

Northern Ireland Priority Species -Habitat Guide: Breeding waders

Which Breeding waders?

The wading birds Curlew, Common Snipe, Lapwing and Redshank are widely distributed breeding species in wetland, heathland and coastal habitats throughout Northern Ireland, which has historically held an important proportion of the UK and all Ireland resource of both the birds and the habitats they need. However, the birds have been undergoing severe rates of decline and all four species are currently listed as being birds of conservation concern in Ireland (2014), with Lapwing, Curlew and Redshank being at Red conservation status (highest level of concern) and Snipe at Amber conservation status.

Table 1: Linking Habitat types with Annex 1 features, ASSI features and NI Priority Species

Northern Ireland Priority Habitat type: Breeding Wader		
Habitats Directive Annex 1 habitats (SAC feature)	ASSI features	NI priority species
H1330 Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> H4030 European dry heath H6410 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) H7110 Active raised bogs H7120 Degraded raised bogs still capable of natural regeneration H7130 Blanket bogs H7210 Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> H7230 Alkaline fens	Coastal saltmarsh Wet heath Dry heath Purple moor- grass and rush pasture Lowland raised bog Blanket bog Fens Fens	Curlew (<i>Numenius arquata</i>), Lapwing (<i>Vanellus vanellus</i>), Redshank (<i>Tringa totanus</i>)



Where are they found?

Breeding waders and their habitats are selection features at a number of Areas of Special Scientific Interest (ASSI). Some Special Areas of Conservation (SAC) and Special Protection Areas (SPAs) are also important for Breeding wader habitats and species.

The four main species remain relatively widespread in Northern Ireland but their overall numbers are in serious decline and their densities are generally very low outside a number of key areas detailed below. The key bird species for the areas are in brackets.

- Lough Neagh ASSI/SPA south shore (*Redshank*)
- Maghaberry/Portmore Lough ASSIs area (*Lapwing*)
- Antrim Hills SPA (*Curlew, Snipe*)
- Slieve Beagh ASSI/SAC/SPA (*Snipe*)
- Upper Lough Erne, particularly the Inishroosk area ASSI/SPA/SAC (*Lapwing, Snipe*)
- Lower Lough Erne island ASSIs (*Curlew, Lapwing, Redshank, Snipe*)
- Pettigoe Plateau ASSI/ SPA / SAC (*Snipe*)
- Central Sperrins and County Tyrone bogs (*Curlew, Snipe*)
- Lough Foyle ASSI/SPA (*Lapwing*)

DAERA hold priority habitat and species data on the NIEA Natural Environment Map Viewer. See <https://apps.daera-ni.gov.uk/nedmapviewer/> (and link to video tutorial). Note that the Map Viewer indicates areas which hold NIEA records of habitat / species data, but does not infer the complete coverage of these environmental assets in Northern Ireland. NIEA will update datasets periodically.

Why are they important?

Successful breeding and increasing the range and numbers of the priority wader species depends on the existence, distribution and quality of the right habitats. The wetland, heathland and coastal habitats must display the characteristics and features that allow and encourage successful breeding of wader species, providing suitable nesting, feeding and refuge areas. Increasing connectivity between these sites is also important.

Pressures & Threats

Threats to the four main Breeding wader species in Northern Ireland are generally associated with changes in land use, including but not limited to:

- Habitat deterioration - loss and reduced quality of breeding habitat as a result of agricultural improvement/intensification, including drainage, application of fertilisers and pesticides, re-seeding, changes to cropping regimes and increased frequency of silage cutting.
- Habitat fragmentation - fragmentation of habitat, leading to small/isolated populations lacking connectivity in generally site faithful species.
- Forestry - forestry in the upland can result in loss of wader habitat and provision of cover, nest sites and vantage points for mammalian and avian predators previously only present at low density.
- Heather management – uncontrolled, poorly timed or over-frequent burning of heather can damage habitat for Curlew and Snipe in particular.
- Peat cutting - can cause deterioration of wader habitat through changes in site hydrology and if inappropriately timed, can cause disturbance to already nesting birds.
- Grazing - lack of grazing and/or overgrazing can result in the deterioration/loss of Breeding wader habitat.
- Trampling - at high grazing densities, trampling by livestock can cause high rates of nest loss.
- Land abandonment - in the absence of management by cutting or grazing, grassland habitats undergo vegetation change leading to dense, impenetrable grasses and the development of scrub and woodland.

- Wind farms - recent research suggests that construction of wind turbines in wader habitat can cause displacement of breeding birds, especially Curlew and Snipe.
- Recreational disturbance - increasing use of the uplands for recreation during the breeding season can result in disruption of nesting by waders.
- Loss/degradation of wintering habitat - breeding success in waders is strongly influenced by their condition upon return from their wintering grounds in lowland or coastal areas. Loss or degradation of these habitats is likely to be reflected in lower productivity and population decline.
- Predation - several studies have suggested that declining breeding success in waders is, in some areas, related to densities of predators and levels of predator management.
- Climate change - the suitability of current breeding habitats for waders in Northern Ireland may be adversely by future climate change.

Favourable management of Breeding wader habitat

Two factors are critical to the conservation of Breeding waders in Northern Ireland: maintenance and expansion of sufficient breeding habitat of good quality, and management of levels of nest predation. Wader species tend to be faithful to their breeding site so it is therefore essential to maintain the habitat at existing sites. There is a need for habitat management for Breeding waders, concentrating initially around those areas where significant populations still exist and aiming eventually to improve connectivity between such areas.

