

Annual Research Plan 2024-2025

This document can also be viewed online at www.nifca.gov.uk

Contents

1. Introduction.....	3
1.1 Personnel and Resources	3
2. NIFCA Research Priority Work Areas	3
2.1 Research and Monitoring work.....	3
2.2.1 Collaborative Research Projects.....	7
2.2 Management Development and Review.....	7
2.3 Engagement and Community Support.....	8
3. National Priorities	9
3.1 Marine Protected Areas.....	9
3.1.1 Marine Protected Area Priorities	10
3.1.2 Key work areas related to MPA priority	11
3.2 Fisheries Management Plans	11
3.2.1 Key work areas related to the FMP priority.....	11
3.3 Sustainable Development	12
3.3.1 Marine Licencing and Planning.....	12
3.3.2 Permitting and Consents.....	13
3.3.3 Key work areas related to the Sustainable Development priority	13
4. Partner Organisations and Working Groups	13
Appendix A	15

1. Introduction

This Annual Research Plan sets out NIFCA's work priorities and research plans between April 2024 and March 2025.

The areas of work and research that have been identified and prioritised for this year fall under the three main work areas, they have been developed based on: on-going priorities carried forward from NIFCA's 2023/24 Annual Research Plan, work developed through emerging issues/knowledge gaps, national priorities and/or policies (section 3). Specific areas of research have been decided on and prioritised through revision of NIFCA's Strategic Environmental Assessment, and Environmental Risk Register, and cognizance of national priorities under the IFCA remit.

The main work areas and function of the Environmental Team are listed below:

- Research and monitoring work
 - Fisheries monitoring work
 - MPA monitoring work
 - Projects and emerging work
 - Licencing and consents
- Management development and review
 - Development of byelaws
 - Review of byelaws and permit conditions
 - Review of non-statutory measures
- Engagement and community support
 - Fisher Forums / Patrols and port visits
 - Actions from engagement work
 - Recreational Sea Angling

1.1 Personnel and Resources

Northumberland IFCA has 15 members of staff comprised of a Chief Officer, six enforcement officers, four environmental officers, and four financial and administrative staff. Enforcement officers and partner organisations assist the environment team with the collection of data.

The members of the Environmental team are:

Alex Aitken: alex.aitken@nifca.gov.uk

Andrew Boon: andrew.boon@nifca.gov.uk

Katy Smart: katy.smart@nifca.gov.uk

Vicky Rae: vicky.rae@nifca.gov.uk

Please see Appendix A for a detailed breakdown of all NIFCA survey resources.

2. NIFCA Research Priority Work Areas

2.1 Research and Monitoring work

The Environmental team carry out research and monitoring work to improve the understanding of the sea fisheries resources NIFCA manage and the marine environment they are dependent on in order to inform

the decisions made by the Authority. The team has built a programme of survey and assessment work which are either completed continuously throughout the year, at set times each year or may be carried out on an ad hoc basis for a particular evidence need. Where possible this work is planned in advance and set out in more detail in Section 2, Table 1.

The research plan is detailed in Table 1. The table is broken down into work areas with individual research projects/survey work that feed into the work area. There is also information on objectives, a brief description of methods, rationales, and timescales included in the table. It also sets out a timeframe for each piece of work, this is a loose timeframe set out to guide the work throughout the year however work may fall outside of the timescale specified in the table. Areas of work have been prioritised based of NIFCA's current research priorities. Officers aim to carry out all work with a priority of 1. Unconfirmed work has been included in the table but may not be carried out due to time or resource constraints. Research and monitoring work is relevant for and will feed into national priorities and workstreams, further details of the national priorities are in Section 3 with details of link between NIFCA workstream and each national priority in Table 1. All data collected through research and monitoring work is shared to the ERIC NE records centre where it can be accessed by other organisations or individuals for future use.

NIFCA prioritise partnership working where possible and Table 1 lists partners involved in the research and monitoring work carried out. NIFCA are also involved in various partnership projects which advance our research priorities or further develop out knowledge base in relation to our remit. NIFCA also support a number of student projects and placements to both generate useful research and support future marine/fisheries researchers early in their careers.

