Paleohighlights of IODP Expedition 347, Baltic Sea Paleoenvironment

Thomas Andrén¹

¹School of Natural Science, Technology and Environmental Studies, Södertörn university, SE-141 89 Huddinge, SWEDEN, thomas.andren@sh.se

During IODP Expedition 347 more than 1600 meters of sediments were recovered from 9 sites in the Little Belt, Kattegatt and Baltic Sea area.

Some of the more spectacular paleooceanographic results achieved so far can be summarised as:

An amazingly high sedimentation rate of 5 to 7 mm/yr. in the Holocene sequence at Site M0059, Little Belt.

An intriguing hiatus indicating a rapid regression separating the varved glacial clay and the onset of the Holocene sedimentation in Little Belt

At the Sites M0064, Hanö Bay, and Site M0065, Bornholm Basin, an gyttja clay with an age of c. 45 700 ± 1970 cal yr BP is separating two different sequences of varved glacial clay

Site M0063, Landsort Deep, displays a c. 25 meters laminated Holocene sequence with a resolution of c. 5 mm/yr.

The varved glacial sequence at this site may contain as much as 2000 varves (years) older than the short brackish phase of the Yoldia Sea and have thus recorded the entire Youngre Dryas.

References:

Andrén, T., Jørgensen, B.B., and Cotterill, C., and the Expedition 347 Scientists, 2015. Proc. IODP, 347: College Station, TX (Integrated Ocean Drilling Program). doi:10.2204/iodp.proc.347.2015