

Submission to the Environment Committee on the Northern Ireland Marine Bill April 2012

“An effective Marine Bill for Northern Ireland will guarantee the protection of our marine inheritance providing for our needs now and for future generations: the perspective of a group of young people”

We welcome the opportunity to respond to the Environment Committee. Furthermore, we would like to formally present and discuss this paper with the Committee during the May 2012 consultation period.

We feel very honoured and excited to be part of this Marine Bill consultation. As a group of young people with a passion and keen interest in our marine environment, we are delighted to take part in the democratic process of shaping this most important piece of marine legislation in Northern Ireland's history.

Northern Ireland Schools' Marine Bill Advocacy Group

We are sixth formers from 7 schools across Northern Ireland (NI) supported by one zoology student from QUB, RSPB and NIMTF. We have formed a “NI Schools' Marine Bill Advocacy Group” to take an active role as stakeholders and future voters in the introduction and implementation of an effective Marine Bill for Northern Ireland.

We are passionate about the marine environment. Studying a range of relevant subjects including Biology, Geography and Political Science, we feel we have the knowledge, skills and expertise, which enables us to participate as active citizens in this consultation process. We have put considerable effort into gathering and reflecting on the opinions of local people in our coastal communities. We aim to represent their opinions in this paper.

We see the Environment Committee as stewards with the duty and responsibility to ensure the effective management today of our marine inheritance. We support the NIMTF suggested amendments to the Marine Bill in particular the inclusion of HPAs within MCZs and addressing of the need for one body to manage its effective implementation.

“In conclusion, the writing is on the wall for the Northern Ireland marine environment, to continue as present would devastate our seas, crippling an invaluable resource and denying future generations the sea to work, play and live on. The bill needs to deliver a clear objective to protect the everyday species and features alongside the rare and unique species to ensure they do not disappear from our waters, stopping me from seeing spectacular species that my dad knew as common to these waters. The future of our seas, today, tomorrow and forever, lies in your hands.” (Matthew Ferguson, Down High School)

RSPB staff (Education Development Officer, Senior Conservation Officer and Rathlin Island Reserve Warden), with support from the NIMTF Marine Campaign Coordinator have facilitated our learning through the NIEA supported RSPB “Marine Education Programme”.

They have introduced us to current research and a wide range of local marine stakeholders, which has helped us to form our own opinions. Following the workshop run by NIMTF at Castle Espie, we have come together to write a submission to the Environment Committee outlining our views as young people concerned for the marine environment, our inheritance.

Summary and Main Questions to the Environment Committee:

As a group of young people studying a range of relevant subjects alongside reading sound scientific research and interviewing a wide range of marine stakeholders, we feel we have sufficient knowledge to:

- **Demonstrate the benefits of well managed "Highly Protected Areas" (HPAs); areas where any exploitation or damage by marine industry will be totally banned allowing already overexploited marine ecosystems to recover. We are aware that this is recognized by management bodies in the rest of the UK who have decided to implement their bill to include HPAs.**

We wish to discuss with the Environment Committee whether they agree with us that Clause 18 in our Northern Ireland Marine Bill should now be amended to include Highly Protected Areas within Marine Conservation Zones to ensure the effective protection of our marine inheritance.

- **Demonstrate that these well-managed Highly Protected Areas benefit biodiversity, people and the economy. We feel that, without an independent Marine Management Organisation (MMO), it will be impossible to create and effectively manage a coherent network of marine protected areas of local importance to Northern Ireland (Clause 11.1).**

We wish to discuss with the Environment Committee whether they agree with us that it is vital to resource an independent MMO with sufficient powers of enforcement:

Can the Environment Committee reassure us that the amendment to Clause 18 to include HPAs within MCZs will be made and that an independent MMO will be set up to effectively manage our marine inheritance now for our future?

There exists a confusing array of 6 primary government bodies at present responsible for the marine environment in Northern Ireland, which concerns us greatly for the effective implementation of the Marine Bill. England has an independent MMO and Scotland has one government department, Marine Scotland. Surely we will be disadvantaged in not having one body to coordinate all responsibilities?

Our first preference is an independent body similar to England but we would accept the establishment of one governmental body solely in charge of marine activities similar to Scotland as long as these bodies have the proper enforcement powers and resources. From our discussions with a wide variety of local marine stakeholders including NIMTF, commercial fishermen and recreational marine users, we feel it would be vital to have them represented on this new body.

Focusing on the aspect of MCZs, we feel we need one management body responsible for:

- Coordinating the many authorities and stakeholders to ensure the implementation and successful management of the Marine Bill
- Deciding and implementing the best process to be used to select MCZs and HPAs using the best available scientific evidence to ensure the establishment of a locally representative network of ecologically coherent and well managed MCZs including some HPAs.
- Carrying out detailed Environmental Impact Assessments (EIAs) for existing and proposed activities within all Marine Protected Areas
- Collating and analysing existing data to inform the Environment Minister, his committee and relevant colleagues in other government departments and support the setting up of an appropriate system for the designation of the new MCZ network particularly taking account of the highly mobile nature of many of our marine species, existing and new human pressures and climate change
- Ensure effective management and enforcement of protected sites to deliver for biodiversity and people and so we do not incur potentially expensive infringements from Europe

