

SCOTTISH REGIONAL INSHORE FISHERIES GROUPS newsletter

spring 2018



In this issue

- News from the five Regional IFG areas
- RIFG Outreach Projects Update
- Consultation on Proposed Sites to Host Inshore Fisheries Pilots
- Scottish Inshore Fisheries Integrated Data System Project: an update
- Future Fisheries Management in Scotland
- Trial Electrofishery for Razor Clams Update
- Opportunities for Engagement on Marine Protected Areas
- New Landing Controls for Crab and Lobster
- KIMO Call to Fishing for Litter Scheme

This newsletter can be downloaded from the Regional IFG website: www.ifgs.org.uk

Industry led
Working with all sectors
Local management initiatives

Delivering an integrated approach to sustainable inshore fisheries management for Scotland

Contents

Page 3	Regional Update:-
Page 3-4	• North and East Coast
Page 5-6	• West Coast
Page 7-8	• Outer Hebrides
Page 9	• Orkney
Page 10	• Shetland Shellfish Management Organisation
Page 11	RIFG Outreach Projects Update
Page 11	Consultation on Proposed Sites to Host Inshore Fisheries Pilots
Page 12-14	Scottish Inshore Fisheries Integrated Data Systems Project: An update
Page 15	Future Fisheries Management in Scotland
Page 15	Trial Electrofishery for Razor Clams
Page 16	Opportunities for Engagement on Marine Protected Areas
Page 16	New landing controls for crab and lobster
Page 18	KIMO UK Looking to Recruit More Boats and Harbours for Fishing For Litter Scheme
Page 19	Catch them young!
Page 19	Memorials
Back Cover	RIFG Network Contacts

Regional News

North & East Coast RIFG

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Representation

It has been a very busy year since the last newsletter in Spring 2017. The NECRIFG Management Committee has met four times and contributed to two IFMAC meetings; as Chairman I have followed up on dozens of actions from these meetings, including meeting Cabinet Secretary Fergus Ewing three times to represent members' views directly to him.

The NECRIFG Management Committee consists of fishermen's association representatives drawn from across the north and east coast region, and encompasses both the mobile and static sector. Being representative of such a large area and broad range of inshore fishermen, our recommendations are highly influential with Marine Scotland and Scottish Ministers. To date, we have recommended new legislation and solutions to various problems, as well as developed a comprehensive Fisheries Management Plan. All licensed fishermen are entitled to representation

so as to influence how their fishery is managed now and post-Brexit. Contact me at any time to be put in touch with an existing fishermen's association, or get help to form an association for your harbour (like St Andrews and Whitehills did recently). Additionally, individual fishermen are entitled to contribute to surveys, questionnaires and consultations, so please let me know if you wish to participate in future. Don't let someone else decide your future, get involved.

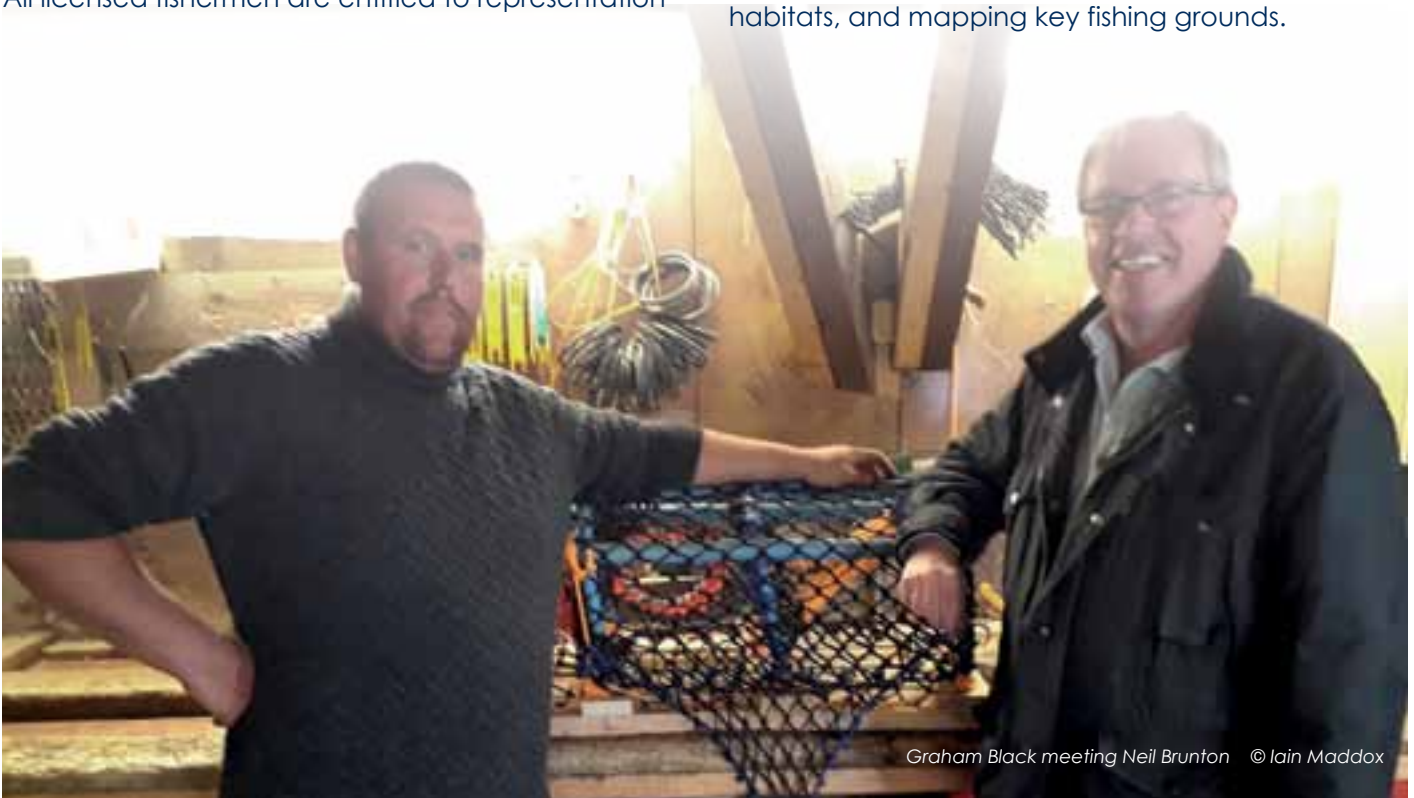
Fisheries Management Plan

To view the full NECRIFG Fisheries Management Plan and updates, go to the NECRIFG website at http://ifgs.org.uk/rifg_nec/

Following expert advice from various sources including Marine Scotland and Scottish Natural Heritage, our objectives are to deliver a more sustainable, profitable and well managed inshore fishing sector.

