Ramsar Information Sheet

Published on 7 March 2023
Update version, previously published on : 31 July 1986

Ireland

Owenduff catchment

Designation date	31 July 1986
Site number	336
Coordinates	54°01'52"N 09°40'22"W
Area	1 389,00 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The Owenduff Catchment Ramsar Site is one of the last intact active blanket bog systems in Ireland and Western Europe. The Ramsar Site was established in 1986 and became part of the larger Wild Nephin National Park in 1998. The Ramsar Site and National Park are located on Ireland's Western seaboard in northwest Mayo, near the village of Ballycroy. It comprises over 13,000 hectares of Atlantic blanket bog and mountainous terrain, covering a vast uninhabited and unspoilt wilderness dominated by the Nephin Beg mountain range. Between Nephin Beg and Slieve Carr, at 721 metres above sea level, the highest mountain in the range, lie the Scardaun Loughs. To the west of the mountains is the Owenduff bog and beyond this lies the extensive coastal complex of Blacksod Bay and Achill Island surrounded by the Atlantic Sea. The site is important for its intact and extensive peatland and upland habitats and for the freshwater river and pool systems which lie within and flow through them, connecting this Site to the sea.

Along with blanket bog the Ramsar Site supports a variety of important habitats and species including alpine heath, wet heath, lakes and river catchments. Greenland White-fronted geese, Golden Plover, Red Grouse and Otters along with scarce and rare plants and invertebrates, are just some of the important fauna and flora found within the Site. The Ramsar Site and National Park are part of the extensive Owenduff/Nephin Complex Special Area of Conservation (SAC) and Special Protection Area (SPA). These European designations are part of the Natura 2000 Network, which protect rare and important habitats and species under the EU Habitats and Birds Directives.

The Ramsar Site is part of the Wild Atlantic Nature Life project which aims to improve the condition of habitats within the Owenduff/Nephin Complex SAC through working with farmers and local communities.

The Ramsar Site is used for recreation (walking, fishing) and part of the Bangor Walking Trail (walking route which extends from Bangor to Mulranny) lies within the site. The site is unique in its vast views of open blanket bog and upland habitat with no afforestation, land reclamation, turf cutting or urbanisation.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	National Parks and Wildlife Service, Department of Housing, Local Government and Heritage
Postal address	National Parks and Wildlife Service, 90 North King Street, Smithfield, Dublin, Ireland D07 N7CV

National Ramsar Administrative Authority

Institution/agency	National Parks and Wildlife Service
Postal address	National Parks and Wildlife Service, Department of Housing, Local Government and Heritage 90 North King Street, Smithfield, Dublin, Ireland D07 N7CV

2.1.2 - Period of collection of data and information used to compile the RIS

From year	2000
To year	2019

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Owenduff catchment

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes ◉ No ○
(Update) The boundary has been delineated more accurately	☑
(Update) The boundary has been extended	☐
(Update) The boundary has been restricted	☐
(Update) B. Changes to Site area	the area has increased
(Update) The Site area has been calculated more accurately	☐
(Update) The Site has been delineated more accurately	☑
(Update) The Site area has increased because of a boundary extension	☐
(Update) The Site area has decreased because of a boundary restriction	☐
(Update) For secretariat only: This update is an extension	☐

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	Not evaluated

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<3 file(s) uploaded>

Former maps	0

Boundaries description

The boundary of the Owenduff Ramsar site was digitally defined using original mapping (paper) for the Ramsar site which was designated in 1986. The original mapping was on the old 6 inch maps and the boundary (in places) follows the same boundary as that of the Ballycroy National Park (established in 1998). The Ballycroy National Park boundary was used to guide the new digital map (though the NP at 15,000Ha is larger than the Ramsar Site). The Owenduff Ramsar site (and NP) is a small part of, and lies within, the Owenduff/Nephin Complex Special Area of Conservation (SAC, 000534) and Special Protection Area (SPA, 004098) and is an integral part of this wider wetland system. Details of the SAC and SPA can be found on the NPWS website at https://www.npws.ie/protected-sites.