Table 1 Northumberland IFCA Annual Research Plan

Work-stream	Project	Objective	Method	Rationale	Timescale	Lead contact and Partners	Link to national priorities	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Priority
Crustacea	Lobster Biometric Sampling	Collect data on lobster biometrics to monitor local lobster population and exploitation levels based on size distribution and sex ratio of lobster catches.	Measure lobster carapace length and record biometric data through offshore, wholesaler and quayside surveys.	To build dataset for stock monitoring work.	Regular	Andrew Boon Fishing industry	Fisheries Management Plans													1
	Brown crab Biometric Sampling	Collect data on brown crab biometrics to monitor local lobster population and exploitation levels based on size distribution and sex ratio of lobster catches.	Measure brown crab carapace width and record biometric data through offshore, wholesaler and quayside surveys.	To build dataset for stock monitoring work.	Regular	Andrew Boon Fishing industry	Fisheries Management Plans													1
	Temperature loggers on pots	To collect temperature at depth data and relate this to catch.	Work with fishers to put temperature loggers on pots.	Start a long-term temperature at depth monitoring programme to understand more about how temperature affects catchability of pots.	Regular	Andrew Boon Fishing industry	Fisheries Management Plans													1
	V-notching programme	To v-notch and release (mainly) female lobsters back into the fishery with protection for the length of time a 'v' is notched into the tail (up to 3 years).	Buy lobster from wholesalers, v-notch, and release.	To give female lobsters protection from the fishery to go through multiple reproductive cycles with the aim of maintaining future populations.	Regular	Andrew Boon Alex Aitken Fishing industry and wholesalers	Fisheries Management Plans													1
	Nephrops monitoring surveys	To understand Nephrops abundance inside the NIFCA district.	Liaise with Cefas to understand whether an extension of their survey is possible.	Abundance of Nephrops in the NIFCA district unknown.	TBC	Alex Aitken Cefas	Fisheries Management Plans													2
	Floating otter board gear trial	To understand whether floating otter boards can fish effectively reducing gear impact on ground while maintaining catch rates.	At sea trials of gear and comparison of catch, bycatch and fuel consumption to regularly fished gear.	To determine whether a lower impact gear can fish effectively and reduce fuel consumption.	1 month	Alex Aitken Fishing industry Wildlife Trust	Marine Protected Areas													2
Mollusca	Periwinkles	To monitor the impacts of periwinkle collection on both in situ populations and communities.	Quadrat surveys, timed searches and shore patrol observations	To understand the impacts of this activity based on current levels and monitor over time. To develop a time series data set of intertidal community composition.	Regular	Katy Smart NE Marine Nature Partnership	-													2
	Fenham Flats mussel survey	Monitor size distribution, density and spatial extent of mussels.	Defra 'Walker and Nicholson'	Annual survey to assess mussel stocks within Lindisfarne protected areas to ensure enough food resources for birds.	1 day	Alex Aitken NE	-													2
	Holy Island mussel survey	Monitor size distribution, density and spatial extent of mussels.	Defra 'Walker and Nicholson'	Annual survey to assess mussel stocks within Lindisfarne protected areas to ensure enough food resources for birds.	1 day	Alex Aitken NE	-													2
	Blyth Estuary mussel survey	Monitor size distribution, density and spatial extent of mussels.	Dutch wand	Annual survey to assess mussel stocks within Northumberland Marine SPA to ensure enough food resources for birds.	1 day	Alex Aitken NE	-													2
	Monitoring of NIFCA Periwinkle Code of Conduct and Blyth Estuary Bait Collection Code of Conduct	To document whether Codes of Conduct are being adhered to as per statutory guidance.	Frequent patrols throughout the district.	To understand effectiveness of current codes of conduct to understand where further management may be required.	Regular	Katy Smart	-													1
Angling, Bait collection and hand gathering	Aln estuary UAV survey of bait collection devices (tyres); possible surveys in other estuaries	Monitor number of tyres in the estuary to compare to 2022.	UAV survey as in 2022.	Monitor if any changes since HRA completed on the activity	Summer	Alex Aitken Vicky Rae	-													2

