

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



**30<sup>th</sup> Oct 00:00 – 30<sup>th</sup> Oct 24:00 GMT**

**1. Location**

10° 6.499' E 55° 0.285' N

BSB-3, Lille Baelt.

**2. Activity Summary**

Completed move to M0059E and commenced coring operations.

**3. Science Report**

Coring of Hole M0059D at Station BSB-3 in the southern Little Belt ended at the start of the day. A piston core going down to 86 mbsf brought back well sorted sand and thereby terminated the 30 m deep sequence of glacial clay. We then moved to the last hole of this expedition, Hole M0059E, which is dedicated to microbiology and geochemistry. By ending the cruise with this microbiology hole we ensure that live samples are kept as fresh as possible for experiments once they arrive at the receiving laboratories. The coring of a second microbiology hole at Station BSB- 3 will provide a replication with a different focus on sampling depths in intervals of particular interest. Such intervals are the transition from greyish-brown glacial clay to black gyttja-clay at ca 50 mbsf, indicating a transition from lacustrine to marine conditions, and a conspicuous diffusion front at 60 mbsf.

During the day we cored down through about 50 m of methane-rich Holocene gyttja-clay. The lithological change where a greyish non-varved glacial clay was encountered was recorded at the anticipated depth.

**4. Core Recovery Details**

Hole	M0059E
Cores recovered	21
Drilled length (Coring)	69.3m
Drilled length (Open hole)	N/A
Recovered length	72.94m
Recovery	105.25%
Depth at Midnight	69.3 mbsf

**5. Weather**

Rain showers and overcast with some sunny intervals, wave heights of 0.5 – 1.25 m; winds SW, 16 - 19 kts, gusting to 30 kts; Max 12°C.

Next 24 hrs, Isolated showers with fog / mist, wave heights of 0.4 – 0.7 m, winds SSW, 20 - 31 kts, gusting to 38 kts. 12°C.

A deep low will move over the North Sea and Scandinavia, developing small lows off this parent system, bringing the likelihood of fog and showers and strong SW winds.

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

Complete coring at BSB-3 and commence logging operations.

**7. Photo of the day**



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