Reykjavik, 03.10.2017

A short preliminary report on the Research Survey A10-2017 on R/V Arni Friðriksson, TFNA (Iceland)

The Icelandic part of the International Ecosystem Summer Survey in Nordic Seas (IESSNS), July 3 – August 3, 2017

Part of the joint Northeast Atlantic Pelagic Ecosystem Surveys in 2017 (see ICES WGIPS report, January 2018)

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HAFRANNSÓKNASTOFNUN
Rannsókna- og ráðgjafarstofnun hafs og vatna

Vessel: R/V Arni Fridriksson, TFNA (Iceland)
Captain: Heimir Örn Hafsteinsson (first part) and Ingvi Friðriksson (second part)
Cruise leader: Anna Heiða Ólafsdóttir

The survey is a part of an annual international research survey, International Ecosystem Summer Survey in Nordic Seas (IESSNS), governed by the ICES Working Group of International Pelagic Surveys (WGIPS). The main objectives are to explore: (1) through standardized surface trawling and acoustical measurements, the distribution and quantity of mackerel, Norwegian spring-spawning herring, blue whiting and other pelagic fish stocks; and (2) hydrographical- and zooplankton communities' conditions. RV Árni Friðriksson departed from Reykjavik on July 3, 2017. The survey followed a stratified sampling procedure (Figure 1) where location of transects and sampling stations was predefined. The first transect and station undertaken was northwest of Iceland and then the survey continued clock wise around Iceland. The vessel was back in Reykjavik on August 3, 2017.

The main results show that mackerel was as in previous summers widely distributed in Icelandic and adjacent waters. Mackerel was caught in 64% of the total 75 standardized surface trawl hauls in the survey area. The highest density of mackerel in the survey area was west of Iceland. The zero line of mackerel distribution was considered to have been reached in all directions in Icelandic waters, where strata covered by other vessels continued towards west and east from the area covered by RV Árni Friðriksson. The distribution of mackerel had an overlap with Norwegian-spring spawning herring northeast of Iceland.

The Norwegian spring-spawning herring was widely distributed northwest, north, and northeast of Iceland. The highest density as represented both by the acoustic and trawl catches was east of Iceland and north of Iceland. Blue whiting was registered south and west of Iceland, and in international waters east of Iceland.

The sea surface temperature (SST) was similar in July 2017 compared to July 2016. However, SST in July 2017 was 1 °C – 2 °C warmer northwest, north, northeast and east of Iceland compared to the long-term average (calculated from 1990 to 2009). Average zooplankton abundance was 8.4 g m^{-2} (dry weight) in 2017 which is 100% higher than the average in 2016. The highest densities of zooplankton in 2017 were located northwest and northeast of Iceland where the cold and warm surface currents mix.

Further details about the survey can be found in: Nøttestad, L., Anthonypillai, V., Tangen, Ø., Utne, K.R., Óskarsson, G.J., Jónsson S., Homrum, E., Smith, L., Jacobsen, J.A. and Jansen, T. 2015. Cruise report from the International Ecosystem Summer Survey in the Nordic Seas (IESSNS) with M/V "Kings Bay", M/V "Vendla", M/V "Tróndur í Gøtu" and R/V "Árni Friðriksson", 3rd of July – 4th of August 2017. Working Document to ICES Working Group on Widely Distributed Stocks (WGWIDE), ICES HQ, Copenhagen, Denmark, 30.August – 5.September 2017. 45 pp.

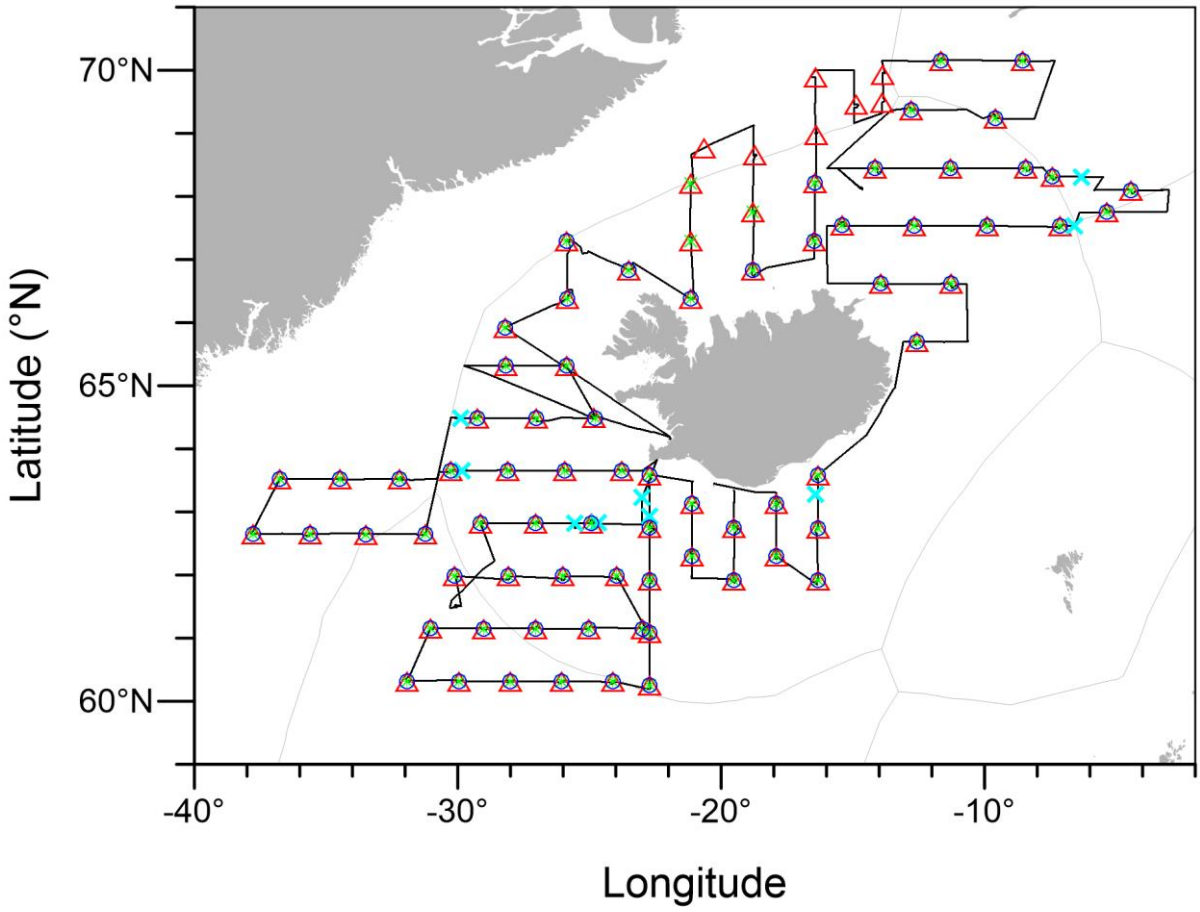

Figure 1. Location of the standardized surface trawl hauls (open red triangle), CTD stations (green star), WP-2 stations (open blue circles), and deep trawl hauls for blue whiting (cyan X) along the survey tracks (black line) during the International Ecosystem summer survey in Nordic Seas (IESSNS) in July and August 2017 on RV Árni Friðriksson.