



**Research & Environment
Annual Plan
2013**



1. *RV Three Counties*

This document is available in electronic form from the Eastern Inshore Fisheries and Conservation Authority website:

www.eastern-ifca.gov.uk

Alternatively a hard copy can be viewed at the following location:

Eastern Inshore Fisheries and Conservation Authority
6 North Lynn Business Village
Bergen Way
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Norfolk
PE30 2JG

1 September 2013



2. Edible crab



3. Plaice

Research and Environment Plan: 2013-2014

Introduction

The Eastern Inshore Fisheries and Conservation Authority is one of ten regional authorities in England providing inshore fisheries and conservation management. Its district covers the three counties of Lincolnshire, Norfolk and Suffolk from Haile Sand Fort in Lincolnshire to Felixstowe in Suffolk and extends six nautical miles seawards.

To help the authority meet its expectations it must take a strategic approach that encompasses a specific framework of a vision, success criteria, and High Level Objectives (Defra, 2010) for IFCAs to work to and be measured against.

The vision for the Eastern IFCA is to:

'Lead, champion and manage a sustainable marine environment and inshore fisheries by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry'

This vision presents a considerable challenge for all IFCAs in requiring them to balance the needs and expectations of all those with a stake in the inshore marine environment. As a result IFCAs have a responsibility to focus on the sustainable exploitation of sea fisheries resources through collaborative, local, evidence-based decision making, using on-going and new research paths as a platform.

An annual research and environment plan provides stakeholders with an overview of the key tasks that the Authority's staff will conduct during the 2013-2014 financial year. These work streams flow from the Annual Plan. Both of these documents result from instructions and guidance issued to IFCAs by Defra, the Marine Management Organisation and ultimately the Marine and Coastal Access Act 2009.



4. Bass shoal



5. Eastern IFCA District

Research and Environment team

The Authority's Research and Environment team complements the Enforcement and Administrative teams to deliver evidence-based fisheries management that is sensitive to social, environmental and economic needs. A range of inshore fisheries are operated in the district by local fleets and individuals. The main target species are cockle, mussel, shrimp, crab, lobster, cod, sole, herring and bass – varying according to season and area. The district supports a wealth of important natural features that are protected under a suite of UK and EU designations (Site of Special Scientific Interest, Special Protected Area, Special Area of Conservation, Ramsar site). These collectively form a network of Marine Protected Areas. This network is due to be augmented by the creation of Marine Conservation Zones over the coming years.

The Authority's Research and Environment team faces a considerable challenge in providing the evidence needed to develop fisheries management measures for the new conservation sites. It must also continue to support the Authority's management of the Wash Fishery Order 1992 which oversees the major molluscan fisheries in The Wash. To achieve these goals the Authority must not only continue the research and monitoring programme conducted by its predecessor organisation, the Eastern Sea Fisheries Joint Committee, but must develop new skills and deliver a range of projects that will satisfy its new conservation requirements.



6. Cockles

Research and Environment priorities

The research and environment team provide a broad range of services to the Authority and work synergistically across the organisation. The two parts have particular roles to play within the Authority.



7. Servicing the Authority's data buoy

Research Priorities

The focus of the Authority's research team members during 2013-14 will be:

- To review and, where appropriate, continue with existing RCM projects;
- To advance the Authority's understanding of the species, habitats, activities, and features along with their impacts within Marine Protected Areas and European Marine Sites;
- To ensure staff are adequately trained to fulfil their work objectives;
- To work in partnership with other organisations and stakeholders to effectively gather and share information;
- To produce an annual research report to ensure the work conducted by the research team members is recognised.

Environment Priorities

The environment team members face a slightly different challenge in the coming year. Much of the newer work requires analysis and organisation of information. Recognising these new requirements, the Authority has focused on gaining skills in geographic information and data analysis to support the now expanded environment aspects of its work.

Key focus areas for the Authority's environment team members during 2013-14 will be:

- To make best use of personnel and provide appropriate training to develop a productive and effective environment team;
- To work closely with the Research team to ensure environmental functions are supported e.g. via stock assessment, habitat mapping, fisheries impact assessment, environmental monitoring, fishing activity surveillance and enforcement;
- To develop robust databases for marine protected area and European Marine Site features, fishing activities, fishing impacts and stakeholder contacts;
- To develop management measures for activities within marine protected areas and European Marine Sites;
- To promote Project Inshore within the district and work with its project team to deliver appropriate information on the district's fisheries.

The environment team will also continue its existing role in responding to external consultations relating to marine developments that could affect the district's fisheries or the wider marine environment.



8. Beam Trawler4

Partnership Working

Partnership working is crucial to the effectiveness and efficiency of all IFCA's. Key partner organisations for the Authority's research and environment team include our funding authorities – Lincolnshire, Norfolk and Suffolk County Councils - the Marine Management Organisation, Natural England, the Centre for Environment, Fisheries and Aquaculture Science (Cefas), the Environment Agency, local biodiversity partnerships, and wildlife NGOs including the Royal Society for the Protection of Birds, the Wildlife Trusts and Seasearch. In addition, the Authority benefits from collaborating with other relevant authorities on the management groups for the European Marine Sites within the district.



9. Beach seine netting

KEY WORK FOR RESEARCH TEAM 2013-2014

Table 1. Agreed work activities for Eastern IFCA Research team 2013/14

Activity	Officer days 2013/2014				
	Q1	Q2	Q3	Q4	Total
Spring cockle surveys	90				90
Horseshoe Point cockle surveys		13		10	23
Autumn mussel surveys		25	55		80
Titchwell Marsh mussel survey		4		4	8
EHO/DSP Bio-toxin sampling	15	15	15	16	61
Habitat mapping (Sabellaria reefs, Marine Conservation Zones, etc)	30	50	40		120
Management of Wash Fishery Order 1992 Several Fishery Lays	4	4	4	3	15
Water quality monitoring (SWEEP)	6	6	6	11	29
Desk study to determine extent of current habitat/feature maps in our district	10	5			15
Gear Impact Study		5	10		15
Review of survey methodologies	3	2			5
Annual Research Report			15	45	60
Technical Advisory Group (TAG)	3		7		10
MEDIN Meta-Data Compliance	1		1	1	3
Stakeholder Liaison meetings	10	10	10	10	40
Cockle growth assessment	22	22			44
Crab/lobster biosampling	11	11	11	17	50
Juvenile fish monitoring programme	16	27	6	6	55
Mono-filament netting review	5	5	5	9	24
Total	221	204	185	132	742

Research Officer Availability

Team	Total Days	Actual available days*
4 x Research staff	915	732

* The research team has 1 Senior Research Officer and 3 Research officers. Taking into account weekends, public and personal holidays, this team has a maximum total of 915 days available during 2013/14. Of these days, it has been estimated that 20% will be required to fulfil staff development requirements (including inductions, training and appraisals) and necessary administration duties (planning, managing, liaison and reporting). This leaves a total of 732 days research officer time available during 2013/14.

RP2013A Spring Cockle surveys

Objectives

1. To conduct the annual spring cockle survey field work. This involves using the Authority's research vessel, *Three Counties*, to sample approximately 1,300 stations from 21 beds, either using a Day grab deployed from the vessel or quadrats used during foot surveys.
2. Analysis of the survey data to determine the spatial distribution of the adult and juvenile cockle stocks. Production of GIS charts displaying this information.
3. Analysis of the survey data to determine the biomass of adult and juvenile cockle stocks on each of the beds surveyed.
4. Use the information gained from the surveys to develop management recommendations for the 2013/14 fishery that comply with local byelaws, Wash Fishery Order 1992 regulations and agreed shellfish management policies.
5. Consult with Wash Fishery Order 1992 Entitlement Holders regarding the recommended management measures for the 2013/14 cockle fishery.
6. Produce a report for the Marine Protected Area Sub-Committee. Present the survey results and management proposals to the Sub-Committee.
7. Produce detailed report of the survey results for inclusion in the 2013 Annual Research Report.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 4: IFCAs work in partnership and are engaged with their stakeholders
 Success Criteria 5: IFCAs make the best use of evidence to deliver their objectives.

- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a

Success Criteria 6: IFCAs support and promote the sustainable management of the marine environment

- High Level Objective 6.3; Performance Indicators 6.2c, 6.3a

Outputs & Timescales

Completion of survey field work	May 2013
Report summarising survey results, including recommendations for 2013/14 cockle fishery	May 2013
Presentation of survey results and management recommendations to MPA Sub-Committee	June 2013
Report of survey results for inclusion in 2013 Annual Research Report	January 2014

Internal links

Cockle Charter agreed between Authority and Fishermen in 2011
 Wash Fishery Order 1992

<p>Authority's Shellfish Management Policies</p> <p>Authority's Standard Operating Procedure for cockle surveys (RP2013J)</p> <p>Habitats Regulations Assessment for 2013/14 cockle fishery</p> <p>Authority reports regarding Hydraulic Suction Dredge and "Prop-Wash" Impact Assessments</p> <p>Cockle Growth Study (RP2013O)</p> <p>Autumn Mussel Survey programme (RP2013C)</p> <p>EHO/DSP Biotoxin Sampling (RP2013E)</p> <p>MEDIN data storage programme (RP2013M)</p> <p>Liaison meetings with Stakeholder Groups (RP2013N)</p> <p>Annual Research Report (RP2013K)</p>	
<p>External links, including partner agencies</p>	
<p>Industry provides input towards management decisions.</p> <p>Natural England provides conservation advice through the Habitats Regulations Assessment process</p>	
<p>External funding</p>	
<p>None</p>	
<p>Reporting officer(s)</p>	
<p>Olle Åkesson</p> <p>Laura Rutland</p>	<p>Research Officer</p> <p>Temporary Research Officer</p>
<p>Project lead</p>	
<p>Ron Jessop</p>	<p>Senior Research Officer</p>

RP2013B Horseshoe Point cockle survey

Objectives

1. Conduct field work for two surveys (June and February). These involve conducting foot surveys from the shore to sample 120 stations covering three discrete beds.
2. Analysis of the survey data to determine the spatial distribution of the adult and juvenile cockle stocks. Production of GIS charts displaying this information.
3. Analysis of the survey data to determine the biomass of adult and juvenile cockle stocks on each of the beds surveyed.
4. Should the identified stocks be sufficient to support a viable commercial fishery, develop management recommendations for the 2013/14 fishery that comply with local byelaws.
5. Produce a report describing the results of the surveys for inclusion in the 2013 Annual Research Report.
6. Explore the feasibility of increasing the extent of future surveys to cover the full extent of Haile Sand.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

- Success Criteria 4: IFCA's work in partnership and are engaged with their stakeholders
 Success Criteria 5: IFCA's make the best use of evidence to deliver their objectives.
- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a
- Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment
- High Level Objective 6.3; Performance Indicator 6.3a

Outputs & Timescales

Conduct field work for summer survey	June 2013
Conduct field work for winter survey	February 2014
Report detailing survey results and recommended management measures to MPA sub-committee (if required)	August 2013
Report of survey results for inclusion in 2013 Annual Research Report	January 2014

Internal links

Cockle Charter agreed between Authority and Fishermen in 2011
 Authority's Standard Operating Procedure for cockle surveys (RP2013J)
 EIFCA Byelaws
 Habitats Regulations Assessment for potential 2013/14 cockle fishery at Horseshoe Point
 MEDIN data storage programme (RP2013M)
 Liaison meetings with Stakeholder Groups (RP2013N)
 Annual Research Report (RP2013K)

External links, including partner agencies	
<p>Industry provides input towards management decisions.</p> <p>Natural England provides conservation advice through the Habitats Regulations Assessment process</p> <p>East Lyndsey District Council who are responsible for EHO water quality classification</p>	
External funding	
None	
Reporting officer(s)	
Stephen Thompson	Research Officer
Peter Welby	Research Officer
Project lead	
Ron Jessop	Senior Research Officer

RP2013C Autumn Mussel survey

Objectives

1. Conduct the annual autumn mussel survey field work. This involves using the Authority's research vessel, *Three Counties*, to conduct low-water foot surveys on 20 inter-tidal beds using the "Dutch wand" method.
2. Analysis of the survey data to determine the biomass and size distribution of mussel stocks within the beds. Production of GIS charts displaying this information and the geographical extent of the beds.
3. Use the information gained from the surveys to develop management recommendations for the 2013/14 fishery that comply with local byelaws, Wash Fishery Order 1992 regulations and agreed shellfish management policies.
4. Consult with Wash Fishery Order 1992 Entitlement Holders regarding the recommended management measures for the 2013/14 cockle fishery.
5. Produce a report for the Marine Protected Area Sub-Committee. Present the survey results and management proposals to the Sub-Committee.
6. Produce detailed report of the survey results for inclusion in the 2013 Annual Research Report.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

- Success Criteria 4: IFCA's work in partnership and are engaged with their stakeholders
 Success Criteria 5: IFCA's make best use of evidence to deliver their objectives
- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a
- Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment
- High Level Objective 6.3; Performance Indicators 6.2c, 6.3a

Outputs & Timescales

Completion of survey field work	November 2013
Report summarising survey results, including recommendations for 2013/14 cockle fishery	December 2013
Presentation of survey results and management recommendations to MPA Sub-Committee	December 2013
Report of survey results for inclusion in 2013 Annual Research Report	January 2014

Internal links

- Authority's Standard Operating Procedure for mussel surveys (RP2013J)
 Wash Fishery Order 1992
 Authority's Shellfish Management Policies
 Habitats Regulations Assessment for 2013/14 mussel fishery

Spring Cockle Survey programme (RP2013A)	
EHO/DSP Biotoxin Sampling (RP2013E)	
MEDIN data storage programme (RP2013M)	
Liaison meetings with Stakeholder Groups (RP2013N)	
Annual Research Report (RP2013K)	
External links, including partner agencies	
Industry provides input towards management decisions. Natural England provide conservation advice through the Appropriate Assessment process	
External funding	
None	
Reporting officer(s)	
Stephen Thompson	Research Officer
Peter Welby	Research Officer
Project lead	
Ron Jessop	Senior Research Officer

RP2013D Titchwell Marsh Mussel survey

Objectives

1. Conduct field work for two surveys (October and February). These involve conducting foot surveys from the shore at low-water using the "Dutch wand" method.
2. Analysis of the survey data to determine the biomass and size distribution of mussel stocks within the bed. Production of GIS charts displaying this information.
3. Should the identified stocks be sufficient to support a viable commercial fishery, develop management recommendations for the 2013/14 fishery that comply with local byelaws and do not harm the Neolithic peat beds on which the mussels settle.
4. Consult with local Fishermen's Associations, Natural England and the RSPB regarding the management proposals.
5. Produce a report for the Marine Protected Area Sub-Committee. Present the survey results and management proposals to the Sub-Committee.
6. Produce detailed report of the survey results for inclusion in the 2013 Annual Research Report.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 4: IFCA's work in partnership and are engaged with their stakeholders
 Success Criteria 5: IFCA's make the best use of evidence to deliver their objectives.

- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a

Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment

- High Level Objective 6.3; Performance Indicators 6.2c, 6.3a

Success Criteria 7: IFCA's are recognised and heard

- High Level Objective 7.1

Outputs & Timescales

Conduct field work for autumn survey	October 2013
Conduct field work for winter survey	February 2014
Report detailing survey results and recommended management measures to MPA sub-committee (if required)	November 2013
Report of survey results for inclusion in 2013 Annual Research Report	January 2014

Internal links

Authority's Standard Operating Procedure for mussel surveys (RP2013J)
 EIFCA Byelaws
 Habitats Regulations Assessment for a 2013/14 Titchwell mussel fishery
 MEDIN data storage programme (RP2013M)
 Liaison meetings with Stakeholder Groups (RP2013N)

Annual Research Report (RP2013K)	
External links, including partner agencies	
<p>Industry provides input towards management decisions.</p> <p>RSPB – The mussel bed is situated within a RSPB nature reserve</p> <p>Natural England provide conservation advice through the Appropriate Assessment process</p>	
External funding	
None	
Reporting officer(s)	
Stephen Thompson	Research Officer
Peter Welby	Research Officer
Project lead	
Ron Jessop	Senior Research Officer

RP2013E EHO / DSP Biotoxin Sampling

Objectives

1. Continue the programme to collect, process and despatch live shellfish and water samples to support the classification of shellfish waters within the Wash. This involves using the Authority's vessels to collect eleven shellfish and four water samples each month from fixed sample stations in the Wash.
2. Maintain populations of mussels within holding cages at prescribed sample stations within the Wash, from which samples can be taken as required.
3. Liaise regularly with CEFAS and Local Authorities regarding sampling.
4. Produce report of the classification results for inclusion in the 2013 Annual Research Report

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 4: IFCA's work in partnership and are engaged with their stakeholders
 Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment

- High Level Objective 6.3; Performance Indicators 6.2c, 6.3a

Outputs & Timescales

Supply CEFAS and Local Authorities with monthly shellfish and water samples	Monthly, throughout year
Report of survey results for inclusion in 2013 Annual Research Report	January 2014

Internal links

Annual Research Report (RP2013K)

External links, including partner agencies

Local Authorities responsible for monitoring water quality
 CEFAS protocols for sample collection

External funding

Local Authorities provide funding for the sample collection

Reporting officer(s)

Robin Strigner	Research Officer
Simon Lee	Skipper

Project lead

Robin Strigner	Research Officer
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RP2013F1 Habitat Mapping

Objectives

1. Use the Authority's research vessel, *Three Counties*, to conduct habitat mapping surveys within Marine Protected Areas situated within the District. The objective of these surveys is to identify and map the named features within the various MPAs including *Sabellaria spinulosa* reefs, cobble banks and *Mytilus edulis* beds.
2. Analysis of the survey data to determine the spatial distribution of any identified features. Production of GIS charts displaying this information.
3. Use this information to provide advice to the Authority's Environmental team when writing necessary Habitat Regulation Assessments
4. Should any sub-littoral mussel beds be identified during the course of these surveys, provide a detailed stock assessment. Develop management recommendations for opening such beds that comply with local byelaws and shellfish management policies.
5. Produce detailed report of the survey results for inclusion in the 2013 Annual Research Report.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 2: Evidence based, appropriate and timely byelaws are used to manage the sustainable exploitation of sea fisheries resources within the district

- High Level Objective 2.1; Performance Indicator 2.1a

Success Criteria 5: IFCA's make best use of evidence to deliver their objectives

- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a

Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment

Outputs & Timescales

Completion of survey field work	June 2013 - March 2014
Reports summarising survey results, detailing spatial extent and physical condition of various named features	July 2013 – March 2014
Presentation of survey results and management recommendations to MPA Sub-Committee (should any sub-littoral mussel beds be found)	Throughout year, as required
Report of survey results for inclusion in 2013 Annual Research Report	January 2014

Internal links

Habitat/Feature Mapping Desk Study (RP2013F2)

Authority's Standard Operating Procedure for habitat mapping surveys (RP2013J)

<p>Habitats Regulations Assessment (Wash Fishery Order fisheries; new byelaws, and byelaw derogations) (EP2013D)</p> <p>Authority's Shellfish Management Policies (for Sub-littoral mussels)</p> <p>Habitats Regulations Assessment for any identified 2013/14 sub-littoral mussel fisheries</p> <p>MEDIN data storage programme (RP2013M)</p> <p>Liaison meetings with Stakeholder Groups (RP2013N)</p> <p>Technical Advisory Group (RP2013L)</p> <p>Annual Research Report (RP2013K)</p>	
<p>External links, including partner agencies</p>	
<p>Industry provides input towards management decisions.</p> <p>Natural England provide conservation advice through the Appropriate Assessment process</p>	
<p>External funding</p>	
<p>Defra-funded survey equipment: side-scan sonar unit</p> <p>Natural England provide funding for some survey projects</p>	
<p>Reporting officer(s)</p>	
<p>Stephen Thompson</p>	<p>Research Officer</p>
<p>Peter Welby</p>	<p>Research Officer</p>
<p>Project lead</p>	
<p>Ron Jessop</p>	<p>Senior Research Officer</p>

RP2013F2 Habitat / Feature Mapping (Desk study)

Objectives

1. To conduct desk study to determine the extent of what habitat/feature maps are currently available in our District, with particular emphasis towards Marine Protected Areas.
2. Use this information to identify knowledge gaps where we may be required to conduct further surveys.
3. Provide a report detailing the information found during the study.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 2: Evidence based, appropriate and timely byelaws are used to manage the sustainable exploitation of sea fisheries resources within the district

- High Level Objective 2.1; Performance Indicator 2.1a

Success Criteria 5: IFCA's make best use of evidence to deliver their objectives

- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a

Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment

- Performance Indicator 6.3a

Outputs & Timescales

Report summarising the extent of habitats and features that have already been mapped within our District.	July 2013
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Internal links

Authority's Standard Operating Procedure for habitat mapping surveys (RP2013J)
 Habitats Regulations Assessment (Wash Fishery Order fisheries; new byelaws, and byelaw derogations) (EP2013D)
 Habitat Mapping programme (RP2013F1)
 Annual Research Report (RP2013K)

External links, including partner agencies

CEFAS, MMO, Environment Agency, Natural England, Centrica, Gardline all conduct or commission habitat mapping surveys within the District

External funding

None

Reporting officer(s)

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Project lead

To be determined	Research Officer
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RP2013G WFO 1992 Several 'Lays'

Objectives

1. To address the current issues relating to the authority's management of the Several Fishery.
2. To assess the feasibility of 16 applications for new lays that were received prior to the moratorium. Each application will require a localised habitat survey, followed by consultation with Natural England and local Fishermen's Associations.
3. To consider options for new applications for new lays that are received once the moratorium is ended.
4. Produce a report for each application for the Marine Protected Area Sub-Committee.
5. To develop a formal approach when progressing WFO lay applications.
6. To provide advice in a Constraints Study to identify limiting factors in the future development of the Several Fishery.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 2: Evidence based, appropriate and timely byelaws are used to manage the sustainable exploitation of sea fisheries resources within the district

- High Level Objective 2.1; Performance Indicator 2.1a

Success Criteria 5: IFCA's make best use of evidence to deliver their objectives

- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a

Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment

- Performance Indicator 6.3a

Outputs & Timescales

Provide report to Natural England showing algae composition in the Wash	June 2013
Report to the Marine Protected Area Sub-Committee the feasibility of each of the 16 current lay applications and any further applications received once the moratorium ends.	June 2013 – March 2014
A new robust formal approach to use when processing lay applications	March 2014

Internal links

Wash Fishery Order 1992

Habitats Regulations Assessment (Wash Fishery Order fisheries; new byelaws, and byelaw derogations) (EP2013D)

