

Annual Research Plan 2025-2026

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1. Introduction

This Annual Research Plan sets out NIFCA's work priorities and research plans between April 2025 and March 2026.

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 2024/25 Annual Research Plan, and 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 16 members of staff comprised of a Chief Officer, six enforcement officers, five 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:

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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 conducts research and monitoring to improve understanding of the sea fisheries resources managed by NIFCA and the marine environment on which they depend. This work directly informs the decisions made by the Authority.

The team has developed a programme of surveys and assessments that are carried out either continuously throughout the year, at fixed times annually, or on an ad hoc basis in response to specific evidence needs. Wherever possible, this work is planned in advance and is outlined in more detail in Section 2, Table 1.

The research plan is detailed in Table 1, which is organised into key work areas. Each area includes specific research projects or survey activities that contribute to the broader objectives. For each project, the table includes:

- Objectives
- A brief description of methods
- Rationale
- Timescales

A timeframe is provided for each piece of work; however, this is intended as a general guide and activities may occur outside the specified periods depending on operational circumstances.

Work areas have been prioritised based on NIFCA's current research objectives. Officers aim to complete all tasks assigned a Priority 1 rating. Some unconfirmed projects are also included in the table; these may not be carried out if time or resources are limited.

Research and monitoring activities are aligned with national priorities and workstreams. Further details are provided in Section 3, with links between NIFCA's workstreams and each national priority outlined in Table 1. All data collected through research and monitoring efforts are submitted to the ERIC North East records centre, where they are accessible to other organisations and individuals for future use. NIFCA is also working towards developing the capacity to share data with a MEDIN-accredited Data Archive Centre.

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 our 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 2025/26

Work-stream	Project	Objective	Method	Rationale	Organisations involved	Link to national priorities	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025	Oct 2025	Nov 2025	Dec 2025	Jan 2026	Feb 2026	Mar 2026	Priority
Crustacea – Lobster and Crab	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.	NIFCA Fishing industry	FMP													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.	NIFCA Fishing industry	FMP													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.	NIFCA Fishing industry	FMP													1
Crustacea – Nephrops	Nephrops monitoring surveys	To understand Nephrops abundance inside the NIFCA district.	Underwater TV surveys in line with Cefas survey methodology for stations inshore.	Abundance of Nephrops in the NIFCA district unknown. Liaise with Cefas to augment offshore surveys in the Farne Deep.	NIFCA Cefas	FMP													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.	NIFCA Fishing industry Wildlife Trust	MPA													2
	Coquet to St Mary's Management Plan and Monitoring and Control Plan	To understand more about impacts of otter trawling on subtidal mud in the MCZ. To quantify the number of hours, spatial extent (Swept Area Ratio), and intensity of trawling within the site. Stakeholder engagement to gather views. All information to feed into annual review of the management plan.	Mixed methods, see monitoring and control plan for more information.	To manage trawling within the MCZ under an adaptive management approach.	NIFCA Fishing industry	MPA													1
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.	NIFCA NE Marine Nature Partnership	MPA													2
	Mussel surveys - Fenham Flats - Holy Island - Blyth Estuary	Monitor size distribution, density and spatial extent of mussels.	Defra 'Walker and Nicholson' and Dutch wand. In 2025, mussel inspections replaced full surveys to eliminate sample removal due to declines in presence of mussels.	Annual survey to assess mussel beds within MPAs to ensure enough food resources for birds.	NIFCA NE	MPA													2
	Monitoring of NIFCA Periwinkle 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.	NIFCA	MPA													1

	and Blyth Estuary Bait Collection Code of Conduct.																		
Angling / Finfish / Bait collection and hand gathering	UAV survey of bait collection devices (tyres); Aln Estuary with possible surveys in other estuaries.	Monitor number of tyres in the estuary to compare to 2022.	UAV	Monitor if any changes since HRA completed on the activity to inform monitoring and control plan.	NIFCA	MPA													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.	NIFCA	MPA													1
	Continue to work within existing Recreational Sea Angling (RSA) Strategy.	To develop engagement with this sector. To increase the information on inshore finfish present throughout the year.	Public engagement / RSA group / stakeholder meetings. Monthly RSA focused patrols. Collect more information on the finfish species present throughout the year. Bass scale project.	Continue working to the strategy with the aim of increasing engagement with the Angling sector in the NIFCA district. Record and measure fish on angling patrols. Promote bass scale challenge, process scale samples to determine fish age, location caught, and other information to improve knowledge on bass in the area.	NIFCA Angling sector	FMP													1
	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.	NIFCA	-													2
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. This has been put on hold until national iVMS becomes statutory for all under 12m vessels.	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.	NIFCA	-													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.	NIFCA Fishing industry	FMP													1
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.	NIFCA	MPA													3

2.2.1 Collaborative Research Projects

NIFCA have contributed to multiple collaborative research projects in the past outside of the research plan (Table 1). These projects were not included in the plan as NIFCA participated as a partner in larger, externally led initiatives rather than serving as the lead organisation. For further details on these projects, please refer to previous Annual Research Reports. Participation in these collaborative projects has provided a range of benefits to NIFCA, 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.

