

Appendix 10.5

European Site Synopsis Reports

SITE SYNOPSIS

SITE NAME: THE MURROUGH SPA

SITE CODE: 004186

The Murrough SPA comprises a coastal wetland complex that stretches for 13 km from Kilcoole Station, east of Kilcoole village in the north to Wicklow town in the south, and extends inland for up to 1 km in places. The site includes an area of marine water to a distance of 200m from the low water mark. A shingle ridge runs along the length of the site and carries the Dublin-Wexford railway line.

Beside the shingle shore is a stony ridge supporting perennial vegetation. Driftline vegetation on the seaward side includes species such as Sea Rocket (*Cakile maritima*), Sea Sandwort (*Honkenya peploides*), Sea Holly (*Eryngium maritimum*) and Yellow-horned Poppy (*Glaucium flavum*). Low sand hills occur at Kilcoole, with Marram (*Ammophila arenaria*) and Lyme-grass (*Leymus arenarius*). In other areas and further inland a rich grassy sward, which is most extensive in the south end of the site, has developed. A community dominated by Silverweed (*Potentilla anserina*) and Strawberry Clover (*Trifolium fragiferum*) occurs in some of the wetter, grassy areas. In some places, particularly at the south of the site, a Gorse (*Ulex*) heath has developed on the stony ridge.

At the southern end of the site, Broad Lough, a brackish, partly tidal lake, has a well-developed saltmarsh community. Common Reed (*Phragmites australis*) is abundant along the western shore, along with some Sea Club-rush (*Scirpus maritimus*). Saltmarsh is also present in the northern end of the site in the vicinity of the Breaches. An area of fen occurs at Five Mile Point. Here, Black Bog-rush (*Schoenus nigricans*) is dominant. Fen Sedge (*Cladium mariscus*) is present where the ground is wetter. This merges into areas dominated by Common Reed. A wide range of freshwater and brackish marsh habitats occur within the site. These vary from reed-marsh dominated by reeds and rushes (*Juncus* spp.), to those of sedges (*Carex* spp.) with other areas supporting a mixture of sedges and Yellow Iris (*Iris pseudacorus*) also occurring. The marshes merge into wet grassland in many areas and where grazing pressure is low, a herb-rich sward occurs. Sedges are abundant in the wetter areas. Where drains have been cut, there are many other species such as Greater Spearwort (*Ranunculus lingua*), Bogbean (*Menyanthes trifoliata*) and Reed Sweet-grass (*Glyceria maxima*).

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Red-throated Diver, Greylag Goose, Light-bellied Brent Goose, Wigeon, Teal, Black-headed Gull, Herring Gull and Little Tern. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The shingle ridge at Kilcoole is a traditional nesting area for Little Tern, and the site now supports one of the largest colonies in the country. Numbers vary between years,

with 36 pairs recorded in 1995 and 106 pairs in 2006. A tern protection scheme and research programme, co-ordinated by BirdWatch Ireland and the National Parks and Wildlife Service, has been in operation since 1985. Breeding success varies from year to year, largely due to predation by foxes, crows and other species.

During the winter this site is important for a number of waterbirds - all population sizes are the mean of peak counts for the 5 years, 1995/96 – 1999/2000. Light-bellied Brent Goose occurs here in internationally important numbers (859). Other species that visit here in nationally important numbers are Red-throated Diver (32), Greylag Goose (300), Wigeon (1,209), Teal (644), Black-headed Gull (997) and Herring Gull (506). Other species that are known to occur here are Little Grebe, Grey Heron, Cormorant, Mute Swan, Whooper Swan, Greenland White-fronted Goose, Shelduck, Gadwall, Shoveler, Mallard, Golden Plover, Ringed Plover, Lapwing, Dunlin, Curlew, Greenshank and Redshank.

Short-eared Owl is recorded here during the winter. Little Egret has bred locally in recent years and this site is a main feeding area, with several birds present regularly. While formerly a rare bird in Ireland, Little Egret is now well-established with most birds occurring in the south-east and south (Counties Wexford, Waterford and Cork). The Murrough is presently at the edge of the species' range. This site is one of the few sites in Ireland where Reed Warbler breeds regularly. It is considered that 1-4 pairs bred each year during the 1980s and early 1990s, with a minimum of 6 birds in song in 1993. An absence of records since 1996 may be due to under-recording. Kingfisher regularly uses the site. Sandwich Tern are recorded from the site during the autumn.

The Murrough SPA is an important site for wintering waterbirds, being internationally important for Light-bellied Brent Goose and nationally important for Red-throated Diver, Greylag Goose, Wigeon, Teal, Black-headed Gull and Herring Gull. It is probably the most important site in the country for nesting Little Tern. The regular occurrence of Red-throated Diver, Little Egret, Whooper Swan, Greenland White-fronted Goose, Golden Plover, Little Tern, Sandwich Tern, Short-eared Owl and Kingfisher is of note as these species are listed on Annex I of the E.U. Birds Directive. Part of the Murrough SPA is a Wildfowl Sanctuary.