Authority's Standard Operating Procedure for habitat mapping surveys (RP2013J)

<p>Authority's Shellfish Management Policies</p> <p>Habitats Regulations Assessment for new lay assessments</p> <p>Autumn Mussel Survey programme (RP2013C)</p> <p>Spring Cockle Survey programme (RP2013A)</p> <p>EHO/DSP Biotoxin Sampling (RP2013E)</p> <p>Liaison meetings with Stakeholder Groups (RP2013N)</p> <p>Water Quality Monitoring (SWEEP) (RP2013H)</p>	
<p>External links, including partner agencies</p>	
<p>Crown Estates</p> <p>Industry provides input towards management decisions.</p> <p>Natural England provide conservation advice through the Habitat Regulations Assessment process</p>	
<p>External funding</p>	
<p>Lay holders charged an initial administration fee following successful applications</p>	
<p>Reporting officer(s)</p>	
<p>Sandra Cowper</p> <p>Stephen Thompson</p> <p>Peter Welby</p>	<p>Marine Environment and GIS officer</p> <p>Research Officer</p> <p>Research Officer</p>
<p>Project lead</p>	
<p>Ron Jessop</p>	<p>Senior Research Officer</p>

RP2013H Water Quality Monitoring (SWEEP)

Objectives

1. Continue the on-going programme recording chlorophyll-a levels in the Wash in order to monitor primary food production fundamental to the health of shellfish beds.
2. To provide samples to Cefas for use in their own studies, that can in turn help answer questions raised during the Review of Lay Consents and Appropriate Assessments associated with new lays food availability.
3. Conduct regular meat yields of shellfish at sampling stations
4. Conduct regular maintenance of YSI data sondes and data buoy
5. Produce detailed report of sampling results for inclusion in 2013 Annual Research report.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

- Success Criteria 4: IFCA's work in partnership and are engaged with their stakeholders
- High Level Objective 4.1
- Success Criteria 5: IFCA's make the best use of evidence to deliver their objectives.
- High Level Objectives 5.1, 5.2, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a
- Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment
- High Level Objective 6.1; Performance Indicator 6.3a
- Success Criteria 7: IFCA's are recognised and heard
- High Level Objective 7.1

Outputs & timescales

Completion of sampling regime	April 2013 – March 2014
Equipment well maintained and serviced	April 2013 – March 2014
Report detailing results of project for inclusion in Annual Research report	January 2014

Internal links

Habitats Regulations Assessment (Wash Fishery Order fisheries; new byelaws, and byelaw derogations) (EP2013D)

Habitats Regulations Assessment for new lay assessments

EHO/DSP Biotxin Sampling (RP2013E)

MEDIN data storage programme (RP2013M)

Annual Research Report (RP2013K)

External links, including partner agencies

CEFAS – Working in partnership on this project

Environment Agency conduct similar monitoring in estuaries

Natural England provide conservation advice through the Habitat Regulations Assessment process

External funding	
Natural England provided funding for 2 YSI data sondes CEFAS provide "payment in kind" by analysing monthly water samples	
Reporting officer(s)	
Robin Strigner	Research Officer
Project lead	
Robin Strigner	Research Officer

RP2013I EMS Gear/Feature Interaction (Desk Study)

Objectives

1. To conduct desk study to determine what information is currently available concerning relevant gear type impacts on features in our District's MPAs.
2. To use this background of information to identify knowledge gaps and provide focus for our own studies.
3. Provide a report detailing the information found during the study.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 2: Evidence based, appropriate and timely byelaws are used to manage the sustainable exploitation of sea fisheries resources within the district

- High Level Objective 2.1; Performance Indicator 2.1a

Success Criteria 5: IFCAs make the best use of evidence to deliver their objectives.

- High Level Objectives 5.2, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a

Success Criteria 6: IFCAs support and promote the sustainable management of the marine environment

- High Level Objectives 6.1, 6.3, 6.4; Performance Indicator 6.3a

Success Criteria 7: IFCAs are recognised and heard

- High Level Objective 7.1

Outputs & timescales

Report summarising the information found during this study and identifying potential research requirements	August 2013
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Internal links

Habitats Regulations Assessment (Wash Fishery Order fisheries; new byelaws, and byelaw derogations) (EP2013D)

Habitat/Feature Mapping Desk Study (RP2013F2)

Habitat Mapping programme (RP2013F1)

Authority's Standard Operating Procedure for Gear Impact Assessments (RP2013J)

Technical Advisory Group (RP2013L)

Annual Research Report (RP2013K)

External links, including partner agencies

Natural England, CEFAS, Other IFCAs

External funding

None

Reporting officer(s)

Project lead

To be determined	Research Officer
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RP2013J Develop Best Practice for Standard Operating Procedures for Research Activities

Objectives

1. To conduct a desk based study to research best practice survey methods relevant to our type of work.
2. To develop detailed standard operating procedures for all of the types of work we conduct and equipment/software we use.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 5: IFCA's make the best use of evidence to deliver their objectives.

- High Level Objectives 5.2, 5.4; Performance Indicators 5.1c, 5.1d, 5.3a

Outputs & timescales

Formal Standard Operating Procedures

August 2013

Internal links

Spring Cockle Survey programme (RP2013A)
 Horseshoe Point Cockle Survey programme (RP2013B)
 Autumn Mussel Survey programme (RP2013C)
 Titchwell Mussel Survey programme (RP2013D)
 Habitat Mapping programme (RP2013F1)
 Water Quality Monitoring (SWEEP) (RP2013H)
 Technical Advisory Group (RP2013L)
 Cockle Growth Study (RP2013O)
 Crab/Lobster Stock assessment (RP2013Q)
 Juvenile Fish Monitoring Programme (RP2013R)

External links, including partner agencies

CEFAS, Environment Agency, Natural England, Other IFCA's, JNCC

External funding

None

Reporting officer(s)

Stephen Thompson

Research Officer

Peter Welby

Research Officer

Olle Åkesson

Research Officer

Project lead

Ron Jessop

Senior Research Officer

RP2013K Annual Research Report

Objectives

1. To compile an annual report detailing research and monitoring projects undertaken throughout the year.
2. Report provides a valuable historic resource detailing the condition of the stocks that are monitored annually and research projects that have been undertaken.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 1: IFC Authorities have sound governance and staff are motivated and respected

- High Level Objective 1.2, Performance Indicator 1.3

Success Criteria 7: IFCAs are recognised and heard

- High Level Objective 7.2

Outputs & timescales

Annual research report for 2013 activities

March 2014

Internal links

Spring Cockle Survey programme (RP2013A)

Horseshoe Point Cockle Survey programme (RP2013B)

Autumn Mussel Survey programme (RP2013C)

Titchwell Mussel Survey programme (RP2013D)

Habitat Mapping programme (RP2013F1)

Water Quality Monitoring (SWEEP) (RP2013H)

Cockle Growth Study (RP2013O)

Crab/Lobster Stock assessment (RP2013Q)

Juvenile Fish Monitoring Programme (RP2013R)

External links, including partner agencies

External funding

None

Reporting officer

Stephen Thompson

Research Officer

Peter Welby

Research Officer

Project lead

Ron Jessop

Senior Research Officer

RP2013L Technical Advisory Group

Objectives

1. To liaise the research/environmental activities of the IFCA's, CEFAS, NE, EA and MMO.
2. Senior Research Officer to represent groups at 2 meetings each year.
3. To conduct any additional workloads resulting from action points raised by the group including, preparing papers/presentations and moderating the TAG Knowledge Hub forum.
4. Actively participate in TAG workshops, steering groups and training sessions

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 4: IFCA's work in partnership and are engaged with their stakeholders

- High Level Objective 4.1, 4.2

Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment

- High Level Objective 6.1

Success Criteria 7: IFCA's are recognised and heard

- High Level Objective 7.1

Outputs & timescales

Attendance at 2 TAG meetings	June 2013
Attendance at TAG workshops/training events	October 2013

Internal links

Juvenile Fish Monitoring Programme (RP2013Q)

External links, including partner agencies

Other IFCA's, Natural England, CEFAS, MMO, Environment Agency are all represented on TAG

External funding

None

Reporting officer(s)

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Project lead

Ron Jessop	Senior Research Officer
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RP2013M MEDIN – Supporting Data Officer

Objectives

1. To work alongside the data officer to develop a strategy to ensure that all future data is MEDIN compliant.
2. To assist the data officer in converting current data to a format that is compatible with MEDIN.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 5: IFCA's make the best use of evidence to deliver their objectives.