A package of general management measures for waders has been developed in recent years which can be tailored to the needs of each species. Each of the habitat types will have their own management requirements for the four main Breeding wader species that can be considered at both landscape and site specific scale. Detailed and site specific management plans are required and the information below is provided as guidance for the general habitat requirements. More generic detail of land management requirements can be viewed in Appendix 1 of this document.

For further information on habitat management for Breeding waders please see the link below: <https://www.daera-ni.gov.uk/publications/efs-species-specific-advice>

Habitat requirements: Landscape scale

Breeding waders nest in a variety of generally wet habitats including wet grassland, cultivated land, wet upland heath, bogs, fens and clearings within reedbeds and coastal saltmarsh. Waders are generally strongly territorial and the amount of territories a site can hold will depend on the quality of its habitat, particularly food availability and nesting cover - better quality sites are more able to support more territories.

Habitat loss and fragmentation has resulted on a high proportion of the Northern Ireland wader population now breeding within nature reserves and other protected areas relative to the wider countryside. Suitable sites are also needed in the vicinity of these core areas to accommodate dispersing young birds. Most waders breeding for the first time settle relatively close to their hatching area. For Lapwing, Curlew and Redshank first breeding is frequently within 20km of these areas and is unlikely to occur further than 100km from them. Little is known about juvenile dispersal in Snipe but the pattern is likely to be similar.

There is a need to provide suitable habitat around core wader breeding sites, to accommodate juvenile dispersal.

Habitat requirements: Site specific scale

Breeding waders are dependent on sites that provide a varied sward structure and high water table. These can include semi-natural grasslands, grazed heathland, wet heath, blanket bog, lowland raised bog, fens and other wetlands.

Site specific factors

LAPWING AND REDSHANK:

Both these species require a short sward (<5cm) with scattered tussocks. In the case of Lapwing the sward should be very short, while Redshank needs more tussocks (>15cm) for nesting. Redshanks need access to open pools but these will also be used by Lapwing.

CURLEW AND SNIPE:

Both species prefer a sward of varied height but with substantial areas of tall vegetation (15-30cm) for nesting and require wet ground around pools for chick feeding. Curlew tend to nest on drier areas, while Snipe prefer to nest in dense tussocks close to pools.

How do we determine the “health” or condition of Breeding wader populations?

The conservation status can be determined by the condition of the habitat and presence of one or more successfully Breeding wader species. Favourable condition is defined by setting targets or target ranges for a series of different attributes. These are components or characteristics of the vegetation and wader presence that are relatively easy to measure, but which are reliable indicators of the “health” of the habitat.

Habitat identification and rapid assessment should be undertaken using the appropriate Rapid Condition Assessment guides (Grassland, Coastal, Fen or Moorland).

The condition of Breeding wader populations can be assessed by monitoring changes in numbers and productivity. There are established census methods for Breeding waders in both upland and lowland habitats.

NIEA has developed Rapid Condition Assessments for several broad habitat types (grassland, moorland, woodland, coastal and wetlands). These will be made available online in the future. In the interim copies can be requested by contacting NIEA by E-mail: NIEA.EFSHigher@daera-ni.gov.uk.

Pollinator advice.

The variety and abundance of flowering plants within semi-natural habitats provide good sources of pollen and nectar for many of our pollinating insects such as bumblebees, hoverflies, butterflies and moths. For further information on habitat management for pollinators, refer to the All-Ireland Pollinator Plan resources: www.pollinators.ie.

Appendix 1: Breeding wader habitat management

The indicator species, vegetation classification and conservation requirements for each of the habitats detailed in Table 1 can be found in the relevant Habitat Descriptor. Where Breeding waders occur on priority habitats, management should be for the underlying priority habitat.

Where there is no underlying priority habitat, management should be carried out with specific consideration of Breeding waders. Lapwing fallow plots should also be considered.

The principal elements of the general management package for Breeding wader species are as follows:

- A sward of varying height should be developed which should be predominantly short (<5cm) but also contain a varying proportion of tussocks (15-30cm), according to species requirement.
- Rush cover should be distributed through the site and not exceed 10% of the total area.
- Rush cutting should only be carried out between 15th July and 15th March.
- The water table should be sufficiently high to allow formation of shallow pools in hollows.
- No new drainage systems should be constructed.
- Banks of existing ditches and drains should be re-profiled to establish shallow slopes suitable for access by wader chicks.
- Grazing should be light (<0.75LU/ha) or absent during the core breeding season from April to June.
- The site should not be subject to agricultural operations during the core breeding season (April – June)
- Cattle which have been wintered indoors should not be released directly onto Breeding wader sites.
- Supplementary feeding sites for livestock should not be established on semi-improved or semi-natural grassland within the site.
- The site should be distant from woodland, which could provide cover and nest sites for predators.
- The site should be free from scrub, trees and tall hedgerows which could provide vantage points for avian predators.
- Use of fertiliser should be limited to 100kg/ha Nitrogen on semi-improved grassland or 25kg/ha N on semi-natural grassland. There should be no fertiliser application between 1st February and 30th June.
- The site should not be subject to cultivation, re-seeding, infilling, dumping or application of herbicide, sheep dip, poultry manure or other material.
- Silage fields within the site must not be closed up until at least 1st July.
- Predator control using legal methods or exclusion of by fencing should be implemented where feasible.