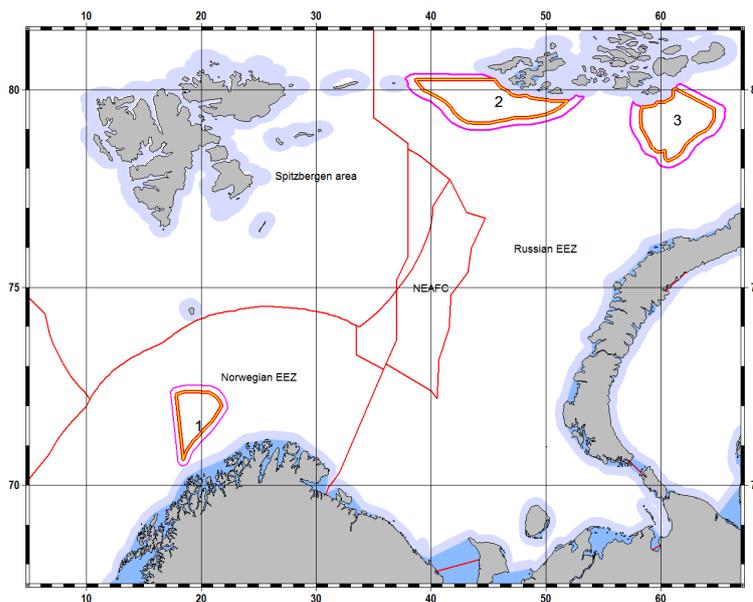


## Implementation of the Agreement on the Measures for Protection of Vulnerable Habitats in the Barents Sea in 2020

On the 14<sup>th</sup> of July 2020 Russian fishing industry represented by FIUN, NOREBO, FEST and Archangelsk Trawl Fleet (the Parties) signed an agreement on the Measures for Protection of Vulnerable Habitats in the Barents Sea. The agreement was developed in close cooperation with WWF Russia.

The Agreement includes the establishing of three areas in the Barents Sea, where according to scientific data vulnerable marine habitats may occur and it applies only to the fishing activities using traditional bottom trawl gear for harvesting (fishing) of cod, haddock saithe and northern shrimp. To ensure the conservation of such habitats and collection of scientific data from fishing vessels, the Parties have agreed on the special procedures for fisheries with their vessels using bottom trawls in such areas, which include:

- voluntary preference of fishing areas outside of the Agreement areas (voluntary avoided areas, VAAs);
- mandatory registration of bycatch of non-target species during every trawl operation when fishing inside the area (in the specially designed computer-based platform);
- development of a scientific observer scheme, which will ensure collection of scientific data from fishing vessels while conducting bottom trawl fishery inside the Agreement areas and outside of these areas in the Barents Sea.



**Fig. 1. Voluntary avoided areas in the Barents Sea.**

The Agreement ensured protection of the large part of the Barents Sea where occurrence of the vulnerable habitats or related to such habitats benthic organisms is likely. The total area of VAAs covered by the Agreement is **14,189.75 square nautical miles**, which accounts for **3.4%** of the total area of the Barents Sea (415,171.97 square nautical miles).

In order to establish an independent 3<sup>rd</sup> party monitoring of the fishing activities of the Parties' **98 vessels** Maritime Informatics based in Murmansk was subcontracted by the Parties.

The monitoring was based on AIS data (Automatic Identification System) from the period of **01.07.2020 – 31.12.2020**. AIS provides unique positional information to identify individual vessel identities. In addition to AIS data, the daily vessel reports that contain position and catch information were used. All transmissions were analysed to look for likely fishing activity using specially developed model to identify trawl tracks with the following parameters: 1) minimal average trawling speed; 2) maximal average

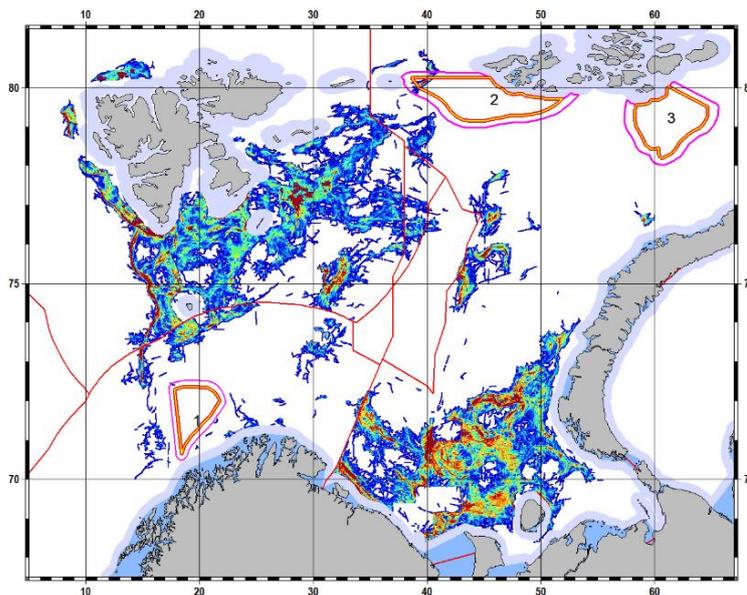
trawling speed; 3) minimal trawling time; 4) average catch; 5) day track of a fishing vessel based on AIS (Spire) data; 6) daily vessel reports; 7) a set of filters for threshold values.

The Parties' data for 2020 were also compared with the data for Russian fishing fleet in the same period in 2015-2017 provided by WWF Russia and a database of more than **70 000 unique conventional trawl tracks** was created.

74 of 98 vessels of the Parties operated in the Barents Sea in the second part of 2020 and all activities were reviewed for compliance with the voluntarily avoided area provisions of the Agreement. **The results of the independent monitoring proved a high level of compliance with the terms of the Agreement relating to the voluntarily avoided areas in the Barents Sea by the Parties' vessels.** One case of trawling across a small part of VAA 2 was observed and appropriate corrective measures were taken in relation to the shipowner of this vessel.

The analysis of the fishing activity of the Parties' vessel included not only the trawl tracks (where the trawling started and ended) but also possible area of the seabed affected by the gear based on the bottom trawl types used by the fleet. The total fishing area where the Parties' vessels operated in the second part of 2020 was 53 818 square nautical miles or about 13% of the Barents Sea.

The by-catch analysis of the non-target species provided estimates of such bycatch and proved that main non-target and non-marketable bycatch consisted of such species as hydrozoa, sponges, orange-footed sea cucumber, starfish and other marine organisms. Endangered, threatened and protected species were not reported in catches.



Comparison of the data for 2015-2017 and 2020 showed that **the impact of the bottom trawling of the fleet remained at the same level** and the areas exposed to main effect of the gear (within the width of the ground rope) was in average 3460 square nautical miles or **less than 1% of the Barents Sea** (varied between 0.8% and 0.9%). The total area possibly affected by the trawl gear (within the width of the trawl gear) was in average 14 749 square nautical miles or about 3.6% of the Barents Sea.

**Fig. 2. Trawling area in the Barents Sea in the second part of 2015-2017 and 2020.**

The Parties of the Agreement continue to work on the development of the joint Scientific Observer Scheme that will cover all vessels of the Parties and welcome any contribution from stakeholders. The Parties expect that the scheme will be developed and agreed in 2021. The scheme in the coming years will increase the scientific data on vulnerable habitats in the Barents Sea and species composition in catches that can be used to adjust the boundaries of the VVAs and corrective measures to protect vulnerable habitats.