Supplementary Questions for discussion arising from our research

We would welcome the opportunity to discuss with the Environment Committee whether they agree with us that:

- **There is huge untapped potential to grow marine-based leisure and tourist activities in NI whilst at the same time protecting our marine inheritance through a well managed network of protected marine areas. Could the committee outline how it plans to ensure this area of our economy grows?**
- **Delays in addressing damage to the marine environment demonstrate to us that the existing government departments do not have at present the time or resources to enable them to manage the marine environment effectively which is putting our marine inheritance at risk. Could the committee outline how they plan to address this issue?**
- **Within the existing departments, there is not the capacity to collate and analyse data from existing and new research to inform designation of MCZs and HPAs. Could the committee outline how they plan to address this issue?**
- **Whilst it may be easy to monitor and enforce an MCZ near an inhabited island like Rathlin Island, it would be considerably more difficult to achieve this for an uninhabited one like the Copeland Islands or around rocks like the Maidens? Could the committee outline how they plan to address this issue?**

Introduction:

The Marine and Coastal Access Act 2009 provides a legal framework for marine spatial planning, the Marine Management Organisation (MMO) and Inshore fisheries and Conservation authorities and places a duty on ministers to designate Marine Conservation Zones (MCZs). MCZs will contribute to ecologically coherent and well managed Marine Protected Areas.

The Marine Protected Areas network will comprise existing and proposed SPAs (Special Protection Areas for birds) and SACs (Special Areas of Conservation for habitats and other species) forming a network across Europe, Ramsar sites (a network of Internationally Protected Wetlands), ASSIs (nationally important Areas of Special Scientific Interest) in estuarine and coastal waters, and MCZs (Marine Conservation Zones) – one network, five designations.

MCZs allow a range of managed activities that are not damaging to the local marine environment. MCZs will have different levels of protection determined by their individual conservation objectives. “There will be sites where the conservation objectives will require high levels of protection and exclusion of all damaging activities (ie Highly Protected Areas (HPAs), marine reserves or No-Take Zones). These sites may be selected as reference areas, contain rare, threatened and vulnerable habitats and species that are geographically restricted, or contribute to the recovery of biodiversity or ecological processes. Scientific evidence from case studies around the world shows that well managed marine reserves or HPAs usually boost the abundance, diversity and size of marine species living within their borders; and they may increase resilience against human pressures and climate change.”

(“Developing Programmes for MPAs” James Marsden, Director Marine, Natural England.)

Our group has been focusing on “Marine Conservation Zones” and our main concern is that the draft bill does not mention the need for “Highly Protected Areas” (HPAs) within Marine Conservation Areas. (Clause 18)

MCZs are areas which allow a range of permitted activities consistent with the conservation objectives... HPAs or No-take zones are areas where any exploitation or damage by industry will be totally banned to allow already over exploited marine ecosystems to recover. They may allow some non damaging activities for instance research and leisure activities like sailing, scuba diving and snorkeling.

Following the NIMTF (Northern Ireland Marine Taskforce) Marine Bill workshop for stakeholders at Castle Espie we have become concerned by:

- The vague woolly language of the bill which the legal analyst felt could cause problems down the line in implementing the bill,
- The lack of cast iron requirement for NI to create its own network of MCZs and the opt out clauses if damage occurs to a MCZ,
- **But, our greatest concern is that without an MMO we feel it will be impossible to deliver a coherent network of local MCZs (Clause 11.1) including some HPAs for NI. (Clause 18)**

What we found most concerning about the draft Marine Bill was the absence of critical elements. The first of these, one which held much attention and discussion amongst stakeholders was the lack of an independent Marine Management Organisation (MMO). We were not aware of the extent to which responsibility over activities on our marine environment was spread across 6 primary governmental departments (DOE, NIEA, DARD, DCAL DETI and Lough's Agency). This figure is far too high. However, passing all this responsibility to one department, which already has a lot of differing concerns, without creating a different sector within, or independent organisation will result in a strain of resources and this department will fail. To us, the simplest solution is to create a new organisation, which will start to manage all activities on the water and will act as the "one-stop-shop" for all issues concerning them.

The other strategy that was missing was Highly Protected Areas within Marine Conservation Zones. (Clause 18) Indeed there seemed to be very little penalty for causing damage to the Marine Conservation Zones at all, as in the bill it says only that if an offense is carried out within the zone then an explanation for the damage must be delivered in writing. There is no mention of any consequences and that is critical to protect against greedy and reckless behaviour. If a few appropriately positioned HPAs were put in place within the MCZs with hefty fines to deter damage, our marine life will recover much faster and much better.

We understand that our government is still striving to cut spending, but believe, with a management organisation in place and the resulting recovery of fish stocks alongside an increase in leisure and tourism, this would in the long-term, considering our futures, be money definitely worth spending. Also without effectively managed marine legislation, we risk further infringements from Europe like the horse mussels in Strangford Lough.

