.html>

South of Scotland Golden Eagle Project <http://www.goldeneaglessouthofscotland.co.uk/>