The Scottish Fisheries Co-ordination Centre

2014 ANNUAL REPORT

Chairman's word

While The Wild Fisheries Review (WFR) process continues to evolve, it presents an opportunity to reflect upon the work of the SFCC and its members, and it acts as a catalyst for developing our existing functions in alignment with recommendations made by the review panel. This includes securing strong collaboration between local and national fishery organisations and continuing to develop national standards for data collection and training. With the wider consultation process imminent, the coming weeks and months in 2015 present an important period for SFCC and its members, particularly for developing a data and training vision for a new fisheries management system.

In this annual report you will hear about our progress on data sharing and storage, co-ordination of fisheries training and in particular, promotion of the local-national interface that is provided by SFCC. The recent Smolt and electro-fishing data provision projects are important examples of this interface, with locally collected data being used by Marine Scotland Science for national scale research. All of these activities provide examples of the joint working that is likely to be a central part of a future national fisheries data strategy.

Training delivery continues to be a cornerstone of The SFCC, with the recent scale reading workshop and electro-fishing refresher courses being very successful in terms of their attendance, content and feedback.

With the SFCC manager, Sean Dugan, working under a full time post for the next year, we can look forward to a productive year, working with partner organisations to contribute to the WFR process while continuing to fulfil the aims of the SFCC. As ever, many thanks to committee for their continuing diligence and the support of members, particularly with their assistance in the recent data provision projects.

James Hunt—SFCC Chairman

2015 Biologists' Meeting

The annual SFCC /RAFTS Biologists' meeting was this year held at the inspiring Scottish Centre for Ecology and the Natural Environment (SCENE), Loch Lomond, which has new facilities and a range of LIFE funded research projects currently taking place. The SFCC committee would like to thank students and researchers from the IBIS project for assisting with the organisation of the two days, with around 50 attendees on each day. Talks from the event are available here.

On day two a Wild Fisheries Review (WFR) workshop was held with direction from Scottish Government to gain feedback from attendees on the implications of the WFR for fisheries data processes in Scotland, and for the function of SFCC as an interface between local and national organisations. A range of feedback has subsequently been passed on to Scottish Government. Draft minutes from the SFCC AGM, and constitutional amendments can be viewed here.

DATA PROVISION AND SHARING

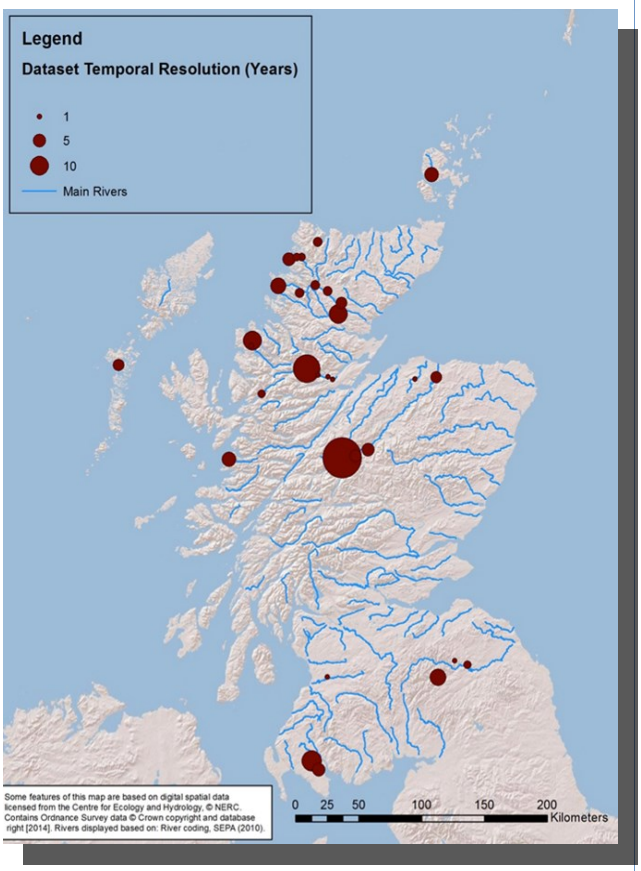
In 2014 there were three examples of partnership working between local and national fisheries research projects, each involving data provision by SFCC members, and data collation and supply through the SFCC interface.