- High Level Objectives 5.2, 5.4

Outputs & timescales

Meta-data created for 2013/14 datasets that are MEDIN compliant	December 2013
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Internal links

Spring Cockle Survey programme (RP2013A)
 Horseshoe Point Cockle Survey programme (RP2013B)
 Autumn Mussel Survey programme (RP2013C)
 Titchwell Mussel Survey programme (RP2013D)
 Habitat Mapping programme (RP2013F1)
 Water Quality Monitoring (SWEEP) (RP2013H)
 Cockle Growth Study (RP2013O)
 Crab/Lobster Stock assessment (RP2013P)
 Juvenile Fish Monitoring Programme (RP2013Q)
 Technical Advisory Group (RP2013L)

External links, including partner agencies

CEFAS - data archive centre for fish data
 Date Archive for Seabed Species (DASH) - data archive centre for seabed species and facilitate the archiving of our data to data archive centres
 MEDIN programme
 TAG – EIFCA leading the project on behalf of TAG and the other IFCA's

External funding

MEDIN provided funds for 2-officer-days to attend workshop and upload Meta-data to a relevant data archive centre

Reporting officer(s)

Ron Jessop	Senior Research Officer
Stephen Thompson	Research Officer
Peter Welby	Research Officer

Project lead	
Luke Godwin	Marine Environment/Data Officer

RP2013N Liaison meetings with Stakeholder Groups

Objectives

1. To liaise with several stakeholder groups at regular meetings ranging from Authority and internal meetings, to liaison meetings with the fishing industry, Cefas, NE, EA, RSPB etc.
2. Provide papers, presentations and reports for meetings as required.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 4: IFCA's work in partnership and are engaged with their stakeholders

- High Level Objective 4.2

Success Criteria 5: IFCA's make the best use of evidence to deliver their objectives.

- High Level Objectives 5.2, 5.4

Success Criteria 7: IFCA's are recognised and heard

- High Level Objective 7.1

Outputs & timescales

Attendance and participation at Authority/stakeholder meetings.	April 2013 – March 2014
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Internal links

Spring Cockle Survey programme (RP2013A)
 Horseshoe Point Cockle Survey programme (RP2013B)
 Autumn Mussel Survey programme (RP2013C)
 Titchwell Mussel Survey programme (RP2013D)
 Habitat Mapping programme (RP2013F1)
 Water Quality Monitoring (SWEEP) (RP2013H)
 Cockle Growth Study (RP2013O)
 Crab/Lobster Stock assessment (RP2013P)
 Juvenile Fish Monitoring Programme (RP2013Q)
 Technical Advisory Group (RP2013L)

External links, including partner agencies

CEFAS, DEFRA, MMO, Other IFCA's, Natural England, Environment Agency, RSPB, Fishermen, Recreational Sea Anglers

External funding

None

Reporting officer(s)

Ron Jessop	Senior Research Officer
Stephen Thompson	Research Officer
Peter Wellby	Research Officer

Project lead

Eden Hannam	Head of Marine Conservation
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RP20130 Cockle Growth Study

Objectives

1. To conduct additional sampling of cockle stocks to allow for growth assessment study. This will involve additional sampling at 129 of the cockle survey stations in conjunction with the spring cockle surveys, then further sampling at those stations prior to the fishery opening and again in late summer.
2. Analysis of data to determine the rate of growth of cockles on the intertidal beds.
3. Produce a report detailing the results of the study for inclusion in the annual research report.
4. To test proposed methodologies and consult with Natural England over their use for the 2014 season.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 5: IFCA's make the best use of evidence to deliver their objectives.

- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a

Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment

- High Level Objective 6.3; Performance Indicator 6.3a

Outputs & timescales

Completion of survey field work	May, June and August 2013
Analysis of the data to determine the rate of cockle growth and an assessment of the impact growth would have had on the cockle biomass over the summer.	September 2013
Report detailing results from the study for inclusion in the annual research report.	February 2014
Consultation arranged with Natural England regarding the use of growth assessments when determining future TACs	March 2014

Internal links

Authority's Standard Operating Procedure for monitoring cockle growth (RP2013J)
 Spring Cockle Survey programme (RP2013A)
 Wash Fishery Order 1992
 Authority's Shellfish Management Policies
 Habitats Regulations Assessment for 2013/14 cockle fishery
 MEDIN data storage programme (RP2013M)
 Liaison meetings with Stakeholder Groups (RP2013N)
 Annual Research Report (RP2013K)

External links, including partner agencies	
Industry provides input towards management decisions. Natural England provides conservation advice through the Habitats Regulations Assessment process CEFAS provided advice on methodology	
External funding	
None	
Reporting officer(s)	
Stephen Thompson	Research Officer
Peter Wellby	Research Officer
Project lead	
Ron Jessop	Senior Research Officer

RP2013P Crab/Lobster Stock Assessment

Objectives

1. To develop the current bio-sampling regime in order to gain a better understanding of the state of these stocks.
2. To conduct regular sampling, both in ports and at sea, throughout the district as part of this regime.
3. Analysis of data to determine the extent and current state of this fishery with which to inform management.
4. Production of report detailing the results of this study for inclusion in the annual research report.
5. Where possible support the information gathering efforts of CEFAS

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 5: IFCA's make the best use of evidence to deliver their objectives.

- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a

Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment

- High Level Objective 6.3; Performance Indicator 6.3a

Outputs & timescales

Detailed survey plan for crustacean project	June 2013
Completed sampling regime	June 2013 – March 2014
Report detailing results from the study for inclusion in the annual research report.	March 2014

Internal links

Current crustacean bio-sampling regime and data-base
 Authority's Standard Operating Procedure for crab/lobster bio-sampling (RP2013J)
 MEDIN data storage programme (RP2013M)
 Liaison meetings with Stakeholder Groups (RP2013N)
 Technical Advisory Group (RP2013L)
 Annual Research Report (RP2013K)
 Habitats Regulations Assessment (Wash Fishery Order fisheries; new byelaws, and byelaw derogations) (EP2013D)

External links, including partner agencies

CEFAS's bio-sampling regime
 Other IFCA's Crustacea programmes
 Fishing industry for support and advice

External funding

None

Reporting officer(s)

Peter Wellby	Research Officer
Luke Godwin	Marine Environment/Data Officer
Jason Byrne	Area IFCO – Lincs
Ian Dye	Area IFCO – Norfolk West
Alan Garnham	Area IFCO – Suffolk
Ady Woods	Area IFCO – Norfolk East
Project lead	
Peter Wellby	Research Officer

RP2013Q Juvenile Fish Monitoring Programme

Objectives

1. To develop a juvenile fish monitoring programme that will identify and monitor important fish nursery areas within the district and its relationship with wider recruitment
2. Conduct fieldwork using a combination of Water Framework Directive style surveys in river estuaries and CEFAS Young Fish style surveys at sea.
3. Produce report detailing the results of this study for inclusion in the annual research report.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 5: IFCA's make the best use of evidence to deliver their objectives.

- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a

Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment

- High Level Objective 6.3; Performance Indicator 6.3a

Outputs & Timescales

Detailed survey plan for fish monitoring programme	June 2013
Completed sampling regime	June 2013 – March 2014
Report detailing results from the study for inclusion in the annual research report.	March 2014

Internal links

Authority's Standard Operating Procedure programme (RP2013J)

MEDIN data storage programme (RP2013M)

Liaison meetings with Stakeholder Groups (RP2013N)

Technical Advisory Group (RP2013L)

Annual Research Report (RP2013K)

Habitats Regulations Assessment (Wash Fishery Order fisheries; new byelaws, and byelaw derogations) (EP2013D)

External links, including partner agencies

CEFAS's Young Fish Surveys and bass monitoring programmes

Environment Agency's Water Framework Directive survey programme

Other IFCA's, (TAG - Small Fish Working Group)

MMO

External funding

None

Reporting officer(s)

Stephen Thompson	Research Officer
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Project lead	
Stephen Thompson	Research Officer

RP2013R Mono-filament netting review

Objectives

1. To develop a monitoring programme to assess the extent of mono-filament netting activities in the District.
2. Conduct fieldwork to monitor the usage of mono-filament nets in the District
3. Produce a report detailing the results of the study with which to inform the Byelaw review.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Success Criteria 2: Evidence based, appropriate and timely byelaws are used to manage the sustainable exploitation of sea fisheries resources within the district

- High Level Objective 2.1; Performance Indicator 2.1a

Success Criteria 5: IFCA's make the best use of evidence to deliver their objectives.

- High Level Objectives 5.1, 5.3; Performance Indicators 5.1c, 5.1d, 5.3a

Success Criteria 6: IFCA's support and promote the sustainable management of the marine environment

- High Level Objective 6.3; Performance Indicator 6.3a

Outputs & Timescales

Detailed survey plan for assessing the extent of mono-filament netting	June 2013
Completed sampling regime	June 2013 – March 2014
Report detailing results from the study to inform the Byelaw Review	March 2014

Internal links

Liaison meetings with Stakeholder Groups (RP2013N)

Habitats Regulations Assessment (Wash Fishery Order fisheries; new byelaws, and byelaw derogations) (EP2013D)

Juvenile Fish Monitoring Programme (RP2013R)

External links, including partner agencies

MMO, Environment Agency

External funding

None

Reporting officer(s)

Robin Strigner	Research Officer
Luke Godwin	Marine Environment/Data Officer
Jason Byrne	Area IFCO – Lincs
Ian Dye	Area IFCO – Norfolk West
Alan Garnham	Area IFCO – Suffolk
Ady Woods	Area IFCO – Norfolk East

Project lead	
Robin Strigner	Research Officer

KEY WORK FOR ENVIRONMENT TEAM 2013/14

Table 1. Agreed work activities for Eastern IFCA Environment team 2013/14

Activity	Officer days 2013/2014				
	Q1	Q2	Q3	Q4	Total
Fisheries Evidence project	27	27	26	26	106
Fisheries in European Marine Sites	30	30	25	20	105
Marine Conservation Zones	15	15	15	7	52
Habitats Regulations Assessment (Wash Fishery Order fisheries)	20	24	20	0	64
Consultation responses	54	54	54	54	216
EIFCA byelaw review	0	8	8	8	24
Total	146	158	148	115	567

Environment Officer Availability

Team	Total Days	Actual available days*
3 x Environment staff	630	500

* The environment team has one Senior Environment Officer and two Environment officers. Taking into account weekends, public and personal holidays, this team has a maximum total of 630 days available during 2013/14. Of these days, it has been estimated that 20% will be required to fulfil staff development requirements (including inductions, training and appraisals) and necessary administration duties (planning, managing, liaison and reporting). This leaves a total of 500 days Environment officer time available during 2013/14.

EP2013A: Fisheries Evidence project

Objectives

1. To adopt a data strategy that sets out clear policies to guide Eastern IFCA in its management and usage of data, including to ensure compliance with the INSPIRE Directive;
2. To review existing mechanisms for data capture, storage and retrieval within Eastern IFCA – including electronic data and hard copies (printed materials);
3. To establish an appropriate, searchable and secure data management system that can be efficiently utilised for data input and retrieval by all staff members, and where appropriate, by members of the public;
4. To seamlessly and without loss, transfer existing data records, as appropriate, to the new data management system;
5. To plan and conduct staff workshops, as necessary, for training to use the new systems;
6. To expand the existing Marine Protected Area database for the Eastern IFCA district, to include spatial data showing site designations and feature location and extent; site feature lists and referenced information on feature sensitivity to fishing activities;
7. To improve existing systems for the capture, reporting and dissemination of knowledge on fishing activities within the Eastern IFCA district; to create a Fishing Activity database, to include spatial data showing location of fishing activities by gear type, using internal and external data sources (e.g. Area IFCO reports, VMS data, MMO landings statistics and overflight surveillance data, etc.); and to update the 2008 ESFJC fisheries mapping project through direct and on-going liaison with fisheries stakeholders;
8. To develop a Regulation and Compliance database, expanding on existing systems, to assist with the on-going Eastern IFCA byelaw review, the enforcement risk register, and IFCO resource planning;
9. To create a formal system for the capture and prioritisation of issues affecting sea fisheries resources, which includes a transparent assessment of management options;
10. To explore and utilise appropriate data-sharing opportunities (with other IFCAs and other partner bodies including Cefas, MMO, EA and NE), wherever possible, to meet the above objectives with greater efficiency.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

1.3, 2.1, 6.2: Issues affecting sea fisheries resources are identified, prioritised and

suitable management plans put in place by 2015;

2.1c: IFCA's have necessary records and database systems in place to inform decision making

3.1a, 3.1b, 3.1c: Enforcement risk register is published in standard format, and peer-reviewed

4.1a, 4.1b, 4.1c. 4.1d: Memoranda of Understanding agreed, adopted and reviewed with key partner organisations

5.2c IFCA representative proactively involved in relevant evidence networks to share best practice

Outputs & Timescales	
Eastern IFCA Data Strategy	May 2013
Review of existing data management processes, with recommendations for new data management system (DMS)	July 2013
Completed transfer of existing records to new DMS	October 2013
Staff workshops for use of new data management system	November 2013
Marine Protected Area database	Database already established, monthly updates required
Marine Protected Area, designated feature, and fishing activities GIS package	Package already established, monthly updates required
Fishing Activities database	Establish framework September 2013
Fisheries Mapping Project 2013	Data collection September to December 2013; final report March 2014
Regulation and Compliance database	Establish framework July 2013, monthly updates required
Sustainability issues database	Establish framework May 2013; monthly updates required
Internal links	
All aspects of Eastern IFCA business – administration, enforcement, research & conservation	
External links, including partner agencies	
Marine Environmental Data & Information Network IFCA's Technical Advisory Group Project Inshore Environment Agency	

Cefas MMO Fishing activity and enforcement data	
External funding	
Not identified.	
Reporting officer(s)	
Sandra Cowper	Marine Environment/GIS Officer
Luke Godwin	Marine Environment & Data Officer
Simon Lee	Senior Enforcement Officer
Judith Stoutt	Senior Marine Environment Officer
Project lead	
Luke Godwin	Marine Environment & Data Officer

