



May 2013

Welcome to the first of our electronic newsletters. We will produce one per month to improve our communication with the fishing industry and keep you informed of our current progress and upcoming projects. This communication boost will go alongside more regular updates to our webpage: <http://fisheries-conservation.bangor.ac.uk> and a quarterly printed newsletter.

Fisher questionnaire

Aim: A fishers' knowledge questionnaire has been developed to obtain information from fishers regarding fishing activity, bait use, economic importance, conflicts of interest, nursery areas and migration routes. The questionnaire includes a mapping exercise where both current and historical fishing areas are mapped and information pertaining to target species is obtained. This information will be used to guide the experimental design of the individual species projects and provide a better understanding of the spatial activity of fishing around Wales and the local ecology of target species. The precise extent of fishing grounds for example is important for the design of appropriate assessments with the industry. Results of the questionnaire should provide the industry with an activity inventory throughout Wales and highlight the importance of fishing grounds.

Progress: The consent form has now been finalised and three pilot questionnaires carried out with fishing industry representatives from the SUAG. Results from this led to refinement of the questionnaire, which was then sent to the software development company who will deliver the final computerised questionnaire by the 15th May 2013. The fishing industry will decide the scale and resolution at which data will be publically available. An informed consent form has been produced that will allow Bangor University to protect the information given in the questionnaire; this document also outlines how data will be used, shared and published.

Future work: From June until August we will be carrying out the fisher questionnaire across Wales. We need you to get involved. If you are interested in participating then please register via the website or email fisheries@bangor.ac.uk.

Data protection

Aim: To ensure confidentiality of fishers' data such that any displays (e.g. graphs, maps) that are produced are at a suitable resolution to retain this privacy.

Progress: Meetings are underway to design appropriate data protection for all areas of the project. This is to ensure that any data collected by the Fisheries & Conservation Science Group is displayed at an appropriate resolution. This will ensure that data such as CPUE and fishing location will be available only in a format that protects the confidentiality of individual fishers.

Future: An informed consent form will be produced by the legal department at Bangor University to ensure the protection of fishers' data.



Crustacea

Aims: An on-board camera system is being developed for assessment of crab and lobster fisheries. The camera captures footage of all catch, both landed and undersized, and the video is analysed to gather size, sex and abundance data which will form the basis of stock status assessment and used to create a recruitment index.

Progress: The trials and validation of the camera system are almost complete. We are waiting for a weather window to enable us to carry out a day of validation measurements at sea. To date we have piloted the system measuring crab abundance and sex data from a video of a day's pot hauling from a vessel on the Llyn peninsula. This allowed us to identify and solve any problems with the procedure.

Future work: Once the camera housings are completed they will be fitted to the crab and lobster fishers' boats who will record one days fishing per month. The camera memory cards will be returned to Bangor University for analysis.



Scallops

Aims: To conduct a fishing experiment in Cardigan Bay to help establish what fishing intensities might be acceptable and environmentally sustainable for the Cardigan Bay SAC area. The work proposed should provide the evidence needed for the political decision making process involving relevant stakeholders. The aims are:

1. To assess the environmental impact of scallop dredging at various intensity levels in the SAC by monitoring the seabed communities before and after fishing
2. To determine recovery rates within the SAC after various intensity levels by monitoring certain specific sites over a 2 year period

The main outcome of this study is to inform the scallop industry of their impact on the seabed in the Cardigan Bay SAC and help them, together with the Welsh Government, to decide on acceptable levels of fishing based on direct environmental impact and resilience of the area.

Progress: To be able to conduct the experiment, an appropriate assessment has to be carried out. The report for the appropriate assessment is currently being written, including all available evidence on substratum types in the proposed experimental area. This evidence includes and will include analyses of fishers videos (mini-sled), side scan data and OLEX maps made available by fishermen. There have been successful meetings with industry to get support, involvement and input from most Welsh scallop fishers. Targets and deadlines have been defined. Regular meetings have also been held with the Welsh Government and CCW/NRW to ensure buy-in of all concerned parties.

Future work: The experiment will be conducted in collaboration with the Welsh scallop fishing fleet. The plan is to open parts of the western half of the SAC which is currently closed to fishing under controlled experimental conditions (i.e. restricted effort) in October 2013. Intensive sampling with the RV Prince Madog before and after opening the area will be required.



Finfish

Aims:

1. To identify local small spawning areas of sea bass off the S-W coast of Wales and to identify the possible presence of a local sea bass stocks. This will provide insights into the location of the spawning areas over two consecutive years. It will also provide insights into the possible connectivity between any small spawning areas identified and between these spawning areas and coastal feeding areas.
2. To define possible isotopic differences between bass from north, central and south Wales which will provide insights into migration patterns, connectivity between areas and fidelity to feeding grounds.

Progress: Both commercial and recreational fishers have been contacted and engaged from North to South Wales. A kit for biological data collection has been given to twelve commercial and recreational inshore fishers. Each kit consists of:

One GPS data logger to record the track of each fishing trip and the precise location of the hauls, 20 scale envelopes to collect scales from each bass caught, 20 bags to collect guts and gonads from each bass caught, 20 tubes containing ethanol (100%) to collect fin clips for the genetic analysis (in collaboration with Aquatrace project), 1 plastic knife (for scales), 1 tape measure (to collect the total length of each bass), 1 pencil to write the data, 1 mini-logbook to record the total capture for each haul, a complete instruction guide for the data collection.

Samples from four bass from the Llyn Peninsula have already been returned to Bangor University.

Future work: New samples will continue to be collected by fishers.