We have started to implement our plan and progress can be followed via meeting minutes which are also on the NECRIFG website.

As well as actions we have taken ourselves, a number of Expressions of Interest have been submitted to Marine Scotland to commission consultants to conduct project work for us. These include scoping a Fisheries Improvement Plan, mapping and protecting fish and shellfish critical habitats, and mapping key fishing grounds.



Graham Black meeting Neil Brunton © Iain Maddox

Management Committee & Work Groups

Some items on our agenda are worked on by the whole Management Committee, and others are referred to Work Groups which are set up to tackle specific problems.

Some of the items we have been or are currently working on:

- a. **Simple Guide to Opening a Fishery** – This was a joint exercise between Scottish Natural Heritage, Marine Scotland and NECRIFG to produce an easy to use guide for fishermen and associations who may wish to diversify into fishing for other species and how they may achieve this.
- b. **Spatial Management Position Statement** – To help avoid unnecessary marine spatial conflict, fishermen and associations may refer to this document when responding to planning applications by other marine users (which may affect their fishing in any way).
- c. **Renewables** - As mandated by my members, specific concerns regarding the impact of renewables developments on fishing activities have been raised to Marine Scotland. Following up on a meeting between the RIFG Chairs and the Cabinet Secretary Fergus Ewing on 8th February 2018, I will be working with Marine Scotland to help resolve these matters.
- d. **Special Committee on Seals (SCOS)** – Following growing concerns by fishermen and other parties about the growing number of grey seals, NECRIFG took expert advice and produced a number of questions for Marine Scotland and SCOS to address these concerns.
- e. **Mobile v Static Gear Conflict** – The outcome of investigating the mobile versus static problem, considering various solution scenarios and taking or recommending action has resulted in a 50% reduction of complaints to Marine Scotland Compliance over the last year (mobile or static gear skippers experiencing problems can contact the Marine Scotland Hotline anonymously on 0131 271 9700 or email ukfmc@gov.scot)
- f. **Static v Static Gear Conflict** – Following the East Coast Creel Survey conducted by Marine Scotland, a Work Group was set up to investigate the causes of spatial and gear conflict between static gear fishermen. The consensus was that some areas were getting saturated with creels and that locals would need to consider their options for limiting creel numbers. Two associations are considering running pilots to see if they can resolve their local problem.
- g. **Fit-for-Purpose Harbours Project** – Many associations have been reporting that they lack basic harbour facilities and have raised various health and safety concerns. In order to deliver our Fisheries Management Plan objectives, we need fishing harbours that are fit for-purpose. I will be working with Marine Scotland to help resolve how members can seek grant funding for improvements.
- h. **Brexit** – Andrew Brown, Marine Scotland, attended the NECRIFG meeting of 19th January 2018 and gave a presentation on how Marine Scotland is developing a new business model for inshore fisheries post-Brexit. Input was welcomed from both associations and individual fishermen.

To help avoid issues in the area between Gardenstown and Lossiemouth, a 'Call Ahead' sheet has been produced to improve communications between local and visiting vessels. It is also intended to carry out a pilot exercise this Spring to determine how effective Aid-to-Navigation Transponders will be in avoiding inadvertent towing and entanglement of static gear. They will be mounted on Dhans at either end of fleets to alert visiting vessels in any weather or visibility conditions.

NECRIFG Website

To see all the reports and documents referred to above, go to our website: http://ifgs.org.uk/rifg_nec/. If you want to discuss anything, contact me on maddox.iain@gmail.com or 07557 390115

West Coast RIFG

Alastair McNeill - Chair

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It has been a busy period for the West Coast Regional Inshore Fisheries Group (WCRIFG) following the implementation of the Fisheries Management Plan (FMP) in April 2017. A FMP objective is to explore options for scallop management in west coast waters following voluntary closures imposed by WCRIFG in Loch Sunart in 2016. The voluntary closure was successfully reintroduced by WCRIFG from the 1 October 2017 for two months. The aim of the closure was to minimise risks of adverse impacts to the MPA and scallop fishery from potential ingress of large numbers of vessels before other west coast waters became accessible to scalloping on the 1 November. A request was subsequently made to Marine Scotland to seek a permanent amendment to the scallop opening period of Loch Sunart to bring it into line with other west coast waters. However, if the amendment is not implemented before the start of the 2018 scallop season, a further voluntary closure may be sought.

WCRIFG subcommittees have played an important role in helping to deliver FMP objectives and separate scallop management and conservation proposals were made by the Clyde subcommittee and the Mull & Argyll subcommittee, respectively. Four areas within Argyllshire waters were identified for potential measures seeking to ensure the sustainable management of scallop stocks. One of these areas also includes and recognises a specific crabbing zone west of Mull which is presently the subject of an inshore pilot project application. The scallop proposals were presented to the management committee and as a result an additional suggestion relating to increasing the minimum landing size of scallops taken from MPAs was included. It has been agreed that the proposals should be considered collectively using RIFG outreach support with the aim of developing a holistic scallop management and conservation strategy for submission to Marine Scotland.