Smolt Data Project

In early 2014 SFCC was awarded a contract from Marine Scotland Science (MSS) to collate all available datasets on smolt populations in Scotland. With assistance from numerous Fisheries Trusts, academic institutions and individuals, all of the available data on smolt migrations in Scotland was collated, standardised and supplied to MSS. The project was undertaken under the National Research and Monitoring Strategy for Diadromous Fish (NRMSD), with the overall aim to investigate the potential for interactions between diadromous fish and wind, wave and tidal renewable energy developments. The aim of the smolt analysis was to examine how Scottish smolt emigration times and fish sizes may vary by location and between years. Using this data supplemented by internally collected data, MSS published this final report in March 2015: Spatio-temporal variability in Scottish smolt emigration times and sizes**.**

This process represents one example of how locally collected data, when collated, can assist in informing national-scale fisheries research. The following recommendations were also made: "*Future analyses would benefit from central data collation and storage with associated meta-data on collection methods. This would be possible using the existing MSS FishObs database or through additional development of the SFCC database*".

SFCC are now looking to draft smolt recording protocols to cater for varied equipment types and research objectives. In addition, use of the Marine Scotland Science fish database to act as central storage for Scottish smolt data is being explored.



Smolt monitoring locations collated by SFCC for provision to MSS. Circles illustrate the number of years in which data is available at particular sites.

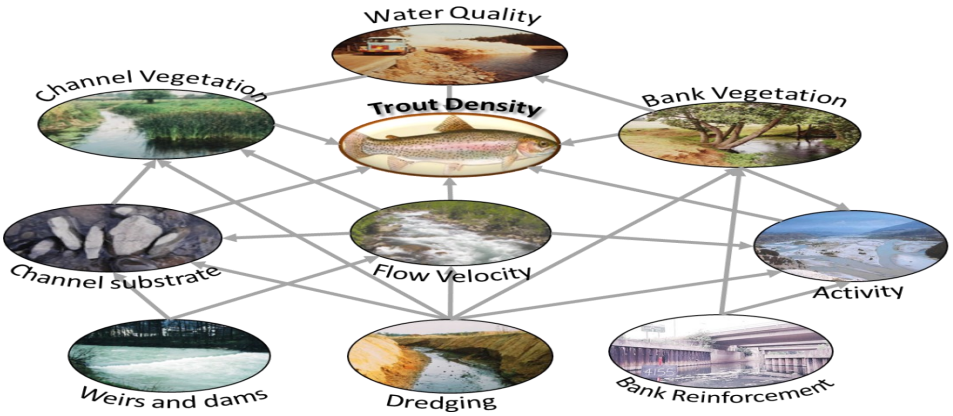
Members Supply electro-fishing data for National Analysis

MSS are currently analysing all multi-pass electrofishing data from across Scotland as stage one of a five-year project to assess methods for determining conservation limits (CL's). In order to understand spatial variability in juvenile salmon production, the approach is to model and predict salmon fry abundance as a function of large scale site factors such as elevation or distance from sea. These models can then help to interpret juvenile electrofishing data and inform the health of local salmon fry populations by predicting whether the observed abundance is below or above what is expected for a particular site. This method may also allow up-scaling of Stock-Recruitment relationships from data rich to data poor sites. Analysis work is currently ongoing using data provided by SFCC, SEPA, MSS and other organisations. Further information on the 5 year MSS conservation limits project can be found on the Marine Scotland website.

DATA PROVISION AND SHARING

Modelling pressures and impacts on fish using existing data and expert knowledge.

In 2014 SFCC members provided single-pass electro-fishing data to Dr Marc Naura from the University of Southampton. In collaboration with staff from SEPA, the SFCC and the Environment Agency, Dr Naura has produced models and computer tools using this data to help environmental managers assess the quality of river habitats for different fish species and identify causes of degradation. During training courses, practitioners were taught how to design models of species-habitat relationships using simple conceptual diagrams (see below) and test them with a user-friendly graphical statistical technique. Analysis work (including SFCC data) is currently in progress and results will be made available in due course. Once produced, models can be packaged into a simple software interface as demonstrated here). For more information, please contact Marc Naura.

