

The Continuous Plankton Recorder Survey: 60 years of data and counting

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2018 is a milestone year for the CPR Survey, marking 60 years of continuous monitoring in the North Atlantic. Although the Survey has been operating since 1931, standardised methods of sample collection and analysis were brought in to start in 1958, and have remained unchanged since then, resulting in a globally important and unique source of information on the health of the ocean.

In the marine environment, long-term datasets are rare, and those that do occur typically collect samples in coastal environments. In contrast, the CPR Survey operates in the open ocean, towing transects every month over thousands of nautical miles. By using the same methods over 6 decades, CPR data have helped progress our understanding of the marine environment, providing a form of “yard-stick” against which new measurements can be compared. Such baseline information is essential in identifying if, when and where changes have occurred, and help support the development of appropriate management of our seas.

CPR data are used by the scientific community, and can be applied to societal issues, such as climate change and healthy ecosystems, through inclusion in policy work. The CPR dataset continues to evolve, as new research topics appear, new data and instruments are continually added to keep pace with current scientific thinking. Originally designed to describe the marine environment, the CPR Survey today provides unrivalled information on multi-decadal changes in marine biodiversity, spread and abundance of pollution (e.g. marine plastics) and informs understanding of our oceans to support ecosystem-based management.

This presentation will highlight both the value of long-term time-series and the necessity for the continuous evolution of such monitoring programmes, in order for them to respond to new challenges, and remain at the forefront of ocean science.

Keywords: time-series; long-term; CPR; evolution; ocean monitoring