The development of a further scallop management project in connection with the Clyde is being taken forwards together with the Clyde Marine Planning Partnership (CMPP), Strathclyde University and others including practising fishermen. The purpose is to establish

a scallop management scheme based on sound principles of stock and environmental conservation. The project will assess historical changes in the state of stocks and commercial landings by various sectors of the fleet up to the present, develop a protocol for gathering data for regular updates for future assessments and, recommend management measures to conserve stocks, maximise productivity and protect the environment. Full development of this project will be subject to a successful bid to the Fisheries Local Action Group (FLAG) for European Marine Fisheries Fund (EMFF) support.

There are three FLAGs covering the area of the WCRIFG, namely Highland & Moray FLAG, Argyll & Ayrshire FLAG and, Dumfries & Galloway FLAG. Readers are reminded that applications for EMFF must be submitted by March 2019 though further time is available beyond this to allow the completion of projects. Funds remain available and people wishing to advance projects should be encouraged to apply to FLAGs at an early date to make certain EMFF allocations are utilised within the WCRIFG area and particularly for the benefit of inshore fishermen. With the outcomes of Brexit unknown, there is a need to see provisions made for a replacement to EMFF lest opportunities for innovative developments in the inshore sector may decline significantly. A project which perhaps highlights the value of EMFF in the WCRIFG's area was last autumn's very successful Stranraer Oyster Festival. Supported by Dumfries & Galloway FLAG, the festival benefited from EMFF and included the involvement of locally based fishermen. The festival was the first of its kind in the region and is estimated to have attracted more than 10,000 visitors, boosting locally based industry and, generating more than half a million pounds to the Wigtownshire economy.

Remaining in the Solway, the Code of Conduct between static and mobile sector fishermen, which is now in its tenth season, was reviewed in October by the Solway subcommittee. The revision includes details pertaining to the Luce Bay & Sands SAC and associated derogated scallop areas. During the 2016 scallop season, locally based fishermen advised visiting vessels that they were potentially entering areas of the SAC where scallop dredging is banned. It is hoped that the inclusion of a map of Luce Bay & Sands as well as the coordinates of the derogated areas will add further value to the highly successful Solway Code of Conduct by ensuring no infringements of the conditions of the SAC occur.

Another WCRIFG FMP objective is to explore opportunities for an industry led cockle trial entailing a study in a defined area of the Solway to determine the feasibility of developing measures that might lead to the sustainable management of the fishery. Allowing for hand collection and aiming to be self-financing, a project proposal is to be developed provided it receives RIFG outreach support. The Dumfries & Galloway FLAG in partnership with others including the University of the West of Scotland is developing a cockle relaying project in the Solway. Subject to a successful EMFF funding bid, the relaying project will be undertaken separately to the WCRIFG industry led trial but both initiatives may run simultaneously and help inform future Solway cockle fishery management. The Solway cockle fishery has been closed to commercial activity for eight years.

A further aim in the FMP is to ensure that the WCRIFG participates on the Clyde Marine Planning Partnership in order that inshore fishing related matters that arise via marine planning are adequately scrutinised. Several inshore fishing issues have been raised via the CMPP or its sub group, Clyde 2020. These matters were referred to the WCRIFG Clyde subcommittee to enable wider fisheries interests to be considered before further debate with the CMPP ensued. The WCRIFG together with the Clyde Fishermen's Association is represented on the CMPP whilst a CMPP officer is a member of the WCRIFG Clyde Subcommittee.

Linking the WCRIFG subcommittee with the CMPP provides the chance to jointly develop initiatives such as the Clyde scallop trials, and offers a model for collaboration when future marine planning partnerships are established on the west coast. The current WCRIFG area subcommittees structure correlates with probable future marine planning regions and will help to make certain that inshore fisheries developments will be undertaken collaboratively with other interests as marine plans evolve.

Inshore fishermen who are not currently members of the WCRIFG are reminded that there is the opportunity to participate on an area subcommittee appropriate to where you reside and/or the full management committee. Fishermen do not need to be members of an association to take part on committees and the criteria for membership is defined in 'Outline Structure and Functions' which can be found on the RIFG web site (<http://www.ifgs.org.uk>). The WCRIFG management committee meets two or three times annually and offers opportunities for people to join the meeting remotely by video conference from most Marine Scotland offices. Telephone links have also been used. If you would like more information on WCRIFG membership, please contact the chair, whose details are given above.



Scallops © Alastair McNeill

Outer Hebrides

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Inshore Fisheries Pilot

The OHRIFG continues to take forward outstanding issues within the Management Plan and has submitted an application to Marine Scotland to pilot a pot limitation scheme in the Minches, within an area from Stornoway south to Barra Head. The proposed area has the highest concentration of pots set all year round, covering Nephrops, lobster, brown and velvet crab and wrasse. The catch per unit effort in the area has fall dramatically over the last number of years as more and more pots are being set to catch less catch.

The proposed maximum numbers of pots are based on vessel size as follows:

Vessel Size (metres)	Number of Pots
Under 8	800
8 – 10	1,200
10 – 12	1,500
Over 12	1,800

A delegation from the OHRIFG had visited the Northumberland Inshore Fisheries Conservation Authority and had seen a successful pot limitation scheme operating within 6 miles in that district. Pot limitation schemes are operating very successfully in many regions of the UK, the Channel Isles and in Canada.

Significant benefits have been identified from having such a management measure, with catch per unit effort improving over time, and the sector becoming more profitable with less gear having to be set. Vessels spending less effort on shellfish will then have the opportunity to diversify to selective methods of fishing to target white fish and pelagic species.

This proposal has been discussed over a number of years and has widespread support from the fishing industry, Comhairle Nan Eilean Siar and from shellfish buyers.

The consultation period has closed and a decision on whether the project will be taken forward is expected shortly.

Razor Fishery Update

The Fishing Industry Science Alliance (FISA) project undertaken in the Sound of Barra to test whether a combination of electrofishing and video-monitoring could be developed to assess the status of the stocks without creating serious impact on the seabed or on the razor clams was a success. The next stages of developing the local fishery has seen 4 survey sites identified in the Outer Hebrides, Broad Bay, South of Harris, South Ford and Sound of Barra. As part of the process Marine Scotland will carry out an appropriate assessment in the Sound of Barra to determine that there will be no adverse effects on special features in the Sound.

