



Marine Protected Areas in Ireland – a brief review of current status and future potential

Introduction

In 2012, the Irish Wildlife Trust undertook research into four areas with relation to Marine Protection Areas (MPAs) in Ireland. The aim of this research has been to summarise the current situation regarding MPAs and to identify the level of protection, notional and actual, that is afforded to these regions.

We also make recommendations on what we believe an effective MPA network should look like.

The research is divided into five areas:

1. To identify what areas are protected below the high tide mark e.g. intertidal, sub-tidal, cliffs, sea bed, et.
2. To identify the number of MPAs that are presently in Ireland,
3. To list the current legislation that impacts upon MPAs, and
4. To investigate how MPAs are managed.

1. Protection of areas below the high tide mark e.g. intertidal, cliffs, sea bed

Intertidal and subtidal areas cover a wide range of habitats and physical landforms. MPAs are considered by the National Parks and Wildlife Service (NPWS) as covering the marine area of coastal regions. The region of the coastline covered by marine areas was defined by Lyons (2012, pers. comm.) as “depending on the legislation that they are derived from. In Ireland, the 1992 EC Habitats Directive (92/43/EC), as transposed by the EC (Natural Habitats) Regulations (S.I. 94 of 1997), is currently the only legislative instrument providing protection to habitats in the marine environment. For habitats, this protection regime is applicable within the Exclusive Economic Zone (EEZ).”

Under the Habitats Directive, Special Areas of Conservation (SACs) are designated to maintain a representative sample of habitats and species populations listed under Annex I and II of the Directive respectively. Ireland is committed to maintaining, or restoring, these areas to ‘favourable conservation status’.

Examples of relevant Annex I habitats include:

1. Estuaries,
2. Large shallow inlets and bays,
3. Mudflats and Sandflats not covered by sea water at low tide,
4. Reefs,
5. Sandbanks which are slightly covered by seawater at all times, and
6. Submerged or partly submerged Sea Caves

SACs are also designated for both seal species commonly occurring in Irish waters and a number of cetaceans occurring in Ireland waters. Under Article 12 of the Directive, all cetaceans should receive strict protection within the Exclusive Economic Zone. Annex II species are:

1. Bottlenose Dolphin
2. Harbour Porpoise
3. Common Seal
4. Grey Seal

A number of other cetaceans, as well as the Leatherback Turtle are protected from exploitation under Article IV of the Habitats Directive.

Special Protection Areas (SPAs) are designated under the Birds Directive for the protection of particular species of birds, internationally important aggregations of birds, or significant wetland areas that provide essential resources for resident or migrating birds. Many SPAs in Ireland are coastal or intertidal in their nature and the vast majority are coincident in their boundary with SACs. Exceptions include a number of small off shore islands and where SPA boundaries in large bays extend further than the SAC boundary. Birds are an important component of marine conservation and many SPAs no doubt qualify as MPAs. However in order to avoid 'double accounting' this review does not count SPAs in the total number of MPAs.

The seaward extent of the marine area covered by Irish Jurisdiction is a complicated matter. For the purposes of the Habitats Directive the seaward extent is 200 nautical miles from the baseline. The NPWS are not mandated to protect or designate beyond that limit (Lyons, 2012, pers comm.).

2. MPAs in Ireland

The IUCN defines an MPA as 'Any area of intertidal or sub-tidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment' (IUCN 1988)¹

The 'Our Ocean Wealth' Integrated Marine Plan states that:

"[Our Coastline:] has a network of protected sites, designated under European and national legislation for the species (mammals, birds and fish) and/or habitats (e.g. estuaries, Saltmarshes, inlets and bays) that occur within them".

and

¹ http://www.iucn.org/about/work/programmes/pa/pa_news/?4646/Marine-Protected-Areas--Why-have-them

“[Our Ocean Wealth includes:] 130 sites designated as Special Areas of Conservation under the EU Habitats Directive for marine or coastal habitats and species.”

However this figure of 130 includes many SACs for which purely terrestrial, albeit coastal, habitats are the qualifying interest (e.g. sand dunes, vegetated sea cliffs). Under the IUCN definition the IWT has calculated that there are 78 MPAs of this nature in Ireland. Table 1 shows the marine areas and relevant habitat types that are protected under the Habitats Directive. The table also shows sites which are designated as OSPAR sites.

