

DCF

Sampling Plan and Description Atlantic salmon biological data collection

Region: **Baltic Sea**

Data source: **Scientific catches of Atlantic salmon (*Salmo salar*) for biological data collection**

Sampling scheme identifier: **Baltic Salmon Survey**

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1. Introduction.

The main reason for the collection of fisheries data, including biological variables of the exploited fish stocks is to supply the scientific working groups with the necessary data to assess the state of the fish stocks. Since 2022, Atlantic salmon commercial fisheries is being closed in ICES subdivisions 22-28, however a necessity of biological data collection of Atlantic salmon still exists. Due to the fact mentioned above, since 2022 a survey cruises carried under EU Data Collection Framework are being conducted annually to collect Atlantic salmon biological data.

For the purpose of sampling of this segment under the EU Data Collection Framework (DCF), the following definitions are applied:

- Primary Sampling Unit – fishing day (PSU)
- Target population – Atlantic salmon (*Salmo salar*) stock in SD 24-26
- Name of Sampling Scheme Polish fishing survey aimed at collecting biological samples of Atlantic salmon in the Baltic Sea
- Stratification – 2 sampling seasons, winter/spring and autumn/winter

2. Sampling plan description.

In order to collect Atlantic salmon data in the Baltic Sea in Poland a commercial fishing vessel with qualified crew members and with Atlantic salmon fishing history is engaged in scientific catches. To provide a temporal coverage and sample representativeness, following sampling design has been applied:

- 12 fishing days per year
- 2 sampling seasons – winter/spring (January – May), autumn/winter (October – December);
- 8 fishing days in winter/spring season, 4 fishing days in autumn/winter season (numbers of fishing days per season may vary due to CPUE values);
- Fishing gear type – drifting longlines (LLD);
- Sample size – 400 individuals of Atlantic salmon per year;
- Minimum one scientific observer present onboard during each trip;
- Purpose: Collection of biological samples of Atlantic salmon.

Observed trips

During onboard observations, following data must be collected and recorded by observer:

- Name and registration number of the vessel;
- Trip Number;
- Harbour and date/time of departure;
- Harbour and date/time of arrival;

- Type of gear;
- Observers name.

A haul list must be prepared with following data recorded for each haul:

- Haul number;
- Date.
- Time of start and end of haul.
- Haul duration (minutes).
- Haul position (deg.min, sec in decimal format).
- Depth (bottom, fishing deth).
- Drifting longlines set total lenght and total numbers of hooks used.
- Number of Atlantic salmon caught.
- Size of baycatch of other fish species (kg).
- Number of seal-damaged Atlantic salmon individuals with photographic documentation.

Biological sampling

Biological sampling covers all Atlantic salmon individuals caught. Detailed ichtiological analysis includes following data to be collected for each individual:

- length (*l.t.*; *l.c.*),
- weight (ungutted and gutted),
- gonad maturity stage (according to an eight-degree Maier's scale),
- degree of stomach fullness (a five-degree scale, from 0 - empty to 4 - completely full),
- age sampling (scales),
- digestive system collection for food and parasites studies.

Coverage

In order to obtain efficient and representative coverage of biological data sampling over the year, 12 fishing days are observed with division for two sampling seasons - winter/spring (January – May), autumn/winter (October – December).

3. Data reporting and quality checks

All vessel's, trip's, haul's and biological data collected shall be recorded in a format used for the national database held by NMFRI (*npzdr.pl*) and should be entered into the database within a reasonable time after the end of the trip and ichtiological analysis.

The observer is required to write a trip report in accordance with the template used at the Institute.

Data entered to the national database are verified in the two-stage validation process supported by a number of completeness, data type and range checks.

References

Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC (OJ L 354, 28.12.2013, p. 22).

Regulation (EU) 2017/1004 of the European Parliament and of the Council of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008 (OJ L 157, 20.6.2017, p. 1)

Commission Implementing Decision (EU) 2016/1251 of 12 July 2016 adopting a multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors for the period 2017-2019

Commission Implementing Decision C(2016) 8851 of 15.12.2016 approving the Work Plan submitted by Poland for data collection in the fisheries and aquaculture sector for the period 2017-2019

ICES. 2014. Report of the Working Group on Recreational Fisheries Surveys (WGRFS), 2-6 June 2014, Sukarrieta, Spain. ICES CM 2014\ACOM:37. 662 pp.