A number of locally based vessels have been successful in gaining razor licences from 1 February 2018 to undertake trials using electrofishing gear within specific boundaries within those sites. Vessels participating in the trials will be subject to new catch and effort limits. The Outer Hebrides Regional IFG (OHRIFG) is hopeful that a long term, local, sustainable and profitable fishery can be developed, creating long term employment in remote communities which have few alternative employment opportunities.

Cockle Fishery

The OHRIFG has submitted an application to Comhairle Nan Eilean Siar and Foods Standards Scotland for water classification sampling for the cockle beaches in North Uist. This process will take several months before any cockles can be harvested and sold for human consumption. Further discussions are taking place with a potential harvester who wishes to develop a cockle re-laying programme taking small cockles from areas of high concentrations to new areas to ascertain whether they could be grown better in other areas of local stocking levels. Discussions have commenced with a local community land trust that has shown an interest in the potential for managing the cockle fishery within their area.



Cockles © Alastair McNeill

Outer Hebrides Fisheries Investment Scheme

Comhairle Nan Eilean Siar's Fisheries Investment Scheme is being successfully used to increase the number of young fishermen who own their own inshore vessels. The Scheme provides loan funding at interest rates which are usually 2% above bank rates, up to a maximum £100,000 or 40% of project costs. The maximum loan term is 10 years. The Scheme is administered through the Comhairle's Business Gateway Service, a function of the Development Department's Economic Development Service.

The 3 main processing companies in the Outer Hebrides have all been supportive of the Outer Hebrides Fisheries Investment Scheme and they have all been involved in assisting some of the applicants with interest-free loans repayable at a percentage of the catch, provided that the catch is landed to the local factories for processing. The Outer Hebrides Fisheries Investment Scheme replaced a previous Loan Guarantee Scheme with 28 applications having been approved and drawn down for the purchase of second hand vessels.

The total assistance offered during that period was as follows:

Total FIS funding:	£ 767,500
Applicant:	£ 612,000
Bank:	£1,385,500
Private:	£ 400,000
TOTAL:	£3,165,000
Jobs Created / Safeguarded:	60
1 bad debt written off:	£9,075

Application Area split	
Lewis	13
Harris	1
Uists	4
Barra	10

Age Profile	
Under 30	6
31 – 40	12
41 +	18

The Fisheries Investment Scheme has been exceptionally successful in attracting new entrants and enabling younger fishermen to purchase newer vessels and demonstrates how a local partnership approach between industry, private sector, Council and Banks can be developed for the sustainable development of inshore fisheries.

Future Fisheries Management in Scotland

Andrew Brown, Marine Scotland, gave a presentation to the OHRIFG on the future of fisheries management in Scotland. The OHRIFG envisage significant opportunities in what could be an enlarged inshore area out to 12 miles in their region, encompassing the offshore Islands of St Kilda, Flannan Isles, North Rona and Sua Sgeir.

The OHRIFG has been consistently highlighting the need for some provision being made so that the community can benefit from the blue fin tuna stocks which shoal inside the 12 mile zone to the West of the Hebrides. All Countries outwith the EU have a quota allocation and following Brexit industry expect that the UK should be issued a quota allocation to develop that fishery during the seasonal period from July – October. The most sustainable method would be to develop and manage a rod and line fishery whereby all the catch would be landed daily into the Outer Hebrides.

The allocation of any additional quota stocks should be shared out to enable real economic linkage to inshore communities that are adjacent to the areas where the additional quotas are to be fished. The current quota system is making it impossible for new entrants to be attracted to the industry to fish for quota species, with the situation worsening unless some innovation is introduced to develop a new model that could be of benefit to inshore coastal communities that are over dependent on shellfish.

Officials from Shetland have given a presentation on their progress with the development of their Regional Marine Plan. Good progress has been made in Shetland and they have the fortunate position of having North Atlantic Fisheries College to provide expertise in a range of issues concerning the marine environment. The OHRIFG's aspiration is that Comhairle Nan Eilean Siar progress with developing the Regional Marine Plan for the Outer Hebrides Marine Region as a matter of urgency.

The OHRIFG is currently in discussion with scientists regarding possible trials in the use of fish traps in areas where no bottom trawling takes place. If successful this would open up new opportunities for smaller vessels to diversify to white fish on a seasonal basis.

Orkney

Stewart Crichton - Chair

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European Funding for pan-Scottish RIFG collaborative crab tagging project

Orkney Sustainable Fisheries (OSF) has been running a brown crab tagging project for a number of years, monitoring the migration and movement of local brown crabs (*Cancer Pagurus*). This has been part of a wider research project to improve knowledge and understanding of local stocks and through this to improve local management measures which can help to maximise economic returns from the fishery while protecting stocks for the long term.

Over the past 7 years tagged brown crabs from Orkney waters have been recovered as far away as the west coast of Lewis (Outer Hebrides RIFG) and the west coast of Skye (West Coast RIFG). If we are to implement measures designed to manage and protect stocks it is important to understand the inter-relationship between stocks in different areas.

European Maritime and Fisheries Fund (EMFF) funding has been secured for a 3 year project which will allow crabs to be tagged across Scotland in each of the RIFG areas.

