



Centre for Environment  
Fisheries & Aquaculture  
Science



**C7632**

# **MEDIN – Data Legacy Rescue**

## **Historic Herring**

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Mary Brown  
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## Cefas Document Control

Submitted to:	Clare Postlethwaite (MEDIN)
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Project Manager:	Gary Sagers
Report compiled by:	Mary Brown
Quality control by:	Georg Engelhard
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## Summary

MEDIN funding in 2017 enabled Cefas to catalogue and publish a wealth of long-term herring data spanning the 1920s through to the 1990s, which were previously hidden in boxes, files and paper report and in danger of being lost.

## Introduction

In preparation for redevelopment of Cefas Lowestoft Laboratory, work has recently commenced on the rationalisation and archiving of a huge repository of physical scientific material which was previously held on site and in storage off-site in an Industrial Unit. During the relocation, a substantial long-term archive of North Sea herring data has been unearthed. The herring data, collected between the 1920s through to the 1990s, have been collated in hundreds of folders.

The herring data were not catalogued and exist as hard-copy only, and as such are not easily accessible to users. These data can potentially provide a substantial source of information on one of the UK's most important fish stocks, including valuable data on distribution, abundance and growth rates. This historic data set covers a period where herring were one of the most commercially important fish stocks for UK fishing ports (1920s–1950s), followed by the decline and collapse of the stock to near-commercial extinction (1960s–early 1970s), and the start of the subsequent recovery (1990s). Insights gained from the biological data covering these past periods of great changes in stock abundance might also help us understand and predict any future such changes (e.g., see Cefas 'Trawling Through Time' brochure on various examples of use of old data to address current policy questions).

## Catalogue creation

The first stage was to sort through the huge collection of paperwork which had been stored in the Unit for the last 40 years. During this process all paperwork was sorted into at least 80 different categories which included many species, areas, research topics e.g. plankton, surveys, histology etc.

The herring data was accumulated in one place and then sorted into year order from 1910-2000. These data ranged from files, ledgers, log books, box files to large boxes.

We then created a spreadsheet cataloguing each folder/box etc. Each entry (1200) included a title, description, spatial information, dates of the resource any other relevant comments. The shelves were labelled and cross-referenced to give locational information.

Below is a list of the data types that were found amongst the files, these included:

- Biological data, including the age, length, weight, maturity and vertebrae counts of individual herring

- Scale projection data, containing information on the length-at-age of the fish, derived from the growth layers on herring scales;
- Herring survey data, collected onboard research or commercial vessels during surveys specifically aimed to study herring;
- Market sampling data, collected by scientists at the fishing ports where herring were traditionally landed, such as Lowestoft, Great Yarmouth and South and North Shields
- Associated environmental data collected during the herring surveys, including daily weather and wind observations
- Spatial information, including distribution of herring catches during different years, which is relevant given that the various sub-stocks of North Sea herring have differed in their relative abundances.

There was no data during the years 1940-1941 in our archives and between the years of 1942-1944 we have very little data which could be linked to World War II (1939-45). During the war, many fishing vessels were requisitioned by the Royal Navy (often to serve as mine sweepers) and temporarily stopped fishing, reflected in very limited data collected on fishing.

A glossary was then produced containing definitions of column headings and acronyms used within the catalogue which is also attached to the metadata.

The image shows a handwritten ledger page from a fishing log. The top section is titled "HERRING FISHING" and includes a date "Week ending 7th Nov 1958". It contains a large table with multiple columns for recording catch data, including vessel names, dates, and quantities. Below this is a section titled "DISPOSAL OF CATCH" with a table detailing how the catch was used (e.g., frozen, sold, etc.). There is also an "EXPORTS" section with a table for recording fish movements. Handwritten notes at the bottom describe the fishing conditions and weather on the day.

Figure 2. Herring landings at Lowestoft 8 November 1958



Figure 3. Part of the herring archive

## Publication

The herring metadata, catalogue and glossary were uploaded to the Cefas Data Repository (CDR). This has now been published on the Cefas Data Hub (Cefas external data portal) <http://data.cefas.co.uk/#/View/19009> and will be accessible through MEDIN.

## Future work

This project has enabled Cefas to efficiently store and catalogue herring data in a format which allows it to be easily accessible to users and to promote the vast array of data that has been collected by scientists from the early 1900s.

Cefas hopes to continue this work for all the other categories to create an important heritage fisheries data archive.

As other herring data comes to light during the rationalisation of the main laboratory prior to the development of the new building it will be added to this precious resource.

## **Acknowledgements**

Cefas would like to thank MEDIN for the funding to enable Cefas to provide a catalogue of the historic herring data for use in further scientific studies.



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### Head office

Centre for Environment, Fisheries & Aquaculture  
Science  
Pakefield Road  
Lowestoft  
Suffolk  
NR33 0HT  
Tel: +44 (0) 1502 56 2244  
Fax: +44 (0) 1502 51 3865

### Weymouth office

Barrack Road  
The Nothe  
Weymouth  
DT4 8UB

Tel: +44 (0) 1305 206600  
Fax: +44 (0) 1305 206601

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