A number of GIS data layers were used to define the Ramsar habitats within the site. These included:
• NPWS data (Site-Specific Conservation Objectives)
• CORINE (Co-Ordinated Information on the Environment) land cover data sets (2012).
• Bing Maps Aerial - © Harris Corp, Earthstar Geographics LLC © 2017 Intermap Earthstar Geographics SIO © 2017 Microsoft Corporation.
• Environmental Protection Agency of Ireland Rivers and Lakes layers data layers.
The mapped layers were inspected by a site visit to confirm the accuracy of the mapped habitats. Discrepancies between the original boundary for the Ramsar site and the current boundary are likely as a result of mapping errors following land acquisition to increase the area of the Wildfowl Reserve.

2.2.2 - General location

a) In which large administrative region does the site lie? Mayo

b) What is the nearest town or population centre? Bangor Erris

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes ○ No ◉

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes ○ No ◉

2.2.4 - Area of the Site

Official area, in hectares (ha): 1389

Area, in hectares (ha) as calculated from GIS boundaries: 1389.951

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Marine Ecoregions of the World (MEOW)	Atlantic
EU biogeographic regionalization	Atlantic

Other biogeographic regionalisation scheme

British Isles,Irish Sea
Palearctic (WWF Terrestrial Ecoregions), Northern British Isles (FEOW).

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

☑ Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided	Blanket bogs cover approximately 13% of Ireland and Owenduff is one of the last intact active blanket bog systems in Ireland and Western Europe Blanket bogs contain in excess of 90% water and act as vast water reservoirs. The blanket bog habitat with associated pool systems and connected lake and river habitats which are present and intact at this Ramsar site (and in the wider SAC) provide a number of key ecosystem and hydrological services. In terms of hydrological services blanket bogs host high status water bodies, regulate stream flow and act as source areas for high quality drinking water. An Environmental Protection Agency (EPA) funded study “Quantification of blanket bog ecosystem services to water”, was carried out jointly by researchers from Queen’s University Belfast and University College Dublin, and sought to raise awareness of the wider contributions provided by healthy blanket bog ecosystems to society and the environment, while also examining the wider cost of their degradation. The study found that habitat condition influences stream flow and water quality, with more intact areas of blanket bog having more stable flow and water quality regimes, and with more stable hydrogeological regimes in peat ensuring more consistent contributions of bog water to stream flow, while maintaining terrestrial biodiversity (EPA, 2021). See also https://www.catchments.ie/blanket-bogs-hydrology-ecosystem-services-water/
Other ecosystem services provided	Blanket bogs provide a range of ecosystem services (in addition to hydrological). • they provide a refuge for a rich biodiversity of species including several rare plants, birds and invertebrate species. • are commonly used as rough grazing land for sheep and cattle, grouse shooting, deer stalking and fishing. • they preserve prehistoric farming landscapes beneath the peat as well as a diverse range of artefacts within the peat mass. • the patterns of pools on the flatter areas of blanket bog is of particular conservation significance. The pools support a specialised range of mosses (especially species of Sphagnum) and plants and they provide essential feeding habitats for wetland birds. • within their peat layers, blanket bogs preserve a record of their own growth and development and on a larger scale, they provide insights into regional vegetation change, climate change, atmospheric pollution and act as chronometers for other events such as volcanic eruptions. • they accumulate and store millions of tonnes of carbon and have a vital function in controlling the green house gases that cause climate change. • their utilisation for recreation can have positive benefits on the health of people. See http://www.ipcc.ie/a-to-z-peatlands/blanket-bogs/ https://www.wildatlanticnature.ie/
Other reasons	In their natural state peatlands act as long-term sinks for atmospheric carbon dioxide. A persistently high water table is necessary for this function. Peatlands are the most important long-term carbon store in the terrestrial biosphere. It is highly likely that continued global warming will impact this habitat in the future. In Ireland the long-term carbon storage function of 47% of our original peatland area has been severely diminished through domestic and mechanical peat extraction (Irish Peatland Conservation Council).

☑ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information

Based on bird species present that are:
- Red listed in Ireland's national Red List (Birds of Conservation Concern in Ireland (BoCCI) published by Colhoun and Cummins (2013)
- Classified as VU or higher in IUCN Global and European regional list
- Listed in Annex I of the European Union Birds Directive

