

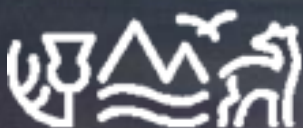
Scottish Natural Heritage

Assessing Connectivity with Special Protection Areas (SPAs)

Guidance



Version 3 – June 2016



Purpose of Guidance

The purpose of this guidance is to help identify ‘connectivity’ between development proposals and Special Protection Areas (SPAs). The [Natura assessment process](#) asks “Is the proposal likely to have a significant effect on the site?” This step acts as a screening stage, removing from the Habitats Regulations Appraisal plans/projects which clearly have no connectivity to a site’s qualifying interests or those where it is very obvious that the conservation objectives for the site’s qualifying interests will not be undermined despite a connection.

To assess whether there are processes or pathways by which the proposal may influence the site’s qualifying interests, it is important to consider the distances that some species may travel beyond the boundary of their SPAs. This guidance provides information on dispersal and foraging distances for a range of bird species which are frequently encountered when considering plans and projects.

This guidance should not be used as a basis for setting bird survey requirements; these are set out in [‘Recommended bird survey methods to inform impact assessment of onshore wind farms’](#) (2017).

This document provides an update to guidance previously published in 2012.

Typical Connectivity Distances

The connectivity distances of each species set out in Table 1 are drawn from a literature review that examined ranging behaviour. In most cases **the core range should be used** when determining whether there is connectivity between the proposal and the qualifying interests. Maximum ranges are also provided to indicate that birds will, at times, travel further. In exceptional cases distances up to the maximum foraging range may be considered; for example, whilst osprey core foraging range is 10km an osprey foraging at a loch well beyond this distance from its SPA may still be connected if there is a lack of other closer foraging sites. SNH should be consulted where there is any doubt over the applicability of the core range.

Some species for which there are currently no SPAs in Scotland, but regularly feature in non-Natura casework, are also included.

Table 1 – Summary of foraging distance during breeding season

Species	Foraging range from nest site during breeding season
Red-throated diver	Generally less than 8km, but regular flights of 11-13.5km recorded on Western Isles.
Black-throated diver	Likely to be less than 10km.
Red kite	Core range of 4km, with maximum range of up to 6km.
Hen harrier	Core range of 2km, with maximum range of 10km.
Goshawk	Core range of 3km, with maximum range generally less than 10km, and maximum recorded distance of 18km.
Golden eagle	Core range of 6km, with maximum range of up to 9km.

Osprey	Core range of 10km, with some regular foraging up to 20km, and maximum recorded distance of 28km.
Merlin	Within 5km.
Peregrine	Core range of 2km, with maximum recorded distance in Britain of 18km.
White-tailed eagle	Core range of 5km, with maximum range of 13km.
Short-eared owl	Core range of 2km, with maximum range of 5km.
Black grouse	Within 2km, with male core ranges of up to 1.5km and of female core ranges of approximately 0.5km.
Golden plover	Core range of 3km, with maximum range of 11km.
Greenshank	Core range of 2km, with maximum range of 3km.
Dunlin	Core range of 500m, with maximum range of 3km.
Curlew	Core range of 1km, with maximum range usually within 2km.

Table 2 – Summary of foraging distances during winter season

Species	Foraging range from night roost during winter season
Whooper swan	Core range of less than 5km.
Greylag goose	Core range of 15-20km*
Pink-footed goose	Core range of 15-20km*
Greenland white-fronted goose	Core range of 5-8km.
Barnacle goose	Core range of 15km, with maximum recorded distance of up to 25km.

*The distribution of feeding pink-footed and Icelandic greylag geese in Scotland has been mapped in [Mitchell \(2012\)](#). These maps are another tool which enables the identification of areas where impacts from proposed developments on geese may be of concern and, conversely, areas which despite being within 20km of a goose SPA have no connectivity with the qualifying interests.

Table 3 – Summary of distances between alternative nest sites

Species	Distance between alternative nest sites
Red-throated diver	Distances of 1km are not unusual.
Black-throated diver	Likely to be similar to above: within 1km.
Red kite	Within 1km.
Hen harrier	Generally within 1km.
Goshawk	Generally 200-300m apart, but can move to new territories up to 2.5km away.
Golden eagle	Less than 3km apart in high-density areas; up to 6km apart elsewhere.
Osprey	Within 2km.
Merlin	Generally within 500m, but can be up to 1.5km.
Peregrine	Mean distance of 3km, and maximum distance of 6.5km.
White-tailed eagle	Generally within 3km, and a maximum distance of 12km.
Short-eared owl	No information.
Black grouse	Within 2km range.
Golden plover	No information.
Greenshank	No information.
Dunlin	No information.
Curlew	No information.

Sources of further information

Should you require further detail than that provided in the tables above or you would like to see the evidence base for the distances in the 2008 Literature review to assess bird species connectivity to Special Protection Areas, please contact:

Sue Haysom (Ornithological adviser) on 01463 725225 or at Sue.Haysom@nature.scot.

The tables will be updated periodically as new information is published.

References

[Mitchell, C. 2012. Mapping the distribution of feeding Pink-footed and Iceland Greylag Geese in Scotland. Wildfowl & Wetlands Trust / Scottish Natural Heritage Report, Slimbridge. 108pp.](#)