



Seabed and shallow sub-seabed features observed in Eurasian Basin and Lomonosov Ridge, Arctic Ocean

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The decline in Arctic sea-ice in recent decades together with predictions of ice-free Arctic summers in the second half of the 21st century have turned the Arctic Ocean into the focus of international research on climate-change. However, very little is known about the evolution of the Arctic Ocean and its influence on the past global climate. The lack of information regarding the evolution of the Arctic Ocean is mainly due to its remoteness and harsh physical environment, which results in technological and logistical challenges in data acquisition. However, during the last years the circum-Arctic countries have spent a lot of effort to map their extended continental shelf under the legal framework of the United Nations Convention on the Law of the Sea (UNCLOS). These data together with other data acquired in the framework of international research projects provide general information regarding the main sedimentary processes shaping the Arctic Seafloor. Iceberg plough-marks in the shallower areas, sediment waves at intermediate depths and hemipelagic deposition in the basin plains are some of the distinguished morphologies in the most recent sedimentary record. We have mapped the occurrence of such features in restricted sectors of Eurasian Basin and Lomonosov Ridge and relate them to the main sedimentary processes involved in their formation.