	Monitoring intertidal digging/pumping for bait, bait collection and hand gathering	Monitor intertidal activity throughout the district.	Shore patrol observations	Monitoring of all activities to track patterns in collection activity. Monitor areas that have fewer patrols to better understand extent of activity.	Regular	Katy Smart	Marine Protected Areas													1	
	Continue to work within existing Recreational Sea Angling (RSA) Strategy. Aim to expand on current strategy.	To develop engagement with this sector to understand where we can work with anglers to increase knowledge and build better relationships. To run public facing event during the summer months.	Public engagement / RSA group / stakeholder meetings. Monthly RSA focused patrols.	Continue working to the strategy with the aim of increasing engagement with the Angling sector in the NIFCA district.	Regular / ongoing	Katy Smart Angling sector	Fisheries Management Plans														1
General	Vessel Sighting Data / iVMS	Record the location of fishing vessels observed throughout the district during sea patrols. To build on current understanding of the uses of iVMS data to identify fishing footprint from trawling, potting and netting activities. If access to data restored.	Sea patrol observations Data sharing with MMO.	Monitoring will continue to build a detailed picture of different fishing activities occurring throughout the district which can be used to inform MPA assessments. Understand how iVMS data can best be used, particularly in outstanding MPA assessments. .	Regular	Alex Aitken	-														1
	Develop communications with the fishing industry – Fisher Forums	To build better relationships with local fishers and understand where we can work together to improve management and work towards sustainable fishing.	Working groups / stakeholder meetings	Increase engagement and develop relationship.	Quarterly	Vicky Rae Fishing industry	Fisheries Management Plans														
Finfish	Aln Estuary Fish Survey	Collect and analyse size and species composition of fish communities.	EA TRaC survey method.	To understand Aln Estuary MCZ habitats importance for juvenile fish species.	4 days	Andrew Boon EA, volunteers	-														2
	Recreational angling catch data analysis	Collect more information on the finfish species present throughout the year.	Species challenges – a citizen science initiative where anglers send details of their catch to NIFCA	To collect more information on finfish species present throughout the year.	Regularly	Katy Smart Recreational sea anglers	Fisheries Management Plans														
Habitat	OLEX data collection	Collect high resolution seabed habitat maps focusing on the northern area of the Berwickshire and North Northumberland Coast SAC.	Operating WASSP multibeam sonar during routine patrols with some targeted area.	To better understand to spatial extent of protected features in relation to fishing activity.	TBC	Mark Southerton, Alex Aitken NE?	Marine Protected Areas														Not confirmed
	Ground truthing OLEX	Collect high resolution seabed habitat maps focussing on the northern area of the Berwickshire and North Northumberland Coast SAC.	Drop down camera and grab samples to confirm habitat (preferably to EUNIS level 3)	To better understand to spatial extent of protected features in relation to fishing activity.	TBC	Mark Southerton, Alex Aitken NE?	Marine Protected Areas														Not confirmed
																					3

2.2.1 Collaborative Research Projects

NIFCA have committed to partnership projects through this quarter for commencement in 2024. The delivery of this work is subject to the success of the funding application for each project. The level of commitment for each project in terms of time and resources differs for each project. There are multiple benefits to NIFCA from this type of project work including: use of the data and results; financial compensation for use of our time; vessels and equipment; experience for staff in different types of survey techniques; and the opportunity to work closely with key partner organisations. Please see a list of projects and partners below:

- Marine Natural Capital and Ecosystem Assessment (mNCEA) – Inshore Fish Monitoring. This work aims to test multiple methods to develop an evidence baseline for inshore fish communities across a variety of inshore habitats. Northumberland has been selected, along with Cornwall, to pilot a national strategy of inshore fish monitoring. NIFCA have been asked to carry out part of the field survey work. Partners: Natural England, Environment Agency, AIFCA.
- Marine Natural Capital and Ecosystem Assessment (mNCEA) – Sandbanks and Maerl in the Berwickshire and North Northumberland Coast SAC. The project aims to increase the information on the extent and quality of sandbank and maerl habitat in the BNNC SAC. NIFCA have been asked to carry out part of the field survey work. Partner: Natural England.
- Seabass Connectivity – The University of Essex are running a project to connect juvenile bass populations to adult populations. Anglers supply adult bass heads to the project for isotope and genomic analysis. NIFCA have been asked to store any bass heads dropped off and send them to the university in intervals. So far, two heads have been sent. Partner: University of Essex.
- Perceptions and Impacts of Seal Depredation on Inshore Fisheries – this project aims to assess seal depredation mitigation strategies and collect long term data for individual fisheries to assess the frequency of depredation. This will include a range of activities such as workshops with fishers. NIFCA have been asked to provide a venue and attend a local workshop and provide a letter of support. Partner: University of Oxford.
- Fishing communities' resilience to climate change with an aim to facilitate adaptation with case studies in the UK and Caribbean. Partner: Newcastle University.

2.2 Management Development and Review

IFCAs have the powers to develop and implement management in line with the duties set out in the Marine and Coastal Access Act 2009 (MaCAA¹). Duties encompass the remit of IFCAs in that they set out the need for the protection of the marine environment alongside the need to balance the social and economic benefits of fishing. IFCAs also have duties in MPAs that fall within their jurisdictional area under MaCAA (s154) and the Conservation of Habitats and Species Regulations 2017², IFCAs must ensure that fishing activity does not significantly hinder the conservation objectives of MPAs and/or that conservation objectives must be met and furthered.

¹ The Marine and Coastal Access Act 2009 <https://www.legislation.gov.uk/ukpga/2009/23/contents>

² The Conservation of Habitats and Species Regulation 2017
<https://www.legislation.gov.uk/uksi/2017/1012/contents/made>

Management can be both statutory measures in the form of byelaws or voluntary measures such as Codes of Conduct. Management measures are developed and implemented in line with the statutory guidance provided by Defra³.

