



Elasmobranch Conservation Strategy for Northern Ireland



Consultation Document 2024



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<https://www.daera-ni.gov.uk/ElasmobranchConservationStrategy>

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Ministerial Foreword



I am delighted to launch a public consultation into the creation of the first ever Elasmobranch Conservation Strategy for Northern Ireland. The development of this strategy recognises that elasmobranchs, the collective name for sharks, skates, and rays, have been in global decline over the past 70 years, with some local species now classified as critically endangered.

It is recognised that elasmobranchs play a vital role in regulating healthy marine ecosystems, and the knock-on effect of their decline can have drastic consequences for local marine biodiversity. As well as acknowledging the ecological benefits elasmobranchs offer, this strategy also recognises the wider societal value of elasmobranchs as a source of marine ecotourism. This draft Elasmobranch Conservation Strategy proposes actions that are required to assess the status of these priority species, promote conservation efforts to address population decline and help facilitate recovery.

By adopting an innovative co-design approach, my department has worked in collaboration with key stakeholders to agree and develop the objectives laid out in this document, which are considered to best meet the conservation needs of these Priority Species.

I would like to take this opportunity to thank those stakeholders that have been involved in the development of this strategy so far. I would also like to strongly encourage anyone who feels they can contribute, in words and in actions, to respond to this consultation so that together we can produce an achievable and effective Elasmobranch Conservation Strategy that has the potential to help restore and protect our natural marine environment.

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Summary of Consultation Paper

This Strategy reviews the current status of Northern Ireland’s priority elasmobranch species and identifies the pressures and vulnerabilities faced by each species. It also highlights evidence gaps and measures required to address these. Global and national biodiversity targets have been taken into consideration in the development of objectives. In addition, the Strategy’s objectives are supported by a number of actions and have been developed through close engagement with key stakeholders¹ to deliver these.

Timing and duration of this consultation

The consultation will commence on the 23rd September 2024 and close on the 16th December 2024.

How to respond to this consultation

You are invited to respond to this consultation online by complete the Citizen Space response template which can be accessed using the link below. Please supplement your response with any relevant supporting information, evidence and/or analysis.

<https://consultations2.nidirect.gov.uk/daera/ni-elasmobranch-conservation-strategy>

If you are unable to complete the survey online, please contact the team by email: MarineConservation@daera-ni.gov.uk or call 028 90569269.

¹ [Annex 1: List of Co-Design Stakeholders](#)

Introduction

Sharks, skates, and rays, collectively known as elasmobranchs, play an important role in regulating marine food webs. The biodiversity of elasmobranch species in a given area is a direct indicator of ocean and ecosystem health². Since the 1950s, however, there has been a dramatic decline in elasmobranch populations across the globe due to fishing pressure, bycatch, illegal fin trade and climate change. Unfortunately, Angel sharks have not been recorded in Northern Ireland waters for a number of decades. The loss in biodiversity of elasmobranchs can have a knock-on effect throughout the entire marine ecosystem.

The Northern Ireland (NI) Marine Area has been identified as being geographically important for critically endangered species, such as common (flapper) skate³, as it is part of an Irish Sea migratory corridor between Scotland, Northern Ireland, and Republic of Ireland. The NI Marine area hosts a wide variety of elasmobranch species which are often highly dependent on specific environments during their lifecycle for food and critical habitats.

Many elasmobranch species have incredibly extended life spans, often ranging anywhere from 50 to 100 years. In addition, some species can display long gestation periods, e.g. Spurdog, which can gestate for 18 – 22 months.

² [Importance of sharks in ocean ecosystems- Motivarash et al. \(2020\)](#)

³ Recent genetic research (Iglésias et al., 2009) indicates that the species reported as *Dipturus batis* is comprised of two species of *Dipturus* - provisionally *D. flossada* and *D. intermedia*. The classification of the 'Common skate' is therefore currently being updated. The scientific name '*Dipturus batis*' is cited within the Wildlife (Northern Ireland) Order 1985 as amended and is therefore used for the purposes of regulation.

What conservation measures are in place for elasmobranchs in Northern Ireland?

Currently Angel shark, Basking shark, and Common skate are protected in Northern Ireland through the Wildlife Order (Northern Ireland) 1985 (as amended)⁴ and are listed as Schedule 5 Animals (Animals which are protected at all times)⁵. The Marine Act (Northern Ireland) 2013⁶ also provides a mechanism for protection through the designation of areas known as Marine Conservation Zones (MCZ) should sufficient evidence be available to support this.

Current Marine Protected Area (MPA) designations undergo regular monitoring and assessment, with management measures in place surrounding usage and development, to protect designated features. For example, The Marine Protected Areas (Prohibited Methods of Fishing) (Amendment) Regulations (Northern Ireland) 2022⁷ came into effect in January 2023 which prohibits the use of mobile bottom contacting fishing gear within nine inshore MPAs. While there are currently no MPAs designated for elasmobranchs in Northern Ireland, the 2022 fishing regulations may provide an indirect benefit by reducing pressure in certain areas.

Why has Northern Ireland developed an Elasmobranch Conservation Strategy?

This Strategy has been developed to improve and restore elasmobranch populations within the Northern Ireland marine area as current measures are not sufficient. Elasmobranch populations are assessed as part of the UK Marine Strategy⁸ and they are failing to meet

⁴ [Wildlife Order \(NI\) 1985](#)

⁵ [Schedule 5 animals- Wildlife Order \(NI\) 1985](#)

⁶ [Marine Act \(NI\) 2013](#)

⁷ [The Marine Protected Areas \(Prohibited Methods of Fishing\) \(Amendment\) Regulations \(Northern Ireland\) 2022](#)

⁸ [UK Marine Strategy- Part 3](#)

Good Environmental Status (GES).⁹ Action is needed to help populations recover from past exploitation. On a broader scale, the Strategy of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic included a specific target (S5.06) to improve the knowledge of elasmobranchs, for which this conservation strategy hopes to build upon.

A Co-design approach

The Elasmobranch Conservation Strategy has been developed using a co-design approach with stakeholders facilitated by DAERA. This approach, taking account of the views of a wide range of stakeholders and securing buy-in for proposed actions, represents a balanced model to deliver sustainable biodiversity and conservation policies for our marine environment. Stakeholder engagement in marine conservation creates potential opportunities for community led conservation initiatives and builds support for potential solutions to challenges as they emerge. This provides a foundation for a successful adaptive management approach, that is, an iterative approach that allows for change when new information is available.

The co-design process began in October 2022 with the establishment of the Elasmobranch Conservation Strategy Working Group. A broad range of stakeholders with an interest in elasmobranch conservation were included in the Working Group (see [Annex 1](#)) and their purpose was to consider the proposed draft objectives and actions of the Strategy and review the proposed list of species for inclusion. The co-design process included two full day workshops and a series of calls and emails between DAERA and stakeholders.

⁹ [Good Environment Status \(GES\)](#)

Broader strategic context

The co-design and development of the Elasmobranch Conservation Strategy supports several high priority, high-level and interlinked policies and strategies relating to nature recovery and biodiversity on a global, UK, and Northern Ireland level.

Global and North-East Atlantic Region

United Nations Convention on Biological Diversity

At an international level, the development of the Elasmobranch Conservation Strategy will contribute towards a number of biodiversity targets within the Kunming-Montreal Global Biodiversity Framework (GBF)¹⁰, agreed at the Convention on Biological Diversity in 2022¹¹, particularly:

- **Target 2** which aims to “ensure that by 2030 at least 30% of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity”,
- **Target 3** to “ensure and enable that by 2030 at least 30% of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas”, and
- **Target 14.** That the multiple values of biodiversity are integrated into decision-making at all levels.

¹⁰ [Kunming-Montreal Global Biodiversity Framework \(cbd.int\)](https://www.cbd.int/gb/strategy/2022-2030/)

¹¹ [Convention on Biological Diversity Targets](https://www.cbd.int/strategy/2022-2030/)

GBF Target 14 aims to ensure that the values of biodiversity are fully reflected or mainstreamed in all relevant decision-making frameworks. Biodiversity underpins a wide range of services that support economies, food production systems, secure living conditions and human health. Decision-making frameworks often do not appropriately account for biodiversity or its values, and therefore these are not always suitably reflected in relevant processes, including regulations and planning and development processes.

OSPAR Convention

The OSPAR¹² Convention (Oslo-Paris Convention for the Protection of the Marine Environment of the North-East Atlantic), particularly the **North-East Atlantic Environment Strategy (2030)**¹³ commits its contracting parties to the protection and conservation of the ecosystems and biological diversity of the maritime area of the region. This also includes targets relating to the achievement of biologically diverse and healthy seas, and restoration of degraded habitats while safeguarding ecosystem function and resilience to climate change. Specifically, the Elasmobranch Conservation Strategy will contribute to the following target from the Strategy of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic:

- **Target S5.06.** Where the knowledge base is insufficient to achieve OSPAR's biodiversity objectives, OSPAR will take action to improve regional coordination for collection and sharing of data, information, and knowledge, with elasmobranchs as a priority by 2023.

Progress has been achieved towards meeting target S5.06 through past projects such as Sea Monitor¹⁴ and MarPAMM¹⁵ (INTERREG VA), however, further work is needed to build a sufficient database for accurately monitoring these sensitive species. OSPAR has played a primary role in coordinating the contribution to the implementation and achievement of Good Ecological Status and Good Environmental Status under the UK Water Framework Regulations and the UK Marine Strategy respectively.

United Kingdom

UK Marine Strategy

The overarching **UK Marine Strategy (2010)**¹⁶ sets out a comprehensive framework for assessing, monitoring, and using our seas to achieve the UK's shared vision for clean,

¹² [OSPAR Commission](#)

¹³ [North-East Atlantic Environment Strategy 2030](#)

¹⁴ [Sea Monitor Project](#)

¹⁵ [MarPAMM project](#)

¹⁶ [UK Marine Strategy \(2010\)](#)

healthy, safe, productive, and biologically diverse marine environment. The requirement to assess, monitor and put in place measures to achieve or maintain Good Environmental Status for U.K. seas is enshrined in legislation and demonstrates the combined commitments of the four administrations to work together to monitor and protect what are some of the most biologically diverse and productive seas in the North-East Atlantic. Good Environmental Status is defined as “the environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive”. It also means that ecosystems are properly functioning and resilient to anthropogenic induced change, biodiversity decline is prevented, and anthropogenic activities do not cause any pollution effects.