The project will involve 10,000 numbered tags being issued to each RIFG area with the target of utilising

Figure 1: Sample female crab returns from Orkney release sites – mainland

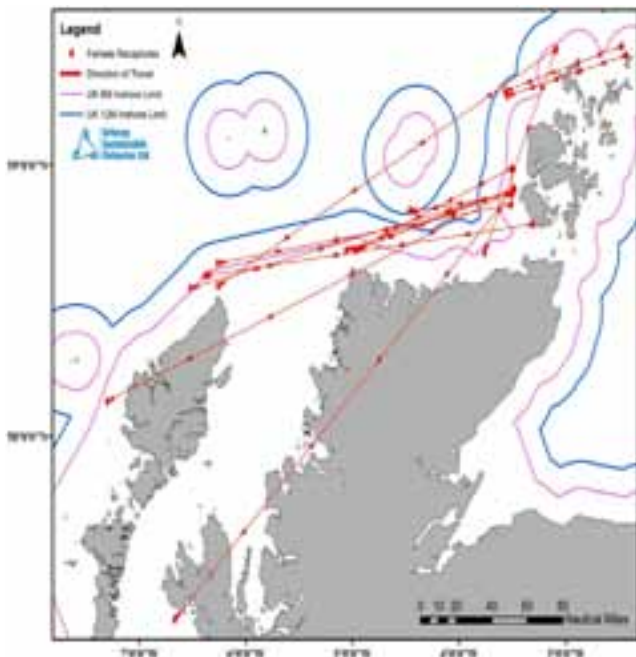
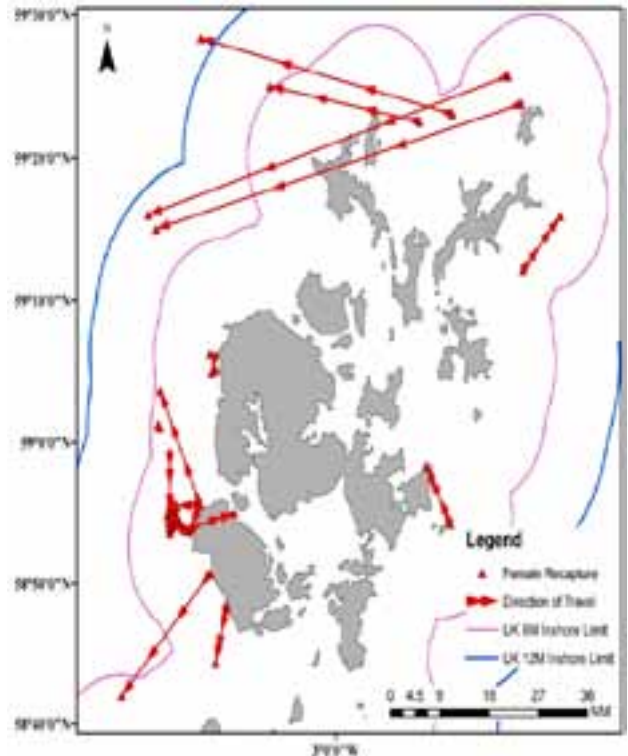


Figure 2: Sample female crab returns from Orkney release sites – Orkney Islands



these fully over the 3 year project period. OSF will present the project to each RIFG board and will demonstrate tagging and release protocols to fishermen in each area.

Each RIFG will then take responsibility for issuing tags and for recording tagging and release data. This data will be forwarded to OSF as the project co-ordinator. Recapture data will be forwarded to OSF who will produce an annual report showing release and recapture sites for all tagged crabs under the project. These reports will be made available to all RIFGs and to Marine Scotland Science.

More information relating to our projects and research objectives can be found on our website: www.orkneysustainablefisheries.co.uk



Brown Crab © NAFC Marine Centre

Shetland Shellfish Management Organisation

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Carole Laignel - Inshore Coordinator / carole@ssmo.shetland.co.uk / 01595 693197

Once again last year was a busy one for Shetland Shellfish Management Organisation (SSMO). Our scallop and brown crab Marine Stewardship Council reaccreditation process continues due to various delays. We should be informed on the outcome of this in the near future.

The directors issued 5 new SSMO licences last year which was one more than they had intended to. The licences issued were 1 scallop licence and 4 creel licences. Three of the creel licences were species specific as there is to be no more effort on our velvet crab stocks until the stock rebuilding process is complete. The fourth, and extra, creel licence issued was both species specific and area specific – this was given to a fisherman in Foula to fish solely for lobsters and around this area only. This licence has changed the lives of the family allowing them to remain on the island which has been affected by depopulation.

We are currently looking for new directors to join our Board. We hope to get two new fishermen members and ideally one from the scallop sector and one from the creel sector. These vacancies have come about as our local council has recently informed us that, because of potential conflicts of interest, they are no longer putting councillor representatives onto outside organisations/committees. Besides two fishermen representatives we are also looking for independents to join the Board.

We have been updating the Marine Spatial Plan with new information from fishermen and this will continue in 2018. Like everywhere else we receive many Marine Planning applications through the year and having the spatial plan up to date will certainly help if there is any objection to an application. This year has seen a few objections to sites from fishermen but these have all thankfully been sorted by both sides sitting down together and reaching an agreement on how an application can be modified to suit both parties.

The North Atlantic Fisheries College Marine Centre will be carrying out a Scallop Bycatch Survey for us this year to enable us to update our bycatch data.

Like the other RIFGs we are happy to be taking part in Orkney's brown crab tagging project which should give a clearer picture on brown crab movements between areas.



Brown Crab © NAFC Marine Centre



Measuring Velvet Crab © NAFC Marine Centre

Finally, we hope through the FLAG, to extend our fisheries management database which will allow fishers to input their logsheet information directly into the database making it more user-friendly. This phase will also see improvements made to the map based interface which will help facilitate fisheries management decision making.

More information on SSMO can be found at www.ssmo.co.uk

RIFG Outreach Projects

As part of Marine Scotland's continuing support of RIFGs, an Inshore Fisheries Outreach and Technical Support Framework Agreement has been established with a number of private contractors. This allows RIFGs to submit ideas for projects to Marine Scotland and, if approved, those contractors will be asked to bid for them. RIFG Chairs have so far submitted eight project proposals for consideration, and Marine Scotland is in the process of working with contractors to establish which can be taken forward.