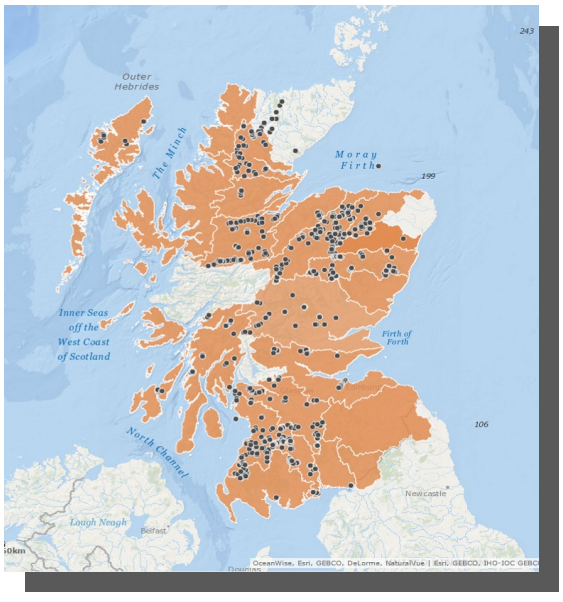


The SFCC Electro-Fishing Database

Database usage continues to grow with SEPA beginning the migration of their monitoring site data into the database, allowing SFCC members to see all SEPA's site metadata within their Trust area and vice-versa. Loch Lomond and Lochaber Fisheries Trust's are also nearing the end of their 1-year database free trials.

Freshwater Fisheries Web Map

Within the remit of the constitution, SFCC is tasked with furthering the availability and dissemination of data relevant to freshwater fish, their habitats and fisheries in an effective and co-operative manner. Recent advances in technology enable the display of map based information online to help fulfil this objective. While other environmental organisations in Scotland (for example) have benefitted from web-based mapping, there remains an opportunity for development in the freshwater fisheries sector. This resource would have the following aims:



- To provide a platform to host map-based information relevant to Scotland's freshwater fisheries environment .
- To display meta-information from SFCC members (including public bodies) such as basic mapping of Scotland's all species fish populations.
- To link directly to other publically available web maps such as SEWEB and NMPi.
- To promote data awareness, data pooling and assessment of collection efforts.

A map concept is currently in development (see image), and will soon be circulated within our membership for feedback and further development.

TRAINING

New SFCC team leader refresher course launched

14 members attended the first SFCC team leader refresher courses delivered by Bob Laughton and Jackie Graham. Field working techniques were assessed to ensure that electro-fishing standards are being maintained, while also updating attendees on health and safety considerations. Following an afternoon of theory, survey design and protocols, members took part in an online test featuring the traditional team leader exam resulting in all attendees receiving a pass. Our thanks are extended to Atholl Estates and Marine Scotland Science for hosting the event.

Course Title	Attendees since March 2014
SFCC Scale reading	7
IFM/SFCC Scale Reading Work-	27
Advanced GIS	5
Smolt Monitoring	17
Intro to Electrofishing	24
Team Leader	7
Team Leader Refresher	17
Electrofishing Data Modelling	11

Attendee numbers on SFCC training courses provided

'LUTRA' Calendar

As part of growing collaboration with I.F.M, we are pleased to introduce you to 'Lutra', a single online, public-calendar for fisheries and aquatic science training and events. This calendar will be constantly maintained with information, along with the IFM C.P.D. scheme points allocation for each course. The calendar is available here, and can be added to your computer or device. Please submit any relevant information or training courses for inclusion in this calendar to training@sfcc.co.uk.

GIS online learning

Westcountry Rivers Trust have completed a shared online mapping learning resource for SFCC members and River's Trust members South of the Border. We are pleased to report that many SFCC members have begun using this resource, which can be viewed here. Featuring video demonstrations, themed tutorials and showcase maps, this will be easily accessible to all members (irrespective of distance) and will now replace the annual GIS courses delivered here at the Lab.

Scale reading

On 26th March 2015 27 participants and speakers attended the SFCC-IFM scale reading workshop hosted by the Tweed Foundation. The event consisted of a morning programme of talks followed by afternoon practical workshop sessions. Talks and the event programme can be viewed here. Thank you to all attendees who travelled from across The British Isles.