



Annual Research Report

2017-2018

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

NIFCA Annual Research Report 2017/18

NIFCA's Annual Research Plans outlines the work priorities and survey plans for gathering evidence and data over a 12-month period (May – April). In the 2017- 2018 plan the following areas were identified as priorities

- Assessment of shellfish stock status and sustainability of potting within the district
- Assessment of fishing activities within Marine Protected Areas
- Development and implementation of monitoring & control plans for fishing activities
- Development of high resolution seabed maps
- Continuation of annual survey work

The tables below provide a list of the surveys and research conducted by NIFCA and students, as identified in the Annual Research Plan 2017 to 2018. Outcomes of NIFCA actioned surveys are summarised from May 2017 to April 2018 in table (a) and table (b) lists all student research projects conducted relevant to NIFCA and their project status as of April 2018.

Table (a) NIFCA actioned surveys

Survey/ Research	Conducted	Outcomes	Priority Objective
Mussel Surveys			
Fenham Flats	Annually; 20 th March 2018	Report for both surveys will be made available on NIFCA website.	Continuation of annual survey work.
Blyth Estuary	Annually; 18 th April 2018	Surveying of sites will continue annually.	
Lindisfarne	Annually; 22 nd March 2018		
Lobster Stock Assessment	Weekly (weather permitting); 10 th October 2017, 20 th October 2017, 24 th October 2017, 15 th November 2017, 5 th January 2018, 12 th January 2018, 19 th April 2018, 24 th April 2018.	Provide detailed information on the status of the NIFCA lobster stock which can be used to inform future management.	Assessment of shellfish stock status and sustainability of potting within the district.
Fish Surveys			
Aln Estuary	Biannually; May, Sept (2016)	Data provided to EA to inform estuarine status under WFD.	Continuation of annual survey work.
Hauxley	July, Sept & Dec (2017)	Data presented to the EA and the Coal Authority.	
Royal Quays	June – Dec (2017)	Data presented to Royal Quays Marina.	
NEBBS			
Druridge Bay	Monthly; May, June, July, Aug, Sept, Oct (2017); Jan, Feb, March (2018)	Data provided to NEBBS surveyor. Information to help inform NIFCA HRAs.	Continuation of annual survey work. Assessment of fishing activities within Marine Protected Areas.
Beadnell Bay	Monthly; May, June, Nov (2017); Jan, March, April (2018)	Data provided to NEBBS surveyor. Information to help inform NIFCA HRAs.	
Escape Gap Study	June 2017	Data analysed internally and report available on NIFCA website.	Assessment of shellfish stock status and sustainability of potting within the district.
Broadscale Habitat Mapping	Weekly during routine patrols.	Upgrade of mapping systems (Olex and Furuno) successfully funded through EMFF to map the seabed	Development of high resolution seabed maps.

		with higher accuracy and level of confidence.	
Grab Sampling	11 th Sept 2017	Porcupine marine provided comprehensive list of infauna identified from the grab samples. Sediment samples have been frozen for particle size analysis.	Development of high resolution seabed maps.
MPA management HRA Potting (Subtidal Rocky Reef)	Regular meetings with NE advisor	Appropriate Assessment in final draft stage. Conclude no further management required.	Assessment of fishing activities within Marine Protected Areas.
Development of Monitoring and Control Plans	Regular meetings with NE advisor	Provides a framework for monitoring fishing activity.	
Monitoring of bait collection activity	Weekly; May 2016 – April 2017	Spatial and temporal data collected to inform future impact assessments for NIFCAs HRAs and MMO National Risk Assessment.	Continue to monitor activity throughout the NIFCA district.

Table (b) Student Projects

Project Title	Institute / Project type / Student	Status
Object- based image analysis of multi-resolution remote sensing data to map and monitor subtidal and intertidal rocky reef habitats in North Sea MPAs (specifically Coquet to St Mary's MCZ).	Newcastle University / PhD / Paula Lightfoot	Completed in 2018
Effects of collection of <i>Littorina littorea</i> and <i>Arenicola marina</i> from sandy/ muddy shores within the BNNC EMS, based on social and ecological field data on the extent and locations of activities, potential effects on the target species and associated communities.	Newcastle University / PhD / Ashleigh Tinlin	Complete awaiting corrections.
Comparison of trawl data and fishery food webs between present and 100 years ago in Northumberland.	Newcastle University / PhD / Georgina Hunt	Due: 2020
Stock assessment - An evaluation of the minimum landing size and the pot limitation byelaw in the Northumberland lobster fishery.	Newcastle University / MSc / James Woodruff	Completed: September 2017
Pot Luck: The impact of fisher's choices and lobster pot size on fishing effort within the Northumberland fishing district.	Newcastle University / MSc / Christie Powell	Completed: September 2017
Use of DAPSTOM database to investigate long-term change in diet of North Sea <i>Gadus morhua</i> .	Newcastle University / MSc / Amy McHugh	Completed: September 2017
Lobsters on the ground: improving understanding of shellfish populations on the Northumberland Coast.	Newcastle University / MSc / Jimmy Wright	Due: September 2018
The factors driving food provisioning in Little Tern <i>Sternula albifrons</i> .	Newcastle University / MPhil / Nick Brodin	Due: December 2018
Changing views on management. The views of Northumberland pot fishers in relation to Escape Gaps and the NIFCA Pot Limitation.	Newcastle University / BSc / Charlie Rhodes	Placement: April 2017 Report Complete: August 2017
Recreational Potting within the NIFCA district.	Newcastle University / BSc / Emily Henderson	Placement: March 2018 Report Complete: August 2018