



Evaluation of the Northumberland IFCA Strategic Environmental Assessment (SEA)



2018

Abbreviations

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| BNNC SAC | - | Berwickshire and North Northumberland Coast Special Area of Conservation |
| CEFAS | - | Centre for Environment, Fisheries, and Aquaculture Science |
| CO₂ | - | Carbon Dioxide |
| EA | - | Environment Agency |
| FLAG | - | Fisheries Local Action Group |
| HRA | - | Habitats Regulations Assessment |
| ICES | - | International Council for the Exploration of the Sea |
| IFCA | - | Inshore Fisheries and Conservation Authority |
| iVMS | - | Inshore Vessel Monitoring System |
| MCZ | - | Marine Conservation Zone |
| MLS | - | Minimum Landing Size |
| MMO | - | Marine Management Organisation |
| MPA | - | Marine Protected Area |
| MSc | - | Master of Science Postgraduate Degree |
| MSY | - | Maximum Sustainable Yield |
| NeBBS | - | North East Beached Bird Survey |
| NIFCA | - | Northumberland Inshore Fisheries and Conservation Authority |
| PhD | - | Doctor of Philosophy |
| pSPA | - | Potential Special Protection Area |
| SAC | - | Special Areas of Conservation |
| SEA | - | Strategic Environmental Assessment |
| SI | - | Statutory Instrument |
| SPA | - | Special Protection Area |

Glossary

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| Archaeological Sites | A place in which evidence of past activity is preserved. |
| Article 6 | Refers to Article 6 of the Habitats Directive. |

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| Bait Collector | Someone who collects intertidal animals to use as bait. |
| Bait Digging | Digging to collect species such as Lugworms and Ragworms to use as bait. |
| Bycatch | A fish or other marine species that is caught unintentionally while catching target species. |
| Byelaw | A regulation made by a local authority. |
| Code of Conduct | A set of rules outlining the social norms and rules and responsibilities of, or proper practices for, an individual, party or organization. |
| Drift net | Nets which hang vertically in the water column without being anchored to the bottom. The nets are kept vertical in the water by floats attached to a rope along the top of the net and weights attached to another rope along the bottom of the net. |
| Eco-labelling | The practice of marking products with a distinctive label so that consumers know that their manufacture conforms to recognized environmental standards. |
| Functional Unit Management | The management of fisheries resources within ICES Functional Unit Areas. |
| Gillnet | A single wall of netting that can either be fixed or allowed to drift. |
| Habitats Directive | Aims to protect the habitats and species listed in the directive's Annexes. The Habitats Directive is the abbreviated term for Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora. |
| Habitat Regulations Assessment | An assessment required under the EC Habitats Directive of the impacts of plans or projects on European sites. |
| Hand Gathering | The process of gathering sea fisheries resources by hand for food or bait. |
| Landing Obligation | Under the landing obligation all catches have to be kept on board, landed and counted against quotas. Undersized fish cannot be marketed for human consumption. This measure will be introduced fishery by fishery over the next few years. |
| Management Regime | The current NIFCA management regime consists of byelaws and regulations. |
| Maximum Sustainable Yield | The level below which the stock is considered to be at risk of collapse. |

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| Minimum Landing Size | The EU Common Fisheries Policy implemented EU minimum landing sizes (MLS) now known as Conservation Reference Sizes (CRS) for quota species which define the smallest fish measurement at which it is legal to keep or sell a fish. |
| Mitigation | The action of reducing the severity or seriousness of something. |
| Patrol | Monitoring of a specific geographic area. |
| Stock Assessment | Provide fisheries managers with the information that is used in the regulation of a fish stock. Biological and fisheries data are collected in a stock assessment. |
| Strategic Environmental Assessment | Assesses the impact on the environment from public plans, programmes and strategies. |
| Sustainability | The collection of policies and strategies employed by companies to minimize their environmental impact on future generations. |
| Trawl(ing) | The operation of towing a net to catch fish. |
| Vessel Monitoring System | Systems that are used in commercial fishing to allow environmental and fisheries regulatory organizations to track and monitor the activities of fishing vessels. |
| V-notching | The NIFCA V-notching scheme puts a notch in the tail flap of a lobster, predominantly sized and berried female lobsters (87mm or larger). This gives the female one or two more chances of spawning before being eligible for recapture. It is an offence to land a V-notched lobster, male or female. |

Key

| Priority Key | |
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| High | Action to be taken in the next 0-6 months |
| Medium | Action to be undertaken in the next 6-12 months |
| Low | Action to be undertaken in the next 1-2 years |
| Not taken forward | Action not taken forward by NIFCA – reasons for this will be provided |

| Status | |
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| ✓ | Action has already been taken by NIFCA |
| ✓/✗ | Some Action has been taken by NIFCA however more action is needed. |
| ✗ | No Action has been taken by NIFCA |

- Changes to the document for 2018 are shown in **Green**.