15.5.2015

SITE SYNOPSIS

SITE NAME: CAHORE MARSHES SPA

SITE CODE: 004143

Cahore Marshes SPA is located just south of Cahore Point on the north Co. Wexford coast. It comprises an area of polder grassland and some arable land interspersed by canals and drainage channels. The drainage canals and sluices were installed in the mid 19th century to reclaim wetlands and land that flooded regularly behind the sand dunes. Seawater may occasionally enter the channels and create brackish conditions. The area is underlain by rocks of Cambrian age.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Greenland White-fronted Goose, Wigeon, Golden Plover and Lapwing. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The Cahore Marshes SPA is of ornithological importance as a site for wintering waterfowl. An internationally important population of Greenland White-fronted Goose (634 - five year mean peak counts for the period 1994/95 to 1998/99), which is part of the flock that is based at Wexford Harbour, utilises this site during the winter. Both Whooper Swan (23) and Bewick's Swan (12) also occur, but in relatively low numbers - all figures are mean peak counts for four of the five winters between 1995/96 and 1999/2000. Bewick's Swan had been more numerous in the 1980s, especially in spring, but numbers have declined in line with a national decrease. The site supports nationally important populations of a further three species - Wigeon (1,661), Golden Plover (6,038) and Lapwing (3,455). The Golden Plover population is of particular note as it represents almost 4% of the all-Ireland population. The site also holds other wintering waterbirds, in smaller numbers, including Shelduck (28), Teal (417), Mallard (244), Shoveler (40), Curlew (635) and Black-headed Gull (326). The site provides excellent feeding for these species, as well as good roost/rest areas.

The Cahore Marshes SPA is of considerable ornithological importance as it provides a feeding area for an internationally important population of Greenland White-fronted Goose. It also holds nationally important populations of three other species. The regular occurrence of Greenland White-fronted Goose, Bewick's Swan, Whooper Swan and Golden Plover is of particular note as these species are all listed on Annex I of the E.U. Birds Directive.

18.5.2010

SITE SYNOPSIS

SITE NAME: POULAPHOUCA RESERVOIR SPA

SITE CODE: 004063

Poulaphouca Reservoir SPA, located in the western foothills of the Wicklow Mountains, was created in 1944 by damming of the River Liffey for the purpose of generating electricity from hydropower. The reservoir covers an area of approximately 20 square kilometres and is the largest inland water body in the mid-east and south-east regions. The reservoir receives water from two main sources, the River Liffey at the northern end, and the Kings River at the southern end. The exit is into the River Liffey gorge at the western end. Underlying the reservoir are sands and gravels deposited during the last glaciation. The shores of the lake are mostly sandy. When water levels are low the exposed lake muds are colonised by an ephemeral flora of annual plant species. Wet grassland areas occur in sheltered bays around the lake but especially in the northern part. Reed Canary-grass (*Phalaris arundinacea*) is the main grass species present, but other plant species characteristic of wet grasslands occur, including Creeping Bent (*Agrostis stolonifera*), Meadowsweet (*Filipendula ulmaria*), Yellow Iris (*Iris pseudacorus*) and Water Mint (*Mentha aquatica*). Sedges (*Carex* spp.) are locally common, while Rusty Willow (*Salix cinerea* subsp. *oleifolia*) scrub is often found associated with the wet grassland. In some places the water washes against grassy banks which are generally less than a metre high, and in a few places there are steep sand and clay cliffs, up to 15 m high - these are remnants of the old River Liffey channel. In many places the banks are actively eroding, and a strip of conifers has been planted around much of the perimeter of the reservoir in an attempt to stabilize the banks.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Greylag Goose and Lesser Black-backed Gull.

Poulaphouca Reservoir is of national importance for its Greylag Goose population, which is one of the largest in the country. The site provides the main roost for the birds, with feeding occurring mostly on improved grassland outside of the site. A mean peak of 701 individuals occurred during the five seasons 1995/96 to 1999/2000. Other waterfowl species occur in relatively low numbers, including Whooper Swan (22), Wigeon (180), Teal (107), Mallard (186), Goldeneye (22), Cormorant (11), Great Crested Grebe (8), Curlew (86) and Mute Swan (11). The site is also used by Grey Heron (6).

The reservoir attracts roosting gulls during winter, most notably a large population of Lesser Black-backed Gull (651), which in Ireland is rare in winter away from the south coast. Black-headed Gull (915) and Common Gull (183) also occur.

Breeding birds at the site include Great Crested Grebe (several pairs), which is localised in its distribution in eastern Ireland, as well as Snipe and Lapwing.

The principal interest of the site is the Greylag Goose population, which is of national importance. A range of other wildfowl species also occurs, including Whooper Swan, a species that is listed on Annex I of the E.U. Birds Directive. The site is also notable as a winter roost for gulls, especially Lesser Black-backed Gull. Part of Poulaphouca Reservoir SPA is a Wildfowl Sanctuary.

