

**COASTAL OFFSHORE OF NOVAYA ZEMLYA ISL, RELIEF AND SEDIMENTS****Yu.Pavildis<sup>1</sup>, S.Nikiforov<sup>1</sup> and V.Rachold<sup>2</sup>****<sup>1</sup>P.P.Shirshov Institute of Oceanology RAS, Nahimivskiy prospect 36, Moscow 117997, Russia****<sup>2</sup>Alfred Wegener Institute Polar and Marine Research**

Novaya Zemlya is one of the centers of past and modern glacial covers in the Arctic region. Several marine cruises were carried out in that area with the Russian research vessels "Professor Shtokman" and "Sergey Vavilov". Seismic profiling with a Parasound system has been carried out.

The data confirm that during the Late Wurm an ice "bridge" that formed some seabed moraines existed between Novaya Zemlya and Franz Josef Land for a long time (Sedov Trench in Fig. 1A and offshore coastal zone near Borzov and Nordenshelda Bays in Fig. 1B). The height above the modern seabed surface reached 25 meters and more. North of Novaya Zemlya "red moraines" composed of clays and detrital sediments have been observed. During the Late Wurm only the northern island of Novaya Zemlya has been covered by glaciers. The data suggest that in the southern offshore regions (beginning from Mashigina Bay to the south) the ice cover degraded.

Today the total area of onshore glacial coverage is about 22 500 km<sup>2</sup>. Ice tongues form a long ice shoreline relief and supply a large volume of suspended material. Our measurements show that the concentration of suspended material in the thawing ice varies from 0.71 to 4.29 g/l with an average value of about 2.5 g/l. In total, onshore glaciers supply around 10 million tons of suspended material per year to the offshore zone of the northern island of Novaya Zemlya. The highest concentrations of suspended material in marine waters have been observed during autumn: Nordenshelda Bay (304.2 mg/liter), Russkaya Gavan Bay (67.6), Bunge Bay (23.4) and Inostranseva Bay (12.3). The suspended material supply causes the formation of light-colored surface sediments which are also found in the shallow coastal zone.