Project proposals:

North & East Coast

- Defining Fisheries by Area
- Mapping Fisheries by Species
- Mapping Critical Habitats

West Coast

- Scallop Management Strategy development
- Solway Cockles (Survey & Management Plan development)

Orkney

- Whelk Pre-Assessment

Shetland

- Socio-Economic study of Regulating Order including economic assessment of MSC accreditation

Consultation on Proposed Sites to Host Inshore Fisheries Pilots

In May 2017, Marine Scotland announced an initiative to look at alternative forms of inshore fisheries management. Proposals were sought from the commercial fishing industry for sites to be considered for the Inshore Fisheries Pilot scheme, with the intention of investigating:

- a localised approach to fisheries management, where fishing interests will be involved in developing distinct local arrangements
- the consequences of separating different methods of fishing, such as creeling (e.g. static gear and mobile gear) within specified areas

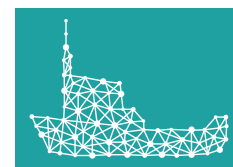
Marine Scotland ran a public consultation from 30 November 2017 to 22 February 2018, which sought views on five separate proposals that originated from the fishing industry. These proposals are:

- Gear separation in the Inner Sound of Skye
- Creel management in the Outer Hebrides
- Scallop management around Orkney
- Crab fishing around Mull
- Separating different methods of fishing near Arbroath Harbour

The consultation is now closed, with over 120 responses being received. Marine Scotland is currently analysing these responses and will announce an outcome in due course.

For those interested, the consultation paper detailing the proposals is still available to view at <https://consult.gov.scot/marine-scotland/inshore-fisheries-pilots-2017>.

Scottish Inshore Fisheries Integrated Data System (SIFIDS) Project: an update



SIFIDS

Scottish Inshore Fisheries
Integrated Data System



Most of the world's fishing fleets are made up of small vessels operating in inshore waters and the largest number of fishers are involved in these sectors. In Scotland we have around 1,500 inshore vessels, in India for example they have 250,000 most of which are unregulated. The sort of data that we take for granted in dealing with larger vessels operating in the demersal and pelagic sectors is not collected for small scale fishing vessels and, even where it is, it is often not used to improve the sustainability and profitability of the inshore sector.

So why is the inshore sector the poor relation? Across the planet, small scale fisheries are the backbone of coastal communities and a lifeline in providing high quality protein to some of the world's poorest people. The answer is the same in the developing world as it is here – COST! But this is changing rapidly – the availability of low-cost, open source, mobile technology and communications, makes it both feasible and more cost effective to gather data from large numbers of small vessels operating in dispersed and remote locations from minimal input.

SIFIDS started in 2016 and is a 30-month project funded by the European Maritime and Fisheries Fund. Led by the Coastal Resources Management Group at the University of St Andrews, the project team is working closely with inshore fishermen and Marine Scotland to develop a prototypic integrated data collection system designed for use with the inshore sector. But this is not just another Vessel

Monitoring System. The SIFIDS team are focusing on integrating a range of low cost, open source technologies and software to collect, collate and analyse data from fishing vessels that could support fisheries management, marine planning and the business decisions of individual skippers.

Your engagement helps and is still needed

The project is divided into a series of 12 integrated Work Packages which benefit directly from the participation of individual fishers and Inshore Fisheries Group representatives.

There has been positive industry support with nearly 60 creel fishermen already hosting a researcher on their vessel for a day (some hosting 2 trips); merchants allowing researchers access to their holding facilities to record the shell shapes and sizes of crabs and lobsters; fishermen and buyers informing the development of a phone App for recording fisheries data; industry representatives helping locate sites to trial equipment for scallop stock assessments; and, many individuals who have contributed to the socioeconomic study through the online survey and interviews.

There are still some opportunities to get involved with the project and if you are interested please contact the Project facilitators via the freephone: 0800 433474 or email either Kyla Orr: marineconsulting@kylaorr.com; Kathryn Logan: logank2@ukif.com; or Ali McKnight: alimcknight@agroecosystems.co.uk. Any information collected will be held in strictest confidentiality.

What can small vessels already tell us?

Throughout the Scottish under 12 metre inshore creel fleet, just over 90 vessels have offered to host an on-board researcher allowing them to see how the vessel and crew operate whilst fishing and recording the composition of their catch. Researchers aim to combine these on-board recordings with GPS data to see if fishing activities can be identified from detailed analysis of vessel movements combined



with knowledge of individual vessel operations. This would mean that for a range of fisheries management and marine planning purposes, nothing more than a GPS track would be needed to look at fleet scale activities. Combined with catch data, more accurate and timely stock assessments may be possible.

Are you in the North East or West Highlands? The project is looking for more boats to observe in both regions, so if you can host a researcher for a day in the summer please contact the project facilitators.

Prototype technologies attempting to capture inshore activities

Almost every fisherman carries a smartphone. These devices contain applications including GPS. With this in mind and prospects of better signal coverage, the SIFIDS team are in the process of creating an App that could allow fishermen to fill in their FISH1 form and submit it directly to the Fishery Office. In addition, the App will give fishermen the option to collect and store GPS tracks of their fishing activity if they wish. The App will also provide a simple way of recording observations at sea of both the catch and other wildlife that would ensure that fisher's observations and knowledge of the environment can be recorded, collated and used to help inform better fisheries management and conservation. The data obtained from the App's FISH1 form will only be used by the project team under data sharing agreements with volunteers those taking part in the trial. The data will only be used for research purpose to assess whether the App is likely to be useful to the industry and, if so, how it might be improved to make it operational.

Interested in trialling the App? Please contact the Project facilitators listed above.

Smartphones offer a simple way of recording

basic fishing data, but more comprehensive data collection is also being advanced within the SIFIDS project through the development of a small, on-board data collection system (OBDCS) based on open source, low cost technology. Linking this to GPS means that for the first time, the inshore sector will be able to collect business, fisheries management and marine planning related information to help individual skippers, fisheries managers and others, make timely, cost effective and accurate decisions.

So what type of data could the system collect, apart from GPS information? The system can collect and transmit a range of data from different inputs and sensors including: the type and amount of gear shot and recovered, catch species, size and sex – retained and returned to the sea. These are the basics, but it will eventually collect echo sounder data, temperature, salinity and other environmental data that could help to inform both fisheries management, marine planning and potentially better weather predictions. Crew safety is never far from our minds in the fishing sector and we are sadly reminded all too often by the loss of colleagues and friends. Integrating this sensor technology into the SIFIDS system to help improve safety will also be investigated by the project team.