SITE SYNOPSIS

SITE NAME: WEXFORD HARBOUR AND SLOBS SPA

SITE CODE: 004076

Wexford Harbour is the lowermost part of the estuary of the River Slaney, a major river that drains much of the south-east region. The site is divided between the natural estuarine habitats of Wexford Harbour, the reclaimed polders known as the North and South 'Slobs', and the tidal section of the River Slaney. The seaward boundary extends from the Rosslare peninsula in the south to the area just west of The Raven Point in the north. Shallow marine water is a principal habitat, but at low tide extensive areas of intertidal flats are exposed. These vary from rippled sands in exposed areas to sandy-muds in the more sheltered areas, especially at Hopeland and the inner estuary to the west of Wexford bridge. The flats support a rich macro-invertebrate fauna, including the bivalves Cockle (*Cerastoderma edule*), Baltic Tellin (*Macoma balthica*) and Peppery Furrow-shell (*Scrobicularia plana*), the polychaetes Lugworm (*Arenicola marina*), Catworm (*Nephtys hombergi*) and Ragworm (*Hediste diversicolor*) and the crustacean *Corophium volutator*. Beds of mussels (*Mytilus edulis*) also occur. Salt marshes fringe the intertidal flats, especially in the sheltered areas such as Hopeland and towards Castlebridge. The Slobs are two flat areas of farmland, mainly arable and pasture grassland, empoldered behind 19th century sea-walls. The lands are drained by a network of channels which flow into two central channels, in parts several hundred metres in width. Water from the channels is pumped into the sea with electric pumps. The channels often support swamp vegetation. The river section of the site is extensive, extending to Enniscorthy, a distance of almost 20 km from Wexford town. It is noticeably tidal as far as Edermine Bridge but with tidal influence right up to Enniscorthy. In places, such as the Macmine marshes, it is several hundreds metres wide and here reedswamp is well developed.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Bewick's Swan, Whooper Swan, Greenland White-fronted Goose, Light-bellied Brent Goose, Shelduck, Wigeon, Teal, Mallard, Pintail, Scaup, Goldeneye, Red-breasted Merganser, Hen Harrier, Coot, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Black-headed Gull, Lesser Black-backed Gull and Little Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site is of international importance for several species of waterbirds but also because it regularly supports well in excess of 20,000 waterbirds (average peak of 49,030 for the 5 winters 1996/97-2000/01). Wexford Harbour and Slobs is one of the top three sites in the country for numbers and diversity of wintering birds. The

combination of estuarine habitats, including shallow waters for grebes, diving duck and seaduck, and the farmland of the polders, which include freshwater drainage channels, provides optimum feeding and roost areas for a wide range of species. Of particular importance is that it is one of the two most important sites in the world for Greenland White-fronted Goose (9,353) (all given figures for species are average peaks for the 5 winters 1995/96-1999/00). The geese feed almost entirely within the Slobs and roost at The Raven (a separate SPA). The site also has internationally important populations of Mute Swan (543), Light-bellied Brent Goose (1,469), Bar-tailed Godwit (1,696) and Black-tailed Godwit (790).

There are at least a further 26 species of wintering waterbirds which occur in numbers of national importance, i.e. Great Crested Grebe (117), Little Grebe (82), Cormorant (495), Grey Heron (52), Whooper Swan (100), Bewick's Swan (191), Shelduck (753), Wigeon (2,752), Teal (1,538), Mallard (3,290), Pintail (66), Scaup (339), Goldeneye (182), Red-breasted Merganser (209), Coot (351), Oystercatcher (1,493), Golden Plover (5,013), Grey Plover (1,279), Lapwing (11,826), Knot (453), Sanderling (210), Dunlin (2,485), Curlew (1,771), Redshank (555), Black-headed Gull (5,977) and Lesser Black-backed Gull (1,086). Other species that use the site include Ringed Plover (69), Turnstone (41), Greenshank (12), Shoveler (24), Tufted Duck (114), Pochard (218), Common Gull (100+) and Little Egret. Several of the above populations represent substantial proportions of the national totals, especially Shelduck (5.2%), Scaup (5.3%), Red-breasted Merganser (5.7%) and Grey Plover (19.9% and the top site in the country). The Slobs is the most important and indeed one of the few sites in the country which supports a regular flock of Bewick's Swan. Numbers of wintering birds are often swelled by hard-weather movements from Britain and Europe, notably Golden Plover and Lapwing.

The site is a regular location for scarce passage waders such as Ruff, Spotted Redshank and Green Sandpiper, as well as Curlew Sandpiper in varying numbers. The rare Wood Sandpiper is seen each year, mainly in autumn.

Short-eared Owl and Hen Harrier are regular visitors to the Slobs during winter. Of particular note is the presence of a Hen Harrier communal roost site with a five year mean peak count of 5 birds (2005/06 to 2009/10).

The site is important for Little Tern as it can hold a nationally important breeding colony (12 pairs in 1995 and 30 pairs in 2000). The Slobs support a nesting colony of Tree Sparrow, a very localised species in Ireland that is listed in the Irish Red Data Book. Another very localised breeding species, Reed Warbler, is well established within the swamp vegetation along the River Slaney and on the South Slob (estimated as at least 10 pairs).

A range of duck species breed, including Teal, Tufted Duck and, probably in most years, Shoveler.