We aim as a group to demonstrate:

- 1. From our research talking to local marine stakeholders around NI, a consensus of opinion emerged that unsustainable activities and lack of HPAs within MCZs in the marine environment are having an adverse impact not only on biodiversity but also people and the local economy in Northern Ireland**
- 2. That scientific evidence from case studies around the world shows that well managed marine reserves or HPAs usually boost the abundance, diversity and size of marine species living within their borders; and they may increase resilience against human pressures and climate. They also can boost leisure and tourism. We have looked at "Lundy Island; Devon as a case-study demonstrating the benefits of a well managed HPA and the implications for Northern Ireland." (Clause 18)**
- 3. Without an MMO, how we feel it will be impossible to implement the marine bill legislation and create an ecologically coherent and well managed network of local MCZs including some HPAs (Clause 11.1)**

1. There is a consensus of opinion among stakeholders around NI that unsustainable activities and lack of HPAs within MCZs are having an adverse impact not only on biodiversity but also people and the local economy in Northern Ireland

Local examples of the impact of unsustainable activities:

Many boat users have noticed the decline in the number and average size of fish stock from unsustainable fishing practice. There are many instances where one marine activity is impacting negatively on another for example the surplus trawling activities about Rathlin Island leave little for the islanders themselves who are trying to fish sustainably.

One of the Rathlin Island boatmen provides rod and line fishing and wildlife watching trips for tourists. Trawlers that may come from as far as Scotland, have a negative impact on his fishing activities as areas are “out-fished” and hence he has less people wanting to go out to fish. He feels strongly that there should be “No-take zones” at specific areas near to Rathlin Island and that there should be restrictions placed on the trawling activities.

A Rathlin Island fisherman catches his own fish for the restaurant in the Manor House providing a service on Rathlin for residents and tourists and employment for the islanders themselves. He uses sustainable fishing methods to ensure that he maintains fish stocks. Inshore dredging has a severe impact on the seabed and in turn the shellfish stock and other fish species. He recognises that there is a need for an inshore dredging exclusion zone, whilst still allowing sustainable methods of line and rod fishing to sustain the island economy.

A mussel grower in Belfast Lough harvests by dredging. He mentions the benefits of his industry with mussels providing food for eider duck in winter and filtering impurities from the water improving water quality in Belfast Lough. He recognises that his activities could perhaps damage the habitat where he collects seed mussels around the Copeland islands.

He has invested in more selective dredging equipment but with subsidies he could update his equipment further to cause less damage. Scallop or cockle shell fisheries using suction methods remove everything and would blow sediment over his beds damaging the mussels.

A diver working for the Ulster Museum has seen first-hand the damage caused by mussel dredging in Belfast Lough and would like to see a reduction in this activity. She would also like more MCZs and HPAs in place to further protect our marine wildlife and its habitat.

A charter boat owner offering angling trips in Belfast Lough has observed fewer large commercial fish (cod or pollack) in Belfast Lough over the last 4-5 years forcing them to go further out of the Lough and now to fish off wrecks potentially natural “No-take Fishing Zones”. This has an economic effect for him with higher fuel bills and damage to fishing gear snagged on rocks. They usually now catch non-commercial fish like ling. He is aware of conflict between local Donaghadee fishermen and commercial fishing boats for the mussels found in the sound between Big Copeland and the mainland. He mentioned mussels colonising the ropes of the lobster pots and wondered if it would be possible to establish the more sustainable growing mussels on ropes in Belfast Lough.

There are many examples of conflict between marine activities which we feel demonstrates the need for a separate marine management organisation to co-ordinate the planning of existing and new activities in our marine areas.

Local examples of adverse impact due to a lack of HPAs on biodiversity, people and the economy with a consensus of opinion that HPAs or no take zones form part of the solution.

From our research talking to local marine stakeholders, there emerged a consensus of opinion on the way forward for the marine environment in Northern Ireland. They recognise the impact of having poor marine protection and are asking for the establishment of "No-take Zones" or HPAs and the restricting of existing damaging and unsustainable fishing activity.

A Rathlin Island rod and line fisherman was seriously concerned by the heavy trawling from mainland and Scottish boats, resulting in dramatically declining fish stocks around Rathlin. He showed one of our group a sea chart of Rathlin Island and pointed out the best sites for the various species that are now under threat and claimed these areas should be "No-take Zones". We found this poignant coming from a fisherman showing how desperate he is to see a recovery of the fish stocks.

A marine biologist and diver has seen first-hand the devastating damage caused by dredging activities around Rathlin Island and in Belfast Lough and would like to see a reduction in these activities. She would also like marine conservation zones MCZs in place, which allow sustainable forms of fishing in certain areas and a marine bill brought about to further protect our marine wildlife and its habitat. She is concerned that a delay, even of a few years, could mean that we lose some of our unique marine ecology. As a result of dredging, we have already lost 70 year old sponges along with their boulder habitat preventing recolonisation.

A local Rathlin Island fisherman, also RSPB warden, cautions that while MCZs and HPAs are good in theory, the practicalities are that the areas outside the zones may still be in trouble and need consideration. Whilst some fishermen will be negatively affected other fishermen and seabirds will be positively affected by the introduction of MCZs and HPAs. If egg bearing lobsters were being returned to the sea within these protected zones their numbers could increase and shellfish within these zones could also benefit.

A sea angler who runs a fishing shop in Bangor suggests there is a need for "No-take Fish Zones" near the Copeland islands perhaps around boat wrecks, which act like artificial reefs.