Latest machine learning and image recognition technology is being trialled to rapidly analyse images of the catch, without adding to the time required by fishermen. The project will hopefully deliver a prototypic system capable of automatically identifying number, species, size and sex of catch retained and returned to the sea. This for example, could feed into stock assessments. Fifteen vessels will be selected to test this system over a six-month period later this year.

Although only a prototype at this stage, the SIFIDS project is looking at how affordable technology

might be used in the real world and how many inshore vessels might use the system to collect data whilst carrying out their normal duties. The device described can use different data transfer options to automatically upload data to a secure central database which could, eventually, provide a facility for fishermen to view their own data as a variety of useful outputs. The type and format of outputs that fishermen would like to see will form part of the project consultations. Similar discussions will be held with representatives from the marine compliance community, fisheries managers and marine planners. Confidentiality and use of data will be a fundamental part of that discussion with the industry and Government.

Understanding the socio-economics and culture of inshore fisheries

To capture the vital information on the socio-economic and cultural characteristics of the Scottish inshore fisheries sector, interviews and an online survey (closed 4th March) have been conducted. Topics covered include; community dependence on fishing, opinions on the sector's current management and how they suggest it could be improved. This research will give real-world context to the data and allow the industry to say how management impacts them.

What does the project aim to do with this information?

Ultimately the project aims to deliver a prototypic system which uses low-cost, open-source technology, to collect and integrate data in new ways to help underpin and inform the sustainability of the inshore fishing sector in Scotland. The project is not just about collecting fisheries data in isolation, but also working out how it can best be used. By combining a variety of data, we hope to provide new business insights for fishermen, opportunities to contribute to timely and more cost-effective stock assessments, more refined fisheries management scenarios, and evidence to inform marine planning decisions. If the mobile App is successful, this may open the potential to capture the industries observations and experience in a much more consistent and timely way – which, over time, may provide an important resource for both management and conservation.

We would like to thank all of those who have already contributed to development of the project, as well as those who have participated in the various WPs, and welcome any offers of further input. For more information on the project visit the webpage at www.masts.ac.uk/research/emff-sifids-project



St Andrew's Harbour

Future fisheries management in Scotland

As we look towards a future with considerable uncertainty, the Scottish Government is also faced with the task of developing and implementing a new legislative framework for fisheries outside the Common Fisheries Policy.

The Scottish Government is fully alert to this challenge. It is critical that a new management framework is developed which draws from the views and experiences of the fishing industry and we wish to ensure that Scottish fisheries are managed in a way that best benefits the Scottish industry, fishing communities, our marine environment and the Scottish public at large.

To this end, Marine Scotland has initiated a dialogue with fisheries stakeholders of the future of Scottish fisheries management, involving all sectors of the industry, fishing communities, environmental NGOs and other marine stakeholders. This dialogue is gathering views, objectives and priorities of those most closely involved and reliant on the fishing industry in order to inform the development of a

long term sustainable fisheries management system in Scotland tailored to the needs of the Scottish industry, fishing communities and the marine environment.

Nearly 50 dialogue meetings have been held thus far with more scheduled throughout the Spring. The insights gained from this exercise will inform a second phase of consultation focusing on more detailed policies and measures which would form the basis for a new fisheries management strategy. Marine Scotland is also considering what can be learned from alternative fisheries management systems such as those in operation in Iceland, Norway, New Zealand and Canada.

This work demonstrates the critical need for the Scottish Parliament to gain the legislative powers necessary to establish and manage marine fisheries in a post-Brexit UK.

If you wish to provide your views on the future of fisheries management in Scotland, please contact Jane MacPherson on Jane.MacPherson@gov.scot

Trial Electrofishery for Razor Clams

A scientific trial of electrofishing for razor clams commenced on 1 February 2018. The trial has been developed following a public consultation in 2016 about the potential use of the method, which itself followed a research study undertaken in 2014 by Marine Scotland Science. The trial and the terms and conditions for participating have been developed by Marine Scotland with advice from a range of public bodies including Scottish Natural Heritage, the Health and Safety Executive, the Maritime and Coastguard Agency, and Food Standards Scotland.

Following an application process, 26 fishing vessels have been selected to participate in the trial. Strict controls have been applied to the places where vessels may fish, the electrical equipment on-board, the time that may be spent at sea, and the amount of razor clams which may be caught and landed. Now that the trial has commenced other fishing for razor clams is prohibited, except for hand gathering of clams from the beach (up to a maximum of 30 clams) for personal consumption.

The Scottish Government considers that there is significant potential for positive economic benefit to coastal communities from an appropriately managed electro-fishery for razor clams. The trial, expected to continue for a number of fishing seasons, will seek to provide useful evidence about how this fishery can be managed effectively and sustainably and about any longer term effects of the specified equipment on the marine environment. The findings from the trial will be considered carefully before any decision is made about the future approach to such fishing.

Further information is available at: www.gov.scot/Topics/marine/Sea-Fisheries/management/razors/trial



Opportunities for Engagement on Marine Protected Areas

The Scottish Government is taking forward several pieces of work on marine protected areas, which will include many opportunities for stakeholder engagement over the next year.

In February, Roseanna Cunningham, Cabinet Secretary for Environment, Climate Change and Land Reform, announced that Marine Scotland would be taking forward work to designate four new Marine Protected Areas (MPAs). These proposed areas offer further protection to Minke whale, Risso's dolphin and Basking shark, as well as for additional seabed habitats, and will contribute to the completion of the Scottish MPA Network. There will be public consultation on the four MPA proposals in late 2018, including local consultation events providing opportunities for stakeholders to engage in the process.

The Scottish Government has commissioned a Sustainability Appraisal on further inshore

MPA management measures, which consists of environmental and socio-economic assessments. This will be published for consultation along with the proposed measures. Pre-consultation events and meetings are taking place from March to May, including a workshop in mid-May, with a public consultation planned to begin in June 2018. Anyone interested in attending the stakeholder workshop can contact the Marine Conservation team at Marine_Conservation@gov.scot.

