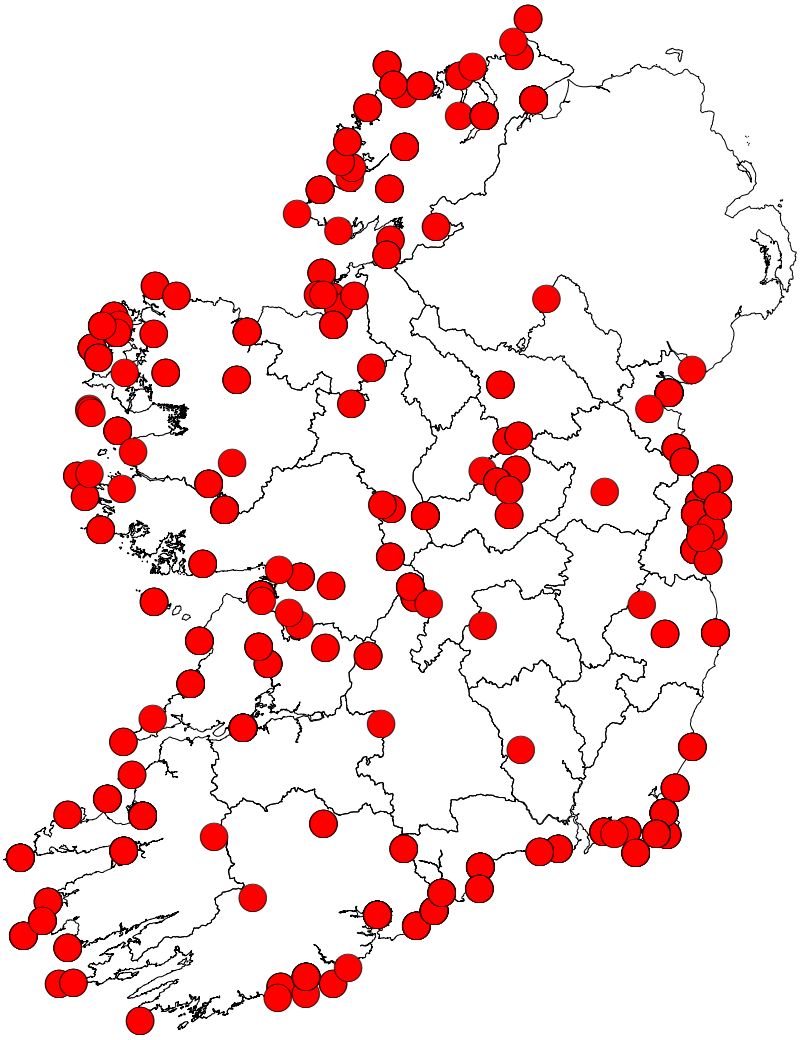
A review of the SPA network of sites in the Republic of Ireland.



December 2013

Department of Arts, Heritage and the Gaeltacht

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1. INTRODUCTION

Ireland, as a member of the European Union, is required under Directive 2009/147/EC (known as the Birds Directive) to classify the most suitable territories as Special Protection Areas (SPAs) for the conservation of those species listed in Annex I of the Directive and for regularly occurring migratory species. The National Parks & Wildlife Service (NPWS), part of the Department of the Arts, Heritage and the Gaeltacht, are responsible for the selection and designation of SPAs in the Republic of Ireland. NPWS commenced a rolling programme of SPA identification and designation in 1985, guided largely by the criteria used for the selection of wetland sites developed under the Ramsar Convention. Internationally important wetland sites and seabird colonies were amongst the first SPA sites designated in the Republic of Ireland. Adequate information that allowed the identification of the most suitable sites for some species has only become available in more recent years. Surveys relating to wintering waterbird populations in Ireland had commenced in the 1940's but these early surveys did not always achieve national coverage and often provided only short-term data. The Irish-Wetland Bird Survey (I-WeBS) commenced in 1994/95 and has provided systematic data on the numbers and distribution of non-breeding waterbird populations in Ireland. This information for wintering waterbirds and a range of other surveys e.g. Hen Harrier and Chough have facilitated the more recent designation of SPAs for a range of Annex I and migratory species.

By 2005 the rolling SPA designation programme that had commenced in 1985 had resulted in the designation of over 130 SPA sites, with a combined area of approximately 230,000ha. In 2004 the European Commission instigated court proceedings against Ireland (Commission of the European Communities versus Ireland case C-418/04) arguing that it had not fulfilled all its obligations under the Birds Directive. As part of Ireland's response to these proceedings a review of the SPA network of sites in the Republic of Ireland was undertaken. This review included an assessment of all existing SPA sites to ensure they were fit for purpose plus an evaluation of non-designated sites to assess their suitability for designation. Alongside this review of SPA sites was the ongoing development of legislation in Ireland to increase the levels of protection of designated Natura 2000 sites.

2. THE SPA REVIEW

A comprehensive review of Ireland's SPA network and sites potentially meriting designation as SPAs began in 2005. The first stage of the review process involved an analysis of the rationale for the selection of sites that were already designated as SPAs in Ireland. This led to the development of a system that clearly defined the criteria necessary for sites to be selected for SPA designation as well as identifying and listing the specific conservation features within the sites that are afforded special protection. These site specific features are collectively known as special conservation interests.

A product of the SPA review was a standardised process for evaluating any proposed or existing SPA site against a set of defined criteria. The criteria developed are linked to the legal requirements of the Birds Directive and were informed by the findings of the European Court in relation to case C-418/04.

The criteria developed in the SPA review were retrospectively applied to the existing SPA sites in Ireland. The criteria were also applied to a large number of non-designated sites which were known to be potentially suitable for SPA designation. These non-designated sites included sites listed as Important Bird Areas (IBA) by Birdlife International[1] and also sites identified from species specific surveys e.g. Hen Harrier and Chough.

The following chapters set out the criteria developed for the identification and selection of SPAs in Ireland and presents individual accounts for each of the Annex I and migratory species included in the SPA network.

Utilising the criteria developed as part of the SPA review a total of 154 sites were identified and selected for designation as SPAs. As part of the SPA review process twenty-two existing SPAs, with ecological and geographical links to nearby sites, were merged with other SPA sites or included within new SPAs selected for designation. Following the SPA review the total area designated within the SPA network in the Republic of Ireland increased from 230,000ha to approximately 575,000ha.

3. SITE SELECTION FOR SPA DESIGNATION

3.1. *Selection criteria*

Under Article 4 of the Birds Directive, Ireland, along with other Member States, is required to classify the most suitable territories in number and size as SPAs for the conservation of certain wild bird species. Specific criteria, based in part on criteria developed under the Ramsar Convention for the selection of internationally important wetland sites, have been developed to allow for the identification of suitable sites for SPA designation. Sites that meet one or more of the following criteria, during a defined baseline period, may be selected as SPAs:

1. A site regularly supporting 20,000 waterbirds or 10,000 pairs of seabirds
2. A site regularly supporting 1% or more of the all-Ireland population of a species listed in Annex I of the Birds Directive
3. A site regularly supporting 1% or more of the biogeographic population of a migratory species
4. A site considered to be one of the most suitable sites in Ireland for an Annex I species or a migratory species. The number of sites that meet this criterion is dependant upon the importance of the Irish territory for the international conservation of the species i.e. it is scaled according to the percentage share of the biogeographic population that Ireland supports. As those species listed in Annex I require special conservation measures the number of sites selected for these species is predominantly towards the upper end of the scale. A guideline for the number of SPA sites selected relative to the biogeographic share in Ireland is shown in Table 1.

Table 1. Guideline for the number of SPA sites selected in relation to the share of the biogeographic population occuring in Ireland.

Estimated proportion (%) of the biogeographic population in Ireland	Guideline number of SPA sites
<5	0-5
6-25	6-10
26-50	11-15
51-75	16-20
76-100	20-25

The majority of sites (84%) that were selected for designation regularly supported 1% of the all-Ireland population of an Annex 1 species or 1% of the biogeographic population of a migratory species. A number of these sites also regularly supported 20,000 waterbirds or 10,000 pairs of seabirds. In addition a relatively small number of sites (16%) were selected exclusively using criterion four i.e. they were identified as being one of the most suitable sites for the conservation of a particular migratory species. All sites selected using criterion four supported nationally important populations of various migratory species.

3.2. *The retrospective nature of the SPA review*

A significant proportion of Ireland's SPA network of sites had been designated prior to the SPA review. The recently established criteria for the selection, designation and protection of SPAs were therefore applied retrospectively to a large proportion of the SPA network in Ireland. The datasets used to assess existing SPAs relate to the best available information at the time the sites were designated. The datasets and baseline periods used to assess and rank sites on a national basis will vary for different species dependant on when national surveys and/or species assessments were undertaken and also when sites were first designated. Details of the datasets and baseline periods utilised when selecting SPA sites for all species are outlined in Section 4.1 and also in the individual species account (Section 11).

3.3. *The island of Ireland*

For the purposes of this review the use of the biogeographical unit of the island of Ireland was adopted as the primary standard for the purposes of assigning conservation significance at the site level. In this document the term *nationally important* refers to populations that meet or exceed the 1% threshold of the all-Ireland population estimate. While the conservation significance of bird populations are assessed on an all-Ireland basis the implementation of the Birds Directive on the island of Ireland is the responsibility of two separate governments. For clarity this report consistently uses the following terms to identify the geographical area being referred to: *Ireland*, the island of Ireland; *Republic of Ireland*, relates to that part of the island of Ireland within the political jurisdiction of the Irish Government; and *Northern Ireland*, relates to that part of the island of Ireland within the political jurisdiction of the Northern Ireland Executive.

3.4. *Cross-border sites*

Some ornithologically important sites span the political boundaries on the island of Ireland and require designation in both the Republic of Ireland and Northern Ireland in order to ensure that the entire site is protected e.g. Lough Foyle and Slieve Beagh. Lough Foyle is a large estuarine lough located between Donegal in the Republic of Ireland and Derry in Northern Ireland. This lough is an internationally important wetland site regularly supporting over 20,000 wintering waterbirds although the majority of the birds occur in Northern Ireland. Slieve Beagh is an upland site that extends from Monaghan in the Republic of Ireland into Tyrone and Fermanagh in Northern Ireland and supports a nationally important population of Hen Harrier. To ensure protection of the entire wetland site at Lough Foyle and the upland site at Slieve Beagh the relevant sections of both sites have been designated as SPAs in both the Republic of Ireland and Northern Ireland.

Areas of Carlingford Lough have been designated in both jurisdictions and although the designated areas are not contiguous, movement of birds between the SPAs are known to occur. There are also strong ecological links between Strangford Lough SPA in Northern Ireland and several east coast SPAs in the Republic of Ireland due to the known movements of the Light-bellied Brent Goose population.

3.5. *Migratory species*

The Bonn Convention on the Conservation of Migratory Species of Wild Animals (1980) defines a migratory species as “the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries”.

While the migratory status of some bird species is readily apparent (e.g. Swallows) bird-ringing data has provided information regarding the patterns of movement of many regularly occurring bird populations in Britain and Ireland. Utilising information primarily from the British and Irish Ringing Scheme the Migration Atlas[2] provides an assessment of the migratory status of both breeding and wintering bird populations in Britain and Ireland. For some species the assessments are based primarily on data from Britain and therefore supplementary information is required to ascertain the migratory status in Ireland. The species assessments in the Migration Atlas[2] combined

with local information from a variety of sources was used to inform the assessment of the migratory status of bird populations in Ireland. All migratory selection species in the SPA network in the Republic of Ireland, where sufficient data was available to allow an assessment of their migrant status, are listed as either short-distance migrants or long distance migrants by the Migration Atlas[2].

Seabirds that spend extensive periods at sea are generally considered to cross national boundaries, even if they do not land in other countries, and are therefore regarded as migratory species e.g. Manx Shearwater.

The migratory species included within the SPA network of sites in Ireland are primarily seabirds and wintering waterbirds which congregate at discrete locations. The site based protection afforded by the Birds Directive is not suitable for the conservation of all migrant species and the rationale for the non-selection of SPA sites for some migrant species is provided in Sections 9 and 10.

4. NATIONAL AND INTERNATIONAL BIRD POPULATIONS

Bird populations at sites will vary over time and for the purposes of this review it was necessary to identify particular baseline periods in order that the relative conservation importance of various sites could be arrived at for particular species.

4.1. *Baseline Periods Used For Site Assessment*

When assessing and ranking sites it is important that the criteria developed for the identification of SPA sites, as outlined in Section 3, are applied consistently across all sites. Where possible, data from a specific (baseline) period should be used for each species, thus allowing a comparison of all the sites at one point in time. The population of any bird species at a site will change over time so the information cited for any site represents a "snap-shot" that relates specifically to the bird populations recorded during the defined baseline period.

The bird data that has informed the SPA designation process has become available at different times since the rolling programme of SPA designation commenced in Ireland. The baseline period for each species is therefore linked to the availability of reliable national or wide ranging datasets and may also be influenced by the time period when sites were originally identified and designated as SPAs for particular species.

The majority of wintering waterbirds sites were assessed on numbers of birds recorded over five winter seasons during the period 1995/96 to 1999/2000. For some sites this was not always possible due to inadequate coverage during some of the five years and data from a smaller number of seasons during the baseline period was used to generate the mean peak values. Data from surveys outside the baseline periods was used for a very small number of sites which were known to support important bird populations, but had poor or no survey coverage during the relevant baseline survey period e.g. Blacksod Bay/Broad Haven SPA, Lough Arrow SPA and the Blaskets SPA. Some wetland sites in Ireland are so expansive and inaccessible that ground counts are neither practical nor feasible and aerial monitoring is used to estimate the bird populations. In the case of the River Suck Callows SPA regular aerial monitoring of wintering waterbirds did not take place during the standard baseline period for wintering waterbirds (1995/96 to 1999/2000) and therefore data for a later period (2001/02 to 2005/06) is used for this extensive site. Other deviations from the standard baseline periods are highlighted in the individual species accounts (Section 11).

The standard baseline periods used for breeding seabirds is based on the Seabird 2000 survey (1998 to 2002)[4] and the All-Ireland Tern Survey (1995)[5]. All available data from other seabird surveys was used to supplement the Seabird 2000/Tern Survey data when assessing and ranking all seabird sites.

The baseline periods utilised for each Annex I and migratory species, included in the SPA network of sites in the Republic of Ireland, are detailed in the individual species accounts (Section 11) and also in Appendix 1.

4.2. *All-Ireland population estimates*

For the majority of the wintering waterbirds, Crowe's[3] estimates of all-Ireland populations and relevant thresholds for the period 1994/95 to 1998/99 were used. For breeding seabirds the all-Ireland population estimates were taken from Seabird 2000[4]. For tern species the all-Ireland population estimates were taken from the all-Ireland Tern Survey in 1995[5]. Various surveys contributed to all-Ireland population estimates for Kingfisher, Chough, Corncrake, Peregrine, Merlin and breeding Golden Plover and Dunlin. The all-Ireland population estimates for all Annex I and migratory species included in the SPA network of sites in Ireland are detailed in the individual species accounts (Section 11) and in Appendix 2.

I-WeBS/WeBS is the primary source of data used to calculate the all-Ireland population estimates for wintering waterbirds. I-WeBS/WeBS regularly monitors the majority of wetland sites throughout the country which are utilised by wintering waterbirds. However, some species use more terrestrial habitats outside of the established I-WeBS/WEBS count areas (e.g. Lapwing, Golden Plover) and as such the all-Ireland population estimates for these species are likely to be underestimates. Wintering gulls are not always included in core I-WeBS/WeBS counts and this combined with their known use of non-wetland habitats makes national estimates of the wintering gull populations problematic.

The I-WeBS/WeBS data that is used to calculate the all-Ireland wintering waterbirds population estimates, and identify sites for SPA designation, can include birds which are passing though Ireland during the spring and autumn migrations. While the occurrence of birds on passage during either the spring and/or autumn migration can be readily apparent at some sites it is likely that smaller numbers of passage birds are being recorded during I-WeBS/WeBS counts at many sites. The Birds Directive requires the protection of Annex I and migratory species in their “breeding, moulting

and wintering areas and staging posts along their migration routes". In the main the non/breeding/wintering and passage birds recorded in the SPAs have not been differentiated. For the purposes of this report the use of the term wintering/non-breeding waterbirds therefore includes birds which spend the winter in Ireland and also birds which use sites in Ireland as staging posts on route to their wintering and/or breeding grounds. However, sites which are known to act as regular staging posts for significant populations of some Annex I species have been selected for designation specifically for their passage populations e.g. South Dublin Bay and the River Tolka Estuary SPA is an important staging post for a number of tern species.

4.3. *All-Ireland thresholds of national importance*

The 1% population threshold criterion is widely used in the conservation assessment of sites holding nationally and internationally important bird populations. The thresholds of national importance for a large number of wintering waterbirds in Ireland were published in 2008[3]. The threshold of national importance for the majority of seabirds equates to 1% of the all-Ireland population as listed in Seabird 2000[4]. For some species however, the all-Ireland wintering or breeding populations are quite small and therefore the threshold for national importance (1% of all-Ireland population) would be very low e.g. 1-2 Dunlin represents 1% of the all-Ireland breeding population for this species. For the purposes of this report the use of the all-Ireland 1% thresholds when assessing sites for designation was not adopted for some species which have low all-Ireland populations. Instead a minimum threshold of national importance was set for any species which had an all-Ireland wintering population below 5,000 individuals or a breeding population below 2,500 pairs. Different minimum thresholds of national conservation importance were used for Annex I and migratory species. In general the thresholds for those species with low all-Ireland populations were as follows:

- Annex I species = minimum 12 pairs, or 25 individuals;
- Migratory species = minimum 25 pairs, or 50 individuals.

However, in the case of a limited number of Annex I species, such thresholds were inappropriate because of the dispersed nature of the species or because so few sites reached the threshold. Species specific thresholds were therefore established for the following breeding Annex I species - Hen Harrier, Peregrine, Merlin, Corncrake,

Dunlin, and Chough. The selection thresholds applied to all species protected within the SPA network of sites in the Republic of Ireland are listed in Appendix 2.

4.4. *Biogeographical population estimates and thresholds*

Birds with a widespread or even global distribution may occur in discrete populations that rarely breed or exchange individuals with other populations of the same species. A global population may therefore be divided up into a number of biogeographic population units, each of which takes into account all aspects of the biology of that particular population. While biogeographical populations usually occur in distinct geographical locations there can be an overlap of different populations at some stage of the annual cycle i.e. breeding, staging or wintering.

Wetlands International regularly publishes and updates the biogeographical population estimates for all waterbird species. For taxa other than waterbirds there are no regular international publications which provide information on biogeographical populations. For some species there is insufficient information on the movements and interchange of birds to enable any division into biogeographical populations units. For non-waterbird species the geographical unit of continental Europe[a], as utilised by Birdlife International, has been used to provide an indication of the "biogeographic" population and the relevant population estimates have therefore been taken from a range of published sources. The biogeographical population estimates for all Annex I and migratory species, included in the SPA network of sites in the Republic of Ireland, are detailed in the individual species accounts (Section 11) and in Appendix 2.

The baseline period used to assess wintering waterbird species in the Republic of Ireland was 1995/96 to 1999/2000 and therefore the biogeographic 1% thresholds for wintering waterbird were taken from Wetlands International 3rd Edition[6]. In 2006 Wetlands International published updated Waterbird Population Estimates[7] and the 1% thresholds from this publication have been used for those species which were assessed and designated using baseline data from 2006 onwards e.g. breeding Red-throated Diver. The recommended 1% threshold of international importance for non-waterbird species have been derived from a range of published sources. The recommended 1% threshold of international importance for relevant Annex I and

[a] Extends from Greenland in the west to the Urals in the east and from Svalbard in the north to the Canary Islands in the south.

migratory species, included in the SPA network of sites in the Republic of Ireland, are detailed in the individual species accounts (Section 11).

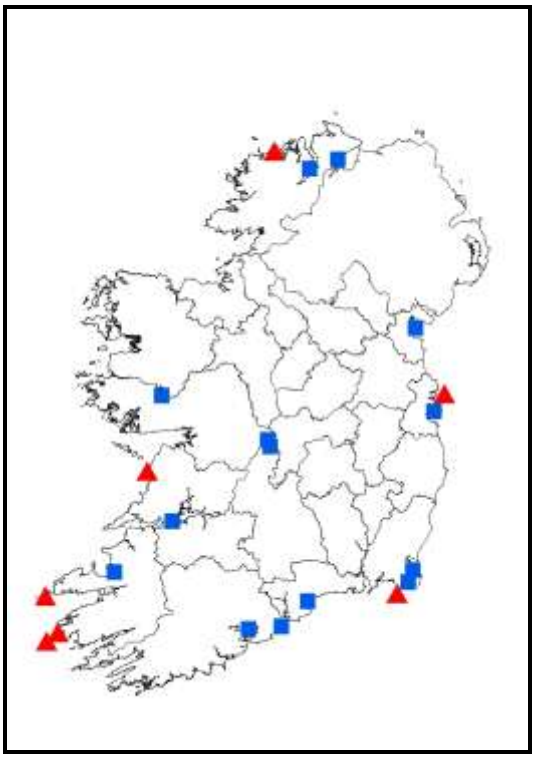
5. SPA SITES IDENTIFIED

Using the criteria outlined in Section 3 and the data as described in Section 4 a total of 154 SPA sites with a combined area of ~ 575,000ha were identified by the SPA Review as being suitable for designation. An overview of the sites identified using each of the criterion is outlined below and in Appendix 3.

5.1. *Criterion One: sites regularly supporting 20,000 waterbirds or 10,000 pairs of seabirds*

Using data from the baseline periods (as outlined in Section 4) a total of 21 sites were identified that supported 20,000 waterbirds or 10,000 pairs of seabirds (see Appendix 3). All twenty-one sites that were identified using this criterion were selected for SPA designation. Using I-WeBS data fourteen sites were selected as they supported an assemblage of 20,000 wintering waterbirds during the baseline period. Utilising Seabird 2000 data seven sites were selected as they supported assemblages of 10,000 pairs of breeding seabirds during the baseline periods (see Figure 1). The sites selected using this criterion were primarily coastal locations.

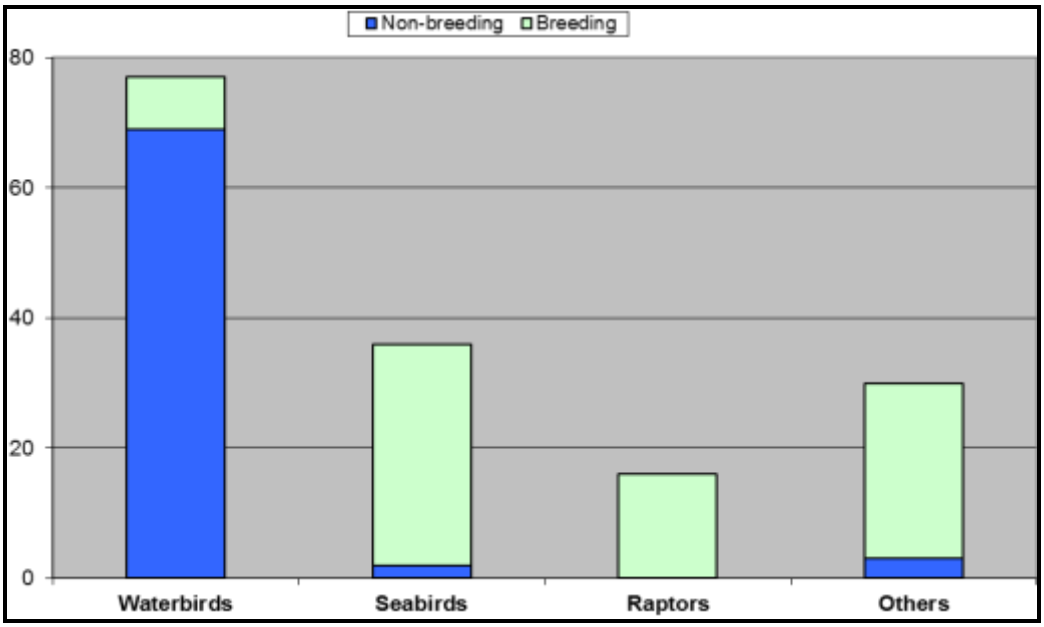
Figure 1. Location of SPA sites in the Republic of Ireland selected for regularly supporting 20,000 waterbirds (■) or 10,000 pairs of seabirds (▲).



5.2. *Criterion Two: sites regularly supporting 1% or more of the all-Ireland population of an Annex I species*

Using data from the baseline periods (as outlined in Section 4) a total of 119 sites were identified and selected for SPA designation as they supported ≥1% of the all-Ireland population of an Annex I species (see Appendix 3). For ease of reporting all species included within the SPA network have been assigned to four broad non-taxonomic grouping - Waterbirds, Seabirds, Raptors and Others[b]. Ireland regularly supports significant populations of wintering/non-breeding waterbirds and therefore the largest number of sites selected using this criterion was for this group of birds (see Figure 2). Note - as a site may support multiple Annex I species or breeding and non-breeding populations of the same species, which exceed the all-Ireland 1% threshold, the number of sites shown in Figure 2 are not additive.

Figure 2. Number of SPA sites for selected for regularly supporting ≥1% of the all-Ireland population of an Annex I species.



The cross-border Lough Foyle site supported a number of Annex I species above the 1% threshold of national importance during the baseline periods but the majority of the birds occur in Northern Ireland. Lough Foyle SPA in the Republic of Ireland was

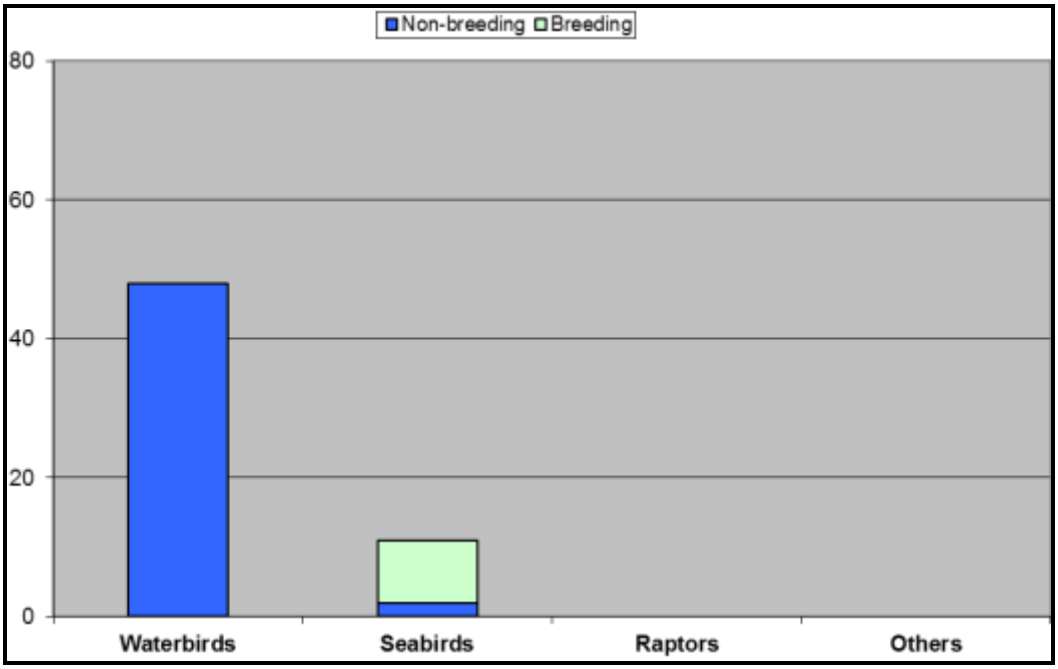
[b] Details of the species included in each of the four groups (Waterbirds, Seabirds, Raptors and Others) are outlined in Appendix 2.

therefore selected for its wintering waterbird assemblage and not individual species. A small number of sites which supported Annex I species just above the 1% threshold of national importance, but were not ranked amongst the most suitable sites in the country for the particular species, and therefore were not selected for designation using this criterion. The vast majority of such sites were selected utilising other criteria and have the relevant Annex I species listed as additional special conservation interests (see individual species accounts in Section 11).

5.3. *Criterion Three: sites regularly supporting 1% or more of the biogeographic population of a migratory species*

Using data from the baseline periods (as outlined in Section 4) a total of 57 sites were identified and selected for SPA designation as they supported ≥1% of the biogeographic population of a migratory species (see Figure 3). The majority of sites known to regularly support migratory species populations that regularly exceeded the 1% biogeographic threshold, during the baseline period, were selected for SPA designation (see Appendix 3). Note - as a site may support multiple species whose populations exceed the biogeographic 1% threshold the number of sites shown in Figure 3 are not additive.

Figure 3. Numbers of SPA sites selected for regularly supporting ≥1% of biogeographic population of a migratory species.

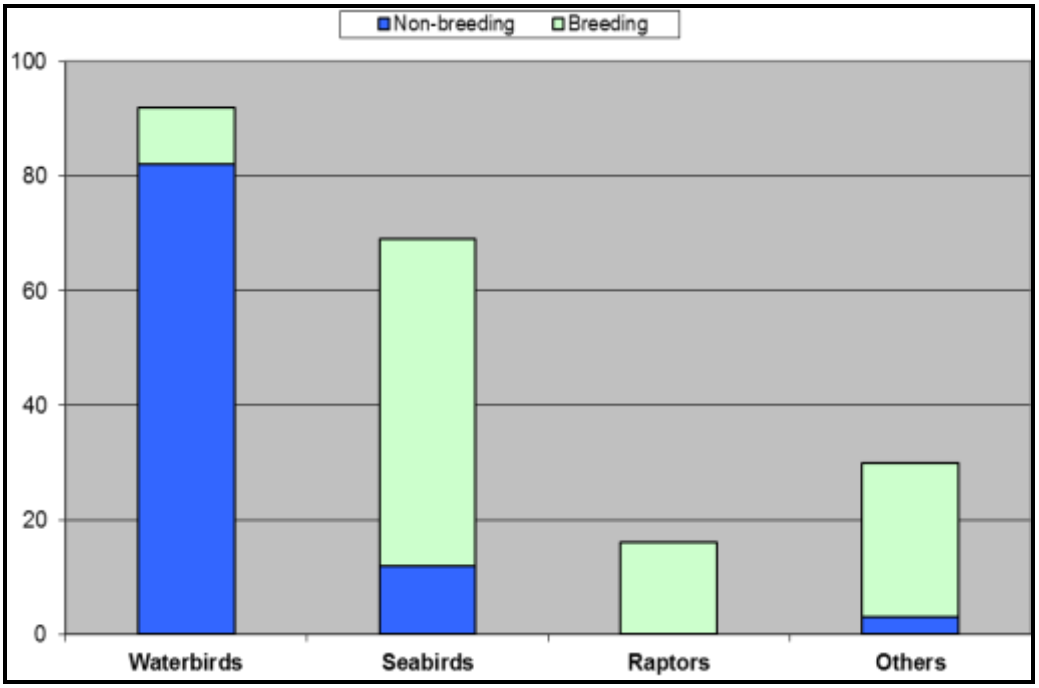


5.4. *Criterion Four: sites considered to be one of the most suitable sites in Ireland for an Annex I species or a migratory species*

Criterion Four can be considered as the over-arching criterion with regard to the selection of sites for the SPA Network in the Republic of Ireland i.e. each site that is to be selected for SPA designation must meet this criterion. The final selection of the SPA suite of sites for a species is based on: (1) the guideline number of sites; (2) the rank and distribution of abundances at sites; and (3) other scientific factors such as geographic distribution, the cumulative percentage of the all-Ireland population that occur within the SPA network, density, traditional use of a site and multi-species site considerations.

The number of sites selected using this criterion is linked to the proportion of the biogeographic population that Ireland supports - a guideline for the number of SPA sites selected is shown in Table 1 (Section 3.1). Additionally as Article 4 (1) of the Birds Directive sets out that those species listed in Annex I shall be the subject of special conservation measures the number of sites for these species is predominantly towards the upper end of the scale. Using data from the baseline periods (as outlined in Section 4) a total of 154 sites were identified and selected for SPA designation as each represented one of the most suitable sites in Ireland for the conservation of an Annex I or a migratory species.

Figure 4. Numbers of SPA sites selected as they represent the most suitable sites in the Republic of Ireland for an Annex I or migratory species.



5.5. *Non-selection sites*

The SPA review involved retrospectively applying the criteria developed for SPA identification to over 130 existing SPAs. The majority of sites designated met one of the four criteria developed as part of the SPA Review but a small number of SPAs (11) did not meet the criteria for designation (see Appendix 4). The majority of the SPAs which did not meet the criteria for selection were peatland sites located within the traditional ranges of Greenland White-fronted Goose flocks. Historically this species utilised peatland habitats in winter but in recent decades has moved to feed in agricultural landscapes[8]. The identification and subsequent designation of sites as SPAs has to be viewed in the context of the time that they were assessed. The extent and quality of bird surveillance programmes has increased markedly through the years thus enabling NPWS to refine the relative importance of sites for particular species.

With the benefit of more comprehensive survey information and hindsight some sites that were once considered to be of relatively high importance for particular species did not meet the selection criteria for SPA designation during the relevant baseline periods. The conservation features identified for these non-selection SPAs, during the relevant baseline periods, are listed in Appendix 4.

Nine of the eleven SPA sites which did not meet the SPA Review criteria for designation have existing Statutory Instruments and therefore are afforded the same protection as the 154 sites within the current SPA network.

6. SPECIAL CONSERVATION INTERESTS

The selection and designation of a site as an SPA provides the legal basis for the protection and conservation of the relevant Annex I listed species and regularly occurring migratory species and their habitats. When a site has been identified as meeting the requirements for designation a list identifying the specific features of interest for that site that will be afforded particular protection is assembled - these features are known as the special conservation interests for the site. The special conservation interests of a site can be divided into two categories: the selection species and the additional conservation interests. These special conservation interests are of relevance for the protection and management of the SPA network (see Section 8).

6.1. *Selection species*

The selection species for an SPA includes all internationally important populations and those nationally important populations where the site is regarded as one of the most suitable sites in the country for the conservation of that species.

Note that when a site is selected under Criterion One (Section 5.1) which identifies sites supporting assemblages of 20,000 or more individual waterbirds or seabird colonies with greater than 10,000 pairs, each of those relevant species that contribute significantly to the assemblage i.e. numbers ≥1% national threshold are specifically listed as either selection species or additional special conservation interests.

6.2. *Additional special conservation interests*

The additional special conservation interests for an SPA includes all relevant Annex 1 and regularly occurring migratory species whose recorded abundances during the relevant baseline period meet or exceeded the all-Ireland 1% threshold, but were not selection species for the site.

Article 4(2) of the Birds Directive requires all Member States to pay particular attention to the protection of wetlands and particularly to wetlands of international importance. It is widely acknowledged that the wetlands of northwest Europe are a vital resource for millions of northern and boreal nesting waterbird species that overwinter on these

wetlands or visit them when on migration. Ireland's location along major flyways for many species results in the wetlands of Ireland supporting significant populations of migratory species. In order to provide particular protection to the wetland resource of Ireland a subset of SPAs, which have wintering waterbirds species[c] listed as special conservation interests and is or contains a wetland site of significant conservation importance, was compiled. A total of 64 SPAs were identified as containing wetlands pursuant to Article 4(2) of the Directive (see Appendix 5). The wetland habitat contained in the 64 SPAs, which constitutes a resource for regularly occurring migratory waterbirds, is considered to be an additional special conservation interest at these sites.

[c] With the exception of *Branta (bernicla) hrota* members of the Subfamily Anserinae (swans and geese) are not included in the list of "wintering waterbirds" used to identify sites which contains wetland habitats of significant conservation importance.

7. PUBLIC NOTIFICATION OF SPA SITES

The SPA Review produced a set of defined criteria for the selection of SPAs sites, a list of special conservation interests for each selected site and defined or re-defined the boundaries of all SPAs to ensure that they were fit for purpose. As part of the boundary assessment process twenty-two existing SPAs, with ecological and geographical links to nearby sites, were merged into other SPA sites or included within new SPAs selected for designation.

New SPA sites identified during the review and any amendments to existing SPA sites were publicly notified or re-notified with all the relevant information including boundary maps, special conservation interests and a list of Activities Requiring Consent (ARCs). ARCs are activities that have the potential to negatively affect the special conservation interests of a site and therefore a mechanism of notification is required to safeguard the SPA and its nationally/internationally important bird populations. The list of ARCs for each site is linked to the special conservation interests for that SPA and also the habitats that exist within the site.

Following public notification landowners have a three month period during which they can lodge an appeal against the inclusion/exclusion of their lands. Appeals are assessed only on scientific grounds and are initially assessed by NPWS staff. If a landowner is not satisfied with the outcome they can choose to have their appeal assessed by the Designated Areas Appeals Advisory Board which evaluates the scientific arguments in relation to the specific lands and makes a recommendation to the Minister.

When the appeals process is completed a Statutory Instrument and a Natura 2000 Standard Data Form is produced or updated for each SPA site.

8. PROTECTION OF ANNEX I AND MIGRATORY SPECIES

The designation of SPA sites, as required under Article 4 of The Birds Directive, provides special protection for Annex I and regularly occurring migratory species and the habitats that support them. The SPA network of sites seeks to encompass the core areas that are regularly utilised by the relevant species for breeding, moulting, wintering and staging along their migration routes. Specific measures for the protection of Natura 2000 sites in the Republic of Ireland are included in national legislation e.g. the European Communities (Birds and Natural Habitats) Regulations 2011. Protection of the special conservation interests of each SPA site is facilitated through the development of site specific conservation objectives. These conservation objectives are used in the appropriate assessment of all plans and projects that have the potential to impact on the special conservation interests of an SPA site.

While a large number of Annex I and migratory species are included within the SPA network there is a particular responsibility to protect those species where Ireland holds a significant share of the biogeographic population.

8.1. *Proportions of Annex I and migratory species populations that occur within the SPA network*

Estimates of the proportion of the all-Ireland populations of breeding Annex I and migratory species occurring within the SPA network were obtained by adding the data recorded during the baseline period in the listed SPAs for each species. Supplementary information, from surveys outside the baseline period, was used to estimate the breeding populations at the small number of sites not surveyed during the relevant baseline periods.

When assessing the proportions of wintering/non-breeding populations that occur within the SPA network it is not appropriate to add the mean peak data for listed SPAs as birds may move between sites and may therefore be recorded within several SPAs over the course of a single season. The ranking of sites for wintering/non-breeding Annex I and migratory species was based primarily on five year mean peak counts during the period 1995/96 to 1999/2000. Utilising the dataset which generated the All-Ireland population estimates for the period 1994/95 to 1998/99[3] the proportions of the wintering/non-breeding species occurring within the SPA network were therefore

estimated by assessing data from one single month between 1995 and 1998. Monthly indices for wintering waterbirds, which indicate when peak numbers of each species occur in the Republic of Ireland[9], were used to inform the data selection period but the majority of species were assessed using mid-winter (December/January) data. Data from the International Swan Census in 2000 was used to estimate the Bewick's Swan population within the SPA network of sites. Data from the annual spring census of the Greenland White-fronted Goose population (1994/95 to 1998/99) and four aerial surveys of Barnacle Goose populations (1993 to 2003) were used to estimate the proportions of these species within the SPA network of sites. The estimates derived for the populations of wintering/non-breeding species occurring within the SPA network should be treated as absolute minima as data for all of the sites/species may not have been available for the selected assessment periods. The estimated proportion of wintering/non-breeding populations occurring within the SPA network does not fully account for the usage of some sites by large numbers of some species on passage to their breeding/wintering sites.

The estimated proportions of the all-Ireland population of Annex I and migratory species that occur within the SPA network is influenced by a range of factors including the share of the overall biogeographic population that occurs in Ireland, the species distribution and also the conservation status of a particular species i.e. species listed in Annex I of the Birds Directive require special conservation measures.

8.2. *Annex I and migratory species where Ireland supports less than 5% share of the biogeographic population.*

Ireland supports a very small share (<5%) of the biogeographic populations of a large number of species included within the SPA network (see Appendix 2). In general both breeding and non-breeding populations in this category which are widely dispersed and/or do not form significant aggregations will have relatively low proportions of their all-Ireland populations within the SPA network e.g. Greenshank and Kingfisher. However, for those species which breed colonially in discrete locations a very high proportion of the all-Ireland population may occur within the SPA network e.g. Leach's Petrel were recorded breeding at only one site in Ireland during the baseline period. The designation of this one site resulted in 100% of the all-Ireland population of Leach's Petrel occurring within the SPA network. Wintering waterbirds in this category

that have relatively restricted distributions (e.g. Greylag Goose) or species that have a significant proportion of the all-Ireland population at a small number of sites (e.g. Coot) also have a high proportion of their all-Ireland populations within the SPA network.

8.3. *Annex I and migratory species where Ireland supports 6-25% of the biogeographic population.*

For those species where Ireland has a higher share of the biogeographic population (6-25%) the estimated proportion of the all-Ireland population within the SPA network ranges from 8% to 99% depending on species distribution etc. Widely dispersed species which occur on continuous habitats such as rocky coastlines or sandy shores, often at low densities, will inevitably have a low proportion of the population within the SPA network (e.g. Purple Sandpiper and Ringed Plover). For those Annex I listed species in this category that regularly occur in aggregations at discrete locations (e.g. Storm Petrel, Gannet and Barnacle Goose) the estimated proportion of the all-Ireland populations within the SPA network is generally very high (>90%).

8.4. *Annex I and migratory species where Ireland supports 26-50% of the biogeographic population.*

Ireland supports a significant share (25-50%) of the biogeographic population of four species - Greenland White fronted Goose, Roseate Tern, Black-tailed Godwit, and Great Northern Diver. Greenland White fronted Goose and Roseate Tern are listed in Annex I and a very high proportion of the all-Ireland populations of these two species were recorded within the SPA network (>90%). Great Northern Diver is also listed in Annex I but given the dispersed nature of this species and its occurrence in offshore locations the proportion of the all-Ireland population that is estimated to occur within the SPA network is inevitably low (6%). An estimated 67% of the all-Ireland population of Black-tailed Godwit occurred within the SPA network during the baseline period.

8.5. *Annex I and migratory species where Ireland supports 50-100% of the biogeographic population.*

Ireland supports a large share (51-100%) of the biogeographic population of three species - Light-bellied Brent Goose, Whooper Swan, Chough. Although Chough is a

dispersed species the high biogeographic share held by Ireland, combined with its listing in Annex I of the Birds Directive is reflected in the high proportion (~65%) of the all-Ireland population that was recorded within the SPA network during the baseline period. The importance of some dune systems that are utilised for feeding/roosting in the post-breeding season is reflected in the designation of post-breeding SPA sites for Chough.

In winter Ireland supports almost all of the biogeographic population of Light-bellied Brent Goose and a significant proportion (~62%) of the biogeographic population of Whooper Swan, a species also listed in Annex I of the Birds Directive. The estimated proportion of the all-Ireland populations of both Light-bellied Brent Goose and Whooper Swan, are limited as a significant proportion of the populations occur in Northern Ireland (see individual species accounts). As the baseline periods used in the assessment of SPA sites in Northern Ireland differs from those used in the Republic of Ireland, and there are known movement of Light-bellied Brent Goose between designated sites in Northern Ireland and the Republic of Ireland, the summation of the data relating to the proportion of populations occurring within the two SPA networks would not be appropriate. However, an indication of the protection afforded to particular species can be obtained by examining the data from both networks.