A Strangford Lough diver feels that managed effectively, people should be able to pursue their leisure activities, without causing damage or harm to the protected areas and the knock on effect of better preservation and increased biodiversity should be an increase in economic dividends from the leisure and tourist community. This would need to be balanced against any potential loss from fishermen, shipping and other sea dependent work.

A senior sailing instructor at Ballyholme Yacht Club who used to live in New Zealand believes the Irish Sea could benefit from stronger controls on quotas of fish. She also feels that there should be more HPAs or marine reserves to allow fish stocks to recover and protection of our wildlife with policing of vessels in protected areas and harsh fines for those illegally entering no take zones. New Zealand boats are fitted with satellite transceivers and if they are found in a protected area, they lose their licence or are heavily fined up to £20,000.

2 “Lundy Island; a case-study demonstrating the benefits of a well managed HPA and implications for Northern Ireland.”

Introduction:

Lundy Island, a three-mile long island off the coast of Devon, is home to a range of species such as grey seals, lobsters and pink sea fan corals with varied habitats of reefs, sea caves and sand banks. Lundy Island became England's first marine conservation site and a no-take zone from 2003 and there have already been noticeable positive effects for lobsters.

How Lundy Island benefits biodiversity and fisheries:

When monitoring began in 2004 (18 months post designation) the mean abundance of landable-sized lobsters in the No-take Zone (NTZ) was already 205% greater than the average for control and reference locations and by 2007, landable-sized lobsters were 427% more abundant in the NTZ compared to control and reference locations.

The lobster *Homarus gammarus*, appears to have derived an unambiguous benefit from the Lundy NTZ. This was evidenced by the increased abundance and size of landable-sized lobsters inside the NTZ and the increased abundance of undersized lobsters within and adjacent to the NTZ. The latter finding is potential evidence that the Lundy NTZ has produced a spillover benefit to the surrounding lobster fishery.”
(Lundy Marine Nature Zoning Scheme report for first Five Years)

"Lundy is a showcase of what a well-protected marine environment can become. Today's designation ushers in a new era of marine protection and it is important that the momentum to develop more marine conservation zones is now sustained." (Dr Helen Phillips, the chief executive of the government's conservation agency, Natural England.

(www.lundyisland.co.uk /Ecological effects of the Lundy No-take Zone: the first 5 years 2003-2007 by MG Hoskin, RA Coleman and L von Carshausen Mar 2009 Final Report)

How Lundy island benefits people and the economy:

(Assessing the Value of Marine Protected Areas in the UK: A Contingent Valuation Study of Lundy Marine Nature Reserve, Marianne Pett, A report submitted in partial fulfilment of the requirements for the MSc and / or DIC September 2006)

We looked at this report which considers the issue from the perspective of recreational benefits from MPAs. Using a contingent valuation survey,

The results of this survey indicate that recreational visitors value the MCZ highly, with a mean additional WTP (willingness to pay) of £5.09 to fund conservation activities on the island. This sum is over and above costs per visitor of between £77 and £117, depending upon whether purely direct expenditure is considered or total costs to include travel and opportunity costs.

The calculated consumer surplus was £88,000 annually, whilst Total Economic Value (TEV) was between £1.4m and £2.1m, depending upon which costs are considered relevant.

“Calculated aggregate expenditure by visitors was £1.3 million compared to Lundy's reported annual turnover for 2005 of £1.7 million.” Lundy also generates revenue from selling Lundy lamb over the internet.

For day visitors, the main attractions were walking and relaxation, with photography or bird-watching a common second or third option. 58% of day visitors stated walking as their main activity. Visitors staying on the island were more likely to have a specialist interest, such as diving (25%) or rock-climbing (21%). Walking and relaxation continue to be a major attraction, however, with 17% and 19%, respectively, stating these as their main activities. 8.3% respondents stated they had been on either a Warden-led 'Snorkelling Safari', or a boat trip around the island, or both during their stay.

Lundy Island, an example of good management including enforcement:

Lundy is managed in partnership and bi-annual meetings take place with the Statutory organisations and the stakeholders and users of the MCZ. The Marine Conservation Zone Advisory has representatives from the Landmark Trust, Devon and Severn Inshore Fisheries and Conservation Authority, Natural England, the island Warden and local stakeholders including divers, fishermen, charter boat companies and other users. The group meet to discuss the developments, projects proposals and the management of the MCZ. It is also an opportunity for any issues or concerns to be raised and addressed.

The outcome of these meetings is then brought to the Management Forum meetings which take place with representatives from each of the management partner organisation.

(www.lundyisland.com/conservation)

The on-the-ground management of the island is by the wardens.

“Management from the perspective of the wardens hasn't changed since the transition from MNR (Marine Nature Reserve). We patrol the MCZ, carry out monitoring, education and raising awareness of the management (including the zoning scheme) amongst visitors to Lundy. We report infringements to Devon and Severn IFCA (Inshore Fisheries and Conservation Authority).” Sophie Wheatley, Warden Lundy Island 2012

Implications for Northern Ireland: The potential of HPAs to increase revenue through leisure and tourism

We feel Lundy Island MCZ demonstrates the social and economic viability (money well spent) of a well managed Highly Protected Area for biodiversity, people and that this has implications for MCZs in Northern Ireland for example around Rathlin Island, Copeland Islands, Lough Foyle, Carlingford Lough and Strangford Lough. We have been able to begin to explore through talking to a wide range of marine stakeholders across NI that there is a huge untapped potential for MCZs to increase revenue in Northern Ireland through leisure and tourism activities.