DAERA have a duty under the Marine Strategy to take a proactive approach to the management of key sensitive species, which includes elasmobranchs.

[UK Joint Fisheries Statement](#)

The value of both biodiverse ecosystems and sustainable fishing are recognised within the **UK Joint Fisheries Statement (JFS)**¹⁷. The JFS sets out the ambition of the UK to continue delivering sustainable management of fisheries, recognising that a healthy and resilient marine environment is the foundation for a prosperous seafood sector and thriving coastal communities. The JFS also recognises the importance of reducing bycatch and minimising catches of sensitive species such as elasmobranchs through its sustainability, ecosystem, and bycatch objectives.

Northern Ireland

[The Climate Change Act \(Northern Ireland\) 2022](#)

The **Climate Change Act (Northern Ireland) 2022**¹⁸ is a key statutory instrument that creates a framework that will establish a pathway to achieving emission reduction targets which will ensure that Northern Ireland makes a contribution to the achievement of the UK 2050 Net Zero target. The Act includes a target for net-zero carbon emissions by 2050 as

¹⁷ [Joint Fisheries Statement \(JFS\)](#)

¹⁸ [Climate Change Act \(Northern Ireland\) 2022](#)

well as a set of interim targets for 2030 and 2040 for reducing greenhouse gas emissions in Northern Ireland.

The Act sets out that the biodiversity impact must be considered in setting the carbon budget; plans and policies to achieve the budget (such as sectoral Climate Action Plans) should, where practicable, use nature-based solutions that enhance biodiversity; and illustrate responsibility to protect or restore ecosystems to aid carbon mitigation efforts. The Climate Action Plan sets a roadmap to net zero, enhancing biodiversity in the process.

Draft Green Growth Strategy

The draft **Green Growth Strategy**¹⁹ is the Northern Ireland Executive's multi-decade strategy, balancing environment, climate, and the economy in Northern Ireland. It sets out the long-term vision and framework for addressing biodiversity loss (including elasmobranchs) and climate change in an ambitious and sustainable way.

The draft Green Growth Strategy 2050 Vision is that:

- Northern Ireland has taken significant action for the climate and our environment, has placed nature and biodiversity on a path to recovery, and moved from a high to a low emissions society.
- We have made this change fairly and have demonstrated a responsibility for each other and for the place in which we live.
- As a result of all our efforts, we have a more resilient environment with a healthy ecosystem and a strong sustainable economy. More people are employed in green jobs and all generations benefit from improved wellbeing.

¹⁹ [A Green Growth Strategy for Northern Ireland- Balancing our climate, environment, and economy](#)

[Draft Northern Ireland Environmental Improvement Plan](#)

As part of the Northern Ireland Executive's Green Growth strategy, DAERA is progressing a new **Northern Ireland Environmental Improvement Plan**, which, when finalised, will form the basis for a coherent and effective set of interventions that can deliver real improvements in the quality of the environment and thereby improve the health and well-being of all who live and work here. Legislative provisions contained within the Environment Act 2021²⁰ place a statutory duty on DAERA to publish the Northern Ireland Environmental Improvement Plan.

The Elasmobranch Conservation Strategy sets out the steps that we will take to protect priority elasmobranch species, making an important contribution to the Environmental Improvement Plan.

[Draft Marine Plan for Northern Ireland](#)

The draft **Marine Plan for Northern Ireland**²¹ is being developed within the framework of the UK Marine Policy Statement to facilitate the sustainable development of the marine area. The draft Marine Plan has a number of objectives in common with the Elasmobranch Conservation Strategy, such as promoting healthy, resilient and adaptable marine ecosystems and promoting the marine resource, its recreational value and its wider economic, environmental and social benefits to all.

[DAERA Draft Nature Recovery Strategy](#)

DAERA is currently developing a draft **Nature Recovery Strategy** which has strong linkages to the Elasmobranch Conservation Strategy. Protecting and restoring priority species, and, where possible, creating marine habitats whilst maintaining these as healthy functioning ecosystems for the long-term is the principal of this combined exercise. It is essential that a balance is struck, ensuring the right measures are carried out in the most appropriate places so that elasmobranch conservation efforts do not impact societal values towards priority species, rather complement and enhance them. The draft Nature Recovery Strategy is also working to implement the targets of the Kunming-Montreal Global Biodiversity Framework.

²⁰ [Environmental Act 2021](#)

²¹ [Draft Marine Plan for Northern Ireland](#)

Question 1: Do you agree that a Northern Ireland Elasmobranch Conservation Strategy is necessary?

Table 1: Species of elasmobranch included in this Strategy

The Elasmobranch Conservation Strategy Working Group agreed on the following list of species for inclusion in the Strategy.

Common Name	Scientific Name
Angel shark	<i>Squatina squatina</i>
Basking shark	<i>Cetorhinus maximus</i>
Porbeagle	<i>Lamna nasus</i>
Spurdog	<i>Squalus acanthias</i>
Tope	<i>Galeorhinus galeus</i>
Flapper skate	<i>Dipturus intermedius</i>
White skate	<i>Rostroraja alba</i>
Blonde ray	<i>Raja brachyura</i>
Cuckoo ray	<i>Leucoraja naevus</i>
Undulate ray	<i>Raja undulata</i>
Spotted ray	<i>Raja montagui</i>
Thornback ray	<i>Raja clavata</i>

Question 2: Do you agree with the species listed in this Strategy?

Species monitoring

DAERA currently carry out a range of methods for monitoring marine habitats and species²², in addition to monitoring elasmobranch populations in Northern Ireland. These include underwater camera surveys through to acoustic and satellite tracking. This is in combination with survey efforts from a wide range of stakeholders including the Agri Food Biosciences Institute (AFBI), Environmental Non-Governmental Organisations (eNGOs) and academia. The list below highlights the most common methods adopted for elasmobranch monitoring in Northern Ireland:

- Towed Spy-ball camera
- Acoustic and satellite telemetry
- Baited Remote Underwater Video (BRUV)
- Angling surveys
- Egg case survey
- Bycatch monitoring.
- Scientific trawl e.g., groundfish survey

Proposed conservation and management advice

There are accepted best practice recommendations for the protection of these species in relation to different activities. Some of the most pertinent activities to Northern Ireland are detailed here. Currently, these recommendations are already undertaken by users and provide a sound basis upon which to establish this Elasmobranch Conservation Strategy and its associated actions. The species listed in this Strategy will be split into two strands: 'management' and 'monitoring'. Data rich species will be grouped in the 'management' strand where specific conservation advice will be proposed. Rather than remove data-deficient species from the Strategy, these species will remain in a 'monitoring' capacity whereby additional data will continue to be collected until suitable conservation advice can be offered. Table 2 outlines which species fall under 'monitoring' and which under 'management'.

²² [DAERA- Monitoring marine habitats and species](#)

Table 2: Species separation into two strands

Management	Monitoring
Basking shark	Angel shark
Porbeagle	White skate
Spurdog	Blonde ray
Tope	Undulate ray
Flapper skate	
Cuckoo ray	
Spotted ray	
Thornback ray	

Commercial fishing

Handling- good handling improves long-term survival of these species and can contribute to stock recovery. This is particularly important for juvenile elasmobranchs. Avoid holding near the gills. Instead, hold or lift under the mid-body and base of the tail and never drag backwards. Return to the water as quickly as possible.

Bycatch- avoid fishing in areas that have been reported to have high incidents of bycatch. It is also advised to inform other fishers of these locations to try and avoid. Any elasmobranchs caught as bycatch should be reported including catch location, species identification (where possible), estimate of number/ abundance and if the animal was dead or alive. Photographs are also strongly advised where possible.

Recreational fishing/ angling

Handling- good handling improves long-term survival of these species. This is particularly important for juvenile elasmobranchs. When handling, aim to have a dedicated soft surface to lay elasmobranchs on to remove fishing gear but where possible aim to do this with the animal remaining in the water. If there is a need to lift or move the animal, a sling or mat should be used rather than gaffing and avoid holding near the gills. Instead, hold or lift under the mid-body and base the of tail and never drag backwards. Return to the water as quickly as possible.

Gear- barbless hooks should be used to reduce damage and allow for quick and easy removal. Ensure appropriate gear is used for target species and that appropriate strength line

is deployed to reduce chances of lines snapping, which can entangle animals and add to marine litter.

Personal watercraft users

While most of the species contained within this Strategy are demersal, some species such as Basking shark can be found near the surface where they may be susceptible to surface strike and disturbance.

Distance- It is advised to always remain at least 100m away from these sharks. Observe the direction sharks are travelling and steer accordingly to avoid interaction. If a shark approaches your watercraft closer than 100m, switch engine to neutral to avoid injury.

Breaching- watercraft users should be aware that breaching behaviour can occur, and if too close, can pose a danger to both the animal and the watercraft users.

Speed- travelling speed should be kept below six knots.

Swimming

If you encounter an elasmobranch whilst swimming (most commonly Basking sharks), do not approach any closer than 4m and never attempt to touch the animal. Swimmers should not swim towards animals they encounter and should be aware of breaching behaviour.

Swimmers should restrict numbers to groups of less than four when in the water with elasmobranchs and stick together in a group.

Canoes/ kayaks/ paddleboards

These water users should never intentionally approach elasmobranchs on the surface. They should remain calm and quiet and stay in a group. Effort should be made to avoid crossing paths to allow animals to continue on their course without having to dive or change direction. Paddles or oars should never be used to attempt to touch an animal.

Reporting

Every effort should be made to report sightings and/ or catches of elasmobranch species (alive or dead) as well as any eggs cases observed, both on land and in the water. In

Northern Ireland, reports can be submitted directly to CEDaR²³, DAERA²⁴ or Ulster Wildlife²⁵. Photographs should accompany these reports as often as possible to allow for species verification. Other information should include date, location, and activity.