This year, NIFCA have fewer collaborative research commitments with only one project continuing from last year. Please see below for further details:

- Fishing communities' resilience to climate change with an aim to facilitate adaptation with case studies in the UK and Caribbean. Partner: Newcastle University.

NIFCA aim to support university research where it aligns with our research priorities. NIFCA have worked with multiple students from undergraduate level to post graduate research on projects relevant to local fisheries and wider exploitation of sea fisheries resources.

This year the NIFCA plan to support the following projects:

1. Newcastle University - MSc.

Project: Stock assessment modelling to assess the effectiveness of different management measures on local lobster stock.

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.

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.

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>

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

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 for permit conditions within permit byelaws.

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 (see Angling / Finfish / Bait collection and hand gathering, Table 1). 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 Angling / Finfish / Bait collection and hand gathering, Table 1).

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. Emerging Fisheries and Diversification Opportunities

IFCAs must balance the social and economic needs of local fishing communities with the long-term protection of marine ecosystems. This includes responding to emerging fisheries, new or expanding methods or target species that may not yet be fully understood or managed under existing regulations. The likelihood of such fisheries is increasing due to changing marine conditions driven by climate change, which are altering species distributions, migration patterns, and the availability of target stocks. IFCAs are expected to monitor these developments, assess the ecological implications, and, where necessary, introduce adaptive management measures to ensure that new fisheries are developed responsibly and in line with conservation priorities. In addition to 3.1 and 3.2 detailed below, NIFCA encourage fishers to communicate proposals for new sustainable fishing options or alternative gears and NIFCA will endeavour to support this through research and/or pilot schemes where possible.

3.1 Scallop potting

Scallop potting is a relatively novel technique in English waters compared to traditional dredging, IFCAs must collect robust evidence on spatial distribution, catch rates, bycatch, and potential habitat disturbance. For 2025/26 NIFCA plan to:

- work with the fishing industry to understand interest levels in using specialised pots for scallop,
- record level and spatial extent of scallop potting,
- record catch rates
- liaise with organisations nationally to determine how this fishery can fit within existing legislation.

3.2 Bass

The range of European seabass (*Dicentrarchus labrax*) is shifting northward in the North sea, bass have been present in the region in small quantities however there are anecdotal reports, mainly from the RSA community, that the number of bass is increasing. For 2025/26 NIFCA plan to:

- continue to liaise and collect information from the RSA community on bass presence and location,
- carry out the bass scale project (further details in Table 1)
- Continue to collate information from commercial fishers.

4. 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.

4.1 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), IFCA's 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 IFCA's monitor and manage fishing activity and its interaction with protected sites.

For MCZs, under the Marine and Coastal Access Act (MaCAA) IFCA's have a statutory duty to ensure the conservation objectives of MCZs are met and furthered. For SACs and SPAs, IFCA's 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).