Northumberland IFCA's Strategic Environmental Assessment (SEA)

In 2014 Northumberland IFCA commissioned the Environmental Consultancy Mott MacDonald to conduct a Strategic Environmental Assessment (SEA) of the fisheries under NIFCA's management jurisdiction. As part of the SEA a number of mitigation measures and actions were recommended to improve the sustainability performance of the NIFCA management regime.

Table 1. SEA Action Plan. Showing recommendations highlighted in the SEA and the current status and actions taken.

| Fishery | Recommendation | Priority | Status | Comments/Actions taken | Actions needed |
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| General | Review SEA regularly | Medium | ✓ | The aim of this document is to evaluate the SEA, NIFCA intend to review the SEA on a regular basis. | Continue to use the SEA and review every 3-5 years |
| General | Develop a series of postcards explaining byelaws | Medium | ✗ | NIFCA have not created postcards explaining the byelaws however leaflets, posters and pop-up banners have been developed. New leaflets were designed and printed in 2018, one for Environmental and one for Enforcement. NIFCA have designed and distributed throughout the District signage explaining in brief changes to Byelaws and Legislation. In total approximately 50 signs have put up in prominent sites. | NIFCA may create a series of postcards in the future if current methods are ineffective. |
| General | Continue to organise free trial of iVMS | Medium | ✓ | Joint project between IFCA's and MMO is on-going. National SI for all under 12m vessels is in development. | Chief Officer part of the Project Board which meets monthly also dials into the fortnightly Delivery Group Meetings. SI due to come out March 2019, NIFCA keen to start rolling out I-VMS Devices and getting them fitted. |
| General | Undertake a survey of archaeological sites | Not taken forward | ✗ | NIFCA have compiled some information relating to archaeological sites in | More detailed and up to date information is needed. Consider |

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| | | | | the District. However this is not a priority. | liaising with fishermen and SCUBA divers. |
| General | Measures to reduce bird bycatch | Medium | ✓ | NIFCA are liaising with partner organisations to gather evidence relating to bird bycatch for Habitat Regulations Assessments (HRAs) and participating in NeBBS. | Continue current monitoring of by-catch. |
| General | Investigate the effects of bait digging and determine if byelaws need to be strengthened. | Medium | */✓ | Newcastle University PhD project is now complete and will be used to inform HRAs. NIFCA officers continue to monitor bait collectors. Bait collection HRAs will be carried out before 31 st December 2018. | Continue to monitor bait collectors on patrols. A definition of commercial bait collection is needed nationally. |
| General | Eco-labelling scheme | Not taken forward | * | Considered during FLAG application, but not a priority for NIFCA | No |
| General | Study on Age dynamics of fishermen | Medium | */✓ | Report by Leah Brown further information will be obtained and issues addressed if FLAG is successful. | NIFCA has gathered age data for permit holders, however NIFCA do not have data for crew. |
| Drift net fishery for salmon and trout | Managing migratory fish | Not taken forward | * | Environment Agency (EA) manages and records data for this fishery. NIFCA responded to Consultation with EA regarding the possibility of ending Drift Net Fishing and also Beach Net Fishing for Salmon. Possible changes in 2019. | No |
| Trawl fishery for <i>Nephrops</i> | More information needed (stock assessment, no. of vessels, catch and landings data) | Not taken forward | * | NIFCA do not monitor this fishery. The MMO monitor and record this fishery. Cefas conduct surveys of the major <i>Nephrops</i> stocks in the North Sea (including Farne Deeps) using an underwater television system. Data collected in 2017 was used to inform the | Yes but NIFCA do not monitor this fishery. |