Knowledge gaps

To better understand the current distribution and habitat use of elasmobranchs in Northern Ireland, the following knowledge gaps have been identified as priority for this strategy to address:

- Nursery areas
- Migratory channel(s)
- Site fidelity/ areas of residency
- Local distribution of species covered in this strategy (Table 1)
- Local genetic reference datasets

Proposed aim

The proposed aim of this strategy is to

Develop management guidance to aid with conservation measures for the 12 priority species identified in Table 1, while delivering on international obligations to protect and preserve the marine environment.

Full conservation summaries and species accounts are presented in [Annexes 4 and 5](#).

Question 3: Do you agree with the Aim of this Strategy?

²³ [CEDaR](#)

²⁴ [DAERA Marine Conservation](#)

²⁵ [Ulster Wildlife](#)

Proposed objectives

The following 12 objectives are proposed to deliver the Elasmobranch Conservation Strategy for Northern Ireland by 2030:

- 1. Establish robust baselines for all species included in the Elasmobranch Conservation Strategy.**
- 2. Identify the relevant threats and pressures to elasmobranchs in Northern Ireland waters.**
- 3. Assess and report on the current state of priority elasmobranch populations.**
- 4. Consider options to further increase protection for elasmobranchs in Northern Ireland waters.**
- 5. Identify gaps in existing mitigation measures for each of the elasmobranch species and support the development, trial and wider roll-out of novel approaches.**
- 6. Ensure any mitigation measures are consistent with wider environmental objectives.**
- 7. Evaluate the impact of mitigation measures on reducing bycatch and entanglement.**
- 8. Establish approaches to managing wildlife interactions.**
- 9. Promote agreed conservation strategies to all relevant stakeholders.**
- 10. Agree a data sharing agreement with stakeholders.**
- 11. Develop enforcement/ protection protocols.**

Question 4: Do you DISAGREE with any of the objectives that have been identified in this Strategy?

Proposed actions

Each of the above objectives is supported by a series of proposed SMART actions that are outlined in [Annex 2](#). SMART actions are specific, measurable, achievable, relevant and time bound.

Question 5: Do you consider the Actions are sufficient to meet the relevant Objectives?

Governance

DAERA is obliged to report on biodiversity and ecosystem health under several national and international requirements, against which a governance structure has been discussed with the Elasmobranch Conservation Strategy Working Group. By recognising that some species included in this strategy are more common than others in Northern Ireland, a two-strand approach has been agreed under “Management” and “Monitoring”, where agreed actions and objectives were developed which best match known species abundance and distribution. This also ensures accountability and a shared interest in delivering the outcomes of this strategy. This governance structure will oversee the action table below, with different stakeholders responsible for leading on specific targets in order to maximise efficiency and avoid replication of effort between partners.

The agreed governance structure of the Elasmobranch Conservation Strategy will be closely aligned with the reviewed MPA Strategy²⁶ and Seabird Conservation Strategy²⁷. Input will also be sought from the Inshore Fisheries Partnership Group and wider stakeholder groups such as Co-Fish and the Regional Flapper Skate Working Group.

²⁶ [MPA Strategy Review](#)

²⁷ [Northern Ireland Seabird Conservation Strategy](#)

Monitoring and reporting

DAERA is committed to reporting environmental status under several statutory obligations summarised in Table 3 (below). The Elasmobranch Conservation Strategy recognises the need for periodic review to ensure actions and objectives are kept on track. To monitor the progression of this strategy, annual meetings will be scheduled with the Elasmobranch Conservation Strategy Working Group, where each partner will present and report on the progress of actions assigned to them. This monitoring and reporting framework will take into account the need to assess the effectiveness of conservation and management measures proposed. The overall delivery of this strategy will remain the responsibility of DAERA.

Table 3: MPA Reporting Requirements

	International			UK				NI
	Convention on Biological Diversity (CBD)	OSPAR Convention	Bern Convention	Habitats Regulations	Birds Directive	Marine Strategy	Water Framework Regulations	Marine Act (Northern Ireland) 2013
Reporting cycle frequency/ next due	Intervals determined by Conference of the Parties (COPs)	Every 10 years 2030	Every 6 years 2025	Every 6 years 2025	Every 6 years 2025	Every 6 years 2024	Every 6 years 2023	Every 6 years 2024

Question 6: What do you see as the biggest challenge to protecting elasmobranchs in Northern Ireland waters?

Conclusion

Northern Ireland is recognised as being geographically important for a range of elasmobranch species, either as a migratory corridor or as localised nursery areas. In a society where we look more and more towards the marine environment for food, energy, travel, and recreation, it is important to ensure we do so in a sustainable manner that considers wider environmental concerns. Elasmobranchs have often been impacted by anthropogenic activities, often indirectly, but through this Strategy we hope to bring these issues to the fore and promote conservation objectives for the benefit of both the species and the wider marine ecosystem.

DAERA would like to thank you for taking the time to complete this consultation.

Annex 1: List of Co-Design Stakeholders

Non-Government Organisations

- Ulster Wildlife
- Northern Ireland Marine Task Force (NIMTF)
- Shark Trust

Industry

- Northern Ireland Fishermen's federation
- Anglo North Irish Fish Producers' Organisation (ANIFPO)
- Northern Ireland Fish Producers' Organisation (NIFPO)
- Fjordstrong

Government and public bodies

- Agri-Food and Biosciences Institute (AFBI)
- SeaFish
- Nature Scot

Universities

- Queen's University Belfast (QUB)
- Ulster University (UU)

Cross-border

- Irish Elasmobranch Group
- Fair Seas
- University College Cork (UCC)
- Marine Institute Ireland
- The Ray Project
- Inland Fisheries Ireland

Annex 2: Elasmobranch Conservation Strategy – Action Tables

Table 4: Evidence theme – Objectives and associated actions

Objective No.	Objective	Action No.	Action – how will we achieve the objectives.
1	Establish robust baselines for all species included in the Elasmobranch Conservation Strategy	1.1	Data mining of all publicly available records of all elasmobranch priority species in NI waters by Q4 2024. As new evidence is generated, this will continue to be updated
		1.2	Assess suitability of each elasmobranch priority species for inclusion on the final strategy document
2	Identify the relevant threats and pressures to elasmobranchs in Northern Ireland waters	2.1	Vulnerability/ sensitivity analysis from MarLIN will be reviewed and resolved where missing for certain species by Q2 2025
		2.2	Map VMS up to 2026 to highlight where fishing overlaps with spatial distribution of NIPS

Table 5: Review theme – Objectives and associated actions

Objective No.	Objective	Action No.	Action – how will we achieve the objectives.
3	Assess and report on the current state of priority elasmobranch populations	3.1	Analysis of abundance trends over time to highlight current trajectory of each species by Q4 2024
		3.2	Identify knowledge gaps to improve the evidence base and data availability of elasmobranch distribution outside of known spatial distribution within Northern Ireland waters
4	Consider options to further increase protection for elasmobranchs in Northern Ireland waters	4.1	Explore methods to identify critical habitats for elasmobranchs by Q3 2025
		4.2	Explore different types of spatial management that will achieve a beneficial outcome to sensitive elasmobranch species both in the inshore and offshore regions
5	Identify gaps in existing mitigation measures for each of the elasmobranch species and support the development, trial and wider roll-out of novel approaches	5.1	Work through different forums (both domestically and regionally) to identify opportunities to scale-up existing effective mitigation measures
		5.2	Develop, trial and adopt new mitigation measures for each elasmobranch species by 2028

Table 6: Monitoring theme – Objectives and associated actions

Objective No.	Objective	Action No.	Action – how will we achieve the objectives.
6	Ensure any mitigation measures are consistent with wider environmental objectives	6.1	Consult regularly with stakeholders, eNGOs, the Fishing Industry and Fishing Communities. The working group will meet annually to review the action plan delivery against wider environmental obligations
7	Evaluate the impact of mitigation measures on reducing bycatch and entanglement	7.1	Establish monitoring programmes that draw in experience from other DAERA and AFBI teams, consult with stakeholders
		7.2	Explore outcomes from previously funded bycatch mitigation projects by Q2 2025

Table 7: Communication theme – Objectives and associated actions

Objective No.	Objective	Action No.	Action – how will we achieve the objectives.
8	Establish approaches to managing wildlife interactions	8.1	Consult with stakeholders on best practices around wildlife ecotourism (WiSe) by Oct 2025
		8.2	Conduct outreach events and programmes with stakeholders and public
		8.3	Promote education and awareness through citizen science
9	Promote agreed conservation strategies to all relevant stakeholders	9.1	Social media and press campaign to highlight agreed conservation measures by June 2025
10	Agree a data sharing agreement with stakeholders	10.1	Facilitate sharing of data and ensure metadata meets appropriate standard
11	Develop enforcement/ protection protocols	11.1	Provide advice on relevant legislation pertaining to each species and the process of reporting a wildlife crime

Annex 3: Glossary

Acoustic telemetry – Acoustic telemetry is a general term that describes the practice of implanting marine animals with electronic tags that emit an identifiable coded set of 'pings' to transmit a unique identifier to any listening station that is near enough to record them.

Adaptive management – an approach to natural resource management that aims to reduce social and ecological costs through a process of “learning by doing”.

Anthropogenic – effects, processes, objects, or materials are those that are derived from human activities.

Biennial – occurs every 2 years.

BRUV – Baited remote under water video, these stationary, seafloor camera stations use bait to attract fish in their vicinity, recording the species attracted to the bait or swimming past the camera lens.

Bycatch – Fishermen sometimes catch and discard animals they do not want, cannot sell, or are not allowed to keep. This is collectively known as “bycatch.”

Cephalopods – family group that consists of octopus and squid.

Critically endangered – International Union for Conservation of Nature (IUCN) status, whereby best available evidence suggests a species is considered to be facing an extremely high risk of extinction in the wild.

Demersal – Part of the water column near to the seabed, not to be confused with “benthic” which refers to bottom of a body of water i.e. seabed.

Elasmobranchs – The term elasmobranch refers to the sharks, rays, and skates, which are cartilaginous fishes.

Fecundity – The ability to produce an abundance of offspring or new growth.

Food web – Consists of all the food chains in a single ecosystem.

Good Environmental Status (GES) – The environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive.