The majority of Light-bellied Brent Goose congregate at Strangford Lough in Northern Ireland in autumn and then disperse to estuarine sites, primarily in the Republic of Ireland, over the course of the winter. However, a significant proportion (~30%) of the population remains in Northern Ireland during the winter. The proportion of the all-Ireland population of Light-bellied Brent Goose recorded within the SPA network in the Republic of Ireland was estimated to be ~53% during the baseline period (1995/96 to 1999/2000) while the estimate for the network in Northern Ireland was ~70% during their baseline period (1992/93 to 1996/97). All wetland sites in the Republic of Ireland that regularly supported nationally important populations of Light-bellied Brent Goose during the baseline period were selected for SPA designation. Six sites in Northern Ireland qualified for inclusion in the UK SPA network due to their Light-bellied Brent Goose populations. It is apparent that a very high proportion (≥75%) of the all-Ireland population of Light-bellied Brent Goose is supported within the SPA networks in both jurisdictions.

Ireland supports a significant share of the biogeographic population of Whooper Swan but a significant proportion of the population (~29%) was recorded in Northern Ireland during the baseline period[10]. In winter Whooper Swan are very widely distributed in Ireland with over 400 flocks recorded during the International Swan Census in 2000. The majority of flocks contain small numbers of swans and only nineteen sites in Ireland held nationally/internationally important numbers of Whooper Swan (≥127) during the 2000 census[10]. The nineteen sites which held nationally/internationally numbers in 2000, including the two highest ranking sites located in Northern Ireland, accounted for only ~55% of the all-Ireland population. Data collected during the International Swan Census also shows considerable variation in the usage of some locations in different survey years e.g. four sites which had no Whooper Swans present in 2005 had either internationally/nationally important populations recorded during the 2010 census[11].

Utilising I-WeBS data to identify locations that were regularly utilised for feeding/roosting during the baseline period, eighteen wetland sites were selected for SPA designation in the Republic of Ireland.

It is estimated that ~24% of the all-Ireland population of Whooper Swan in 2000 (and ~34% of the population in the Republic of Ireland) were recorded within the listed SPA sites. The estimated proportion of the Whooper Swan population that occurs within the SPA network is based on daytime surveys and does not reflect the utilisation of many SPAs as roost locations.

The occurrence of Whooper Swan within the SPA network is as expected given the highly dispersed nature of this species, the sporadic exploitation of short-tern food resources at widespread locations, and the occurrence of a significant proportion of the all Ireland population in Northern Ireland.

8.6. *Ex-situ protection of Annex I and migratory species*

Annex I and migratory species occur outside of designated sites and the protection afforded to these species is not limited to SPA sites. Legislation in the Republic of Ireland affords protection to bird species outside of designated sites e.g. all wild bird species are afforded protection by The Wildlife Act 1976 and the European Communities (Birds and Natural Habitats) Regulations 2011 provides a mechanism for ex-situ protection.

A variety of wider countryside measures are in place for the conservation of birds species in non-designated sites including a National Biodiversity Plan, Conservation Management Plans and Species Actions Plans. Recent changes in planning legislation has provided for greater protection of all bird species and their habitats , in particular the Planning and Development Act, 2000 which requires that Development Plans must contain objectives for the conservation of nationally important sites and biodiversity in general.

9. ANNEX I AND MIGRATORY SPECIES FOR WHICH SPAs ARE NOT SELECTED

The site based protection afforded by the Birds Directive is not suitable for the conservation of some species and therefore SPA sites have not been selected for the following:

9.1. *Sedentary species*

Article 4 of the Birds Directive requires all Member States to designate SPAs for species listed in Annex I and regularly occurring migratory species. Sedentary species in the Republic of Ireland such as Mute Swan, Black Guillemot and Great Black-backed Gull are protected under national legislation i.e. The Wildlife Act 1976.

9.2. *Scare winter visitors*

Some Annex I and migratory species do not regularly occur in the Republic of Ireland, or occur regularly but in very low numbers and therefore designation of SPAs for such species is not appropriate e.g. Slavonian Grebe and Pink-footed Goose.

9.3. *Dispersed species*

The site-based protection afforded through the designation of SPAs under the Birds Directive is not appropriate for the conservation of broadly dispersed species that do not regularly occur in significant aggregations e.g. summer migrants including House Martin, Chiffchaff, and winter migrants including Redwing and Fieldfare.

9.4. *Introduced non-native species*

There are no requirements under the Birds Directive to designate SPAs for introduced non-native bird species e.g. Canada Goose.

10. FUTURE ADDITIONS TO THE SPA NETWORK

For some Annex I and migratory species the designation of SPA sites was not possible at the time of the SPA review but in the future it may be appropriate to designate SPAs for some of these species including:

10.1. *Recent Irish colonists*

Some Annex I listed bird species have recently colonised Ireland naturally or appear to be in the process of doing so e.g. Little Egret and Mediterranean Gull. Their numbers and distribution are subject to ongoing change. In the longer term, if the species establish themselves and their numbers and range stabilises, it may be appropriate to consider identifying SPAs for such colonists.

10.2. *Re-introduced raptors*

Three species of raptor listed on Annex I of the Birds Directive (Golden Eagle, White-tailed Eagle and Red Kite) have been subject to re-introduction programmes in the Republic of Ireland in recent years. The designation of SPAs for these species may be appropriate at some time in the future when populations have become established and the "most suitable sites" can be identified.

10.3. *Passage populations*

Ireland is an important site for wintering waders but it is also utilised by large numbers of waders during their spring and autumn migrations. I-WeBs counts include birds that are on passage to their wintering or breeding locations. If the passage populations can be differentiated from wintering populations then sites may be identified as important passage locations for particular species. As the I-WeBS data used to identify the most suitable sites for designation included both wintering and passage populations it is unlikely that new sites will be identified as SPAs for passage waders. However, a species may be added as a new special conservation interests if data shows that a site regularly supports an internationally important population of an Annex I or migratory species during passage to its wintering/breeding grounds. For those species where data relating to passage populations was available during the SPA review e.g. Tern populations then sites have been selected for SPA designation for the passage populations of the relevant species.

10.4. *Marine SPAs*

This review has not been in a position to consider the situation with regard to birds in the offshore marine areas. Information on birds in these areas in Ireland is generally limited. It is intended to conduct a review of existing information, assess data needs, and to consider the appropriateness, and possibilities for identifying and designating SPAs offshore.

11. SPECIES ACCOUNTS

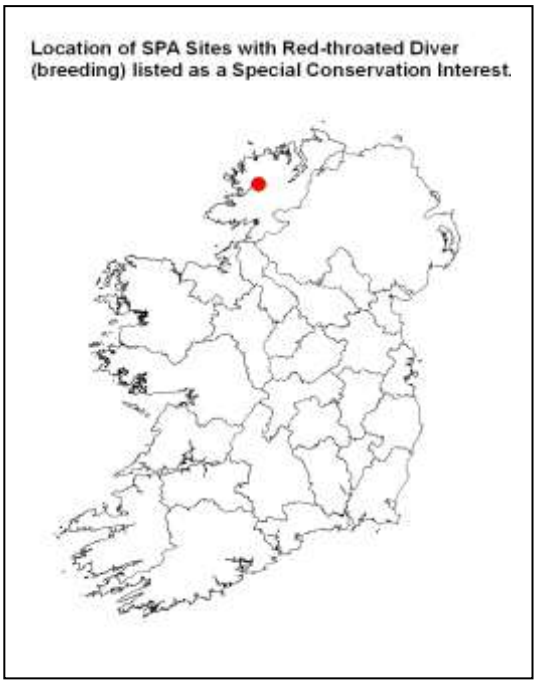
11.1. Red-throated Diver *Gavia stellata* (breeding)

Birds Directive Annex I Species: Yes

Biogeographic Population: 52,000 -142,000 pairs

All-Ireland Population: 10 pairs

Approximate Biogeographic share: <0.1%



The Red-throated Diver is an arctic breeding species with a circumpolar distribution. In Europe, it breeds in Iceland, northern Scotland, north-western Ireland, Scandinavia and northern Russia, and winters along the coast as far south as Spain[2]. The Irish population is the most southerly location of the Red-throated Divers Western Palaearctic range. Breeding sites tend to be small remote oligotrophic lakes while foraging occurs on larger lakes and also at sea[12].

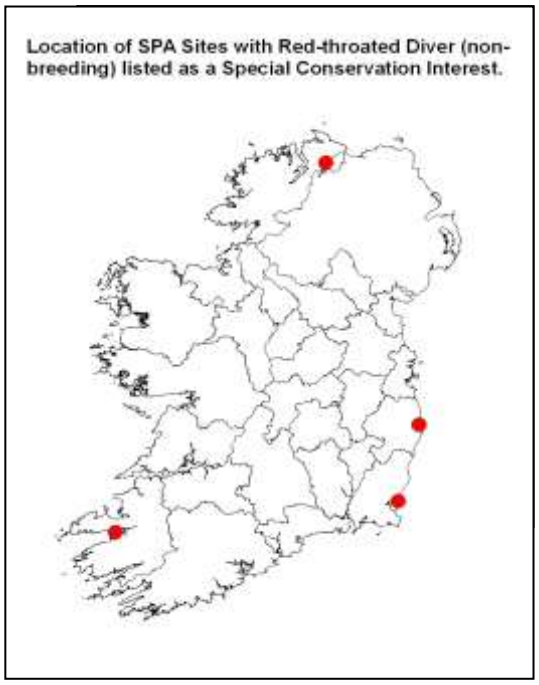
In Ireland a population of less than 10 pairs has bred for many years in Co Donegal[12]. The biogeographic population estimate of 52,000 – 142,000 pairs refers to the birds breeding in Arctic and boreal West Eurasia and Greenland[7]. The all-Ireland Red-throated Diver breeding population represents an estimated biogeographic share of 0.01-0.02% for this Annex I species.

The highest ranking Red-throated Diver breeding site, which supports the majority of the known breeding population in Ireland, was selected for SPA designation (see Table 11.1). Six out of nine pairs of Red-throated Diver recorded breeding in Donegal in 2010 were within the selected SPA[13]. A lake utilised by Red-throated Diver for courtship/feeding is also included within another designated SPA site.

Table 11.1 SPA sites with Red-throated Diver (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004039	Derryveagh and Glendowan Mountains SPA	6	2010
Estimated percentage of all-Ireland population within listed SPA sites				60+%

11.2. Red-throated Diver *Gavia stellata* (non-breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 183,000 - 420,000 individuals

All-Ireland Population: 1,255 individuals

Approximate Biogeographic share: <1%

In winter Red-throated Divers move south from their arctic and northern breeding areas to more temperate marine areas. Breeding populations in Russia, Western Europe and probably Greenland move south to winter along the coastline of northwest Europe[2].

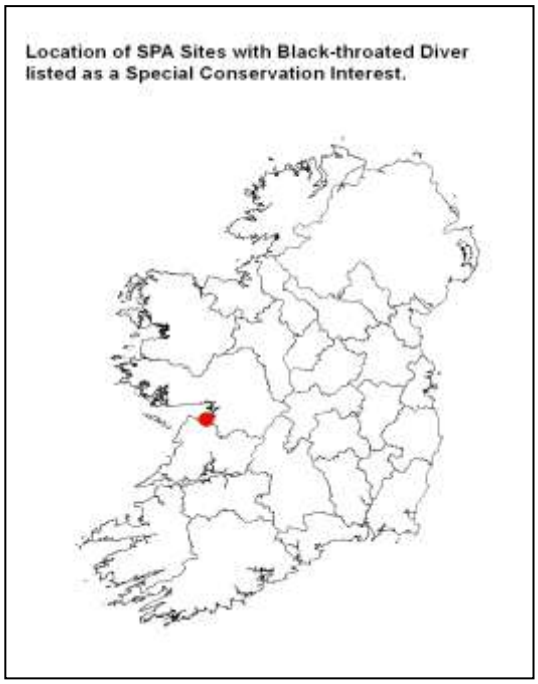
The all-Ireland wintering population of Red-throated Diver is estimated to be 1,255 individuals[3] but this may be an underestimate as birds feeding offshore may go undetected during winter surveys[9]. The biogeographic population estimate of 183,000 – 420,000 individuals refers to the birds breeding in West Eurasia and Greenland[6]. The all-Ireland wintering population of Red-throated Diver represents an estimated biogeographic share of 0.3 -0.7% for this Annex I species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the two highest ranking Red-throated Diver sites in Ireland were selected for SPA designation (see Table 11.2). In addition the only two SPAs which regularly supported Red-throated Diver populations that exceeded the threshold of national importance (≥25 individuals), during the baseline period, have this species listed as a special conservation interest

Table 11.2 SPA sites with Red-throated Diver (non- breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004019	The Raven SPA	77	5 year mean peak (1995/96-1999/2000)
	800004029	Castlemaine Harbour SPA	56	5 year mean peak (1995/96-1999/2000)
Additional SCI sites	800004186	The Murrough SPA	32	5 year mean peak (1995/96 -1999/2000)
	800004087	Lough Foyle SPA	28	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				8%

11.3. Black-throated Diver *Gavia arctica*



Birds Directive Annex I Species: Yes

Biogeographic Population: 250,000 – 500,000 Individuals

All-Ireland Population: -

Approximate Biogeographic share: -

The nominate subspecies *Gavia arctica arctica* has a breeding distribution that extends across Northern Europe and Western Siberia[7]. During winter Black-throated Diver move to the coastal waters of north-west Europe, the Mediterranean and the Black and Caspian Sea[7]. Black-throated Diver is the rarest of the three diver species wintering around the Irish coastline[9].

Black-throated Diver occur in small numbers at a number of locations around the Irish coastline[9]. Given the difficulty in surveying this species from land no reliable estimate of the All-Ireland population is currently available. The biogeographic population estimate of 250,000 - 500,000 individuals refers to the birds breeding in Northern Europe and Western Siberia[7].

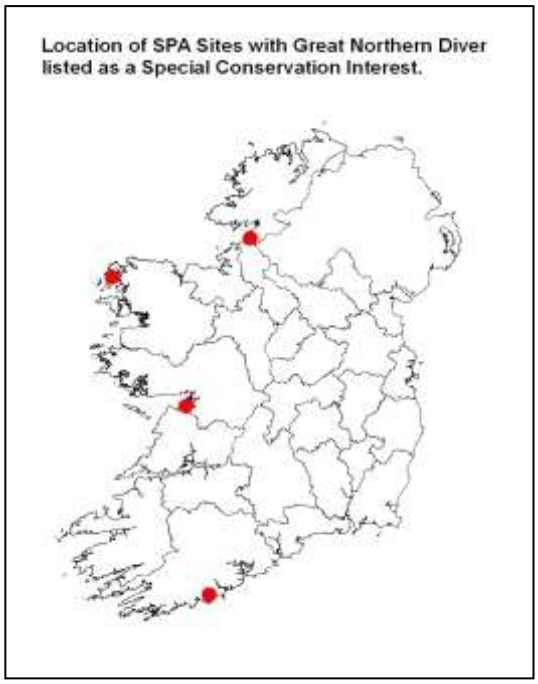
Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the highest ranking Black-throated Diver site in Ireland was selected for SPA designation[d] (see Table 11.3).

[d] Further public notification is required to include Black-throated Diver as a special conservation interest at Inner Galway Bay SPA.

Table 11.3 SPA sites with Black-throated Diver listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004031	Inner Galway Bay SPA[d]	36	5 year mean peak (1995/96-1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				-

11.4. Great Northern Diver *Gavia immer*



Birds Directive Annex I Species: Yes

Biogeographic Population: 5,000 individuals

All-Ireland Population: 1,310 individuals

Approximate Biogeographic share: 26%

The Great Northern Diver has a breeding distribution that extends from North America to Greenland and also Bear Island in Scotland[6]. During winter the waters off Britain and Ireland are thought to support individuals from Iceland, Greenland and possibly Canada[2]. Great Northern Diver is the most common species of diver recorded around the Irish coastline[9].

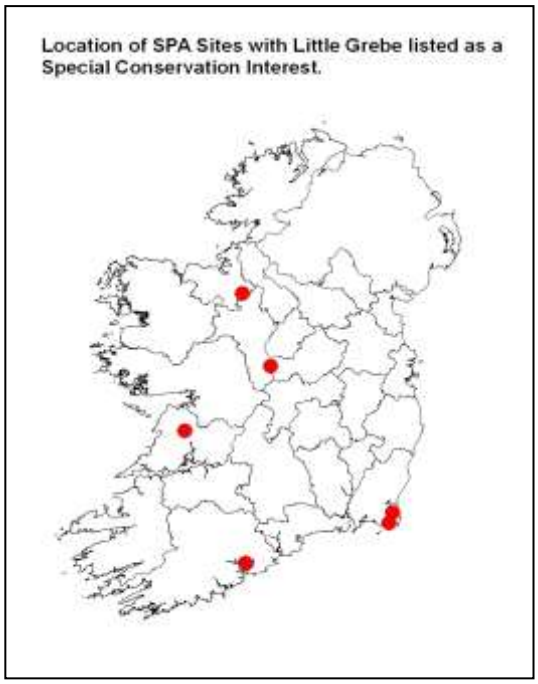
The all-Ireland wintering Great Northern Diver population is estimated to be 1,310 individuals but this may be an underestimate as birds feeding offshore may go undetected during winter surveys[9]. The biogeographic population estimate of 5,000 individuals refers to the birds breeding in eastern North America, Greenland, Iceland and Scotland[6]. The all-Ireland wintering Great Northern Diver population represents an estimated biogeographic share of 26% for this Annex I species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the three highest ranking Great Northern Diver sites in Ireland, which supported internationally important populations (≥50 individuals[6]) were selected for SPA designation (see Table 11.4). In addition the only SPA which regularly supported Great Northern Diver populations that exceeded the threshold of national importance (≥25 individuals), during the baseline period, has this species listed as a special conservation interest.

Table 11.4 SPA sites with Great Northern Diver listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004151	Donegal Bay SPA	138	4 year mean peak (1995/96-1999/2000)
	800004031	Inner Galway Bay SPA	88	5 year mean peak (1995/96-1999/2000)
	800004037	Blacksod Bay/ Broad Haven SPA	67	5 year mean peak (1995/96-1999/2000)
Additional SCI sites	800004219	Courtmacsherry Bay SPA	27	5 year mean peak (1995/96 -999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				6%

11.5. Little Grebe *Tachybaptus ruficollis*



Birds Directive Annex I Species: No

Biogeographic Population: 230,000 - 450,000 individuals

All-Ireland Population: 2,630 individuals

Approximate Biogeographic share: 1%

Little Grebe is a widespread species with the nominate race breeding throughout temperate Europe, northwest Africa, Turkey and Israel[6]. Breeding on shallow freshwaters, the nominate race is thought to move to wintering areas in a westwards or southwest direction. In Ireland some individuals move to coastal estuaries and bays during winter although many stay on inland waterbodies[9]. The true nature of movements and migrations are still relatively unknown for this species[2].

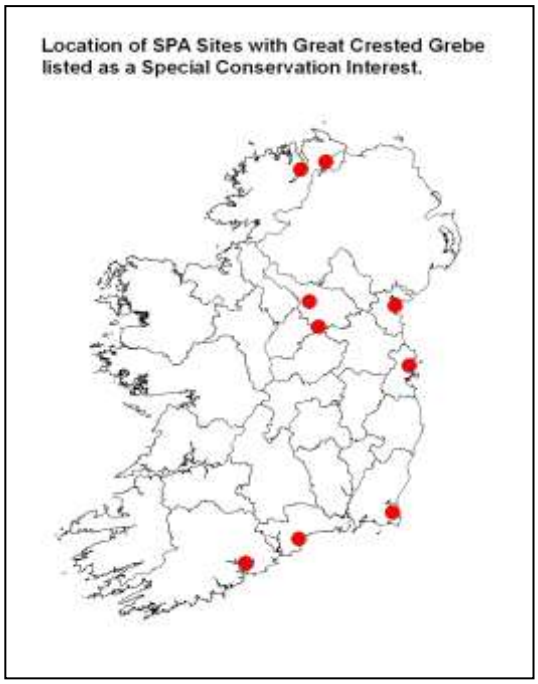
The all-Ireland wintering population of Little Grebe is estimated to be 2,630 individuals[3].The biogeographic population estimate of 230,000 – 450,000 individuals refers to birds breeding in eastern Europe and northwest Africa[6]. The all-Ireland Little Grebe wintering population represents an estimated biogeographic share of 0.6% - 1.1% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the highest ranking Little Grebe site (Lough Arrow) in the Republic of Ireland was identified and selected for SPA designation (see Table 11.5). As Lough Arrow was surveyed only once during the baseline period, when it supported the largest population of Little Grebe in the Republic of Ireland, data from 2001/02 to 2005/06 is used for this site. In addition five SPAs which regularly supported Little Grebe populations that exceeded the threshold of national importance (≥50 individuals), during the baseline period, have this species listed as a special conservation interest.

Table 11.5 SPA sites with Little Grebe listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004050	Lough Arrow SPA	185	5 year mean peak (2001/02 to 2005/06)
Additional SCI sites	800004220	Corofin Wetlands SPA	87	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	82	5 year mean peak (1995/96 -1999/2000)
	800004092	Tacumshin Lake SPA	71	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	57	5 year mean peak (1995/96 -1999/2000)
	800004064	Lough Ree SPA	52	3 year mean peak (1997/98 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				21%

11.6. Great Crested Grebe *Podiceps cristatus*



Birds Directive Annex I Species: No

Biogeographic Population: 370,000 – 580,000 individuals

All-Ireland Population: 5,130 individuals

Approximate Biogeographic share: 1%

Great Crested Grebe is a widespread breeding species with one population of the nominate subspecies breeding and wintering in north and west Europe[6]. It is thought likely that the majority that breed in Ireland are resident, with individuals breeding at inland lakes moving to coastal sites for the winter period[9]. Some immigration of individuals due to cold weather movements is likely[9] but the true nature of this species movement is poorly known[2].

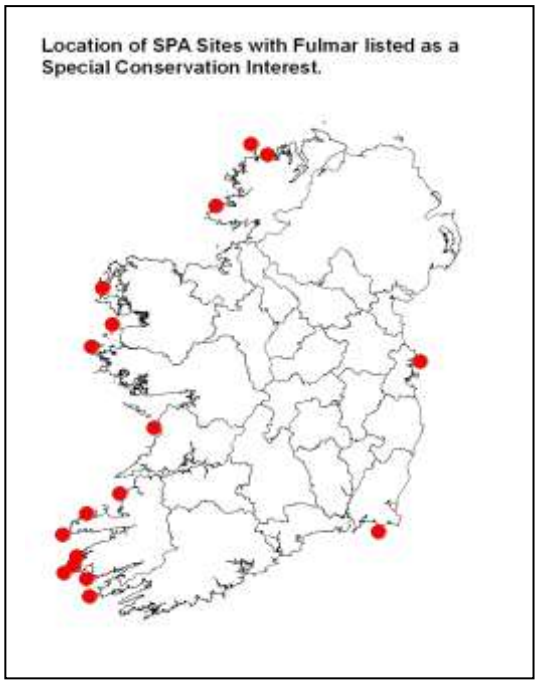
The all-Ireland wintering population of Great Crested Grebe is estimated to be 5,130 individuals[3]. The biogeographic population estimate of 370,000 – 580,000 individuals refers to the birds breeding in North-west Europe[6]. The all-Ireland Great Crested Grebe wintering population represents an estimated biogeographic share of 0.9-1.4% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the two highest ranking Great Crested Grebe sites in the Republic of Ireland were selected for SPA designation (see Table 11.6). In addition seven SPAs which regularly supported Great Crested Grebe populations that exceeded the threshold of national importance (≥50 individuals), during the baseline period, have this species listed as a special conservation interest

Table 11.6 SPA sites with Great Crested Grebe listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004026	Dundalk Bay SPA	303	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	284	5 year mean peak (1995/96 -1999/2000)
Additional SCI sites	800004030	Cork Harbour SPA	253	5 year mean peak (1995/96 -1999/2000)
	800004087	Lough Foyle SPA	148	5 year mean peak (1995/96 -1999/2000)
	800004065	Lough Sheelin SPA	140	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	117	5 year mean peak (1995/96 -1999/2000)
	800004049	Lough Oughter SPA	89	5 year mean peak (1995/96 -1999/2000)
	800004025	Malahide Estuary SPA	63	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	53	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				19%

11.7. Fulmar *Fulmarus glacialis* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 2,700,000 – 4,100,000 pairs

All-Ireland Population: 39,000 pairs

Approximate Biogeographic share: 1%

Fulmar is a common breeding bird around the coastline of Ireland but prior to the mid-18th century this species was confined to a few locations in Iceland and Scotland[4]. During the 19th and 20th century this species has undergone a large expansion in both numbers and distribution. Fulmars typically nest along the coast and disperse to sea following the breeding season. Information relating to the exchange of birds between colonies in Ireland and those located in Britain/Iceland and other locations is largely unknown[2].

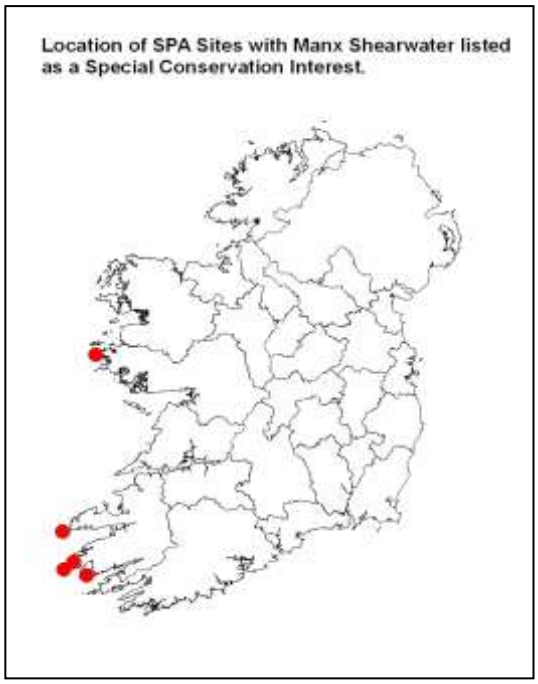
The all-Ireland breeding population of Fulmar is estimated to be 39,000 pairs[4]. The biogeographic population estimate of 2,700,000 – 4,100,000 pairs refers to the Atlantic population[4]. The all-Ireland breeding Fulmar population represents an estimated biogeographic share of 1.0 -1.4% for this species.

Utilising data from the Seabird 2000 Survey (1998-2002) the two highest ranking sites in Ireland were selected for SPA designation (see Table 11.7). In addition fifteen SPAs which supported nationally important populations (≥390 pairs), during the baseline period, have Fulmar listed as a special conservation interest. Deenish Island and Scariff Island SPA has Fulmar listed as a special conservation interest as only Scariff Island was surveyed during Seabird 2000 (385 pairs) and the total numbers of breeding Fulmar within this SPA very likely exceeded the 1% threshold of national importance (≥390 pairs) during the baseline period.

Table 11.7 SPA sites with Fulmar (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004136	Clare Island SPA	4,029	1998-2002
	800004005	Cliffs of Moher SPA	3,566	1998-2002
Additional SCI sites	800004008	Blasket Islands SPA	2,179	1988
	800004194	Horn Head to Fanad Head SPA	1,974	1998-2002
	800004150	West Donegal Coast SPA	1,879	1998-2002
	800004153	Dingle Peninsula SPA	1,016	1998-2002
	800004144	High Island, Inishshark and Davillaun SPA	830	1998-2002
	800004007	Skelligs SPA	830	1998-2002
	800004154	Iveragh Penninsula SPA	766	1998-2002
	800004073	Tory Island SPA	641	1998-2002
	800004111	Duvillaun Islands SPA	638	1998-2002
	800004069	Lambay Island SPA	585	1998-2002
	800004155	Beara Peninsula SPA	575	1998-2002
	800004002	Saltee Islands SPA	520	1998-2002
	800004003	Puffin Island SPA	447	1998-2002
	800004189	Kerry Head SPA	421	1998-2002
	800004175	Deenish Island and Scariff Island SPA	385	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				55%

11.8. Manx Shearwater *Puffinus puffinus* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 340,000 – 410,000 pairs

All-Ireland Population: 27,000 – 61,000 pairs

Approximate Biogeographic share: 11–13%

Manx Shearwater has a breeding range that extends from Newfoundland to the Azores but the majority of the population breeds in Britain and Ireland[4]. Manx Shearwater breed in underground burrows and are only active at their colonies at night. This species is a long distance migrant and birds breeding in Britain and Ireland typically winter in the South Atlantic, usually off the coast of Brazil[2].

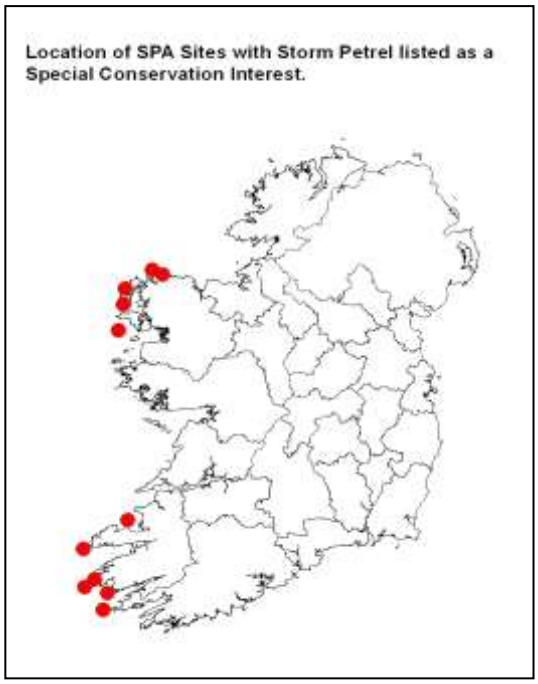
The all-Ireland breeding population of Manx Shearwater is estimated to be 27,000 – 61,000 pairs[4]. The biogeographic population estimate of 340,000 – 410,000 pairs refers to the World population of Manx Shearwater[4]. The midpoint of the all-Ireland population range (44,000 pairs) represents an estimated biogeographic share of 11-13% for this species.

Utilising data from the Seabird 2000 Survey (1998-2002) the four highest ranking Manx Shearwater sites in the Republic of Ireland were selected for SPA designation (see Table 11.8). The two highest ranked sites (Blasket Islands SPA and Puffin Island SPA) supported internationally important populations of Manx Shearwater (≥3,700 pairs[4]). Cruagh Island SPA had a population estimate during the baseline period (2,879 – 3,965 pairs) that overlapped the 1% threshold of international importance. In addition, one SPA site which supported a nationally important breeding population of Manx Shearwater (≥440 pairs), during the baseline period, has this species listed as a special conservation interest.

Table 11.8 SPA sites with Manx Shearwater listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004008	Blasket Islands SPA	19,534	1998-2002
	800004003	Puffin Island SPA	6,329	1998-2002
	800004170	Cruagh Island SPA	3,286	1998-2002
	800004175	Deenish Island and Scariff Island SPA	2,311	1998-2002
Additional SCI sites	800004007	Skelligs SPA	902	1998-2002
Estimated percentage of all-Ireland population (44,000 pairs) within listed SPA sites				74%

11.9. Storm Petrel *Hydrobates pelagicus* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 300,000 – 680,000 pairs

All-Ireland Population: 73,000 - 128,000 pairs

Approximate Biogeographic share: 15 - 33%

Most of the world breeding Storm Petrel population is restricted to the eastern side of the North Atlantic, mainly on islands in Ireland, Scotland, the Faeroes, and southern Iceland[4]. This species is a long distance migrant and birds in the North Atlantic disperse southwards to seas off western and southern Africa and into the Indian Ocean[2].

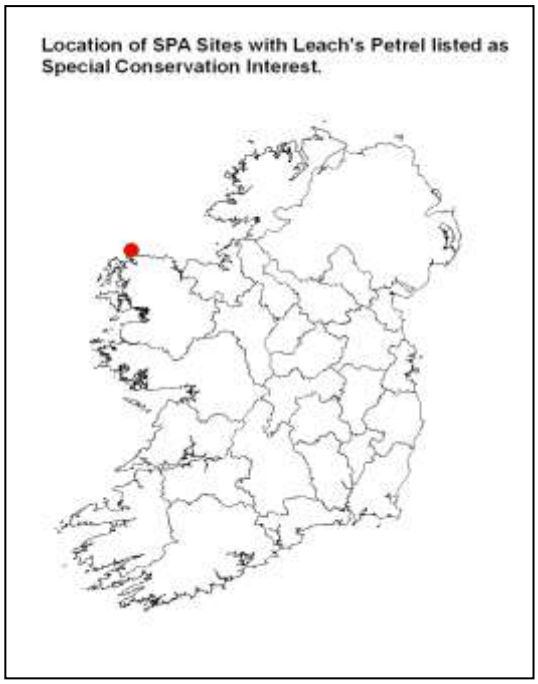
The all-Ireland breeding population of Storm Petrel is estimated to be 73,000 - 128,000 pairs[4]. The biogeographic population estimate of 300,000 – 680,000 pairs refers to the Atlantic (north eastern) Storm Petrel population[4]. The midpoint of the all-Ireland population range (100,000 pairs) represents an estimated biogeographic share of 15-33% for this Annex I species.

Utilising data from the Seabird 2000 Survey (1998-2002) the eleven highest ranking breeding Storm Petrel sites in Ireland were selected for SPA designation (see Table 11.9). The five highest ranked sites supported internationally important populations (≥4,900 pairs[4]). Data from 2007 was used for the Magharee Islands SPA 4125 as this site had historic records of breeding Storm Petrel but was not surveyed during Seabird 2000. Bills Rock was not surveyed during Seabird 2000 so data from 1983 is used for this site. The Duvillaun Islands SPA was selected for designation as the breeding Storm Petrel population estimate for this site during the baseline period (769-1,292 pairs), overlapped the 1% threshold of national importance (≥1,000 pairs).

Table 11.9 SPA sites with Storm Petrel listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004008	Blasket Islands SPA	52,141	1998-2002
	800004007	Skelligs SPA	9,994	1998-2002
	800004074	Illanmaster SPA	8,625	1998-2002
	800004175	Deenish Island and Scariff Island SPA	6,200	1998-2002
	800004003	Puffin Island SPA	5,177	1998-2002
	800004066	The Bull & Cow Rock SPA	3,500	1998-2002
	800004084	Inishglora and Inishkeeragh SPA	3,423	1998-2002
	800004072	Stags of Broadhaven SPA	1,912	1998-2002
	800004125	Magharee Islands SPA	1,272	2007
	800004177	Bills Rock SPA	1,000	1983
	800004111	Duvillaun Islands SPA	950	1998-2002
Estimated percentage of all-Ireland population (100,000 pairs) within listed SPA sites				94%

11.10. Leach's Petrel *Oceanodroma leucorhoa* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 4,900,000 – 5,000,000 pairs

All-Ireland Population: 310 pairs

Approximate Biogeographic share: <0.01%

The north Atlantic population of Leach's Petrel has a breeding range that extends from Canada to Scotland with the majority of the population breeding in Canada[2]. Leach's Petrel is an oceanic species that returns to land to breed in underground burrows where they are only active at night. In Britain and Ireland this species is only found breeding on a small number of remote islands[4]. This species is a long distance migrant and birds in the north Atlantic migrate southwards to the Equator and beyond after the breeding season[2].

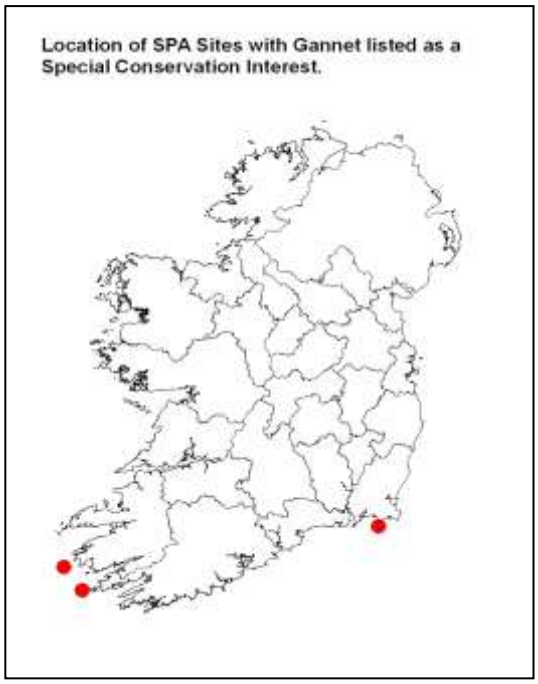
The all-Ireland breeding population of Leach's Petrel is estimated to be 310 pairs[4]. The biogeographic population estimate of 4,900,000 – 5,000,000 pairs refers to the north Atlantic population[4]. The all-Ireland breeding population of Leach's Petrel represents an estimated biogeographic share of 0.006% for this Annex I species.

Utilising data from the Seabird 2000 Survey (1998-2002) the only site in Ireland which regularly supported a nationally important population of Leach's Petrel was selected for designation (see Table 11.10). Other sites which were suspected as being breeding locations for Leach's Petrel were surveyed e.g. Inishglora and the Skelligs but the Stags of Broadhaven was the only site where this Annex I species was recorded breeding during the Seabird 2000 Survey[4].

Table 11.10 SPA sites with Leach's Petrel listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004072	Stags of Broadhaven SPA	310	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				100%

11.11. Gannet *Sula bassanus* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 390,000 pairs

All-Ireland Population: 36,111 pairs

Approximate Biogeographic share: 9%

The world distribution of Gannet is restricted to the sub-Arctic North Atlantic with two largely discreet populations in Canada and Europe[2]. The European population breeds in Iceland, the Faeroes, Britain, Ireland, France, Germany, Norway, and Russia but over 80% breed in Britain and Ireland[4]. The Gannet is a long distance migrant with European breeding birds typically moving south after the breeding season[2]. In 1900 there were only two Gannet colonies in Ireland, but the population increased during the 20th century and the number of colonies has now expanded to six.

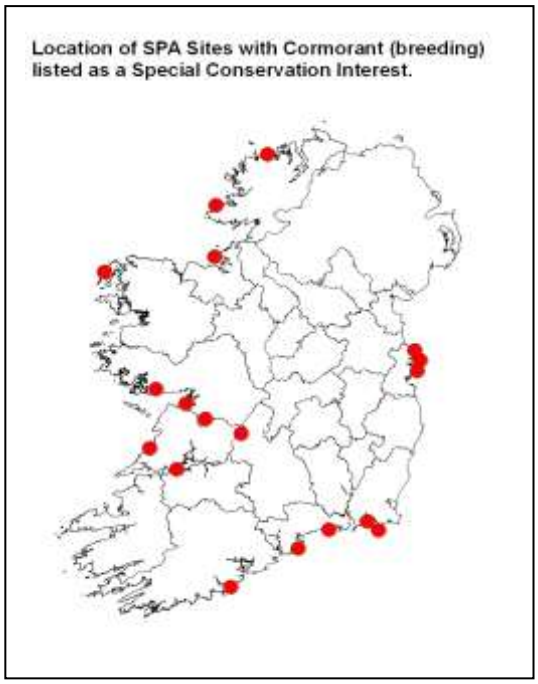
The all-Ireland breeding Gannet population is estimated to be 36,111 pairs[14]. The World population estimate for this species is 390,000 pairs[4]. The all-Ireland breeding Gannet population represents an estimated biogeographic share of 8.5% for this species.

Utilising data from the most recent Gannet Survey in 2004 the three highest ranking sites in Ireland were selected for SPA designation (see Table 11.11). The Skelligs SPA supported an internationally important Gannet population and the numbers recorded at The Bull and Cow Rock SPA was very close to the threshold of international importance (≥3,900). The three sites selected for SPA designation account for an estimated 99% of the all-Ireland breeding Gannet population.

Table 11.11 SPA sites with Gannet listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004007	Skelligs SPA	29,683	2004
	800004066	The Bull and Cow Rock SPA	3,694	2004
	800004002	Saltee Islands SPA	2,446	2004
Estimated percentage of all-Ireland population within listed SPA sites				99%

11.12. Cormorant *Phalacrocorax carbo* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 52,000 – 53,000 pairs

All-Ireland Population: 5,200 pairs

Approximate Biogeographic share: 10%

The nominate subspecies *Phalacrocorax carbo carbo* has three distinct populations one of which breeds in Iceland, Norway, Britain and Ireland[6]. This race of Cormorant is only partially migratory or dispersive[2].

The all-Ireland breeding Cormorant population is estimated to be 5,200 pairs[4]. The biogeographic population estimate of 52,000 – 53,000 pairs refers to the World population for this subspecies[4]. The all-Ireland breeding Cormorant population represents an estimated biogeographic share of 10% for this species.

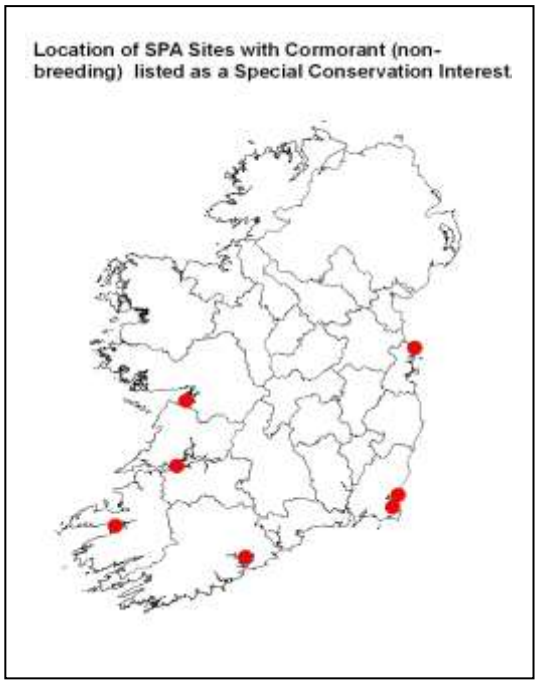
Utilising data from the Seabird 2000 Survey (1998-2002) supplemented by data from the Seabird Colony Register eleven sites in the Republic of Ireland were selected for SPA designation (see Table 11.12). The two highest ranking sites supported populations of international importance (≥520 pairs). In addition seven SPAs which supported nationally important numbers of breeding Cormorant (≥52 pairs), during the baseline period, have this species listed as a special conservation interest. Data from different surveys was utilised for three sites (SPAs 4077, 4084, 4182) which were known to support nationally important Cormorant colonies but were not surveyed during Seabird 2000. The Seabird 2000 Survey estimate of 150 pairs at Lough Cutra SPA was based on an actual count of 166 pairs in 1985, but it is known that the Cormorant population at this site had decreased significantly during the 1990's e.g. the site supported 34 pairs in 1996.

Table 11.12 SPA sites with Cormorant (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004069	Lambay Island SPA	675	1998-2002
	800004122	Skerries Islands SPA	558	1998-2002
	800004117	Ireland's Eye SPA	306	1998-2002
	800004002	Saltee Islands SPA	273	1998-2002
	800004118	Keeragh Islands SPA	200	1998-2002
	800004031	Inner Galway Bay SPA	200	1998-2002
	800004135	Ardbolin Island and Horse Island SPA	179	1998-2002
	800004056	Lough Cutra SPA	166	1985
	800004181	Connemara Bog Complex SPA	160	1998-2002
	800004124	Sovereign Islands SPA	156	1998-2002
	800004058	Lough Derg (Shannon) SPA	122[e]	1998-2002
Additional SCI Sites	800004077	River Shannon and River Fergus Estuaries SPA	93	2010
	800004193	Mid-Waterford Coast SPA	79	1998-2002
	800004194	Horn Head to Fanad Head SPA	79	1998-2002
	800004150	West Donegal Coast SPA	71	1998-2002
	800004192	Helvick Head to Ballyquinn SPA	65	1998-2002
	800004182	Mid Clare Coast SPA	60	1990
	800004084	Inishglora and Inishkeeragh SPA	57	1987
Estimated percentage of all-Ireland population within listed SPA sites				67%

[e] The numbers of breeding Cormorant in the Lough Derg (Shannon) SPA does not include the Seabird 2000 estimate of 150 pairs in the Co.Tipperary section of this site as this was extrapolated from a 1985 estimate of 400 pairs which is not believed to be accurate.