Sailing

Former Commodore, Ballyholme Yacht Club feels that sailing benefits the environment and economy, as they are promoting Belfast Lough as the “best sailing waters” for recreational sport and tourism brings money to the economy.

Dinghy sailors in Lough Foyle mentioned how we can take advantage of the shelter all our Loughs afford leisure and tourist sailors protecting them from the strength of the prevailing westerly winds and increasing the number of days available for sailing for pleasure and competitions. This makes NI very desirable as the host for international sailing competitions and tourist sea anglers. Cruising yachtsmen visiting Rathlin Island as tourists felt their activities bring vital revenue by purchasing food and paying for berthing etc.

A local marine sportsman, Belfast Lough added that the benefits of windsurfing, kite surfing and sailing as physical exercise has a positive effect on society, keeping people fit and healthy. This keeps down the costs for government of health care.

Scuba Diving

A marine biologist with the Ulster Museum, who dives to carry out research and recreation and , is part of a volunteer diving project feels the purpose of diving is for enjoyment and makes people more aware of their environment which is good for the protection of the marine environment. Buying the diving equipment brings money to the economy. If it was promoted, diving in Belfast Lough and elsewhere in NI could be a good tourist attraction.

A Strangford Lough diver feels “the benefits of the MCZs far outweigh any commercial gains from overfishing and overuse of the environment. Greater marine life increase the health of the ecosystem causing better diving experiences and recreational fishing and would bring more people into the area, from divers to birdwatchers, and if the marine environment improved then greater sightings of harbor porpoises, basking sharks and larger marine life would help to bring people in to see these creatures. This could generate a whole new environmentally driven industry. A properly managed coastline would accommodate all forms of water users without causing conflict. It has been shown throughout the world that environmental eco tourism is more profitable for local communities than traditional fishing.

One of our group, who dives regularly in Strangford Lough, feels that as Northern Ireland dive sites are so accessible to our airports, a tourist diver could arrive at Belfast City Airport on a Friday night and have already had a dive in Strangford Lough before the sun sets.

Sea angling

An Irish Study 1988 on types of recreational angling showed 49% of expenditure came from game angling 28% from coarse and 23% from sea angling. Aggregate gross expenditure contribution of NI resident anglers was 3.9 million with (18%) from sea angling. Tourist anglers 33.5 million or 8% significantly lower than for Eire.

(Final Report by department of Culture, Arts and Leisure, Lough's Agency, Irish Lights and the NITB "The social and economic impact to NI of recreational Fisheries, Angling and Angling Resources July 2007)

"Sea anglers point out that the value of a rod-caught fish can be greater to the economy than that of a commercially caught one. Rod and line fishermen stay in hotels, hire cars, eat in restaurants and catch relatively few fish." Sea bass are a near perfect sporting quarry on rod and line as they run close to the shore in summer, fight hard and grow to 8 kgs in weight. They are a welcome catch for local fishermen too. They spend £1billion on equipment, travel food and accommodation- about the same amount as the economic activity caused by the commercial catching industry" Charles Clover on the Pair fishing Industry in the English Channel in his book ("The End of the Line" 2005)

This viewpoint is supported by Labour's Charter for Sea Angling 2005 which stated that a recent study of the sea fishing industry in England and Wales showed that recreational sea angling is worth £538 million a year, nearly as much as the commercial fleet at £600 million.

It goes on to recommend that "some species of sea fish would return Best Value for the UK and overall marine environment if designated and managed primarily as a recreational species" which led to a Bass Management Plan. This type of plan exists also in Eire.

We wish to discuss with the committee that, as more sea bass are being reported in our waters, will our government be considering this type of management approach?

As a group we agree with a local BTO (British Trust for Ornithology) representative in NI who suggests that "more robust ecosystems and greater biodiversity will mean more birds, cetaceans and fish which will all support increased leisure and tourist activity."

We feel that as we come out of a period of civil unrest and our tourism grows and with the added increase to biodiversity which could result from MCZs and HPAs there is a huge potential for increase for all of these leisure and tourist activities. Indeed there is no reason why our figures for sea angling in NI could not increase to match those for the rest of Ireland.

We noted with interest in the 2007 report on the impact of recreational angling the added value of health benefits "angling, being a source of outdoor recreation, can provide health benefits in terms of relieving stress and providing relaxation" and provides the added social benefits of interaction between diverse range of ages and socio economic backgrounds, which could help reduce the costs of our department of Health and Social Services. This view was supported by the owner of a local charter boat, Bangor who felt his business is a positive thing for our society as it introduces people to the marine natural world and it attracts tourists and even those already living here who are choosing to holiday at home. It gives people a chance to share and learn about their environment with others while bonding with friends, family and different communities.