☑ Criterion 3 : Biological diversity

Justification

This Ramsar Site is part of a Special Area of Conservation and Special Protection Area and supports several Annex I habitats (Blanket bog, Transition mires, Dystrophic Lakes, Oligotrophic waters, Water courses of plain to montane levels, Wet heath, Alpine heath, Juniper) which are representative of the biogeographical area and which contribute to regional and national biodiversity. The extensive open habitats of lowland blanket bog, heath, pool and river system support several Annex II species (Atlantic salmon, otter, marsh saxifrage and Slender Green Feather-moss; the latter two species occurring outside of the Ramsar site but within the wider peatland complex which is SAC and SPA) and Annex I species (Merlin, Golden Plover) and are important for invertebrates (including ground beetles, moths, dragonflies), other breeding birds (including Red Grouse, Peregrine), wintering birds (including Greenland White-fronted Geese) and other flora (characteristic, scarce and rare). The site represents the finest example of blanket bog in an intact form within Ireland and the rest of Europe. The Owenduff River and its tributaries flow through this site, and this system is one of the best examples in the country of a large, base-poor river catchment which is largely intact (i.e. not afforested). Marsh Saxifrage (Saxifraga hirculus) has been recorded in two flushes which lie outside of the Ramsar Site but which are part of the wider peatland complex which is SAC and SPA. As well as being an Annex II species this species is legally protected under the Flora (Protection) Order, 1999, and is one of the rarest flowering plants in Ireland. Two other legally protected species of flora have been recorded at the site: Bog Orchid (Hammarbya paludosa) and Marsh Clubmoss (Lycopodiella inundata).

☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions

Optional text box to provide further information

The site is known to support breeding Red Grouse. Red Grouse are dependant on heather for feeding, which is a species characteristic of blanket bog habitats. Golden Plover are associated with open blanket bog habitat with pool systems which provide invertebrates for feeding chicks and young. This site provides habitats which are critical during the breeding season for the two species which are Red Listed in Ireland. The site provides roosting habitat for a small flock of wintering Greenland White-fronted Geese. The number of Greenland White-fronted Geese which utilise traditional blanket bog habitat for feeding and roosting are now very low.

☑ Criterion 8 : Fish spawning grounds, etc.

Justification

The Owenduff River and its tributaries flow through this site, and this system is one of the best examples in the country of a large, base-poor river catchment which is largely intact (i.e. not afforested). The rivers and streams of the Owenduff Catchment hold an important population of Atlantic Salmon and provide critical spawning habitat for this species.

3.2 - Plant species whose presence relates to the international importance of the site

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA / LILIOPSIDA	*Hammarbya paludosa*	☑	☑	☐	LC	☐	Flora Protection Order Ireland, Red Listed in Ireland (Near Threatened).	Rare in Ireland
TRACHEOPHYTA / LYCOPODIOPSIDA	*Lycopodiella inundata*	☑	☑	☐	LC	☐	Flora Protection Order Ireland and Vulnerable on Irelands Red List of Vascular Plants	Rare in Ireland

The site supports a range of plant communities characteristic of intact lowland blanket bog habitat along with uplands and river systems. The site lies within and is an integral part of the wider Owenduff/Nephin Complex peatland and upland SAC which supports a greater area of these habitat types and the locations of some additional rare plant species.

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Others																	
CHORDATA / MAMMALIA	*Lutra lutra*	☑	☐	☐	☐	☐	☐	☐	☐				NT	☑	☐	Annex II (Habitats Directive)	Annex II listing, site provides extensive foraging habitat for this species.
Fish, Mollusc and Crustacea																	
CHORDATA / ACTINOPTERYGII	*Salmo salar*	☑	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	Annex II (Habitats Directive)	River system within this site provides critical spawning habitat.
Birds																	
CHORDATA / AVES	*Anser albifrons flavirostris*	☑	☑	☐	☐	☑	☐	☐	☐					☐	☐	Annex I Birds Directive	Site provides undisturbed roosting habitat for a small and flock of wintering Greenland White-fronted Geese.
CHORDATA / AVES	*Falco columbarius*	☑	☐	☐	☐	☑	☐	☐	☐	8	2000-2010		LC	☐	☐	Annex I Birds Directive. Amber listed (BoCCI)	Annex and Red listings, site provides foraging habitat for this species.
CHORDATA / AVES	*Lagopus lagopus*	☑	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	Red Listed species in Ireland (BOCCI)	Red listing. The site provides nesting habitat for Red Grouse which rely upon heather for feeding.
CHORDATA / AVES	*Pluvialis apricaria*	☑	☑	☐	☐	☑	☐	☐	☐	15	2004		LC	☐	☐	Annex I Birds Directive. Red listed (BoCCI)	Annex I and Red Listing. Pool system within blanket bog provide critical habitat for nesting Golden Plover.

