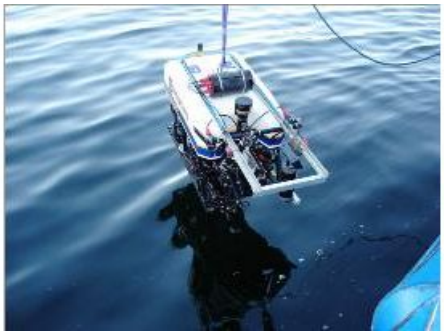
Mapping Cold Water Coral Reef



In recent trials off Trondheim, Norway, the GeoSwath Plus swath bathymetry and side scan system was used for the first time on a remotely operated vehicle (ROV) to map cold water coral reefs. The objective of the survey was to test how effective the GeoSwath was as a ROV mounted sonar for identifying cold-water coral colonies.

At 60m deep the Tautra ridge in Trondheim Fjord is home to worldâ€™s shallowest known cold-water coral reef, and was an ideal site for initial system trials. The corals seen there usually thrive in much deeper waters.

The GeoSwath was deployed on a Minerva Sub-fighter 7500 ROV, along with video equipment and hiPAP positioning. The GeoSwath co-registered side-scan and bathymetric data allowed maps of the coral extents to be made on the ROV control vessel in real time. These observations were then used to plan video transects of selected sites which confirmed the presence of the corals, before recovery of the ROV. The researchers were able to identify even smaller coral colonies in the side scan data. To the biologist, the combination of side scan and bathymetric data showed how the position of corals was connected to the topography. The GeoSwath has proved to be an effective tool to map medium sized sites at deeper water. The trials were organised in association with NTNU (Trondheim) and Bo Krogh BV of Denmark.

Image: The GeoSwath Plus wide swath sonar from GeoAcoustics, mounted on a Minerva Sub-fighter ROV. The sonar electronics bottle is on top of the ROV, the transducers are on the frame at the front.