MPAs therefore cannot be equated with Marine Reserves, i.e. as ‘no-take’ zones where the of extraction of marine organisms, or habitat destruction, is prohibited.

OSPAR sites come under the OSPAR Convention to Protect the Marine Environment of the North East Atlantic and under which Ireland has committed to establishing MPAs to protect biodiversity (i.e., OSPAR MPAs). There are 19 OSPAR sites in Ireland. According to the NPWS “no legislation is currently used in Ireland to legally underpin protected areas established to fulfil commitments under international conventions”. In other words, listing under OSPAR does not confer any specific protection in terms of restriction of activities within these areas. All OSPAR sites are coincident with sites that are either SACs or SPAs or both.

Lough Hyne is designated as a Nature Reserve in Ireland under the Wildlife Act 1976. It is located in the west of County Cork and was Ireland's first marine Nature Reserve in 1981. It is effectively a giant rock pool that is connected to the sea only on high tides. It is the only marine area in Ireland that is fully protected from any fishing pressure although recreational activities, e.g. SCUBA and kayaking etc., are permitted. It can be considered to be Ireland's one, and only, Marine Reserve.

Under the Wildlife (Amendment) Act 1976, Natural Heritage Areas (NHAs) may be established to protect habitats or species. Whilst some terrestrial and coastal NHAs may encompass adjacent marine areas, no NHAs have been established for marine habitats to date. There are a number of proposed NHAs (i.e. those that have not been yet transposed into law) that are located along the coastal zone. However there are no ‘qualifying criteria’ for NHAs and so it is difficult to determine whether these have been proposed for marine, intertidal, or purely terrestrial reasons.

3. To list the current legislation that impacts upon MPAs.

There is a range of legislation that impacts upon the marine areas as summarised in Table 2.

In 2002, at the Johannesburg Sustainability Summit, the Irish Government agreed to end overfishing by 2015 while developing by 2012 ‘a representative network’ of MPAs. This commitment is not legally binding.

‘Actions for Biodiversity 2011-2016: Ireland’s National Biodiversity Plan’ contains no reference to the term Marine Protected Area or its acronym MPA. However Objective 5 is to ‘conserve and restore biodiversity and ecosystem services in the marine environment’.

The EU Marine Strategy Framework Directive (MSFD) was enacted into Irish law in 2011 and calls for ‘good environmental status’ to be achieved for marine waters by 2020. The integrated marine plan from the Department of the Marine (Harnessing Our Ocean Wealth, 2012) gives action 9 as: implementing the EU Marine Strategy Framework Directive:

1. Carry out an initial assessment and related works required under the MSFD in order to provide an accurate picture of the environmental status of our marine waters;
2. Set appropriate targets in the pursuit of good environmental status; and
3. Develop an Atlas of the Irish Marine Environment, which will include the collation of all relevant information into a central GIS. This will be an important tool underpinning decisions on policies and actions to protect biodiversity and act as a stepping-stone to future, long-term measures (e.g. in the development of a National Marine Habitat Map and a Maritime Spatial Plan).

(Department of the Agriculture, Food and Marine, 2012)

The designation of Lough Hyne as a marine Nature Reserve demonstrates that legislative tools are available for the designation of fully fledged Marine Reserves.

The Irish Conservation Box replaced the 'Irish Box' in 2003. It is a type of MPA insofar as it regulates the level of fishing effort within an area off the south-east of Ireland following the 200m bathymetric contour. It was defined on scientific grounds by the Marine Institute due to its importance for spawning and nursery areas of certain commercially exploited fish. The area is recognised by the European Commission under the Common Fisheries Policy and functions through the regulation of fishing effort and certain technical conservation measures.

4.To investigate how MPAs are managed

There are no management plans for any of the 78 areas listed as MPAs by the NPWS.

Conclusions

While MPAs exist in Irish waters there is a strict interpretation of their significance, being entirely designated for the protection of habitats and species under the Birds and Habitats Directives. The existence of the Irish Conservation Box represents a different kind of MPA and one that is used for the management of commercial fish stocks.

