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## Editorial

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It seems a rather incongruous mixture—an almost daily time series, involving immense discipline and vision, from an island of turbulent history and, historically speaking, populated with motley peoples, including refugees, seamen, fishermen, pirates and smugglers. On the other hand, maybe it is exactly the openness and genius inherent in such a diverse population that allowed the flourishing of a Biological Station and provided the momentum for the Helgoland Roads time series, the first data of which were collected in 1873.

Helgoland Roads is an anchorage area between the two islands at Helgoland in the North Sea. It is a unique sampling place which, with the experienced seamanship of the Helgoländer people and their special “Börte” boats, allows almost daily sampling at sea. This, combined with a few determined scientists and analysts with vision, has provided us with one of the most valuable long-term aquatic data sets in Europe.

The Helgoland Roads time series is, with regard to its profile, a rather humble time series. Although a much used time series, used in models, scientific papers and in practical terms for such applications as European Water Directives, or as a component of the ICES data sets and the German Oceanographic Database (DOD), managers and scientists have a history of underestimating the immense work and dedication which has guaranteed the continuation of this time series and its data. Data are often cited incorrectly or even not cited at all. This is unfortunately often the fate of time series data. They are placed in the negatively infused category of “monitoring”; the data production is classified as unchallenging, or in the past has been discontinued because the added value was often not clear. This is a sad state of affairs for such valuable scientific resources. Biological time series as a whole should be a public resource, available as a

heritage to all, but they should also be an honoured public resource.

In many ways, it is only as a result of global climate change discussions that time series have been hauled out of the closet and been re-examined in a new light. Now we look with longing at the many shut down long term sampling programmes and regret that they have not been continued. We really could do with the data. On the other hand, long term data sets are being started and restarted all over the world, so one can also consider the present time to be a time of long term data revival.

This issue of *Helgoland Marine Research* is an initial collection of eight publications relating to the Helgoland Roads time series. This collection represents only the tip of the iceberg of information which this time series has still to offer and which will appear at irregular intervals in the future. The papers in this issue represent topics where there was an urgent need to present either the scientific information related to global change gleaned from the data itself or meta-information which everybody who uses the data urgently needs to know.

In the former category are the papers on long term changes, also related to global warming, on phytoplankton by Wiltshire and Manley (2004), zooplankton (Greve et al. 2004), macroalgae communities (Bartsch and Tittley 2004) and macro-zoobenthos (Franke and Gutow 2004). Belonging to the second category are the papers on the inventory of bacteria data series at Helgoland roads (Gerdt et al. 2004), an inventory of current phytoplankton species at Helgoland Roads (Hoppenrath 2004) and a paper on the quality and type of phytoplankton data archived in the Helgoland Roads data set (Wiltshire and Dürselen 2004). The introductory paper by Franke et al. (2004) sets the scene and provides the history of the Helgoland Roads time series.

Perhaps one of the greatest problems of long-term data is guaranteeing the quality of the data. In retrospect, the accuracy of analyses, for example, is also one of the most difficult things to reconstruct. This difficulty is one of the reasons why no information on the often-used nutrient data of Helgoland Roads appears in this

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volume. The Helgoland nutrient data are currently in the process of being re-evaluated with their meta-information with regard to accuracy and quality. This information will be made available to the public via *HMR* in the near future. All new information gathered for Helgoland Roads is subject to rigorous quality control via national and European quality control programmes.

Currently the Helgoland Data is mainly archived via the data banks DOD and in PANGAEA (2004). This, however, includes little taxonomic information. In order to rectify this deficiency we have made detailed information on the taxonomy of organisms at Helgoland Roads available on the international website Plankton\*Net (2004).

It is our goal to underpin the Helgoland Roads data sets with viable long-term technology, e.g. ferryboxes. In the MARCOPOLI Programme of the Helmholtz Foundation we have anchored the long-term data of Helgoland Roads in a new Programme on Coastal Ecology. This ensures that the Helgoland Roads long-term observations have a home in the future.

Long-term data sets are a fingerprint of history. On Helgoland they are very special because they represent the efforts of very many dedicated islanders who, often in the face of considerable adversity, secured us the information which, with the help of models, will allow us to make predictions as to the future of our aquatic systems.

Karen H. Wiltshire, November 2004

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