Life history traits – A species' life history is the pattern of life cycle processes, including growth, development, reproduction, and death. Life history traits, therefore, are traits that relate to the timing and occurrence of each of these stages.

Marine Conservation Zones (MCZ) – used to refer to MCZs designated under section 13 of the Marine Act (Northern Ireland) 2013 in the Northern Ireland inshore region and in section 116 of the Marine and Coastal Access Act 2009 in the Northern Ireland offshore region. MCZs are designated to safeguard vulnerable or unique marine species and habitats of national importance.

Northern Ireland Priority Species (NIPS) – Priority species require conservation action because of their decline, rarity and importance in an all-Ireland and UK context.

OSPAR – refers to the Oslo - Paris Convention for the Protection of the Marine Environment of the North-East Atlantic. It is an agreement by relevant governments and the European Community to co-operate to protect the marine environment of the North-East Atlantic.

Oviparous – reproductive method by means of producing eggs which are hatched after they have been laid by the parent.

Satellite telemetry – allows researchers to track the movement of an animal by using orbiting satellites that detect signals emitted from a transmitter attached to the animal.

Site Fidelity – Site fidelity is the tendency to return to previously visited locations.

TAC – Total Allowable Catch, this is the annual quota of a fish stock that is allowed to be caught in commercial fisheries.

UK Marine Strategy – This strategy provides an updated assessment of our seas and sets objectives, targets, and indicators for achieving Good Environmental Status.

UNCLOS – The 1982 United Nations Convention on the Law of the Sea (UNCLOS) was a landmark convention setting out rules relating to the world's oceans and seas. The convention covers issues including territorial limits, resources and protection of the marine environment.

WiSe – The WiSe Scheme provides wildlife sensitivity training and accreditation for boating and adventure sport professionals, as well as best practice advice for the wider public.

Annex 4: Conservation Status

The following 12 priority elasmobranch species in Northern Ireland coastal waters have been selected for inclusion, with eight listed in Annex V of OSPAR regulations (OSPAR Agreement 2008-06)²⁸, and most listed as Critically Endangered to Near Threatened by the IUCN (International Union for Conservation of Nature)²⁹.

Table 8: Elasmobranch conservation categories across multiple assessment bodies

Species	Northern Ireland Priority Species List (2022)	OSPAR Status Assessment (2021) ³⁰	IUCN Red List		Irish Red List No. 11 (2016)		
			EU assessment (2017)	Global assessment (2018)	NE Atlantic	Europe	Global
Angel shark (<i>Squatina squatina</i>)	1,2,3	Poor	Critically Endangered, Decreasing	Critically Endangered, Decreasing	Critically Endangered	Critically Endangered	Critically Endangered
Basking shark (<i>Cetorhinus maximus</i>)	1,2	Poor	Endangered, Stable	Endangered, Decreasing	Endangered	Vulnerable	Endangered

²⁸ [Overview Assessment of Implementation of OSPAR Recommendations](#)

²⁹ [IUCN Red List of Threatened Species](#)

³⁰ [OSPAR Threatened and Declining Fish](#)

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Porbeagle (<i>Lamna nasus</i>)	1,2	Unknown	Critically Endangered, Decreasing	Vulnerable, Decreasing	Critically Endangered	Vulnerable	Critically Endangered
Spurdog (<i>Squalus acanthias</i>)	1,2	Poor	Endangered, Decreasing	Vulnerable, Decreasing	Critically Endangered	Vulnerable	Endangered
Tope (<i>Galeorhinus galeus</i>)	1,2	Not assessed/unknown	Vulnerable, Decreasing	Critically Endangered, Decreasing	Data Deficient	Vulnerable	Vulnerable
Flapper skate (<i>Dipturus intermedius</i>)	1,2,4	Not assessed/unknown	Critically Endangered	Critically Endangered, Decreasing	Critically Endangered	Critically Endangered	Critically Endangered
White skate (<i>Rostroraja alba</i>)	1,2,3	Poor	Critically Endangered, Decreasing	Endangered, Decreasing	Critically Endangered	Endangered	Critically Endangered
Blonde ray (<i>Raja brachyura</i>)	2	Not assessed/unknown	Near Threatened, Decreasing	Near Threatened, Decreasing	Near Threatened	Near Threatened	Near Threatened

Cuckoo ray (<i>Leucoraja naevus</i>)	1,2	Not assessed/unknown	Least Concern, Unknown	Least Concern, Unknown	Least Concern	Least Concern	Least Concern
Undulate ray (<i>Raja undulata</i>)	1,2	Not assessed/unknown	Near Threatened, Unknown	Near Threatened, Decreasing	Endangered	Endangered	Near Threatened
Spotted ray (<i>Raja montagui</i>)	1,2	Not assessed/unknown	Least Concern, Stable	Least Concern, Stable	Least Concern	Least Concern	Least Concern
Thornback ray (<i>Raja clavata</i>)	1,2	Good	Near Threatened, Stable	Least concern, Unknown	Near Threatened	Near Threatened	Near Threatened

1 – Internationally Listed Species.

2 – Decline based on available data and expert judgement.

3 – Rare or restricted range - rare breeding species confined to 5 hectares.

4 – NI stronghold or endemic – both stronghold range/population and designation as “endemic” subject to expert judgement.

Annex 5: Species accounts

For each of the species included in this Strategy, the following information has been informed from ICES data at a UK scale.

Angel shark (*Squatina squatina*)

Life history

The Angel shark is a flat bodied shark, commonly misidentified as a skate or ray. It is a demersal, nocturnal elasmobranch, which lays concealed on the ocean floor. It prefers shallow waters but can be found at depths greater than 100m. It was formerly a common and important demersal predator over large areas of its range. Its abundance has declined dramatically over the past 50 years and is now extinct in the North Sea, as well as being drastically reduced from the Irish Sea. However, a record of juvenile Angel shark in Welsh waters from a recent study suggests there may be a breeding population in this area.

Threats

- Overfishing – Increasing commercial fishing intensity in certain areas.
- Bycatch – Susceptible to being caught in trawls, trammel nets and bottom longlines as they are a demersal fish.
- Low genetic diversity – Low rate of exchange between populations, leaves them prone to extirpation, and recolonisation is more difficult.
- Disturbance – Prone to disturbance from tourism as they prefer a sandy nearshore habitat.

Current management

- Northern Ireland Wildlife Order – Protected in Northern Ireland to six nautical miles through the Wildlife Order (Northern Ireland) 1985 (as amended), and are listed Schedule 5, “Animals which are protected at all times”.
- NI Priority Species

- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.³¹

³¹ [The Marine Protected Areas \(Prohibited Methods of Fishing\) \(Amendment\) Regulations \(Northern Ireland\) 2022](#)

Basking shark (*Cetorhinus maximus*)

Life history

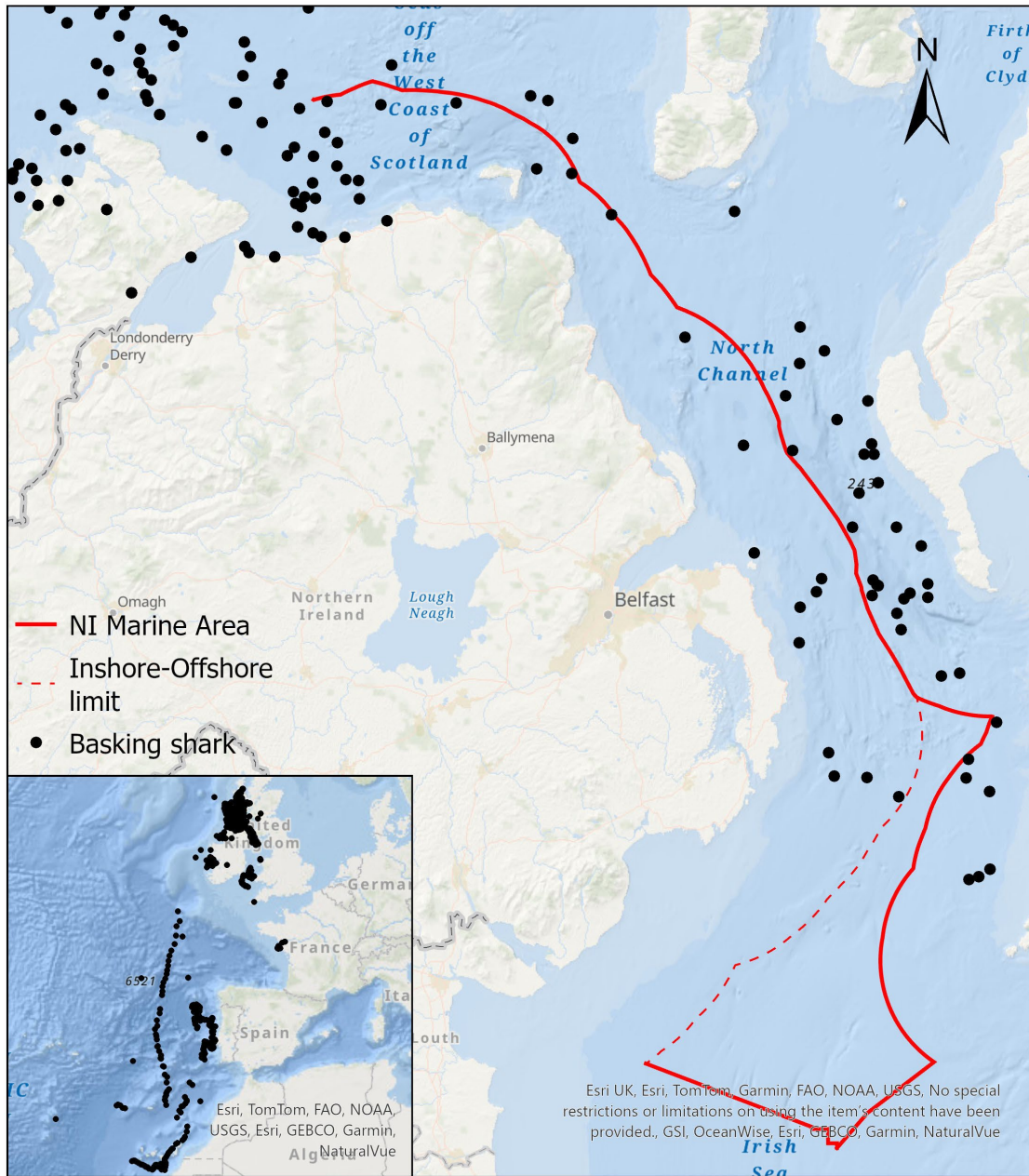
Basking sharks can grow to 12m, making them the largest elasmobranch in NI waters and the second largest fish in the world after the whale shark. It feeds primarily on plankton, using its mouth like a sieve while swimming. In the past, Basking sharks were hunted mainly for liver oil – many populations have not recovered from this exploitation as much as 50 years later. It is believed that they spend the winter months feeding in deep water offshore or move south to warmer seas. Basking sharks breed when they are between 12 and 18 years old; females mature later than males. Approximately six pups may be produced every 2 - 3 years. The young sharks hatch inside their mother's body and remain there for 1 - 3 years feeding on small infertile eggs that the female produces.