1) Percentage of the total biogeographic population at the site

The site lies within and is an integral part of the wider Owenduff/Nephin Complex SAC and SPA which supports a greater area of peatland and upland habitat types and which provide breeding, wintering and foraging habitat for these species.

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Northern Atlantic wet heaths with Erica tetralix [4010]	☑	Wet heath	Annex I (Habitats Directive)
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]	☑	Rivers, streams	Annex I (Habitats Directive)
Alpine and Boreal heaths [4060]	☑	Alpine and montane heath	Annex I (Habitats Directive)
Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]	☑	Lakes and pools within the blanket bog system	Annex I (Habitats Directive)
Natural dystrophic lakes and ponds [3160]	☑	Lakes and pools within the blanket bog system	Annex I (Habitats Directive)
Blanket bogs (* if active bog) [7130]	☑	Blanket bog	Annex I (Habitats Directive)
Juniperus communis formations on heaths or calcareous grasslands [5130]	☑	Juniper heath or scrub	Annex I (Habitats Directive)
Transition mires and quaking bogs [7140]	☑	Transition mire	Annex I (Habitats Directive)

Optional text box to provide further information

The site lies within and is an integral part of the wider Owenduff/Nephin Complex SAC which supports a greater area of these habitat types.

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

The Owenduff Catchment Ramsar Site lies within the extensive wetland and upland complex of the Nephin Mountains which extend from Bangon Erris to the North and Mulranny to the South. The Ramsar site includes the uplands of Corslieve (541m) and Nephin Beg (627,m), the Scarduan Loughs (170m) and the extensive Owenduff blanket bog system which is drained by the Owenduff River system and which supports many pool systems characteristic of intact blanket bog habitat. While grazed by sheep the site remains free from other pressures such as forestry, land reclamation and turf cutting. Designated as a National Park, Special Area of Conservation and Special Protection Area is recognition of the international conservation importance of this site.

The underlying rock is predominantly schist and gneiss in the low-lying areas, with quartzite the main rock type in the mountainous parts. There are two main types of blanket bog present within the site, namely lowland and upland blanket bog. The low-lying areas are covered by continuous tracts of gently undulating bog vegetation dominated by Purple Moor Grass, Black Bog-rush, Deer-grass and Cross-leaved Heath. In places the surface is differentiated into a microtopography of hummocks and wet hollows. Mineral-rich flushes occur and in such areas the flora is characterised by plant species not generally encountered on blanket bog, such as Mud Sedge and Whip Sedge, as well as several rare moss species. The lowland blanket bog system is dotted with small dystrophic lakes, which are extremely base poor, have peaty bottoms and usually have brown stained water. The diversity of plant species in these lakes is typically very low. Larger and more typical oligotrophic lakes also occur. These lakes are still base poor systems and have rocky/peaty bottoms and shallow margins. A well-developed flora often occurs around the margins, including Water Lobelia, Common Spike-rush, Bulbous Rush, Pipewort and Shoreweed. Some of the larger bog pools/lakes contain small islands that, in addition to the normal bog species, may contain more unusual species such as Crowberry and Royal Fern. Occasionally these islands and drier areas of blanket bog support a low-growing scrub vegetation type dominated by Juniper.

In the upland areas of the site, a number of different habitats are present. A mixture of lowland blanket bog and wet heath vegetation generally dominates the lower slopes of the mountains. Higher up the mountains these vegetation types grade into upland blanket bog, wet heath, dry heath, upland grassland and the summits are dominated by Alpine heath vegetation on shallow peat interspersed with rock outcrops. The dominant species in these habitats are generally Ling, Bell Heather, Crowberry and Bilberry.

The Owenduff River and its numerous tributaries drain the site. This extensive river system is one of the best remaining examples of a large and relatively intact, un-afforested river catchment in
Ireland. The river runs through areas that are underlain by base poor bedrock, which is reflected in the water quality of the river. As a result, the vegetation of the flowing water is sparse and includes
more acid tolerant plants.

The site supports a range of plants and plant communities, invertebrate species and birds, fish and mammals, many of which are rare, scarce of threatened within Ireland and/or Europe.

Sheep grazing occurs within the site and pressure from over grazing requires monitoring and management.

4.2 - What wetland type(s) are in the site?

