

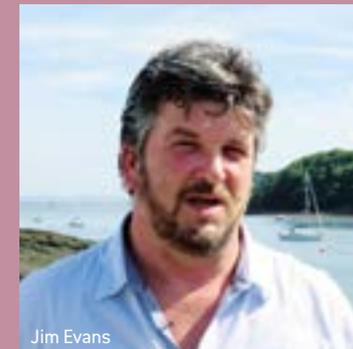
Collaborating to Develop a Management Strategy

Fishermen can provide a unique insight into the fisheries in which they operate. Working together with scientists to gather evidence, fishermen can help inform management plans that achieve a healthy and profitable industry for present and future generations. In 2009, the Welsh Scallop Industry and fisheries scientists began working with the Welsh Government and Natural Resources Wales (NRW). The aim was to develop a new, more effective approach to manage scallop fisheries in Cardigan Bay. The proposal was presented to the Welsh Government for consultation in Spring 2016.



King scallops are a valuable species for the Welsh fishing industry. The MMO estimate that 2015 landings of king scallops at Welsh ports were worth £1.8 million. Dr. Holly Whiteley, Seafish regional manager for Wales, explains that there is more to Welsh scallops than their economic value, “The seafood industry is very important for coastal communities in Wales. Most of our seafood businesses are small-scale, but they are important in terms of local employment in rural, coastal areas”. Jim Evans, chair of the Welsh Fishermen’s Association - Cymdeithas Pysgotwyr Cymru (WFA-CPC), agrees, “The fishing fleet is very important to Wales because it links into tourism, local trade and services. Fishing is a key component of Welsh maritime heritage. If there are no opportunities for youngsters to remain in the area, these coastal communities won’t thrive. When you consider the social and economic contribution to the coastal economy the importance of fishing is often overlooked”.

One of the most abundant Welsh scallop grounds is in Cardigan Bay, West Wales. This area was designated a Special Area of Conservation (SAC) in the early 2000s for conservation features, including rocky reefs, sandbanks and bottlenose dolphins. There was also small-scale scallop fishing in the Bay, but this changed in 2009. Professor Mike Kaiser of the School of Ocean Sciences at Bangor University explains



Jim Evans



Mike Kaiser

what happened, “Around 2008 there was a large settlement of scallops which attracted a lot of fishing vessels to the area. This caused concerns among environmental groups that the increase in fishing activity could damage the features of the SAC, and they complained to the European Commission. Faced with a possible

infraction procedure, the Welsh Government closed the majority of the SAC to scallop fishing”. A small part of the SAC area known as the ‘Kaiser box’, has remained a seasonal scallop fishery to this day, open from the 1st of November to the 31st of April each year, subject to pre-season survey and assessment.

“We discussed the closures, recognising that there were issues that could be resolved through dialogue”



Mark Roberts

Members of the fishing community were deeply affected when scallop fishing was restricted in Cardigan Bay. Mark Roberts, owner of the MFV Harmoni, tells us that the consequences went further than losing their traditional scallop grounds, “We had to travel farther away from home, outside of the Welsh 12 nautical mile limit. Because our usual winter fishing grounds were no longer available, we had to fish queen scallops in the winter, when previously queen scallops were our summer fishery. Winter fishing meant the queenie grounds were not being properly rested and there was more pressure on them”.

After the closure of parts of Cardigan Bay, members of the WFA-CPC, together with scientists, Welsh Government and NRW, agreed to consider a new approach to managing the fishery. “We discussed the closures, recognising that there were issues that could be resolved through dialogue”, says Jim Evans. “Our board immediately offered to facilitate discussions between the scallop fishermen and fisheries managers. That was pretty much where the journey started”.



A ‘Scallop Strategy Group’ consisting of Welsh Government, NRW, scientists and industry representatives was formed to consider whether it would be viable to develop a new, evidence-based management plan for Cardigan Bay. When this process started, the fishermen in the group engaged in the collaboration knowing that any scientific evidence they helped to collect would inform fishing management decisions, and the evidence might show that fishing for scallops in Cardigan Bay would not be advisable.

Collecting evidence to support a new approach to management required extensive fieldwork,

including stock assessments and seabed mapping, led by Bangor University and partly financed by the European Fisheries Fund. A big part of this fieldwork was a carefully designed fishing intensity experiment that helped to understand the impacts of scallop fishing and how long it took for seabed communities to recover. This study was the largest of its kind to be undertaken anywhere in the world. Professor Kaiser explains, “This research has enabled us to identify the threshold of scallop fishing disturbance at which environmental impacts become apparent. The findings told us that the seabed at this location in Cardigan Bay could

withstand disturbance up to a fishing intensity of being fished three times per year”.

Four local fishing boats, along with one from England, took part in the fishing intensity experiment. The fishermen involved took a risk, since costs incurred by the vessels were only to be covered by the money earned from the sales of the scallops fished during the experiment. However, Mark Roberts believes it was worth the risk that the experiment could have resulted in losses for the vessels involved, “all the fishermen that were involved in it saw the end goal, a sustainable fishery”.

Another part of the work, also led by Bangor University, involved trialling new vessel monitoring technology to enable accurate monitoring of fishing effort. As Mark described, “we did a lot of work with VMS tracking and “gear in/gear out” technology, in which there are sensors that tell you if the fishing gear is on the seabed. This is important for effort control”. This technology is also useful for demonstrating fishermen’s compliance with restrictions on where fishing is allowed.

Taking account of the findings of all the research that had been done, the Scallop Strategy Group proposed a new, evidence-based approach to manage the scallop fishery in Cardigan Bay. As part of this approach, several measures have been suggested: spatial zoning to avoid fishing on sensitive areas of the SAC; the use of high-resolution VMS with

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“gear in/gear out” technology to monitor fishing activity; an annual catch limit on scallops from the area; and importantly, a precautionary limit on the allowable amount of seabed disturbance permitted by fishing.

The participation of fishermen was crucial to the successful development of an approach

that is based on the best available evidence and balances both environmental and industry goals. As Holly explains, “Having fishermen involved from the beginning is essential, because they understand the fishery and the environment in which they operate. To achieve a



sustainable and profitable fishery, you need fishermen in the room with scientists and regulators to know where the balance point is". This is a view shared by Jim, "Fishermen are a key part of developing any fisheries management measures. Fishermen need to support the measures meaning measures must be appropriate

and proportion. I think it was hugely important for the WFA-CPC and our members to be involved in this piece of work". In addition, the development of this new approach to participatory management is becoming the way forward in fisheries management, rather than regulators making rules that do not necessarily work

for everyone. Holly feels that the work in Wales could be replicated elsewhere, "The work of the Scallop Strategy Group is a good example to other fisheries. There is more and more consumer focus on environmental credentials and here in Wales we are setting an example of how we can achieve that evidence-based balance between environmental, social and economic sustainability".

In October 2016, the Welsh Government announced their approval of the proposed new approach in Cardigan Bay. "In terms of paving the way in novel science on fishing impacts and industry-science partnerships, I am not aware of anything done this scale in the UK", says Holly, "It is a great example of what can be achieved when you have scientists, industry and regulators working together". The proposed new approach is not the end of the story. The Scallop Group is looking ahead to other opportunities that could benefit the fishery and the communities that depend on it. The WFA-CPC recently commissioned an independent MSC pre-assessment of the scallop fishery in Cardigan Bay based on the proposed new measures. Jim concludes, "MSC accreditation of the fishery would, importantly, endorse sustainability; a by-product of which is the creation of opportunities that add value and employment for future generations in Wales".

