



Fisheries & Conservation Science

European Fisheries Fund Project

Sustainable Use of Fisheries Resources in Welsh Waters

Welsh Waters Scallop Strategy – Industry working group meeting – 1st February 2013



Y Gronfa Pysgodfeydd Ewropeaidd:
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Sustainable Use of Fisheries Resources in Welsh Waters

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Attendees:

Welsh Fisherman's Association: Jim Evans

Industry: Len Walters, Mark Roberts, Glynne Roberts, Charlie Turner, Adrian Turner, Jason Thomas, Nigel Jones, Tony Jones

Welsh Government: Phil Wensley, Bill Summerfield

Bangor University: Hilmar Hinz, Gwladys Lambert

Seafish Wales: Holly Whiteley

Review of the Fishing Intensity Trial meeting 11/12/12

Jim ran through the minutes of 11/12/12 and reviewed action point progress. All actions had been completed, except action point 4. There was uncertainty over the progress of the restrictive permitting scheme for the scallop fishery. Bill Summerfield announced that he was taking over from Stuart on this front, and would be up to speed shortly.

The need for an experimental permitting scheme or scientific dispensation with special conditions was discussed. The latest news from Stuart Evans was that a simple scientific dispensation would be given to those fishermen that were to take part in the experimental fishery. There was concern over whether or not the fisherman would be able to keep and sell their catch commercially if this was the case. It was noted that it should be possible to write this into the conditions of the dispensation. This issue needs to be checked by WG (Action point 1).

Fishing intensity trial

Hilmar introduced the intensity trial, and in particular outlined the aims and rationale for the proposed work. The key short-term aim is to conduct a fishing intensity trial in part of the currently closed area of the Cardigan Bay SAC. This will involve opening ground and allowing the Welsh fleet to take part in an experimental fishery. This will also achieve the short-term aim of helping to relief effort on current open area in the Cardigan Bay (Bangor University has found that the undersized scallop in the open area have been fished many times over, indicated by damage along the shell edges. This damage will reduce the scallops' energy investment in growth, because it will be redirected to repairing shell damage, and could potentially result in a lower meat yield). The long-term aim of this work is to inform the development of a permitted and quota-based fishery in Cardigan Bay, based on environmental and stock thresholds.

Appropriate assessment of closed area

For the experimental fishery to take place, the area proposed for the scientific work will require an appropriate assessment to determine whether or not the integrity of the SAC features (cobble reef) will be impacted by fishing activity. This is necessary to satisfy the legislative requirement of EU marine sites. This will help inform part of the wider appropriate assessment of scallop dredging in the whole SAC area planned for the future. The area proposed for the appropriate assessment and experimental fishery is the area immediately west of the open area.

For the appropriate assessment, the seabed needs to be accurately mapped so that the presence or absence of cobble reef in the area can be confirmed. This will be done by a side scan survey of the area, conducted by the WG enforcement vessel with Bangor University. This survey is planned for 3-5 days from the 18th February. These side scan data will be validated by the video tow data collected by Len Walters and Mark Roberts. In addition to this, various grab samples have been taken in and around the area by Bangor University, and these indicate similar habitat throughout the closed and open area. There is the potential to collect more grab samples during the side scan survey.

All evidence collected will be submitted to WG/CCW to inform the appropriate assessment. It was discussed that CCW should be consulted about the exact data requirements for fulfilling the appropriate assessment process (Action point 2).

Hilmar and Gwladys presented a Roxan acoustic map of Cardigan Bay that was produced by the Sea Fisheries Committee in the 1990s. Apparently this map had been used by CCW to form the decision to designate the SAC based on the presence of cobble reef. The data collected for the appropriate assessment could be used to validate this map.