Threats

- Bycatch – Slow swimming, vulnerable to trawl nets. Slow reproduction rate and late sexual maturity means populations are easily decimated.
- Entanglement – At risk of being entangled in pot lines.
- Disturbance – Slow swimming, easily startled.
- MPV (Motor Propelled Vehicle) Strike – Slow swimming at surface level makes them vulnerable to collision, especially during summer months when they feed at the surface.

Current management

- Wildlife Order – Protected in Northern Ireland to six nautical miles through the Wildlife Order (Northern Ireland) 1985 (as amended), and are listed in Schedule 5, “Animals which are protected at all times”.
- WiSe Scheme – Training accreditation available to outdoor recreation pursuit organisations, works to promote responsible marine wildlife watching.
- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.
- MPA Patrols – MPA Officers regularly conduct site integrity patrols of protected areas to monitor and document any wildlife crime.



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Data Sources: NBDC NI Marine Species Records, DASSH, Sea Deep project, Copeland Island CBO Seawatch Survey, CEDaR, Irish Whale & Dolphin Group (IWDG), Queen's University Belfast, Sea Search, public sightings

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Figure 1: Basking shark records 1993-2021.

Porbeagle (*Lamna nasus*)

Life history

The Porbeagle is a wide-ranging coastal and oceanic shark feeding on fish and cephalopods. Females reach maturity at 13 years while a male reaches maturity at 8 years. They can often live up to 50 years. This species reproduces annually, gestating for 8-9 months, producing 1-5 pups. The majority of NI Porbeagle records have originated from the deep waters around Rathlin Island.

Threats

- Overfishing – High value meat, unsustainably fished, combined with late sexual maturity leading to a reduced population and slow recovery.
- Bycatch – Caught unintentionally by commercial fishermen. Catch and release is practiced, post release mortality is unquantified.

Current management

- Total Allowable Catch (TAC) – Reduced to zero in 2010, EU vessels prohibited from landing Porbeagle.
- NI Priority Species.
- Legislation- Prohibited for Union fishing vessels to fish for, to retain on board, to tranship or to land Porbeagle³².
- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.

³² [EU Council Regulation 2020/123](#)



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Data Sources: NBDC NI Marine Species Records, DASSH, Sea Deep project

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Figure 2: Porbeagle records 1977-2019.

Spurdog (*Squalus acanthias*)

Life history

Spurdog is also known by other names including spiny dogfish, piked dogfish, rock salmon, spiky dog, or white spotted dogfish. They can live up to 70 years, reaching sexual maturity at 20 years. Spurdog get its name from the spur at the front of its dorsal fin. The spur is defensive and secretes venom, causing swelling and pain in humans if injected.

Reproduction occurs internally, with gestation typically lasting 18-24 months, one of the longest gestation periods for any animal.

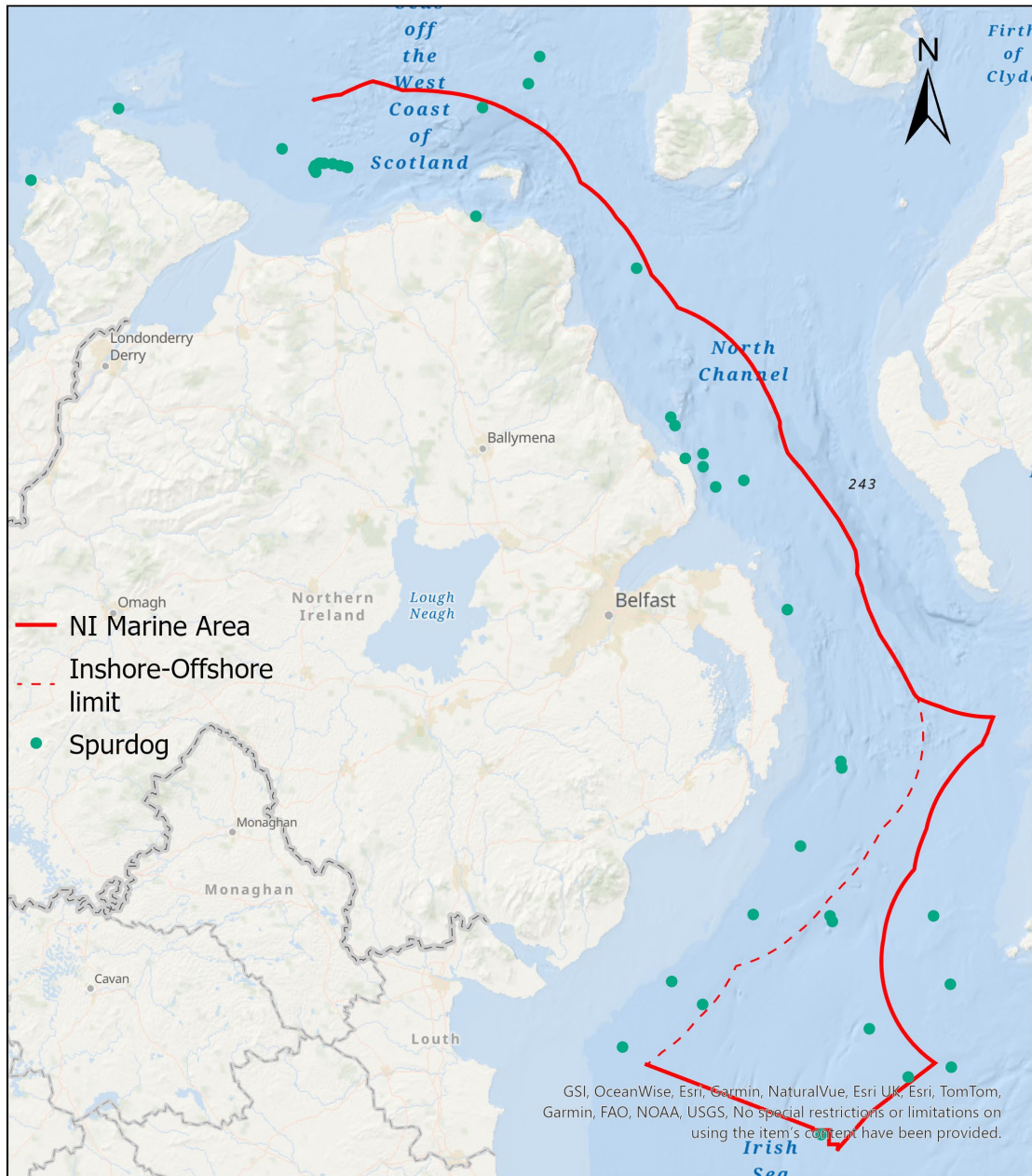
They were abundant in Northern Ireland waters in the twentieth century, so much so they were often regarded as a pest by commercial fishermen.

Life history

- Overfishing – Late sexual maturity and small pupping litter, and biennial pupping leaves populations vulnerable to depletion.
- Bycatch – Sensitive to bycatch from demersal fisheries.
- Pollution – Pupping grounds are mainly inshore; this leaves juveniles susceptible to pollution from land run-off and coastal developments.

Current management

- TAC – advice (published on 4 October 2023) that “when the Maximum Sustainable Yield (MSY) approach is applied, catches of Spurdog, in ICES subareas 1-10, 12 and 14 should be no more than 17, 855 tonnes in 2024.” These subareas cover Northern Ireland waters.
- NI Priority Species
- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.



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Data Sources: NBDC NI Marine Species Records, AFBI, DAERA, Sea Deep project, Irish Specimen Fish Records

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Figure 3: Spurdog records 1973-2024.

Tope (*Galeorhinus galeus*)