The Environmental team contribute to the development of management measures through collection and collation of best available evidence (see Sections 2 and 3.1), informal communication and consultation (see Section 2.3), development of measures to draft byelaws, and completion of associated impact assessments. Some NIFCA byelaws are permit byelaws which include the requirement for a permit from NIFCA to fish using certain gears in certain areas. The permits can have conditions attached which can be varied through a review process or if information from monitoring processes, scientific or survey data, advice from partner organisations, or information from any other relevant source becomes available. The environmental team coordinate and feed into the review process.

Non-statutory measures must be monitored for adherence to the provisions set out within them. NIFCA have two codes of conduct: one for periwinkle collection throughout the district; and one for bait collection within the Blyth Estuary. The team collects information on activity in line with the terms of each code of conduct. Non-statutory measures are reviewed periodically.

2.3 Engagement and Community Support

Another priority for the team is to engage with key stakeholders in the fishing industry including commercial fishermen, recreational sea anglers (RSA), and wholesalers. Building and maintaining these important relationships can improve the way NIFCA functions in order to most effectively fulfil the duties under our remit. The team carries out this important workstream in a number of ways.

Fisher Forums originated through increased engagement with the industry around a Highly Protected Marine Area (HPMA) consultation process in 2022. Through this process NIFCA funded research to, in part, better understand how to engage with the fishing industry, this research evidenced the value of 1-to-1 engagement with '*in-person at the quayside*' a preferred method of engagement⁴. The main aims of the forums are to: build relationships, understanding, and trust with fishers to enable effective communication channels, collaborate in developing management, feed any contributions into management/policy development at a local and national level.

Engagement with recreational sea anglers was developed through the review of the RSA strategy in 2022 and continues into this year. The team attend key events and meetings to strengthen relationships, promote NIFCA's role and the regulations in place, and aim to involve anglers in data collection to increase our knowledge on the presence of key inshore fish species (see Species Challenge, Table 1).

³ Defra – IFCA Byelaw Guidance <https://assets.publishing.service.gov.uk/media/5a7b34e0ed915d3ed9062dce/ifca-byelaw-guidance.pdf>

⁴ Fisher-led perspectives on crab and lobster management in Northumberland: a regional contribution to the crab and lobster fisheries management plan consultation, July 2023. <https://nifca.gov.uk/wp-content/uploads/2023/08/A-regional-contributions-to-the-Crab-and-Lobster-FMPs-Northumberland.pdf>

3. National Priorities

IFCAs play a role in ensuring the sustainable management of fisheries resources and the protection of the marine environment. In doing so, IFCAs have been tasked with contributing to the development of national priorities and supporting their development in key areas. NIFCA have focussed planned work under these priorities and aligned ongoing work in order to assist in the delivery of work directly related to and relevant for these national priorities. More details on each of the priorities is outlined below, information in Table 1 shows how individual workstreams align with national aims.

3.1 Marine Protected Areas

The UK Government is committed to the protection of the marine environment and has established a network of Marine Protected Areas (MPAs), IFCAs are at the forefront of delivering protection to MPAs and the wider environment in order to meet the targets set out in national policy and legislation. There are multiple forms of MPA (Marine Conservation Zones MCZs, Special Areas of Conservation SACs, and Special Protection Areas SPAs) designated under different legislation for which IFCAs monitor and manage fishing activity and its interaction with protected sites.

For MCZs, under the Marine and Coastal Access Act (MaCAA) IFCAs have a statutory duty to ensure the conservation objectives of MCZs are met and furthered. For SACs and SPAs, IFCAs are the Relevant Authority under the Conservation of Habitats and Species Regulation 2017. There are 10 MPAs within the NIFCA district (Table 2, Figure 1).

Table 2 Breakdown of Marine Protected Areas within Northumberland IFCA's jurisdiction.

Designation	Site name
Special Area of Conservation (SAC)	Berwickshire and North Northumberland Coast SAC
	Tweed Estuary SAC
Special Protection Area (SPA)	Lindisfarne SPA
	Farne Islands SPA
	Coquet Island SPA
	Northumbria Coast SPA
	Northumberland Marine SPA
Marine Conservation Zones (MCZ)	Coquet to St Mary's MCZ
	Aln Estuary MCZ
	Berwick to St Mary's MCZ

The sites outlined in Table 1 are in addition to several Sites of Special Scientific Interest (SSSIs), Ramsar Sites, the Lindisfarne National Nature Reserve (LNNR) and the Northumberland Area of Outstanding Natural Beauty (AONB).