11.13. Cormorant *Phalacrocorax carbo* (non-breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 120,000 individuals

All-Ireland Population: 12,840 individuals

Approximate Biogeographic share: 11%

The nominate subspecies *Phalacrocorax carbo carbo* has three distinct populations one of which breeds and winters in northwest Europe[6]. This race of Cormorant is only partially migratory or dispersive[2]. Most Cormorants in Ireland belong to the nominate race and breed on rocky cliffs, offshore island and inland lakes. Historically this species wintered along the coast but since the 1960's there has been a gradual shift towards the use of inland lakes[4].

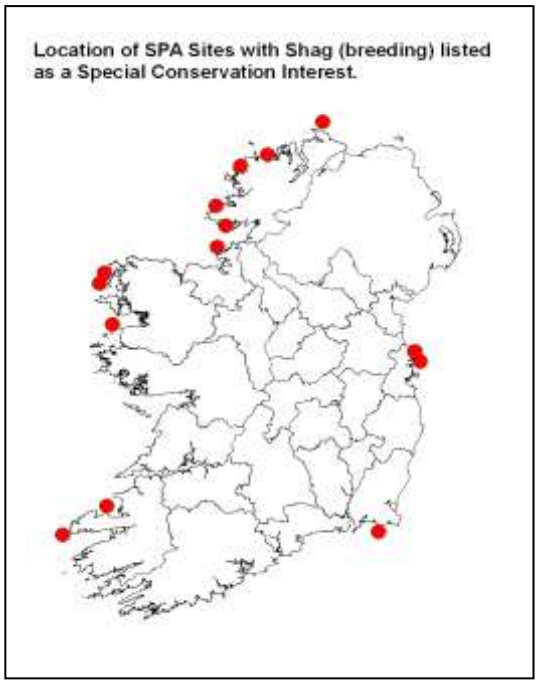
The all-Ireland wintering Cormorant population is estimated to be 12,840 individuals[3]. The biogeographic population estimate of 120,000 individuals refers to the northwest European population for this subspecies[6]. The all-Ireland wintering Cormorant population represents an estimated biogeographic share of 11% for this subspecies.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) six wintering Cormorant sites in the Republic of Ireland were selected for SPA designation (see Table 11.13). In addition one SPA which supported a nationally important wintering Cormorant population (≥130 individuals[3]), during the baseline period, has this species listed as a special conservation interest.

Table 11.13 SPA sites with Cormorant (non-breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004030	Cork Harbour SPA	521	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	495	5 year mean peak (1995/96 -1999/2000)
	800004122	Skerries Islands SPA	391	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	266	5 year mean peak (1995/96 -1999/2000)
	800004019	The Raven SPA	250	4 year mean peak (1995/96 -1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	245	5 year mean peak (1995/96-1999/2000)
Additional SCI Sites	800004029	Castlemaine Harbour SPA	135	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				16%

11.14. Shag *Phalacrocorax aristotelis* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 66,000 – 73,000 pairs

All-Ireland Population: 3,700 pairs

Approximate Biogeographic share: 5-6%

The nominate subspecies *Phalacrocorax aristotelis aristotelis* is endemic to the northeast Atlantic and the Mediterranean[4]. The breeding range of this species extends from Russia south to the Atlantic coast of Iberia[2]. Birds disperse from the colonies after breeding but only populations in the far north of Norway and Russia are truly migratory[2].

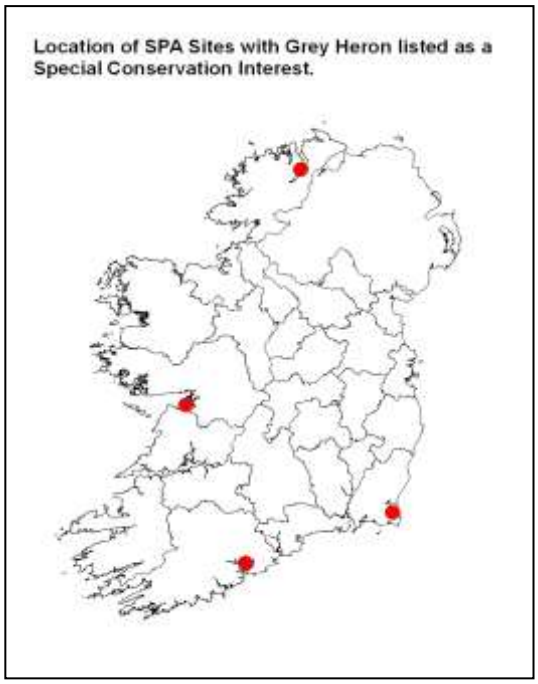
The all-Ireland breeding Shag population is estimated to be 3,700 pairs[4]. The biogeographic population estimate of 66,000 – 73,000 pairs refers to the northeast Atlantic population for this species[4]. The all-Ireland breeding Shag population represents an estimated biogeographic share of 5-6% for this species.

Utilising data from the Seabird 2000 Survey (1998-2002) the five highest ranking sites in Ireland were selected for SPA designation (see Table 11.14). Lambay Island SPA supported an internationally important population (≥660 pairs) of this species. Horn Head to Fanad Head SPA had greater numbers of Shag than Inishmurray SPA but was ranked lower because this site comprises multiple stretches of coastline, none of which individually support significant numbers of Shag. In addition nine other SPAs which supported nationally important numbers of breeding Shag (≥37 pairs), during the baseline period, have this species listed as a special conservation interest. Data from the Seabird Colony Register is used for Inishduff SPA because this site was not surveyed during the Seabird 2000 Survey.

Table 11.14 SPA sites with Shag listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004069	Lambay Island SPA	1,122	1998-2002
	800004002	Saltee Islands SPA	268	1998-2002
	800004100	Inishtrahull SPA	127	1998-2002
	800004115	Inishduff SPA	116	1985
	800004068	Inishmurray SPA	104	1998-2002
Additional SCI Sites	800004194	Horn Head to Fanad Head SPA	110	1998-2002
	800004122	Skerries Islands SPA	100	1998-2002
	800004004	Inishkea Islands SPA	90	1998-2002
	800004136	Clare Island SPA	89	1998-2002
	800004150	West Donegal Coast SPA	86	1998-2002
	800004084	Inishglora and Inishkeeragh SPA	61	1998-2002
	800004125	Magharee Islands SPA	61	1998-2002
	800004230	West Donegal Islands SPA	40	1998-2002
	800004008	Blasket Islands SPA	37	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				65%

11.15. Grey Heron *Ardea cinerea*



Birds Directive Annex I Species: No

Biogeographic Population: 263,000 – 286,000 individuals

All-Ireland Population: 2,750 individuals

Approximate Biogeographic share: 1%

Grey Herons occur throughout much of the Palearctic, Africa and south Asia. Populations of the species *cinerea* from the northern Palearctic move west and south to winter in western and southern Europe, trans-Saharan Africa and southern Asia[2]. This species is largely resident in Ireland but some migration is thought to occur[2].

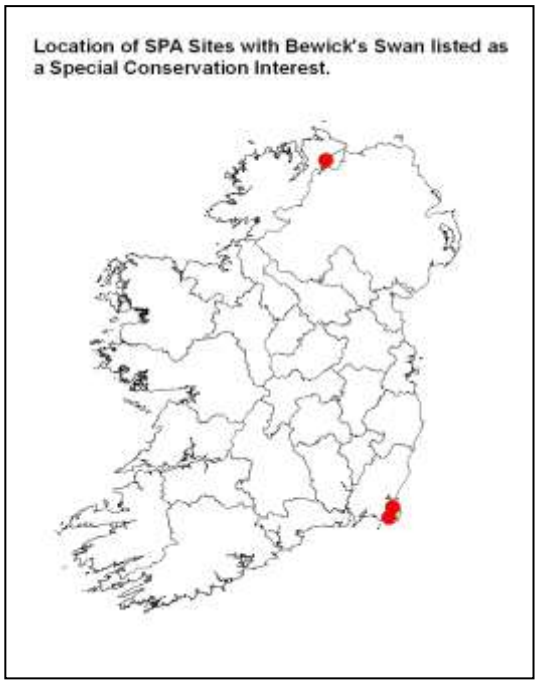
The all-Ireland wintering Grey Heron population is estimated to be 2,750 individuals[3]. The biogeographic population estimate of 263,000 – 286,000 individuals refers to the North-west European and North-west African population for this species[6]. The all-Ireland wintering Grey Heron population represents an estimated biogeographic share of 1% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the highest ranking site in Republic of Ireland was selected for SPA designation (see Table 11.15). In addition three SPAs which regularly supported Grey Heron populations that exceeded the threshold of national importance (≥50 individuals), during the baseline period, have this species listed as a special conservation interest.

Table 11.15 SPA sites with Grey Heron listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004031	Inner Galway Bay SPA	102	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004030	Cork Harbour SPA	80	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	57	5 year mean peak (1995/96 - 1999/2000)
	800004076	Wexford Harbour and Slobs SPA	52	5 year mean peak (1995/96 - 1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				11%

11.16. Bewick's Swan *Cygnus columbianus bewickii*



Birds Directive Annex I Species: Yes

Biogeographic Population: 29,000 individuals

All-Ireland Population: 382 individuals

Approximate Biogeographic share: 1%

The nominate subspecies *Cygnus columbianus bewickii* has a breeding distribution extending across Arctic Russia and Siberia[6]. Three distinct populations are recognised including the northwest European population which breeds on the tundra of Arctic Russia and winters in northwest Europe including Britain and Ireland[6].

A coordinated midwinter census of the northwest European population of Bewick's Swan takes place every five years and has recorded a decreasing population in the last decade - a total of 21,500 swans recorded in January 2005 represented a 27% decrease on the peak count of 29,277 in January 1995[15]. The exact cause for the decline of the northwest European Bewick's Swan population is unknown and may due to a combination of factors including weather conditions in the breeding range, predation, illegal hunting and competition with other species e.g. Whooper Swan[16].

The all-Ireland wintering population was estimated to be 382 individuals in 2000[17] with approximately 9% of the population recorded in Northern Ireland. The biogeographic population estimate of 29,000 individuals refers to the North-west European population for this subspecies[6]. The all-Ireland population in 2000 represented an estimated biogeographic share of 1% for this Annex I subspecies.

The most recent Bewick's Swan census estimated the all-Ireland wintering population to be just 80 individuals[18]. The decline in the number of wintering Bewick's Swan is also evident at sites in the western parts of Britain[15]. Milder winters in recent years may have reduced the need for movement to the western extremities of this swan's traditionally wintering range with more birds wintering on the continent closer to their breeding grounds[15].

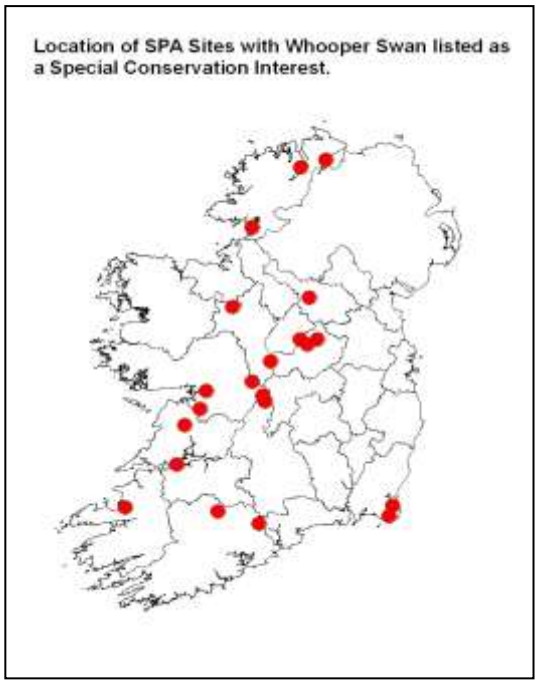
International Swan Census data and I-WeBS data show that the majority of Bewick's Swan recorded In Ireland are utilising a small number of sites in Co. Wexford[15]. Utilising the I-WeBS data Wexford Harbour and Slobs and Tacumshin Lake were identified as the most regularly utilised sites, supporting the largest numbers of Bewick's Swan and are also known roost sites. Bewick's Swan traditionally fed on the submerged and emergent vegetation in wetland sites but since the 1970's have increasing utilised grassland, harvest waste (potato, sugar beet etc) and winter cereals[16]. Exploitation of sporadic food resources in non-wetland habitats e.g. sugar beet waste can result in the short-term usage of agricultural pasture/crops by Bewick's Swan.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/200) combined with data from the International Swan Census in 2000 the two highest ranking sites in Ireland for this Annex I species were selected (see Table 11.16). As there is regular interchange of birds between the two sites the peak data for only one site is listed. In addition one SPA which regularly supported a Bewick's Swan population above the threshold of national importance (≥25 individuals) between 1995/96 and 1999/2000 has this species listed as an additional special conservation interest.
The 2010 International Swan Census recorded 81% of the all-Ireland Bewick's Swan population within the three SPAs which have this species listed as a special conservation interest.

Table 11.16 SPA sites with Bewick's Swan listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004076 **and** 800004092	Wexford Harbour and Slobs SPA **and** Tacumshin Lake SPA	235	5 year mean peak (1995/96 –1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	43	5 year mean peak (1995/96 –1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				61%

11.17. Whooper Swan *Cygnus cygnus*



Birds Directive Annex I Species: Yes

Biogeographic Population: 20,645 individuals

All-Ireland Population: 12,730 individuals

Approximate Biogeographic share: 62%

The Whooper Swan has a widespread breeding distribution across the northern Palearctic, ranging from Iceland and northern Scandinavia in the west, to Russia in the east. Five breeding populations have been identified in the Western Palearctic and Asia and those wintering in Ireland come almost exclusively from the Icelandic breeding population[6].

A coordinated midwinter census of the Icelandic population of Whooper Swan takes place every five years and has recorded an increasing population in the last decade - a total of 26,366 birds recorded in 2005 represented a 66% increase on the peak count of 15,842 in 1995[19]. The all-Ireland wintering population of Whooper Swan has shown a similar increase with a total of 14,981 individuals recorded in the 2010 census representing an increase of 52% on the peak count of 9,855 in 1995[19]. Winter distribution of Whooper Swan is influenced by weather conditions and severe weather throughout Europe during the 2010 census may have resulted in increased Whooper Swan numbers in Ireland[11]. An increasing population of the northwest European Whooper Swan population may have resulted in increasing numbers of this population moving to Britain and Ireland in winter and mixing with the Icelandic population[18].

Whooper Swan utilise a variety of habitats but the habitats most frequented in the Republic of Ireland during the 2000 and 2005 census were wet pasture and permanent standing water including rivers[19]. Habitat usage in Ireland by Whooper

Swan in the 2010 census differed significantly with increased usage of dry pasture (51%). However, the severe weather conditions during the 2010 survey meant that many of the traditionally used wetland sites were frozen and this undoubtedly contributed to the increased usage of dry pasture[11]. Permanent waterbodies are commonly utilised by Whooper Swan as safe roost sites and their importance may be underestimated in habitat assessments which are based on data collected when birds are feeding. Exploitation of sporadic food resources in non-wetland habitats e.g. un-harvested potatoes can result in the short-term usage of agricultural pasture/crops by Whooper Swan.

The all-Ireland wintering Whooper Swan population was estimated to be 12,730 individuals in 2000 but a significant proportion (~29%) was recorded in Northern Ireland[10]. The biogeographic population estimate of 20,645 individuals refers to the Icelandic breeding population for this subspecies recorded in 2000[20]. The all-Ireland population of wintering Whooper Swan in 2000 represented an estimated biogeographic share of 62% for this Annex I species.

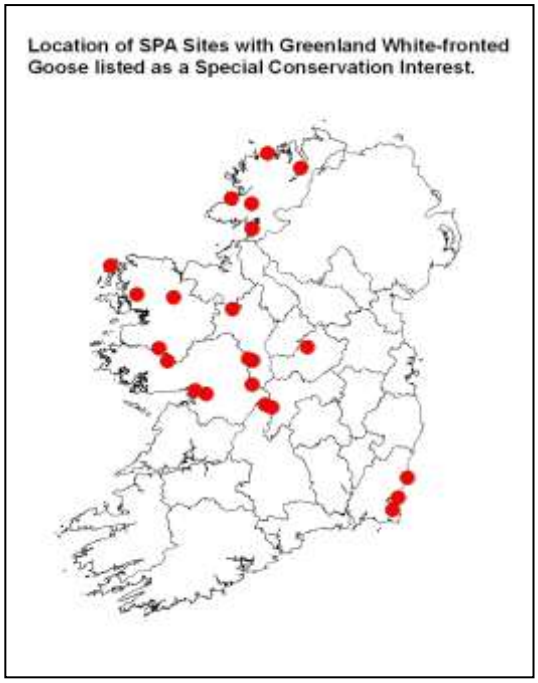
Utilising data from the baseline period (1995/96 to 1999/2000) eighteen wetland sites were selected for SPA designation (see Table 11.17). The nine highest ranking sites selected for designation supported internationally important populations (≥210 individuals[6]) of this Annex I species during the baseline period. In addition three SPAs which regularly supported Whooper Swan populations that exceeded the threshold of national importance (≥100 individuals – Crowe *et al*, 2008), during the baseline period, have this species listed as an additional special conservation interest. The cross-border site Lough Foyle supported an internationally important population during the baseline period. Kilcolman Bog SPA regularly supports a Whooper Swan population in excess of the 1% threshold of national importance and therefore has this species listed as a special conservation interest, although the five year mean peak for the baseline period was just below the 1% threshold.

The SPA sites with Whooper Swan listed as a special conservation interest supported approximately 39% of the Whooper Swan population in the Republic of Ireland in 2000. However, this assessment was based on daytime counts and does not reflect the usage of many SPAs as roosting locations by this species.

Table 11.17 SPA sites with Whooper Swan listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004075	Lough Swilly SPA	1,673	5 year mean peak (1995/95 - 1999/2000)
	800004045	Glen Lough SPA	327	5 year mean peak (1995/95 - 1999/2000)
	800004048	Lough Gara SPA	321	5 year mean peak (1995/95 - 1999/2000)
	800004049	Lough Oughter SPA	318	5 year mean peak (1995/95 - 1999/2000)
	800004096	Middle Shannon Callows SPA	305	5 year mean peak (1995/95 - 1999/2000)
	800004046	Lough Iron SPA	214	5 year mean peak (1995/95 - 1999/2000)
	800004107	Coole-Garryland SPA	214	5 year mean peak (1995/95 - 1999/2000)
	800004092	Tacumshin Lake SPA	213	5 year mean peak (1995/95 - 1999/2000)
	800004094	Blackwater Callows SPA	212	5 year mean peak (1995/95 - 1999/2000)
	800004089	Rahasane Turlough SPA	165	5 year mean peak (1995/95 - 1999/2000)
	800004097	River Suck Callows SPA	164	5 year mean peak (1995/95 - 1999/2000)
	800004145	Durnesh Lough SPA	140	5 year mean peak (1995/95 - 1999/2000)
	800004064	Lough Ree SPA	139	3 year mean peak (1997/98-1999/2000)
	800004220	Corofin Wetlands SPA	127	5 year mean peak (1995/95 - 1999/2000)
	800004086	River Little Brosna Callows SPA	122	5 year mean peak (1995/95 - 1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	118	5 year mean peak (1995/95 - 1999/2000)
	800004188	Tralee Bay Complex SPA	101	5 year mean peak (1995/95 - 1999/2000)
	800004076	Wexford Harbour and Slobs SPA	100	5 year mean peak (1995/95 - 1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	917	5 year mean peak (1995/95 - 1999/2000)
	800004043	Lough Derravaragh SPA	102	5 year mean peak (1995/95 - 1999/2000)
	800004095	Kilcolman Bog SPA	95	5 year mean peak (1995/95 - 1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				24%

11.18. Greenland White-fronted Goose *Anser albifrons flavirostris*



Birds Directive Annex I Species: Yes

Biogeographic Population: 35,573 individuals

All-Ireland Population: 13,575 individuals

Approximate Biogeographic share: 38%

Greenland White-fronted Goose (*Anser albifrons flavirostris*) breeds solely in western Greenland, stages during spring and autumn migration in Iceland, and winters almost entirely in Ireland and Scotland[21]. Historically these geese wintered on bogland, callowland and rough grassland but in recent decades have moved to feeding in agricultural landscapes.

An annual census of the Greenland White-fronted Goose population has been undertaken across its wintering range since the 1970's. Protection from hunting on the wintering grounds in the early 1980's resulted in an increasing population which peaked at 35,692 in 1999[22]. Numbers have declined in the last decade with the most recent assessment recording 22,844 individuals in spring 2010[23]. Extremely low productivity during the last decade has contributed to a decline in numbers but other factors including inter-specific competition with Canada Geese on the breeding grounds may also be contributing to the population decline[22].

The wintering population of Greenland White-fronted Goose in Ireland has mirrored the declining trend in the biogeographic population with a peak count of 14,595 individuals recorded in 1996 which declined to 11,030 individuals in 2010[22]. The recent decline of the wintering population of Greenland White-fronted Goose in Ireland has

not been as marked as at that experienced in Great Britain and therefore the percentage of the biogeographic population occurring in Ireland has increased in recent years e.g. 48% in 2010.

The all-Ireland wintering population in spring 1999 was estimated to be 13,575 individuals[21]. The biogeographic population estimate of 35,573 individuals refers to the total population of this subspecies which breeds in Greenland[21]. The all-Ireland population in 1999 represents an estimated biogeographic share of 38% for this Annex I species.

Utilising data from the baseline period (1994/95 to 1998/99) eighteen sites which supported the twelve highest ranking flocks in Ireland were selected for SPA designation (see Table 11.18). The five highest ranking flocks, occurring at eight sites selected for SPA designation, supported internationally important populations (≥300 individuals[6]) of this Annex I species during the baseline period. In addition one site (Termoncarragh Lough and Annagh Machair SPA) which is regularly used by a significant proportion of a nationally important flock plus three sites which regularly supported significant numbers of three flocks just below the threshold of national importance (≥135 individuals) have Greenland White-fronted Goose listed as an additional special conservation interest.

Peak flock counts are presented in Table 11.18 with the exception of five sites* where peak counts of Greenland White-fronted Goose recorded within the SPAs are used.

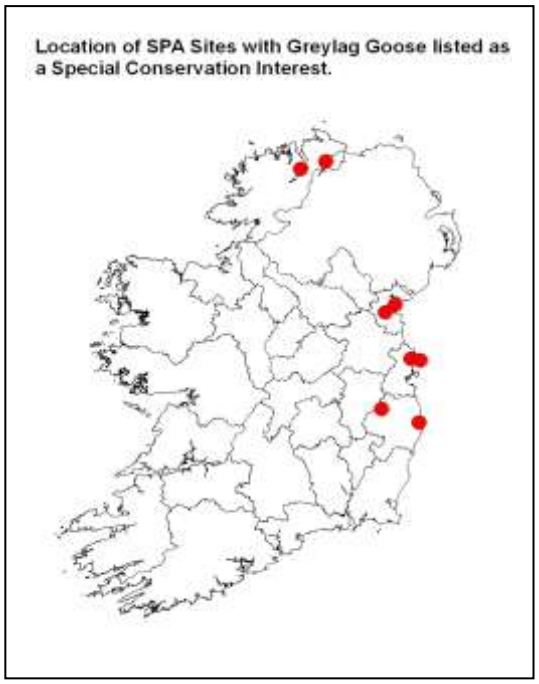
Table 11.18 SPA sites with Greenland White-fronted Goose listed as a special conservation interest.

	Flock	Site Code	Site Name	Flock data individuals	Data Period
Selected Sites	**1**	800004076 + 800004019 + 800004143	Wexford Harbour and Slobs SPA + The Raven SPA + Cahore Marshes SPA	9,111	5 year mean peak 1994/95-1998/99
	2	800004075	Lough Swilly SPA	847	5 year mean peak 1994/95-1998/99
	3	800004086 + 800004137	River Little Brosna Callows SPA + Dovegrove Callows SPA	527	5 year mean peak 1994/95-1998/99
	4	800004048	Lough Gara SPA	510	5 year mean peak 1994/95-1998/99
	5	800004046	Lough Iron SPA	426	5 year mean peak 1994/95-1998/99
	6	800004097 + 800004140 + 800004139	River Suck Callows SPA + Four Roads Turlough SPA + Lough Croan Turlough SPA	293	5 year mean peak 1994/95-1998/99
	7	800004194	Horn Head to Fanad Head SPA	231	5 year mean peak 1994/95-1998/99
	8/9	800004042	Lough Corrib SPA	160[f]	5 year mean peak 1994/95-1998/99
	10	800004089 + 800004142	Rahasane Turlough SPA + Cregganna Marsh SPA	157	5 year mean peak 1994/95-1998/99
	11	800004098	Owenduff/Nephin Complex SPA[g]	152	5 year mean peak 1994/95-1998/99
	12	800004090 + 800004110	Sheskinmore Lough SPA + Lough Nillan SPA	103	5 year mean peak 1994/95-1998/99
Additional SCI Sites	**13**	800004145	Durnesh Lough SPA	97[f]	5 year mean peak 1994/95-1998/99
	14	800004228	Lough Conn and Lough Cullin SPA	95[f]	5 year mean peak 1994/95-1998/99
	15	800004062	Lough Mask SPA	48[f]	5 year mean peak 1994/95-1998/99
	11	800004093	Termoncarragh Lough and Annagh Machair SPA	42[f]	peak count 1994/95 and 1996/97
Estimated percentage of all-Ireland population within listed SPA sites					92-93%

[f] Data relates to the number of individuals within the SPA as opposed to flock data which is listed for other sites.

[g] Futher public notification is required to include Greenland White-fronted Goose as an SCI at Ownduff/Nephin Complex SPA.

11.19. Greylag Goose *Anser anser*



Birds Directive Annex I Species: No

Biogeographic Population: 89,100 individuals

All-Ireland Population: 4,480 individuals

Approximate Biogeographic share: 5 %

The nominate subspecies of Greylag Goose *Anser anser anser* has four populations one of which breeds in Iceland and winters in Scotland and Ireland[6]. A resident population of feral Greylag Goose also occurs in Ireland and during the winter the Icelandic population overlaps with these feral birds from which they cannot be easily distinguished[9].

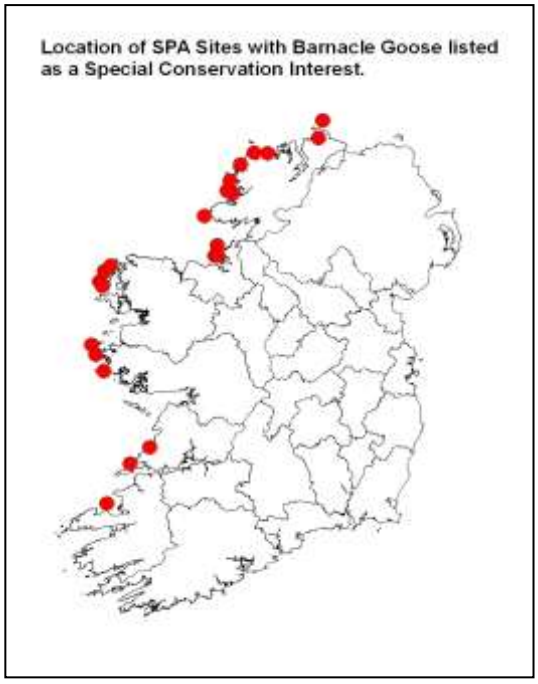
The all-Ireland wintering population of Greylag Goose is estimated to be 4,480 individuals[3]. The biogeographic population estimate of 89,100 individuals refers to the Icelandic breeding population for this subspecies[6]. The all-Ireland population represents an estimated biogeographic share of 5% for this subspecies.

Utilising data from the baseline period (1995/96 to 1999/2000) four sites which support the three most important flocks of Icelandic Greylag Goose in Ireland were selected for SPA designation (see Table 11.19). The top two flocks of Greylag Goose are of international importance (≥1,000[6]). In addition four SPAs which regularly supported Greylag Goose populations that exceeded the threshold of national importance (≥50 individuals), during the baseline period, have this species listed as an additional special conservation interest.

Table 11.19 SPA sites with Greylag Goose listed as a special conservation interest.

	Flock	Site Code	Site Name	Individuals	Data Period
Selected Sites	1	800004091 + 800004026	Stabannan – Braganstown SPA + Dundalk Bay SPA	1,391	5 year mean peak (1995/96 - 1999/2000)
	2	800004075	Lough Swilly SPA	1,218	5 year mean peak (1995/96 -1999/2000)
	3	800004063	Poulaphouca Reservoir SPA	701	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	2	800004087	Lough Foyle SPA	Linked to SPA 4075	
	4	800004069 + 800004015	Lambay Island SPA + Rogerstown Estuary SPA	311	5 year mean peak (1995/96 - 1999/2000)
	5	800004186	The Murrough SPA	300	5 year mean peak (1995/96 - 1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites					82%

11.20. Barnacle Goose *Branta leucopsis*



Birds Directive Annex I Species: Yes

Biogeographic Population: 56,386 individuals

All-Ireland Population: 9,034 individuals

Approximate Biogeographic share: 16%

There are three distinct breeding populations of Barnacle Goose located in North-east Greenland, Svalbard and North Russia/East Baltic[6]. The North-east Greenland breeding population winters almost exclusively in Scotland and Ireland, with smaller outlying flocks in Wales[24].

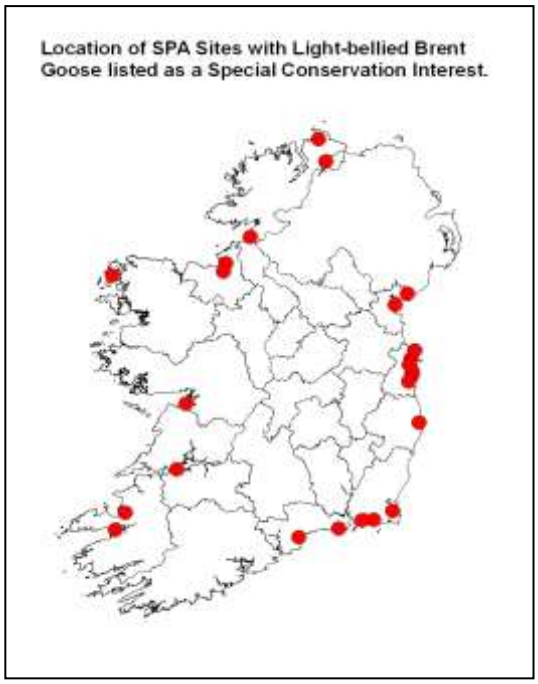
A coordinated winter census of the North-east Greenland population of Barnacle Goose takes place every five years and has recorded an increasing population in the last decade - a total of 70,501 birds recorded in 2008 represented a 30% increase from the 54,123 recorded in the 1999 census[25]. The all-Ireland wintering population was estimated to be 9,034 individuals in 2003[26]. The biogeographic population estimate of 56,386 individuals refers to the Icelandic breeding population for this species[26]. The all-Ireland wintering Barnacle Goose population in 2003 represented an estimated biogeographic share of 16% for this species.

Utilising data from four aerial surveys undertaken between 1993 and 2003 the twenty two highest ranking sites were selected for SPA designation (see Table 11.20). The selected SPA sites support the three internationally important populations (≥540 individuals[6]) that occur in Ireland and all regularly occurring nationally important populations (≥90) recorded during the baseline period (1993-2003). SPA 4125 was selected for designation as I-WeBS data shows a nationally important population of Barnacle Goose utilise this site.

Table 11.20 SPA sites with Barnacle Goose listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004004 + 800004084 + 800004093 + 800004111	Inishkea Islands SPA + Inishglora and Inishkeeragh SPA + Termoncarragh Lough and Annagh Machair SPA + Duvillaun Islands SPA	2,849	4 survey mean (1993 – 2003)
	800004234 + 800004135 + 800004068	Ballintemple and Ballygiligan SPA + Ardbolin Island and Horse Island SPA + Inishmurray SPA	2,048	4 survey mean (1993 – 2003)
	800004159	Slyne Head to Ardmore Point Islands SPA	647	4 survey mean (1993 – 2003)
	800004120	Rathlin O'Birne Island SPA	402	4 survey mean (1993 – 2003)
	800004083 + 800004194	Inishboffin, Inishdooey and Inishbeg SPA + Horn Head to Fanad Head SPA	387	4 survey mean (1993 – 2003)
	800004144 + 800004170	High Island, Inishshark and Davillaun SPA + Cruagh Island SPA	371	4 survey mean (1993 – 2003)
	800004034 + 800004100	Trawbreaga Bay SPA + Inishtrahull SPA	292	4 survey mean (1993 – 2003)
	800004230	West Donegal Islands SPA	272	4 survey mean (1993 – 2003)
	800004182 + 800004114	Mid-Clare Coast SPA + Illaunonearaun SPA	250	4 survey mean(1993 – 2003)
	800004132	Illancrone and Inishkeeragh SPA	235	4 survey mean (1993 – 2003)
	800004116	Inishkeel SPA	218	4 survey mean (1993 – 2003)
	800004121	Roaninish SPA	144	4 survey mean (1993 – 2003)
	800004125	Magharee Islands SPA	85	4 survey mean (1993 – 2003)
Estimated percentage of all-Ireland population within listed SPA sites				94-99%

11.21. Light-bellied Brent Goose *Branta bernicla hrota*



Birds Directive Annex I Species: No

Biogeographic Population: 20,000 individuals

All-Ireland Population: 20,000 individuals

Approximate Biogeographic share: 100%

The nominate subspecies of Light-bellied Brent Goose *Branta bernicla* hrota has four distinct populations one of which breeds in the eastern Canadian high Arctic and winters almost exclusively in Ireland[2].

The first complete census of Light-bellied Brent Goose in Ireland took place in 1960/61 and recorded 11,900 individuals with the population increasing to over 16,000 in the mid-1970's[27]. Following highly successful breeding seasons in the 1980's the population increased to almost 25,000 in 1985/86. The Light-bellied Brent Goose population declined during the early 1990's but has since undergone a rapid expansion with an estimated all-Ireland population of 39,000 in 2007[28].

The distribution of Light-bellied Brent Goose in Ireland was closely linked with the presence of *Zostera* which traditionally was the most important food source for this species[29]. The depletion of *Zostera* stocks in the 1930's resulted in the redistribution of the Light-bellied Brent Goose in Ireland. Since then the diet of Light-bellied Brent Goose in estuarine and saltmarsh areas has become more cosmopolitan, including algal foods such as *Ulva* and saltmarsh plants such as *Festuca* and *Puccinella*[30]. The utilisation of improved/amenity grassland was first recorded in Ireland in the 1970's and has increased during the last decade[30]. However, although large areas of

grassland remain into the early spring, most birds return to estuaries to exploit fresh growth of more natural foods prior to spring migration[30].

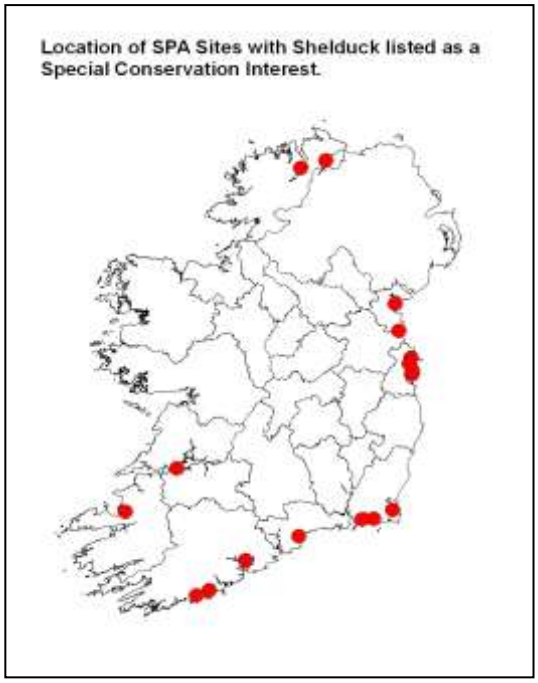
The all-Ireland wintering population was estimated to be 20,000 individuals in 2000[30] but a significant proportion of the population was recorded at Strangford Lough in Northern Ireland. The biogeographic population estimate of 20,000 individuals refers to the Canadian high Arctic breeding population for this subspecies[6]. The all-Ireland population in 2000 represented an estimated biogeographic share of 100% for this species.

Utilising data from the baseline period (1995/96 to 1999/2000) the twenty three highest ranking wetland sites in the Republic of Ireland were selected for SPA designation (see Table 11.21). As the threshold of national and international importance for this subspecies is the same (≥200 individuals[6]) twenty two of the twenty three selected SPA sites supported internationally important populations of this subspecies during the baseline period. Ballysadare Bay SPA was selected for designation as this site regularly supports a population of Light-bellied Brent Goose that exceeds the 1% threshold of a national importance, although the five year mean peak for the baseline period was just below the 1% threshold. In addition one site, Lough Foyle SPA, has Light-bellied Brent Goose listed as a special conservation interest.
The majority of the all-Ireland population of Light-bellied Brent Goose occurred within the designated network of sites in the Republic of Ireland and Northern Ireland during the baseline period.

Table 11.21 SPA sites with Light-bellied Brent Goose listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004006	North Bull Island SPA	1,548	5 year mean peak (1995/96-1999/2000)
	800004076	Wexford Harbour and Slobs SPA	1,469	5 year mean peak (1995/96-1999/2000)
	800004188	Tralee Bay Complex SPA	1,412	5 year mean peak (1995/96-1999/2000)
	800004025	Malahide Estuary SPA	1,104	5 year mean peak (1995/96-1999/2000)
	800004015	Rogerstown Estuary SPA	1,069	5 year mean peak (1995/96-1999/2000)
	800004186	The Murrough SPA	859	5 year mean peak (1995/96-1999/2000)
	800004016	Baldoyle Bay SPA	726	5 year mean peak (1995/96-1999/2000)
	800004032	Dungarvan Harbour SPA	723	5 year mean peak (1995/96-1999/2000)
	800004029	Castlemaine Harbour SPA	694	5 year mean peak (1995/96-1999/2000)
	800004031	Inner Galway Bay SPA	676	5 year mean peak (1995/96-1999/2000)
	800004033	Bannow Bay SPA	561	5 year mean peak (1995/96-1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	494	5 year mean peak (1995/96-1999/2000)
	800004027	Tramore Back Strand SPA	398	5 year mean peak (1995/96-1999/2000)
	800004026	Dundalk Bay SPA	370	5 year mean peak (1995/96-1999/2000)
	800004024	South Dublin Bay and River Tolka Estuary SPA	368	5 year mean peak (1995/96-1999/2000)
	800004034	Trawbreaga Bay SPA	362	5 year mean peak (1995/96-1999/2000)
	800004020	Ballyteigue Burrow SPA	290	5 year mean peak (1995/96-1999/2000)
	800004037	Blacksod Bay/Broad Haven SPA	279	5 year mean peak (1999/00 -2003/04)
	800004078	Carlingford Lough SPA	253	5 year mean peak (1995/96-1999/2000)
	800004122	Skerries Islands SPA	242	5 year mean peak (1995/96-1999/2000)
	800004035	Cummeen Strand SPA	223	4 year mean peak (1995/96-1999/2000)
	800004151	Donegal Bay SPA	207	4 year mean peak (1995/96-1999/2000)
	800004129	Ballysadare Bay SPA	188	4 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	3,765	5 year mean peak (1995/96-1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				53%

11.22. Shelduck *Tadorna tadorna*



Birds Directive Annex I Species: No

Biogeographic Population: 300,000 individuals

All-Ireland Population: 14,600 individuals

Approximate Biogeographic share: 5%

Five populations of Shelduck breed across temperate Eurasia with the northwest European population breeding and wintering along the coasts of Britain, Ireland, Scandinavia, the Baltic and continental Europe[6]. Shelduck are short-distance migrants and undertake a moult migration each autumn[2]. Large moult gatherings occur on the north German coast of the Wadden Sea and several sites in Britain are now recognised as important moulting areas e.g. Severn and Humber Estuaries, the Wash and the Firth of Forth. Shelduck migrate to wintering sites following the moult.

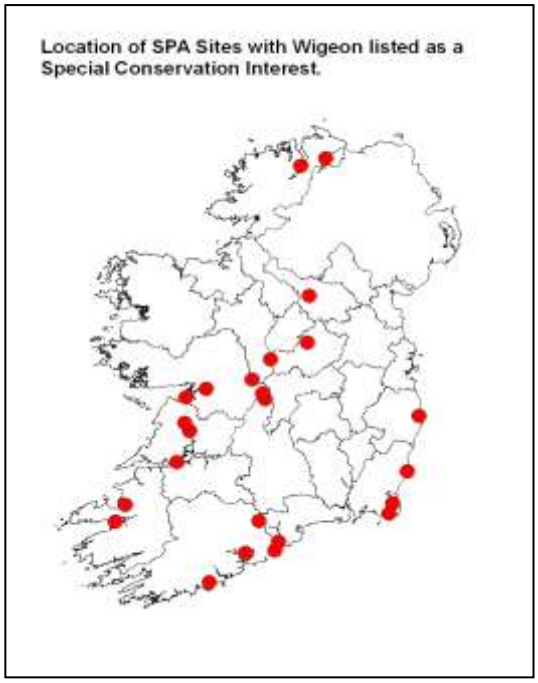
The all-Ireland wintering Shelduck population is estimated to be 14,600 individuals[3]. The biogeographic population estimate of 300,000 individuals refers to the northwest European breeding population[6]. The all-Ireland wintering Shelduck population represents an estimated biogeographic share of 5% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the six highest ranking Shelduck sites in the Republic of Ireland were selected for SPA designation (see Table 11.22). In addition eleven sites which regularly supported nationally important Shelduck populations (≥150[3]), during the baseline period, have this species listed as a special conservation interest. Baldoyle Bay SPA regularly supports a nationally important population of Shelduck and therefore has this species listed as a special conservation interest although the five year mean peak for the baseline period was just below the 1% threshold.

Table 11.22 SPA sites with Shelduck listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004030	Cork Harbour SPA	2,009	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	1,259	5 year mean peak (1995/96 -1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	1,025	5 year mean peak (1995/96-1999/2000)
	800004015	Rogerstown Estuary SPA	773	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	772	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	753	5 year mean peak (1995/96-1999/2000)
Additional SCI Sites	800004032	Dungarvan Harbour SPA	538	5 year mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	522	5 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	500	5 year mean peak (1995/96 -1999/2000)
	800004087	Lough Foyle SPA	468	5 year mean peak (1995/96 -1999/2000)
	800004025	Malahide Estuary SPA	439	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	220	5 year mean peak (1995/96 -1999/2000)
	800004080	Boyne Estuary SPA	218	5 year mean peak (1995/96 -1999/2000)
	800004219	Courtmacsherry Bay SPA	175	5 year mean peak (1995/96 -1999/2000)
	800004020	Ballyteigue Burrow SPA	167	5 year mean peak (1995/96 -1999/2000)
	800004081	Clonakilty Bay SPA	156	4 year mean peak (1994/95 -1998/99)
	800004016	Baldoyle Bay SPA	147	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				64%

11.23. Wigeon *Anas penelope*



Birds Directive Annex I Species: No

Biogeographic Population: 1,500,000 individuals

All-Ireland Population: 89,260 individuals

Approximate Biogeographic share: 6%

Wigeon have a widespread breeding distribution across northern Europe and Asia, from Iceland and northern Britain across Scandinavia, and northern Russia to the Russia to the Bering Sea coast[2]. The species is a long distance migrant and there are five populations one of which breeds in northwest and northeast Europe and west Siberia and winters in northwest Europe[2].

