

## **SUSTAINABLE USE OF FISHERIES RESOURCES IN WELSH WATERS**

### **ON-BOARD CAMERA UPDATE BULLETIN: SEPTEMBER 2013**

The crab and lobster team on the sustainable use of fisheries resources in Welsh waters project have been gathering data to optimise the on-board camera system throughout the spring and summer. We would like to thank all the fishers who have used the prototype camera and have helped us gather data. The status of the project is as follows:

1. Following the untimely death of Ian Nicholls from our workshop we have now found an alternative workshop to manufacture the camera housing units. We have six units; two are being used on-board fishing vessels to monitor their catch – one on the Llŷn Peninsula and one in Pembrokeshire. The other four units are being used in Cardigan Bay to monitor catch on vessels trialling lobster escape gaps.
2. We have validated our ability to measure the size of crabs and lobsters using the video by spending time at sea and measuring nearly 1000 crabs and lobsters.
3. This data has allowed us to calculate the formula for converting the measurements taken from the video into actual carapace length and carapace width measurements.
4. We have calculated the relationship between the carapace length and the abdomen width in male and female lobsters to allow us to sex the lobsters in the video.

These trials have shown that the concept has valuable application within the potting industry. The next stage of the trials will be:

1. Collect more actual data at sea to estimate the error associated with measuring size from the video.
2. Sexing lobsters using the abdomen width has proved accurate for mature individuals but smaller individuals cannot be easily sexed this way. We will work on an alternative method for this.
3. Manually working through the videos is time consuming at present. We were hoping to develop software to help with the video analysis, however due to the PVF being rejected and the subsequent lack of funds we can no longer afford this. We are working with the Welsh Fisherman's Association (WFA) and Aberystwyth University to find alternative funding to develop software which will assist in this process. This will ensure that the methods are efficient in terms of time and money.

Currently, with the time it takes to analyse the videos, we would not be able collect data and get timely feedback to any more fishers. However if fishers are interested in having a camera unit installed and collecting monthly videos, we can archive the data and then analyse it once the software is developed.

Until the software is developed we will be taking on-board measurements for crab and lobsters once a month in four locations from north to south Wales.