Also out for consultation in June will be initial work looking at additional protection for Priority Marine Features (PMFs). This is focused on the 11 most vulnerable PMFs, including maerl beds and cold-water coral reefs, and aims to ensure that development and use of the marine environment does not have a significant impact on their national status. This is at an earlier stage and the initial consultation will cover the Screening and Scoping stage setting out what options will be assessed and the evidence that will be used. This stage will be followed by a Sustainability Appraisal of the proposed options later in the year.

Further information will be available on the Marine Scotland website at www.gov.scot/Topics/marine/marine-environment.

New landing controls for crab and lobster

New landing controls for Scotland's crab and lobster fisheries came into force from 25 February 2018. This means that minimum landing sizes are now increased as follows:

- brown crab from 130/140 mm to 150 mm (excluding Shetland)
- velvet crab from 65 mm to 70 mm
- lobster from 87 mm to 88 mm on the west coast, from Cape Wrath to latitude 55 north (increasing again to 90 mm from 25 February 2019)

Additionally, the maximum landing size of female lobster has decreased to 145 mm (excluding Orkney and Shetland), and the landing of berried (egg bearing) velvet crab is prohibited.

These measures have been introduced following a public consultation which received a strong positive response from the fishing industry.

Commenting on the new measures, Fisheries Minister Fergus Ewing said: "Lobster and Crab are important to Scotland's rural economy and coastal communities, with landings in 2016 worth over £35 million.

"The new measures are being put in place to help our inshore fisheries sector to become more sustainable, profitable, and better managed – as set out in our Inshore Fisheries Strategy."



Men sorting Crabs © Clickmanis

Further information is available at: www.gov.scot/Topics/marine/Sea-Fisheries/InshoreFisheries/crab-lobster-landing-controls



Crab boats at Gamrie © Marine Scotland

KIMO UK Looking to Recruit More Boats and Harbours for Fishing For Litter Scheme

Since 2005, KIMO UK's project "Fishing For Litter" has collected more than 1,200 tonnes of marine litter in Scotland, with 18 harbours currently signed up to the scheme. Marine litter is a huge issue costing the Scottish fishing fleet more than £10M a year, mostly in lost fishing time. In addition, marine mammals, fish and seabirds ingest and can become entangled in marine litter. Plastic is a particular problem as it breaks down over time into smaller pieces, eventually becoming 'microplastic' which can be ingested by even the smallest organisms, including plankton.



Scottish Fishermen aim to reduce marine litter by bringing ashore all waste caught in their nets, raise awareness of marine litter issues within industry and reduce the costs of marine litter to the fleet. The scheme is open to everyone landing at participating harbours – just collect a 'Fishing for Litter' bag at the harbour and bring it back full of marine litter caught in fishing nets during normal fishing activity. There is NO COST to the boats or the harbours who participate. The project provides hard wearing bags and covers the cost of disposal – including over £88/tonne landfill tax. We are actively expanding the scheme and even the smaller fishing harbours can sign up to the scheme if they have space for a collection skip and a designated site for the bags to be dropped off by fishermen. Smaller 25 kg bags are also available.

So, whether a small harbour, large port or an individual vessel, you can participate and make a real difference. If you would like to know more, please contact Faron McLellan, KIMO UK Coordinator by email at kimouk@aberdeenshire.gov.uk or by calling +44 (0) 1467 536159 | +44 (0) 7789790775

KIMO UK, Roads and Landscape Services, c/o Aberdeenshire Council, Woodhill House, Westburn Road, Aberdeen, AB16 5GB

Web: <http://www.kimointernational.org/UnitedKingdom.aspx>

Web: <http://www.fishingforlitter.org.uk>

Web: <http://www.pickup3.org.uk>



Catch them young!

Children and adults alike were fascinated by the opportunity to touch and examine a wide range of Scottish fish on display at the first Seafood and Produce Market run by Inverness College UHI on 3 March 2018. Jane Mills, an Outreach officer from Marine Scotland Science, Aberdeen brought a wide range of species kindly donated by various suppliers. She readily engaged even with very young children giving them the confidence to handle everything from starfish to ray, squid to sand eels, velvet and stone crabs and lobsters. The children really enjoyed finding out about how they lived, such as how angler fish trick their prey, why dogfish have no bones, and how scallops can be aged.



The traders selling a wide range of top quality Scottish caught seafood had a very successful day too, and the college students provided a running selection of tasty and popular fish dishes. The demonstrations of fish filleting and handling were very popular. Many people commented on how difficult it is to buy less well known kinds of seafood around the coast, and how little variety there is between the seafood offerings of many restaurants, even in the highland capital.



Memorials

In the space of only four months we have sadly seen four fishermen lose their lives as the result of three separate incidents at sea.

On the 20th November 2017 Alasdair (Ali) MacLeod, a creel fisherman from Applecross, was lost off the Wester Ross coast from his vessel the Varuna.

On the 18 January 2018, the Nancy Glen sank within only a mile of its home port of Tarbet, Loch Fyne, and two of the three crew on board, Duncan MacDougall (46) and Przemek Krawczyk (38) were lost with the vessel.

On the 5th February 2018, 26-year-old Thurso fisherman Mark Elder was shooting lines of creels off Durness when he fell from the Scrabster-based MV North Star. His colleagues managed to get him back onboard and fought to save his life but were unable to revive him.

We wish to pay tribute to these men, recognising the great loss to their families and communities.

What are RIFGs?

The Scottish Regional Inshore Fisheries Groups (RIFGs) are non-statutory bodies that aim to improve the management of Scotland's inshore fisheries out to six nautical miles, and to give commercial inshore fishermen a strong voice in wider marine management developments.

The key objective is to deliver sustainable use of the natural resource recognising national and international obligations, and safeguarding fish stocks while optimising the economic return for inshore fisheries and dependent communities.

RIFG Contact List

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Scottish Regional Fisheries Groups newsletter spring 2018

Please send comments and ideas for the
next RIFG newsletter to:

Inshore Fisheries Management and Coastal
Communities Team, Marine Scotland.

Email: inshore@gov.scot