Case-study: Rathlin Island benefits biodiversity people and the economy

The RSPB Seabird Centre on Rathlin Island supports tens of thousands of nesting birds. An increasingly popular tourist attraction, it now receives more than 14,5000 visitors per year....critical to the health of the local economy. Data from visitor evaluations show that around 60% of visitors to the Reserve come to Rathlin specifically because of the RSPB's presence. Subsequently Rathlin Island benefits from visitor expenditure of £230,000 due to the RSPB's existence which equates to just over 5 FTE jobs, 2.8 Direct employment by RSPB and 1.4 by farming activities equals 9.2 FTE jobs."

("Delivering for Nature: An Environmental and Economic Challenge to Government." RSPB 2012)

One Rathlin Island fisherman operates sustainable rod and line fishing and pots for lobster and crab and ensures all fish caught on line is used either for personal use or in the fish and chip shop, Manor House or new fish shop. He organizes sea angling and wildlife watching trips. He feels his fishing methods are reasonably sustainable and the wildlife watching trips entertain and attract tourists, which brings vitally needed money to the local island economy.

As young people having visited Rathlin Island we suggest that there needs to be improvements to facilities for tourists. We found it difficult to spend money. The fish and chip shop and tapas in the Manor House were great but we suggest more teenage-focused souvenirs like fun T Shirts and more beds in cheaper accommodation and camping facilities.

There needs to be a greater variety of leisure activities which could include guided dives, canoe trips, more regular wildlife watching boat trips and perhaps marine-themed scheduled story-telling on certain evenings and model boat making and racing by the islanders similar to Lundy Island.

"In terms of leisure and tourism, Northern Ireland's marine and coastal environment is also its top tourist attraction with the majority of tourism infrastructure focused around the coastal area. People travel great distances to visit the puffins on Rathlin and the basking sharks that pass along the north coast, for example, and they bring with them vital income and employment opportunities to coastal communities. Maintaining that is vital for those communities and increasing it could improve prospects and grow tourism, bringing development opportunities to those areas and improving people's standard of living. New dive sites could develop within protected areas, for example, or more wildlife watching tours. That is of course in addition to all the benefits those people get from spending their leisure time outdoors and the spiritual well being and connection we humans feel when surrounded by nature."

(Katherine Yates, PhD Second year PhD researcher, Marine and Coastal Centre, University of Ulster, Coleraine)

We wish to discuss with the Environment Committee their views on whether they agree that there is huge untapped potential to grow marine-based leisure and tourist activities in NI and that these will be supported by a well managed network of protected marine areas.

3. Without an MMO, we feel it will be impossible to implement the marine bill legislation and create an ecologically coherent and well managed network of local MCZs including some HPAs (Clause 11.1 and 18)

We need one body:

- Responsible for the effective implementation of the Marine Bill including coordinating the many authorities and stakeholders to ensure the best process and scientific evidence is used to establish a representative network of ecologically coherent and well managed local MCZs including some HPAs.

“We need fisheries management and environmental management brought together if we are ever going to meet our commitments to ecosystem-based management, biodiversity conservation and sustainable fisheries. Without an MMO we will have a continuation of the disjointed application of policy and the mismanagement that has led to the current parse in Strangford.” PhD researcher in Marine and Coastal Centre, University of Ulster, Coleraine looking at strategic conservation planning to inform and motivate better marine management in NI and have positive impact on the selection of sites for future MCZs.

- Responsible for carrying out detailed Environmental Impact Assessments (EIA) of existing and proposed activities on protected sites to ensure they are in Good Environmental Status (maintained or restored to favourable condition)

Presumably a licence was issued to mussel fishermen in Belfast Lough for beds in the Inner Lough on the basis of an EIA which would possibly demonstrate that their activity is sustainable but we wonder did the EIA include their activity in the Outer Lough around the Copeland Islands where they dredge for spat to seed the beds. We suggest a trial of a sustainable and non invasive approach growing young mussels on ropes to seed the beds.

We applaud the examples of good practice of our government departments which required an EIA followed by a cautionary approach of trialling the SeaGen turbine in Strangford Lough and the current consultation on banning of deep dredging for scallops around Rathlin Island.

Our concern is that one of our group became aware of the damage whilst carrying out research on Rathlin, 2010 and, in response to a letter outlining her concerns to Mr Liam McKibben, Director, Fisheries, Climate Change & Renewable Energy, was made aware of the consultation which is only happening now. The trawling has still not been banned.

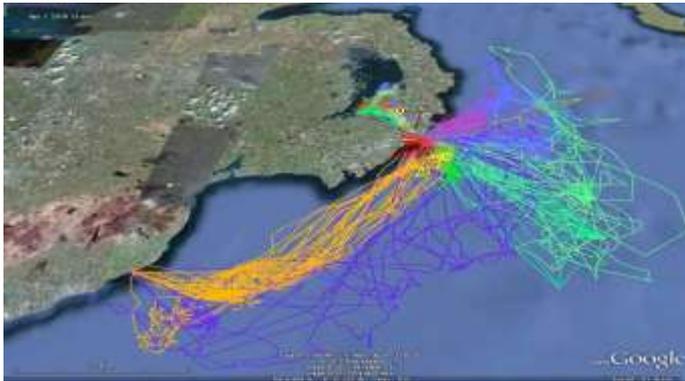
(Consultation on Proposed Rathlin Island (restriction of Fishing and Fishing methods) regulations 2012, Fisheries and Environment Division, Sea Fisheries Policy Branch.