EP2013B Fisheries in European Marine Sites**Objectives**

1. To support the conservation of habitats and species in designated Special Areas of Conservation and Special Protection Areas, through the management of fishing activities;
2. To maintain momentum within the current process to review and manage high-risk activities by December 2013, and lower-risk activities by March 2015;
3. To continue to participate in national implementation and working groups, to achieve consistency of approach with other IFCA's and MMO (as appropriate, and in particular with neighbouring IFCA's), and to maintain dialogue with Defra, MMO, Natural England, fishing organisations and conservation groups nationally and regionally with regards to the process;
4. In parallel with the on-going review of Eastern IFCA byelaws (EP2013F), to draft, consult upon, agree and implement a byelaw or byelaws for the management of high risk activities in European Marine Sites;
5. In tandem with the above objective, to draft, consult upon and submit to Defra an impact assessment for each new byelaw;
6. To provide a central function for all IFCA's (as required) through the development and dissemination of spatial information products (GIS packages) showing location of sites, features and fishing activities;
7. To ensure meaningful stakeholder engagement with regards to the process through community meetings and additional dedicated events as required;
8. To identify the data gaps in relation to the location, extent and condition of designated features, in order to direct habitat mapping work (RP2013F), working with regional Natural England advisors and site users;
9. To utilise existing sources, primarily the Cefas review of fishing impacts on designated features, to inform management of lower risk activities;
10. To design and undertake empirical fishing impact assessments if required to fill data gaps and inform management decisions relating to lower risk activities.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

- 2.1b: All byelaws made after April 2011 meet the requirements of Defra guidance;
- 4.2b: Engagement strategy developed by April 2012
- 6.1a: Identify shared objectives in managing the marine environment with partner organisations
- 6.4a: MPA condition is taken into account when developing management plans
- 6.4b: IFCA's are effectively represented on management boards/steering groups for

MPAs	
Outputs & timescales	
Site action plans for high risk activities	April 2013
Draft byelaw for high risk activities	May 2013
Draft Impact Assessment for proposed byelaws	May 2013
Community meetings on proposed byelaws	May 2013
GIS EMS packages	May 2013 (site boundaries); October 2013 (fishing activities)
Fishing impact assessments designed	March 2014
EMS habitat mapping surveys	March 2014
Quarterly progress report to Defra	June, Sept, December 2013 & March 2014
Internal links	
<p>Eastern IFCA's agreed process for the management of fishing activities in marine protected areas (MPA05/11)</p> <p>Fisheries Evidence project (EP2013A)</p> <p>Habitat Mapping project (RP2013F)</p> <p>Eastern IFCA Community Engagement Strategy (EIFCA12/96)</p> <p>Eastern IFCA byelaw review (EP2013F)</p>	
External links, including partner agencies	
<p>Defra, MMO, AIFCA, Natural England, Fishing Organisations, Conservation Organisations: Implementation Group and Working Group; regional Natural England officers; neighbouring IFCAs</p>	
External funding	
<p>Defra-funded survey equipment: side-scan sonar unit</p>	
Reporting officer(s)	
Sandra Cowper	Marine Environment/GIS Officer
Luke Godwin	Marine Environment/Data Officer
Ron Jessop	Senior Research Officer
Lucy Ritchie	Community Development Officer
Project lead	
Judith Stoutt	Senior Marine Environment Officer

EP2013C Marine Conservation Zones	
Objectives	
<ol style="list-style-type: none"> 1. To support the conservation of habitats and species in designated Marine Conservation Zones through the management of fishing activities; 2. To provide relevant Marine Conservation Zone feature information to Natural England, based on Eastern IFCA habitat surveys; 3. To promote the development of robust conservation objectives for MCZ features that are based on sound baseline information; 4. To review existing knowledge of fishing activities within designated sites, and to fill identified data gaps through desk studies, community meetings and the updated Fisheries Mapping Project; 5. To review existing knowledge of the impacts on fishing activities on site features, and to fill identified data gaps through desk studies and empirical fishing impact studies, working with the IFCA Technical Advisory Group to utilise data-sharing opportunities and avoid duplication of effort; 6. In parallel with the on-going review of Eastern IFCA byelaws (EP2013F), to draft, consult upon, agree and implement a byelaw or byelaws for the management of high risk fishing activities in Marine Conservation Zones; 7. In tandem with the above objective, to draft, consult upon and submit to Defra an impact assessment for each new byelaw; 8. To ensure meaningful stakeholder engagement with regards to Eastern IFCA management measures, through community meetings and additional dedicated events as required; 9. To liaise with Natural England and Defra, and to promote meaningful stakeholder engagement between Defra and fishing communities, with regards to potential future Marine Conservation Zones in later tranches of designation. 	
Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)	
<p>2.1b: All byelaws made after April 2011 meet the requirements of Defra guidance;</p> <p>4.2b: Engagement strategy developed by April 2012</p> <p>6.1a: Identify shared objectives in managing the marine environment with partner organisations</p> <p>6.4a: MPA condition is taken into account when developing management plans</p> <p>6.4b: IFCA's are effectively represented on management boards/steering groups for MPAs</p>	
Outputs & timescales	
Stour & Orwell native oyster surveys, mussel	February 2014

bed surveys, <i>Sabellaria</i> surveys report	
Fishing Activities database (EP2013A)	September 2013
Fisheries Mapping Project report	March 2014
Fishing impacts review and recommendations for empirical impact studies	September 2013
Draft Byelaw for damaging activities	December 2013
Impact assessment for proposed byelaw	December 2013
Community meetings and consultation on proposed byelaw	January – March 2014
Internal links	
Eastern IFCA's agreed process for the management of fishing activities in marine protected areas (MPA05/11). Fisheries Evidence project (EP2013A) Habitat Mapping project (RP2013F) Eastern IFCA Community Engagement Strategy (EIFCA12/96) Eastern IFCA byelaw review (EP2013F)	
External links, including partner agencies	
Defra, MMO, AIFCA, Natural England, Fishing Organisations, Conservation Organisations; regional Natural England officers; neighbouring IFCAs; local fishing communities	
External funding	
None identified	
Reporting officer(s)	
Sandra Cowper	Marine Environment/GIS Officer
Luke Godwin	Marine Environment/Data Officer
Ron Jessop	Senior Research Officer
Lucy Ritchie	Community Development Officer
Project lead	
Judith Stoutt	Senior Marine Environment Officer

EP2013D Habitats Regulations Assessment (Wash Fishery Order fisheries; new byelaws, and byelaw derogations)**Objectives**

1. To ensure the bivalve shellfishery activities managed by Eastern IFCA through the Wash Fishery Order 1992 are managed in a way that supports the achievement of the conservation objectives for the Wash & North Norfolk Coast European Marine Site;
2. To ensure any new byelaws created by Eastern IFCA are compatible with the conservation objectives of European Marine Sites in the Eastern IFCA district;
3. To ensure that the granting of any derogations of Eastern IFCA byelaws (for example, for research purposes) is compatible with the conservation objectives of European Marine Sites in the Eastern IFCA district;
4. Using stock data obtained in the spring cockle surveys (RP2013A) and autumn mussel surveys (RP2013C), and growth data (RP2013Q) identify a commercially harvestable quota of cockle and mussel stocks for respective regulated fisheries, that enable a viable industry to operate whilst ensuring sufficient stock remains to all beds to recover, and to ensure food supply is maintained for dependent overwintering bird populations;
5. Using seal haul-out data supplied by Natural England and scientific papers relating to sensitivity of common seals to human activity, assess the likelihood of disturbance to common seals from fishing activities licensed under the Wash Fishery Order, and where necessary, apply mitigation to prevent significant disturbance;
6. Using published literature and empirical data, assess the level of physical disturbance to sediments that is likely to occur as a result of fishing activities licensed under the Wash Fishery Order, and where necessary, apply mitigation to limit disturbance;
7. Using biotope surveys (RP2012G) and published literature, assess the likelihood of damage or disturbance to site features from the granting of mariculture plots (lays) for shellfish cultivation within the Wash Fishery Order area – for existing lay applications and any new applications received during the year;
8. Using the marine protected area database (EP2013A), assess the likelihood of damage or disturbance to any European Marine Site features from the granting of derogations from any Eastern IFCA byelaw, as required;
9. Liaise regularly with Natural England to maintain joint understanding of fisheries/conservation issues and ensure a swift turnaround of advice.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

