

Technical report

From 2003, the survey has been part of a joint Barents Sea autumn ecosystem survey (BESS), designed and carried out in cooperation between the Institute of Marine Research (IMR), Norway and the Knipovich Polar Research Institute of Marine Fisheries and Oceanography (PINRO). Most aspects of the ecosystem are covered, from physical and chemical oceanography, pollution, garbage, phytoplankton and zooplankton to fish (both young and adults), sea mammals, benthic invertebrates and birds.

The 11th joint Barents Sea autumn ecosystem survey (BESS) was carried out during the period from 12th August to 3rd October 2014. In 2014 all research vessels spent fewer days on the survey than in 2013 (129 vs 178), and the effective days at sea were less than 129 due to different reason (see above “H.Hanssen” and “Vilnyus”). The surveyed area in 2014 was smaller in the Svalbard (Spitsbergen) region due to ice coverage. Adjustment water in northern Kara Sea and Arctic basin were not observed also due to reduced Russian vessel days.

“Technical Report” presents of all types of deviations from the standards presented in the “Sampling Manual”:

http://www.imr.no/tokt/okosystemtokt_i_barentshavet/sampling_manual/nb-no.

In addition to the standard monitoring of the Barents Sea, several studies and experiments are carried out.

Deviations from the standards presented in the “Sampling Manual”

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Equipment:

Pelagic sampling trawl- Harstad Trawl

Inspections of Harstad trawls used by IMR in 2013 showed that both the total length of the codends and the length of inside blinders (8 mm mesh size) used during the survey were different. It was found difficult to identify when these different lengths were implemented in the survey. A new codend was designed and used by G.O.Sars and J.Hjort during the 2014 survey (H.Hansen used one of the old codends). The new codend is tapered, 20 m long and made of 8 mm mesh size. A fish lock, made of similar twine and mesh size as the codend, was mounted in the front part of the codend. The codend and its fish lock were observed with an underwater camera and found to work as intended during towing and haulback.

Demersal sampling trawl – Campelen 1800

Extra floats on the groundgear and lower belly (called Tromsø rigging) on the Campelen 1800 used by IMR to prevent digging in to the bottom in areas with soft bottom, has been extended from an limited area to the whole Norwegian survey area. In 2014, recommendation was not to use the Tromsø rigging, except in areas with very soft bottom.