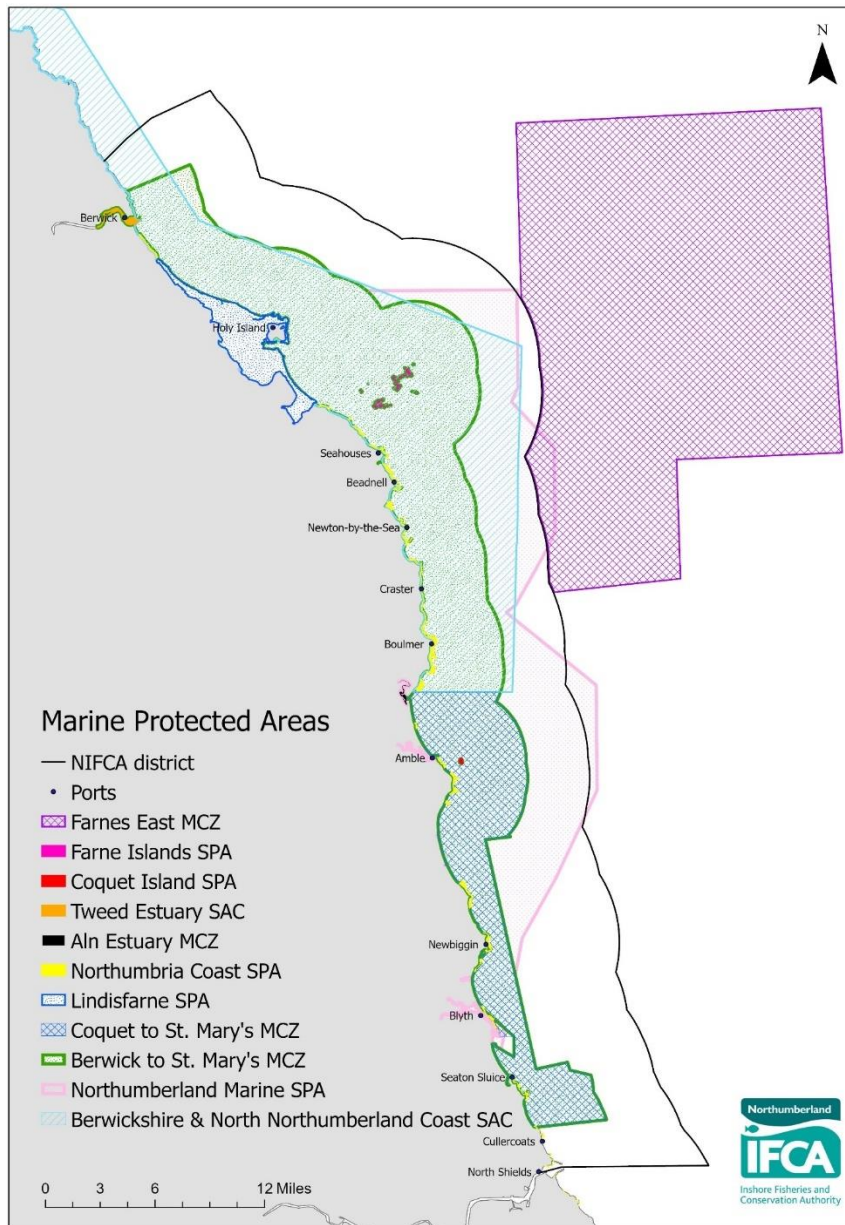


Figure 1 Map displaying Marine Protected Areas within and adjacent to the NIFCA district.

3.1.1 Marine Protected Area Priorities

Following Defra’s revised approach to fisheries management in MPAs, IFCA’s were tasked with carrying out assessments of fishing activity in SACs and SPAs within the area of their jurisdiction to bring them in line with other activities in the marine environment. Under section 154 of MaCAA, NIFCA must also decide whether fisheries management measures are required to further the conservation objectives of MCZ and document the process. If, through these assessment processes, conclusions cannot determine no significant impact on protected features or conservation objectives cannot be met or furthered, NIFCA must explore management options. Under the Environmental Improvement Plan (EIP) 2023, there is a commitment to strengthen protection in MPAs by 2024 with all management measures in MPAs to be in place by the end of 2024.

Under the Environment Act 2021 there is a statutory target to ensure that 70% of designated features in MPAs are in favourable condition by 2042, with the remainder in recovering condition. There is an interim

target for 48% of designated features in MPAs to be in favourable condition, with the remainder in recovering condition by 31 January 2028.

3.1.2 Key work areas related to MPA priority

To achieve the priorities set out in the EIP 2023 and the Environment Act 2021, NIFCA aim to:

1. Complete all outstanding MPA assessments

All MPA assessments have now been drafted, work is ongoing with Natural England to provide advice and agree the conclusions of the drafted assessments. Assessments for Berwick to St Mary's MCZ remain outstanding for which conservation advice is pending.

