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

9th Oct 00:00 – 9th Oct 24:00 GMT

1. Location
18° 15.250 E  58° 37.340’ N
BSB-9 Landsort Deep

2. Activity Summary
Continue coring operations at BSB-9.

3. Science Report
The piston corer that had been stuck at the end of the previous day was retrieved intact, and it still contained a whole 3-m long sediment core. The core had degassed strongly down inside the drill pipe and it now very distinctly displayed varves within the core liner. The coring continued from the previously reached depth of 29 mbsf. The next core from about 30 mbsf showed no recognizable varves. The sediment was grey clay with a high content of expanding gas.

This type of sediment was recorded down to 39.7 mbsf where the sediment gradually changed into more grayish, homogenous clay typical for the sediments deposited in the Ancylus Lake. The content of organic remnants and foraminifers also decreased in this unit and was totally absent at 42.6 mbsf as well as any visible gas content. An increasingly grey, homogenous clay, probably of Ancylus age, was present down to 49.6 mbsf at which depth the recovered clay was weakly brownish and thinly varved. The thickness of these glacial varves increased down core and the varve thickness visible through the liner was c. 10 to 50 mm in the clay sequence between 52.6 and 62.6 mbsf.

4. Core Recovery Details

<table>
<thead>
<tr>
<th>Hole</th>
<th>M0063A</th>
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<tbody>
<tr>
<td>Cores recovered</td>
<td>15</td>
</tr>
<tr>
<td>Drilled length (Coring)</td>
<td>49.5m</td>
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<tr>
<td>Drilled length (Open hole)</td>
<td>N/A</td>
</tr>
<tr>
<td>Recovered length</td>
<td>52.96m</td>
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<tr>
<td>Recovery</td>
<td>106.99%</td>
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<tr>
<td>Depth at Midnight</td>
<td>69m</td>
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5. Weather
Overcast with occasional rain showers, wave heights of 2 – 3 m, sometimes to 4m; winds SW, 26 - 30 kts, gusting to 34 kts; 16°C.
Next 24 hrs: Light rain and patchy fog, wave heights of 0.3 – 1.1 m, winds SSW swinging NNE to NE, 8 –19 kts, gusting 13 -23 kts. 16°C.
Winds increasing out of the northeast as high pressure over Scandinavia interacts with a low pressure to the south of BSB-9.

6. Planned Activity for the next 24 hours
7. Photo of the day

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Drill pipe waiting to be run