Details of the experimental fishery

Hilmar outlined the key aspects and conditions of the experimental fishery:

- The area will be opened on the 1st October, and will be open for at least one month.
- Fishing will be restricted for a particular duration but this is yet to be confirmed.
- It is likely that the whole Welsh fleet will be invited to join the experimental fishery in order to ensure that the fishing intensity levels and gradients mirror a 'natural fishery' as closely as possible, and enable the experiment to better inform future management.
- Current gear/dredge limits and restrictions will apply.
- Fishing effort will be controlled, most likely by number of hours of fishing.
- In order to achieve a gradient of fishing effort, the experimental area will be divided into different areas, and effort levels will be capped differently across these areas.
- Track plot data and VMS data will be used to measure effort.
- Some areas will remain closed to monitor recovery of the seabed, for up to 24 months. It is likely that these areas will be geo-fenced on the suckerfish VMS interface. It is necessary to understand recovery time under different levels of effort, so that fishing intensity thresholds can be set for the restrictive permitting scheme.

Hilmar outlined a timeline for the work:

<i>January-February 2013</i>	<i>Video and side scan sonar data collection</i>
<i>March 2013</i>	<i>Compiling all evidence and report writing</i>
<i>April 2013</i>	<i>Submitting evidence to NRW and Welsh Gov.</i>
<i>May-June 2013</i>	<i>Approval or provision of more evidence if needed (Scallop stock assessment cruise could fill remaining data gaps)</i>
<i>July 2013</i>	<i>Organize industry for the fishing experiment</i>
<i>September 2013</i>	<i>Before impact scientific survey</i>
<i>October 2013</i>	<i>Experimental fishing within the closed area</i>
<i>November 2013</i>	<i>Closure of experimental site and sampling of after impact.</i>
<i>December 2013- September 2014</i>	<i>Data analysis and report writing to advise management</i>

Discussion about experimental fishery and wider work

- The work is novel science and a novel approach to management. If the long-term aim is achieved, it'll be one of the first examples of ecosystem-based management for scallop fisheries.
- Due to the novel approach to management, it may be possible to develop a Welsh Cardigan Bay scallop brand.
- The appropriate assessment and the work of Bangor University will form a template for approaching issues and problems in the future. It was noted that there is more legislation on the way (Marine Strategy Framework Directive, CFP reform (e.g. Maximum Sustainable Yield for all stocks), and also the possibility of having to conduct an appropriate assessment of all fisheries in EU sites, to satisfying the requirements of Article 6 of the Habitats Directive (currently happening in England). An evidence-based approach to fisheries management, detailed stock assessments, and a focus on sustainability will future-proof the Welsh industry.
- Phil Wensley highlighted that WG very much wanted to develop fisheries in Wales, as opposed to manage decline. Therefore WG strongly supported the work of the industry and Bangor University.
- There was discussion over the management of the experimental fishery area following the fishing intensity trial, in particular those areas that would not be re-closed for monitoring recovery. Is there a potential for these areas to remain open to scallop fishing, considering that the appropriate assessment will have confirmed that fishing will not have an impact on SAC features? It was agreed that WG had responsibility to decide the management of the area following the opening of the experimental fishery (Action point 3).

Red Bag Scheme and scallop stock assessment

Gwladys outlined the stock assessment work that Bangor University is planning for scallop stocks in Welsh waters. To conduct a stock assessment three different types of data are needed, i) landings data, ii) fishing effort data, and iii) age and shell length of scallops from different areas in Welsh waters. Gwladys introduced the Red bag scheme as a means of collecting the age and shell length data required for the stock assessment.

- Gwladys would provide industry with red bags and forms (**Action point 4**).
- Industry would use the red bag as a normal bag, but would have to provide two extra pieces of information. The number of undersized scallops that were sorted and thrown back, and the location of the tow that provided the scallops in the red bag. This would be recorded on the associated form, and then the form would be sealed in the red bag along with the scallops.
- The red bag would then be landed and sent to processors as normal.
- The processors will clean the scallops and sell the meat, but instead of discarding the shells they will put them back in the bag and it will be picked up by Bangor University so that the shells can be aged and measured.
- This will only work if the red bags are landed to processors in the UK, so that the bag with the empty shells can be picked up and recorded.
- Gwladys would hope for approximately 10 bags from each fishing ground every three months.
- Industry must provide Gwladys with the processors details, so that she can contact them to collect the bags.