Wexford Harbour and Slobs SPA is one of the most important ornithological sites in the country supporting internationally important populations of Greenland White-fronted Goose, Light-bellied Brent Goose, Black-tailed Godwit and Bar-tailed Godwit. In addition, it has 26 species of wintering waterbirds with populations of

national importance and nationally important numbers of breeding Little Tern. Also of significance is that several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Little Egret, Whooper Swan, Bewick's Swan, Greenland White-fronted Goose, Hen Harrier, Golden Plover, Bar-tailed Godwit, Ruff, Wood Sandpiper, Little Tern and Short-eared Owl. The site is an important centre for research, education and tourism. Wexford Wildfowl Reserve, located within Wexford Harbour and Slobs SPA, is a Ramsar Convention site, a Biogenetic Reserve and a Statutory Nature Reserve. Parts of the Wexford Harbour and Slobs SPA are also designated as Wildfowl Sanctuaries.

8.7.2014

SITE SYNOPSIS

SITE NAME: IRELAND'S EYE SPA

SITE CODE: 004117

Ireland's Eye is an uninhabited island located about 1.5 km north of Howth in Co. Dublin. The site encompasses Ireland's Eye, Rowan Rocks, Thulla, Thulla Rocks, Carrageen Bay and a seaward extension of 200m in the west and 500m to the north and east. The island has an area of *c.* 24 ha above the high tide mark. The underlying geology is Cambrian greywackes and quartzites. These rocks form impressive near-vertical cliffs, reaching 69 m, along the northern and eastern sides of the island, with scattered exposures elsewhere on the island and especially in the high northern half. A tall stack, which is completely cut off from the main island at mid to high tide, occurs at the eastern side of the cliffs. A sandy beach, backed by low sand hills, occurs at Carrageen Bay on the western shore, while a shingle beach extends from Carrageen to Thulla Rocks. Elsewhere the island is covered by glacial drift. A low-lying, sparsely vegetated islet, known as Thulla, occurs a little to the south of the island, and an extensive area of bedrock shore (heavily covered by brown seaweeds) is exposed at low tide between Thulla and the main island. There are no watercourses or springs on the island, though two small rainwater ponds form during winter in the north-west and north-east sectors.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Cormorant, Herring Gull, Kittiwake, Guillemot and Razorbill.

Ireland's Eye has important populations of breeding seabirds. In 1999 the following species were recorded: Fulmar (70 pairs), Gannet (147 pairs), Cormorant (306 pairs), Shag (32 pairs), Lesser Black-backed Gull (1 pair), Great Black-backed Gull (90 pairs), Herring Gull (246 pairs), Kittiwake (941 pairs), Guillemot (1,468 pairs) and Razorbill (350 pairs) and Puffin (4 pairs). In 2001 an incomplete census recorded Gannet (202 pairs), Cormorant (438 pairs), Kittiwake (1,024 pairs), Guillemot (1,975 pairs) and Razorbill (460 pairs). A Gannet survey by the National Parks and Wildlife Service in 2004 recorded 285 pairs. Black Guillemot may also breed, with 15 individuals recorded in 1998. The Cormorant, Herring Gull, Kittiwake, Guillemot and Razorbill populations are of national importance. The majority of the Cormorant population nest on Thulla and when considered as part of a larger grouping with the colonies on nearby Lambay and St. Patrick's Island, this population is of international importance. The Gannet colony is of particular note as it is one of six in the country and one of only two sites on the east coast. The colony has only been established as recently as the late 1980s and as all breeding ledges became fully occupied in 2006 a satellite colony was then established on the nearby island of Lambay.

Several pairs each of Shelduck, Oystercatcher and Ringed Plover breed. The island is also a traditional site for Peregrine, a species that is listed on Annex I of the E.U.

Birds Directive. In winter small numbers of Greylag Goose and Pale-bellied Brent Goose graze on the island and it is used as a roost site by gulls and some waders.

Ireland's Eye SPA, though a relatively small island, is of high ornithological importance, with five seabird species having populations of national importance. The regular presence of a breeding pair of Peregrine, an Annex I species, is also of note.

SITE SYNOPSIS

SITE NAME: TACUMSHIN LAKE SPA

SITE CODE: 004092

Tacumshin Lake is a shallow coastal lagoon situated on the south Co. Wexford coast. The lagoon was formerly a shallow sea bay which, due to longshore drift, has become separated from the sea by a gravel/sand spit that extends across the mouth of the bay from east to west. At times in the past the lagoon was completely land-locked by the spit and at the end of the 19th century, when this situation prevailed for some time, the lake was drained by means of a large bore pipe set through the gravel/sand bar. In the mid-1970s the spit again closed off the lagoon from the sea. To relieve subsequent flooding of surrounding farmland, the old drainage pipe was reactivated and a second pipe installed at a lower level. The capacity of these two pipes is insufficient to prevent the lagoon filling up in winter when inflow from streams is greater than the outflow through the pipes. To speed the drainage from the lagoon two main drains leading to the landward end of the pipes were excavated.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Little Grebe, Bewick's Swan, Whooper Swan, Wigeon, Gadwall, Teal, Pintail, Shoveler, Tufted Duck, Coot, Golden Plover, Grey Plover, Lapwing and Black-Tailed Godwit. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The waterfowl population of the lagoon is exceptionally diverse and the area supports large numbers of birds throughout the year, which is unusual among Irish wetlands. In winter, Tacumshin Lake supports internationally important populations of Whooper Swan (213) and Black-tailed Godwit (538) - all figures are mean peaks for the five year period 1995/96 to 1999/2000. A further twelve species occur in numbers of national importance, i.e. Little Grebe (71), Bewick's Swan (235), Wigeon (4,725), Gadwall (119), Teal (975), Pintail (322), Shoveler (107), Tufted Duck (420), Coot (1,669), Golden Plover (3,932), Grey Plover (85) and Lapwing (5,302). Of particular note is that the Pintail and Gadwall populations represent over 19% and 18% of the respective national totals. Other species using the site in winter include Greenland White-fronted Goose (41), Dunlin (374), Curlew (391), Pale-bellied Brent Goose (115), Shelduck (61), Pochard (314), Mallard (196), Redshank (74), Greenshank (6), Black-headed Gull (157) and Lesser Black-backed Gull (146). The site provides both feeding and roosting habitat for the various species.