Life history

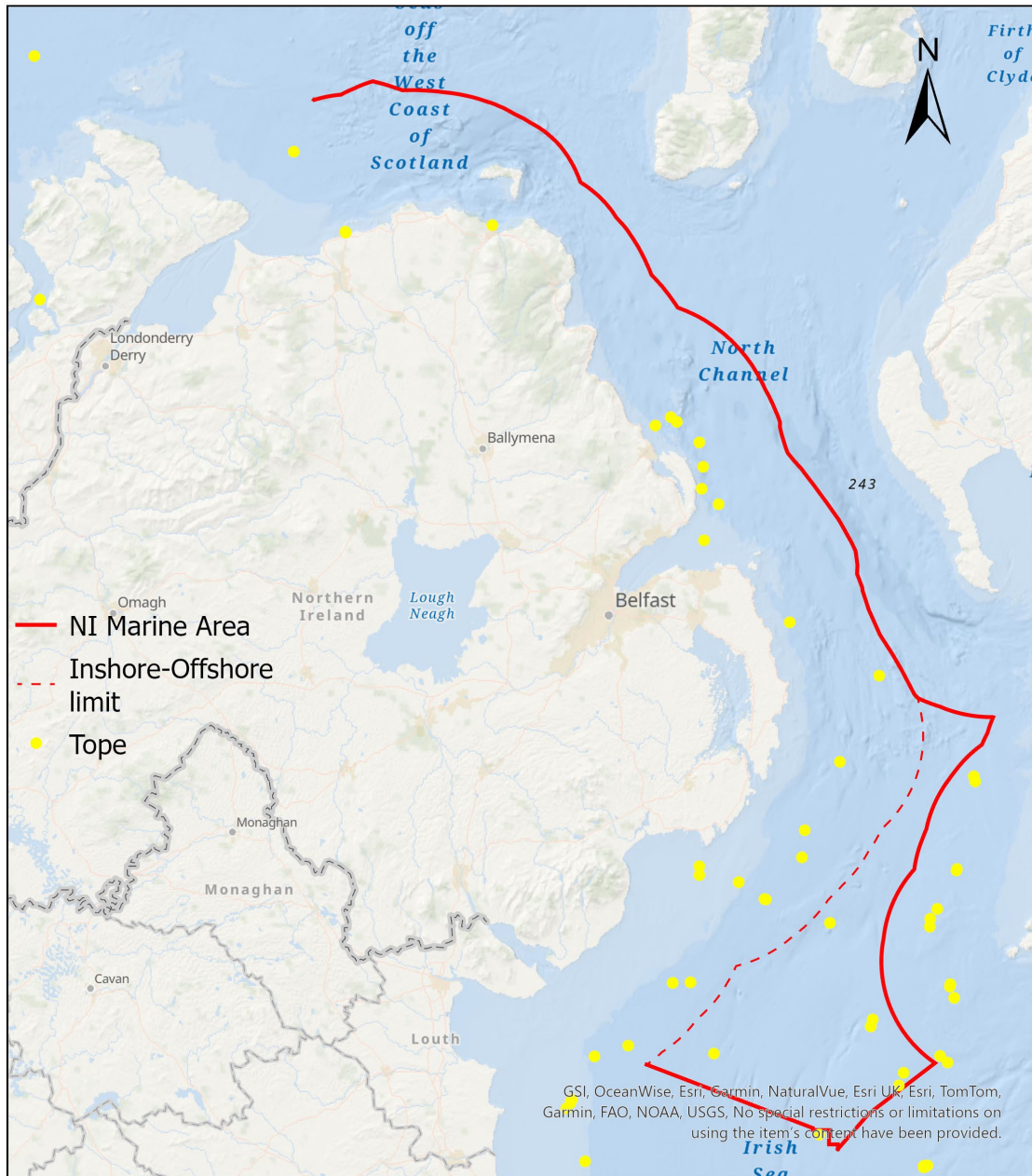
Tope were formerly common in Northern Ireland waters, but their numbers have been greatly reduced. They can live up to 50 years and reproduce when they reach 12 years. Reproduction occurs every 2-3 years. Females hold the developing eggs within her body during gestation. The diet of Tope consists mainly of fish, crustaceans, and cephalopods (octopus and squid). They can be found around the Northern Ireland coast, with sightings most frequently reported off the Co. Down coast. Tope are highly prized as a sport fish. Tagging research has shown them to be a highly mobile species.

Threats

- Overfishing – Pregnant females spawn in shallower waters, increasing the likelihood of being caught by anglers.
- Bycatch – Frequently caught as bycatch by demersal and pelagic trawls. Survival rates post bycatch are unknown.
- Habitat Degradation – Nursery sites are located near shore. These are susceptible to damage from development and pollution.

Current management

- NI Priority Species.
- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.
- Legislation – Prohibited for Union fishing vessels to fish for, to retain on board, to tranship or to land Tope. Article 16, Council Regulation (EU) 2020/123, as amended by The Common Fisheries Policy (Amendment etc.) (EU Exit) Regulations 2020.
- Bycatch Limit – 45kg per day for commercial fisheries targeting other species.



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Data Sources: NBDC NI Marine Species Records, AFBI, DAERA, Sea Deep project, Irish Specimen Fish Records, Scottish Shark Tagging Programme

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Figure 4: Tope records 1973-2021.

Flapper skate (*Dipturus intermedius*)

Life history

The Flapper skate is the largest skate in the world- often reaching lengths of up to 3m. They have a long-life span, often living up to 100 years. In 2010, it was found that the elasmobranch previously known as Common skate is two distinct species:

- Flapper skate (*Dipturus intermedius*)
- Blue skate (*Dipturus flossada*)

Flapper skate take over 10 years to reach sexual maturity and produce low numbers of offspring. They lay their eggs on shallow rocky seabed. These eggs take up to 18 months to develop before they hatch. They were once common in Northern Ireland waters, most notably in Strangford Lough, but have drastically declined over time.

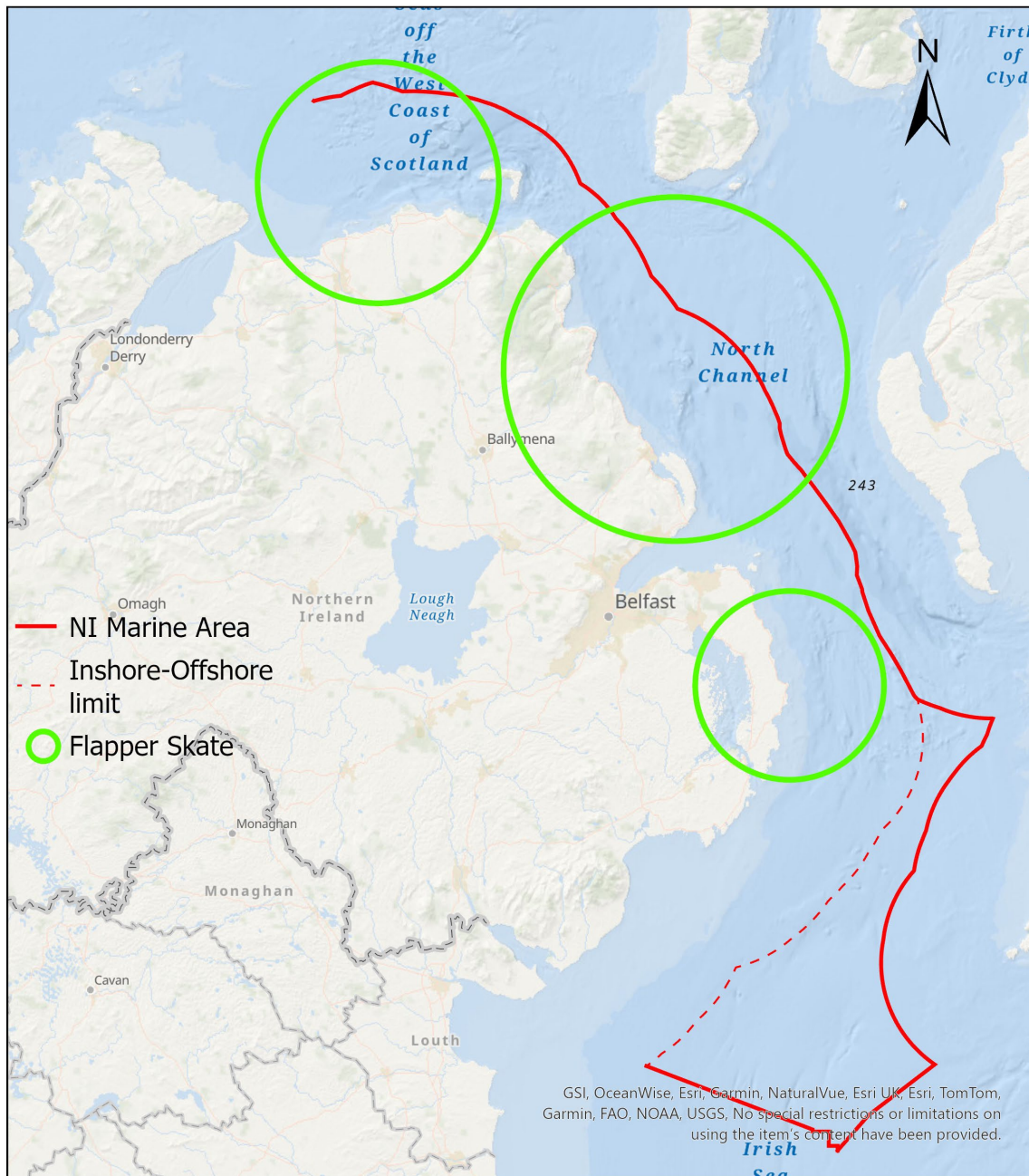
Threats

- Overfishing – Historically overfished. Late age maturity and low numbers of offspring means slow population recovery.
- Bycatch – Hatchlings are vulnerable to being caught in mobile fishing gear. Adults may be unable to avoid this gear also.
- Human Interference – Flapper skate have a layer of thin cartilage covering their organs, provides little protection out of the water. Anglers should know how to safely and quickly release the animal to minimise injury.
- Habitat Degradation – Eggs are laid on shallow seabed, leaving them sensitive to abrasion by ropes, chains, and fishing gear. Sensitive to pollution from surface run-off.

Current management

- Northern Ireland Wildlife Order – Protected in Northern Ireland to six nautical miles through the Wildlife Order (Northern Ireland) 1985 (as amended), listed as Schedule 5, “Animals which are protected at all times”.
- NI Priority Species.
- Prohibited Species – Listed under Article 16, Prohibited species of the Council Regulation (EU) 2020/123. Prohibited to target, retain on board, tranship or land.

- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.



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Data Sources: NBDC NI Marine Species Records, AFBI, Irish Specimen Fish Records, Sea Deep project, Ulster Wildlife, Queen's University Belfast, Scottish Shark Tagging Programme, Ulster Museum

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Figure 5: Flapper skate records 1972-2023

White skate (*Rostroraja alba*)

Life history

In Ireland the species is confined to the Tralee Bay region and to a lesser extent Galway Bay, which are the only known refuges for the species in the northeast Atlantic, however, a single egg case was discovered on Magilligan beach in 2020. They are a large, slow growing skate, reaching sizes of >2m in length and their lifespan is not currently known. They are oviparous, producing anywhere between 55 and 156 eggs per year. Their egg cases are 10-12cm in length, making them one of the largest marine egg cases in Europe. These eggs can take up to 15 months to develop. Males can take up to 20 years to become mature, whilst females have been reported to take up to 30 years.

Threats

- Overfishing – Slow growth rate, low fecundity, long gestation time. Population recovery is slow.
- Bycatch – Demersal fish, susceptible to bycatch from demersal fishing trawls. Discard survival ability is unknown.

