

## IOW press release, April 2, 2015

### **EMB100: Research vessel ELISABETH MANN BORGESE starts for the 100th cruise**

*Almost four years ago, the IOW commissioned the new research vessel ELISABETH MANN BORGESE. Now it will set off for its 100<sup>th</sup> research cruise.*

From April 8 to 23, 2015, the Warnemünde research vessel ELISABETH MANN BORGESE will start its 100<sup>th</sup> research cruise. It will lead the scientists into the Gotland Basin, the largest basin of the central Baltic. The activities described in the cruise programme underline once more the main advantages of this ship.

Being an ocean-going research vessel equipped with stabilizers and swell movement compensators, the ELISABETH MANN BORGESE can do its work in the Baltic Proper - like for example in the Gotland Basin - perfectly well. Even in rough sea, the ship's winches keep the measuring devices at a defined depth with deviations of a few centimeters only. This is crucial for any investigation related to the stratification of the Baltic Sea which underwent drastic changes since the Major Baltic Inflow of December 2014. One of the jubilee cruise's objectives is to find out about the actual extent of this change. The Physical Oceanographers on board will investigate whether the oxygen-rich salt water from the North Sea which since December is flowing along the bottom of the Baltic towards the deep basins has already substituted the oxygen depleted bottom waters. Due to their hydrogen sulfide content, these waters are also called "dead zones".

With its relatively shallow draught r/v ELISABETH MANN BORGESE has no problems to cruise even near-coast areas without risk. Chief Scientist Dr. Mayya Gogina from the working group „Ecology of benthic organisms“ of the department Biological Oceanography benefits from this. She and her colleagues can deploy so called benthos chamber landers without problems in water depths beyond 20 m. They want to investigate the matter flux between the uppermost parts of the sea floor and the bottom water. They look at these processes on different substrates occupied by different assemblages. In addition, microstructure measurements are carried out to document the current dynamics at the bottom. The data gained at this jubilee cruise will accomplish the results of previous cruises. Once all analyses are completed, the scientists want to



determine the ecosystem services of the sea floor. The activities in the near-coast areas are funded by the Federal Ministry of Education and Research (BMBF) within the project SECOS – The Service of Sediments in German Coastal Seas).

In total, there is enough space to accommodate 12 scientists on board, which allows interdisciplinary working groups. During the 100<sup>th</sup> cruise of the Elisabeth Mann Borgese, there will be marine biologists, physical oceanographers, marine chemists and geochemists on board. Researchers from the University of Rostock also join the scientific crew.

”The ELISABETH MANN BORGESE is our most important working tool“ explains Ulrich Bathmann, the director of the IOW. „When we are at sea, it is our working platform, laboratory and home at the same time. And without seafaring marine research would be nearly impossible.“

Due to a tight working schedule, there will be no ceremonies on the occasion of this jubilee. Nevertheless, it is likely that the ship’s cook will provide some cake.

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