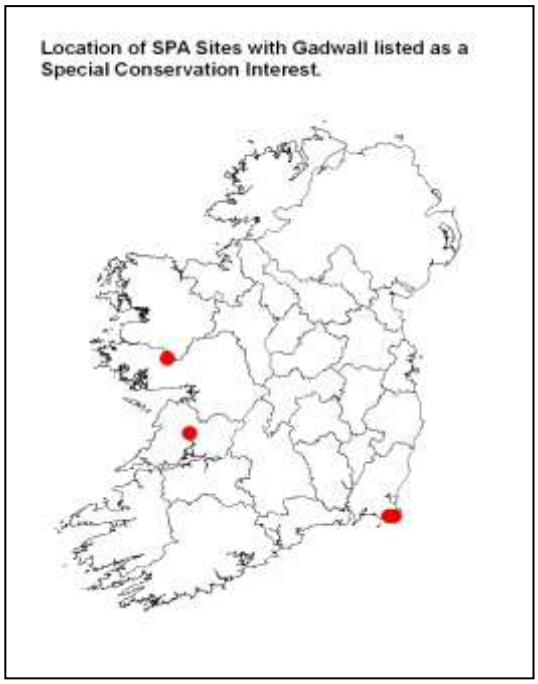
The all-Ireland wintering Wigeon population is estimated to be 89,260 individuals[3]. The biogeographic population estimate of 1,500,000 individuals refers to the population that winters in northwest Europe[6]. The all-Ireland wintering Wigeon population represents an estimated biogeographic share of 6% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the six highest ranking Wigeon sites in the Republic of Ireland were selected for SPA designation (see Table 11.23). In addition eighteen SPAs which regularly supported nationally important Wigeon populations (≥890[3]), during the baseline period, have this species listed as a special conservation interest. The River Suck Callows SPA is a large site and as many parts are inaccessible for ground counts this site is subject to an annual aerial survey. Only one aerial survey was conducted during the baseline period so data from 2001/02 to 2005/06 is used for this site.

Table 11.23 SPA sites with Wigeon listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004086	River Little Brosna Callows SPA	8,116	4 year mean peak (1995/96-1999/2000)
	800004029	Castlemaine Harbour SPA	6,819	5 year mean peak (1995/96 -1999/2000)
	800004092	Tacumshin Lake SPA	4,725	5 year mean peak (1995/96 -1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	3,761	5 year mean peak (1995/96-1999/2000)
	800004089	Rahasane Turlough SPA	3,430	5 year mean peak (1995/96 -1999/2000)
	800004097	River Suck Callows SPA	3,232	5 year mean peak (2001/02-2005/06)
Additional SCI Sites	800004087	Lough Foyle SPA	9,011	5 year mean peak (1995/96 -1999/2000)
	800004096	Middle Shannon Callows SPA	3,059	4 year mean peak (1995/96-1999/2000)
	800004220	Corofin Wetlands SPA	2,828	4 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	2,752	5 year mean peak (1995/96 -1999/2000)
	800004094	Blackwater Callows SPA	2,313	5 year mean peak (1995/96 -1999/2000)
	800004064	Lough Ree SPA	2,070	3 year mean peak (1997/98-1999/2000)
	800004030	Cork Harbour SPA	1,791	5 year mean peak (1995/96 -1999/2000)
	800004143	Cahore Marshes SPA	1,661	4 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	1,634	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	1,580	5 year mean peak (1995/96 -1999/2000)
	800004041	Ballyallia Lough SPA	1,469	4 year mean peak (1995/96 -1998/99)
	800004046	Lough Iron SPA	1,229	5 year mean peak (1995/96 -1999/2000)
	800004186	The Murrough SPA	1,209	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	1,168	5 year mean peak (1995/96 -1999/2000)
	800004028	Blackwater Estuary SPA	953	5 year mean peak (1995/96 -1999/2000)
	800004219	Courtmacsherry Bay SPA	934	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	907	5 year mean peak (1995/96 -1999/2000)
	800004049	Lough Oughter SPA	903	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				55%

11.24. Gadwall *Anas strepera*



Birds Directive Annex I Species: No

Biogeographic Population: 60,000 individuals

All-Ireland Population: 660 individuals

Approximate Biogeographic share: 1%

Gadwall have a widespread breeding distribution across Europe, Asia, and north America. The species is a long distance migrant with six distinct populations one of which breeds in northwest Europe and then winters in western Europe[2].

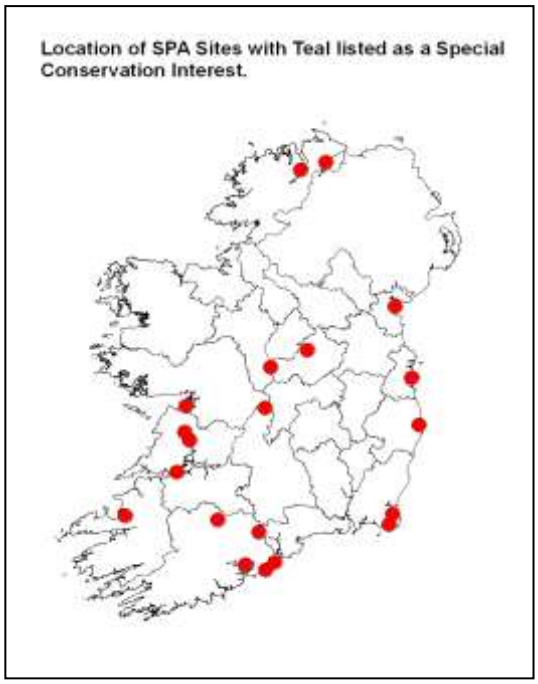
The all-Ireland wintering Gadwall population is estimated to be 660 individuals[3]. The biogeographic population estimate of 60,000 individuals refers to the population that breeds in northwest Europe[6]. The all-Ireland wintering Gadwall population represents an estimated biogeographic share of 1% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the two highest ranking Gadwall sites in the Republic of Ireland were selected for SPA designation (see Table 11.24. As the five year mean peak count at Lady's Island Lake SPA (77) was influenced by one exceptionally high count (330 Gadwall in 1998/99) this site was ranked below Ballyallia Lake SPA. In addition two SPAs which regularly supported populations in excess of the 1% threshold of national importance (≥50 individuals), during the baseline period, have this species listed as a special conservation interest. Lough Corrib SPA regularly supports a Gadwall population in excess of the 1% threshold of national importance and therefore has this species listed as a special conservation interest, although the five year mean peak for the baseline period was just below the 1% threshold.

Table 11.24 SPA sites with Gadwall listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004092	Tacumshin Lake SPA	119	5 year mean peak (1995/96 -1999/2000)
	800004041	Ballyallia Lough SPA	68	4 year mean peak (1995/96 -1998/99)
Additional SCI Sites	800004009	Lady's Island Lake SPA	77	5 year mean peak (1995/96 -1999/2000)
	800004042	Lough Corrib SPA	48	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				29%

11.25. Teal *Anas crecca*



Birds Directive Annex I Species: No

Biogeographic Population: 400,000 individuals

All-Ireland Population: 45,600 individuals

Approximate Biogeographic share: 11%

Teal have a widespread breeding distribution that extends across north and northwest Europe, Siberia and into Asia[6]. Teal are long distance migrants, and there are five populations one of which breeds in north and northwest Europe and moves south to winter in northwest Europe[2]. Teal breeding in Britain and Ireland are supplemented during winter by birds from a range extending from Iceland, through Scandinavia to northwest Siberia[2]. Teal are highly responsive to cold spells and can show rapid and extensive movement during these periods.

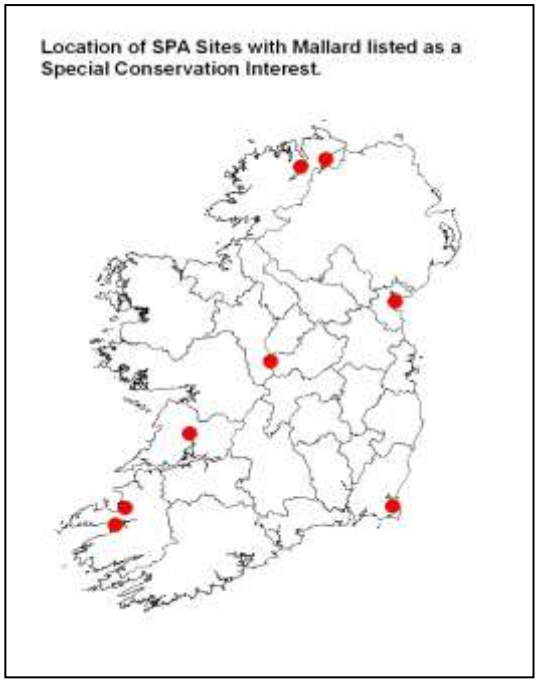
The all-Ireland wintering Teal population is estimated to be 45,600 individuals[3]. The biogeographic population estimate of 400,000 individuals refers to the population that winters in North-west Europe[6]. The all-Ireland wintering Teal population represents an estimated biogeographic share of 11% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the five highest ranking Teal sites in the Republic of Ireland were selected for SPA designation (see Table 11.25). In addition fifteen SPAs which regularly supported nationally important Teal populations (≥460[3]), during the baseline period, have this species listed as a special conservation interest.

Table 11.25 SPA sites with Teal listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004086	River Little Brosna Callows SPA	2,683	4 year mean peak (1995/96-1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	2,260	5 year mean peak (1995/96-1999/2000)
	800004075	Lough Swilly SPA	1,581	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	1,538	5 year mean peak (1995/96-1999/2000)
	800004064	Lough Ree SPA	1,474	3 year mean peak (1997/98-1999/2000)
	800004030	Cork Harbour SPA	1,065	5 year mean peak (1995/96 -1999/2000)
	800004092	Tacumshin Lake SPA	975	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	953	5 year mean peak (1995/96 -1999/2000)
	800004022	Ballycotton Bay SPA	903	5 year mean peak (1995/96 -1999/2000)
	800004094	Blackwater Callows SPA	898	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	887	5 year mean peak (1995/96 -1999/2000)
	800004041	Ballyallia Lough SPA	863	4 year mean peak (1995/96 -1998/99)
	800004220	Corofin Wetlands SPA	800	4 year mean peak (1995/96 -1999/2000)
	800004046	Lough Iron SPA	759	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	700	5 year mean peak (1995/96 -1999/2000)
	800004095	Kilcolman Bog SPA	690	5 year mean peak (1995/96 -1999/2000)
	800004087	Lough Foyle SPA	660	5 year mean peak (1995/96 -1999/2000)
	800004186	The Murrough SPA	644	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	623	5 year mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	538	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				36%

11.26. Mallard *Anas platyrhynchos*



Birds Directive Annex I Species: No

Biogeographic Population: 4,500,000 individuals

All-Ireland Population: 48,040 individuals

Approximate Biogeographic share: 1%

Mallard are the most common and widespread of northern hemisphere dabbling ducks with a wide breeding range than extends across northern Eurasia and North America from Arctic tundra to the subtropical zone[2]. Mallards breeding in northwest Europe, including Ireland, are largely sedentary or dispersive with short movements made during cold spells. The winter population in Ireland is increased by migratory individuals from various locations including Russia, Poland and Germany[2]. Mallard is a quarry species in Ireland and the wild population is also supplemented by captive breed birds[9].

The all-Ireland wintering Mallard population is estimated to be 48,040 individuals[3].The biogeographic population estimate of 4,500,000 individuals refers to the population that breeds in northwest Europe[6]. The all-Ireland wintering Mallard population represents an estimated biogeographic share of 1% for this species.

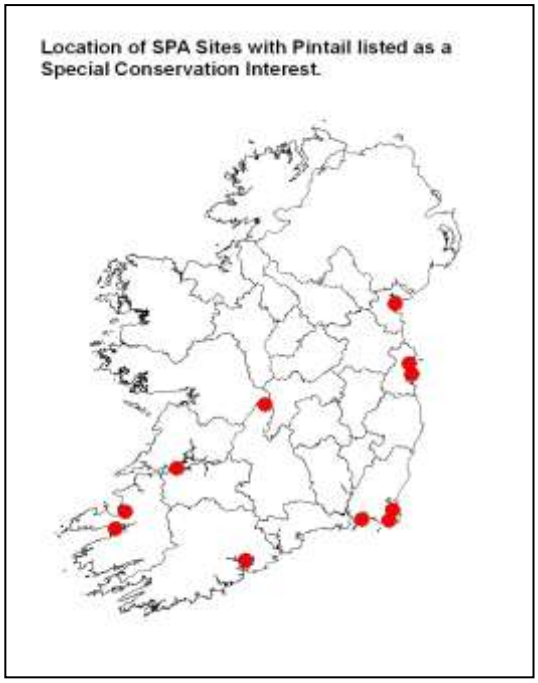
Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the highest ranking Mallard site in the Republic of Ireland was selected for SPA designation (see Table 11.26). In addition seven SPAs which regularly supported nationally important Mallard populations (≥480[3] – Crowe *et al*, 2008), during the baseline period, have this species listed as a special conservation interest. The Mallard populations recorded during I-WeBS at several sites, including Wexford Harbour and Slobs SPA, will include captive breed birds.

Table 11.26 SPA sites with Mallard listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004076	Wexford Harbour and Slobs SPA	3,290	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	1,635	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	1,169	5 year mean peak (1995/96 -1999/2000)
	800004064	Lough Ree SPA	1,087	3 year mean peak (1997/98-1999/2000)
	800004026	Dundalk Bay SPA	765	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	571	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA[h]	513	5 year mean peak (1995/96 -1999/2000)
	800004041	Ballyallia Lough SPA	502	4 year mean peak (1995/96 -1999/2000)
	800004029	Castlemaine Harbour SPA	487	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				15%

[h] Further public notification is required to include this species as a special conservation interest at Cork Harbour SPA.

11.27. Pintail *Anas acuta*



Birds Directive Annex I Species: No

Biogeographic Population: 60,000 individuals

All-Ireland Population: 1,650 individuals

Approximate Biogeographic share: 3%

Pintail have a Holarctic distribution breeding widely over northern temperate and arctic zones. There are six populations one of which breeds in northern Europe and west Siberia and winters in northwest Europe[6]. Pintail are an irregular breeding species in Ireland and the numbers that winter in Ireland come primarily from breeding grounds in Iceland eastwards through Fennoscandia to western Russia[2]. Although breeding within terrestrial wetlands Pintail winter primarily at estuaries or coastal brackish lagoons.

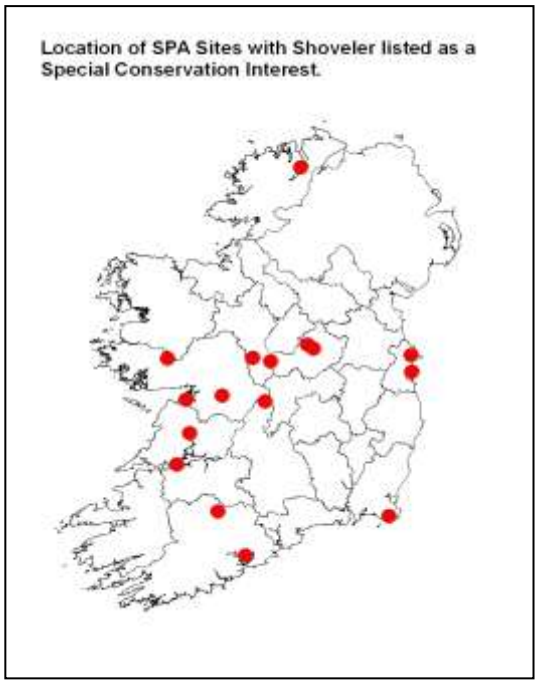
The all-Ireland wintering Pintail population is estimated to be 1,650 individuals[3]. The biogeographic population estimate of 60,000 individuals refers to the population that breeds in north Europe and west Siberia and winters in northwest Europe[6]. The all-Ireland wintering Pintail population represents an estimated biogeographic share of 3% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the four highest ranking Pintail sites in the Republic of Ireland were selected for SPA designation (see Table 11.27). In addition seven SPAs which regularly supported Pintail populations in excess of the 1% threshold of national importance (≥50 individuals), during the baseline period, have this species listed as a special conservation interest.

Table 11.27 SPA sites with Pintail listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004092	Tacumshin Lake SPA	322	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	233	5 year mean peak (1995/96 -1999/2000)
	800004029	Castlemaine Harbour SPA	145	5 year mean peak (1995/96 -1999/2000)
	800004086	River Little Brosna Callows SPA	130	4 year mean peak (1995/96-1999/2000)
Additional SCI Sites	800004026	Dundalk Bay SPA	117	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	66	5 year mean peak (1995/96 -1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	62	5 year mean peak (1995/96-1999/2000)
	800004025	Malahide Estuary SPA	58	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	57	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	54	5 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	52	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				56%

11.28. Shoveler *Anas clypeata*



Birds Directive Annex I Species: No

Biogeographic Population: 40,000 individuals

All-Ireland Population: 3,010 individuals

Approximate Biogeographic share: 8%

Shoveler has a widespread breeding distribution extending from North America through Europe and into Asia. There are six populations one of which breeds in north, northwest and central Europe and winters in northwest and central Europe[6]. Birds wintering in Ireland originate from breeding populations in Iceland, northern Europe, France and Russia[2].

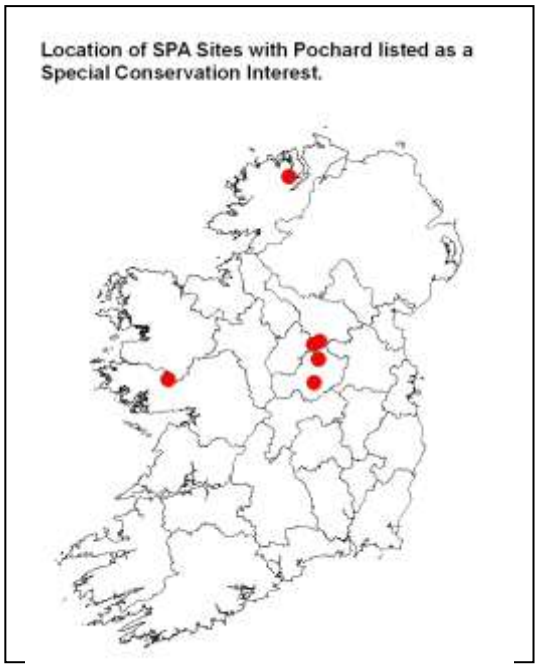
The all-Ireland wintering Shoveler population is estimated to be 3,010 individuals[3]. The biogeographic population estimate of 40,000 individuals refers to the population that breeds in north, northwest and central Europe and winters in northwest and central Europe[6]. The all-Ireland wintering Shoveler population represents an estimated biogeographic share of 8% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the eight highest ranking Shoveler sites in the Republic of Ireland were selected for SPA designation (see Table 11.28). In addition eight SPAs which regularly supported Shoveler populations in excess of the 1% threshold of national importance (≥50 individuals), during the baseline period, have this species listed as a special conservation interest.

Table 11.28 SPA sites with Shoveler listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004041	Ballyallia Lough SPA	288	4 year mean peak (1995/96 -1998/99)
	800004134	Lough Rea SPA	264	5 year mean peak (1995/96 -1999/2000)
	800004086	River Little Brosna Callows SPA	164	4 year mean peak (1995/96-1999/2000)
	800004046	Lough Iron SPA	164	5 year mean peak (1995/96 -1999/2000)
	800004139	Lough Croan Turlough SPA	157	4 year mean peak (1995/96 -1999/2000)
	800004095	Kilcolman Bog SPA	150	5 year mean peak (1995/96 -1999/2000)
	800004047	Lough Owel SPA	142	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	141	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004077	River Shannon and River Fergus Estuaries SPA	107	5 year mean peak (1995/96-1999/2000)
	800004092	Tacumshin Lake SPA	107	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	103	5 year mean peak (1995/96 -1999/2000)
	800004042	Lough Corrib SPA	90	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	88	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	60	5 year mean peak (1995/96 -1999/2000)
	800004015	Rogerstown Estuary SPA	59	5 year mean peak (1995/96 -1999/2000)
	800004064	Lough Ree SPA	54	3 year mean peak (1997/98-1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				54%

11.29. Pochard *Aythya ferina*



Birds Directive Annex I Species: No

Biogeographic Population: 350,000 individuals

All-Ireland Population: 49,030 individuals

Approximate Biogeographic share: 14%

The breeding range of Pochard extends from Europe across south-eastern Russia and north-eastern Asia[2]. The are five populations with one breeding in northwest Russia and northern Europe and migrating south and/or west to winter in northern and eastern Europe[6]. There is a small breeding population within Ireland, which is thought to be resident, and is supplemented in winter by birds originating from eastern Europe and Russia[2].

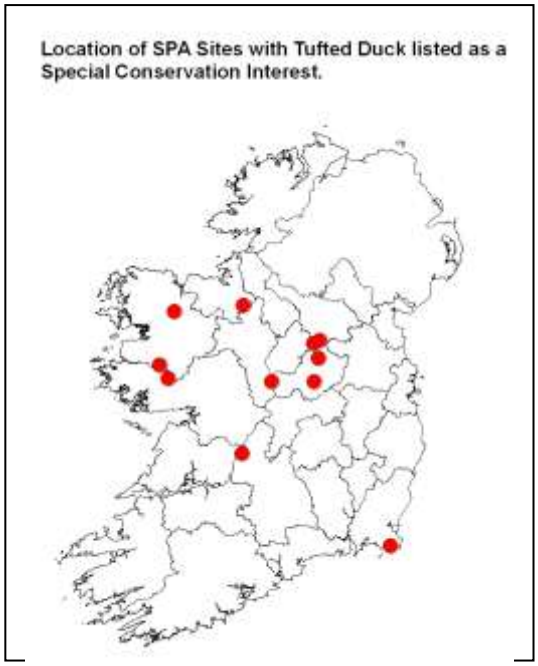
The all-Ireland wintering Pochard population is estimated to be 49,030 individuals[3]. A large proportion of the all-Ireland population of Pochard occur at Lough Neagh in Northern Ireland[9]. The biogeographic population estimate of 350,000 individuals refers to the population breeding in north-west Russia and northern Europe[6]. The all-Ireland wintering Pochard population represents an estimated biogeographic share of 14% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the six highest ranking Pochard sites in the Republic of Ireland were selected for SPA designation (see Table 11.29). The highest ranking site (Lough Corrib SPA) supported an internationally important population of Pochard (≥3,500[2]) during the baseline period.

Table 11.29 SPA sites with Pochard listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004042	Lough Corrib SPA	10,107	5 year mean peak (1995/96 -1999/2000)
	800004043	Lough Derravaragh SPA	3,129	5 year mean peak (1995/96 -1999/2000)
	800004061	Lough Kinale and Derragh Lough SPA	951	5 year mean peak (1995/96 -1999/2000)
	800004044	Lough Ennell SPA	738	4 year mean peak (1995/96 -1998/99)
	800004060	Lough Fern SPA	604	2 year mean peak (1995/96 -1999/2000)
	800004065	Lough Sheelin SPA	546	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				36%

11.30. Tufted Duck *Aythya fuligula*



Birds Directive Annex I Species: No

Biogeographic Population: 1,200,000 individuals

All-Ireland Population: 41,590 individuals

Approximate Biogeographic share: 3%

Tufted Duck has a widespread breeding distribution extending from Europe and Africa into Asia[6]. There are five populations one of which breeds in north and northwest Europe and winters in northwest Europe[6]. Tufted Duck breeding in Britain and Ireland are largely sedentary with short movements from the breeding to wintering areas[31]. In Ireland the breeding population of Tufted Duck is supplemented in winter with birds primarily of Icelandic origin[2].

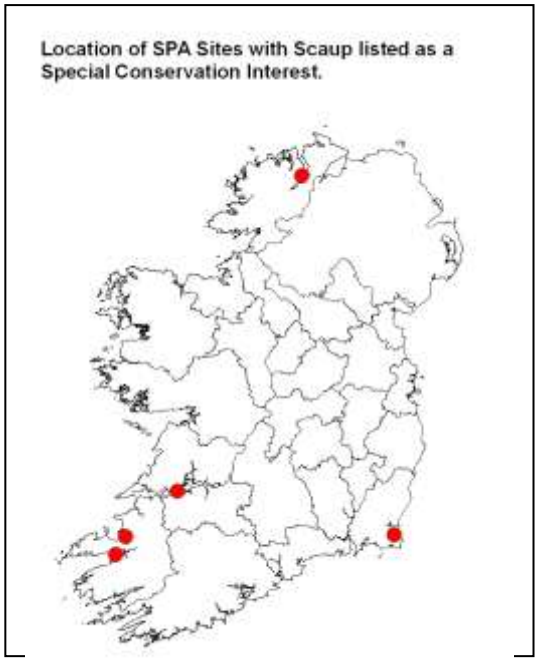
The all-Ireland wintering Tufted Duck population is estimated to be 41,590 individuals[3]. A large proportion of the all-Ireland population of Tufted Duck occur at Lough Neagh in Northern Ireland[9]. The biogeographic population estimate of 1,200,000 individuals refers to the population that breeds and winters in northwest Europe[6]. The all-Ireland wintering Tufted Duck population represents an estimated biogeographic share of 3% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the three highest ranking wintering Tufted Duck sites were selected for SPA designation (see Table 11.30). In addition eight SPAs which regularly supported national important Tufted Duck populations (≥420[3]), during the baseline period, have this species listed as an additional special conservation interest. The winter populations of Tufted Duck recorded during I-WeBS at Lough Ree SPA and Lough Derg (Shannon) SPA may well include a significant proportion of non-migratory/resident breeding birds.

Table 11.30 SPA sites with Tufted Duck listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004042	Lough Corrib SPA	5,486	5 year mean peak (1995/96 -1999/2000)
	800004044	Lough Ennell SPA	1,303	5 year mean peak (1995/96 -1999/2000)
	800004043	Lough Derravaragh SPA	1,073	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004064	Lough Ree SPA	1,012	3 year mean peak (1997/98-1999/2000)
	800004058	Lough Derg (Shannon) SPA	776	4 year mean peak (1995/96 -1999/2000)
	800004065	Lough Sheelin SPA	762	5 year mean peak (1995/96 -1999/2000)
	800004050	Lough Arrow SPA	467	5 year mean peak (2001/02 – 2005/06)
	800004062	Lough Mask SPA	453	4 year mean peak (1995/96 -1999/2000)
	800004061	Lough Kinale and Derragh Lough SPA	449	5 year mean peak (1995/96 -1999/2000)
	800004228	Lough Conn and Lough Cullin SPA	428	4 year mean peak (1995/96 -1999/2000)
	800004092	Tacumshin Lake SPA	420	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				29%

11.31. Scaup *Aythya marila*



Birds Directive Annex I Species: No

Biogeographic Population: 310,000 individuals

All-Ireland Population: 6,340 individuals

Approximate Biogeographic share: 2%

The nominate subspecies of Scaup *Aythya marila marila* breeds between northern Europe, including Iceland, and western Siberia[2]. There are two populations of this subspecies one of which winters in western Europe and the other in the Black and Caspian Seas[6]. The Scaup that winter in Ireland are believed to originate primarily from the Icelandic breeding population[2].

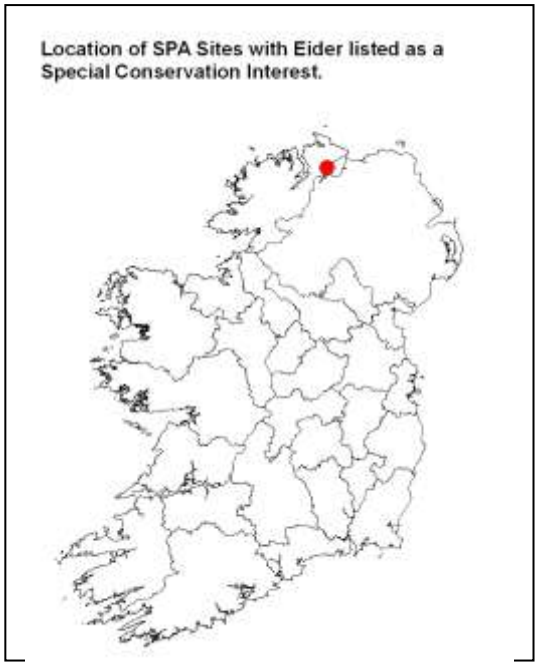
The all-Ireland wintering Scaup population is estimated to be 6,340 individuals[3]. A large proportion of the all-Ireland Scaup population occur at Lough Neagh in Northern Ireland[9]. The biogeographic population estimate of 310,000 individuals refers to the population that winters in western Europe[6]. The all-Ireland wintering Scaup population represents an estimated biogeographic share of 2% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the two highest ranking Scaup sites were selected for SPA designation (see Table 11.31). In addition three SPAs which regularly supported national important Scaup populations (≥65[3]), during the baseline period, have this species listed as a special conservation interest.

Table 11.31 SPA sites with Scaup listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004188	Tralee Bay Complex SPA	892	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	339	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004075	Lough Swilly SPA	103	5 year mean peak (1995/96 -1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	102	5 year mean peak (1995/96-1999/2000)
	800004029	Castlemaine Harbour SPA	74	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				23%

11.32. Eider *Somateria mollissima*



Birds Directive Annex I Species: No

Biogeographic Population: 73,000 individuals

All-Ireland Population: 2,820 individuals

Approximate Biogeographic share: 4%

The nominate subspecies of Eider *Somateria mollissima mollissima* breeds across northwest Europe and northwest Russia[2]. There are five populations of this subspecies one of which breeds and winters in Britain and Ireland[6]. Eider breeding in Britain and Ireland undertake only short seasonal movements and are regarded as short distance migrants but wintering populations may also include immigrants from continental breeding populations[2].

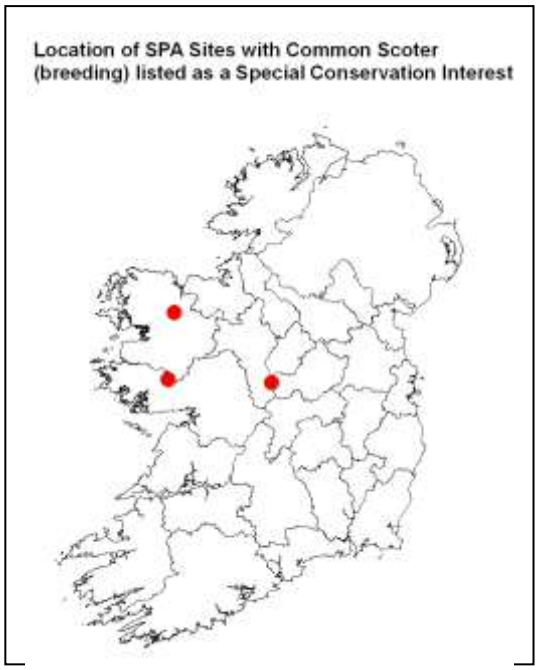
The all-Ireland wintering Eider population is estimated to be 2,820 individuals[3] but the majority of the all-Ireland population of Eider occur around the coast of Northern Ireland[9]. The biogeographic population estimate of 73,000 individuals refers to the population that breeds/winters in Britain and Ireland[6]. The all-Ireland wintering Eider population represents an estimated biogeographic share of 4% for this species.

During the baseline period (1995/96 to 1999/2000) no sites in the Republic of Ireland regularly supported Eider populations that met the threshold of national importance (≥50 individuals). No sites were therefore selected for SPA designation for this species. Lough Foyle, an internationally important cross-border site, supported a nationally important population during the baseline period and therefore Eider is listed as a special conservation interest for Lough Foyle SPA (see Table 11.32).

Table 11.32 SPA sites with Eider listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Additional SCI Sites	800004087	Lough Foyle SPA	143	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				5%

11.33. Common Scoter *Melanitta nigra* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 533,000 pairs

All-Ireland Population: 100 pairs

Approximate Biogeographic share: <0.1%

The nominate species of Common Scoter *Melanitta nigra* breeds in Western Siberia, Scandinavia, Iceland, Scotland and Ireland and winters in the Baltic Sea and east Atlantic south to Mauritania[6]. With few ringing records the migration pattern of breeding Common Scoter in Britain and Ireland is largely unknown[2].

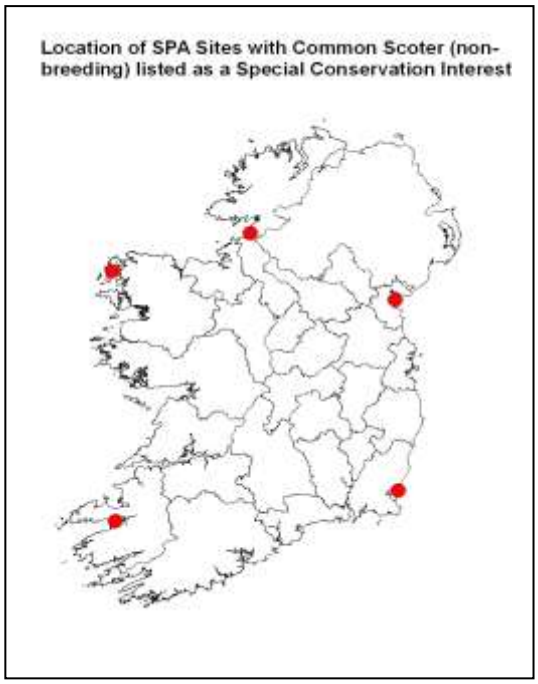
The all-Ireland breeding Common Scoter population in 1995 was estimated to be 100 pairs[32] while a more recent survey in 2000 estimated the total Irish pre-breeding population at 80 potential pairs[33]. The biogeographic population estimate of 533,000 pairs refers to the population that breeds in western Siberia, Scandinavia, Iceland, Scotland and Ireland[7]. The all-Ireland breeding Common Scoter population in 1995 represented an estimated biogeographic share of 0.018% for this species.

Utilising data from a 1995 survey of breeding Common Scoter sites, supplemented by data from a survey in 2000, the three highest ranking sites in Ireland for breeding Common Scoter were selected for SPA designation (see Table 11.33).

Table 11.33 SPA sites with Common Scoter (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004064	Lough Ree SPA	39	1995
	800040228	Lough Conn and Lough Cullin SPA	31	1995
	800004042	Lough Corrib SPA	30	1995
Estimated percentage of all-Ireland population within listed SPA sites				100%

11.34. Common Scoter *Melanitta nigra* (non-breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 1,600,000 individuals

All-Ireland Population: 18,590 individuals

Approximate Biogeographic share: 1%

The nominate species of Common Scoter *Melanitta nigra* breeds in western Siberia, Scandinavia, Iceland, Scotland and Ireland and winters in the Baltic Sea and east Atlantic south to Mauritania[7]. With few ringing records the migration pattern of wintering Scoter in Britain and Ireland is largely unknown[2].

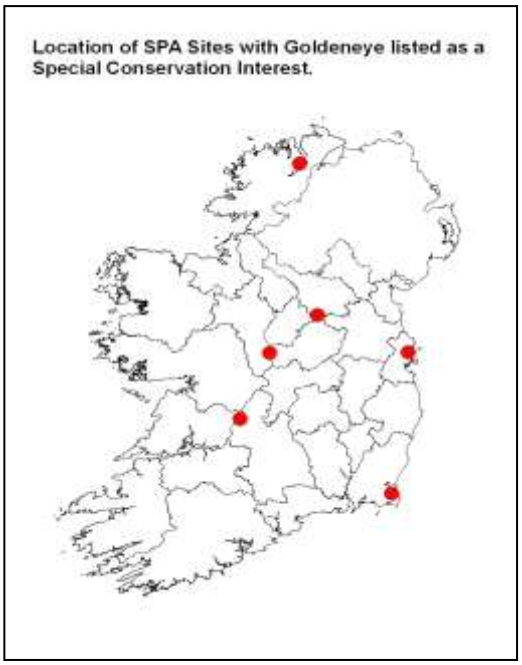
The all-Ireland wintering Common Scoter population is estimated to be 18,590 individuals[3]. The biogeographic population estimate of 1,600,000 individuals refers to the population breeding in western Siberia, Scandinavia, Iceland, Scotland and Ireland[7]. The all-Ireland wintering Common Scoter population represents an estimated biogeographic share of 1% for this species.

Utilising data from the baseline period (1995/96 to 1999/2000) the two highest ranking Common Scoter wintering sites in the Republic of Ireland were selected for SPA designation (see Table 11.34). In addition three SPAs which regularly supported national important Common Scoter populations (≥185[3]) have this species listed as a special conservation interest.

Table 11.34 SPA sites with Common Scoter (non-breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004029	Castlemaine Harbour SPA	3,637	5 year mean peak (1995/96 -1999/2000)
	800004019	The Raven SPA	3,234	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004151	Donegal Bay SPA	860	4 year mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	581	5 year mean peak (2000/01 – 2004/05)
	800004037	Blacksod Bay / Broad Haven SPA	510	5 year mean peak (1999/00 – 2003/04)
Estimated percentage of all-Ireland population within listed SPA sites				36%

11.35. Goldeneye *Bucephala clangula*



Birds Directive Annex I Species: No

Biogeographic Population: 400,000 individuals

All-Ireland Population: 11,850 individuals

Approximate Biogeographic share: 3%

Goldeneye has a circumpolar breeding distribution and the nominate subspecies *Bucephala clangula clangula* has five populations[6]. One population breeds in north and northwest Europe and winters in northwest and central Europe[6].

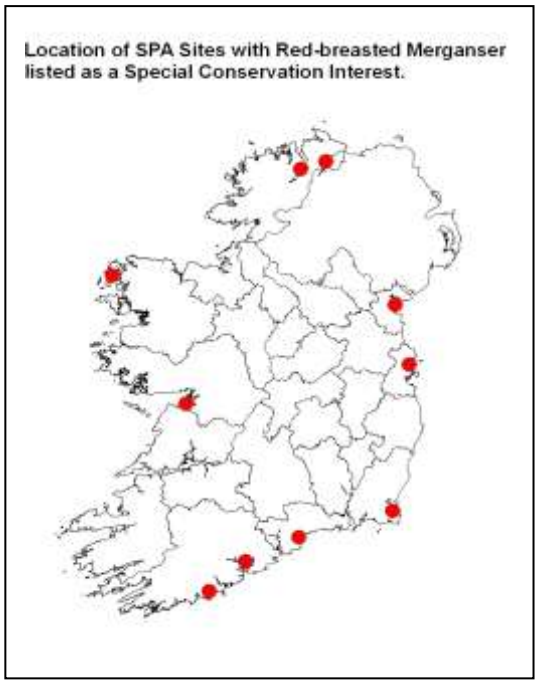
The all-Ireland wintering Goldeneye population is estimated to be 11,850 individuals[3] but a large proportion of this population occurs at Lough Neagh in Northern Ireland[9]. The biogeographic population estimate of 400,000 individuals refers to the population that breeds in north and northwest Europe and winters in northwest and central Europe[6]. The all-Ireland wintering Goldeneye population represents an estimated biogeographic share of 3% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the three highest ranking Goldeneye sites in the Republic of Ireland were selected for SPA designation (see Table 11.35). In addition three SPAs which regularly supported national important Goldeneye populations (≥120[3]), during the baseline period, have this species listed as a special conservation interest.

Table 11.35 SPA sites with Goldeneye listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004065	Lough Sheelin SPA	224	5 year mean peak (1995/96 -1999/2000)
	800004025	Malahide Estuary SPA	215	5 year mean peak (1995/96 -1999/2000)
	800004064	Lough Ree SPA	205	3 year mean peak (1997/98-1999/2000)
Additional SCI Sites	800004076	Wexford Harbour and Slobs SPA	182	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	170	5 year mean peak (1995/96 -1999/2000)
	800004058	Lough Derg (Shannon) SPA	157	4 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				8%

11.36. Red-breasted Merganser *Mergus serrator*



Birds Directive Annex I Species: No

Biogeographic Population: 170,000 individuals

All-Ireland Population: 3,660 individuals

Approximate Biogeographic share: 2%

Red-breasted Merganser has a wide breeding range which spans northern Europe, Russia, Siberia and North America[6]. There are six populations including one that breeds in north and northwest Europe, Iceland and east Greenland[6]. Birds breeding in Britain and Ireland are thought to be partially migratory[34] with the winter population is supplemented by birds from central Europe, eastern Greenland and Iceland.

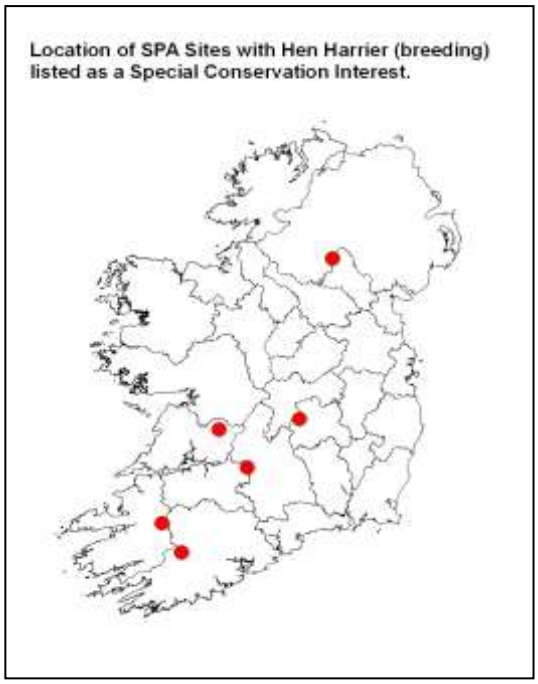
The all-Ireland wintering Red-breasted Merganser population is estimated to be 3,660 individuals[3]. The biogeographic population estimate of 170,000 individuals refers to the population that breeds in north and northwest Europe, Iceland and east Greenland[6]. The all-Ireland wintering Red-breasted Merganser population represents an estimated biogeographic share of 2% for this species.

Utilising data from the baseline period (1995/96 to 1999/2000) the five highest ranking Red-breasted Merganser sites in Ireland were selected for SPA designation (see Table 11.36). In addition five SPAs which regularly supported Red-breasted Merganser populations exceeding the threshold of national importance (≥50 individuals), during the baseline period, have this species listed as a special conservation interest.

Table 11.36 SPA sites with Red-breasted Merganser listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004031	Inner Galway Bay SPA	249	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	209	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	127	5 year mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	121	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	121	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004025	Malahide Estuary SPA	99	5 year mean peak (1995/96 -1999/2000)
	800004037	Blacksod Bay/Broad Haven SPA	83	5 year mean peak (1999/00 -2003/04)
	800004087	Lough Foyle SPA	82	5 year mean peak (1995/96 -1999/2000)
	800004219	Courtmacsherry Bay SPA	63	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	52	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				22%

11.37. Hen Harrier *Circus cyaneaus* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 32,000 – 59,000 pairs

All-Ireland Population: 216 pairs

Approximate Biogeographic share: <1%

The nominate subspecies *Circus cyaneaus cyaneus* has an extensive breeding range that stretches from Ireland to Siberia[34].