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks	Rivers, streams	2		Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools	Pools	3		
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands	Blanket bog	1	1200	Representative

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
BRYOPHYTA/BRYOPSIDA	*Hamatocaulis vernicosus*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Saxifraga hirculus*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Wahlenbergia hederacea*	

Optional text box to provide further information

Marsh Saxifrage (Saxifraga hirculus) has been recorded in two flushes within the Owenduff/Nephin Complex SAC (north of the Ramsar Site). This species is legally protected under the Flora (Protection) Order, 1999, and is one of the rarest flowering plants in Ireland. It is listed in Annexes II and IV of the E.U. Habitats Directive. Its decline in Ireland is due to the drainage and exploitation of its peatland habitat. Slender Green Feather-moss (Drepanocladus vernicosus), a rare moss listed on Annex II of the E.U. Habitats Directive, occurs to the north of the Ramsar Site and within the Owenduff/Nephin Complex SAC (last recorded in 1995).

Ivy-leaved Bellflower (Wahlenbergia hederacea) occurs along the banks of the Owenduff River. This species is scarce in Ireland and mostly found in south-eastern and south-western counties

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
ARTHROPODA/INSECTA	*Carabus clatratus*				
CHORDATA/MAMMALIA	*Lepus europaeus*				
CHORDATA/AMPHIBIA	*Rana temporaria*				
CHORDATA/ACTINOPTERYGII	*Salmo trutta*				

Optional text box to provide further information

The ground beetle Carabus clatratus has a restricted distribution in Ireland (Nationally Scarce in the British Red Data Book). However a study by Williams and Gormally (2010) found that in contrast to previous findings, it is not restricted to pristine blanket bog and it may be found very frequently, and in high abundance, on both cut-over and raised bog.

The Owenduff Catchment supports brown trout.

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cfb: Marine west coast (Mild with no dry season, warm summer)

In their natural state peatlands act as long-term sinks for atmospheric carbon dioxide. A persistently high water table is necessary for this function. Peatlands are the most important long-term carbon store in the terrestrial biosphere. It is highly likely that continued global warming will impact this habitat in the future. In Ireland the long-term carbon storage function of 47% of our original peatland area has been severely diminished through domestic and mechanical peat extraction (Irish Peatland Conservation Council).

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 60

a) Maximum elevation above sea level (in metres): 627

- Entire river basin ☐
- Upper part of river basin ☐
- Middle part of river basin ☑
- Lower part of river basin ☐
- More than one river basin ☐
- Not in river basin ☐
- Coastal ☐

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The site is drained by the Owenduff (Blacksod) River Waterbody, which is part of the Owenduff (Blacksod) Sub Basin and Sub Catchment and lies within the Blacksod-Broadhaven Catchment (EPA maps.ie).

4.4.3 - Soil

- Organic ☑
- (Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○
- No available information ☐

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes ○ No ◉

Please provide further information on the soil (optional)

Soils are primarily peats, consisting of peaty podzols. The heath and grasslands occur on the upper slopes of the mountains, on skeletal peats and on soils which have some mineral sub-soil influence. On the steeper peaks the soils are very thin and outcropping rock is common. Mineral soils elsewhere in the site are comparatively rare, and are limited to the floodplains of the Owenduff. Underlying glacial tills are usually only visible along stream channels, river gullies and road cuttings. The cool wet climate of the west of Ireland has favoured podzol formation by leaching of exchangeable base ions, reducing chemical weathering and inhibited humus decomposition. This has resulted in the relatively poor nutrient status of the sub soils. Blanket peat has a naturally poor nutrient status.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from surface water	☐	No change
Water inputs from precipitation	☑	No change

Water destination

Presence?	Changes at RIS update
Marine	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels largely stable	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

The site is drained by the Owenduff River, Owenmore River and numerous tributaries. The Owenduff River is an extensive river system that represents one of the best remaining examples of a large and relatively intact, unafforested river catchment in Ireland. In the higher reaches of the river the gradient is steep and the water flow is fast. The bed of the river in these areas comprises large boulders. The river runs through blanket bog for much of its course. In times of heavy rainfall, once the ground water in the bog is fully charged, the river is prone to flash flooding. In the lower lying areas the rivers meanders and the flow is much slower. The bed of the river here typically comprises smaller, more rounded pebbles/ gravel. In the main, tributaries and streams, generally flow in a south-east to north-west direction.