Following a workshop² on MPAs in Irish waters, convened by the Royal Irish Academy in 2006 a number of issues were highlighted:

- The term MPA means different things to different people
- SACs can be effective tools for the sustainable management of natural resources in the marine environment (however it has been seen in this review that they are not being managed for this end)
- MPAs “can raise the profile of an area, promoting tourism and providing a source of pride in the local community” (Lough Hyne is a good example of this).
- There was consensus that MPAs are not reaching their potential in Ireland

The current view of MPAs in Ireland from the statutory authorities is a very narrow one and seeks only to comply with the stipulations of the Habitats and Birds Directives. Given that management plans are not in place for any of the SACs that were looked at for this review it can be concluded that even this limited goal is not being achieved.

² Johnson et al., 2008. *What is the Future for Marine Protected Areas in Irish Waters?* Biology and Environment: Proceedings of the Royal Irish Academy, Vol 108B, No.1, pg9-15

In Callum Robert's *Ocean of Life* the author calls for a 'New Deal' for the oceans³. He states that 'marine reserves are a critical part of the solution' to the myriad problems facing the sea which include pollution, noise, acidification, warming, habitat destruction and over-fishing. In this context a Marine Reserve is interpreted as placing an area 'off limits to exploitation and excessive use'. In this regard Ireland has but one Marine Reserve at Lough Hyne.

Clearly there is significant scope for a broader interpretation of the term MPA and for its use as a pro-active tool in managing marine resources. An effectively managed network of MPAs for the protection of marine biodiversity in Ireland has the potential to reverse the long-term decline in quality of the marine environment, provide sustainable incomes for coastal communities, assist in the implementation of our international obligations (e.g. the Marine Strategy Framework Directive) and help Ireland adapt to future challenges such as climate change. The current approach as it stands cannot achieve these aims in any reasonable time period. A radical new approach needs to be developed that would see the implementation of Marine Reserves, where no fishing takes place, and other categories of MPA where extractive/destructive activities are controlled or regulated.

Recommendations

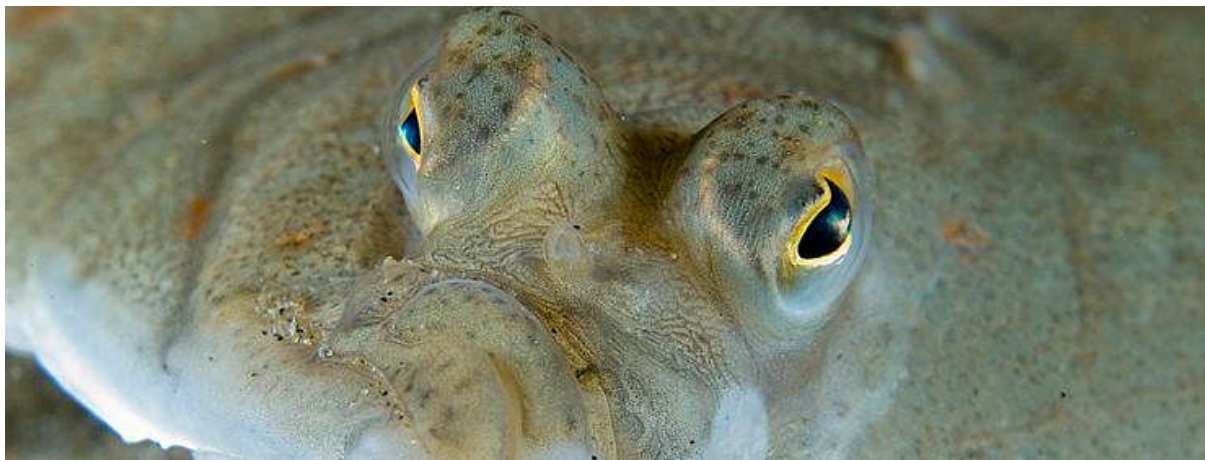
There is an urgent need for management plans to be implemented for the existing MPAs in Ireland.

There is an urgent need for recognition that the current system does not go nearly far enough if genuinely sustainable exploitation of the sea is to be realised as claimed by the 'Harnessing Our Ocean Wealth Plan'.

The Marine Strategy Framework Directive needs to be implemented without further delay.

Further research should focus on where fully-protected Marine Reserves should be located, their size and the benefits that can be accrued from MPAs to all people in Ireland and in particular local communities.