2. Explore the requirement and options for management in Coquet to St Mary's MCZ

The conclusions of the assessment cannot rule out any impact from otter trawling on the protected mud feature of the site. NIFCA are exploring an adaptive management approach to determine a threshold activity level for trawling within the site.

3. Continue the Monitoring and Control Plan process

NIFCA continue to review and assess fishing activity and the interaction with protected features through the monitoring and control plan process. The plans have thresholds for fishing activity levels and marine environment parameters built into them which if reached, triggers a reassessment of the fishery and any protected features potentially impacted.

3.2 Fisheries Management Plans

The need for FMPs came from the Fisheries Act 2020⁵ which provides the framework to manage our fisheries as an independent coastal state outside of the EU Common Fisheries Policy. The act requires the UK fisheries policy authorities (Defra, and the devolved administrations in Northern Ireland, Scotland and Wales) to publish fisheries management plans (FMPs) to help deliver our ambition for sustainable fisheries.

The plans are intended to be evidenced based action plans to deliver sustainable fisheries and will: describe aims for the fisheries and the actions needed to achieve the aims; set out polices to restore stocks to, or maintain them at, sustainable levels; allow for more flexible management that is tailored towards particular species, type of fishing, or region.

3.2.1 Key work areas related to the FMP priority

IFCAs supported the development of the six front runner plans (Tranche 1 and Tranche 2 plans) in 2023-24 (Table 3), five of the six plans were published in 2023 and NIFCA will continue to support the development of further plans in 2024-25.

Table 3 T1 and T2 or frontrunner FMPs, their publication status and relevance to the NIFCA district.

FMP	Status	Relevance to NIFCA
-----	--------	--------------------

⁵ Fisheries Act, 2020 <https://www.legislation.gov.uk/ukpga/2020/22/contents/enacted>

Crab and lobster	Published	Whole district
Whelk	Published	Whole district
Bass	Published	Whole district
King Scallop	Published	Less relevant – currently to king scallop fishing in NIFCA district under a byelaw
Channel Demersal Non-Quota species	Published	Not relevant
Southern North Sea and Eastern Channel Mixed Flatfish	In draft	Whole district

Defra has outlined the need for the following support in the implementation and post-publication phases of the published plans:

- IFCA should continue to work collaboratively with the Arms Length Bodies (ALBs), FMP Working Groups, and Defra, to prioritise and address evidence gaps identified within T1 and T2 FMPs post implementation
- IFCA should support the implementation of regional FMPs where they apply to IFCA districts
- IFCA should support with evidence gathering, where practicable, to contribute to stock assessments for FMPs

To support this national priority, NIFCA will:

1. Share data to support evidence gathering and contribute to stock assessments

NIFCA have established workstreams which can assist in addressing the evidence gaps identified in the FMPs, they include crab and lobster biometric data collection, permit return analysis for lobster, crab and whelk (further details in Table 1).

2. Facilitate communication with local stakeholders and inclusion of local feedback in national priorities

Share information with key stakeholders and communicate any feedback from local industry to facilitate the ‘co-management’ goal of the FMP management measure development and the implementation of the ‘short-term goals’ for each plan.

3. Work collaboratively with ALBs and Defra

Where required in FMP working groups and engagement/information sharing events.

3.3 Sustainable Development

Marine planning and marine licencing play a role in supporting sustainable development in English seas which are set to get busier into the future.

3.3.1 Marine Licencing and Planning

Marine licences are issued by the Marine Management Organisation (MMO) and applicants for a marine licence must go through a formal application process. IFCA play a vital role in this process as statutory consultees. NIFCA reviews relevant licences and responds with information on impacts to local fisheries,

commercial species, or the wider environment they are dependent on. As the MMO develops to Marine Licencing system, NIFCA can offer support and advice as part of this process.

Marine planning and spatial prioritisation are important areas of work for the sustainable use of the marine area. The first iteration of marine plans in England are published and in operation with the second round in development. NIFCA will continue to engage in and assist this process.

3.3.2 Permitting and Consents

NIFCA issue scientific dispensations against our byelaws for any research work carried out in the district. Dispensations are only issued if work will not contravene any of our duties as listed in section 2.2.

3.3.3 Key work areas related to the Sustainable Development priority

To support this national priority, NIFCA will:

1. Marine Licencing

Respond to relevant marine licences and include information from the fishing industry, members and other key stakeholder where necessary and relevant. Continue to engage with the MMO Marine Licencing team to support developments in the marine licencing process.

2. Marine Planning

Continue to have regard for relevant marine plans and policies in key areas of our work such as byelaw making. Support the next iteration of marine plans and their development.