4.4.5 - Sediment regime

Sediment regime unknown ☑

4.4.6 - Water pH

Acid (pH<5.5) ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Unknown ☐

Please provide further information on pH (optional):

Water quality monitoring results (from 2002) of the Owenduff River from the EPA indicate that all the sites monitored had Q Values of either 4 or 4-5, indicating that the water is unpolluted and is of good to good-fair water quality (see table below). However, the EPA report notes that while the catchment of the Owenduff River does not seems to be subject to any major pressures, there is an impoverished faunal community that is low in species diversity. The EPA report further notes that “even allowing for the acidic nature of the catchment, which would be expected to cause a reduction in faunal diversity and abundance, the Owenduff compares poorly in this respect against a number of other western rivers which are apparently of a similar type”. Water quality monitoring results from the same period for the Owenmore River presents the same Q Values, indicating that the water is unpolluted.

4.4.7 - Water salinity

Fresh (<0.5 g/l) ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Unknown ☐

4.4.8 - Dissolved or suspended nutrients in water

Unknown ☑

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself: i) broadly similar ◉ ii) significantly different ○

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Pollution control and detoxification	Water purification/waste treatment or dilution	Low
Climate regulation	Local climate regulation/buffering of change	Medium
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	Medium
Scientific and educational	Major scientific study site	Medium
Scientific and educational	Long-term monitoring site	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	Medium
Soil formation	Sediment retention	Low
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	Medium
Nutrient cycling	Carbon storage/sequestration	Medium

Within the site: 100's

Outside the site: 1000's

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes ○ No ○ Unknown ◉

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland ☐

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland ☐

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples ☐

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland ☐

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
Other public ownership	☐	☑
National/Federal government	☑	☐

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	☐	☑

Provide further information on the land tenure / ownership regime (optional):

In 1993, in recognition of the ecological, landscape and cultural value of this area, NPWS began purchasing land with the aim of forming a new National Park (then Ballycroy National Park). Some of the lands within the National Park area were purchased with funding from a European Union LIFE Project. The State also owns shares in some of the commonages within the site. The Ramsar Site lies within the boundaries of the now named Wild Nephin (Ballycroy) National Park.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

National Parks & Wildlife Service (NPWS)
Mayo County Council - Planning authority for the site
Environmental Protection Agency (EPA) - water quality monitoring
Inland Fisheries Ireland
North Western Regional Fisheries Board
Coillte Teoranta

Provide the name and/or title of the person or people with responsibility for the wetland:

Maurice Eakin

Postal address:

National Parks and Wildlife Service,
90 North King Street,
Smithfield, Dublin,
Ireland
D07 N7CV

E-mail address:

maurice.eakin@housing.gov.ie

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage	Low impact	Low impact	☑	No change	☑	No change

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Livestock farming and ranching	unknown impact	unknown impact	☑	unknown	☑	unknown

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Renewable energy	Medium impact	Medium impact	☐	increase	☑	increase

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Utility and service lines (e.g., pipelines)	Low impact	Low impact	☑	No change	☑	No change

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified			☑		☐	

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Low impact	Low impact	☑	unknown	☑	unknown

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fire and fire suppression	Medium impact	Medium impact	☑	No change	☐	No change
Vegetation clearance/ land conversion	Low impact	Low impact	☐	unknown	☑	unknown

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Invasive non-native/ alien species	Low impact	Medium impact	☑	unknown	☑	unknown

5.2.2 - Legal conservation status

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Owenduff/Nephin Complex SAC (Site Code 000534)	https://www.npws.ie/protected-sites/sac/000534	whole
EU Natura 2000	Owenduff/Nephin Complex SPA (Site Code 004098)	https://www.npws.ie/protected-sites/spa/004098	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Park	Wild Nephin (Ballycroy)	https://www.wildnephinnationalpark.ie/	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Owenduff River catchment and Nephin Beg	http://datazone.birdlife.org/site/factsheet/662	whole

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve ☐

Ib Wilderness Area: protected area managed mainly for wilderness protection ☐

II National Park: protected area managed mainly for ecosystem protection and recreation ☑

III Natural Monument: protected area managed mainly for conservation of specific natural features ☐

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention ☑

V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation ☐

VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems ☐

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Land conversion controls	Implemented
Habitat manipulation/enhancement	Implemented
Hydrology management/restoration	Implemented

