

Distribution and sources of suspended particulate matter in the Kara Sea

**MARINA KRAVCHISHINA, ALLA LEIN, VLADIMIR BURENKOV,
VLADIMIR ARTEM'EV & ALEXANDER NOVIGATSKY**

P.P. Shirshov Institute of Oceanology of the Russian Academy of Sciences

kravchishina@ocean.ru

Abstract The distribution of suspended particulate matter (SPM) concentration in the Kara Sea was analysed based on ship and satellite data during the lowest ice cover periods in the Arctic (2007 and 2011). The distance of the river runoff with terrigenous SPM was recognized up to at least 76–76.5°N on the basis of isotope data and SPM concentrations and composition. The complex studies of SPM in the water column and in the benthic boundary layer provided new information about the supply and transformation of particles in the marine ecosystem.

Key words suspended particulate matter; recent sedimentation; organic carbon; remote sensing; biogeochemistry; Arctic