

**Daily Drilling and Scientific Report for IODP Expedition 347,  
Baltic Sea Paleoenvironment**



**21<sup>st</sup> Sep 00:00 – 20<sup>st</sup> Sep 24:00 GMT**

**1. Location**

10° 6.4697' E 55° 0.2898' N (M0059C)  
BSB-3 – Lille Baelt  
Water Depth: 31.2m (beneath keel)

**2. Activity Summary**

Continued coring operations at M0059C.

**3. Science Report**

Hammer coring at three metre intervals continued during the day, for sampling of material suitable for OSL dating, and to target the possible Eemian sequence. Depending on the formation, more or less intact samples could be retrieved. These were immediately transferred into black bags and sealed for later OSL dating. The core catcher was taken for characterisation of the sediment. At ~123 mbsf this sampling interval decreased to a sample every 1.5 metres to capture as much information in the slightly softer lithologies. As the hammer coring went so well it was decided to change over to advanced piston coring at a depth of 128 mbsf and recovery was fairly good. The lithology cored below 120 mbsf consisted of sand interlayer with silty clays and such grain size changes might indicate shifting water depths at the time of deposition. Down to 139 mbsf the sediment was devoid of fossils or remnants of fossils. However due to poor recovery after 139 mbsf, the coring method was changed back to hammer coring. This method had less recovery and the sample did not stay in the liner but flowed out. We therefore changed back to advanced piston coring and a core consisting of sand and gravel with sandy to silty clay in the lowermost part was recovered at 143 mbsf.

**4. Core Recovery Details**

<b>Hole</b>	M0059C
<b>Cores recovered</b>	22
<b>Drilled length (Coring)</b>	19.07 m
<b>Drilled length (Open hole)</b>	27.91 m
<b>Recovered length</b>	18.06 m
<b>Recovery</b>	94.7 %
<b>Depth at midnight</b>	146 m

**5. Weather**

Fair with isolated showers, wave heights of 0.2 – 0.6 m; wind direction WNW to W, winds of 8 - 13 kts gusting 10 - 16 kts; 14°C.  
Next 24 hrs: Fair with patchy fog until 03:00, wave heights of 0.3 – 0.5 m, wind direction WSW - W, 12 – 17 kts, gusting 15 - 22 kts. 15°C.  
Increasing winds as a trough moves across central Sweden.

**6. Planned Activity for the next 24 hours**

Complete coring operations M0059C. The next drill site will be determined by the sediments recovered from M0059C – either a further hole at BSB-3 or a move to the next site at BSB-1.

**7. Health and Safety and Environmental**

The Danish Naval Homeguard brought journalists to the vessel in order to film for a documentary. Three visitors boarded the vessel at 11:30 and left at 18:30.

**8. Photo of the day**



DavidMcInroy©ECORD\_IODP