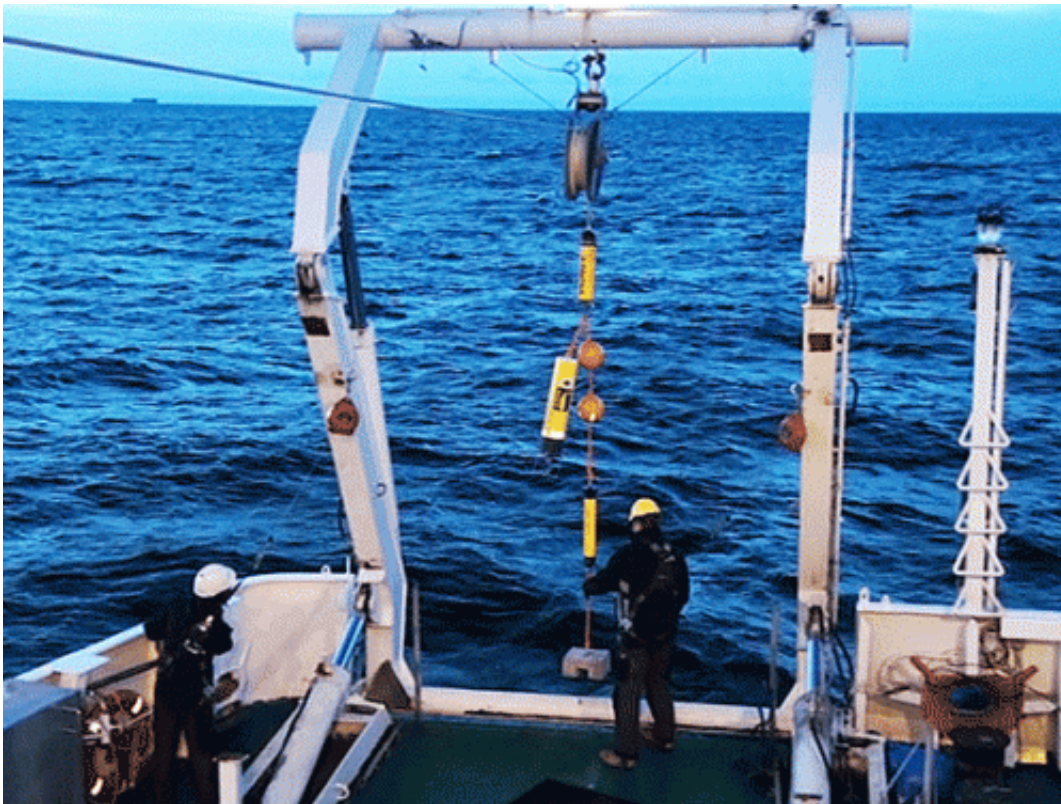


Information with more accuracy about noise, flows and hydrogen sulphide in the Baltic Sea

October 21 2013



The hydrophones are installed in the Baltic Sea. Credit: Jukka Pajala

The first devices for measuring underwater noise have been anchored this week to the bottom of the Baltic Sea on the coast of Finland. The researchers of six countries bordering the Baltic Sea who participate in the BIAS project installed noise-measuring hydrophones on the southern side of the Jussarö lighthouse near Tvärminne and in the Gulf of Finland

between Helsinki and Tallinn.

"Noise meters installed on the seabed gather information about the world of sound underwater until the beginning of 2015", states the Finnish Environment Institute SYKE's Senior Adviser Jukka Pajala coordinating the BIAS project. "The project installs a total of 40 hydrophones in the Baltic Sea."

"The hydrophones are to be taken up at the beginning of 2015 to find out what kind of [noise](#) the animals of the Baltic Sea are exposed to", says Pajala. "Noise perturbs fish and [sea](#) mammals especially."

The devices were installed to the sea from SYKE's marine research vessel Aranda. During the same journey, three flow-meters of the Finnish Meteorological Institute were also hauled up. They had been measuring water movements on the Gulf of Finland from the middle of April.

"For the next half-year period, new meters were installed in the same places, thus giving us a year-round picture about the currents. The meters produce data for the estimation and development of calculated flow models, and the observations are also part of the Gulf of Finland 2014 research", points out the tour leader, Riikka Hietala, Head of Group from the Finnish Meteorological Institute.

A new device to measure hydrogen sulphide

For the first time, SYKE's researchers employed a new electronic hydrogen sulphide meter on the Baltic Sea. The new device gives more accurate information about the water conditions close to the bottom.

"With the help of our new hydrogen sulphide and pH measurement device that can be moved in water, we are able to see, more accurately

than before, how [hydrogen sulphide](#) is distributed in deep water", Senior Researcher Harri Kankaanpää from SYKE's Marine Research Centre points out.

Hydrogen sulphide is a widespread, extremely toxic compound in the Baltic Sea's seabed environment that is devoid of oxygen.

During the journey, it was noted that, for the last few weeks, more salty water had entered from the Baltic Sea's basin to the deep parts of the middle area of the Gulf of Finland. Near the seabed, new saltier water devoid of oxygen further weakens benthic organisms. This kind of "slopping" of [water](#) to and fro in the vicinity of the seabed on the Gulf of Finland is fairly normal, and the situation at the seabed can change quite rapidly.

Provided by Finnish Environment Institute

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