

## Shetland Inshore Fish Survey (SIFS) – 2023



Photo courtesy of UHI Shetland

### **What is being funded?**

The SIFS records an annual index of abundance, size distribution and species composition of fish populations in near-shore waters around Shetland, particularly of populations of juvenile fish of species of commercial interest.

### **Who is carrying out the project?**

The project is being carried out by UHI Shetland, Scalloway Campus, Port Arthur, Scalloway.

### **How will the work be carried out?**

The SIFS will be undertaken over established tow locations around Shetland during August and September 2023 (as per map at Q3). Data entry, analysis and reporting will be complete by December 2023.

Survey work is conducted by scientific staff aboard the UHI-Shetland owned 12 m MFV Atlantia II (LK 502). The survey gear is based on a standard four-panel box trawl with a headline length of 23 m and a fishing circle of 400 (160 mm) meshes. The cod end is fitted with a small-mesh (20 mm) inner net. The gear is towed at approximately 2.5 knots with tow durations of 1 hr where operationally possible.

The catch from each haul is sorted and weighed for all species, with individual fish lengths measured for a subset of fifteen species which are primary interest due to their commercial importance.

Data analysis includes determination of an index of relative abundance through catch per unit effort data for both weight and number caught per hour, per tow and per annum. Size compositions are investigated through analysis of length frequency distributions, and established age-length relations used to infer age distributions. From these, distributions the relative strengths of year classes of species of commercial importance can be ascertained over the time series.

Results are presented to local industry and their representatives, with the report made available in open access via the UHI website. Additional targeted dissemination of the results will be undertaken.

### **Funding**

The RIFG project is contributing to this work. Partners in this project are Shetland Fish Producers Organisation, Shetland Island Council and Scottish Fishermen's Trust.

### **Use of Results**

The SIFS is targeted to near-shore waters around Shetland, covering many areas thought to act as nursery areas for juvenile fish prior to their recruitment into the commercial fisheries. The SIFS is undertaken during Aug/Sept and results reported around November the same year, providing an independent early indication of local abundances and trends.

The data collected through the SIFS is unique in Scotland (and the UK) in providing a comprehensive time-series of information on the abundance of fish stocks in inshore waters. It provides an increasingly strong basis for understanding the population dynamics of commercially important fish stocks in Shetland waters and their relationships to stocks in the wider area.



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