Local communities should be empowered to initiate the designation of Marine Reserves and MPAs as evidence shows that this approach is more likely to work than top-down designation from national authorities.



³ Roberts C. 2012. *Ocean of Life*. Allen Lane.

Table 1. List of SACs and OSPAR sites

Site name	Site code	SAC	OSPAR	Estuaries 1130	Large shallow inlets and bays 1160	Sandbanks which are slightly covered by seawater at all times 1110	Mudflats and sandflats not covered by seawater at low tide 1140	Reefs 1170	Submerged or partly submerged sea caves 8330
Achill Head	002268	y			y		y	y	
Baldoyle Bay	000199/004016	y		y			y		
Ballymacoda (Clonpriest and Pillmore)	000077	y		y			y		
Ballyness Bay	001090/O-IE-0002997	y	y	y			y		
Ballysadare Bay	622	y		y			y		
Ballinskelligs Bay and Inny Estuary	335	y		y			y		
Ballyteige Burrow	000696/004020	y		y			y		
Bannow Bay	697/004033	y		y			y		
Barley Cove to Ballyrisode Point	001040	y					y		
Belgica Mound Province	O-IE-0002987/2327	y	y					y	
Bellacragher Saltmarsh	002005	y							
Black Head-Poulsallagh Complex	000020	y						y	y
Blackwater River (Cork/Waterford)	2170			y			y		
Blasket Islands	002172/O-IE-0002984	y	y					y	y
Boyne Coast and Estuary	001957	y		y			y		
Broadhaven Bay	000472	y			y		y	y	y
Bunduff Lough and Machair/Trawalua/Mullaghmore	000625	y			y		y	y	
Carnsore Point	002269	y					y	y	
Carrowmore Dunes	002250	y						y	
Carrowmore Point to Spanish Point and Islands	001021	y						y	
Castlemaine Harbour	343	y		y			y		
Clew Bay Complex	001482	y			y		y	y	

Site name	Site code	SAC	OSPAR	Estuaries 1130	Large shallow inlets and bays 1160	Sandbanks which are slightly covered by seawater at all times 1110	Mudflats and sandflats not covered by seawater at low tide 1140	Reefs 1170	Submerged or partly submerged sea caves 8330
Clonakilty Bay	91						y		
Connemara Bog Complex	2034	y						y	y
Courtmacsherry Bay and estuary	1230	y		y			y		
Cummeen Strand/Drumcliff Bay (Sligo Bay)	000627/O-IE-0002973	y	y	y			y		
Donegal Bay (Murvagh)	000133	y					y		
Dundalk Bay	000455/004026/O-IE-0002973	y	y	y			y		
Duvillaun Islands	495	y						y	
Galway Bay Complex	000268/0-ie-0002969	y	y		y		y	y	
Great Island Channel	001058	y		y			y		
Gweedore Bay and Islands	001141	y						y	
Hook Head	000764	y			y			y	
Hovland Mound Province	2328/O-IE-0002988	y	y					y	
Inisheer Island	001275	y						y	
Inishmaan Island	000212	y						y	
Inishmore Island	213	y						y	y
Kenmare River	002158/O-IE-0002980	y	y		y			y	y
Kerry Head Shoal	002263	y						y	
Kilkee Reefs	002264	y			y			y	y
Kilkeran Lake and Castlefreke Dunes	001061	y							
Kilkieran Bay and Islands	002111/O-IE-0002979	y	y		y		y	y	
Killala Bay/Moy Estuary	458/004036	y		y			y		
Kingstown Bay	002265/O-IE-0002985	y	y		y				
Lady's Island Lake	704	y						y	