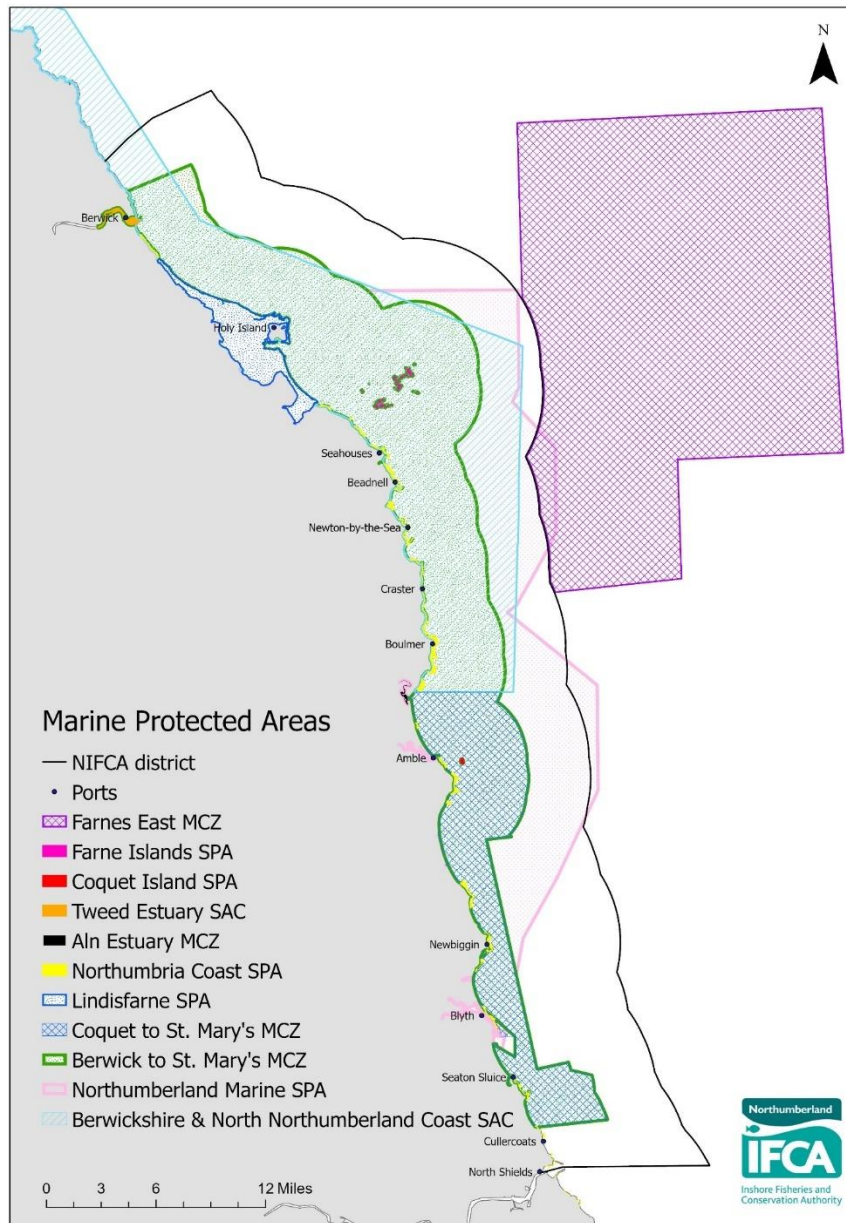


Figure 1 Map displaying Marine Protected Areas within and adjacent to the NIFCA district.

4.1.1 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. NIFCA met this deadline with respect to all commercial fishing activity within MPAs.

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.

4.1.2 Key work areas related to MPA priority

To support the implementation of priorities set out in the Environmental Improvement Plan (EIP) 2023 and in accordance with the Environment Act 2021, NIFCA has identified three key areas of focus for its work going forward.

1. Complete all outstanding MPA assessments

NIFCA has completed and agreed, in collaboration with Natural England, assessments for all commercial fishing activities with the exception of: hand gathering and bait collection activities and fishing activity within Berwick to St Mary's MCZ. Draft assessments for hand gathering and bait collection have been prepared, and discussions with Natural England are ongoing to finalise advice and agree on conclusions. Assessments for Berwick to St Mary's MCZ remain outstanding as conservation advice for the site only became available in October 2024.

2. Continue the Monitoring and Control Plan process

NIFCA continues to implement the Monitoring and Control Plan process to assess fishing activity and its potential interactions with protected features. Each plan includes pre-defined thresholds relating to fishing activity levels and environmental parameters. Where these thresholds are exceeded, a reassessment of the relevant fishery and any potentially impacted protected features is triggered. Monitoring and Control Plans have been developed by gear type and are designed to apply across all Marine Protected Areas. Plans for potting, trawling, and netting have been completed and are reviewed on an annual basis. Plans for hand gathering and bait collection are currently under development.

3. Implement the Coquet to St Mary's Trawl Management Plan and develop the Monitoring and Control Plan

The assessment for the Coquet to St Mary's MCZ has been unable to rule out the possibility of impacts from otter trawling on the site's protected mud habitat. In response, NIFCA has adopted an adaptive management approach to establish an appropriate threshold for trawling activity within the site. A review of the current management plan is scheduled for this year and, if necessary, it will be updated for implementation in 2026. In addition, NIFCA will develop a dedicated Monitoring and Control Plan for this site to track both the spatial extent and intensity of trawling activity. The Authority will also continue to build the evidence base regarding the impacts of trawling on the mud feature and will ensure that this is integrated into ongoing monitoring efforts.