We wish to discuss with the Environment committee whether they agree with us that delays like this demonstrate that the existing government departments do not have at present the time or resources to enable them to manage the marine environment effectively which is putting our marine inheritance at risk.

- Responsible for collating and analysing existing data to inform the Environment Minister, his committee and relevant colleagues in other government departments to support an appropriate system for the designation of the new MCZ network particularly taking account of the highly mobile nature of many of our marine species.

This body needs to have the expertise to collate and analyse existing data and organise new research to understand the behaviour of marine creatures to include the many highly mobile species for example Strangford Lough's common seals, seabirds and fish like sea bass.

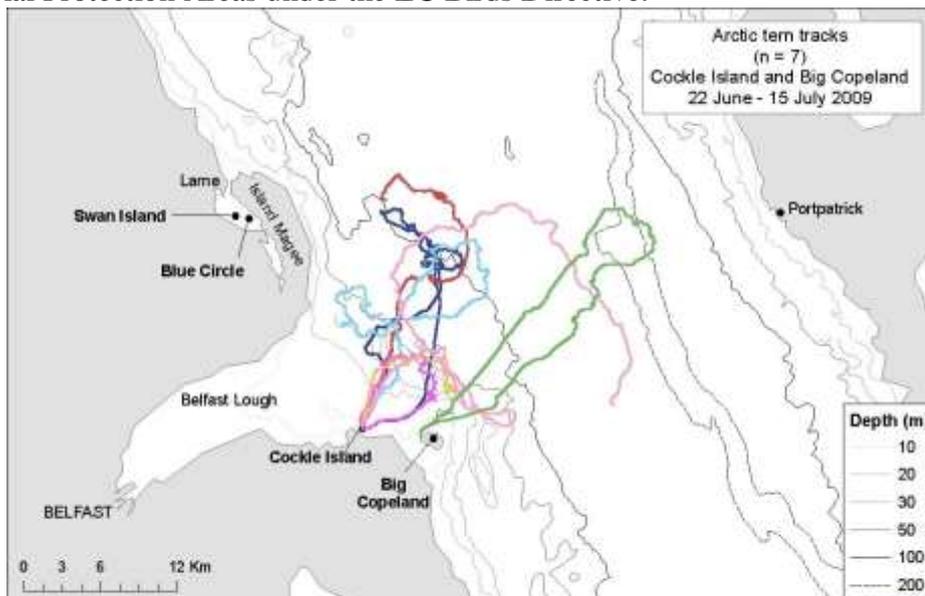
Existing data for Seagen collected for the purpose of an EIA for the turbine could also prove useful to study the movements of this internationally important colony of common seals.
(Sea Gen Environmental Monitoring Programme: Final report by Frank Fortune, Technical director, Edinburgh and Sarah Wright, Senior Consultant, Glasgow Royal Haskoning)



Tracking the feeding movements of the colony of common seals, Strangford Lough

A BTO (British Trust for Ornithology) representative in NI stressed the need for robust data collected through surveying and monitoring to include all areas regularly used by seabirds from NI and other regions

Seabirds are protected on land at their nesting or roosting sites but need protection for the areas where they forage (fish for food). The following map illustrates tracking and transect data for arctic terns collected in 2009, from Big Copeland Island and Cockle Island collected as part of a UK-wide project to identify important marine areas that are used by terns during the breeding season to inform the identification of areas that may be suitable for designation as Special Protection Areas under the EC Birds Directive.



Coastline and bathymetry © British Crown and Seazone Solutions Limited.
All rights reserved. Products Licence No. 042006.003. Map © JNCC.

(Data collected by Allen & Mellon Environmental Ltd. Surveys funded by the Northern Ireland Environment Agency and the Joint Nature Conservation Committee.)

- Responsible for carrying out research on species movement due to climate change and changing water temp of which there is no provision in the bill.

We may lose some species whilst gaining others. If Rathlin Island loses its seabird colony including the iconic puffins this could impact on the local economy. Trends are indicating more turtles and seabass in our waters consistent with the predictions of species movements in a Northwesterly direction due to climate change. We feel there should be a mechanism that if scientific evidence supports a significant change then MCZs can be moved to track species in real time. This needs to be decided carefully and tactically with accurate and regular monitoring and good communication between surveyors, conservationists and stakeholders.

We wish to discuss whether the Environment Committee agrees with us that, within the existing departments, there is not the capacity to collate and analyse data from existing and new research?

- Responsible for ensuring the effective management and enforcement of MCZs.

Lundy is managed in partnership and bi-annual meetings take place with the Statutory organisations and the stakeholders and users of the MCZ including divers, fishermen, charter boat companies. The group meet to discuss the developments, projects proposals and the management of the MCZ. It is also an opportunity for any issues or concerns to be raised and addressed. The outcome of these meetings is then brought to the Management Forum meetings with representatives from each of the management partner organisation.

(www.lundyisland.com/conservation).