3. Consents

Review applications for scientific dispensations against NIFCA byelaws and grant where appropriate.

4. Partner Organisations and Working Groups

The Research and Environmental Projects (Section 3) outline the key workstreams that will be carried out by NIFCA this year. Partnership working is vital to ensure this work is carried out and disseminated effectively.

Key partner organisations for the NIFCA's research and environment team include:

- Northumberland County Council (funding authority)
- North Tyneside County Council (funding authority)
- The Marine Management Organisation (MMO)
- Natural England
- The Environment Agency (EA)
- Newcastle University
- The Centre for Environment, Fisheries and Aquaculture Science (Cefas)
- MARINElife/North East Cetacean Project
- Northumberland Rivers Trust

- Wildlife NGOs including the Royal Society for the Protection of Birds and the Wildlife Trusts
- Blue Marine Foundation / Berwickshire Marine Reserve / St Abbs Marine Station




In addition, the NIFCA benefits from collaborating with other relevant authorities on the management groups for the Berwickshire and Northumberland Marine Partnership.

The environmental team sits on a variety of focus and working groups relevant to NIFCA's work which involve key partners listed above (Table 4).

Table 4 Focus and working groups attended by environmental officers.

Group	Area	Other members	Frequency
IFCA Technical Advisory Group	National	IFCAs	Quarterly
Northumberland Rivers Catchment Partnership	Northumberland	NRCP; Northumberland Wildlife Trust; Environment Agency; Port of Blyth; Tyne Rivers Trust; Natural England; Northumberland Coast AONB; Berwickshire and Northumberland Marine Nature Partnership	Quarterly
Joint Working Arrangement	Northumberland	MMO; Natural England; Environment Agency	Annually
Berwickshire and Northumberland Marine Nature Partnership steering group	Northumberland	Natural England; MMO; Northumberland Wildlife Trust; Berwick Harbour Commission; Eyemouth Harbour Trust; Scottish Natural Heritage; Scottish Borders Council; Environment Agency	Quarterly
Berwickshire and Northumberland Marine Nature Partnership research group	Northumberland	Natural England; Environment Agency; Newcastle University; Berwickshire Marine Reserve; Scottish Natural Heritage	Ad-hoc
North East Marine Monitoring Group	North East	Natural England; Environment Agency	Ad hoc
Lindisfarne Joint Advisory Committee	Lindisfarne	Natural England; Berwickshire and Northumberland Marine Nature Partnership; British Association for Shooting and Conservation; Royal Yachting Association; RSPB, Environment Agency	Biannual
Whelk Working Group	National	IFCAs, Cefas, MMO, Seafish, Universities/Research Institutes and fisheries management organisations	Quarterly
Bait Collection and Hand Gathering Working Group	North East	NE, EA, National Trust Harbour Authorities, Local Authorities, AONB, Marine Nature Partnership, Northumbria Police, Tweed Commission	Ad hoc
IFCA and MMO Licensing Engagement	National	IFCAs; MMO	Quarterly
Berwickshire Shellfish Working Group	North East	TBC	TBC

Appendix A





Vessel	Description
<p data-bbox="49 219 343 253">Patrol Vessel St. Aidan</p> 	<ul style="list-style-type: none"> - Built 2014/2015 at Goodchild Marine (Great Yarmouth) - 16metre GRP Catamaran, coded to MCA category 2 - Top Speed 23knts - Multi-Purpose Enforcement/Survey Vessel - Carries 5.3m RIB onboard (TT St. Aidan), deployed via A-frame on stern - Without RIB, 'A' frame can be used to carryout grab-sampling, trawling and towing of multi beam equipment. - 1 ton starboard pot hauler - 1 ton twin drum north sea winch - Electronics include: Olex navigation, WASSP Multi Beam echo sounder, Hemisphere VS330 GNSS receiver, GNNS Global Correction Service, SMC IMU motion sensor. Nav-net 3 in 1, Furuno Sat compass, GPS, Furuno radar and Furuno comms suite. 2x computer stations operating windows 10 desktop PC's
<p data-bbox="49 752 231 786">T.T. St. Aidan</p> 	<ul style="list-style-type: none"> - Built 2014/2015 - On-board P.V. St. Aidan - 5.3metre Ribcraft - 90 HP Suzuki outboard engine - Multi-purpose RIB used primarily for enforcement boarding's but can also be used for close inshore survey work e.g. towing Starfish Side-scan Sonar. Garmin echomap 65 GPS plotter, iComm ICM 330 fixed V.H.F.
<p data-bbox="49 1160 319 1193">Robert Arckless MBE</p> 	<ul style="list-style-type: none"> - Built 2018/2019 - 9.5 metre shore-based RIB (Ribcraft) coded MCA category 3 - Twin 250 HP Suzuki outboard engines - Used primarily for enforcement work -

