Geophysical Research Abstracts
Vol. 12, EGU2010-6407, 2010
EGU General Assembly 2010
© Author(s) 2010

Time series measurements at a research platform in the East Frisian Wadden Sea (Germany)

Thomas Badewien (1), Rainer Reuter (2), and Jürgen Rullkötter (1)

(1) ICBM, University of Oldenburg, Oldenburg, Germany (thomas.badewien@uni-oldenburg.de), (2) Institute of Physics, University of Oldenburg, Oldenburg, Germany

The tidal flats of the Wadden Sea connect the coasts of northern Germany with the North Sea. The tides shape a highly dynamic and diverse ecosystem, which has been a UNESCO natural heritage site since summer 2009. In order to gain a deeper understanding of this system, the Institute for Chemistry and Biology of the Marine Environment at the University of Oldenburg has been running a research platform at a tidal inlet between the East Frisian Islands Spiekeroog and Langeoog for almost eight years.

Here, time series measurements of various hydrographical, meteorological and biogeochemical parameters are conducted. We are presenting the technical design of the platform and certain sensors as well as long-term data sets of the main hydrographical and meteorological measurements. The presentation highlights the impact of extreme events such as storm surges on suspended matter dynamics. In addition, data of periods with exceptional hydrographical conditions are shown. The results clearly demonstrate the necessity of long-term measurements in dynamic ecosystems such as the Wadden Sea in order to monitor and analyse environmental changes.