Current management

- Prohibited species – Prohibited to Target, Retain, Tranship or Land within NI waters under Annex I of Regulation (EU) 2019/1241 of the European Parliament and of the Council.
- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.



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Data Sources: Sea Deep project, Ulster Wildlife

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Figure 6: White skate records 2020-2021.

Blonde ray (*Raja brachyuran*)

Life history

The Blonde ray is a large-bodied, dark coloured, light-spotted animal, reaching up to 120cm in length. They feed mainly on crustaceans and molluscs but have been known to eat some species of fish e.g. sandeels. Juvenile numbers have been reported to be increasing over time. There is limited information on adult population trends, but available evidence suggests that the population is over-exploited. Specimen fish numbers from 1954 – 2015 show periodic peaks in abundance since the 1960s with a decline observed since the late 2000s (Irish Specimen Fish Committee reports). They are an oviparous species that reaches maturity at 5 years. The eggs develop for 7 months before hatching.

Threats

- Overfishing – Populations are slow to recover from effects over overfishing.
- Bycatch – Frequently caught as bycatch by commercial fisheries. Immediate mortality of bycaught Blond Ray is low (5.75%); however, delayed mortality may be much higher (50%).

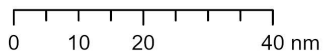
Current management

- TAC – Blonde ray is part of a mixed TAC for skates and rays within ICES areas 6a and 7a, and wider area of, 6b, 7b-c and 7e-k. These subareas cover Northern Ireland waters and allow for 2985 tonnes to be caught per year.
- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.



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Data Sources: AFBI, Irish Specimen Fish Records



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Figure 7: Blonde ray records 1977-2012.

Cuckoo ray (*Leucoraja naevus*)

Life history

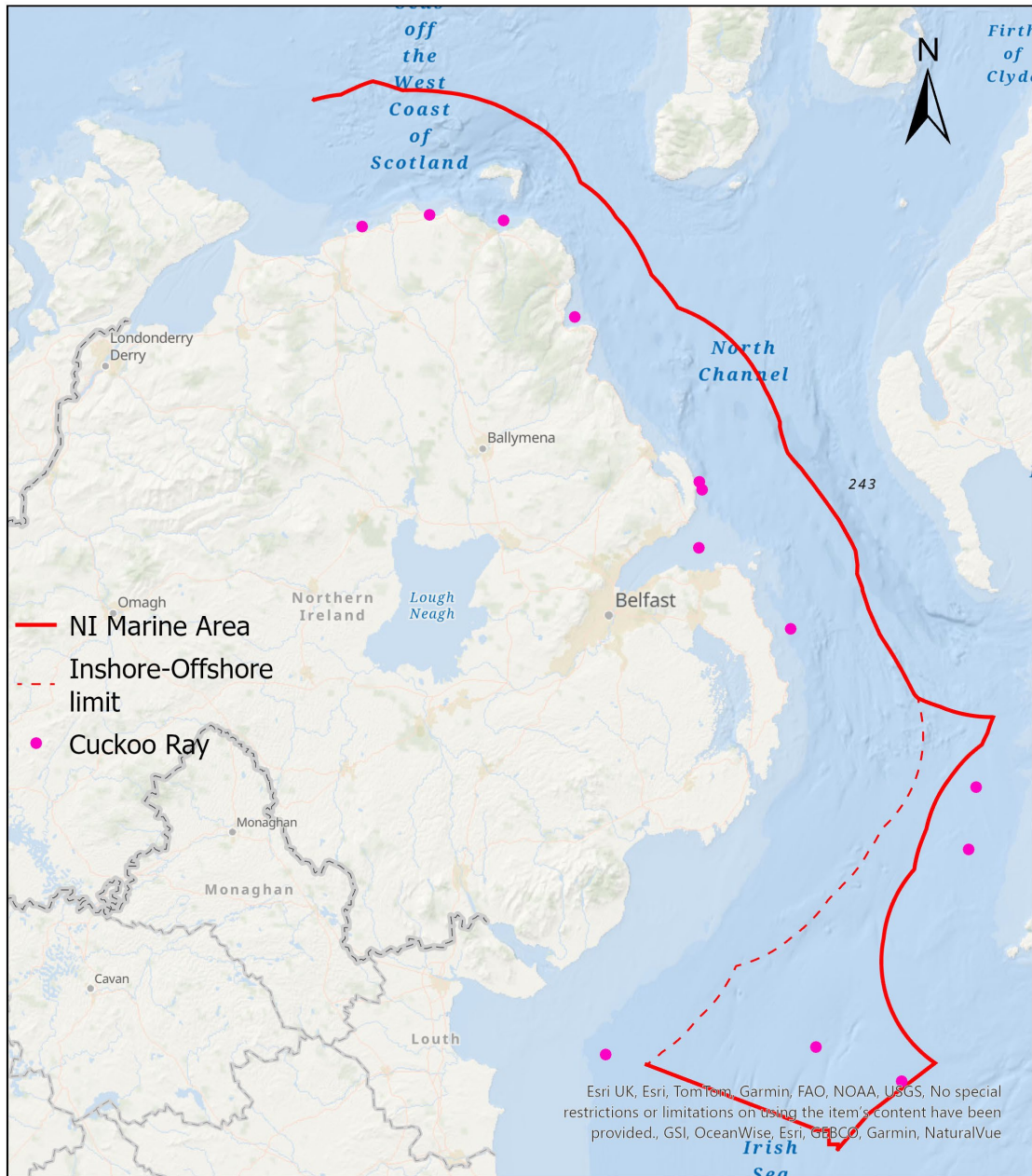
The Cuckoo ray is a small-bodied elasmobranch with a wide geographic distribution in the Northeast Atlantic and Mediterranean Sea. In the Atlantic, they occur from southern Norway to Morocco to the south. The Cuckoo ray is recognisable by the black and yellow marbled eye spots on each wing. Four rows of thorns run down its lower back and along its tail. Both sexes become mature at 4 years. They are oviparous, laying their eggs on the sea floor. These eggs hatch after 8 months, and the offspring may go on to live up to 12 years.

Threats

- Bycatch – Caught as bycatch in demersal fisheries. Frequently landed by commercial fisheries in the Celtic Seas, most dominant bycatch in scallop dredge fisheries in the Northern Irish Sea and around the Isle of Man.
- Cuckoo ray has poor survival rates post release from bycatch; some figures were as low as 12% survivability.

Current management

- TAC – Cuckoo ray is part of a mixed TAC for skates and rays within ICES areas 6a and 7a, and wider area of, 6b, 7b-c and 7e-k. These subareas cover Northern Ireland waters.
- UK quota of 2985 tonnes for skates and rays for these ICES areas. All landed species of skates and ray must be reported separately.
- Specimen Weight – The Irish Specimen Fish Committee (IFSC) reduced the specimen weight for Cuckoo ray to 1.8kg in 2010.
- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.



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Data Sources: AFBI, Irish Specimen Fish Records

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Figure 8: Cuckoo ray records 1977-2012.

Undulate ray (*Raja undulata*)

Life history

The Undulate ray is characterised by its slow growth, late maturity, and low fecundity. They mature between 7-9 years. The female may lay 30-70 eggs per spawning season. Undulate rays display high site fidelity, resulting in areas of localised populations and areas of abundance. They have an observed longevity of 13 years but are thought to live up to 29 years.

Threats

- Bycatch – susceptible to bycatch in trawl and gill net fisheries. Vulnerable to bycatch in static net fisheries.

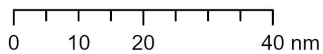
Current management

- Legislation – Prohibited species. Illegal to target, land, tranship, retain on board in ICES area 6. This subarea covers Northern Ireland waters.
- Not covered by the TAC established for other skates and rays. If caught as bycatch, it must be released immediately unharmed.
- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.



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Data Sources: AFBI, Irish Specimen Fish Records



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Figure 9: Undulate ray records 1972-2009.

Spotted ray (*Raja montagui*)

Life history

Juvenile Spotted ray can be found closer inshore, whereas adult species will be found further offshore. It closely resembles the Thornback ray, the distinguishing feature being the latter has large spines with button-like bases scattered over its back.

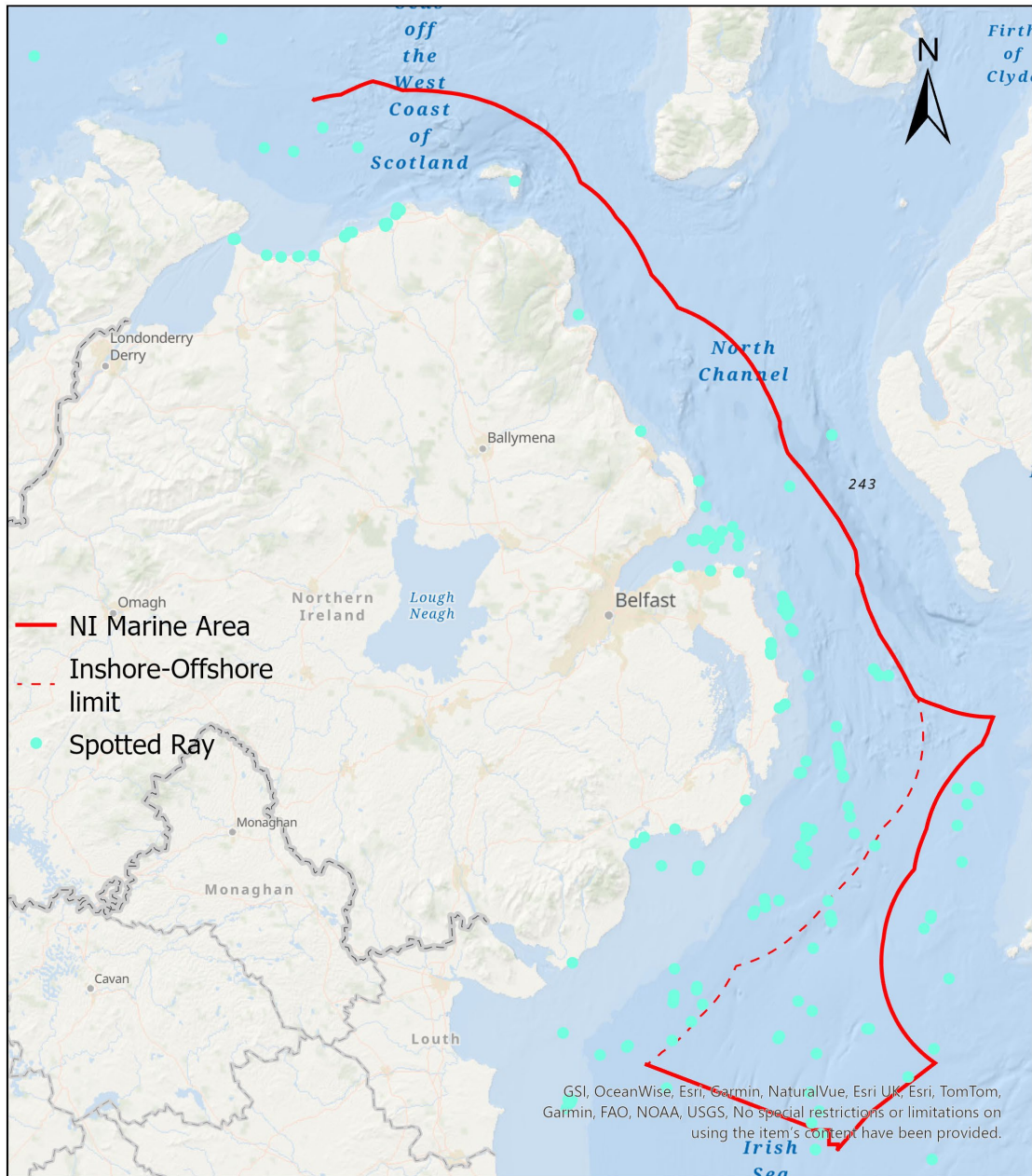
The Spotted ray grows faster, and is overall smaller than most rays and skates, which makes them less vulnerable to overfishing. They are oviparous and can produce 60-70 eggs per spawning season once they become mature at 3-4 years. These eggs hatch after 5-6 months of development.