Gwladys almost mentioned that Bangor University would be conducting a dedicated scallop survey across the whole Cardigan Bay area in June 2013, to inform the stock assessment process. The planned approach to scallop stock assessment in Wales is unique in the UK, and much more progressed than Cefas in England.

Pre-experimental Fishery survey

Gwladys discussed the scientific work that needed to be completed both before and after the experimental fishery takes place in October. A dredge and beam trawl survey would need to be conducted in the area proposed for the experimental fishery in September, before the ground is opened, in order to determine state of scallop abundance before fishing takes place. A similar survey would need to be conducted afterwards to assess the extent of the impact of fishing on the stock. This data will inform the thresholds of effort for the permitting scheme (most likely to be calculated in number of dredge days).

To separate the effects of the local environment from the effects of fishing when investigating the recovery of scallop populations, good quality data about the environmental conditions in Cardigan Bay will be required. In particular Gwladys needs accurate, fine scale tidal bed stress data. This would inform the analysis about the degree of natural disturbance occurring in the area. A map of modeled tidal data provided by the physical oceanography department at Bangor University was presented to industry for feedback. Mark and Len indicated that the modeled data does not match up with the conditions they experience at sea. It is likely that the macro-scale tidal model was too low a resolution (large scale) to capture the local conditions in Cardigan Bay that would be relevant for estimating level of natural disturbance at the seabed. Hilmar and Gwladys agreed that they would go back to the oceanography department to see if a finer scale model could be developed, and also to investigate how to quantitatively validate the modeled data to better determine its accuracy (**Action point 5**)

Another dataset that would be required to better plan the experimental fishery is the suckerfish VMS data from 2012 (this season). This would give Bangor University an idea of the most recent fishing effort distribution/patterns, so that they can estimate how many boats are required to fish in a given area to mimic the behavior and fishing effort levels of a natural fishery. In addition to this it will give an indication of how long the experimental fishery will have to be opened for in order to generate suitable gradients of effort (**Action Point 6**).

Other discussion

Gwladys presented catch per unit effort (CPUE) data for the period 2000 to 2011. In general there was an increase in scallop landings and catch per unit effort, especially from 2006 onwards. Industries were asked if they agreed with this data, and whether or not it reflected their experience of the fishery in recent years.

Hilmar mentioned that skid trials to improve the efficiency and minimize damage of scallop dredges was still underway, and required more volunteers to help gather data. If volunteers for conducting trials could be found soon, the results from the trials could be used to inform the byelaw review that was currently underway (**Action point 7**). If any one from industry is interested in helping with skid trials please contact Hilmar Hinz.

ACTIONS:

Action point 1: Bill Summerfield to determine progress with permitting scheme so far and give an update at the next Scallop Strategy meeting. It would be good to start discussions about restrictive permit conditions between WG, Bangor University and Industry ASAP.

Action point 2: Hilmar Hinz to discuss with CCW exactly what they require in terms of data to fulfill the needs of the appropriate assessment. Gwladys to discuss if grab samples taken in October would be sufficient to inform the pre assessment with respect to the project application (fishing intensity trial).

Action point 3: WG/ Bill Summerfield to begin discussions about management of the experimental fishery area following completion of the fishing intensity trial.

Action point 4: Gwladys to send Red Bag scheme forms to Holyhead docks for Nigel and Tony Jones.

Action point 5: Phil Wensley (WG) to enquire about the use of VMS data from the past two years to inform the design of the fishing experiment.

Action point 6: Hilmar and Gwladys to find more accurate tidal bed stress data and present this to Industry for feedback.

Action point 7: Hilmar Hinz to find volunteers for skid trials.