



Evaluation of the Northumberland IFCA Strategic Environmental Assessment (SEA)



2016

Abbreviations

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
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
SPA	-	Special Protection Area

Glossary

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

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
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 are being developed.	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 trialling iVMS is on-going.	Continue participation in joint project.
General	Undertake a survey of archaeological sites	Not taken forward	✗	NIFCA have compiled some information relating to archaeological sites in the District. However this is not a priority.	More detailed and up to date information is needed. Consider 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. NIFCA officers monitor bait collectors.	Continue to monitor bait collectors on patrols whilst awaiting the results of the PhD study.
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	No

				successful.	
Drift net fishery for salmon and trout	Managing migratory fish	Not taken forward	✘	Environment Agency (EA) manages and records data for this fishery.	No
Trawl fishery for Nephrops	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.	Yes but NIFCA do not monitor this fishery.
Trawl fishery for Nephrops	Promote functional unit management	Not taken forward	✘	Not a NIFCA priority	No
Trawl fishery for Nephrops	Investigate bycatch rates	Not taken forward	✘	Bird bycatch is perceived to be low in the district	No
Trawl fishery for Nephrops	Collect data on the habitats and species within the fishery area	Not taken forward	✘/✓	Video surveys conducted at Amble Houe	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	Low	✘	Activity levels very low but being monitored through sightings from NIFCA routine patrols.	No
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 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.	Not at this time however this may be needed in future depending on the consultation 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 assessing the impacts of winkle gathering (submission date 2017). A	Continue to monitor bait collectors on patrols.

				report by Quigley (1998) looks at the collection of winkles within the BNNC SAC.	
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 quarterly 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 features within hand gathering areas	Not taken forward	✘	Not a NIFCA priority	No
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 should be managed through the issue of a	No

				CEFAS Aquaculture Production Business License.	
Pacific Oyster Farm	Further information is needed on the effects of the oyster farm on the wider ecosystem	Not taken forward	*	NIFCA cannot itself devote further resources to this issue.	Not at this time. However NIFCA could conduct a literature review on the pacific oyster and the associated threats of this invasive species.

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
Vessel size for trawling	<ul style="list-style-type: none"> - reduced fishing effort within the NIFCA district - reduced impacts on species and habitats 	<ul style="list-style-type: none"> - Increase in CO₂ as larger vessels have to travel farther afield. - 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.

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

Emerging Issues	Potential Benefits	Potential Issues
Farne Deeps Nephrops Stock Assessment	<ul style="list-style-type: none"> - Highlights the need for management 	<ul style="list-style-type: none"> - Future management may have negative impacts on the

		Nephrops trawl fleet.
CEFAS Stock Assessment for Lobster	- Highlights the need for further data collection and management	- Future management may have negative impacts on the potting fleet.
CEFAS Stock Assessment for Crab	- 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

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. Some activities occurring within the MCZs may need additional management. Management needs should be identified within the next 2 years and NIFCA will have an active role in this process. However specific management recommendations are not available at present.

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 should be considered by NIFCA. A project looking at Brown crab landings data is being conducted by an MSc student from Newcastle University.