4.2 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 policies 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.

4.2.1 Key work areas related to the FMP priority

IFCAs supported the development of plans published in December 2023 and have worked to support implementation of the measures set out in the plans since publication. NIFCA will continue to support the development of further plans relevant to the fisheries in the NIFCA district.

To date, NIFCA have been most involved in the Crab and Lobster FMP given the importance of this fishery in the local area.

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

- IFCAs 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
- IFCAs should support the implementation of regional FMPs where they apply to IFCA districts
- IFCAs 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

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

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

4.3 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.

4.3.1 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's play a 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.

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.

4.3.2 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.

4.3.3 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.

5. 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 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)
- Berwickshire and Northumberland Marine Nature Partnership
- MARINELife/North East Cetacean Project
- Northumberland Rivers Trust
- Wildlife NGOs including the Royal Society for the Protection of Birds (RSPB) and the Wildlife Trusts
- Blue Marine Foundation / Berwickshire Marine Reserve / St Abbs Marine Station

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

IFCA and MMO Licensing Engagement	National	IFCAs; MMO	Quarterly
Mussel Bed Restoration Network	National	NEIFCA, Natural England; Natural Resources Wales, Northumberland County Council, Marine Conservation Society, Blue Marine Foundation, Universities (NCL, Durham, Southampton, UHI), Solway Firth Partnership, Tees River Trust, Groundworks, Yorkshire Wildlife Trust, Environment Agency, DAERA, St Abbs Marine Station, The Roslin Institute.	Quarterly
ICES Working Group on Nephrops Surveys (WGNEPS)	International	International ICES members	Annually

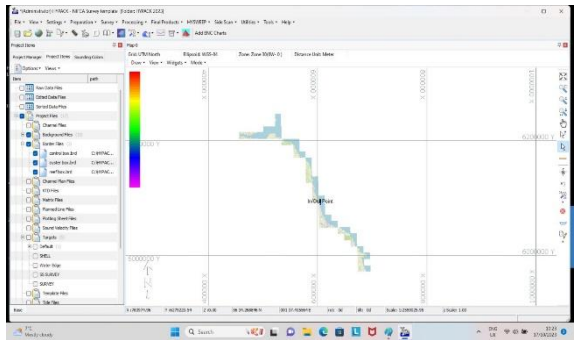



Appendix A

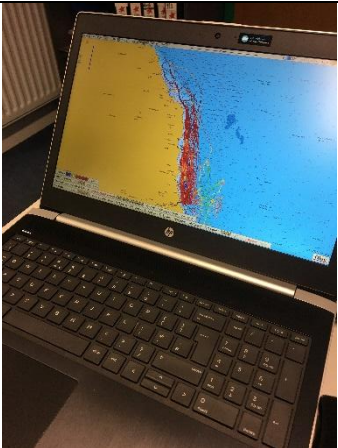



Vessel	Description
<p>Patrol Vessel St. Aidan</p> 	<ul style="list-style-type: none"> - Built 2014/2015 at Goodchild Marine (Great Yarmouth) - 16metre GRP Catamaran, coded to MCA category 2 - Top Speed 23knts - Multi-Purpose Enforcement/Survey Vessel - Carries 5.3m RIB onboard (TT St. Aidan), deployed 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 PCs
<p>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 boardings 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>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



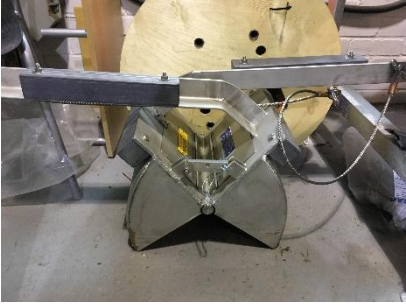











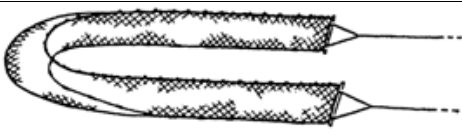

- Flat bottomed Zodiac inflatable
- 4 hp Suzuki outboard engine
- Used for estuary surveys




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	

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

	<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, Llyn Hawk video enhancer, Pinnacle dazzle HD screen capture card, 7-inch LED screen, Getac fully rugged laptop including additional storage</p>	
Seabed sampling	0.1m ² offset Day grab and stand	
	0.1m ² Van Veen grab	
	Grab table, damper and separator	 
	Wilson Auto-Siever	

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/fish traps, 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	