Threats

- Bycatch – Its smaller size means it is not as susceptible as larger rays to bycatch, and may also be more resilient. Often caught as bycatch in mixed trawl fisheries and landed for human consumption along with other skates and rays.
- Overfishing – Evidence to suggest that stocks are being fished at levels that are unsustainable.

Current management

- TAC – Spotted ray is part of a mixed TAC for skates and rays within ICES areas 6a and 7a, and wider area of, 6b, 7b-c and 7e-k. These subareas cover Northern Ireland waters.
- UK quota of 2985 tonnes for skates and rays for these ICES areas. All landed species of skates and ray must be reported separately.
- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.



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Data Sources: NBDC NI Marine Species Records, AFBI, Irish Specimen Fish Records, BioMar, CEDaR, FRS Scotland Elasmobranch Survey, Sea Deep project, Sea Search

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Figure 10: Spotted ray records 1973-2022.

Thornback ray (*Raja clavata*)

Life history

Thornback ray has a distinctive blotchy brown-grey colour with a collection of “thorns” on its back and tail, and while other species of ray also have thorns, the Thornback rays are the largest. They were once common around the Northern Ireland marine area but have come under pressures and disappeared from historic areas of abundance. The most notable example is the decline of this species in Belfast Lough and Larne Lough.

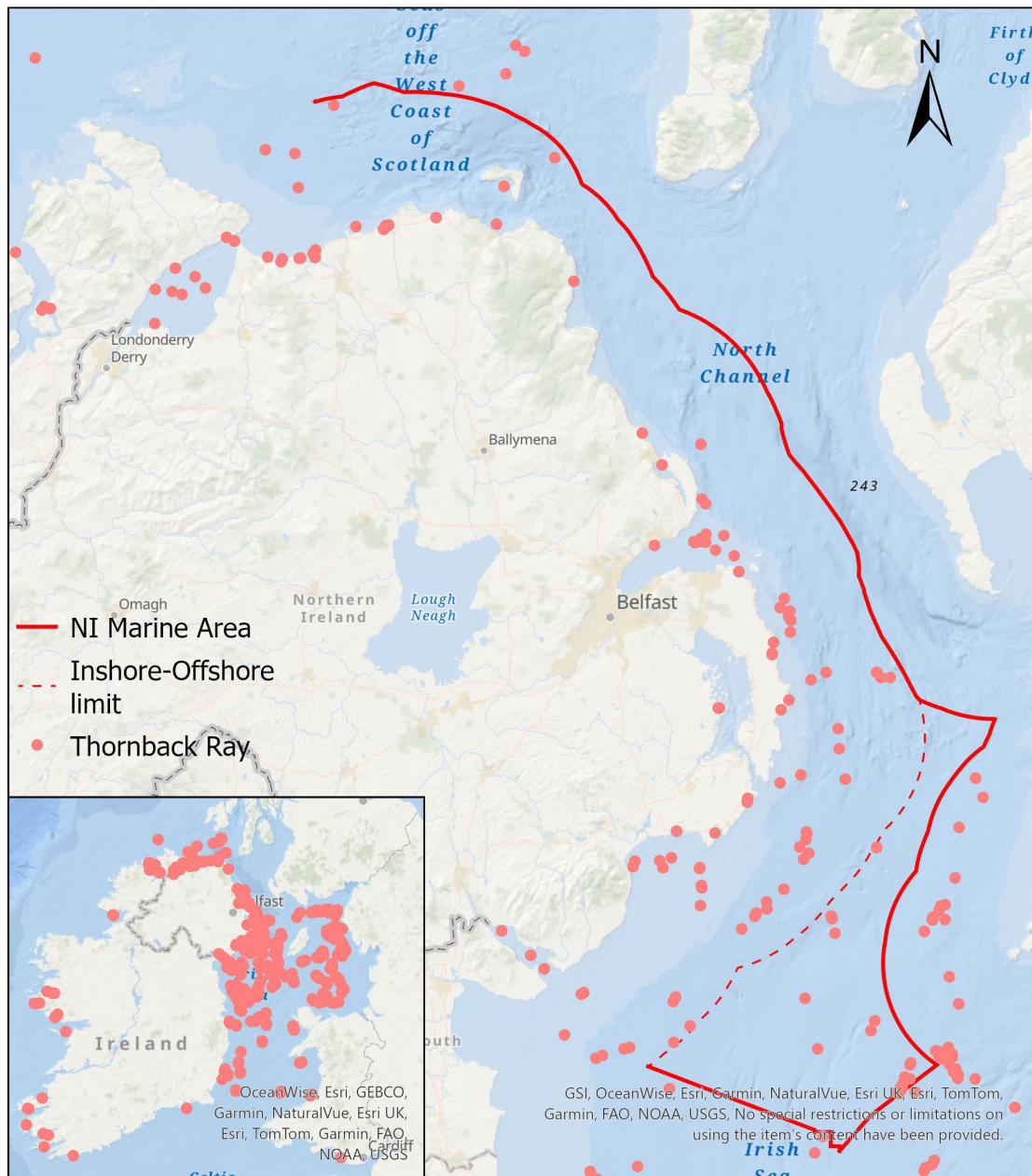
Thornback ray matures at 6 years and is reported to live up to 12 years. The female can produce 60-140 eggs per year.

Threats

- Bycatch – Taken as bycatch in beam trawl, gillnet, and longline fisheries.
- Overfishing – Species is highly sought after, targeted in the North Sea. Slow to repopulate an area once threatened.

Current management

- TAC – Thornback ray is part of a mixed TAC for skates and rays within ICES areas 6a and 7a, and wider area of, 6b, 7b-c and 7e-k. These subareas cover Northern Ireland waters.
- UK quota of 2985 tonnes for skates and rays for these ICES areas. All landed species of skates and ray must be reported separately.
- Fisheries Management Measures – The Marine Protected Areas (Prohibited Methods of Fishing) Regulation was enacted in 2023 and has placed a ban on mobile bottom contacting gear inside nine inshore MPAs.



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Data Sources: NBDC NI Marine Species Records, AFBI, DAERA, Loughs Agency, Irish Specimen Fish Records, BioMar, CEDaR, FRS Scotland Elasmobranch Survey, IBIS project, Sea Deep project, Sea Search, Lough Hyne JDN Survey, NI Power station Cooling-Water Outflow Survey, Ulster Museum

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Figure 11: Thornback ray records 1973-2022.

Annex 6: Publication of responses

Confidentiality

The Department will publish a summary of responses following completion of the consultation process. Your response, and all other responses to the consultation may be disclosed on request. The Department can refuse to disclose information only in exceptional circumstances. Before you submit your response, please read the paragraphs below on the confidentiality of consultations as these provide guidance on the legal position of any information given by you in response to this consultation. Any confidentiality disclaimer generated by your IT system in e-mail responses will not be treated as such a request.

Data Protection

Section 8 (e) of the Data Protection Act 2018 permits processing of personal data when necessary for an activity that supports or promotes democratic engagement. Information provided by respondents to this consultation exercise will be held and used for the purposes of the administration of this current exercise and subsequently disposed of in accordance with the provisions of the Data Protection Act 2018 and General Data Protection Regulation.

Freedom of Information

The Freedom of Information Act 2000 gives the public a right of access to any information held by a public authority (the Department in this case). This right of access to information includes information provided in response to a consultation. The Department cannot automatically consider as confidential information supplied to it in response to a consultation. However, it does have the responsibility to decide whether any information provided by you in response to this consultation, including information about your identity, should be made public or treated as confidential. This means that information provided by you in response to the consultation is unlikely to be treated as confidential, except in very particular circumstances.

The Lord Chancellor's Code of Practice on the Freedom of Information Act provides that:

- The Department should only accept information from third parties in confidence if it is necessary to obtain that information in connection with the exercise of any of the Department's functions and it would not otherwise be provided.
- The Department should not agree to hold information received from third parties 'in confidence' which is not confidential in nature.
- Acceptance by the Department of confidentiality provisions must be for good reasons, capable of being justified to the Information Commissioner.

For further information about confidentiality of responses, please contact the Information Commissioner's Office:

Telephone: 0303 123 1113

Email: ni@ico.org.uk

Website: www.ico.org.uk

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