# C:\Users\oss028\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Sustainable Welsh Fisheries Logo_5_Small.jpgBangor University logo Aug 11C:\Users\oss028\AppData\Local\Microsoft\Windows\INetCache\Content.Word\EMFF - Fisheries - ESIF Logo.jpg

# **INVITATION TO PARTICIPATE**

# Bangor University Crustacean Stock Status Assessment - Covid-19 Fisher Science Response.

The crab and lobster sector of the Welsh fishing fleet have been particularly hard hit during Covid-19 due to a collapse in the domestic and export markets. The current EMFF Fisher-Scientist Partnership project has always been focused on engaging with the fishing industry to deliver data collection. There is scope to safely use technological solutions to engage fishers in data collection and continue the progression of science not only during covid-19 but also providing benefit to the sector during covid-19 recovery and in the long run.

Welsh Government and Bangor University have discussed possible research projects that can continue the crab and lobster stock assessment during covid-19, with fisher engagement and provide conservation benefit to the stocks. A lobster v-notching program along with fisher data collection has been designed and we invite any existing Welsh registered commercial lobster fishers to apply to participate in this stock conservation science initiative.

**Financial compensation** will include (all costs are total costs to include any VAT due):

1. Flat rate of £12/kg for each lobster v-notched. Weight will be estimated using existing length-weight data.
2. Cost of fuel when carrying out v-notching.
3. £100 plus fuel for a 6-hour day carrying out non v-notching data collection

**Data collection requirements**: Training will be provided either through a socially-distanced field visit or through a video tutorial. However, the anticipated minimum data collection requirements will be to:

1. Keep a running tally of all lobsters v-notched noting sex and whether they are legal sized or undersized. There is a requirement to notch undersized lobster to gain maximum scientific benefit from the data, however each fisher will be required to notch the full size range of lobsters they catch.
2. Also a record of any lobsters landed during the research will be required.

Additional data collection is preferable and would be as follows:

1. Fisher to have a camera fitted to the boat that will record all necessary data.
2. Fisher will be required to ensure the camera can capture the size of the lobster and show the tail so scientists analysing the video can see if it is v-notched or not. The camera will be set up to make this as easy as possible and it should not interfere with the normal workings on the boat significantly. The camera is operated by an on-off switch under full control of the fisher.
3. Camera data will be used as evidence of the number of lobster v-notched but there may also be a requirement to save v-notches for evidence as well as some notches for future genetic analyses.
4. We would be very interested in any fishers who are willing to use the camera to continue data collection voluntarily once normal fishing resumes.

Where use of a camera is not possible or desired the fisher will be asked to carry out the following:

1. Use Bluetooth-enabled callipers (provided) to record carapace length of whole catch.
2. Keep a record of all lobsters v-notched, including carapace length, sex, berried/not berried, locations of capture.
3. Record total pots hauled on each occasion.
4. Record any v-notched lobsters re-caught including size, sex, berried/not berried and location of capture.
5. Retain notches as evidence of number of lobsters notched (envelopes will be provided). A subset of v-notches for genetic data analysis may also be required.

In addition we would like fishers to provide:

1. Written permission for researchers on the project to have access to data held by the Welsh Government or the MMO regarding their landings, catch app data and VMS/iVMS data for 2019 – until the end of the project. All data will be treated as confidential and commercially-sensitive and afforded appropriate protection through anonymising the data, with data stored in password-protected folders. No data will be shared with third parties and data will only be used for research purposes. Any outputs will ensure anonymity of individuals and locations, with all data amalgamated to a minimum spatial resolution that includes at least five fishers’ data (this resolution has been suggested with previous discussions with industry).
2. Data on the number of pots fished with and without escape gaps.

Proposed data collection and v-notching format:

1. Fishers have cameras fitted where possible, equipment to be delivered and training given
2. Fishers carry out 2 days of “normal” pot hauling activity, recording all the catch and the presence and absence of existing v-notches. This provides a baseline for the proportion of the stock in your fished area that are already notched – Your specific baseline.
3. V-notching fishing trips conducted during June/early July. V-notch all lobsters caught, over 65 mm CL. Notch the left side of the tail only. This provides an indication that these animals were notched in the first notching event. The number of lobster v-notched by each fisher will depend on the number of fishers applying to the scheme and what level of data collection an individual fisher is willing to participate in.
4. Additional non v-notching data collection days – up to 2 times a month. Length of study to be confirmed, based on funding availability and number of fishers applying.
5. September 2020 – recapture surveys. Up to 4 days of hauling pots specifically to record how many and what size v-notched lobsters are re-caught. This will allow us to devise a capture selectivity curve, which will be extremely useful for future stock assessment.
6. If normal fishing activity looks like it will start then we will ask fishers to carry out another v-notching event (right side of tail). This will allow us to look at both natural and fishing mortality rates which are essential in stock assessment.

**It should be noted that each fisher will be given a maximum number of lobsters to v-notch based on available funds and rate of subscription to the scheme, plus a maximum number of days they can be paid for other data collection activities. This is to ensure that activity does not exceed the available funds.**

**Eligibility**

To be eligible to participate in this scheme fishers will need to meet the following criteria:

1. Currently going out to haul crustacean pots, whether or not you are landing catch (we don’t want to encourage anyone to start additional activity they are not currently undertaking during the Covid-19 pandemic).
2. Be able to start v-notching and data collection in June 2020.
3. Currently hold license for shellfish entitlement to catch and land crustaceans in Welsh waters.
4. Has not had any fishery-related convictions during the last 5 years

Notwithstanding the eligibility criteria, we hope to be able to include all fishers that apply to the scheme, however in the case of over-subscription in relation to the available funds we will consider eligibility for financial support during covid-19 through other schemes. Alternatively, if no additional funding can be secured we may limit the participation based on:

1. Willingness to provide the additional data listed above.
2. Willingness to give permission for sharing of landings/catch app data.

If you would like more information on this opportunity or to discuss the requirements then please contact Dr Natalie Hold on [n.hold@bangor.ac.uk](mailto:n.hold@bangor.ac.uk) or 07925 686 305

If you would like to be considered for this opportunity then please fill out and return the form below by June 4TH 2020. If you need help filling out this form then please contact Natalie Hold on the above details.

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**FISHER NAME:**

**BOAT NAME:**

**BOAT CFR NUMBER: Vessel Registration Number:**

**DO YOU LIVE IN WALES AND ARE YOU CURRENTLY HAULING YES NO**

**CRAB/LOBSTER POTS IN WELSH WATERS WITH A WELSH**

**REGISTERED VESSEL?**

**WELSH PORT FISHING FROM:**

**APPROXIMATE NUMBER OF POTS FISHED:**

**WHEN ARE YOU ABLE TO START PARTICIPATING?**

**HAVE YOU HAD ANY FISHING CONVICTIONS IN THE LAST 5 YEARS? YES NO**

**DO YOU CURRENTLY HOLD A SHELLFISH ENTITLEMENT? YES NO**

**ARE YOU WILLING TO RECORD ALL LOBSTERS THAT YOU**

**V-NOTCH, ALONG WITH THEIR SEX AND WHETHER THEY**

**ARE UNDERSIZED OR LEGAL SIZED? YES NO**

**The following table will only be used in the event of over subscription in relation to the available funds – we are hoping to be able to support all eligible applicants. Answering no to any questions does not rule you out of participating in the scheme. The highest scoring requests to participate will be chosen.**

|  |  |  |
| --- | --- | --- |
| **CRITERIA** | **ANSWER** | **SCORE** |
| **ARE YOU WILLING TO HAVE A CAMERA INSTALLED ON YOUR BOAT?** | **YES**  **NO** | **10**  **0** |
| **ARE YOU WILLING TO USE ELECTRONIC CALLIPERS TO COLLECT THE SIZE DATA OUTLINED ABOVE?** | **YES**  **NO** | **10**  **0** |
| **ARE YOU WILLING TO CONTINUE TO USE THE CAMERA TO COLLECT CATCH DATA VOLUNTARLIY ONCE NORMAL FISHING RESUMES?** | **Yes until end of project (end 2022)**  **YES - for a few months**  **Only for v-notching**  **Not at all** | **10**  **5**  **2**  **0** |
| **ARE YOU WILLING TO GIVE THE RESEARCHERS PERMISSION**  **TO USE YOUR LANDINGS/CATCH APP DATA?** | **YES**  **NO** | **10**  **0** |
| **ARE YOU WILLING TO PROVIDE RESEARCHERS WITH INFORMATION ON NUMBER OF ESCAPE GAPS USED?** | **YES**  **NO** | **5**  **0** |

**There will be random validation checks on the invoiced v-notching and evidence of number of lobsters v-notched from either camera data or retained notches.**