The all-Ireland population is estimated to be 216 pairs based on a total of 153 pairs (132 confirmed and 21 possible pairs) in the Republic of Ireland[35] (and 63 pairs in Northern Ireland in 2004[36]. The biogeographic population estimate of 32,000 – 59,000 pairs refers to the European breeding population[37]. The all-Ireland breeding Hen Harrier population represents an estimated biogeographic share of <1% for this Annex I species.

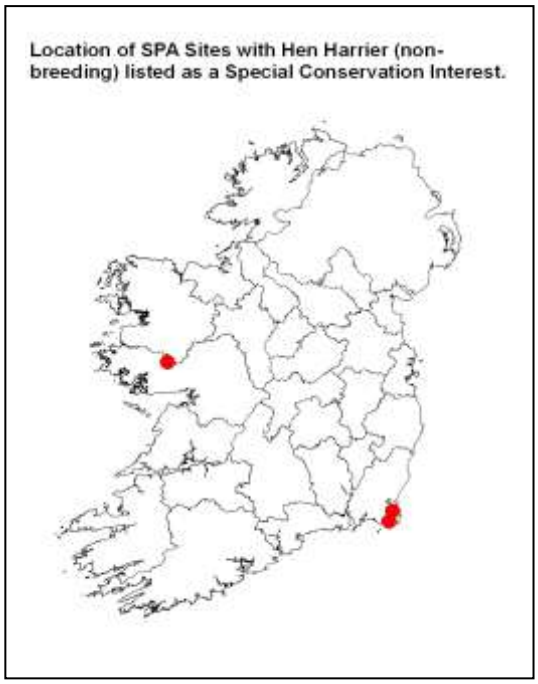
Utilising data from the baseline period (2005) in conjunction with data from a previous survey in 1998-2000 the six most appropriate sites that exceeded the threshold of national importance in Ireland (≥5 pairs) were selected for SPA designation (see Table 11.37). Slieve Beagh is a cross-border upland site and while numbers recorded within the Republic of Ireland were just below the threshold of national importance the overall site supported a nationally important population (10 pairs) and therefore Slieve Beagh SPA was selected for designation.

The six sites selected for SPA designation supported approximately 63% of the Hen Harrier population in the Republic of Ireland during the baseline period.

Table 11.37 SPA sites with Hen Harrier (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs (confirmed + possible)	Data Period
Selected Sites	800004161	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	45	2005
	800004168	Slieve Aughty Mountains SPA	27	2005
	800004160	Slieve Bloom Mountains SPA	8	2005
	800004162	Mullaghanish to Musheramore Mountains SPA	5	2005
	800004165	Slievefelim to Silvermines Mountains SPA	5	2005
	800004167	Slieve Beagh SPA	4	2005
Estimated percentage of all-Ireland population within listed SPA sites				45%

11.38. Hen Harrier *Circus cyaneaus* (non-breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 96,000 – 177,000 individuals

All-Ireland Population: 559-608 individuals

Approximate Biogeographic share: <1%

The nominate subspecies *Circus cyaneaus cyaneus* has an extensive breeding range that stretches from Ireland to Siberia[34]. The breeding population of Hen Harrier in Ireland is best described as a partial migrant with the breeding population being largely resident[2] with some movement of birds between the United Kingdom and Ireland[38].

The all-Ireland winter population of Hen Harrier Ireland is estimated to be 559-608 individuals[38]. The biogeographic population estimate of 96,000-107,000 is an extrapolation of the breeding population for Europe[37]. The all-Ireland breeding population represents an estimated biogeographic share of <1% for this Annex I species.

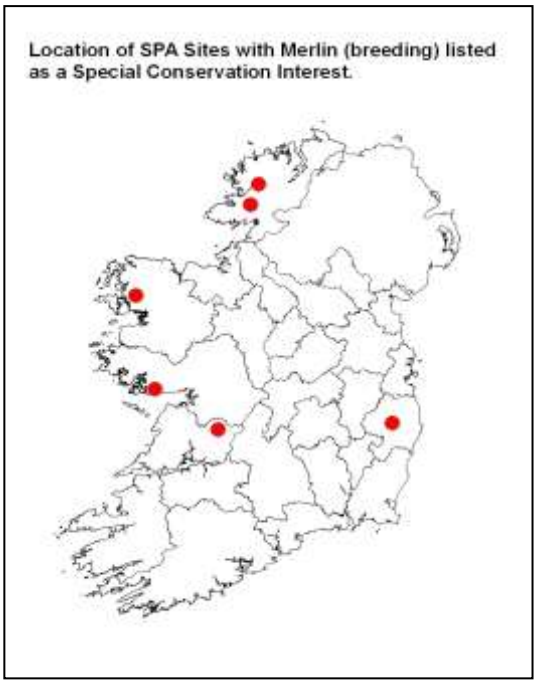
Hen Harrier occupy both upland and lowland locations during the non-breeding season[38] and some of the upland SPA sites designated for breeding Hen Harrier are also utilised during the non-breeding season. Utilising data from the baseline period (2005-2009) the three most important lowland sites that regularly supported numbers exceeding the threshold of national importance in Ireland (≥5 individuals) have Hen Harrier listed as a special conservation interest[i] (see Table 11.38).

[i] Further public notification is required to include Hen Harrier as a special conservation interest at Tacumshin Lake SPA.

Table 11.38 SPA sites with Hen Harrier (non- breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Additional SCI Sites	800004042	Lough Corrib SPA	8	4 year mean peak 2006/07 to 2009/10
	800004092	Tacumshin Lake SPA[i]	5	5 year mean peak 2005/06 to 2009/10
	800004076	Wexford Harbour & Slobs SPA	5	5 year mean peak 2005/06 to 2009/10
Estimated percentage of all-Ireland population within listed SPA sites				-

11.39. Merlin *Falco columbarius* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 31,000 - 49,000 pairs

All-Ireland Population: 225 - 440 territories

Approximate Biogeographic share: 1%

The nominate subspecies *Falco columbarius aesalon* has an extensive breeding range that stretches from Ireland to northwest Siberia[34]. Another subspecies *Falco columbarius subaesalon* breeds in Iceland and winters in Britain and Ireland[2]. Though most populations are migratory, breeding birds from Britain and Ireland are mainly sedentary or altitudinal migrants, with wintering numbers supplemented by Icelandic migrants[39].

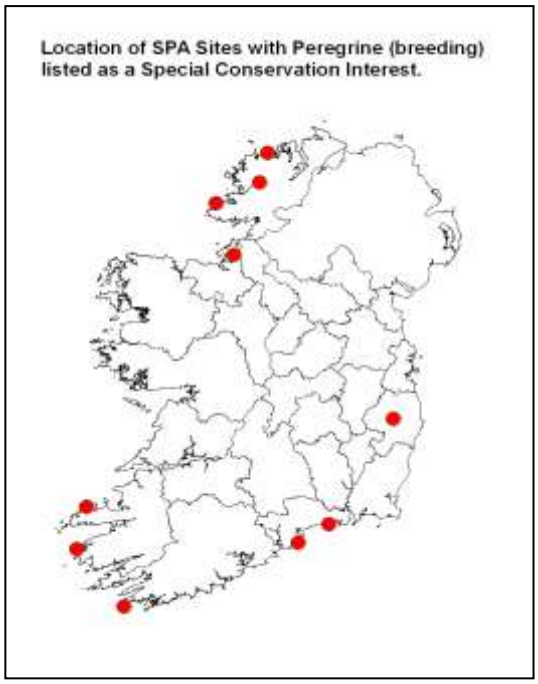
The all-Ireland population is estimated to be 225-440 pairs based on a total of 200-400 pairs in the Republic of Ireland[40] and 25-40 pairs in Northern Ireland[41]. The biogeographic population estimate of 31,000 – 49,000 pairs refers to the European breeding population[34]. The all-Ireland breeding population represents an estimated biogeographic share of 0.5 – 1.4 % for this Annex I species.

Utilising data from various surveys conducted over a 30 year period and estimates based on the availability of suitable breeding habitat for sites with known breeding Merlin populations, the five highest ranking sites that exceeded the threshold of national importance for this species (≥5 territories) were selected for SPA designation (see Table 48.1). In addition one small SPA which met the threshold of national importance has this species listed as a special conservation interest.

Table 11.39 SPA sites with Merlin (breeding) listed as a special conservation interest.

	Site Code	Site Name	Territories	Data Period
Selected Sites	800004039	Derryveagh and Glendowan Mountains SPA	6-11	estimate
	800004040	Wicklow Mountains SPA	9	2009
	800004181	Connemara Bog Complex SPA	8	Partial survey in 2009
	800004098	Owenduff/Nephin Complex SPA	4-8	estimate
	800004168	Slieve Aughty Mountains SPA	5+	2007- 2010
Additional SCI Sites	800004110	Lough Nillan	5	2000-2010
Estimated percentage of all-Ireland population within listed SPA sites				10-20%

11.40. Peregrine *Falco peregrinus* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 12,000 – 25,000 pairs

All-Ireland Population: 477 territories

Approximate Biogeographic share: 2-4%

The nominate subspecies *Falco peregrinus peregrinus* has an extensive breeding range that stretches from the western Palearctic south to the Merditerranean and the Ukraine[34]. Peregrine breeding in Ireland are largely sedentary[40].

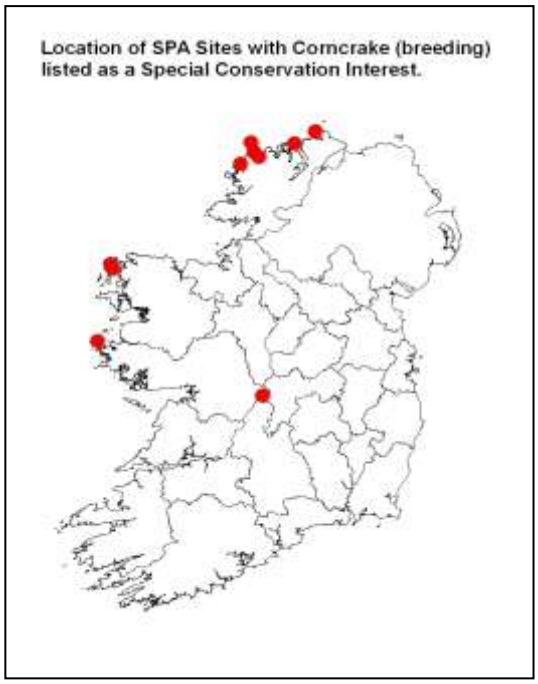
The all-Ireland Peregrine population is estimated to be 477 breeding territories based on a total of 390 breeding territories in the Republic of Ireland[42] and 87 breeding territories in Northern Ireland[40]. The biogeographic population estimate of 5,824 pairs refers to the European breeding population[34]. The all-Ireland breeding Peregrine population represents an estimated biogeographic share of 2-4% for this Annex I species.

Given the solitary nature of the Peregrine long stretches of coastline or large landscape sites e.g. Wicklow Mountains are the locations most likely to support important populations of this species. Utilising data from a Peregrine survey in 2002, all stretches of coastline within designated SPA Chough sites and all large landscape SPA were assessed to identify important locations for this species. Eight sites that exceeded the threshold of national importance for Peregrine (≥5 breeding territories) were selected for SPA designation (see Table 11.40). In addition two SPA sites which met the threshold of national importance for Peregrine have this species listed as a special conservation interest.

Table 11.40 SPA sites with Peregrine (breeding) listed as a special conservation interest.

	Site Code	Site Name	Territories	Data Period
Selected Sites	800004040	Wicklow Mountains SPA	20	2002
	800004193	Mid Waterford Coast SPA	10	2002
	800004156	Sheep's Head to Toe Head SPA	7	2002
	800004150	West Donegal Coast SPA	6	2002
	800004039	Derryveagh and Glendowan Mountains SPA	5-6	2002
	800004194	Horn Head to Fanad Head SPA	5	2002
	800004154	Iveragh Peninsula SPA	5	2002
	800004153	Dingle Peninsula SPA	5	2002
Additional SCI Sites	800004187	Sligo/Leitrim Uplands SPA	4	2002
	800004192	Helvick Head to Ballyquinn SPA	4	2002
Estimated percentage of all-Ireland population within listed SPA sites				15%

11.41. Corncrake *Crex crex* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 1,300,000 – 2,000,000 pairs

All-Ireland Population: 131-162 pairs

Approximate Biogeographic share: 0.01%

Corncrake has an extensive breeding range that stretches from west and northwest Europe to northwest China and central Siberia[7]. In winter Corncrake migrate to Sub-Saharan Africa[7].

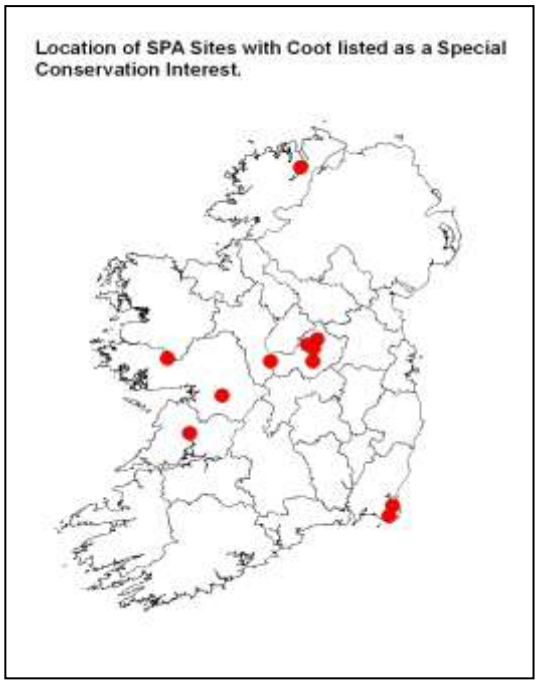
The all-Ireland population is estimated to be 131-162 pairs[43] (NPWS, 2012). The biogeographic population estimate of 1,300,000-2,000,000 pairs refers to the population estimate for Europe including Russia[7]. The all-Ireland breeding population represents an estimated biogeographic share of 0.01% for this Annex I species.

Utilising data from the period 2003-2007 the ten highest ranking sites in Ireland were selected for SPA designation (see Table 11.41).

Table 11.41 SPA sites with Corncrake (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004073	Tory Island SPA	25	2003-2007
	800004096	Middle Shannon Callows SPA	19	2003-2007
	800004083	Inishboffin, Inishdooey and Inishbeg SPA	13	2003-2007
	800004230	West Donegal Islands SPA	13	2003-2007
	800004231	Inishbofin, Omey Island and Turbot Island SPA	9	2003-2007
	800004149	Falcarragh to Meenlaragh SPA	7	2003-2007
	800004146	Malin Head SPA	6	2003-2007
	800004227 **and** 800004093	Mullet Peninsula SPA **and** Termoncarragh Lough and Annagh Machair SPA	4	2003-2007
	800004148	Fanad Head SPA	3	2003-2007
Estimated percentage of all-Ireland population within listed SPA sites				59-69%

11.42. Coot *Fulica atra*



Birds Directive Annex I Species: No

Biogeographic Population: 1,750,000 individuals

All-Ireland Population: 28,300 individuals

Approximate Biogeographic share: 2%

The nominate subspecies of Coot *Fulica atra atra* has breeding range that covers much of Europe and Asia[6]. There are five populations of this subspecies one of which breeds in east, north and western Europe and winters in northwest Europe[6]. The Irish breeding population is thought to be largely sedentary but there is a distinct increase of birds during winter due to an influx of migratory birds[2].

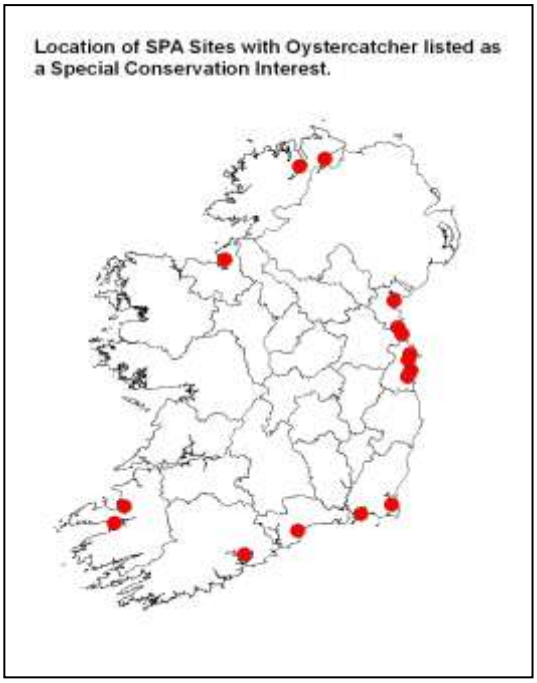
The all-Ireland wintering Coot population is estimated to be 28,300 individuals[3]. The biogeographic population estimate of 1,750,000 individuals refers to the population that winters in northwest Europe[6]. The all-Ireland wintering Coot population represents an estimated biogeographic share of 2% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the five highest ranking sites in the Republic of Ireland were selected for SPA designation (see Table 11.42). In addition six sites which regularly supported national important Coot populations (≥280 individuals[3]), during the baseline period, have this species listed as a special conservation interest.

Table 11.42 SPA sites with Coot listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004042	Lough Corrib SPA	14,426	5 year mean peak (1995/96 -1999/2000)
	800004047	Lough Owel SPA	1,825	5 year mean peak (1995/96 -1999/2000)
	800004092	Tacumshin Lake SPA	1,669	5 year mean peak (1995/96 -1999/2000)
	800004043	Lough Derravaragh SPA	1,358	5 year mean peak (1995/96 -1999/2000)
	800004134	Lough Rea SPA	1,172	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004075	Lough Swilly SPA	514	5 year mean peak (1995/96 -1999/2000)
	800004044	Lough Ennell SPA	433	4 year mean peak (1995/96 -1998/99)
	800004076	Wexford Harbour and Slobs SPA	351	5 year mean peak (1995/96 -1999/2000)
	800004064	Lough Ree SPA	338	3 year mean peak (1997/98-1999/2000)
	800004041	Ballyallia Lough SPA	331	4 year mean peak (1995/96 -1998/99)
	800004046	Lough Iron SPA	293	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				57%

11.43. Oystercatcher *Haematopus ostralegus*



Birds Directive Annex I Species: No

Biogeographic Population: 1,020,000 individuals

All-Ireland Population: 65,700 individuals

Approximate Biogeographic share: 6%

The nominate race of Oystercatcher *Haematopus ostralegus ostralegus* breeds in western and northern Europe as far as Iceland, Norway and Finland and includes those birds that breed in Ireland[6]. While Irish-breeding birds are partial migrants, some moving south during winter while others remain on the Irish coast, the population is supplemented in winter by birds from Iceland and the Faeroe Islands[2].

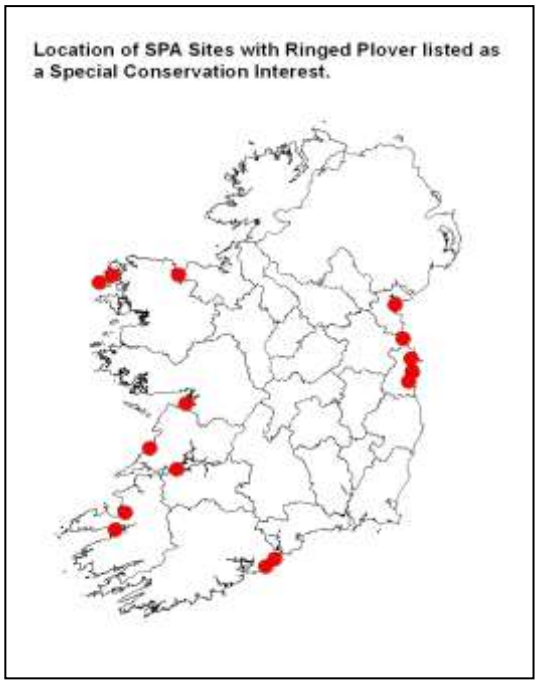
The all-Ireland wintering Oystercatcher population is estimated to be 65,700 individuals[3]. The biogeographic population estimate of 1,020,000 individuals refers to the population that breeds in Europe[6]. The all-Ireland wintering Oystercatcher population represents an estimated biogeographic share of 6% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the six highest ranking sites in the Republic of Ireland were selected for SPA designation (see Table 11.43). In addition ten SPAs which regularly supported national important Oystercatcher populations (≥660 individuals[3]), during the baseline period, have this species listed as a special conservation interest.

Table 11.43 SPA sites with Oystercatcher listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004026	Dundalk Bay SPA	8,746	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	1,809	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	1,784	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	1,595	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	1,493	5 year mean peak (1995/96 -1999/2000)
	800004015	Rogerstown Estuary SPA	1,345	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	3,101	5 year mean peak (1995/96 -1999/2000)
	800004025	Malahide Estuary SPA	1,360	5 year mean peak (1995/96 -1999/2000)
	800004080	Boyne Estuary SPA	1,179	5 year mean peak (1995/96 -1999/2000)
	800004024	South Dublin Bay and River Tolka Estuary SPA	1,145	5 year mean peak (1995/96 -1999/2000)
	800004029	Castlemaine Harbour SPA	1,035	5 year mean peak (1995/96 -1999/2000)
	800004158	River Nanny Estuary and Shore SPA	1,014	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	1,011	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	767	5 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	711	5 year mean peak (1995/96 -1999/2000)
	800004035	Cummeen Strand SPA	680	4 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				21%

11.44. Ringed Plover *Charadrius hiaticula*



Birds Directive Annex I Species: No

Biogeographic Population: 73,000 individuals

All-Ireland Population: 14,350 individuals

Approximate Biogeographic share: 20%

The nominate race of Ringed Plover *Charadrius hiaticula hiaticula* breeds in Iceland, the Baltic region, southern Scandinavia, Britain, Ireland and France[6]. In winter this species migrates to western Europe, the Mediterranean and north Africa[6]. While birds breeding in Britain and Ireland show only slight movements between breeding and wintering sites the population is supplemented in winter by birds from populations breeding in northern Europe and round the North Sea[2].

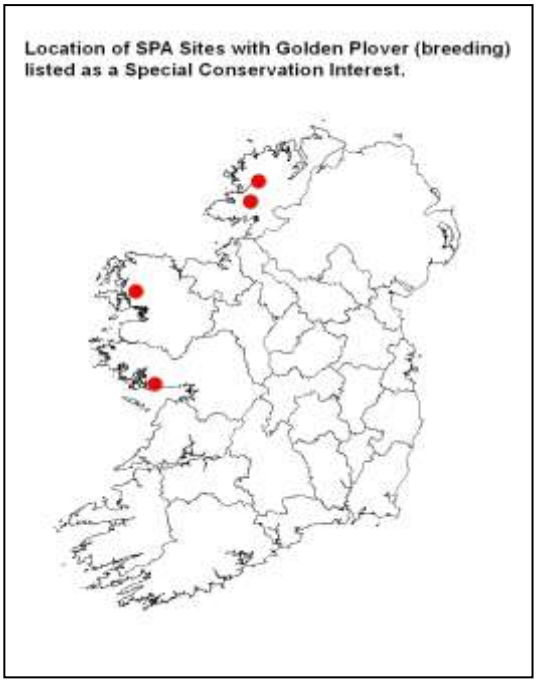
The all-Ireland population is estimated to be 14,350 individuals[3]. The biogeographic population estimate of 73,000 individuals refers to the population that breeds in Iceland, the Baltic region, southern Scandinavia, Britain, Ireland and France[6]. The all-Ireland wintering population represents an estimated biogeographic share of 20% for this species.

Utilising data from the baseline period (1995/96 to 1999/2000) the ten highest ranking Ringed Plover sites in the Republic of Ireland were selected for SPA designation (see Table 11.44). Five SPAs which supported national important Ringed Plover populations (≥140 individuals[3]) during the baseline period, have this species listed as a special conservation interest. Data for only two years was available for the Inishkea Islands SPA but as nationally important numbers were recorded during these baseline years Ringed Plover was listed as a special conservation interest for this site.

Table 11.44 SPA sites with Ringed Plover listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004037	Blacksod Bay / Broad Haven SPA	590	5 year mean peak (1999/00 - 2003/04)
	800004188	Tralee Bay Complex SPA	344	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	335	5 year mean peak (1995/96 -1999/2000)
	800004182	Mid-Clare Coast SPA	316	5 year mean peak (1995/96 -1999/2000)
	800004036	Killala Bay/Moy Estuary SPA	245	5 year mean peak (1995/96-999/2000)
	800004016	Baldoyle Bay SPA	223	5 year mean peak (1995/96 -1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	223	5 year mean peak (1995/96-1999/2000)
	800004029	Castlemaine Harbour SPA	206	5 year mean peak (1995/96 -1999/2000)
	800004015	Rogerstown Estuary SPA	188	5 year mean peak (1995/96 -1999/2000)
	800004158	River Nanny Estuary and Shore SPA	185	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004004	Inishkea Islands SPA	225	2 year mean peak (1996/97 & 1999/2000)
	800004022	Ballycotton Bay SPA	167	5 year mean peak (1995/96 -1999/2000)
	800004024	South Dublin Bay and River Tolka Estuary SPA	161	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	153	5 year mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	151	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				11%

11.45. Golden Plover *Pluvialis apricaria* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 47,736 -71,247 pairs

All-Ireland Population: 200 - 400 pairs

Approximate Biogeographic share: <1%

The Eurasian Golden Plover is a Palearctic species, occurring mainly at higher latitudes of Western Europe to north-central Siberia and wintering south in Europe, north Africa and parts of Asia[2]. Two subspecies are currently described - *P. a apricaria and P. a. altifrons.* The nominate subspecies *P. a apricaria* breeds in Britain, Ireland, Denmark, Germany, southern Norway and the Baltic states and winters mainly in northwest Europe[44].

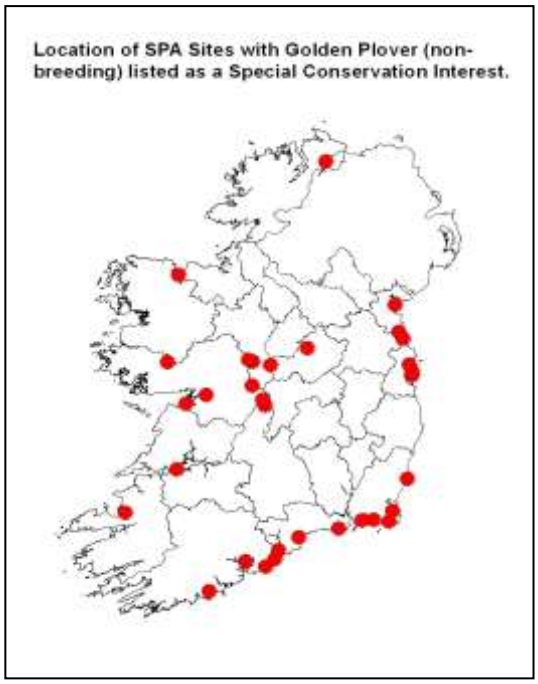
The all-Ireland breeding Golden Plover population is estimated to be 200 - 400 pairs while the biogeographic population is estimated to be 47-736 – 71,247 pairs[44]. The all-Ireland breeding Golden Plover population represents an estimated biogeographic share of 0.3% – 0.8% for this Annex I species.

Utilising data from surveys undertaken between 2002 and 2004 the four highest ranking breeding Golden Plover sites were selected for SPA designation (see Table 11.45). Numbers exceeding the threshold of national importance for breeding Golden Plover (≥12 pairs) were not recorded at any other sites during the baseline period.

Table 11.45 SPA sites with Golden Plover (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004181	Connemara Bog Complex SPA	27	2004
	800004039	Derryveagh and Glendowan Mountains SPA	18	2002
	800004110	Lough Nillan SPA	16	2002
	800004098	Owenduff/Nephin Complex SPA	15	2004
Estimated percentage of all-Ireland population within listed SPA sites				19-38%

11.46. Golden Plover *Pluvialis apricaria* (non-breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 930,000 individuals

All-Ireland Population: 163,200 individuals

Approximate Biogeographic share: 18%

Two subspecies of the Eurasian Golden Plover are currently described - *P. a. altifrons* is the 'northern' form and breeds at high latitudes in Western Eurasia[44]. *P. a apricaria* breeds at more southerly latitudes including Ireland and migrates south for winter[44]. Golden Plover that winter in Ireland are thought to be mostly *P. a. altifrons* from the Icelandic-breeding population[2].

The all-Ireland wintering Golden Plover population is estimated to be 163,200 individuals[3]. The biogeographic population estimate of 930,000 individuals refers to the Eastern Atlantic population of *P. a. altifrons* that breeds in Iceland and the Faeroes[6]. All population estimates for Golden Plover are likely to be underestimates as this species regularly utilises non-wetland sites which are not included in core waterbird counts[44]. The all-Ireland wintering Golden Plover population represents an estimated biogeographic share of 18% for this Annex I species.

Utilising data from the baseline period (1995/96 to 1999/2000) the sixteen highest ranking wetland sites in the Republic of Ireland were selected for SPA designation (see Table 11.46). The two highest ranked sites supported internationally important populations (≥9,300[6]). In addition sixteen SPAs which regularly supported national important Golden Plover populations (≥1,600 individuals[3]), during the baseline period, have this species listed as a special conservation interest.

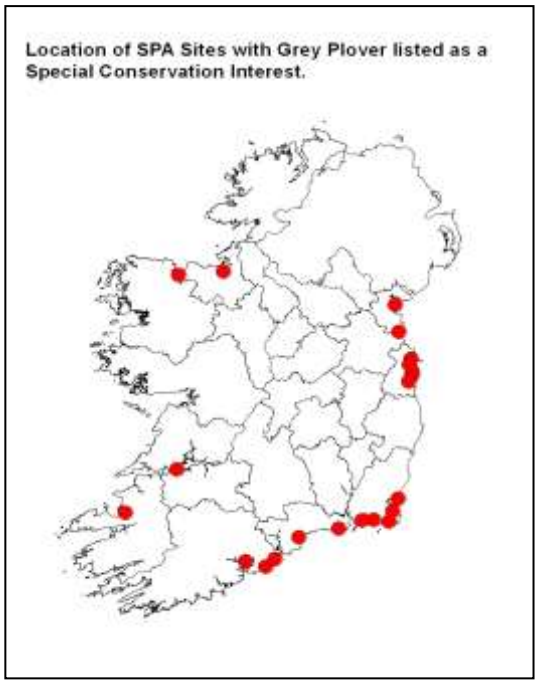
Table 11.46 SPA sites with Golden Plover (non-breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004023	Ballymacoda Bay SPA	10,920	5 year mean peak (1995/96 -1999/2000)
	800004086	River Little Brosna Callows SPA	10,577	4 year mean peak (1995/96-1999/2000)
	800004089	Rahasane Turlough SPA	6,613	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	6,393	5 year mean peak (1995/96 -1999/2000)
	800004080	Boyne Estuary SPA	6,070	5 year mean peak (1995/96 -1999/2000)
	800004143	Cahore Marshes SPA	6,038	4 year mean peak (1995/96-1999/2000)
	800004026	Dundalk Bay SPA	5,967	5 year mean peak (1995/96 -1999/2000)
	800004219	Courtmacsherry Bay SPA	5,759	5 year mean peak (1995/96 -1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	5,664	5 year mean peak (1995/96-1999/2000)
	800004076	Wexford Harbour and Slobs SPA	5,013	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	4,980	5 year mean peak (1995/96 -1999/2000)
	800004020	Ballyteigue Burrow SPA	4,630	5 year mean peak (1995/96 -1999/2000)
	800004096	Middle Shannon Callows SPA	4,133	4 year mean peak (1995/96-1999/2000)
	800004092	Tacumshin Lake SPA	3,932	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	3,342	5 year mean peak (1995/96 -1999/2000)
	800004064	Lough Ree SPA	3,058	3 year mean peak (1997/98-1999/2000)

Table 11.46 continued: SPA sites with Golden Plover (non-breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Additional SCI Sites	800004087	Lough Foyle SPA	4,562	5 year mean peak (1995/96 -1999/2000)
	800004140	Four Roads Turlough SPA	3,717	3 year mean peak (1995/96 -1999/2000)
	800004027	Tramore Back Strand SPA	2,924	5 year mean peak (1995/96 -1999/2000)
	800004028	Blackwater Estuary SPA	2,628	5 year mean peak (1995/96 -1999/2000)
	800004022	Ballycotton Bay SPA	2,383	5 year mean peak (1995/96 -1999/2000)
	800004036	Killala Bay/Moy Estuary SPA	2,361	5 year mean peak (1995/96 -1999/2000)
	800004097	River Suck Callows SPA	2,241	5 year mean peak (2001/02-2005/06)
	800004046	Lough Iron SPA	2,200	5 year mean peak (1995/96 -1999/2000)
	800004016	Baldoyle Bay SPA	2,120	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	2,033	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	2,030	5 year mean peak (1995/96 -1999/2000)
	800004139	Lough Croan Turlough SPA	2,025	4 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	1,955	5 year mean peak (1995/96 -1999/2000)
	800004025	Malahide Estuary SPA	1,843	5 year mean peak (1995/96 -1999/2000)
	800004158	River Nanny Estuary and Shore SPA	1,759	5 year mean peak (1995/96 -1999/2000)
	800004042	Lough Corrib SPA	1,727	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				55%

11.47. Grey Plover *Pluvialis squatarola*



Birds Directive Annex I Species: No

Biogeographic Population: 247,000 individuals

All-Ireland Population: 6,435 individuals

Approximate Biogeographic share: 3%

The Grey Plover is generally considered a monotypic species and has a holarctic breeding distribution across the tundra of Eurasia and North America[44]. The species migrates from breeding areas to a very wide wintering range extending to the coastlines of Africa, south and east Asia, Australasia and South America[2]. In Ireland, Grey Plovers occur as both passage and wintering birds and are thought to originate from Russian breeding populations[2].

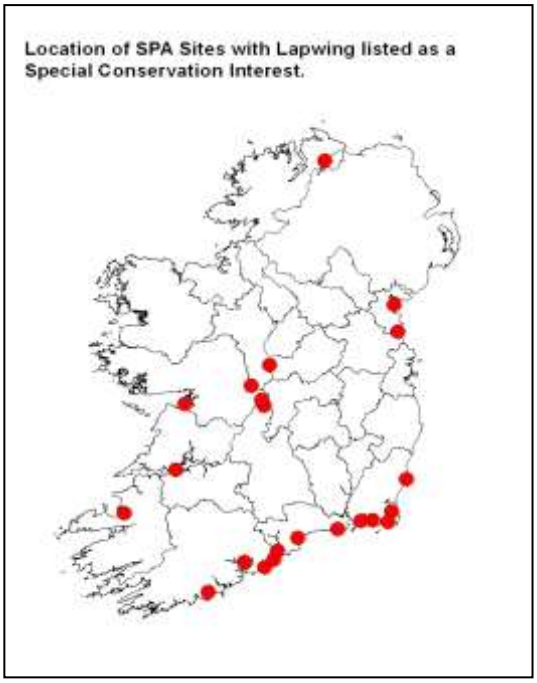
The all-Ireland wintering Grey Plover population is estimated to be 6,435 individuals[3]. The biogeographic population estimate of 247,000 individuals refers to the population that breeds between Arctic Russia and North Eastern Canada and winters in the East Atlantic[6]. The all-Ireland wintering Grey Plover population represents an estimated biogeographic share of 3% for species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the five highest ranking sites in the Republic of Ireland were selected for SPA designation (see Table 11.47). In addition fifteen SPAs which regularly supported national important Grey Plover populations (≥65 individuals[3]), during the baseline period, have this species listed as a special conservation interest.

Table 11.47 SPA sites with Grey Plover listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004076	Wexford Harbour and Slobs SPA	1,279	5 year mean peak (1995/96-1999/2000)
	800004077	R Shannon and R. Fergus Estuaries SPA	558	5 year mean peak (1995/96-1999/2000)
	800004019	The Raven SPA	553	4 year mean peak (1995/96 – 1998/99)
	800004023	Ballymacoda Bay SPA	535	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	517	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004032	Dungarvan Harbour SPA	444	5 year mean peak (1995/96 -1999/2000)
	800004027	Tramore Back Strand SPA	299	5 year mean peak (1995/96 -1999/2000)
	800004015	Rogerstown Estuary SPA	229	5 year mean peak (1995/96 -1999/2000)
	800004036	Killala Bay/Moy Estuary SPA	221	5 year mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	204	5 year mean peak (1995/96 -1999/2000)
	800004025	Malahide Estuary SPA	201	5 year mean peak (1995/96 -1999/2000)
	800004016	Baldoyle Bay SPA	200	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	195	5 year mean peak (1995/96 -1999/2000)
	800004080	Boyne Estuary SPA	146	5 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	142	5 year mean peak (1995/96 -1999/2000)
	800004022	Ballycotton Bay SPA	124	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	95	5 year mean peak (1995/96 -1999/2000)
	800004092	Tacumshin Lake SPA	85	5 year mean peak (1995/96 -1999/2000)
	800004129	Ballysadare Bay SPA	70	4 year mean peak (1995/96 -1999/2000)
	800004020	Ballyteigue Burrow SPA	69	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				55%

11.48. Lapwing *Vanellus vanellus*



Birds Directive Annex I Species: No

Biogeographic Population: 2,800,000 – 4,000,000 individuals

All-Ireland Population: 258,000 individuals

Approximate Biogeographic share: 6-9%

The Lapwing is a monotypic species and has a wide Palearctic breeding distribution from Britain and Ireland in the west to eastern and southern Siberia in the east with a southern limit extending into Spain[44]. Birds breeding in Britain and Ireland are partial migrants but the wintering population is enhanced by Lapwings moving in from continental Europe and northern and western Britain[2]. Cold weather movements can see a greater flux of birds to Ireland's estuaries.

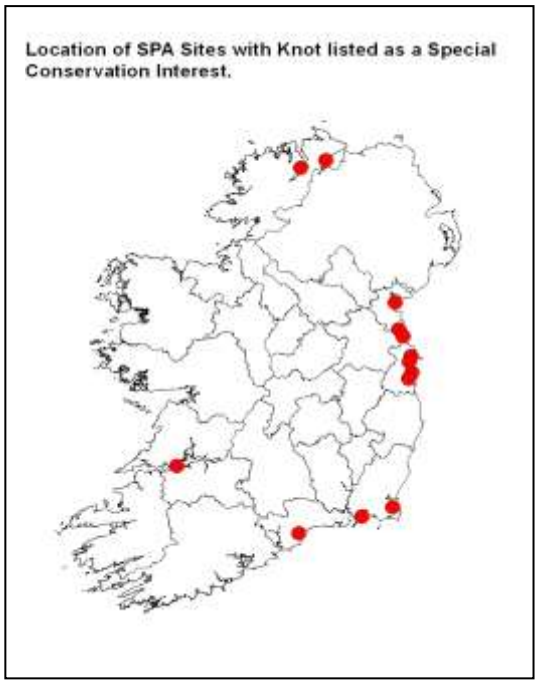
The all-Ireland wintering Lapwing population is estimated to be 258,000 individuals[3]. The biogeographic population estimate of 2,800,000 to 4,000,000 individuals refers to the European breeding population[6]. All population estimates for Lapwing are likely to be underestimates as this species regularly utilises non-wetland sites which are not included in core waterbird counts[44]. The all-Ireland wintering Lapwing population represents an estimated biogeographic share of 6-9% for species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the eight highest ranking Lapwing sites in the Republic of Ireland were selected for SPA designation (see Table 11.48). In addition fourteen SPAs which regularly supported national important Lapwing populations (≥2,600 individuals[3]), during the baseline period, have this species listed as a special conservation interest.

Table 11.48 SPA sites with Lapwing listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004077	River Shannon and River Fergus Estuaries SPA	15,126	5 year mean peak (1995/96-1999/2000)
	800004096	Middle Shannon Callows SPA	13,240	4 year mean peak (1995/96-1999/2000)
	800004076	Wexford Harbour and Slobs SPA	11,826	5 year mean peak (1995/96-1999/2000)
	800004020	Ballyteigue Burrow SPA	7,808	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	7,569	5 year mean peak (1995/96 -1999/2000)
	800004086	River Little Brosna Callows SPA	6,552	3 year mean peak (1995/96-1999/2000)
	800004188	Tralee Bay Complex SPA	6,106	5 year mean peak (1995/96 -1999/2000)
	800004064	Lough Ree SPA	5,793	3 year mean peak (1997/98-1999/2000)
Additional SCI Sites	800004092	Tacumshin Lake SPA	5,302	5 year mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	4,892	5 year mean peak (1995/96 -1999/2000)
	800004080	Boyne Estuary SPA	4,657	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	4,063	5 year mean peak (1995/96 -1999/2000)
	800004087	Lough Foyle SPA	4,024	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	3,969	5 year mean peak (1995/96 -1999/2000)
	800004097	River Suck Callows SPA	3,906	5 year mean peak (2001/02-2005/06)
	800004143	Cahore Marshes SPA	3,455	4 year mean peak (1995/96 – 1999/2000)
	800004027	Tramore Back Strand SPA	3,308	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	3,233	5 year mean peak (1995/96 -1999/2000)
	800004028	Blackwater Estuary SPA	3,054	5 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	2,950	5 year mean peak (1995/96 -1999/2000)
	800004022	Ballycotton Bay SPA	2,782	5 year mean peak (1995/96 -1999/2000)
	800004219	Courtmacsherry Bay SPA	2,713	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				45%

11.49. Knot *Calidris canutus*



Birds Directive Annex I Species: No

Biogeographic Population: 450,000 individuals

All-Ireland Population: 28,720 individuals

Approximate Biogeographic share: 6%

Knot are a high Arctic breeding species and five distinct subspecies are known to occur although only two, *Calidris canutus islandica* and *Calidris canutus canutus* occur within Europe[6]. The nominate subspecies *Calidris canutus islandica* breeds on islands in High Arctic Canada and Greenland and winters in western Europe[2].

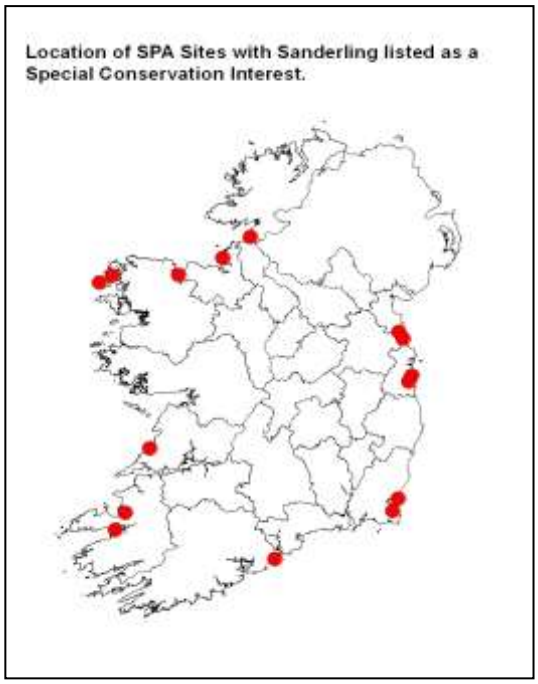
The all-Ireland wintering Knot population is estimated to be 28,720 individuals[3]. The biogeographic population estimate of 450,000 individuals refers to the nominate subspecies *Calidris canutus islandica*[6]. The all-Ireland wintering Knot population represents an estimated biogeographic share of 6% for species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the six highest ranking Knot sites in the Republic of Ireland were selected for SPA designation (see Table 11.49). In addition seven SPAs which regularly supported national important Knot populations (≥290 individuals[3]), during the baseline period, have this species listed as a special conservation interest.