Inflatable dinghy



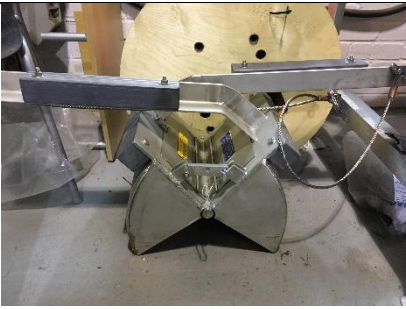






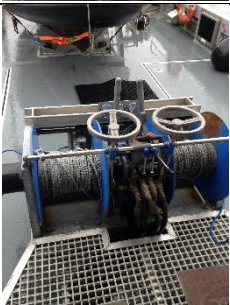


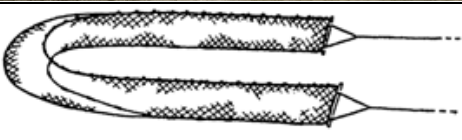
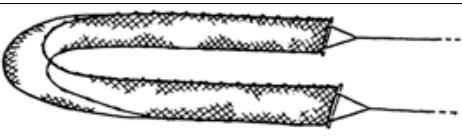

- Flat bottomed Zodiac inflatable
- 4 hp Suzuki outboard engine
- Used for estuary surveys




Equipment category	Item description	
Positional	HYPACK software and laptop	
	Garmin etrex 20 handheld GPS x2 Garmin etrex 22 handheld GPS x1	
	Garmin map 60Cx handheld GPS	
Acoustic	Starfish Sidescan 452F Including 50metres of tow cable and software key for Sonar TRX mosaic program	

	<p>Linux laptop running OLEX software and multibeam, hardness licence</p>	
<p>Video & stills</p>	<p>STR Seasyder Camera with custom frame. Equipment consists of:</p> <ul style="list-style-type: none"> - STR Seasyder 18Mp U/W digital still camera (18 mega pixels) - STR Seasyder High power U/W camera flash - 4 STR Seasyder 20W High intensity LED light - 2 STR Seasyder Subsea scaling laser (Red; 100mm spacing) (not 100mm spaced) - Seasyder camera frame (Figure 6) - Recording Equipment - Seasyder top side equipment (2 monitors and 2 PCs) running SeaSpyder software 	
	<p>Unmanned Aerial Vehicles (UAV) DJI Mavic 2 Pro + 3 batteries</p>	
	<p>FIFISH V6 Expert Remotely Operated Underwater Vehicle</p>	

	<p>Olympus Tough digital camera x3 2.1m shockproof, 15m waterproof</p>	
	<p>2 x GoPro 3+ black edition camera with accessories</p>	
	<p>Sony HDR 260 8.9 megapixel camera Seapro waterproof housing Colour filters, L.E.D. light rig and two laser scale pointers Aluminium 'drift' frame</p>	
	<p>Waterproof Seapro housing To install GoPro camera (for live surface feed)</p>	
	<p>60 metres umbilical cable</p>	
	<p>160 metres umbilical cable (with video amplifier)</p>	

	<p>Surface box: GPS and text overlay, Lynn Hawk video enhancer, Pinnacle dazzle HD screen capture card, 7-inch LED screen, Getac fully rugged laptop including additional storage</p>	
<p>Seabed sampling</p>	<p>0.1m² offset Day grab and stand</p>	
	<p>0.1m² Van Veen grab</p>	
	<p>Grab table, damper and separator</p>	
	<p>Wilson Auto-Siever</p>	

Deploy & recovery	1000kg lift A-frame (St. Aidan)	
	1000kg Spencer Carter pot hauler	
	1000kg Spencer Carter trawl winch with 200 metres warp	
Fishing equipment	Assortment of lobster pots, ropes, anchors and buoys	
	Beam Trawl 1.6m mouth	
	Standard estuary survey seine net Estuary Survey Seine Net 43m x 4m deep – 210/12 6.5mm & 14mm	
	Sand eel seine net Knotless netting, fully rigged, in 17mm, 10mm and 5mm in the centre. Five Panels per net, 25 yards x 6ft deep	
	2 x Standard fyke nets (including anchors and buoys) 7-hoop large double dee fyke net 10 & 14mm – 100cm x (2 x 5.3mtrs) – 32ft Leader	

	Fish storage buckets, air pumps, measuring boards and hand nets	
Intertidal survey	2 x 'Dutch wand'	
	2 x 6mm mesh aluminium sieve	
	2 x 1m ² stainless steel quadrat	
Sea temperature monitoring	2 x Surface Units 20 x Temperature logger	