The management of the island is by the Wardens. “Management from our perspective as wardens hasn’t changed since the transition from MNR (Marine Nature Reserve) to MCZ. We patrol the MCZ, carry out monitoring, education and raising awareness of the management including the zoning scheme, amongst visitors to Lundy. We report infringements to Devon and Severn IFCA (Inshore Fisheries and Conservation Authority)”
Sophie Wheatley, Warden Lundy Island 2012

A local angler who owns a fishing equipment shop in Bangor feels wrecks around Copeland Island could create artificial No-take Zones but there would be a need for enforcement around these areas against trawlers that come in at night.

A local diver, Strangford Lough is concerned about the lack of proper policing of the act, the example of the destruction of seagrass beds at Castle Espie being a case in question. There are a lot of people who will carry on their activities regardless of any Bill that is in place.

The training manger at Ballyholme Yacht Club lived in New Zealand and claims that there is a lot more wildlife there in comparison to Belfast Lough. She believes Belfast Lough could benefit from stronger quotas of fish take and having more policing. New Zealand boats are fitted with satellite transceivers and if they are found in a protected area, they lose their licence or are heavily fined up to NZ \$50,000 (£20,000).

Whilst it may be easier to monitor an MCZ near an inhabited island like Rathlin Island, we wonder how the Environment Committee plans to achieved this for an uninhabited one like the Copeland Islands or around rocks like the Maidens?

Conclusion: Quotes from the students

“This world was created with everything that humans need and yet we are determined to exploit it for our own greedy measures and destroy natural resources such as coal, oil, gas, the poles and the rainforest. However we are focusing on one of our major resources that we rely on greatly: the ocean.

If we keep destroying this planet, one supposedly “endless resource” at a time, then there will be no natural stores for future generations and I cannot bear to think of a planet that is bleak and devoid of any apparent wild life.” (Amy Arnott, Methodist College, Belfast)

“Biodiversity is ESSENTIAL for all aspects of human existence, from the air we breathe to the food we eat. The economy and all aspects of society that depend upon it can be said to be a wholly owned subsidiary of the environment, it simply would not exist without all the things we get from ecosystems. Thus, maintaining biodiversity has to be a top priority. In terms of leisure and tourism, Northern Ireland’s marine and coastal environment is also its top tourist attraction with the majority of tourism infrastructure is focused around the coastal area. People travel great distances to visit the puffins in Rathlin and the basking sharks that pass along the north coast, for example, and they bring with them vital income and employment opportunities to coastal communities. Maintaining that is vital for those communities and increasing it could improve prospects and grow tourism, bringing development opportunities to those areas and improving people’s standard of living. New dive sites could develop within protected areas, for example, or more wildlife watching tours. That is of course in addition to all the benefits those people get from spending their leisure time outdoors: the spiritual well being and connection we humans feel when surrounded by nature.” Katherine Yates, PhD researcher in Marine and Coastal Centre, University of Ulster, Coleraine

I love the cry of the gulls and seeing the diverse species of seabirds diving beneath shifting waters or bobbing up and down contentedly on the crests of waves. To live on the coast is an amazing privilege. We need to protect our heritage as a simple matter of moral principle, since negligence and continued exploitation of our seas can only result in a tragic reduction in their biodiversity. This is why I'm excited and honoured to be a stakeholder regarding the Marine Bill, and feel that Highly Protected Areas should also be created within some Marine Conservation Zones since they would benefit not only biodiversity, but the economy, as well as whole communities. I would just like to thank The Environment Committee for recognising that a marine bill *is* essential for the survival of the wonderful and diverse marine wildlife that populates our shores, and for all your hard work in covering all the bases to ensure the Bill's success! I believe it is a cause well worth fighting for - the conservation of the deep blue sea which cradles our emerald isle. (Hannah Geary, Glenlola Collegiate, Bangor)

“As a young person studying Zoology at QUB, I am concerned that we are delaying and risk losing our marine heritage, perhaps even seeing the extinction of some species before we have a chance to learn about them.

I am seeking reassurance that there will be sufficient protection put in place now for our marine species to ensure that when I am an adult that I can enjoy going out and experiencing their exciting world in their company.” (Carol Moorehead, Zoology student, QUB)

In conclusion, the writing is on the wall for the NI marine environment, to continue as present would devastate our seas, crippling an invaluable resource and denying future generations the

sea to work, play and live on. The bill needs to deliver a clear objective to protect the everyday species and features alongside the rare and unique species to ensure they do not disappear from our waters, stopping me from seeing spectacular species that my dad knew as common to these waters. The future of our seas, today, tomorrow and forever, lies in your hands. (Matthew Ferguson, Down High School, Downpatrick)

This constitutes our submission to the committee expressing our views and concerns as young people for the protection of our marine inheritance. We would welcome the opportunity to present and to discuss our submission to the Environment Committee over the consultation period.

Queen's University of Belfast zoology student-Carol Moorehead

Down High School, Downpatrick -Matthew Ferguson

Glenlola Collegiate, Bangor -Gina Black/ Hannah Geary, Marine Conservation Group

Holy Trinity College, Cookstown -River Warrior Group

Lumen Christi College, Derry/ Londonderry -Nicole Simpson, Megan and Niall Doherty

Methodist College, Belfast- Amy Arnott / Oliver Donnelly

Priory Integrated College, Holywood -Lewis O'Neill

St Malachy's College, Belfast -Emmett Rice