Table 11.49 SPA sites with Knot listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004026	Dundalk Bay SPA	9,710	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	2,837	5 year mean peak (1995/96 -1999/2000)
	800004015	Rogerstown Estuary SPA	2,454	5 year mean peak (1995/96 -1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	2,015	5 year mean peak (1995/96-1999/2000)
	800004080	Boyne Estuary SPA	1,945	5 year mean peak (1995/96 -1999/2000)
	800004158	River Nanny Estuary and Shore SPA	1,140	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004025	Malahide Estuary SPA	915	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	698	5 year mean peak (1995/96 -1999/2000)
	800004024	South Dublin Bay and River Tolka Estuary SPA	548	5 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	508	5 year mean peak (1995/96 -1999/2000)
	800004087	Lough Foyle SPA	499	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	453	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	303	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				55%

11.50. Sanderling *Calidris alba*



Birds Directive Annex I Species: No

Biogeographic Population: 123,000 individuals

All-Ireland Population: 6,240 individuals

Approximate Biogeographic share: 5%

Sanderling are one of the most northerly of all Arctic-breeding waders with a circumpolar breeding range that includes Alaska, Northern Canada, Greenland and Svalbard[6]. The species is a long-distance migrant with a wide wintering distribution that includes coastlines of much of the tropics and the Southern Hemisphere as well as northwest Europe[2]. There is evidence of two subspecies (*Calidris alba alba* and *Calidris alba rubidus)* but in western Europe birds occurring in winter belong to the nominate subspecies *C. a. alba* which breed in East and northeast Greenland, Jan Mayen, Svalbard, Franz Joseph Land and Taymar[44].

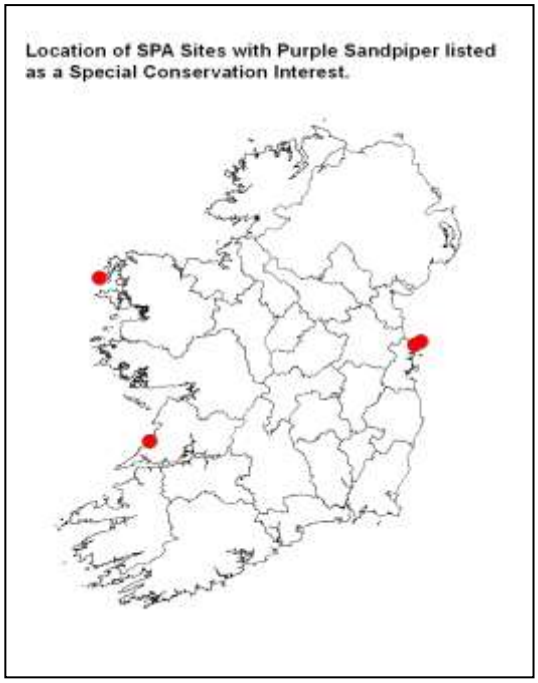
The all-Ireland wintering Sanderling population is estimated to be 6,240 individuals[3]. The biogeographic population estimate of 123,000 individuals refers to the *Calidris alba* population breeding in northeast Canada, north and northeast Greenland, Svalbard and west Taymyr and wintering along the Atlantic coast of Europe and south to southwest Africa[6]. The all-Ireland wintering Sanderling population represents an estimated biogeographic share of 5% for species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the seven highest ranking Sanderling sites in Ireland were selected for SPA designation (see Table 11.50). In addition eight SPAs which regularly supported national important Sanderling populations (≥60 individuals[3]), during the baseline period, have this species listed as a special conservation interest.

Table 11.50 SPA sites with Sanderling listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004024	Castlemaine Harbour SPA	335	5 year mean peak (1995/96 -1999/2000)
	800004029	South Dublin Bay and River Tolka Estuary SPA	321	5 year mean peak (1995/96 -1999/2000)
	800004182	Mid-Clare Coast SPA	272	5 year mean peak (1995/96 -1999/2000)
	800004158	River Nanny Estuary and Shore SPA	240	5 year mean peak (1995/96 -1999/2000)
	800004013	Drumcliff Bay SPA	237	4 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	228	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	210	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004037	Blacksod Bay/Broad Haven SPA	171	5 year mean peak (1999/00 -2003/04)
	800004006	North Bull Island SPA	141	5 year mean peak (1995/96 -1999/2000)
	800004004	Inishkea Islands SPA	140	2 year mean peak (1995/96 & 1999/2000)
	800004036	Killala Bay/Moy Estuary SPA	123	5 year mean peak (1995/96 -1999/2000)
	800004019	The Raven SPA	101	4 year mean peak (1995/96 – 1998/998)
	800004023	Ballymacoda Bay SPA	98	5 year mean peak (1995/96 -1999/2000)
	800004080	Boyne Estuary SPA	81	5 year mean peak (1995/96 -1999/2000)
	800004151	Donegal Bay SPA	68	4 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				19%

11.51. Purple Sandpiper *Calidris maritima*



Birds Directive Annex I Species: No

Biogeographic Population: 15,000 individuals

All-Ireland Population: 3,420 individuals

Approximate Biogeographic share: 23%

Three populations of the nominate subspecies *Calidris maritima maritima* are recognised with breeding locations in Canada, northern Europe & western Siberia and West Greenland[44]. This species is a long distance migrant and biometric and geolocator data indicate that birds wintering in Ireland are likely to be of Canadian origin[45+46].

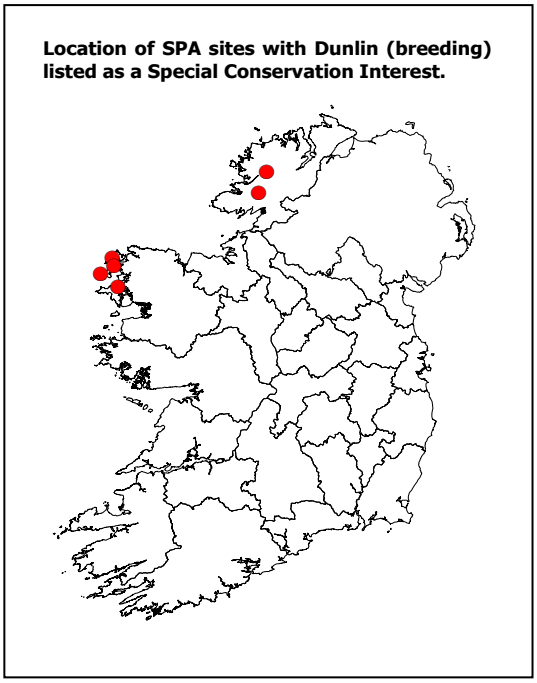
The all-Ireland wintering Purple Sandpiper population is estimated to be 3,420 individuals[3]. The biogeographic population estimate of 15,000 individuals refers to the population that breeds in northeast Canada and Greenland[6]. Winter population estimates for Purple Sandpiper are likely to be underestimates as this species occurs along stretches of rocky coastline and offshore islands not covered in core wetland surveys[44]. The all-Ireland wintering Purple Sandpiper population represents an estimated biogeographic share of 23% for species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the four highest ranking sites in the Republic of Ireland were selected for SPA designation (see Table 11.51). The Mid-Clare Coast SPA supported an internationally important population (≥150[6]). Given the high biogeographic share of this species any sites that regularly supported populations within 10% of the threshold of national importa/nce (≥50 individuals), during the baseline period, were selected for designation.

Table 11.51 SPA sites with Purple Sandpiper listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004182	Mid-Clare Coast SPA	393	5 year mean peak (1995/96 - 1999/2000)
	800004004	Inishkea Islands SPA	50	2 year mean peak (1995/96 & 1999/2000)
	800004014	Rockabill SPA	48	3 year mean peak (1997/98 - 1999/2000)
	800004122	Skerries Islands SPA	46	5 year mean peak (1995/96 - 1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				8%

11.52. Dunlin *Calidris alpina schinzii* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 7,800 – 8,500 pairs

All-Ireland Population: 150 pairs

Approximate Biogeographic share: 2%

Three populations of the nominate subspecies *Calidris alpina schinzii* are recognised with breeding locations primarily in the Baltic and Scandinavia, Iceland and Britain and Ireland[6]. The population that breeds in Britain, Ireland the Faeroes and Norway winters mainly in northwest Africa with some birds remaining in southwest Europe[44].

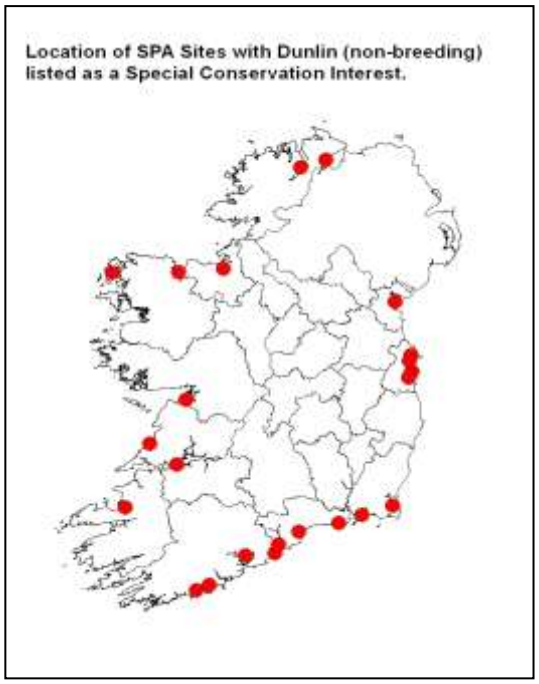
The all-Ireland breeding population of Dunlin is estimated to be 150 pairs[47]. The biogeographic population estimate of 7,800 – 8,500 pairs refers to the population breeding in Britain, Ireland the Faeroes and Norway[48]. The all-Ireland breeding population represents an estimated biogeographic share of 2% for this Annex I species.

In Ireland Dunlin breed primarily in lowland coastal areas associated with Machair habitat although a small proportion breed in upland locations. To date there have been three national surveys of breeding waders on Machair habitat (1985,1996 and 2009). As this species has undergone acute declines in both its range and numbers in recent years it was considered most appropriate to base the site selection of this species using data from the first two surveys. Utilising data from the surveys in 1985 and 1996 the three highest ranking breeding Dunlin sites in Ireland were selected for SPA designation (see Table 11.52). Using data from upland surveys (2002 -2004) two SPAs were identified which supported populations that met the designation threshold (≥5 pairs) and have Dunlin listed as a special conservation interest.

Table 11.52 SPA sites with Dunlin (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Historical data Period	Comprehensive data period
Selected Sites	800004037 800004093	Blacksod Bay/Broad Haven Bay SPA and Termoncarragh and Annagh Machair SPA	48	2 survey mean (1985 and 1996)	3 survey mean (1985,1986 and 2009) = 34 pairs
	800004004	Inishkea Islands SPA	7	2 survey mean (1985 and 1996)	3 survey mean (1985,1986 and 2009) = 17 pairs
	800004235	Doogort Machair	6	2 survey mean (1985 and 1996)	3 survey mean (1985,1986 and 2009) = 4 pairs
Additional SCI Sites	800004110	Lough Nillan SPA	6		2002
	800004039	Derryveagh and Glendowan Mountains SPA	5		2002
Estimated percentage of all-Ireland population within listed SPA sites					44-48%

11.53. Dunlin *Calidris alpina* (non-breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 1,330,000 individuals

All-Ireland Population: 119,100 individuals

Approximate Biogeographic share: 9%

The nominate subspecies *Calidris alpina alpina* breeds in north Scandinavia, north Russia and northwestern Siberia[7]. This species is a long distance migrant and winters mainly in western Europe, Mediterranean and north and northwest Africa[44].

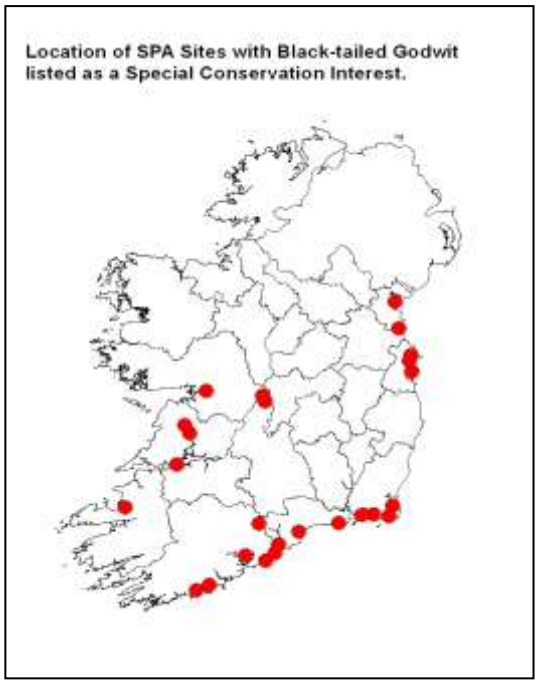
The all-Ireland wintering Dunlin population is estimated to be 119,100 individuals[3]. The biogeographic population estimate of 1,330,000 refers to the nominate subspecies *Calidris alpina alpina*[6]. The all-Ireland wintering Dunlin population represents an estimated biogeographic share of 9% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the eight highest ranking wintering Dunlin sites in the Republic of Ireland were selected for SPA designation (see Table 11.53). The highest ranked site (River Shannon and River Fergus Estuaries SPA) supported an internationally important population of Dunlin (≥13,300 individuals[6]). In addition fifteen SPAs which regularly supported national important Dunlin populations (≥1,200 individuals[3]), during the baseline period, have this species listed as a special conservation interest. Clonakilty Bay SPA regularly supports a nationally important population Dunlin and has this species listed as a special conservation interest although data for the baseline period was just below the threshold of national importance.

Table 11.53 SPA sites with Dunlin (non-breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004077	River Shannon and River Fergus Estuaries SPA	15,131	5 year mean peak (1995/96-1999/2000)
	800004026	Dundalk Bay SPA	11,518	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	9,621	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	7,285	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	4,984	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	4,146	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	3,192	5 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	3,038	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	4,991	5 year mean peak (1995/96 -1999/2000)
	800004015	Rogerstown Estuary SPA	2,745	5 year mean peak (1995/96 -1999/2000)
	800004182	Mid-Clare Coast SPA	2,708	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour & Slobs SPA	2,485	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	2,444	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	2,155	5 year mean peak (1995/96 -1999/2000)
	800004036	Killala Bay/Moy Estuary SPA	2,073	5 year mean peak (1995/96 -1999/2000)
	800004024	South Dublin Bay and River Tolka Estuary SPA	1,923	5 year mean peak (1995/96 -1999/2000)
	800004028	Blackwater Estuary SPA	1,807	5 year mean peak (1995/96 -1999/2000)
	800004027	Tramore Back Strand SPA	1,723	5 year mean peak (1995/96 -1999/2000)
	800004025	Malahide Estuary SPA	1,594	5 year mean peak (1995/96 -1999/2000)
	800004129	Ballysadare Bay SPA	1,420	4 year mean peak (1995/96 -1999/2000)
	800004219	Courtmacsherry Bay SPA	1,353	5 year mean peak (1995/96 -1999/2000)
	800004037	Blacksod Bay / Broad Haven SPA	1,255	5 year mean peak (1999/00 -2003/04)
	800004081	Clonakilty Bay SPA	1,172	4 year mean peak (1994/95 -1998/99)
Estimated percentage of all-Ireland population within listed SPA sites				57%

11.54. Black-tailed Godwit *Limosa limosa*



Birds Directive Annex I Species: No

Biogeographic Population: 35,000 individuals

All-Ireland Population: 13,660 individuals

Approximate Biogeographic share: 39%

The nominate subspecies *Limosa limosa islandica* breeds in Iceland, the Faeroes and Scotland[6]. This species is a long distance migrant and the nominate subspecies winters on the Atlantic coast of Europe and northern Morocco[44].

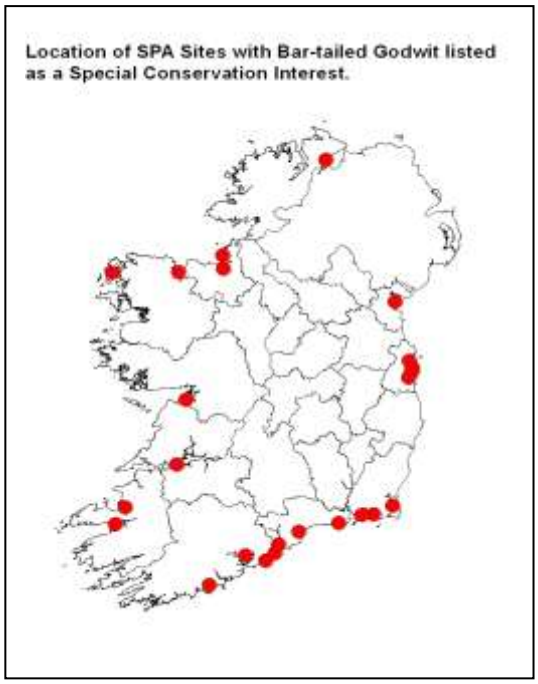
The all-Ireland wintering Black-tailed Godwit population is estimated to be 13,660 individuals[3]. The biogeographic population estimate of 35,000 refers to the nominate subspecies *Limosa limosa islandica*[6]. The all-Ireland wintering Black-tailed Godwit population represents an estimated biogeographic share of 29% for this species. The most recent biogeographic population estimate for this subspecies shows an increased population of 47,000 individuals[44].

Utilising I-WeBS data from the baseline period (1995/96 to1999/2000) the twenty-two highest ranking wetland Black-tailed Godwit sites in the Republic of Ireland were selected for SPA designation (see Table 11.54). The eighteen highest ranked sites supported internationally important populations of Black-tailed Godwit (≥350 individuals[6]. Peak counts of Black-tailed Godwit in September and high counts in April indicate that this species is being recorded in Ireland on passage to wintering sites further south and east[9]. In addition, three SPAs which regularly supported national important populations (≥140 individuals[3]), during the baseline period, have Black-tailed Godwit listed as a special conservation interest.

Table 11.54 SPA sites with Black-tailed Godwit listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004086	River Little Brosna Callows SPA	2,900	4 year mean peak (1995/96-1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	2,035	5 year mean peak (1995/96-1999/2000)
	800004030	Cork Harbour SPA	1,896	5 year mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	1,100	5 year mean peak (1995/96 -1999/2000)
	800004081	Clonakilty Bay SPA	874	4 year mean peak (1995/96 -1998/99)
	800004076	Wexford Harbour and Slobs SPA	790	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	779	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	765	5 year mean peak (1995/96 -1999/2000)
	800004028	Blackwater Estuary SPA	620	5 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	546	5 year mean peak (1995/96 -1999/2000)
	800004092	Tacumshin Lake SPA	538	5 year mean peak (1995/96 -1999/2000)
	800004219	Courtmacsherry Bay SPA	506	5 year mean peak (1995/96 -1999/2000)
	800004096	Middle Shannon Callows SPA	485	4 year mean peak (1995/96-1999/2000)
	800004020	Ballyteigue Burrow SPA	474	5 year mean peak (1995/96 -1999/2000)
	800004080	Boyne Estuary SPA	471	5 year mean peak (1995/96 -1999/2000)
	800004089	Rahasane Turlough SPA	437	5 year mean peak (1995/96 -1999/2000)
	800004025	Malahide Estuary SPA	409	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	367	5 year mean peak (1995/96 -1999/2000)
	800004220	Corofin Wetlands SPA	329	5 year mean peak (1995/96 -1999/2000)
	800004027	Tramore Back Strand SPA	297	5 year mean peak (1995/96 -1999/2000)
	800004041	Ballyallia Lough SPA	278	4 year mean peak (1995/96 -1998/99)
	800004094	Blackwater Callows SPA	251	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004015	Rogerstown Estuary SPA	195	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	139	5 year mean peak (1995/96 -1999/2000)
	800004022	Ballycotton Bay SPA	136	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				67%

11.55. Bar-tailed Godwit *Limosa lapponica*



Birds Directive Annex I Species: Yes

Biogeographic Population: 120,000 individuals

All-Ireland Population: 15,520 individuals

Approximate Biogeographic share: 13%

The nominate subspecies *Limosa lapponica lapponica* breeds in high Arctic Scandanavia, northern Russia and Siberia[6]. This subspecies migrants south and winters in western Europe and northwest Africa[2].

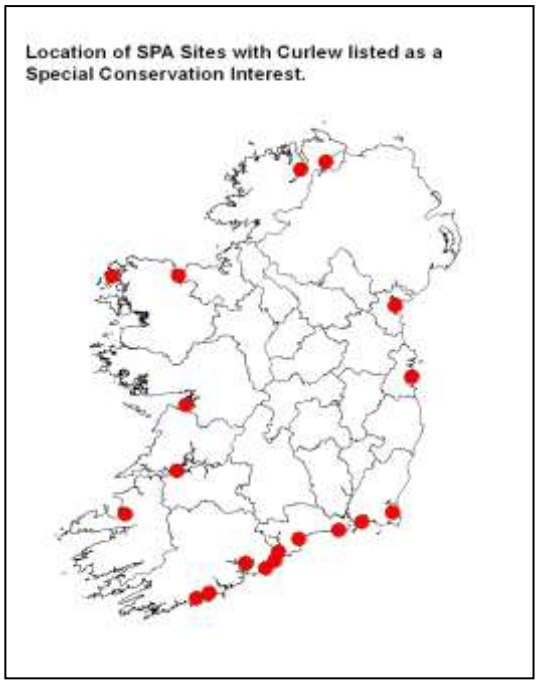
The all-Ireland wintering Bar-tailed Godwit population is estimated to be 15,520 individuals[3]. The biogeographic population estimate of 120,000 refers to the nominate subspecies *Limosa lapponica lapponica*[6]. The all-Ireland wintering Bar-tailed Godwit population represents an estimated biogeographic share of 13% for this Annex I species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the nineteen highest ranking Bar-tailed Godwit sites in the Republic of Ireland were selected for SPA designation (see Table 11.55). The three highest ranked sites supported internationally important populations of Bar-tailed Godwit (≥1,200 individuals[44]). In addition, five SPAs which regularly supported national important Bar-tailed Godwit populations (≥160 individuals[3]), during the baseline period, have this Annex I species listed as a special conservation interest. The cross border site Lough Foyle supported an internationally important population of Bar-tailed Godwit (≥1,200 individuals[44]) during the baseline period.

Table 11.54 SPA sites with Bar-tailed Godwit listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004026	Dundalk Bay SPA	1,950	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	1,696	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	1,529	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	1,068	5 year mean peak (1995/96 -1999/2000)
	800004024	South Dublin Bay and River Tolka Estuary SPA	766	5 year mean peak (1995/96 -1999/2000)
	800004037	Blacksod Bay / Broad Haven SPA	664	5 year mean peak (1999/00 – 2003/04)
	800004188	Tralee Bay Complex SPA	608	5 year mean peak (1995/96 -1999/2000)
	800004020	Ballyteigue Burrow SPA	582	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	581	5 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	471	5 year mean peak (1995/96 -1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	460	5 year mean peak (1995/96-1999/2000)
	800004031	Inner Galway Bay SPA	447	5 year mean peak (1995/96 -1999/2000)
	800004029	Castlemaine Harbour SPA	397	5 year mean peak (1995/96-1999/2000)
	800004027	Tramore Back Strand SPA	367	5 year mean peak (1995/96 -1999/2000)
	800004036	Killala Bay/Moy Estuary SPA	366	5 year mean peak (1995/96 -1999/2000)
	800004016	Baldoyle Bay SPA	353	5 year mean peak (1995/96 -1999/2000)
	800004013	Drumcliff Bay SPA	336	4 year mean peak (1995/96 -1999/2000)
	800004129	Ballysadare Bay SPA	251	4 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	233	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	2,059	5 year mean peak (1995/96 -1999/2000)
	800004219	Courtmacsherry Bay SPA	182	5 year mean peak (1995/96 -1999/2000)
	800004022	Ballycotton Bay SPA	175	5 year mean peak (1995/96 -1999/2000)
	800004028	Blackwater Estuary SPA	161	5 year mean peak (1995/96 -1999/2000)
	800004025	Malahide Estuary SPA	156	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				74%

11.56. Curlew *Numenius arquata*



Birds Directive Annex I Species: No

Biogeographic Population: 420,000 individuals

All-Ireland Population: 61,070 individuals

Approximate Biogeographic share: 15%

The nominate subspecies *Numenius arquata arquata* breeds across Europe and winters in western Europe, Mediterranean and northwest Africa[6]. Ireland supports a small population of breeding Curlew which are short distance migrants[2]. In winter Curlew numbers are enhanced by birds from breeding grounds in Britain, Fennoscandia, the Baltic and northwest Russia[44].

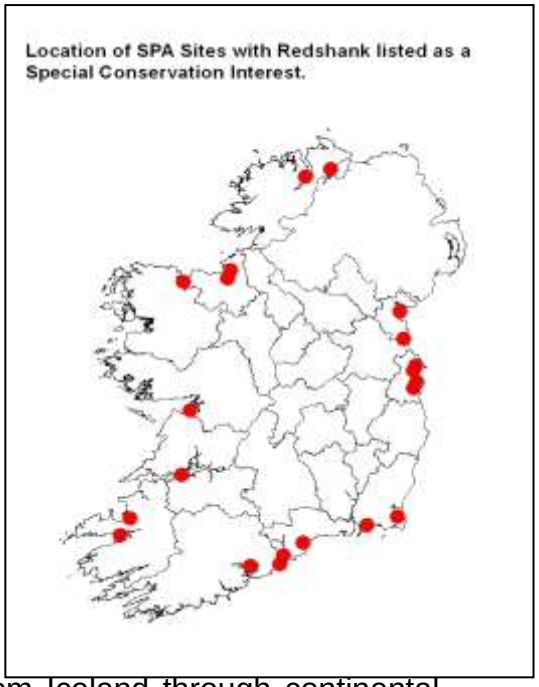
The all-Ireland wintering Curlew population is estimated to be 61,070 individuals[3]. The biogeographic population estimate of 420,000 refers to the nominate subspecies *Numenius arquata arquata*[6]. Population estimates for Curlew are likely to be underestimates as this species regularly utilises non-wetland sites which are not included in core waterbird counts[44]. The all-Ireland wintering Curlew population represents an estimated biogeographic share of 15% for this Annex I species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the nine highest ranking Curlew sites in the Republic of Ireland were selected for SPA designation (see Table 11.56). In addition, ten SPAs which regularly supported national important Curlew populations (≥610 individuals[3]), during the baseline period, have this species listed as a special conservation interest. Curlew is listed for Blacksod Bay /Broad Haven SPA because a different baseline period was utilised for this site and the five year mean peak exceeded the 1% threshold of national importance for that period (≥550 individuals[3]).

Table 11.56 SPA sites with Curlew listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004077	River Shannon and River Fergus Estuaries SPA	2,396	5 year mean peak (1995/96-1999/2000)
	800004030	Cork Harbour SPA	2,237	5 year mean peak (1995/96-1999/2000)
	800004076	Wexford Harbour and Slobs SPA	1,771	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	1,720	5 year mean peak (1995/96 -1999/2000)
	800004219	Courtmacsherry Bay SPA	1,357	5 year mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	1,264	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	1,170	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	1,145	5 year mean peak (1995/96 -1999/2000)
	800004028	Blackwater Estuary SPA	1,007	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	2,265	5 year mean peak (1995/96 - 1999/2000
	800004006	North Bull Island SPA	937	5 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	891	5 year mean peak (1995/96 -1999/2000)
	800004022	Ballycotton Bay SPA	853	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	766	5 year mean peak (1995/96 -1999/2000)
	800004036	Killala Bay/Moy Estuary SPA	731	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	697	5 year mean peak (1995/96 -1999/2000)
	800004027	Tramore Back Strand SPA	620	5 year mean peak (1995/96 -1999/2000)
	800004081	Clonakilty Bay SPA	599	4 year mean peak (1995/96 -1998/99)
	800004037	Blacksod Bay/Broad Haven SPA	567	5 year mean peak (1999/00 -2003/04)
Estimated percentage of all-Ireland population within listed SPA sites				27%

11.57. Redshank *Tringa totanus*



Birds Directive Annex I Species: No

Biogeographic Population: 188,500 – 191,500 individuals

All-Ireland Population: 29,450 individuals

Approximate Biogeographic share: 15-16 %

Tringa totanus breeds widely across the Palearctic from Iceland through continental Europe and Russia to eastern Siberia, China and Mongolia[6]. The taxonomy of the species has proved complex but five populations are recognised currently including *T. t. britannica,* a small population that breeds in Britain and Ireland, and *T. t. robusta* which breeds in Iceland and the Faeroes and winters in Britain, Ireland and the North Sea area[44].

The all-Ireland wintering population of Redshank is estimated to be 29,450 individuals[3]. As the wintering Redshank population in Ireland includes both *T. t. britannica* and *T. t. robusta* the biogeographic population estimate of 188,000 - 191,500 refers to the combined population estimates of the two populations i.e. *T. t. britannica* (124,000-127,000) and *T. t. robusta* (64,500)[6]. The all-Ireland wintering population represents an estimated biogeographic share of 15-16% for this species. The most recent biogeographic population estimates show increased populations for both subspecies – *britannica* = 95,000-135,000 and *robusta* = 150,000 - 400,000[44].

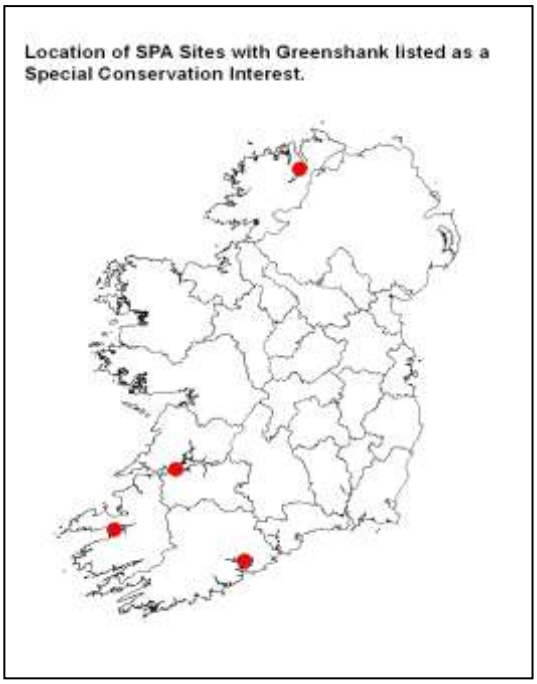
Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the seven highest ranking sites in the Republic of Ireland were selected for SPA designation (see Table 11.57). The two highest ranked sites supported internationally important populations (≥1900). In addition, fouteen SPAs which regularly supported nationally important Redshank populations (≥290 individuals[3]), during the baseline period, have this species listed as a special conservation interest. Redshank is listed for SPA 4024

as the site regularly supports a nationally important population although the 5 year mean peak was just below the 1% threshold.

Table 11.57 SPA sites with Redshank listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004077	River Shannon and River Fergus Estuaries SPA	2,645	5 year mean peak (1995/96-1999/2000)
	800004030	Cork Harbour SPA	2,149	5 year mean peak (1995/96-1999/2000)
	800004026	Dundalk Bay SPA	1,659	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	1,431	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	1,404	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	731	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	635	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	988	5 year mean peak (1995/96 -1999/2000)
	800004080	Boyne Estuary SPA	583	5 year mean peak (1995/96 -1999/2000)
	800004025	Malahide Estuary SPA	581	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	555	5 year mean peak (1995/96 -1999/2000)
	800004028	Blackwater Estuary SPA	520	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	505	5 year mean peak (1995/96 -1999/2000)
	800004015	Rogerstown Estuary SPA	490	5 year mean peak (1995/96 -1999/2000)
	800004129	Ballysadare Bay SPA	435	4 year mean peak (1995/96 -1999/2000)
	800004035	Cummeen Strand SPA	408	4 year mean peak (1995/96 -1999/2000)
	800004033	Bannow Bay SPA	377	5 year mean peak (1995/96 -1999/2000)
	800004036	Killala Bay/Moy Estuary SPA	372	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	357	5 year mean peak (1995/96 -1999/2000)
	800004029	Castlemaine Harbour SPA	341	5 year mean peak (1995/96 -1999/2000)
	800004024	South Dublin Bay and River Tolka Estuary SPA	260	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				38%

11.58. Greenshank *Tringa nebularia*



Birds Directive Annex I Species: No

Biogeographic Population 190,000 - 270,000 individuals

All-Ireland Population: 1,180 individuals

Approximate Biogeographic share: <1%

Four populations of the nominate species are recognised but only two occur in Europe[6]. One European population is confined to northeast Europe and western Asia while the other population occurs in northwest Europe, breeding in Scotland and Scandinavia across to northern Russia and Siberia[6]. The northwest European population migrates to winter primarily in Africa and small numbers in western Europe[2].

The all-Ireland wintering population of Greenshank is estimated to be 1,180 individuals[3]. The biogeographic population estimate of 190,000 - 270,000 refers to the population breeding in northwest Europe[7]. The all-Ireland wintering population represents an estimated biogeographic share of <1% for this species.

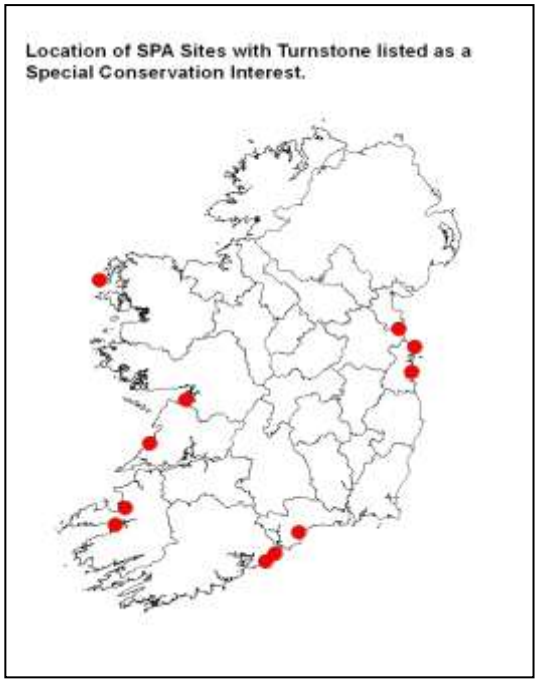
Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the highest ranking site in the Republic of Ireland was selected for SPA designation (see Table 11.58). In addition, two SPAs which regularly supported Greenshank populations within 10% of the designation threshold (≥50 individuals), during the baseline period, have this species listed as a special conservation interest

Table 11.58 SPA sites with Greenshank listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004077	River Shannon and River Fergus Estuaries SPA	61	5 year mean peak (1995/96-1999/2000)
Additional SCI Sites	800004075	Lough Swilly SPA	48	5 year mean peak (1995/96 -1999/2000)
	800004029	Castlemaine Harbour SPA	46	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA[j]	46	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				9%

[j] Further public notification is required to include Greenshank as a special conservation interest at Cork Harbour SPA.

11.59. Turnstone *Arenaria interpres*



Birds Directive Annex I Species: No

Biogeographic Population 94,000 individuals

All-Ireland Population: 13,160 individuals

Approximate Biogeographic share: 14 %

Five populations of the nominate subspecies *Arenaria interpres interpres* are recognised but only three occur in Europe[6]. The population breeding in northeast Canada and Greenland migrate to winter in western Europe and western Africa[2]. The population breeding in Fennoscandia and northwest Russia winter primarily in west Africa[44]. Turnstones wintering in Ireland are primarily from Canada/Greenland but small numbers from Fennoscandia may also occur during the spring migration[2].

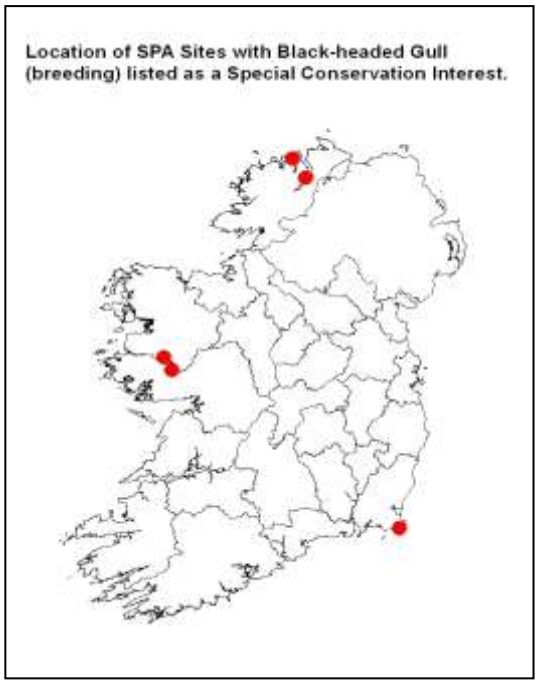
The all-Ireland wintering Turnstone population is estimated to be 13,160 individuals[3]. The biogeographic population estimate of 94,000 refers to the population breeding in Canada/Greenland[6]. Population estimates for Turnstone are likely to be underestimates as this species utilises rocky shore habitat which may not be included in core waterbird counts[44]. The all-Ireland wintering population represents an estimated biogeographic share of 14% for this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the nine highest ranking Turnstone sites in the Republic of Ireland were selected for SPA designation (see Table 11.59). In addition two SPAs which regularly supported nationally important Turnstone populations (≥130 individuals[3]), during the baseline period, have this species listed as a special conservation interest.

Table 11.59 SPA sites with Turnstone listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004182	Mid-Clare Coast SPA	571	5 year mean peak (1995/96 -1999/2000)
	800004004	Inishkea Islands SPA	275	2 year mean peak (1995/96 & 1999/2000)
	800004122	Skerries Islands SPA	242	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	229	5 year mean peak (1995/96 -1999/2000)
	800004080	Boyne Estuary SPA	221	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	182	5 year mean peak (1995/96 -1999/2000)
	800004022	Ballycotton Bay SPA	179	5 year mean peak (1995/96 -1999/2000)
	800004032	Dungarvan Harbour SPA	177	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	157	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004029	Castlemaine Harbour SPA	144	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	137	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				13%

11.60. Black-headed Gull *Chroicocephalus ridibundus* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population 2,100,000 – 2,800,000 pairs

All-Ireland Population: 14,000 pairs

Approximate Biogeographic share: <1 %

Black-headed Gull breed throughout the middle latitudes of the Paleartic and have also formed a breeding outpost in northeastern America[4]. Breeding Black-headed Gull populations are short distance migrants[2]. A small proportion of the Irish breeding population are known to migrate to France, Iberia and North America while birds breeding in Britain, Iceland, and north and eastern Europe migrate to Ireland in winter[2]. In Ireland this species breeds at both coastal and inland locations.

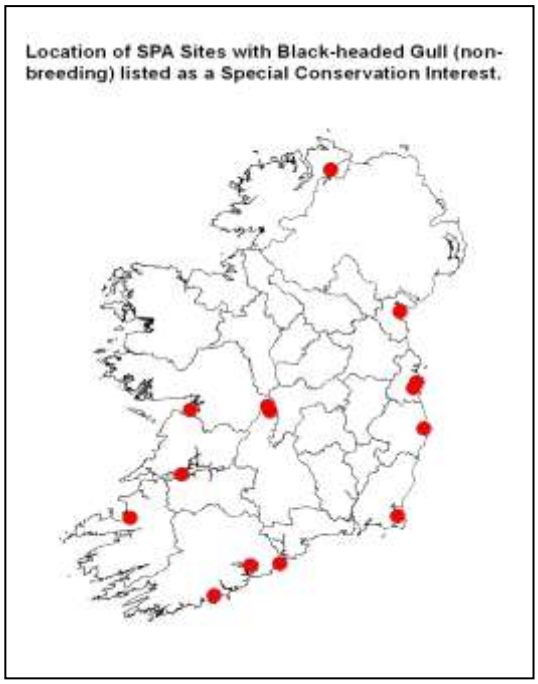
The all-Ireland breeding Black-headed Gull population is estimated to be 14,000 pairs[4]. The biogeographic population estimate of 2,100,000 – 2,800,000 pairs refers to the World population[4]. The all-Ireland breeding Black-headed Gull population represents an estimated biogeographic share of <1% for this species.

Utilising data from the Seabird 2000 Survey (1998-2002) the two highest ranking sites in the Republic of Ireland were selected for SPA designation (see Table 11.60). In addition three SPAs which regularly supported nationally important breeding Black-headed Gull populations (≥140 pairs) have this species listed as a special conservation interest.

Table 11.60 SPA sites with Black-headed Gull (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004009	Lady's Island Lake SPA	949	1998-2002
	800004075	Lough Swilly SPA	800	1998-2002
Additional SCI Sites	800004042	Lough Corrib SPA	431	1998-2002
	800004062	Lough Mask SPA	329	1998-2002
	800004082	Greers Isle SPA	200	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				19%

11.61. Black-headed Gull *Chroicocephalus ridibundus* (non- breeding)



Birds Directive Annex I Species: No

Biogeographic Population 5,600,000 – 7,300,000 individuals

All-Ireland Population: unknown

Approximate Biogeographic share: unknown

Black-headed Gull breed throughout the middle latitudes of the Palearctic and in the Western Palaearctic and winter as far south as the Canary Islands, Mediterranean and Red Sea[49]. Winter populations of Black-headed Gull populations are long distance migrants[2]. A proportion of the Irish breeding population are known to migrate to France, Iberia and North America while some birds breeding in Britain, Iceland and north and eastern Europe migrate to Ireland in winter[2].

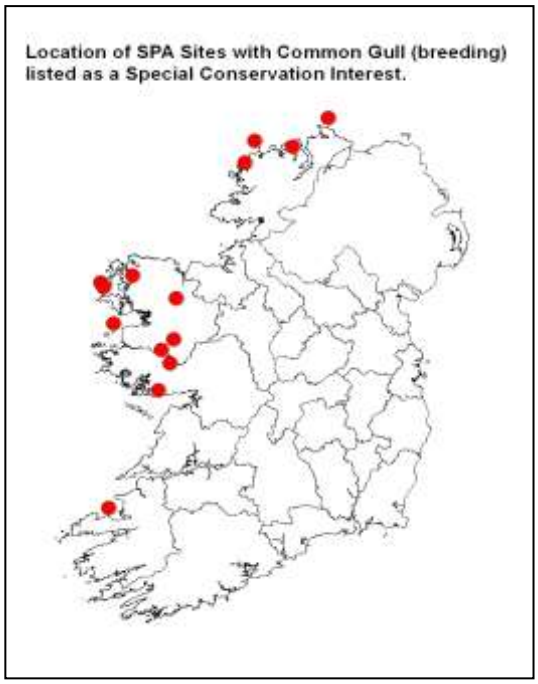
Counting of gull species during I-WeBS is optional and therefore the data relating to wintering Black-headed Gull is irregular and no all-Ireland population estimate has been produced for this species[50]. The biogeographic population estimate of 5,600,000 –7,300,000 refers to the Black-headed Gull population wintering in southern and western Europe[6]. Based on the best available information including breeding population data and peak winter counts, the all-Ireland wintering Black-headed Gull population is likely to account for less than 1% of the biogeographic population.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the two highest ranking sites for wintering Black-headed Gull in the Republic of Ireland were selected for SPA designation (see Table 11.61). In addition twelve SPAs which regularly supported Black-headed Gull populations above the 1% threshold of national significance (≥1,000 individuals[9]), during the baseline period, have this species listed as a special conservation interest.