Hen Harrier roost within the site in winter. Marsh Harrier is a regular visitor in summer and nesting by this very scarce bird of prey is a possibility. Tacumshin is one of the few sites in Ireland where Garganey occurs regularly, and nesting probably occurs in most years. The swamp vegetation supports a good breeding population of

the localised Reed Warbler (*c.* 10 pairs), whilst Sedge Warbler is a common breeding bird.

Tacumshin is an important site for passage waders, including Ruff (12), Little Stint (200) and Curlew Sandpiper (10) – all figures are peak counts in the period 1995/96 to 2004/05. The lagoon is particularly attractive to vagrant North American and Eurasian waterfowl and such species as Pectoral Sandpiper, Spotted Redshank, Green Sandpiper and Wood Sandpiper are regularly recorded in low numbers (1-5) at the site. In autumn the abundant insect life of the dry lake bed provides food for large numbers of migrating Swallows and Martins which also use the reed beds as a night roosting area, with up to 10,000 individuals being recorded in recent years. Large numbers of Lesser Black-backed Gull (up to 1,000) gather at the lagoon for some weeks prior to their autumn migration southwards and some linger into the early winter period.

Tacumshin Lake SPA is one of the most important ornithological sites in the country. The occurrence of internationally important populations of Whooper Swan and Black-tailed Godwit is of especial note, as is the presence of nationally important populations of an additional 12 wintering waterfowl species. It is one of the top sites in the country for Pintail and Gadwall. It is also of importance for its summer visitors, including such rare and localised species as Marsh Harrier, Garganey and Reed Warbler. The site is also notable for a range of passage waders. Also of note is that a number of the species that occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Bewick's Swan, Golden Plover, Ruff, Hen Harrier and Marsh Harrier. Greenland White-fronted Goose which uses the site on occasions is also listed on Annex I of this directive. Part of Tacumshin Lake SPA is a Wildfowl Sanctuary.

SITE SYNOPSIS

SITE NAME: LAMBAY ISLAND SPA

SITE CODE: 004069

Lambay Island lies approximately 4 km off the north Co. Dublin coastline and is separated from it by a channel of 10-13 m in depth. East of Lambay Island the water deepens rapidly into the Irish Sea basin. The island, which rises to 127 m, has an area of 250 ha above high tide mark. The underlying geology is very varied, but is dominated by volcanic igneous rocks (of andesitic type) and ash; also present are shales, limestones and limestone conglomerates. The soils are generally shallow and are derived from glacial tills of Irish Sea origin. The shallow soils are peaty on high exposed ground and above the cliffs. On the western side of the island the land rises gently from a bedrock shoreline. Cobble storm beaches are associated with this shore and at low tide sandflats are exposed within the harbour and below a section of the rocky shore. The northern, eastern and most of the southern shorelines consist of steep cliffs varying from about 15 m to 50 m high. These are backed by vegetated slopes along most of their length. The cliff slopes have a typical maritime vegetation, including such species as Thrift (*Armeria maritima*), Sea Campion (*Silene maritima*), Rock Sea-spurrey (*Spergularia rupicola*) and Spring Squill (*Scilla verna*). Some sheltered gullies have small areas of scrub woodland dominated by Elder (*Sambucus nigra*).

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Fulmar, Cormorant, Shag, Greylag Goose, Lesser Black-backed Gull, Herring Gull, Kittiwake, Guillemot, Razorbill and Puffin. The site is also of special conservation interest for holding and assemblage of over 20,000 breeding seabirds.

Lambay Island is internationally important for its breeding seabirds and is of particular note for the diversity of these, with 12 species breeding regularly. A survey in 1999 recorded internationally important populations of Cormorant (675 pairs), Shag (1,122 pairs) and Guillemot (40,705 pairs). A further six species have breeding populations of national importance, i.e. Fulmar (585 pairs), Lesser Black-backed Gull (309 pairs), Herring Gull (1,806 pairs), Kittiwake (4,091 pairs), Razorbill (2,906 pairs) and Puffin (265 pairs). The island's populations of Cormorant, Shag, Herring Gull and Guillemot are the largest in Ireland. Lambay Island holds the only known colony of Manx Shearwater (25 pairs in 2002) on the east coast of Ireland; in addition, Black Guillemot also breeds here (4 pairs in 1999). In 2007 two new species were added to the island's list of breeding seabirds: Gannet (68 pairs) and Common Gull (1 pair). A survey in 2004 recorded breeding Cormorant (352 pairs), Shag (1,734 pairs), Guillemot (38,999 pairs), Fulmar (727 pairs), Lesser Black-backed Gull (133 pairs), Herring Gull (311 pairs), Great Black-backed Gull (145 pairs), Kittiwake (3,947 pairs), Razorbill (3,805 pairs) and Puffin (209 pairs).