Human Activities

Measures	Status
Livestock management/exclusion (excluding fisheries)	Implemented
Harvest controls/poaching enforcement	Implemented
Research	Implemented
Regulation/management of wastes	Implemented
Regulation/management of recreational activities	Implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? No

Has a management effectiveness assessment been undertaken for the site? Yes ○ No ◉

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes ○ No ◉

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

A visitor and education centre is present at Ballycroy Village at the edge of Ramsar Site

URL of site-related webpage (if relevant): https://www.wildnephinnationalpark.ie/

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

Further information

The site is part of the Wild Atlantic Nature Project (https://www.wildatlanticnature.ie/) which works with farmers, local communities and land owners to add value to the wide range of services provided from our Special Area of Conservation (SAC) network of blanket bogs and associated areas. These peatlands provide clean drinking water, store carbon, support biodiversity, produce high quality food and support resilient rural economies and livelihoods through farming, tourism, recreation and other activities. As part of the project, a pilot voluntary Results Based Payment Scheme (RBPS) will be linked to the quality of the habitat, thereby putting landowners and their skills, expertise and knowledge of their land central to the development of this project.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water quality	Implemented
Birds	Implemented
Water regime monitoring	Implemented
Plant species	Implemented

A requirement of the Water Framework Directive is that macro-invertebrates must be sampled water bodies at least twice within a river basin cycle (6 years) in order to classify these water bodies. The site is sampled and monitored under this programme.

As a EU Natura 2000 site, it is required under Article 12 and 17 of the EU Birds and Habitats Directives respectively, that the status and trends of the conservation objectives within the site are monitored and reported on every 6 years.
.
The site is regularly inspected by the National Parks and Wildlife Service Conservation Rangers for the area.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Colhoun, K. and Cummins, S. 2013. Birds of conservation concern in Ireland 2014-2019. Irish Birds 9: 523-544
Lockhart, N., Hodgetts, N. & Holyoak, D. (2012) Ireland Red List No.8: Bryophytes. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
Lockhart, N.D. (1989) Three new localities for Saxifraga hirculus L. in Ireland. Irish Naturalists' Journal 23 (2): 65–69.
Marnell, F., Looney, D. & Lawton, C. (2019) Ireland Red List No. 12: Terrestrial Mammals. National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland
Muldoon, C.S., Waldren, S. & Lynn, D. (2015) Monitoring recommendations for Marsh Saxifrage (Saxifraga hirculus L.) in the Republic of Ireland. Irish Wildlife Manuals, No. 88. National Parks and Wildlife Service, Department of the Arts, Heritage and the Gaeltacht, Ireland.
NPWS (2006) Owenduff/Nephin Complex cSAC & SPA Conservation Plan for 2006-2011. National Parks & Wildlife Service of the Department of Culture, Heritage and the Government.
NPWS (2017) Conservation Objectives: Owenduff/Nephin Complex SAC 000534. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
NPWS (2018) Conservation objectives for Owenduff/Nephin Complex SPA [004098]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.
Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. & Wright, M. (2016) Ireland Red List No. 10: Vascular Plants. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.
Williams, C.D. and Gormally, M.J. (2010) The effects of blanket bog management on ground beetles (Carabidae) with particular reference to the threatened Carabus clatratus L. Irish Wildlife Manuals, No.47. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.
Marnell, F., Looney, D. & Lawton, C. (2019) Ireland Red List No. 12: Terrestrial Mammals. National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland
http://www.wetlandsurveysireland.com/wetlands/map-of-irish-wetlands--/map-of-irish-wetla nds---map/
BirdwatchIreland.ie
http://www.ramsar.org
http://eunis.eea.europa.eu
The Irish Wetland Bird Survey (I-WeBS).
https://www.wildatlanticnature.ie/

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)
<no file available>

iii. a description of the site in a national or regional wetland inventory
<no file available>

iv. relevant Article 3.2 reports
<no file available>

v. site management plan
<no file available>

vi. other published literature
<no file available>

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:


Owenduff Catchment (*Jackie Hunt, 10-02-2016*)


Owenduff Catchment (*Jackie Hunt, 10-02-2016*)


Owenduff Catchment (*Jackie Hunt, 10-02-2016*)


Owenduff Catchment (*Jackie Hunt, 10-02-2016*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation: 1986-07-31