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| | | | | <i>Nephrops</i> stock assessment which classifies the <i>Nephrops</i> stock as moderate but stable (just above MSY). | |
| Trawl fishery for <i>Nephrops</i> | Promote functional unit management | Not taken forward | * | Not a NIFCA priority | No |
| Trawl fishery for <i>Nephrops</i> | Investigate bycatch rates | Not taken forward | * | Bird bycatch is perceived to be low in the district | No |
| Trawl fishery for <i>Nephrops</i> | Collect data on the habitats and species within the fishery area | Not taken forward | *✓ | Video surveys conducted at Amble Houp Cefas conduct surveys of the major <i>Nephrops</i> stocks in the North Sea (including Farne Deeps) using an underwater television system. Data collected in 2017 was used to inform the <i>Nephrops</i> stock assessment which classifies habitat as stable/improving. | Existing footage could be analysed to species level however this will be a very time-consuming process and not a priority for NIFCA. |
| Gillnet fishery for lobster | Procedures to monitor this fishery | Medium | * | Activity levels very low but being monitored through sightings from NIFCA routine patrols. | A Cefas workshop in February 2017 outlined that there is a lack of large lobsters caught in the district when compared to Cornwall. It was pointed out that nets are often used to catch lobsters in Cornwall therefore NIFCA could conduct surveys on vessels fishing for lobsters with gillnets to determine if there is a difference in size between lobsters caught in pots and nets. |
| Gillnet fishery for lobster | Study to investigate the effects of nets in the BNNC SAC | Low | ✓ | Evidence gathered in form of observations and reserve monitoring data collated during Article 6 work, NIFCA feel no | Not at this time however this may be needed in future depending on the consultation |

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| | | | | further study is needed at present due to very low levels of activity. Continued communication with partner organisations, particularly in relation to SPA bird features. | responses received relating to the Article 6 work. Communication with monitoring organisations should be maintained. Could conduct a questionnaire to inform HRAs. |
| Hand gathering for winkles | Conduct a study to collect baseline information and develop management actions as required. | Medium | ✓ | NIFCA officers record observed numbers of bait collectors during patrols. A code of conduct for bait collection was developed for the Blyth estuary. PhD at Newcastle university assessed the impacts of winkle gathering (Tinlin-Mackenzie, 2018). A report by Quigley (1998) looks at the collection of winkles within the BNNC SAC. | Continue to monitor bait collectors on patrols. NIFCA are also carrying out periwinkle surveys following the method of Quigley (1998) to look for differences between collected and non-collected shores. |
| Hand gathering for winkles | MSc study how winkles adapt to sea temperature change. | Not taken forward | ✗ | Not a NIFCA priority | No |
| Hand gathering for winkles | Identify archaeological features within hand gathering areas | Not taken forward | ✗ | Not a NIFCA priority | No |
| Hand gathering for mussels | Conduct a study to collect baseline information | Low | ✓ | NIFCA officers record observed numbers of bait collectors during patrols. A code of conduct for bait collection was developed for the Blyth estuary. Monthly stock assessments were carried out on the Blyth estuary from 2015-2016 to collect a baseline dataset. NIFCA are continuing with annual surveys at the site, along with annual surveys at Fenham Flats (which have been carried out since 2006). | Continue to monitor bait collectors on patrols and continue mussel stock assessment surveys. |
| Hand gathering for mussels | Identify archaeological | Not taken forward | ✗ | Not a NIFCA priority | No |

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| | features within hand gathering areas | | | | |
| Gillnet fishery for Cod, Mackerel and flatfish | Conduct study into bycatch | Low | ✘ | Activity is low in the district. NIFCA Conduct surveys of gill netting activity (recording catch including bycatch) when this activity is encountered on routine patrols. | Continue to monitor gill netting activity when observed during patrols. |
| Gillnet fishery for Cod, Mackerel and flatfish | Investigate benefits of increased MLS for cod | Low | ✘ | Due to the recovery of North Sea cod NIFCA feel this study is unnecessary at this time. | No (Could be a project for a student). |
| Pacific Oyster Farm | Define NIFCA's role in the management of this private fishery | Not taken forward | ✓ | NIFCA has some jurisdiction if the operation hinders the aims and objectives of NIFCA, but the fishery is managed through the issue of a CEFAS Aquaculture Production Business License and monitoring by Natural England. | No |
| Pacific Oyster Farm | Further information is needed on the effects of the oyster farm on the wider ecosystem | Not taken forward | ✘ | NIFCA conducted a literature review on the pacific oyster and the associated threats of this invasive species within the district. NIFCA cannot itself devote further resources to this issue. | Not at this time. |

Mott MacDonald recommended that the SEA should be reviewed on a regular basis to identify any new issues and opportunities for future management. Table 2 highlights changes to management and potential associated benefits and issues (since the completion of the SEA in 2014).