In winter, Lambay Island supports nationally important populations of Greylag Goose (311) and Herring Gull (2,400) – figures are the five year mean peak for the winters 1995/96-1999/2000. Up to the mid 1990s, a Barnacle Goose flock wintered on the island (the only such flock in eastern Ireland) but these have since abandoned the site. Other species which utilise the site during the winter include Light-bellied Brent Goose (55), Oystercatcher (155), Purple Sandpiper (9), Curlew (211) and Turnstone (32). Lambay Island is also the only regular wintering site in Ireland for Whimbrel (5 in 2006).

Lambay Island is a traditional nesting site for Peregrine and also supports the largest colony of breeding Oystercatcher (20-25 pairs) on the east coast. Ringed Plover, Shelduck, Buzzard, Long-eared Owl, Raven and a variety of passerines such as Stonechat, Whitethroat and Reed Bunting also breed.

Lambay Island supports a long-established breeding colony of Grey Seal, a species that is listed on Annex II of the E.U. Habitats Directive. A number of non-native mammals, including Fallow Deer and Red-necked Wallaby, have been introduced onto Lambay Island during the last century. Brown Rat is also present and, notably, the last authenticated record of Black Rat living wild in Ireland was from Lambay Island in 1988. The rat population on the island is believed to be negatively impacting on the burrow nesting species, i.e. Manx Shearwater and Puffin.

Lambay Island SPA holds an internationally important seabird colony and is one of the top seabird sites in Ireland. Three seabird species have breeding populations of international importance and a further six have populations of national importance. In addition to the seabirds, the island also supports nationally important wintering populations of Greylag Goose and Herring Gull. The presence of Peregrine, a species that is listed on Annex I of the E.U. Birds Directive, is also of note.

SITE SYNOPSIS

SITE NAME: SALTEE ISLANDS SPA

SITE CODE: 004002

The Saltee Islands SPA is situated some 4-5 km off the coast of south Co. Wexford and comprises the two islands, Great Saltee and Little Saltee, and the surrounding seas both between them and to a distance of 500 m from them. The bedrock of the islands is of Precambrian gneiss and granite. Both islands have exposed rocky cliffs on their south and east – those on Great Saltee being mostly *c.* 30 m high, those on Little Saltee about half this height. The northern and western sides of both islands are fringed with shingle and boulder shores, backed by boulder clay cliffs, as well as small areas of intertidal sandflats. Sea caves occur at the base of the cliffs on Great Saltee.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Fulmar, Gannet, Cormorant, Shag, Lesser Black-backed Gull, Herring Gull, Kittiwake, Guillemot, Razorbill and Puffin. The site is also of special conservation interest for holding an assemblage of over 20,000 breeding seabirds.

The Saltee Islands are internationally important for holding an assemblage of over 20,000 breeding seabirds. The nationally important Gannet colony on Great Saltee has been well documented since its establishment in the 1920s and 2,446 pairs were present in 2004. The following species have populations of national importance (all counts in the 1998-2000 breeding seasons): Fulmar (520 pairs), Cormorant (273 pairs), Shag (268 pairs), Lesser Black-backed Gull (164 pairs), Herring Gull (73 pairs), Kittiwake (2,125 pairs), Guillemot (14,362 pairs), Razorbill (2,505 pairs) and Puffin (1,822 pairs). An estimated 250 pairs of Manx Shearwater occur on these islands. Seabird populations are monitored annually and large numbers of chicks, especially of Gannets, auks and Shags, are ringed.

Peregrine Falcon breeds (1-2 pairs) and Chough (1 pair) occurs at the eastern edge of its Irish range. Hen Harrier uses the site for autumn passage and overwintering.

Great Saltee is a major site for spring and autumn landbird migration and was the site for Ireland's first bird observatory. While the observatory is no longer operational, substantial numbers of migrants are still ringed annually. Large numbers of pipits, swallows and martins, thrushes, warblers and finches occur, while smaller numbers of a great variety of other species (some very rare in Ireland) are also recorded.

The Saltee Islands SPA is of international importance for breeding seabirds; it also supports populations of three species that are listed on Annex I of the E.U. Birds Directive, i.e. Peregrine, Chough and Hen Harrier. It is one of the best-documented sites in the country and is monitored annually.