Table 11.61 SPA sites with Black-headed Gull (non-breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004026	Dundalk Bay SPA	6,643	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	5,977	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004030	Cork Harbour SPA	3,640	5 year mean peak (1995/96 -1999/2000)
	800004024	South Dublin Bay and River Tolka Estuary SPA	3,040	5 year mean peak (1995/96 -1999/2000)
	800004219	Courtmacsherry Bay SPA	2,727	5 year mean peak (1995/96 -1999/2000)
	800004077	River Shannon and River Fergus Estuaries SPA	2,681	5 year mean peak (1995/96-1999/2000)
	800004087	Lough Foyle SPA	2,212	5 year mean peak (1995/96 -1999/2000)
	800004006	North Bull Island SPA	2,196	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	1,941	5 year mean peak (1995/96 -1999/2000)
	8000040868	River Little Brosna Callows SPA	1,939	2 year mean peak (1999/01 -2000/01)
	00004023	Ballymacoda Bay SPA	1,560	4 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	1,320	4 year mean peak (1996/97 -1999/2000)
	800004096	Middle Shannon Callows SPA	1,209	5 year mean peak (1995/96-1999/2000)
	800004186	The Murrough SPA	997	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				Unknown

11.62. Common Gull *Larus canus* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 400,000 – 650,000 pairs

All-Ireland Population: 1,600 pairs

Approximate Biogeographic share: <1 %

The nominate species *Larus canus* breeds in Iceland, Ireland Britain and across Europe to the White Sea[6]. Breeding Common Gull populations are short distance migrants while the winter populations are long distance migrants[2]. In Ireland Common Gull breed at both coastal and inland locations.

The all-Ireland breeding Common Gull population is estimated to be 1,600 pairs[4]. The biogeographic population estimate of 400,000 – 650,000 pairs refers to the Common Gull population breeding in Europe, the Atlantic and the Mediterranean[4]. The all-Ireland breeding Common Gull population represents an estimated biogeographic share of <1% for this species.

Utilising data from the Seabird 2000 Survey (1998-2002) the three highest ranking sites in the Republic of Ireland were selected for SPA designation (see Table 11.62). In addition, eleven SPAs which supported Common Gull breeding populations greater than on equal to the threshold of national importance (≥25 pairs), during the baseline period, have this species listed as a special conservation interest.

Table 11.62 SPA sites with Common Gull (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004042	Lough Corrib SPA	186	1998-2002
	800004062	Lough Mask SPA	124	1998-2002
	800004051	Lough Carra SPA	65	1998-2002
Additional SCI Sites	800004052	Carrowmore Lake SPA[k]	59	1998-2002
	800004230	West Donegal Islands SPA	55	1998-2002
	800004004	Inishkea Islands SPA	47	1998-2002
	800004181	Connemara Bog Complex SPA	45	1998-2002
	800004125	Magharee Islands SPA	43	1998-2002
	800004228	Lough Conn and Lough Cullin SPA	40	1998-2002
	800004136	Clare Island SPA	39	1998-2002
	800004082	Greers Isle SPA	30	1998-2002
	800004100	Inishtrahull SPA	30	1998-2002
	800004083	Inishboffin, Inishdooey and Inishbeg SPA	25	1998-2002
	800004111	Duvillaun Islands SPA[k]	25	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				49%

[k] Further public notification is required to include Common Gull as a special conservation interest at Carrowmore Lake SPA and the Duvillaun Islands SPA.

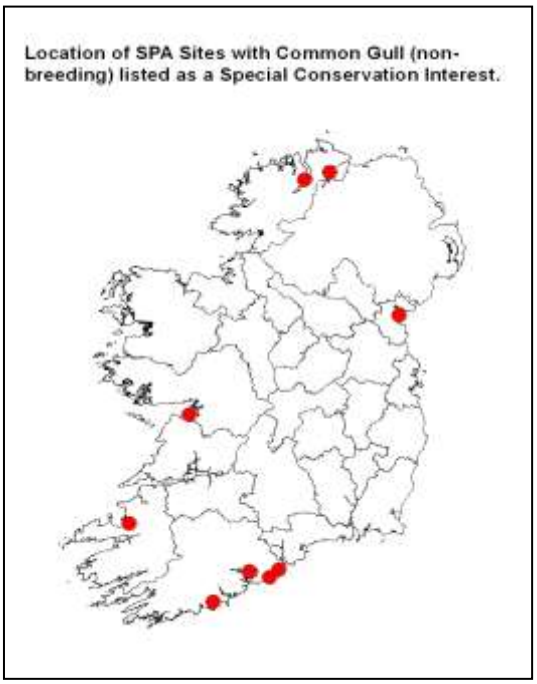
11.63. Common Gull *Larus canus* (non-breeding)

Birds Directive Annex I Species: No

Biogeographic Population: 1,300,000 – 2,100,000 individuals

All-Ireland Population: unknown

Approximate Biogeographic share: unknown



The nominate species *Larus canus* breeds in Iceland, Ireland, Britain and across Europe to the White Sea[6]. This species is a migrant or a partial migrant and the breeding population in Ireland and Britain is supplemented in winter by birds from breeding populations in northern Europe, the Baltic and western Russia[2].

The counting of gull species during I-WeBS is optional and therefore the data relating to wintering Common Gull is irregular and no all-Ireland population estimate has been produced for this species[50]. The biogeographic population estimate of 1,300,000 – 2,100,000 individuals refers to the nominate species that winters in Europe and north Africa[6]. Based on the best available information, including breeding population data and peak winter counts, the all-Ireland wintering Common Gull population is likely to account for less than 1% of the biogeographic population.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the highest ranking site for wintering Common Gull in the Republic of Ireland was selected for SPA designation (see Table 11.63). In addition eight SPAs which regularly supported Common Gull populations above the 1% threshold of significance (≥500 individuals[9]), during the baseline period, have this species listed as a special conservation interest.

Table 11.63 SPA sites with Common Gull (non-breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004219	Courtmacsherry Bay SPA	2,226	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	2,846	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	1,562	5 year mean peak (1995/96 -1999/2000)
	800004075	Lough Swilly SPA	1,523	5 year mean peak (1995/96 -1999/2000)
	800004023	Ballymacoda Bay SPA	1,120	5 year mean peak (1995/96 -1999/2000)
	800004031	Inner Galway Bay SPA	1,066	5 year mean peak (1995/96 -1999/2000)
	800004188	Tralee Bay Complex SPA	599	4 year mean peak (1996/97 -1999/2000)
	800004022	Ballycotton Bay SPA	584	5 year mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	551	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				Unknown

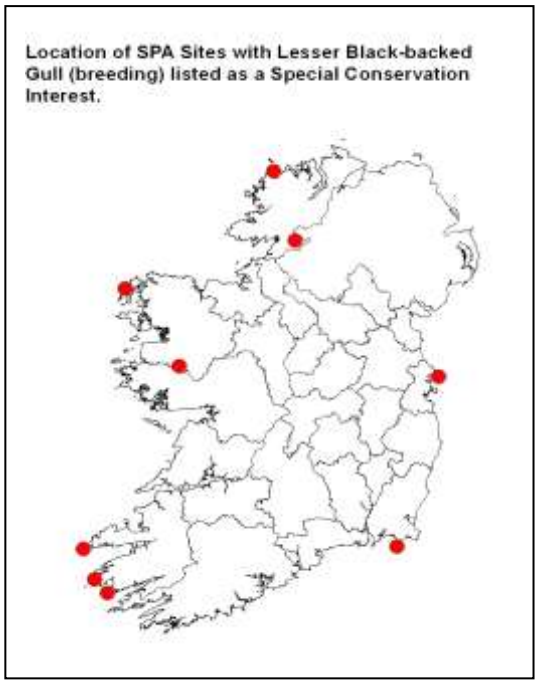
11.64. Lesser Black-backed Gull *Larus fuscus* (breeding)

Birds Directive Annex I Species: No

Biogeographic Population: 179,000 pairs

All-Ireland Population: 4,800 pairs

Approximate Biogeographic share: 3%



The nominate species *Larus fuscus graellsii* breeds in Greenland, Iceland, the Faeroes, Britain, Ireland, France Spain and Portugal[4]. This species is a long distance migrant[2].

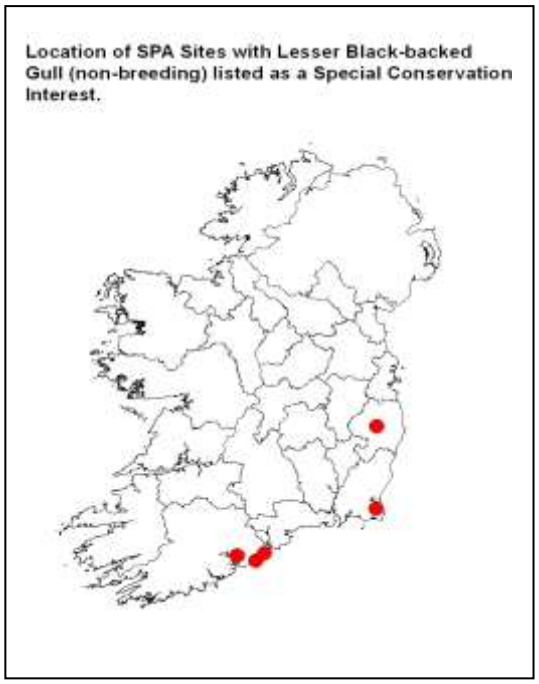
The all-Ireland breeding Lesser Black-backed Gull population is estimated to be 4,800 pairs[4]. The biogeographic population estimate of 179,000 pairs refers to the Lesser Black-backed Gull population breeding in Greenland, Iceland, the Faeroes, Britain, Ireland, France Spain and Portugal[4]. The all-Ireland breeding Lesser Black-backed Gull population represents an estimated biogeographic share of 3% for this species.

Utilising data from the Seabird 2000 Survey (1998-2002) the four highest ranking breeding Lesser Black-backed Gull sites in the Republic of Ireland were selected for SPA designation (see Table 11.64). In addition five SPAs which supported nationally important Lesser Black-backed Gull populations (≥48 pairs), during the baseline period, have this species listed as a special conservation interest.

Table 11.64 SPA sites with Lesser Black-backed Gull (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004057	Lough Derg (Donegal) SPA	500	1998-2002
	800004008	Blasket Islands SPA	333	1998-2002
	800004069	Lambay Island SPA	309	1998-2002
	800004062	Lough Mask SPA	286	1998-2002
Additional SCI Sites	800004002	Saltee Islands SPA	164	1998-2002
	800004003	Puffin Island SPA	139	1998-2002
	800004175	Deenish Island and Scariff Island SPA	97	1998-2002
	800004083	Inishboffin, Inishdooey and Inishbeg SPA	81	1998-2002
	800004084	Inishglora and Inishkeeragh SPA	66	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				41%

11.65. Lesser Black-backed Gull *Larus fuscus* (non-breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 525,000 individuals

All-Ireland Population: unknown

Approximate Biogeographic share: unknown

Lesser Black-backed Gull breeding in Ireland belong to the subspecies *Larus fuscus graellsii*[4]. The breeding populations in Britain and Ireland are regarded as long distance migrants with some of the birds breeding in Ireland migrating to Iberia and northwest Africa. Wintering Lesser Black-backed Gulls are short distance migrants and birds from breeding populations in Iceland and the Faeroes have been recorded in Ireland[2].

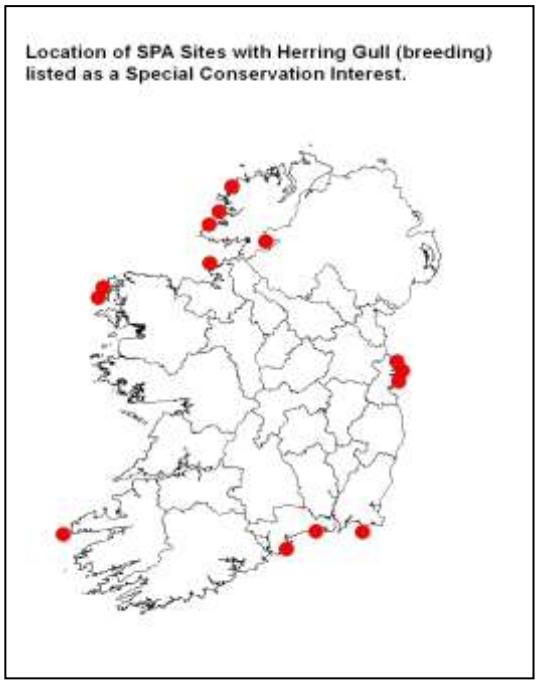
The counting of gull species during I-WeBS is optional and therefore the data relating to wintering Lesser Black-backed Gull is irregular and no all-Ireland population estimate has been produced for this species[50]. The biogeographic population estimate of 525,000 individuals refers to the nominate species that winters in western Europe and west Africa[6].

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the highest ranking site for wintering Lesser Black-backed Gull in Ireland was selected for SPA designation (see Table 11.65). In addition four SPAs which regularly supported Lesser Black-backed Gull populations above the 1% threshold of significance (≥500 individuals[9]), during the baseline period, have this species listed as a special conservation interest.

Table 11.65 SPA sites with Lesser Black-backed Gull (non-breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004023	Ballymacoda Bay SPA	5,051	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004022	Ballycotton Bay SPA	1,293	5 year mean peak (1995/96 -1999/2000)
	800004076	Wexford Harbour and Slobs SPA	1,086	5 year mean peak (1995/96 -1999/2000)
	800004030	Cork Harbour SPA	783	5 year mean peak (1995/96 -1999/2000)
	800004063	Poulaphouca Reservoir SPA	651	5 year mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				Unknown

11.66. Herring Gull *Larus argentatus* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 705,000 – 799,000 pairs

All-Ireland Population: 6,500 pairs

Approximate Biogeographic share: <1%

The Herring Gull has a near-Holarctic distribution, breeding mainly at middle and high latitudes, except in Siberia where it is replaced by other taxa[4]. Herring Gulls breeding in northwest Europe are primarily *Larus argentatus argentatus* while those breeding in Iceland, Britain, Ireland, and northwest France to Germany belong to the subspecies *Larus argentatus argenteus*[6]. Herring Gulls are short distance migrants[2].

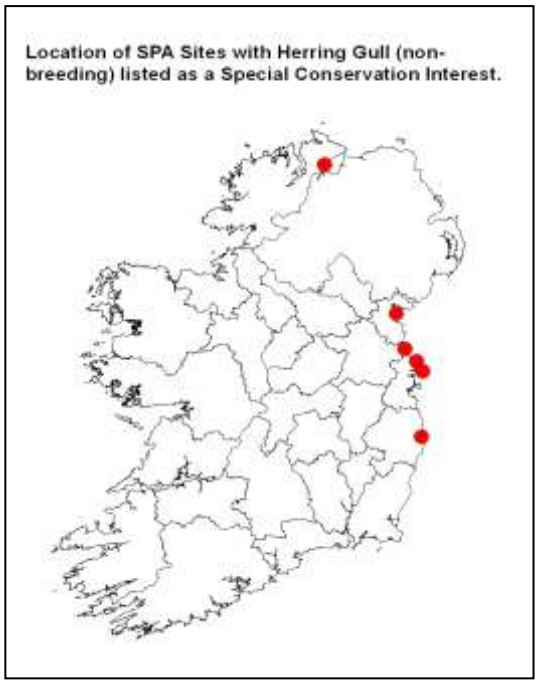
The all-Ireland breeding Herring Gull population is estimated to be 6,500 pairs[4]. The biogeographic population estimate of 705,000 – 799,000 pairs refers to the Herring Gull population breeding in northwest and western Europe and Iceland[4]. The all-Ireland breeding Herring Gull population represents an estimated biogeographic share of <1% for this species.

Utilising data from the Seabird 2000 Survey (1998-2002) the highest ranking breeding Herring Gull site in the Republic of Ireland were selected for SPA designation (see Table 11.66). In addition thirteen SPAs which supported nationally important Herring Gull populations (≥65 pairs), during the baseline period, have this species listed as a special conservation interest.

Table 11.66 SPA sites with Herring Gull (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004069	Lambay Island SPA	1,806	1998-2002
Additional SCI Sites	800004122	Skerries Islands SPA	300	1998-2002
	800004121	Roaninish SPA	278	1998-2002
	800004117	Ireland's Eye SPA	246	1998-2002
	800004150	West Donegal Coast SPA	229	1998-2002
	800004193	Mid-Waterford Coast SPA	147	1998-2002
	800004008	Blasket Islands SPA	131	1988
	800004192	Helvick Head to Ballyquinn SPA	117	1998-2002
	800004068	Inishmurray SPA	111	1998-2002
	800004057	Lough Derg (Donegal) SPA	100	1998-2002
	800004004	Inishkea Islands SPA	81	1998-2002
	800004084	Inishglora and Inishkeeragh SPA	78	1998-2002
	800004002	Saltee Islands SPA	73	1998-2002
	800004230	West Donegal Islands SPA	65	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				58%

11.67. Herring Gull *Larus argentatus* (non-breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 1,090,000 individuals

All-Ireland Population: unknown

Approximate Biogeographic share: unknown

The Herring Gull has a near-Holarctic distribution and birds breeding in northwest Europe are primarily *Larus argentatus argentatus* while those breeding in Iceland, Britain, Ireland, and northwest France to Germany belong to the subspecies *Larus argentatus argenteus*[6]. Herring Gulls are short distance migrants and the majority of birds wintering in Ireland are *L..a.argenteus* although birds from populations breeding in northern Europe have been recorded in Britain and Ireland[2].

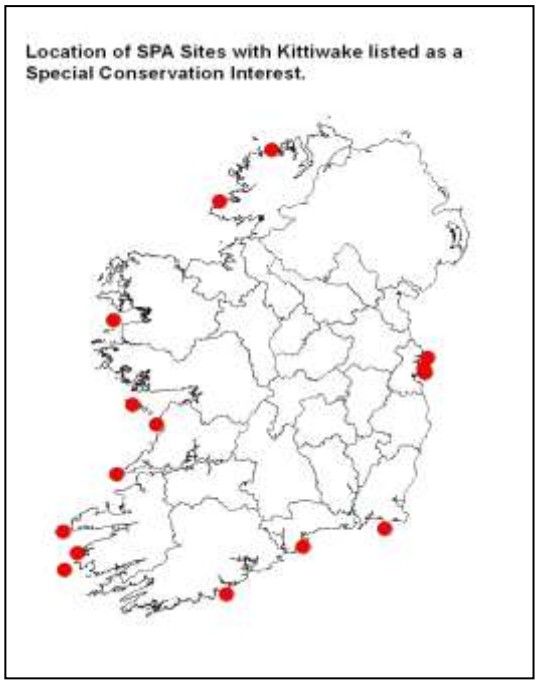
As the counting of all wintering gull species during I-WeBS is optional the data relating to wintering Herring Gull is irregular and therefore no all-Ireland population estimate has been produced for this species[50]. The biogeographic population estimate of 1,090,000 individuals refers to the nominate species *Larus argentatus argenteus* that winters in northwest Europe south to Iberia[6]. Based on the best available information, including breeding population data and peak winter counts, the all-Ireland wintering Herring Gull population is likely to account for less than 1% of the biogeographic population of this species.

Utilising I-WeBS data from the baseline period (1995/96 to 1999/2000) the highest ranking site for wintering Herring Gull in Ireland was selected for SPA designation (see Table 11.67). In addition five SPAs which regularly supported populations above the 1% threshold of significance (≥500 individuals[9]), during the baseline period, have Herring Gull listed as a special conservation interest.

Table 11.67 SPA sites with Herring Gull (non-breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004069	Lambay Island SPA	2,400	5 year mean peak (1995/96 -1999/2000)
Additional SCI Sites	800004087	Lough Foyle SPA	1,261	5 yr mean peak (1995/96 -1999/2000)
	800004026	Dundalk Bay SPA	754	5 yr mean peak (1995/96 -1999/2000)
	800004158	River Nanny Estuary and Shore SPA	609	5 yr mean peak (1995/96 -1999/2000)
	800004122	Skerries Islands SPA	560	5 yr mean peak (1995/96 -1999/2000)
	800004186	The Murrough SPA	506	5 yr mean peak (1995/96 -1999/2000)
Estimated percentage of all-Ireland population within listed SPA sites				unknown

11.68. Kittiwake *Rissa tridactyla* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 2,500,000 – 3,000,000 pairs

All-Ireland Population: 49,000 pairs

Approximate Biogeographic share: 2%

Two subspecies of Kittiwake are recognised with *Rissa tridactyla tridactyla* breeding in the North Atlantic and *Rissa tridactyla pollicaris* in the North Pacific[4]. Kittiwake is the most numerous species of gull in the world and is a short distance migrant[2]. Outside the breeding season the species is essentially oceanic and it is probable that populations from many different populations mix together in the North Atlantic and North Sea during winter[4].

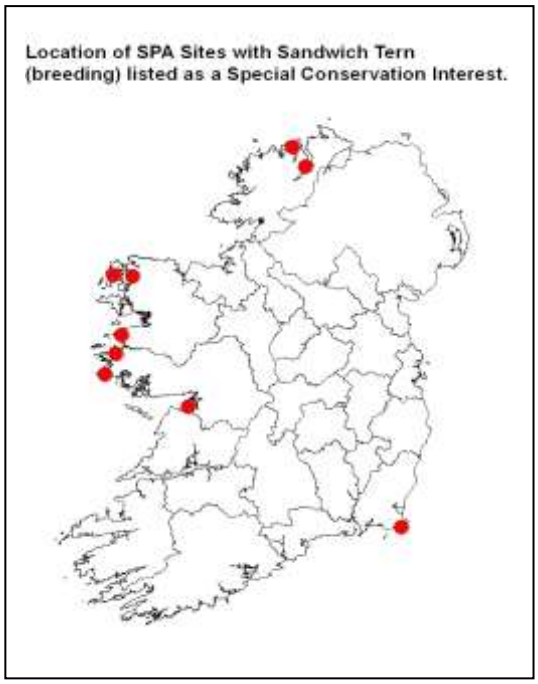
The all-Ireland breeding Kittiwake population is estimated to be 49,000 pairs[4]. The biogeographic population estimate of 2,500,000 – 3,000,000 pairs refers to the North Atlantic Kittiwake population[4]. The all-Ireland breeding Kittiwake population represents an estimated biogeographic share of 1% for this species.

Utilising data from the Seabird 2000 Survey (1998-2002) the five highest ranking sites in the Republic of Ireland were selected for SPA designation (see Table 11.68). In addition ten SPAs which supported nationally important Kittiwake populations (≥490 pairs), during the baseline period, have this species listed as a special conservation interest.

Table 11.68 SPA sites with Kittiwake (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004005	Cliffs of Moher SPA	7,698	1998-2002
	800004069	Lambay Island SPA	4,091	1998-2002
	800004194	Horn Head to Fanad Head SPA	3,853	1998-2002
	800004113	Howth Head Coast SPA	2,269	1998-2002
	800004002	Saltee Islands SPA	2,125	1998-2002
Additional SCI Sites	800004136	Clare Island SPA	1,785	1998-2002
	800004154	Iveragh Penninsula SPA	1,150	1998-2002
	800004150	West Donegal Coast SPA	1,037	1998-2002
	800004192	Helvick Head to Ballyquinn SPA	1,037	1998-2002
	800004007	Skelligs SPA	1,035	1998-2002
	800004021	Old Head of Kinsale SPA	951	1998-2002
	800004117	Ireland's Eye SPA	941	1998-2002
	800004008	Blasket Islands SPA	773	1988
	800004119	Loop Head SPA	690	1998-2002
	800004152	Inishmore SPA	587	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				61%

11.69. Sandwich Tern *Sterna sandvicensis* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 69,000 – 79,000 pairs

All-Ireland Population: 2,941 pairs

Approximate Biogeographic share: 4%

In Europe the nominate species *Sterna sandvicensis* breeds in almost all coastal countries[2]. In Ireland Sandwich Terns breed along the coast, at coastal lagoons and also on some inland lakes[5]. The distribution of this species varies considerably between years owing to mass movements of birds among colony sites[4].

The all-Ireland breeding Sandwich Tern population in 1995 was estimated to be 2,941 pairs[5]. The biogeographic population estimate of 69,000 – 79,000 pairs refers to the European Sandwich Tern population[4]. The all-Ireland breeding Sandwich Tern population represents an estimated biogeographic share of 4% for this Annex I species.

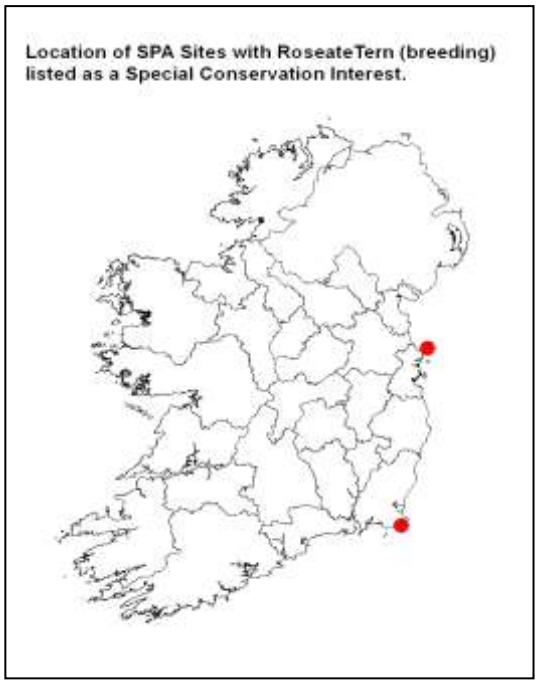
Utilising data from the 1995 All-Ireland Tern Survey supplemented by data from 1984 All-Ireland Tern Survey the nine highest ranking sites in the Republic of Ireland were selected for SPA designation (see Table 11.69). The highest ranking site selected for designation (Lady's Island Lake SPA) supported an internationally important population of breeding Sandwich Tern in 1995.

Two sites with records of significant populations of breeding Sandwich Tern outside the baseline period (Greers Isle SPA = 117 pairs in 1993 and Carrowmore Lake SPA = 164 pairs in 1984) but where no Sandwich Terns were recorded breeding in 1995, were selected for designation as these sites are thought to be ecologically linked with Sandwich Tern populations at nearby SPAs.

Table 11.69 SPA sites with Sandwich Tern (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004009	Lady's Island Lake SPA	1,130	1995
	800004075 **and** 800004082	Lough Swilly SPA **and** Greer's Isle SPA	222	1995
	800004159	Slyne Head to Ardmore Point Islands SPA	126	1995
	800004031	Inner Galway Bay SPA	81	1995
	800004037 **and** 800004052	Blacksod Bay / Broad Haven SPA **and** Lough Carrowmore SPA	81	1995
	800004212	Cross Lough (Killadoon) SPA	70	1995
	800004221	Illauuananoon SPA	35	1995
Estimated percentage of all-Ireland population within listed SPA sites				59%

11.70. Roseate Tern *Sterna dougallii* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 1,900 – 2,400 pairs

All-Ireland Population: 624 pairs

Approximate Biogeographic share: 26-34%

The nominate species *Sterna dougallii dougallii* breeds in Britain, Ireland, France, the Azores, eastern coast of the USA, the Caribbean and Africa[2]. This species is a long distance migrant and in winter the European breeding population migrates to western Africa[6]. Roseate Terns have a restricted breeding range in northwest Europe with 95% of the population occurring within four colonies[51].

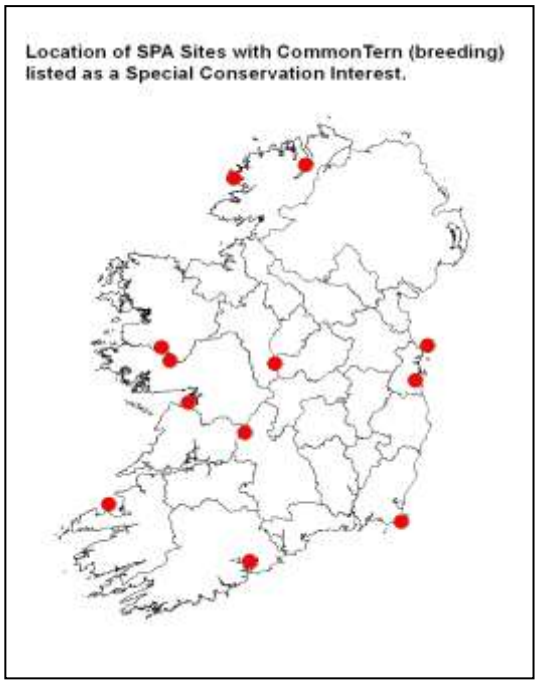
The all-Ireland breeding Roseate Tern population was estimated to be 624 pairs in 1995[5]. The Roseate Tern population in Ireland has increased significantly in recent years with 1,125 pairs recorded at Rockabill SPA in 2011[52]. The biogeographic population estimate of 1,900 – 2,400 pairs refers to the European Roseate Tern population[4]. The all-Ireland breeding population of Roseate Tern in 1995 represented an estimated biogeographic share of 26-34% for this Annex I species. The large population increase that has occurred at Rockabill SPA in the last century is not reflected at other European sites[53] and therefore the biogeographic share of this species in Ireland is now likely to have increased significantly.

Utilising data from the 1995 All-Ireland Tern Survey the two highest ranking Roseate Tern sites in Ireland were selected for SPA designation (see Table 11.70). Both sites selected for designation (Rockabill SPA and Lady's Island Lake SPA) supported internationally important populations of breeding Roseate Tern (≥25 pairs) in 1995.

Table 11.70 SPA sites with Sandwich Tern (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004014	Rockabill SPA	554	1995
	800004009	Lady's Island Lake SPA	62	1995
Estimated percentage of all-Ireland population within listed SPA sites				99%

11.71. Common Tern *Sterna hirundo* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 220,000 – 340,000 pairs

All-Ireland Population: 3,053 pairs

Approximate Biogeographic share: 1 %

In Europe the nominate species *Sterna hirundo* breeds in most countries in north and west Europe[6]. In Ireland the majority of Common Terns breed at coastal locations, including lagoons, with smaller numbers occurring on freshwater lakes[5].

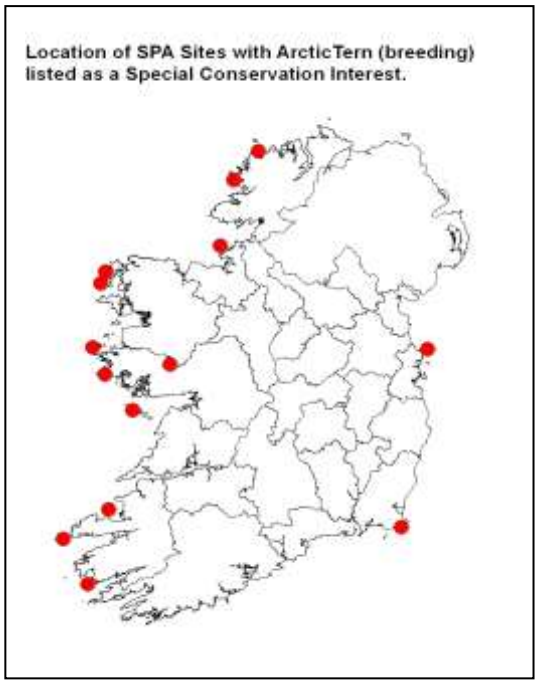
The all-Ireland Common Tern breeding population was estimated to be 3,053 pairs in 1995[5]. The biogeographic population estimate of 220,000 – 340,000 pairs refers to the European Common Tern population[4]. The all-Ireland breeding Common Tern population represents an estimated biogeographic share of 1% for this Annex I species. The Common Tern population at Rockabill SPA 4014 and South Dublin Bay and River Tolka Estuary SPA 4024 have increased significantly in recent years with 2,191 pairs recorded in 2011 at SPA 4014 and 356 pairs in 2008 at SPA 4024.

Utilising data from the 1995 All-Ireland Tern Survey supplemented by data from the 1984 All-Ireland Tern Survey eleven sites in the Republic of Ireland were selected for SPA designation (see Table 11.71). In addition one SPA (Lough Corrib SPA) which had a nationally important breeding population of Common Tern (≥37 pairs) in 1995 has this species listed as a special conservation interest. Data from 2001 is used for Lough Swilly SPA as this site is regularly utilised by a nationally important breeding population Common Tern e.g. 45 pairs in 1984 and 69 pairs in 2010 but numbers during the late 1990's, including the 1995 survey (23 pairs), were low due to severe flooding and did not accurately reflect the usage of the site by this Annex I species.

Table 11.71 SPA sites with Common Tern (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004014	Rockabill SPA	351	1995
	800004009	Lady's Island Lake SPA	250	1995
	800004030	Cork Harbour SPA	102	1995
	800004031	Inner Galway Bay SPA	98	1995
	800004064	Lough Ree SPA	90	1995
	800004075	Lough Swilly SPA	89	2001
	800004132	Illancrone and Inishkeeragh SPA	59	1995
	800004125	Magharee Islands SPA	58	1995
	800004058	Lough Derg (Shannon) SPA	55	1995
	800004024	South Dublin Bay and River Tolka Estuary SPA	52	1995
	800004062	Lough Mask SPA	44	1995
Additional SCI Sites	800004042	Lough Corrib SPA	37	1995
Estimated percentage of all-Ireland population within listed SPA sites				40%

11.72. Arctic Tern *Sterna paradisaea* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 493,000 – 1,800,000 pairs

All-Ireland Population: 3,092 pairs

Approximate Biogeographic share: <1 %

The nominate species *Sterna paradisaea* breeds in north America northern Europe, Scandanavia and Russia north of the Arctic Circle[6]. In Ireland the majority of Arctic Terns breed at coastal island sites with small numbers occurring inland on freshwater lakes[5]. This species is a long distance migrant and winters in the Antarctic Ocean[2].

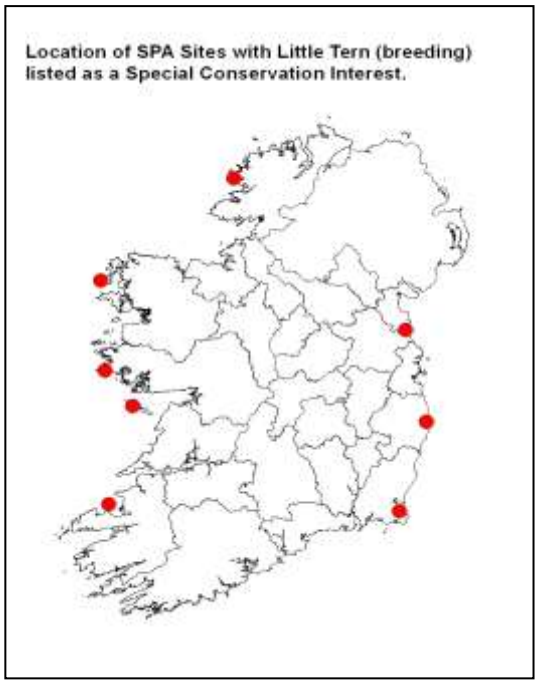
The all-Ireland Arctic Tern breeding population was estimated to be 3,092 pairs in 1995[5]. The biogeographic population estimate of 493,000 – 1,800,000 pairs refers to the European and North Atlantic breeding Arctic Tern population[4]. The all-Ireland Arctic Tern breeding population represents an estimated biogeographic share of <1% for this Annex I species.

Utilising data from the 1995 All-Ireland Tern Survey supplemented by data from the 1984 All-Ireland Tern Survey ten sites in the Republic of Ireland were selected for SPA designation (see Table 11.72). In addition four SPAs which had nationally important breeding populations of Common Tern (≥31 pairs) in 1995 have this species listed as a special conservation interest. Data from a later survey was used for the Blasket Islands SPA as this site is regularly utilised by a nationally important breeding population of Arctic Tern but the small island within the SPA where most of the terns nest was not surveyed in 1995.

Table 11.72 SPA sites with Arctic Tern (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004159	Slyne Head to Ardmore Point Islands SPA	582	1995
	800004152	Inishmore SPA	338	1995
	800004125	Magharee Islands SPA	232	1995
	800004132	Illancrone and Inishkeeragh SPA	224	1995
	800004009	Lady's Island Lake SPA	151	1999
	800004068	Inishmurray SPA	113	1995
	800004084	Inishglora and Inishkeeragh SPA	105	1995
	800004008	Blasket Islands SPA	102	2001
	800004004	Inishkea Islands SPA	73	1995
	800004083	Inishboffin, Inishdooey and Inishbeg SPA	72	1995
Additional SCI Sites	800004144	High Island,Inishshark and Davillaun SPA	64	1995
	800004042	Lough Corrib SPA	60	1995
	800004175	Deenish Island and Scariff Island SPA	54	1995
	800004014	Rockabill SPA	49	1995
Estimated percentage of all-Ireland population within listed SPA sites				72%

11.73. Little Tern *Sterna albifrons* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 17,000 – 22,000 pairs

All-Ireland Population: 174 pairs

Approximate Biogeographic share: 1 %

Three populations of the nominate species *Sterna albifrons albifrons* are recognised one of which breeds between western Europe and northwest Africa[6]. In Ireland the majority of Little Terns breed at coastal sites[5]. Birds breeding in Ireland migrate to winter on the west and northwest coast of Africa[2].

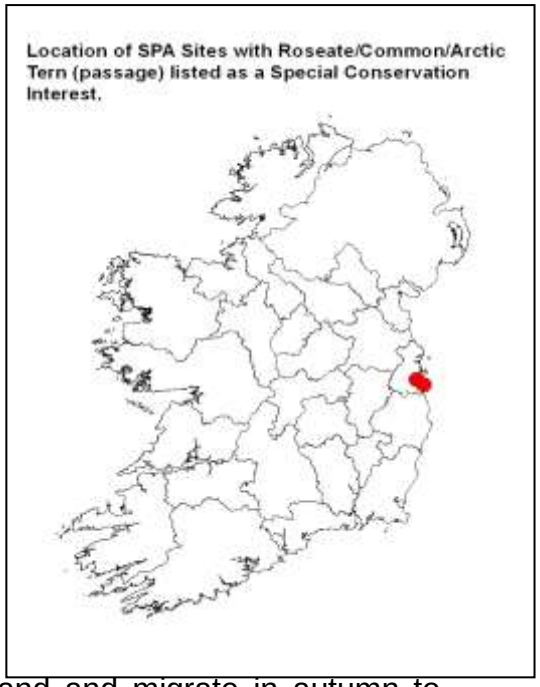
The all-Ireland Little Tern breeding population was estimated to be 174 pairs in 1995[5]. The biogeographic population estimate of 17,000 - 22,000 pairs refers to the European breeding Little Tern population[4]. The all-Ireland breeding population represents an estimated biogeographic share of 1% for this Annex I species. An increase in the all-Ireland Little Tern population was recorded in the Seabird 2000 Survey which estimated the all-Ireland population at 210 pairs[4].

Utilising data from the 1995 All-Ireland Tern Survey supplemented by data from the Seabird 2000 Survey eight sites in the Republic of Ireland were selected for SPA designation (see Table 11.73). Data from Seabird 2000 was used for the Inishkea Islands SPA as this site is regularly utilised by a nationally important population of breeding Little Tern and the small numbers recorded in 1995 (4 pairs) did not accurately reflect the usage of the site by this Annex I species.

Table 11.73 SPA sites with Little Tern (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004159	Slyne Head to Ardmore Point Islands SPA	41	1995
	800004186	The Murrough SPA	36	1995
	800004125	Magharee Islands SPA	36	1995
	800004004	Inishkea Islands SPA	27	2000
	800004080	Boyne Estuary SPA	14	1995
	800004132	Illancrone and Inishkeeragh SPA	13	1995
	800004152	Inishmore SPA	13	1999
	800004076	Wexford Harbour and Slobs SPA	12	1995
Estimated percentage of all-Ireland population within listed SPA sites				97%

11.74. Tern species (passage)



Roseate Tern *Sterna dougallii*

Common Tern *Sterna hirundo*

Arctic Tern *Sterna paradisaea*

Birds Directive Annex I Species: Yes

Biogeographic Population:

Roseate Tern - 4,800 – 5,400 individuals
Common Tern - 170,000 – 200,000 individuals
Arctic Tern - 1,320,000 – 2,280,000 individuals

All-Ireland Populations: _____

Approximate Biogeographic share: _____

Roseate and Common and Arctic Terns breed in Ireland and migrate in autumn to winter off the coast of west Africa (Roseate and Common Terns) and the Antarctic (Arctic Tern). Pre-migration dispersal begins shortly after the breeding season and ring recoveries in Britain and Ireland indicate that during July and August terns are usually still relatively close to their breeding colony[2]. This period is important for both adults and juveniles as they lay down fat reserves in preparation for the long migration south[2]. Site specific counts of tern species during this period are difficult to collate as birds may be staging/roosting for only short periods at various locations on their migratory route south.

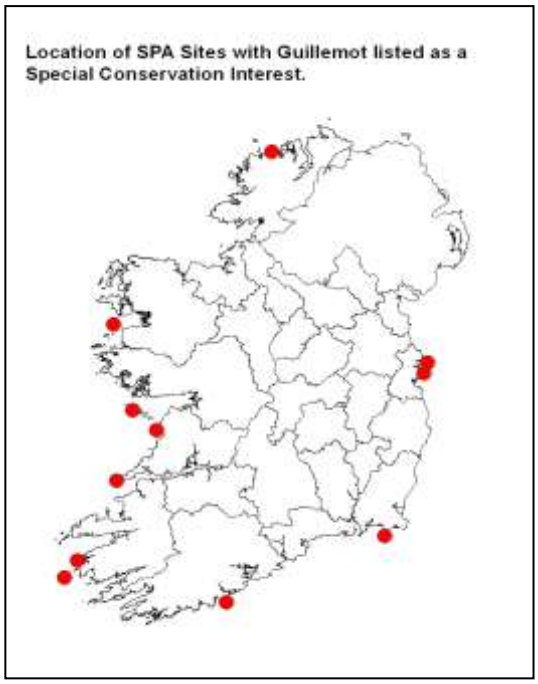
The European population estimates for the three species are as follows - Roseate Tern 4,800–5,400, Common Tern 170,000–200,000 and Arctic Tern 1,320,000–2,280,000[6].

The South Dublin Bay and River Tolka Estuary SPA was selected for designation because post-breeding tern numbers ≥1% of the biogeographic populations of Roseate, Common and Arctic Terns were regularly recorded at this site (see Table 11.74). The data indicates that this SPA it is being utilised as a post-breeding/pre-migration site not just by breeding colonies in Dublin, but also by terns from elsewhere in Ireland and possibly further afield[54]. Dalkey Islands SPA was also selected for designation as post-breeding terns utilise this as a staging/roosting site on route to the core pre-migration site in South Dublin Bay[54+55].

Table 11.74 SPA sites with Tern species (passage) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Species	Data Period
Selected Sites	800004024	South Dublin Bay and River Tolka Estuary SPA	2,000	Roseate Tern	1999
	800004024	South Dublin Bay and River Tolka Estuary SPA	5,000	Common Tern	1999
	800004024	South Dublin Bay and River Tolka Estuary SPA	20,000	Arctic Tern	1996
	800004172	Dalkey Island SPA	200	Roseate Tern	1998
	800004172	Dalkey Island SPA	150	Common Tern	1998
	800004172	Dalkey Island SPA	200	Arctic Tern	1998
Estimated percentage of all-Ireland population within listed SPA sites				Unknown	

11.75. Guillemot *Uria aalge* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 2,800,000 – 2,900,000 pairs

All-Ireland Population: 160,000 pairs

Approximate Biogeographic share: 6%

Guillemot occur in the temperate and colder parts of the northern hemisphere, with large populations in the Atlantic and Pacific Ocean and adjacent areas of the Arctic Ocean[4]. Two subspecies, *Uria aalge aalge* and *Uria aalge albionis* occur in Europe although the majority of birds breeding in Ireland belong to the subspecies *Uria aalge albionis*[4]. This species is a short distance migrant[2].