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Long Bank	002161	y				y			
Lough Hyne Nature Reserve and Environs	000097	y			y			y	y
Lough Swilly	2287	y		y					
Lower River Shannon	002165	y		y	y	y	y	y	
Magharee Islands	2261	y						y	
Malahide Estuary	000205/0-ie-0002967	y	y				y		
Mullet/Blacksod Bay Complex	000470/0-IE-0002972	y	y		y		y	y	
Mulroy Bay	002159/0-IE-O-IE-0002981	y	y		y			y	
North Dublin Bay	000206/0-IE-0002968	y	y				y		
North Inishowen Coast	002012	y					y		
North West Pocupine Bank	2330/O-IE-0002990	y	y					y	
Rathlin O'Birne Island	181	y						y	
Raven Point Nature Reserve	000710	y					y		
River Barrow and River Nore	002162	y		y			y		
Roaringwater Bay and Islands	000101/0-IE-0002965	y	y		y			y	y
Rogerstown Estuary	208	y		y			y		
Rutland Island and Sound	002283	y			y			y	
Saltee Islands	707	y			y		y	y	y
Sheephaven	001190	y					y		
Slaney River Valley	000781	y		y			y		
Slieve League	000189	y						y	
Slyne Head Islands	000328	y						y	
Slyne Head Peninsula	002074	y			y			y	
South Dublin Bay	000210	y					y		

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South West Porcupine Bank	2329/O-IE-0002989	y	y					y	
St. John's Point	000191	y			y			y	y
Streedagh Point Dunes	001680	y						y	
Tory Island Coast	002259	y						y	
Tralee Bay and Magharees Peninsula, West to Cloghane	002070/O-IE- 0002978	y	y	y	y		y	y	
Tramore Dunes and Backstrand	000671/O-IE- 0002974	y	y				y		
Tranarossan and Melmore Lough	000194	y					y	y	
Valencia Harbour/Portmagee Channel	002262	y			y		y	y	
West of Ardara/Maas Road	000197	y		y	y		y	y	
Wicklow Reef	002274	y						y	
TOTAL		78	19	22	22	2	42	45	11

Table 2. EU Legislation (Source: Ancorim, 2012)

EU Legislation	Main effects
The Floods Directive (2007/60/EEC)	Requires member states to assess if all its watercourses and coastlines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk. This directive also reinforces the rights of the public to access this information and to have a say in the planning process.
The Water Framework Directive	Fundamental aim is to maintain high ecological status of water where it exists, prevents any deterioration in the existing ecological status of waters and achieve at least "good" ecological status of waters and achieve at least "good" ecological status (GES) for all waters by 2015
The Strategic Environmental Assessment (2001/42/EEC)	Ensures that the environmental consequences of certain plans and programmes are identified and assessed during their preparation and before their adoption.
The Environmental Impact Assessment Directive (85/337/EEC as amended by 97/11/EC and 2003/35/EC)	The directive specifies which projects require an Environmental Impact Statement (EIS) or Environmental Impact Assessment (EIA)
The Environmental Liability Directive (2004/35/EC)	The directive is directed at preventing environmental damage to water resources, soil, fauna, flora and natural habitats in accordance with the Polluter Pays Principle.
The Habitats Directive (92/43/EEC)	To conserve natural habitats and wild fauna and flora by establishing a network of Special Areas of Conservation (SACs)
The Birds Directive (79/409/EEC)	Requires the protection of all wild birds and their habits and to realise this. The Directive requires Special Protection Areas (SPAs) to be designated for wetlands as well as listed bird species.
The Marine Strategy Framework Directive	Aims to achieve good environmental status of the EU's marine waters by 2021 and to protect the resource base upon which marine related economic and social activities depend. The MSFD also calls for the establishment of Marine Protected Areas, most likely to provide regulatory protection for areas already identified by OPAR criteria but not currently covered under the habitats directive.
The Shellfish Waters Directive (2006/113/EC)	To protect or improve shellfish waters in order to support shellfish life and growth. The directive sets physical, chemical and microbiological requirements that designate shellfish waters must either comply or endeavor to improve.
The Bathing Water Directive (76/160/EEC, 2006/7/EC)	To ensure that the quality of bathing water is maintained and where necessary improved so that it complies with specific standards designed to protect public health and the environment.
The Major Accidents (Seveso) Directive (96/82/EC and 2003/105/EC)	Is intended to prevent major accidents involving dangerous substances. It sets out the controls and responsibilities for preventing major accidents.
The Urban Waste Water Treatment Directive (91/271/EEC)	To protect the environment from the adverse effects of urban waste water discharge and discharges from certain industrial sectors.
The Integrated Pollution Control Directive (96/61/EC)	Requires industrial and agricultural activities with a high pollution potential to have a permit.