10.2.2012

SITE SYNOPSIS

SITE NAME: SKERRIES ISLANDS SPA

SITE CODE: 004122

The Skerries Islands are a group of three small uninhabited islands, Shenick's Island, St Patrick's Island and Colt Island, situated between 0.5 km and 1.5 km off the north Co. Dublin coast. Skerries Islands SPA comprises the three islands and the seas surrounding them, to a distance of 200 m from the shore. The three islands are all low-lying with maximum heights ranging from 8 m to 13 m above sea level. St Patrick's Island and Colt Island have low cliffs, while Shenick's Island has more extensive expanses of intertidal rocky shore and sand flats. Shenick's Island also has a shingle bar and is connected to the mainland at low tides; it became a BirdWatch Ireland Reserve in 1987. The vegetation of the islands is dominated by rank grasses, with Brambles (*Rubus* spp.) and other species such as Hogweed (*Heracleum sphondylium*) occurring commonly.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Cormorant, Shag, Light-bellied Brent Goose, Purple Sandpiper, Turnstone and Herring Gull. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The islands are of importance for both breeding seabirds and wintering waterfowl. In 1999 a survey recorded an internationally important population of breeding Cormorant (558 pairs) and a nationally important population of Shag (100 pairs) on St Patrick's Island. The Cormorant population, which was only established in the early 1990s, when taken together with the nearby associated colonies on Lambay Island and Ireland's Eye, comprises about 30% of the total Irish population. A nationally important population of Herring Gull (300 pairs) occurs on St Patrick's Island and Shenick's Island. Other breeding seabirds recorded during the 1999 survey include: Fulmar (35 pairs), Lesser Black-backed Gull (1 pair) and Great Black-backed Gull (95 pairs). Large gulls also breed on Colt Island but there has been no census in recent years. Other breeding birds present include Shelduck, Ringed Plover and Oystercatcher (several pairs of each).

In winter the islands regularly support a range of waterfowl species, including an internationally important population of Light-bellied Brent Goose (242) and nationally important populations of Cormorant (391), Purple Sandpiper (46), Turnstone (242) and Herring Gull (560) – all counts are mean peaks for the five year period 1995/96- 1999/2000. Other species utilising the site during winter include Wigeon (205), Mallard (240), Oystercatcher (463), Ringed Plover (66), Golden Plover (240), Grey Plover (15), Lapwing (238), Dunlin (42), Snipe (27), Curlew (327), Black-headed Gull (110) and Great Black-backed Gull (250). The islands are also a regular wintering site for Short-eared Owl, with several birds recorded in most winters.

The Skerries Islands SPA is of high ornithological importance for both breeding seabirds and wintering waterfowl. Internationally important populations of breeding Cormorant and nationally important populations of two other breeding seabirds occur on the islands. The wintering population of Light-bellied Brent Goose is of international importance and four other species occur in nationally important numbers during the winter. The presence of Golden Plover and Short-eared Owl, two species that are listed on Annex I of the E.U Birds Directive, is of note.

11.9.2009

SITE SYNOPSIS

SITE NAME: BALLYMACODA BAY SPA

SITE CODE: 004023

This coastal site stretches north-east from Ballymacoda to within several kilometres of Youghal, Co. Cork. It comprises the estuary of the Womanagh River, a substantial river which drains a large agricultural catchment. Part of the tidal section of the river is included in the site and on the seaward side the boundary extends to, and includes, Bog Rock, Barrel Rocks and Black Rock. The inner part of the estuary is well sheltered by the Ring peninsula, a stabilised sand spit with sand dunes at its northern end and salt marshes on the landward side. Sediment types vary from muds to muddy sands in the inner part to fine rippled sands in the outer exposed part. The macro-invertebrate fauna of the intertidal flats is well-developed, with the following species occurring: Ragworm (*Hediste diversicolor*), the crustacean *Corophium volutator*, Lugworm (*Arenicola marina*), Baltic Tellin (*Macoma balthica*), Peppery Furrow-shell (*Scrobicularia plana*), Common Cockle (*Cerastoderma edule*) and the tubeworm *Lanice conchilega*. In the more sheltered areas the intertidal flats are colonised by mats of green algae (mostly *Ulva* spp.), with brown seaweeds occurring on the rocky shores of the shingle spits. Common Cord-grass (*Spartina anglica*) has spread within the estuary since the late 1970s. The main channel is flanked by salt marshes and wet fields, much of the latter being improved for agriculture.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Wigeon, Teal, Ringed Plover, Golden Plover, Grey Plover, Lapwing, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone, Black-headed Gull, Common Gull and Lesser Black-backed Gull. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Ballymacoda Bay is of high ornithological importance for supporting an excellent diversity and large number of wintering waterbirds – it is of international importance because it regularly supports an assemblage of over 20,000 birds. The site provides both feeding and roosting areas for the birds. Furthermore, both Golden Plover (10,920) and Black-tailed Godwit (765) occur here in internationally important numbers (all counts given are mean peaks for the five year period 1995/96-1999/2000). A further eleven species of waders and ducks occur here in nationally important numbers, i.e. Wigeon (907), Teal (887), Ringed Plover (153), Grey Plover (535), Lapwing (4,063), Sanderling (98), Dunlin (3,192), Bar-tailed Godwit (581), Curlew (1,145), Redshank (357) and Turnstone (137). The site is also notable for supporting nationally important populations of some gull species in autumn and winter: Black-headed Gull (1,560), Common Gull (1,120) and Lesser Black-backed Gull (5,051). A total of 107 species were recorded from the site between 1971 and 1988.

Ballymacoda Bay SPA is one of the most important sites in the country for wintering waterfowl. It qualifies for international importance on the basis of regularly exceeding 20,000 wintering birds but also for its Golden Plover and Black-tailed Godwit populations. In addition, it supports nationally important populations of a further fourteen species. Two of the species which occur, Golden Plover and Bar-tailed Godwit, are listed on Annex I of the E.U. Birds Directive. Ballymacoda Bay is also a Ramsar Convention site.