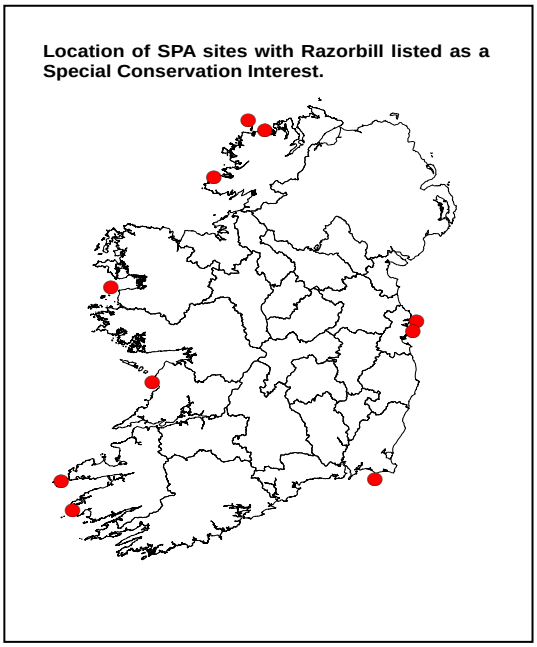
The all-Ireland breeding Guillemot population is estimated to be 160,000 pairs[4]. The biogeographic population estimate of 2,800,000 – 2,900,000 pairs refers to the north Atlantic population[4]. The all-Ireland breeding Guillemot population represents an estimated biogeographic share of 6% for this species.

Utilising data from the Seabird 2000 Survey (1998-2002) the seven highest ranking sites in the Republic of Ireland were selected for designation (see Table 11.75). The highest ranking site, Lambay Island SPA, supported an internationally important population of Guillemot. In addition four SPAs which supported nationally important populations of Guillemot (≥1,600 pairs), during the baseline period, have this species listed as a special conservation interest. As there are a range of issues when censusing breeding Guillemots and breeding data must be treated with caution[4] SPAs 4136 and 4117, which supported Guillemot populations within 10% of the threshold of national importance, during the baseline period, have this species listed as a special conservation interest.

Table 11.75 SPA sites with Guillemot (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004069	Lambay Island SPA	40,705	1998-2002
	800004002	Saltee Islands SPA	14,362	1998-2002
	800004005	Cliffs of Moher SPA	13,375	1998-2002
	800004194	Horn Head to Fanad Head SPA	4,387	1998-2002
	800004119	Loop Head SPA	3,350	1998-2002
	800004154	Iveragh Peninsula SPA	2,860	1998-2002
	800004021	Old Head of Kinsale SPA	2,330	1998-2002
Additional SCI sites	800004152	Inishmore SPA	2,312	1998-2002
	800004007	Skelligs SPA	1,652	1998-2002
	800004136	Clare Island SPA	1,528	1998-2002
	800004117	Ireland's Eye SPA	1,468	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				55%

11.76. Razorbill *Alca torda* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 530,000 pairs

All-Ireland Population: 35,000 pairs

Approximate Biogeographic share: 7%

Razorbill occur in the north Atlantic and the adjacent areas of the Arctic Ocean[2]. Two subspecies, *Alca torda torda* and *Alca torda islandica* occur in Europe with the birds breeding in Ireland belonging to the subspecies *islandica*[4]. This species is a long distance migrant with a gradual move southward after the breeding season and the post-breeding moult[2].

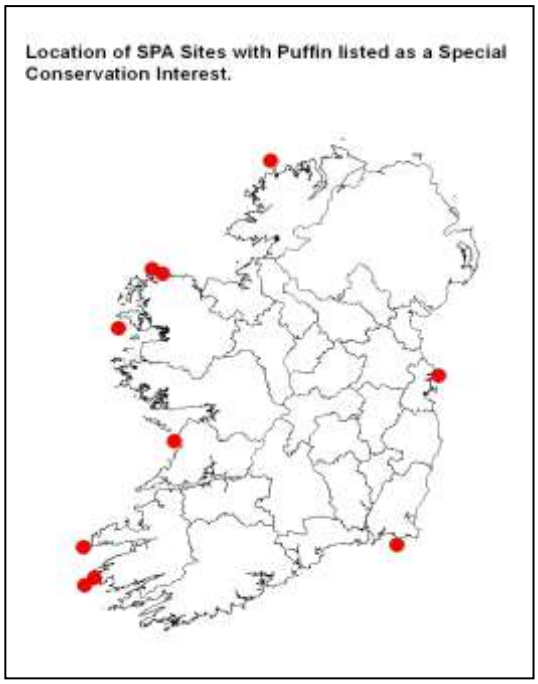
The all-Ireland breeding Razorbill population is estimated to be 35,000 pairs[4]. The biogeographic population estimate of 530,000 pairs refers to the northwest European population[4]. The all-Ireland breeding Razorbill population represents an estimated biogeographic share of 7% for this species.

Utilising data from the Seabird 2000 Survey (1998-2002) the six highest ranking sites in the Republic of Ireland were selected for designation (see Table 11.76). Data from 1984 was used for Puffin Island SPA as this site is known to support a nationally important population. In addition four SPAs which supported nationally important populations of Razorbill (≥350 pairs), during the baseline period, have this species listed as a special conservation interest. As there are a range of issues when censusing breeding Razorbills[4] SPAs 4008 and 4150, which supported Razorbill populations within 10% of the threshold of national importance, during the baseline period, have this species listed as a special conservation interest.

Table 11.76 SPA sites with Razorbill (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004005	Cliffs of Moher SPA	5,159	1998-2002
	800004194	Horn Head to Fanad Head SPA	4,515	1998-2002
	800004069	Lambay Island SPA	2,906	1998-2002
	800004002	Saltee Islands SPA	2,505	1998-2002
	800004073	Tory Island SPA	671	1998-2002
	800004003	Puffin Island SPA	402	1985
Additional SCI sites	800004136	Clare Island SPA	354	1998-2002
	800004117	Ireland's Eye SPA	350	1998-2002
	800004008	Blasket Islands SPA	343	1998-2002
	800004150	West Donegal Coast SPA	322	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				49%

11.77. Puffin *Fratercula arctica* (breeding)



Birds Directive Annex I Species: No

Biogeographic Population: 5,500,000 – 6,600,000 pairs

All-Ireland Population: 21,000 pairs

Approximate Biogeographic share: <1%

The nominate subspecies, *Fratercula arctica arctica* breed on islands in the colder parts of the north Atlantic and the adjacent Arctic Ocean[4]. This species is a short distance migrant but information regarding post-breeding movements are limited as birds probably occur at very low densities over vast areas of open oceans during the winter[2].

The all-Ireland breeding population of Puffin is estimated to be 21,000 pairs[4]. The biogeographic population estimate of 5,500,000 – 6,600,000 pairs refers to the Atlantic population[4]. The all-Ireland population represents an estimated biogeographic share of <1% for this species.

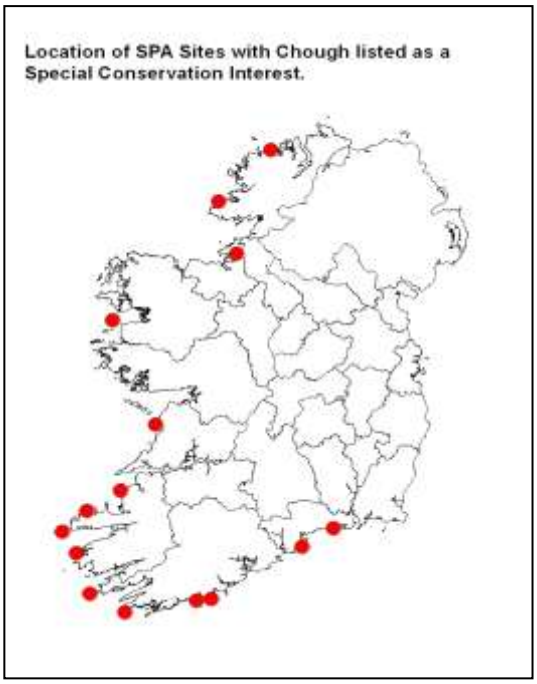
Utilising data primarily from the Seabird 2000 Survey (1998-2002) the three highest ranking sites in Ireland were selected for designation (see Table 11.77). In addition seven SPAs which supported nationally important populations of Puffin (≥210 pairs), during the baseline period, have this species listed as a special conservation interest.

Table 11.76 SPA sites with Puffin (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004007	Skelligs SPA	6,000	1998-2002
	800004003	Puffin Island SPA	5,125	1998-2002
	800004008	Blasket Islands SPA	4,924	1988
Additional SCI sites	800004002	Saltee Islands SPA	1,822	1999+2000
	800004177	Bills Rocks SPA	1,500	1998-2002
	800004073	Tory Island SPA	1,402	1998-2002
	800004074	Illanmaster SPA[I]	1,367	1998-2002
	800004005	Cliffs of Moher SPA	1,365	1998-2002
	800004072	Stags of Broadhaven SPA[I]	1,160	1998-2002
	800004069	Lambay Island SPA	265	1998-2002
Estimated percentage of all-Ireland population within listed SPA sites				98%

[I] Further public notification is required to include Puffin as a special conservation interest at Illanmaster SPA and the Stags of Broadhaven SPA.

11.78. Chough *Pyrrhocorax pyrrhocorax* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 1,340 pairs

All-Ireland Population: 840 pairs

Approximate Biogeographic share: 63%

Chough breeding in Ireland belong to the nominate race P. *p. pyrrhocorax* which is confined to Ireland and Britain[2] and possibly a small population in Brittany[56]. Two other races, *P.p. erythrorhamphus* and *P.p. docilis,* occur in other European countries. The nominate race is resident in Ireland and breeds primarily along the south and west coast.

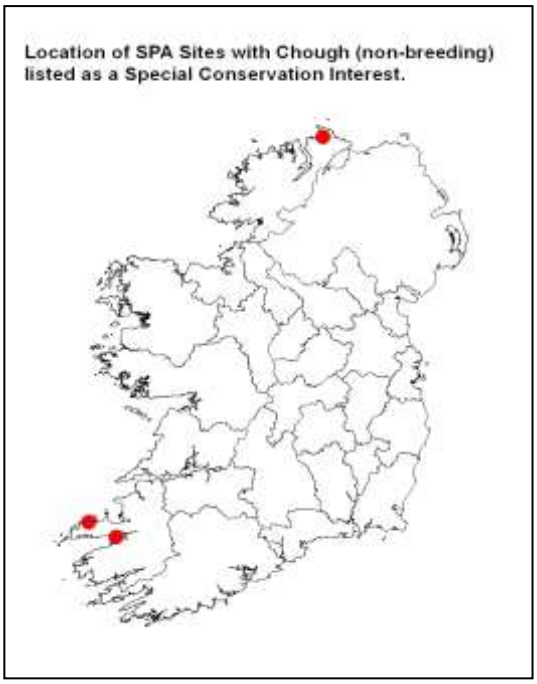
The all-Ireland breeding population of Chough is estimated to be 840 pairs - 838 pairs in the Republic of Ireland and 2 pairs in Northern Ireland[57 and 58]. The biogeographic population estimate of 1,340 pairs refers to the all-Ireland and British breeding population[37]. The all-Ireland population represents an estimated biogeographic share of 63% for this Annex I species.

Utilising data from a survey in 2002/03 the fifteen highest ranking breeding Chough sites in Ireland were selected for designation (see Table 11.78).

Table 11.78 SPA sites with Chough (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004153 and 800004008	Dingle Peninsula SPA and Blasket islands SPA	105 and 9	2002/03
	800004154	Iveragh Peninsula SPA	88	2002/03
	800004156	Sheeps Head to Toe Head SPA	73	2002/03
	800004150	West Donegal Coast SPA	58	2002/03
	800004155	Beara Peninsula SPA	54	2002/03
	800004189	Kerry Head SPA	30	2002/03
	800004194	Horn Head to Fanad Head SPA	29	2002/03
	800004193	Mid-Waterford Coast SPA	20	2002/03
	800004136	Clare Island SPA	16	2002/03
	800004187	Sligo/Leitrim Uplands SPA	15	2002/03
	800004191	Seven Heads SPA	15	2002/03
	800004005	Cliffs of Moher SPA	12	2002/03
	800004190	Galley Head to Duneen Point SPA	11	2002/03
	800004192	Helvick Head to Ballyquinn SPA	11	2002/03
Estimated percentage of all-Ireland population within listed SPA sites				65%

11.79. Chough *Pyrrhocorax pyrrhocorax* (non-breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 6,700 individuals

All-Ireland Population: 4,200 individuals

Approximate Biogeographic share: -

The nominate race P. *p. pyrrhocorax* is resident in Ireland and breeds primarily along the south and west coast. Studies of Chough in Ireland have shown some post-breeding populations converge in autumn on sites with suitable dune habitat[59]. Chough post-breeding flocking and roosting sites are generally distant to high density breeding areas and flock convergence in dune systems may be an adapted mechanism to exclude sub-adult birds from the home ranges of established pairs[57].

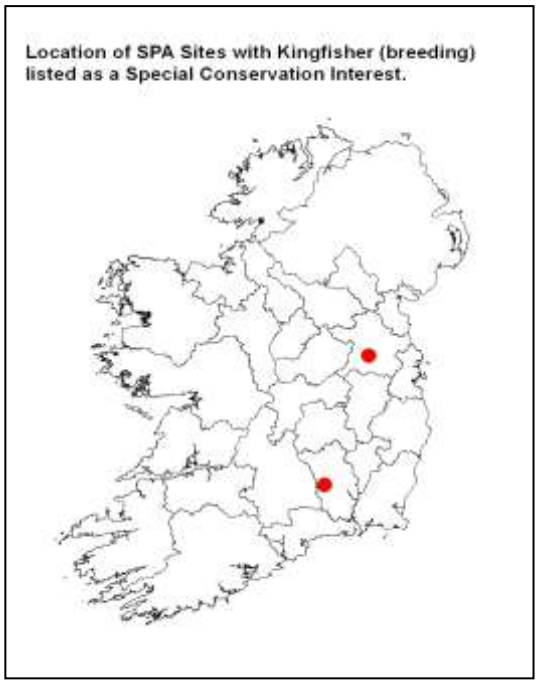
The all-Ireland and biogeographic post-breeding population estimates for Chough are 4,200 and 6,700 individuals respectively, based on an extrapolation from the number of breeding pairs as described in Lack[60]. The all-Ireland post-breeding Chough population represents an estimated biogeographic share of 63% for this Annex I species.

Three dune systems that regularly supported nationally important flocks of post-breeding Choughs were selected for designation (see Table 11.79).

Table 11.79 SPA sites with Chough (non-breeding) listed as a special conservation interest.

	Site Code	Site Name	Individuals	Data Period
Selected Sites	800004153	Dingle Peninsula SPA	120	2002 - 2004
	800004034	Trawbreaga Bay SPA	100	2001 - 2004
	800004029	Castlemaine Harbour SPA	64	2002 - 2004
Estimated percentage of all-Ireland population within listed SPA sites				–

11.80. Kingfisher *Alcedo atthis* (breeding)



Birds Directive Annex I Species: Yes

Biogeographic Population: 79,000 -160,000 pairs

All-Ireland Population: 1,300 – 2,100 pairs

Approximate Biogeographic share: 1-3%

Kingfisher is a widespread breeding species across much of Europe, which accounts for less than half of its global breeding range[37]. Its basic habitat requirement is the availability of clear ice-free water with a good supply of small fish. Kingfisher breeding in Britain and Ireland are largely sedentary[2].

The all-Ireland breeding population of Kingfisher is estimated to be 1,300 – 2,100 pairs[47]. The biogeographic population estimate of 79,000 – 160,000 pairs refers to the European population[37]. The all-Ireland Kingfisher population represents an estimated biogeographic share of 1-3% for this Annex I species.

Kingfisher are a widely distributed species and are recorded breeding across much of Ireland[47]. Surveys undertaken in Ireland between 2006 and 2008 investigated Kingfisher distribution and habitat characteristics[61]. A focused survey was undertaken in 2010 of six river systems which were designated as Special Areas of Conservation as these sites were large enough to support nationally important Kingfisher populations, had suitable habitat and represented a good geographical spread across the country[62].

Utilising data from the 2010 focused survey two sites which held nationally important Kingfisher populations (≥13 pairs) in the Republic of Ireland were selected for designation (see Table 11.80).

Table 11.80 SPA sites with Kingfisher (breeding) listed as a special conservation interest.

	Site Code	Site Name	Pairs	Data Period
Selected Sites	800004233	River Nore SPA River	22	2010
	800004232	Boyne and River Blackwater SPA	19	2010
Estimated percentage of all-Ireland population within listed SPA sites				2-3%

Appendix 1. The standard baseline periods used to identify the most suitable sites for SPA designation for various bird species/groups.

Species/group	Standard baseline period
Barnacle Goose	4 survey mean (1993 to 2003)
Greenland White–fronted Goose	5 year mean peak (1994/95 to 1998/99)
Swans	5 year mean peak (1995/96 to 1999/2000)
Greylag Goose	5 year mean peak (1995/96 to 1999/2000)
Light-bellied Brent Goose	5 year mean peak (1995/96 to 1999/2000)
Divers, Grebes, Ducks, Waders and their allies, Gulls (non-breeding)	5 year mean peak (1995/96 to 1999/2000)
Red-throated Diver (breeding)	2006
Common Scoter (breeding)	1995
Golden Plover (breeding)	2002-2004
Dunlin (breeding)	2 survey mean (1985 and 1996) + 2002 survey
Terns (breeding)	1995
Seabirds and Gulls (breeding)	1998-2002
Merlin (breeding)	2000-2010
Peregrine (breeding)	2002
Hen Harrier (breeding)	2005
Hen Harrier (non-breeding)	5 survey mean (2005/06 to 2009/10)
Chough (breeding)	2002/03
Corncrake (breeding)	5 year mean peak (2003 to 2007)
Kingfisher(breeding)	2010

Appendix 2. Annex I and Migratory species deisgnated within the SPA network of sites.

Group	Species	Status	Biogeographic population estimate [a]	All-Ireland population estimate [b]	Estimated percentage of biogeographic population in Ireland	The SPA threshold of significance	Total number of sites where the species is listed as a Special Conservation Interest	Estimated percentage of the all-Ireland population supported by listed SPAs
Waterbirds	Red-throated Diver	breeding	52,000 -142,000[7]	10[12]	<0.1	-	1	60+
Waterbirds	Red-throated Diver	non-breeding	183,000 - 420,000	1,255	< 1	25	4	8
Waterbirds	Black-throated Diver	non-breeding	250,000-500,000	-	-	25	1	-
Waterbirds	Great Northern Diver	non-breeding	5,000	1,310[9]	26	25	4	6
Waterbirds	Little Grebe	non-breeding	230,000 - 450,000	2,630	1	50	6	21
Waterbirds	Great Crested Grebe	non-breeding	370,000 - 580,000	5,130	1	50	9	19
Seabirds	Fulmar	breeding	2,700,000 - 4,100,000	39,000	1	390	17	55
Seabirds	Manx Shearwater	breeding	340,000 - 410,000	27,000 - 61,000	11-13	440	5	74
Seabirds	Storm Petrel	breeding	300,000 - 680,000	73,000 - 128,000	15-33	1,000	11	94
Seabirds	Leach's Petrel	breeding	4,900,000 - 5,000,000	310	< 0.01	-	1	100
Seabirds	Gannet	breeding	390,000	36,111[14]	9	360	3	99
Seabirds	Cormorant	breeding	52,000 – 53,000	5,200	10	52	18	67
Seabirds	Cormorant	non-breeding	120,000	12,840	11	130	7	16
Seabirds	Shag	breeding	66,000 - 73,000	3,700	5-6	37	14	65
Waterbirds	Grey Heron	non-breeding	263,000 - 286,000	2,750	1	50	4	11
Waterbirds	Bewick's Swan	non-breeding	29,000	382[17]	1	25	3	61
Waterbirds	Whooper Swan	non-breeding	20,645[20]	12,730[10]	62	100	21	24
Waterbirds	Greenland White-fronted Goose	non-breeding	35,573[21]	13,575[21]	38	135	22	92-93
Waterbirds	Greylag Goose	non-breeding	89,100	4,480	5	50	8	82
Waterbirds	Barnacle Goose	non-breeding	56,386[26]	9,034[26]	16	90	22	94-99
Waterbirds	Light-bellied Brent Goose	non-breeding	20,000	20,000[30]	100	200	24	53
Waterbirds	Shelduck	non-breeding	300,000	14,600	5	150	17	64
Waterbirds	Wigeon	non-breeding	1,500,000	89,260	6	890	24	55
Waterbirds	Gadwall	non-breeding	60,000	660	1	50	4	29
Waterbirds	Teal	non-breeding	400,000	45,600	11	460	20	36
Waterbirds	Mallard	non-breeding	4,500,000	48,040	1	480	8	15
Waterbirds	Pintail	non-breeding	60,000	1,650	3	50	11	56
Waterbirds	Shoveler	non-breeding	40,000	3,010	8	50	16	54
Waterbirds	Pochard	non-breeding	350,000	49,030	14	490	6	36
Waterbirds	Tufted Duck	non-breeding	1,200,000	41,590	3	420	11	29

Appendix 2. Annex I and Migratory species deisgnated within the SPA network of sites.

Group	Species	Status	Biogeographic population estimate [a]	All-Ireland population estimate [b]	Estimated percentage of biogeographic population in Ireland	The SPA threshold of significance	Total number of sites where the species is listed as a Special Conservation Interest	Estimated percentage of the all-Ireland population supported by listed SPAs
Waterbirds	Scaup	non-breeding	310,000	6,340	2	65	5	23
Waterbirds	Eider	non-breeding	73,000	2,820	4	50	1	5
Waterbirds	Common Scoter	breeding	533,000[7]	100[32]	<0.1	-	3	100
Waterbirds	Common Scoter	non-breeding	1,600,000[7]	18,590	1	185	5	36
Waterbirds	Goldeneye	non-breeding	400,000	11,850	3	120	6	8
Waterbirds	Red-breasted Merganser	non-breeding	170,000	3,660	2	50	10	22
Raptors	Hen Harrier	breeding	32,000 -59,000[37]	216[35 +36]	<1	5	6	45
Raptors	Hen Harrier	non-breeding	96,000 -177,000[37]	559-608[38]	<1	5	3	-
Raptors	Merlin	breeding	31,000 – 49,000[37]	225-440[40+41]	1	5	6	10-20
Raptors	Peregrine	breeding	12,000 – 25,000[37]	477[42+40]	2-4	5	10	15
Others	Corncrake	breeding	1,300,000-2,000,000[7]	131-162[43]	0.01	3	10	59-69
Waterbirds	Coot	non-breeding	1,750,000	28,300	2	280	11	57
Waterbirds	Oystercatcher	non-breeding	1,020,000	65,700	6	660	16	21
Waterbirds	Ringed Plover	non-breeding	73,000	14,350	20	140	15	11
Waterbirds	Golden Plover	breeding	47,736 -71,247[44]	200-400[44]	<1	12	4	19-38
Waterbirds	Golden Plover	non-breeding	930,000	163,200	18	1,600	32	55
Waterbirds	Grey Plover	non-breeding	247,000	6,435	3	65	21	55
Waterbirds	Lapwing	non-breeding	2,800,000 – 4,000,000	258,000	6-9	2,600	22	45
Waterbirds	Knot	non-breeding	450,000	28,720	6	290	13	55
Waterbirds	Sanderling	non-breeding	123,000	6,240	5	60	15	19
Waterbirds	Purple Sandpiper	non-breeding	15,000	3,420	23	50	4	8
Waterbirds	Dunlin (*schinzii*)	breeding	7,800 – 8,500[48]	150[47]	2	5	6	44-48
Waterbirds	Dunlin	non-breeding	1,330,000	119,100	9	1200	23	57
Waterbirds	Black-tailed Godwit	non-breeding	35,000	13,660	39	140	25	67
Waterbirds	Bar-tailed Godwit	non-breeding	120,000	15,520	13	160	24	74
Waterbirds	Curlew	non-breeding	420,000	61,070	15	610	19	27
Waterbirds	Redshank	non-breeding	188,500 –191,500	29,450	15-16	290	21	38
Waterbirds	Greenshank	non-breeding	190,000 – 270,000	1,180	<1	50	4	9
Waterbirds	Turnstone	non-breeding	94,000	13,160	14	130	11	13
Seabirds	Black-headed Gull	breeding	2,100,000- 2,800,000	14,000	<1	140	5	19
Seabirds	Black-headed Gull	non-breeding	5,600,00 – 7,300,000	-	-	1000	14	-
Seabirds	Common Gull	breeding	400,000 –650,000	1,600	<1	25	14	49

Appendix 2. Annex I and Migratory species deisgnated within the SPA network of sites.

Group	Species	Status	Biogeographic population estimate [a]	All-Ireland population estimate [b]	Estimated percentage of biogeographic population in Ireland	The SPA threshold of significance	Total number of sites where the species is listed as a Special Conservation Interest	Estimated percentage of the all-Ireland population supported by listed SPAs
Seabirds	Common Gull	non-breeding	1,300,000 – 2,100,000	-	-	500	9	-
Seabirds	Lesser Black-backed Gull	breeding	179,000	4,800	3	48	9	41
Seabirds	Lesser Black-backed Gull	non-breeding	525,000	-	-	500	5	-
Seabirds	Herring Gull	breeding	705,000– 799,000	6,500	<1	65	14	58
Seabirds	Herring Gull	non-breeding	1,090,000	-	-	500	6	-
Seabirds	Kittiwake	breeding	2,500,000 – 3,000,000	49,000	2	490	15	61
Seabirds	Sandwich Tern	breeding	69,000 -79,000	2,941[5]	4	29	9	59
Seabirds	Roseate Tern	breeding	1,900 – 2,400	624[5]	26-34	12	2	99
Seabirds	Roseate Tern	passage	4,800 – 5,400	-	-	-	2	-
Seabirds	Common Tern	breeding	220,000 - 340,000	3,053[5]	1	31	12	40
Seabirds	Common Tern	passage	170,000 – 200,000	-	-	-	2	-
Seabirds	Arctic Tern	breeding	493,000 - 1,800,000	3,092[5]	<1	31	14	72
Seabirds	Arctic Tern	passage	1,320,000 – 2,280,000	-	-	-	2	-
Seabirds	Little Tern	breeding	17,00 – 22,000	174[5]	1	12	8	97
Seabirds	Common Guillemot	breeding	2,800,000 – 2,900,000	160,000	6	1,600	11	55
Seabirds	Razorbill	breeding	530,000	35,000	7	350	10	49
Seabirds	Puffin	breeding	5,500,000 – 6,600,000	21,000	<1	210	10	98
Others	Chough	breeding	1,340[37]	840[57+58]	63	9	15	65
Others	Chough	non-breeding	6,700[37]	4,200	63	-	3	-
Others	Kingfisher	breeding	79,000 – 160,000[37]	1,300 – 2,100[47]	1-3	13	2	2-3

a –The biogeographic populations of all wintering waterbirds are taken from Delany, S. and D. Scott. 2002. Waterbird Population Estimates (3rd Edition). Wetlands International Global Series No. 12. Wageningen, The Netherlands unless stated otherwise. The biogeographic populations of all breeding seabirds are taken from Mitchell, P. I., Newton, S. F., Ratcliffe, N. & Dunn, T. E. 2004. *Seabird Populations of Britain and Ireland.* Poyser, London, unless stated otherwise. The biogeographic estimates of non-breeding species are all counts of individual birds while populations of breeding species are all counts of pairs.

b –The all-Ireland populations for wintering waterbirds are taken from Crowe, O., Austin, G.E., Colhoun, K., Cranswick, P.A., Kershaw, M. and Musgrove, A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. *Bird Study* 55: 66-77 unless stated otherwise. The all-Ireland populations for breeding seabirds are taken from Mitchell, P. I., Newton, S. F., Ratcliffe, N. & Dunn, T. E. 2004. *Seabird Populations of Britain and Ireland.* Poyser, London, unless stated otherwise. The all-Ireland population estimates of non-breeding species are all counts of individual birds while populations of breeding species are all counts of pairs.

Appendix 3. Selection Criteria for the SPA network of sites.

		SPA Selection Criteria			
Site Code	**SPA Name**	**Assemblage site**	**1% of the all-Ireland population of an Annex I species**	**1% of the biogeogrphic population of a migratory species**	**Most suitable site for an Annex I or migratory species**
4002	SALTEE ISLANDS SPA	√			√
4003	PUFFIN ISLAND SPA	√	√	√	√
4004	INISHKEA ISLANDS SPA		√	√	√
4005	CLIFFS OF MOHER SPA	√	√		√
4006	NORTH BULL ISLAND SPA	√	√	√	√
4007	SKELLIGS SPA	√	√	√	√
4008	BLASKET ISLANDS SPA	√	√	√	√
4009	LADY'S ISLAND LAKE SPA		√	√	√
4013	DRUMCLIFF BAY SPA		√		√
4014	ROCKABILL SPA		√	√	√
4015	ROGERSTOWN ESTUARY SPA			√	√
4016	BALDOYLE BAY SPA		√	√	√
4019	THE RAVEN SPA		√	√	√
4020	BALLYTEIGUE BURROW SPA		√	√	√
4021	OLD HEAD OF KINSALE SPA				√
4022	BALLYCOTTON BAY SPA				√
4023	BALLYMACODA BAY SPA	√	√	√	√
4024	SOUTH DUBLIN BAYAND RIVER TOLKA ESTUARY SPA		√	√	√
4025	MALAHIDE ESTUARY SPA			√	√
4026	DUNDALK BAY SPA	√	√	√	√
4027	TRAMORE BACK STRAND SPA		√	√	√
4028	BLACKWATER ESTUARY SPA			√	√
4029	CASTLEMAINE HARBOUR SPA		√	√	√
4030	CORK HARBOUR SPA	√	√	√	√
4031	INNER GALWAY BAY SPA		√	√	√
4032	DUNGARVAN HARBOUR SPA	√	√	√	√
4033	BANNOW BAY SPA		√	√	√

Appendix 3. Selection Criteria for the SPA network of sites

		SPA Selection Criteria			
Site Code	**SPA Name**	**Assemblage site**	**1% of the all-Ireland population of an Annex I species**	**1% of the biogeogrphic population of a migratory species**	**Most suitable site for an Annex I or migratory species**
4034	TRAWBREAGA BAY SPA		√	√	√
4035	CUMMEEN STRAND SPA			√	√
4036	KILLALA BAY/MOY ESTUARY SPA		√		√
4037	BLACKSOD BAY/BROAD HAVEN SPA		√	√	√
4039	DERRYVEAGH AND GLENDOWAN MOUNTAINS SPA		√		√
4040	WICKLOW MOUNTAINS SPA		√		√
4041	BALLYALLIA LOUGH SPA				√
4042	LOUGH CORRIB SPA	√	√	√	√
4043	LOUGH DERRAVARAGH SPA				√
4044	LOUGH ENNELL SPA				√
4045	GLEN LOUGH SPA		√	√	√
4046	LOUGH IRON SPA		√	√	√
4047	LOUGH OWEL SPA				√
4048	LOUGH GARA SPA		√	√	√
4049	LOUGH OUGHTER COMPLEX SPA		√	√	√
4050	LOUGH ARROW SPA				√
4051	LOUGH CARRA SPA				√
4052	CARROWMORE LAKE SPA		√		√
4056	LOUGH CUTRA SPA				√
4057	LOUGH DERG (DONEGAL) SPA				√
4058	LOUGH DERG (SHANNON) SPA		√		√
4060	LOUGH FERN SPA				√
4061	LOUGH KINALE AND DERRAGH LOUGH SPA				√
4062	LOUGH MASK SPA		√		√
4063	POULAPHOUCA RESERVOIR SPA				√
4064	LOUGH REE SPA		√		√
4065	LOUGH SHEELIN SPA				√
4066	THE BULL AND THE COW ROCKS SPA		√		√
4068	INISHMURRAY SPA		√		√

Appendix 3. Selection Criteria for the SPA network of sites

		SPA Selection Criteria			
Site Code	**SPA Name**	**Assemblage site**	**1% of the all-Ireland population of an Annex I species**	**1% of the biogeogrphic population of a migratory species**	**Most suitable site for an Annex I or migratory species**
4069	LAMBAY ISLAND SPA	√		√	√
4072	STAGS OF BROAD HAVEN SPA		√		√
4073	TORY ISLAND SPA		√		√
4074	ILLANMASTER SPA		√	√	√
4075	LOUGH SWILLY SPA	√	√	√	√
4076	WEXFORD HARBOUR AND SLOBS SPA	√	√	√	√
4077	RIVER SHANNON & RIVER FERGUS ESTUARIES SPA	√	√	√	√
4078	CARLINGFORD LOUGH SPA			√	√
4080	BOYNE ESTUARY SPA		√	√	√
4081	CLONAKILTY BAY SPA			√	√
4082	GREERS ISLE SPA		√		√
4083	INISHBOFIN, INISHDOOEY AND INISHBEG SPA		√		√
4084	INISHGLORA AND INISHKEERAGH SPA		√		√
4086	RIVER LITTLE BROSNA CALLOWS SPA	√	√	√	√
4087	LOUGH FOYLE SPA	√			√
4089	RAHASANE TURLOUGH SPA		√	√	√
4090	SHESKINMORE LOUGH SPA		√		√
4091	STABANNAN-BRAGANSTOWN SPA			√	√
4092	TACUMSHIN LAKE SPA	√	√	√	√
4093	TERMONCARRAGH LAKE & ANNAGH MACHAIR SPA		√		√
4094	BLACKWATER CALLOWS SPA		√	√	√
4095	KILCOLMAN BOG SPA				√
4096	MIDDLE SHANNON CALLOWS SPA	√	√	√	√
4097	RIVER SUCK CALLOWS SPA		√		√
4098	OWENDUFF/NEPHIN COMPLEX SPA		√		√
4100	INISHTRAHULL SPA		√		√
4107	COOLE-GARRYLAND SPA		√	√	√
4110	LOUGH NILLAN BOG SPA		√		√
4111	DUVILLAUN ISLANDS SPA		√		√

Appendix 3. Selection Criteria for the SPA network of sites

		SPA Selection Criteria			
Site Code	**SPA Name**	**Assemblage site**	**1% of the all-Ireland population of an Annex I species**	**1% of the biogeogrphic population of a migratory species**	**Most suitable site for an Annex I or migratory species**
4113	HOWTH HEAD COAST SPA				√
4114	ILLAUNONEARAUN SPA		√		√
4115	INISHDUFF SPA				√
4116	INISHKEEL SPA		√		√
4117	IRELAND'S EYE SPA				√
4118	KEERAGH ISLANDS SPA				√
4119	LOOP HEAD SPA				√
4120	RATHLIN O'BIRNE ISLAND SPA		√		√
4121	ROANINISH SPA		√		√
4122	SKERRIES ISLANDS SPA			√	√
4124	SOVEREIGN ISLANDS SPA				√
4125	MAGHAREE ISLANDS SPA		√		√
4129	BALLYSADARE BAY SPA		√		√
4132	ILLANCRONE AND INISHKEERAGH SPA		√		√
4134	LOUGH REA SPA				√
4135	ARDBOLINE ISLAND AND HORSE ISLAND SPA		√		√
4136	CLARE ISLAND SPA		√		√
4137	DOVEGROVE CALLOWS SPA		√	√	√
4139	LOUGH CROAN TURLOUGH SPA		√		√
4140	FOUR ROADS TURLOUGH SPA		√		√
4142	CREGGANNA MARSH SPA		√		√
4143	CAHORE MARSHES SPA		√	√	√
4144	HIGH ISLAND, INISHARK AND DAVILLAUN SPA		√		√
4145	DURNESH LOUGH SPA		√		√
4146	MALIN HEAD SPA		√		√
4148	FANAD HEAD SPA		√		√
4149	FALCARRAGH TO MEENLARAGH SPA		√		√
4150	WEST DONEGAL COAST SPA		√		√
4151	DONEGAL BAY SPA		√	√	√

Appendix 3. Selection Criteria for the SPA network of sites

		SPA Selection Criteria			
Site Code	**SPA Name**	**Assemblage site**	**1% of the all-Ireland population of an Annex I species**	**1% of the biogeogrphic population of a migratory species**	**Most suitable site for an Annex I or migratory species**
4152	INISHMORE SPA		√		√
4153	DINGLE PENINSULA SPA		√		√
4154	IVERAGH PENINSULA SPA		√		√
4155	BEARA PENINSULA SPA		√		√
4156	SHEEP'S HEAD TO TOE HEAD SPA		√		√
4158	RIVER NANNY ESTUARY AND SHORE SPA				√
4159	SLYNE HEAD to ARDMORE POINT ISLANDS SPA		√	√	√
4160	SLIEVE BLOOM MOUNTAINS SPA		√		√
4161	STACK'S TO MULLAGHAREIRK MOUNTAINS, WEST LIMERICK HILLS AND MOUNT EAGLE SPA		√		√
4162	MULLAGHANISH TO MUSHERAMORE MOUNTAINS SPA		√		√
4165	SLIEVEFELIM TO SILVERMINES MOUNTAINS SPA		√		√
4167	SLIEVE BEAGH SPA		√		√
4168	SLIEVE AUGHTY MOUNTAINS SPA		√		√
4170	CRUAGH ISLAND SPA		√		√
4172	DALKEY ISLANDS SPA		√	√	√
4175	DEENISH ISLAND AND SCARIFF ISLAND SPA		√	√	√
4177	BILLS ROCKS SPA		√		√
4181	CONNEMARA BOG COMPLEX SPA		√		√
4182	MID-CLARE COAST SPA		√	√	√
4186	THE MURROUGH SPA		√	√	√
4187	SLIGO/LEITRIM UPLANDS SPA		√		√
4188	TRALEE BAY COMPLEX SPA	√	√	√	√
4189	KERRY HEAD SPA		√		√
4190	GALLEY HEAD TO DUNEEN POINT SPA		√		√
4191	SEVEN HEADS SPA		√		√
4192	HELVICK HEAD TO BALLYQUIN SPA		√		√
4193	MID-WATERFORD COAST SPA		√		√
4194	HORN HEAD TO FANAD HEAD SPA	√	√		√

Appendix 3. Selection Criteria for the SPA network of sites.

		SPA Selection Criteria			
Site Code	**SPA Name**	**Assemblage site**	**1% of the all-Ireland population of an Annex I species**	**1% of the biogeogrphic population of a migratory species**	**Most suitable site for an Annex I or migratory species**
4212	CROSS LOUGH (KILLADOON) SPA		√		√
4219	COURTMACSHERRY BAY SPA		√	√	√
4220	COROFIN WETLANDS SPA		√		√
4221	ILLAUNNANOON SPA		√		√
4227	MULLET PENINSULA SPA		√		√
4228	LOUGH CONN & LOUGH CULLIN SPA				√
4230	WEST DONEGAL ISLANDS SPA		√		√
4231	INISHBOFIN, OMEY ISLAND AND TURBOT ISLAND SPA		√		√
4232	RIVER BOYNE AND BLACKWATER SPA		√		√
4233	RIVER NORE SPA		√		√
4234	BALLINTEMPLE AND BALLYGILGAN SPA		√	√	√
4235	DOOGORT MACHAIR SPA		√		√
	Total number of sites selected	**21**	**119**	**57**	**154**

Appendix 4. Existing SPA sites which did not meet the criteria for designation.

Site Code	Name	S.I.	Species at time of designation
800004017	MONGAN BOG SPA	x	Greenland White-fronted Goose
800004038	KILLARNEY NATIONAL PARK SPA	31 of 1995	Greenland White-fronted Goose, Merlin
800004099	PETTIGO PLATEAU NATURE RESERVE SPA	298 of 1996	Greenland White-fronted Goose
800004101	BALLYKENNY-FISHERSTOWN BOG	298 of 1996	Greenland White-fronted Goose
800004102	GARRISKIL BOG SPA	298 of 1996	Greenland White-fronted Goose
800004103	ALL SAINTS BOG SPA	298 of 1996	Greenland White-fronted Goose
800004105	BELLANAGARE BOG SPA	298 of 1996	Greenland White-fronted Goose
800004108	EIRK BOG SPA	298 of 1996	Greenland White-fronted Goose
800004109	THE GEARAGH SPA	298 of 1996	Wigeon,Teal, Mallard, Coot
800004127	WICKLOW HEAD SPA	x	Kittiwake
800004133	AUGHRIS HEAD SPA	910 of 2004	Kittiwake

Appendix 5. SPA sites with Wetlands listed as a Special Conservation Interest.

Site code	SPA
800004006	North Bull Island SPA
800004009	Lady's Island Lake SPA
800004013	Drumcliff Bay SPA
800004015	Rogerstown Estuary SPA
800004016	Baldoyle Bay SPA
800004019	The Raven SPA
800004020	Ballyteigue Burrow SPA
800004022	Ballycotton Bay SPA
800004023	Ballymacoda Bay SPA
800004024	South Dublin Bay and River Tolka Estuary SPA
800004025	Malahide Estuary SPA
800004026	Dundalk Bay SPA
800004027	Tramore Back Strand SPA
800004028	Blackwater Estuary SPA
800004029	Castlemaine Harbour SPA
800004030	Cork Harbour SPA
800004031	Inner Galway Bay SPA
800004032	Dungarvan Harbour SPA
800004033	Bannow Bay SPA
800004034	Trawbreaga Bay SPA
800004035	Cummeen Strand SPA
800004036	Killala Bay/Moy Estuary SPA
800004037	Blacksod Bay / Broadhaven SPA
800004041	Ballyallia Lough SPA
800004042	Lough Corrib SPA
800004043	Lough Derravaragh SPA
800004044	Lough Ennel SPA
800004046	Lough Iron SPA
800004047	Lough Owel SPA
800004049	Lough Oughter SPA
800004050	Lough Arrow SPA
800004058	Lough Derg (Shannon) SPA
800004060	Lough Fern SPA
800004061	Lough Kinale and Derragh Lough SPA
800004062	Lough Mask SPA
800004064	Lough Ree SPA
800004065	Lough Sheelin SPA
800004075	Lough Swilly SPA
800004076	Wexford Harbour and Slobs SPA
800004077	River Shannon and River Fergus Estuaries SPA
800004078	Carlingford Lough SPA
800004080	Boyne Estuary SPA
800004081	Clonakilty Bay SPA
800004086	River Little Brosna Callows SPA
800004087	Lough Foyle SPA
800004089	Rahasane Turlough SPA
800004092	Tacumshin Lake SPA
800004094	Blackwater Callows SPA
800004095	Kilcolman Bog SPA

Appendix 5. SPA sites with Wetlands listed as a Special Conservation Interest.

Site code	SPA
800004097	River Suck Callows SPA
800004129	Ballysadare Bay SPA
800004134	Lough Rea SPA
800004139	Lough Croan Turlough SPA
800004140	Four Roads Turlough SPA
800004143	Cahore Marshes SPA
800004151	Donegal Bay SPA
800004158	River Nanny Estuary and Shore SPA
800004182	Mid-Clare Coast SPA
800004186	The Murrough SPA
800004188	Tralee Bay Complex SPA
800004219	Courtmacsherry Bay SPA
800004220	Corofin Wetlands SPA
800004228	Lough Conn and Lough Cullin SPA

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