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HELMHOLTZ-ZENTRUM FÜR POLAR-
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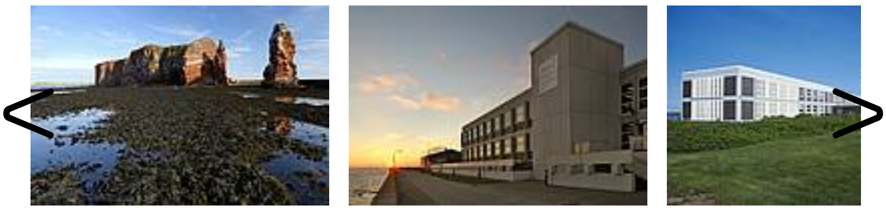
Anniversary celebrations

125 years of oceanographic research on Helgoland

The Alfred Wegener Institute's Biological Institute Helgoland hosts an open-house event

[11. May 2017] **125 years ago, the Royal Biological Institute (Königliche Biologische Anstalt) was founded on Helgoland – and oceanography has been a fixture on the island ever since. It would later become the Biological Institute Helgoland (Biologische Anstalt Helgoland / BAH), which joined the Alfred Wegener Institute in 1998. Generations of scientists have conducted research on the ecology of coastal and shelf-sea systems – on Helgoland and, since 1924, at the BAH's facilities in List on Sylt. Combining a proud tradition and forward-thinking orientation, the work done on Helgoland and Sylt enjoys a prominent standing in the area of European oceanographic research. To mark this milestone anniversary, the Alfred Wegener Institute's BAH will be hosting an open house: on 19 May (on Helgoland) and 20 May (on Sylt), visitors will have an exclusive opportunity to learn more about the researchers and the work they do.**



The 19th century was a heyday for oceanography. With their investigations of largely overlooked marine organisms, Charles Darwin and Ernst Haeckel encouraged researchers to turn their attention to sea life. Further, researchers developed a range of new methods and instruments for exploring the oceans and coasts. Ultimately, oceanographers concluded that laboratory work conducted on the mainland and the occasional expedition simply weren't enough to gather the data they needed.

In response, the Royal Biological Institute on Helgoland – intended to offer a strategic base for oceanographers from Germany and around the globe – was founded in 1892. In 1924, additional facilities for research in the Wadden Sea were erected on Sylt, and would later become the Wadden Sea Station. Since 1998 the BAH has been part of the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research (AWI). To commemorate the 125th anniversary of oceanographic research on Helgoland, on 19 May 2017 the BAH will welcome invited guests to official festivities in the aquarium building, where they'll also enjoy a sneak peek of the BLUEHOUSE-HELGOLAND, a major exhibition planned for the former aquarium. On 20 May there will also be a ceremony on Sylt, in the course of which the "List Oyster Path", which provides information concerning research on and the history of the North Frisian oyster, will officially be opened.

The importance of Helgoland and Sylt for oceanographic research was apparent even before the research stations were founded: in the 19th century,

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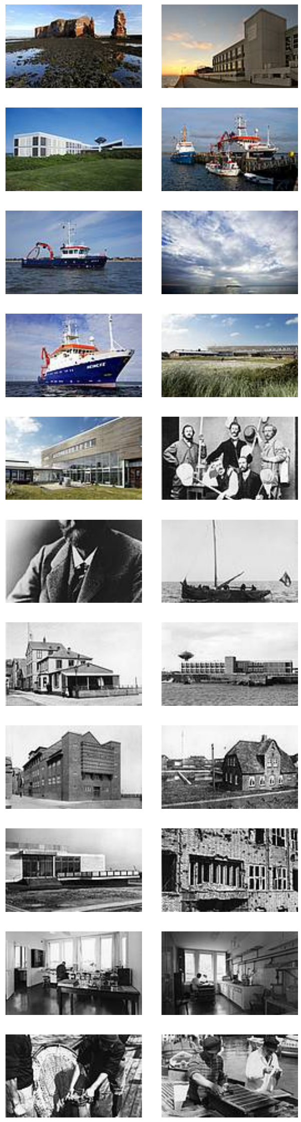

a number of noted scientists spent considerable time on the islands, establishing their value as research sites. For example, the natural philosopher and marine biologist Johannes Müller is widely considered the founding father of plankton research, and the island Helgoland, situated in the middle of the German Bight, offered the optimal setting for his work. The rocky mudflat and 35-square-kilometre underwater stone landscape are home to the richest variety of marine flora and fauna to be found on Germany's coasts. Further, the work conducted by zoologist Karl Möbius in Sylt's oyster reefs around 1870 introduced the pioneering concept of ecological "organic communities", which Möbius in turn used to formulate some of the earliest principles of nature conservation and to make proposals for the sustainable use of resources. Many other researchers would follow in the two men's footsteps, yielding valuable new insights into the ecology of coastal and shelf-sea systems.

Nevertheless, the founding of a scientific station is what finally allowed marine biology focused on the North Sea and its coastal areas to make significant headway. In this regard, the unparalleled long-term time series are of particular importance. The daily collection of water samples from the North Sea began in 1962 and, though no one could have predicted it at the time, the time series "Helgoland Roads" would grow into a veritable treasure trove of data, enabling researchers to more precisely analyse climate changes and anthropogenic impacts in the North Sea.

And the Biological Institute's mission remains just as valid today. Researchers on Helgoland are investigating important questions concerning e.g. the consequences of human activities for the North Sea ecosystem, of changes in temperature and nutrients, and of plastic contamination.

Roughly 100 scientists and service staff currently work at the two sites. They are frequently joined by numerous guest researchers from Germany and abroad, who come to engage in fieldwork or laboratory testing. In addition, since 2013 every year groups of scholarship recipients from newly industrialised and developing countries receive essential training in interdisciplinary oceanography at the "Centre of Excellence in Observational Oceanography" – a joint project between the Nippon Foundation and the Partnership for Observation of the Global Oceans.

Open House and Open Ship

What happens to plastic litter that finds its way to the ocean? How does the world's longest time series on plankton actually work? And what do research divers do, exactly? To commemorate its anniversary, the Alfred Wegener Institute's BAH will be hosting an open house. On 19 May visitors will have an exclusive opportunity to learn more about the researchers and the work they do. In the course of a treasure hunt, children will learn exciting facts about marine research. Visitors will learn how methods for measuring plankton have changed over time, and can try their hand at counting plankton. They'll also learn how plastic changes after several years underwater, and have the chance to examine samples first-hand. At the diving centre, they'll be introduced to the methods and procedures used in scientific diving. Lastly, in interactive, hands-on exhibits they'll get a chance to see for themselves how varied underwater research can be, and what it's like to install measuring equipment under difficult conditions – like poor visibility and low temperatures.

On the same day, the Research Vessel Heincke will open its doors for visitors. Measuring nearly 55 metres long, the Heincke is the second-largest ship in the AWI's fleet. Spending an average of 250 days every year in the waters of the North Sea and northern Atlantic Ocean, she offers sufficient accommodations for twelve people to live and work for extended stays on board. Visitors can tour various areas of the ship, including the bridge, inner chambers, laboratories, and the working deck. In the labs, scientists will be on hand to explain how oceanographic research was conducted in the past, and how it's done in the

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The Institute

The Alfred Wegener Institute pursues research in the polar regions and the oceans of mid and high latitudes. As one of the 18 centres of the Helmholtz Association it coordinates polar research in Germany and provides ships like the research icebreaker Polarstern and stations for the international scientific community.

present.

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