7.7.2014

SITE SYNOPSIS

SITE NAME: BALLYCOTTON BAY SPA

SITE CODE: 004022

Situated on the south coast of Co. Cork, Ballycotton Bay is an east-facing coastal complex, which stretches northwards from Ballycotton to Ballynamona, a distance of *c.* 2 km. The site comprises two sheltered inlets which receive the flows of several small rivers. The southern inlet had formerly been lagoonal (Ballycotton Lake) but breaching of the shingle barrier in recent times has resulted in the area reverting to an estuarine system.

The principal habitat within the site is inter-tidal sand and mudflats. These are mostly well-exposed and the sediments are predominantly firm sands. In the more sheltered conditions of the inlets, sediments contain a higher silt fraction. The inter-tidal flats provide the main feeding habitat for the wintering birds. Sandy beaches are well represented. Salt marshes fringe the flats in the sheltered inlets and these provide high tides roosts. A small area of shallow marine water is also included.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Teal, Ringed Plover, Golden Plover, Grey Plover, Lapwing, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Turnstone, Common Gull and Lesser Black-backed Gull. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Ballycotton Bay supports an excellent diversity of wintering waterbird species. The site supports nationally important populations of the following species: Teal (903), Ringed Plover (167), Golden Plover (2,383), Grey Plover (124), Lapwing (2,782), Black-tailed Godwit (136), Bar-tailed Godwit (175), Curlew (853), Turnstone (179), Common Gull (584) and Lesser Black-backed Gull (1,293) - all figures are five year mean peaks for the period 1995/96 to 1999/2000. Other species which occur include Shelduck (99), Wigeon (522), Mallard (232), Oystercatcher (255), Dunlin (575), Sanderling (56), Redshank (117), Greenshank (12) and Great Black-backed Gull (324). Ballycotton Bay was formerly utilised by Bewick's Swan but the birds have abandoned the site since the reversion of the lagoonal habitat to estuarine conditions.

The site is a well-known location for passage waders, especially in autumn. Species such as Ruff, Little Stint, Curlew Sandpiper, Green Sandpiper and Spotted Redshank occur annually though in variable numbers. Small numbers of Ruff may also be seen in late winter and spring. Rarer waders, such as Wood Sandpiper and Pectoral Sandpiper, have also been recorded.

While relatively small in area, Ballycotton Bay supports an excellent diversity of wintering waterbirds and has nationally important populations of eleven species, of which two, Golden Plover and Bar-tailed Godwit, are listed on Annex I of the E.U.

Birds Directive. Ballycotton Bay is also a Ramsar Convention site and part of the Ballycotton Bay SPA is a Wildfowl Sanctuary.

30.5.2015

SITE SYNOPSIS

SITE NAME: CORK HARBOUR SPA

SITE CODE: 004030

Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek and the Rostellan and Poul nabibe inlets.

Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably *Macoma balthica*, *Scrobicularia plana*, *Hydrobia ulvae*, *Nephtys hombergi*, *Nereis diversicolor* and *Corophium volutator*. Green algae species occur on the flats, especially *Ulva* spp. Cordgrass (*Spartina* spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Some shallow bay water is included in the site. Rostellan Lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Wigeon, Teal, Mallard, Pintail, Shoveler, Red-breasted Merganser, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Greenshank, Black-headed Gull, Common Gull, Lesser Black-backed Gull and Common Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl. Of particular note is that the site supports internationally important populations of Black-tailed Godwit (1,896) and Redshank (2,149) - all figures given are five year mean peaks for the period 1995/96 to 1999/2000. Nationally important populations of the following 19 species occur: Little Grebe (57), Great Crested Grebe (253), Cormorant (521), Grey Heron (80), Shelduck (2,009), Wigeon (1,791), Teal (1,065), Mallard (513), Pintail (57), Shoveler (103), Red-breasted Merganser (121), Oystercatcher (1,809), Golden Plover (3,342), Grey Plover (95), Lapwing (7,569), Dunlin (9,621), Bar-tailed Godwit (233), Curlew (2,237) and Greenshank (46). The Shelduck population is the largest in the country (over 10% of national total). Other species using the site include Mute Swan (38), Whooper Swan (5), Pochard (72), Gadwall

(6), Tufted Duck (64), Goldeneye (21), Coot (53), Ringed Plover (73), Knot (26) and Turnstone (113). Cork Harbour is an important site for gulls in winter and autumn, especially Black-headed Gull (3,640), Common Gull (1,562) and Lesser Black-backed Gull (783), all of which occur in numbers of national importance. Little Egret and Mediterranean Gull, two species which have recently colonised Ireland, also occur at this site.

A range of passage waders occurs regularly in autumn, including such species as Ruff (5-10), Spotted Redshank (1-5) and Green Sandpiper (1-5). Numbers vary between years and usually a few of each of these species over-winter.

Cork Harbour has a nationally important breeding colony of Common Tern (102 pairs in 1995). The birds have nested in Cork Harbour since about 1970, and since 1983 on various artificial structures, notably derelict steel barges and the roof of a Martello Tower. The birds are monitored annually and the chicks are ringed.

Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Little Egret, Golden Plover, Bar-tailed Godwit, Ruff, Mediterranean Gull and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary.