

# NWIFCA Technical Science and Byelaw Meeting

1<sup>st</sup> of November 2022: 10:00 a.m.

Agenda Item

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## PROPOSALS FOR UK SEAFOOD FUND: FISHERIES INDUSTRY SCIENCE PARTNERSHIP SCHEME

**Purpose:** To provide an update on the potential bids being submitted for funding via the FISP scheme and the Seafood Innovation Fund.

**Recommendation:** 1) Receive the report

### 1. Background

The FISP scheme has been set up through Defra and is intended to improve and share knowledge of fisheries and aquaculture by funding data collection and research to support sustainable fisheries management. There is funding available for up to £500 thousand a year, for a maximum of 2 years.

All FISP projects must be a partnership between a member of the UK seafood industry and a research organisation. IFCA's are considered a research organisation.

Defra plans to open a final round of bidding from 21 November 2022 until midday on 5 January 2023. These dates may change.

### 2. Draft proposals

NWIFCA has developed two draft research bids.

Work is still required to identify and secure working partnerships with academic, technology and industry partners for these bids. However, candidate partners have been identified. The next steps NWIFCA will undertake is detailed under section 2.1 and 2.2 of this document.

There is no guarantee of our success with the bidding process, however, there are a number of additional funding streams these projects could be submitted to should we be unfortunate in our first attempt. In addition, further topics have been discussed within NWIFCA and are also of interest for potential schemes.

## **Draft Proposal 1**

**Name of project:** Investigating the long-term sustainability of intertidal shrimp fisheries

Potential commercial industry partners:

- Furness Fish, Poultry and game Supplies (Morecambe)
- McClures (Morecambe)
- M Triggs and Son Ltd (Dee)
- Porters Fresh Shrimp (Morecambe)
- Ray Shrimps Ltd (Solway)
- And more – dependant on take up

Potential research partners:

- Salford university

### **Background:**

Brown shrimp have been fished by local fishermen across the North West coast including the Solway Firth, Morecambe Bay, the Ribble Estuary and the Dee Estuary for hundreds of years. The fishery is of considerable cultural and economic importance to local industry, with knowledge of the fishery typically passed down through fishing families, many of whom still target the same historical grounds. The species is predominantly fished by use of tractor or boat trawls in the intertidal area during the autumn seasons. In recent years, however, there has been a noticeable decline in both the number of shrimp, and the size of shrimp available across the District during the autumn/winter fishing season. The fishery is data poor and has no established monitoring program.

### **Project Aims:**

This project aims to investigate the potential causes of the decline in shrimp, including (but not limited to) fishing practices, water quality, temperature and food availability and the impact this has on their life cycle. The project will also look to develop a methodology for ongoing monitoring, with the aim of supporting potential future stock assessments and/or models.

#### **2.1. Actions:**

- 1) Contact industry partners provided
  - o Discuss concerns and potential research interest areas
- 2) Contact potential research partners
  - a. SS has contact researchers from Salford University who have already undertaken some work in Morecambe on shrimp. A meeting will be organised to further discuss potential research objectives and funding requirements and whether the organisation is interested in participating in the work.
- 3) Contact Defra host to discuss application requirements
- 4) Prepare bid for when the applications re-open end of November. The SS has attended an event hosted by Cefas to hear provide advice on applications to the Seafood Fund which will be beneficial in completing the application.

## **Draft Proposal 2**

**Name of project:** Use of drone technology and machine learning for monitoring mussel stocks

Potential industry partners:

- TBC

Potential research partners:

- Natural England

### **Background:**

Sustainable fishery management requires evidence to support decision-making. Assessments of the mussel beds across the District are currently undertaken by officers on foot. This approach is limited in its ability to accurately determine the extent of mussel beds, the biomass, size and quality of mussel present. Capturing this information would help to build a greater understanding of the mussel bed dynamics and allow for more confident management decisions. Drone technology has recently been used on mussel beds in the North East to identify live mussel among shell due to the presence of a biofilm. In addition, new technology that allows for the 3D mapping and size estimates, would allow for more accurate biomass estimates, and measuring long and short term changes that could help provide predictive indicators for industry and management.

### **Project Aims:**

This project would aim to use drone technology to map mussel beds in the District. The project would explore potential ways of identifying live mussel amongst shell, providing accurate biomass figures for beds, size estimates of mussel and early identification of scouring. This work could then be used to increase our understanding of mussel bed dynamics over the long term, feed into bird food models and allow more confident HRA assessments to be made.

### **2.2 Actions:**

- 1) Follow up discussion with partner IFCA's to identify research organisations or industry members to collaborate with or who could contribute to the development of the project. Cornwall IFCA, Northumberland IFCA and NE have offered advice on this research to date.
- 2) Complete and submit an expression of interest to gain an idea as to whether the project is eligible for the funding
- 3) Develop a research plan and aims

**19<sup>th</sup> of November 2022**