Table 2. Changes to management since the completion of the SEA in 2014, including associated benefits and issues.

| Changes to NIFCA byelaws | Potential Benefits | Potential Issues |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| In 2015 NIFCA's byelaws were condensed from 17 to 8 byelaws. | - Easier to understand | - N/A |
| Vessel size for trawling | - Reduced fishing effort within the NIFCA district - Reduced impacts on species and habitats | - Increase in CO ₂ as larger vessels have to travel farther afield. |

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| | | - Vessels can be adapted to fit the byelaw but still have large engines capable of carrying large amounts of catch. |
| Charge for permits | <ul style="list-style-type: none"> - Better records of active fishers in the district - May reduce fishing effort, as some fishermen will not buy a permit. | <ul style="list-style-type: none"> - Small economic impact for fishermen - reduction in number of active fishers |
| Change to V-notching byelaw | <ul style="list-style-type: none"> - Maintain fishing communities - Still some benefit to lobster stock | <ul style="list-style-type: none"> - Less lobsters returned (reduced benefit to the stock). - May reduce period of time individual lobsters are protected. |
| Change to coordinates in Byelaws 7 and 8 | - N/A | - N/A |
| Pending change to Byelaw 7 – opening three soft ground areas to trawling within the BNNC SAC | - Shows that NIFCA support the local fishing industry. | - Differing opinions between stakeholder groups. |
| On-going review of NIFCA Byelaws (NIFCA are currently Reviewing Byelaws 1,2 and 4 as required. This has been out to consultation with fishers and the general fishers, Stakeholder Meetings have been arranged and taken place, letters sent out to all Commercial and Recreational fishers regarding a 10% increase in Permit charges. Renewal of Tags for Commercial fishers in 2019). | <ul style="list-style-type: none"> - Ensures the fishery is managed effectively. - Specific benefits would be determined after changes were identified. | - Specific Issues would be determined after changes were identified. |
| Emergency Byelaw – Berried Hens (To be incorporated into Byelaw 4). | <ul style="list-style-type: none"> - Removes loophole in national legislation which allows for the transport of berried hens and prevents vessels claiming they caught berried hens in Scotland and landing them in England. Byelaw also prohibits recreational fishers from landing berried hens. | - There are a number of potential issues associated with a berried hen ban (see below) but there are no further issues associated with the emergency byelaw. |

| New Marine Protected Areas | Potential Benefits | Potential Issues |
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| Coquet to St Mary's MCZ Farne Deep's MCZ Northumberland Marine SPA Berwick to St Mary's rMCZ | <ul style="list-style-type: none"> - protection of habitats and species - contributes to the UK's network of MPAs | - Will depend on what management measures are put in place. |

| Emerging Issues | Potential Benefits | Potential Issues |
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| Farne Deeps Nephrops Stock Assessment | - Highlights the need for management | - Future management may have negative impacts on the Nephrops trawl fleet. |
| CEFAS Stock Assessment for Lobster (New Assessment available for 2017) | - Highlights the need for further data collection and management | - Future management may have negative impacts on the potting fleet. |
| CEFAS Stock Assessment for Crab (New Assessment available for 2017) | - Highlights the need for further data collection and management | - Future management may have negative impacts on the potting fleet. |
| Landing Obligation | <ul style="list-style-type: none"> - Promotes the use of sustainable fishing methods - Creation of infrastructure and jobs - Reduces waste - Improves data on by-catch - Small economic benefits | <ul style="list-style-type: none"> - Lack of infrastructure for dealing with by-catch - Economic impacts for fishermen relatively unknown at this time |
| National Berried Hen Ban (This SI was brought into force on 1 st October 2017). | <ul style="list-style-type: none"> - Would reduce the number of lobsters removed by fishing by ~15-30%. - Gives female lobsters a greater opportunity to reproduce before entering the fishery. | <ul style="list-style-type: none"> - Could bias sex ratio - Significantly reduce landings/income for fishers at certain times of year. - Difficult to enforce. - Possible increase in effort as fishers have stated they are fishing more pots to make up for the proportion of catch they are losing due to berried hen ban. |

NIFCA do not monitor finfish or the trawl fishery for nephrops therefore there are no recommendations for (NIFCA) management relating to the Landing Obligation or the Nephrops stock assessment. NIFCA do not foresee any additional management required within the Tranche 1 and 2 MCZs (AIn Estuary and Coquet to St Mary's). A Tranche 3 MCZ has been proposed to protect eider ducks (Berwick to St Mary's) if designated NIFCA will determine if additional management is needed for this site within 2 years of designation.

NIFCA are currently conducting an in-house stock assessment for lobster. There is a lack of data available for Brown crab, methods for extending the stock assessment project to include Brown crab are being considered by NIFCA. A project looking at Brown crab landings data has been conducted by an MSc student from Newcastle University. NIFCA are developing a series of Fisheries Management Plans (Starting with European Lobster) to aid with future management and monitoring of the fishery. The 2016-17 Lobster fisheries Management Plan is available on the NIFCA website. NIFCA are also working on creating Monitoring and Control Plans for all fishing methods used within the NIFCA district (the Monitoring and Control Plan for Static Netting is available on the NIFCA website).