Eastern IFCA's agreed process for the management of fishing activities in marine

protected areas (MPA05/11). Fisheries Evidence project (EP2013A) Habitat Mapping project (RP2013F) Eastern IFCA byelaw review (EP2013F)	
Outputs & timescales	
Wash cockle fishery Habitats Regulations Assessment	May 2013, plus possible additional assessments if fishery is extended
Wash mussel fishery Habitats Regulations Assessment	December 2013, plus possible additional assessments if fishery is extended
Titchwell mussel fishery Habitats Regulations Assessment	August 2013
Eastern IFCA byelaw Habitats Regulations Assessment	October 2013
Byelaw derogations Habitats Regulations Assessment	As required
Internal links	
Eastern IFCA's agreed process for the management of fishing activities in marine protected areas (MPA05/11). Fisheries Evidence project (EP2013A) Spring cockle surveys (RP2013A) Autumn mussel surveys (RP2013C) Titchwell mussel surveys (RP2013D) Wash Fishery Order 1992 – management of Several Fishery lays (RP2013G) Eastern IFCA Community Engagement Strategy (EIFCA12/96)	
External links, including partner agencies	
Natural England, local fishermen's associations	
External funding	
Wash Fishery Order fund could be used for some aspects of this work, if agreed with entitlement holders	
Reporting officer(s)	
Sandra Cowper	Marine Environment/GIS Officer
Luke Godwin	Marine Environment/Data Officer
Ron Jessop	Senior Research Officer
Project lead	
Judith Stoutt	Senior Marine Environment Officer

EP2013E Consultation responses**Objectives**

1. To provide timely, accurate, and appropriately-detailed responses to consultations on activities affecting the marine environment and inshore fisheries, (for example coastal and marine policies, licensed marine activities and infrastructure developments) to ensure that inshore fisheries and environmental receptors are duly considered by applicants and regulators;
2. To utilise the existing system to manage the consultation process, to record incoming consultations and outgoing responses, and enable consultation cases to be tracked by different members of staff;
3. To develop the spatial information function to enable instant access to location and other details of consultation cases, and to create a graphical record of cumulative or in-combination impacts;
4. To obtain relevant information from different Eastern IFCA officers, particularly the Area IFCOs, in relation to applications affecting their section of the Eastern IFCA district;
5. To follow written responses with liaison with developers and or regulators, as necessary, in order to identify solutions to issues identified during the consultation process;
6. To develop the system to enable the effectiveness of responses to be measured and recorded;
7. In order to promote Eastern IFCA, include in all responses a standard paragraph to outline the remit and extent of the organisation;
8. To reduce the large time burden imposed by consultations on the Environment team, by requesting that more specific information is provided (to reduce the amount of time spent reviewing very large Environmental Statements), and by creating standard response paragraphs appropriate for different types of consultation subject;
9. To highlight in responses the need for regulators and developers to consult directly with commercial and recreational fishing interests who could be affected by proposals in the marine environment. To develop the system to enable the effectiveness of responses to be measured and recorded.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

- 1.3, 2.1a, 6.3a Issues affecting sea fisheries resources within the district have been identified, prioritised and management plans put in place by 2015
- 6.2c: Feedback from relevant stakeholders regarding the effectiveness of engagement is

routinely sought.	
6.3b: Examples of proactive involvement in relevant networks to share best practice are reported in annual reports	
6.4c: The impact of the Marine Policy Statement and the process of marine planning on IFCA's work have been assessed and addressed by April 2015.	
Outputs & timescales	
Timely, accurate and appropriately-detailed responses to consultations	April 2013 to March 2014
Searchable consultation database	August 2013
Consultation database GIS function, including cumulative and in-combination effects mapping	October 2013
Agreed standard paragraphs	August 2013
Internal links	
Consultation responses will utilise information collated in the Fisheries Evidence project (EP2013A) and data obtained in various Eastern IFCA research projects.	
External links, including partner agencies	
MMO Marine Licensing MMO Marine Planning Commercial and recreational fishing interests	
External funding	
Cost recovery under consideration	
Reporting officer	
Jason Byrne	Area IFCO – Lincs
Sandra Cowper	Marine Environment/GIS Officer
Ian Dye	Area IFCO – Norfolk West
Luke Godwin	Marine Environment/Data Officer
Alan Garnham	Area IFCO – Suffolk
Lucy Ritchie	Community Development Officer
Judith Stoutt	Senior Marine Environment Officer
Ady Woods	Area IFCO – Norfolk East
Project lead	
Sandra Cowper	Marine Environment/GIS Officer

EP2013F Eastern IFCA Byelaw Review – environmental aspects

Objectives

1. Working closely with Eastern IFCA’s enforcement and senior management officers, to assess the relevance of existing Eastern IFCA byelaws, explore the potential to amend any if necessary, and identify the need for new byelaws in order to meet environmental or fisheries sustainability targets;
2. To record the extent of each Eastern IFCA byelaw using geographical information systems, to create user-friendly guidance on Eastern IFCA byelaws for officers and members of the public;
3. Considering the management options identified in the fisheries sustainability assessment (a sub-project within EP2013A), including outputs from Project Inshore, to ascertain whether existing byelaws meet sustainability needs or whether amendments or new byelaws are necessary;
4. In parallel with the fisheries in European Marine Sites project (EP2013B), to draft, consult upon, agree and implement a byelaw (or byelaws) for the management of high risk activities;
5. In tandem with the above objective, to draft, consult upon and submit to Defra an impact assessment for each new byelaw;
6. To prepare a Habitats Regulations Assessment for each new and/or each amended byelaw.
7. To assist the enforcement team in their preparation of impact assessments for proposed new or amended byelaws, particularly in relation to the identification of environmental benefits.

Linked high-level objectives (set out in Eastern IFCA Annual Plan 2013/14)

- 2.1b: All byelaws made after April 2011 meet the requirements of Defra guidance;
- 2.2a: Byelaw review and changes are on schedule to meet the objective of reviewing all legacy byelaws by 2015
- 5.1d: IFCA annual report to demonstrate how evidence has been used in decision-making process
- 6.1a: Identify shared objectives in managing the marine environment with partner organisations
- 6.4a: MPA condition is taken into account when developing management plans

Outputs & timescales

Draft byelaw for high risk activities (EP2013B)	May 2013
Draft Impact Assessment for proposed byelaws (EP2103B)	May 2013

Community meetings on proposed byelaws (EP2013B)	May 2013
Byelaw GIS package	September 2013
Identified byelaw options from fisheries sustainability project	October 2013
Internal links	
Eastern IFCA's agreed process for the management of fishing activities in European Marine Sites (MPA05/11). Fisheries Evidence project (EP2013A) Habitat Mapping project (RP2013F) Eastern IFCA Community Engagement Strategy (EIFCA12/96) Eastern IFCA byelaw review (EP2013F)	
External links, including partner agencies	
MMO, Defra, commercial and recreational fisheries interests	
External funding	
None identified	
Reporting officer(s)	
Sandra Cowper	Marine Environment/GIS Officer
Luke Godwin	Marine Environment/Data Officer
Project lead	
Judith Stoutt	Senior Marine Environment Officer

References

Defra. (2010) Inshore Fisheries and Conservation Authorities: Vision, Success Criteria and High Level Objectives. Defra. London.

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