RECREATIONAL FISHING DATA COLLECTION METHODOLOGY OF THE FISHERIES SERVICE UNDER THE MINISTRY OF AGRICULTURE OF THE REPUBLIC OF LITHUANIA

SECTION I

GENERAL PROVISIONS

1. Recreational Fishing Data Collection Methodology (hereinafter – the Methodology) of the Fisheries Service of the Ministry of Agriculture of the Republic of Lithuania (hereinafter – the Fisheries Service) establishes the methods of collecting and processing data on recreational fishing in the Baltic Sea and inland waters.

2. This Methodology is intended for experts of the Fisheries Service, appointed as responsible for collection and processing of data on animal bycatch by the Order No. V1/2022-9, issued on 26 January by the Director of the Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania 'Regarding the amendment of the Order No. V1/2011-47, issued on 21 April 2021 by the Director of the Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania 'Regarding the formation of groups to administer and implement project tasks of the 'data collection' measure under the EU priority 3 'fostering CFP implementation' of the operational programme of the Lithuanian Fisheries Sector for 2014-2020' of the project, conducted by the Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania'.

3. The concepts, used in the Methodology, are defined in the Commission Delegated Decision (EU) 2021/1167 of 27 April 2021 establishing the multiannual Union programme for the collection and management of biological, environmental, technical and socioeconomic data in the fisheries and aquaculture sectors from 2022, the Law on recreational Fishing of the Republic of the Republic of Lithuania No. XI-2211, adopted on 11 September 2012, Order No. 3D-36, issued on 12 February 2009 by the Minister of Agriculture of the Republic of Lithuania 'Regarding the certification of the Rules of Recreational and Limited Fishing in Marine Waters'.

SECTION II

LEGAL JUSTIFICATION OF RECREATIONAL FISHING DATA COLLECTION

4. The procedure of the 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 obliges the member states to issue national work plans specifying the data to be collected and the methods of their collection.

5. Data collection methods and quality must suit the established purposes, defined in Article 25 of the 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.

6. Subclauses 3.1 and 5.3 of the Lithuanian National Fisheries Data Collection Programme for 2022-2024, certified by the Order No. 3D-184, issued on 16 March 2022 by the Minister of Agriculture of the Republic of Lithuania 'Regarding the certification of the Lithuanian National Fisheries Data Collection Programme for 2022-2024' (hereinafter – the Programme).

7. The Implementing Regulation (EU) 2021/116 of the Commission obliges to collect quantitative and qualitative data on 4 types of fish in the Baltic Sea, inland waters and the Curonian Lagoon: cod, eel, salmon and halibut.

SECTION III

COLLECTION OF THE DATA ON RECREATIONAL FISHING EFFORTS IN THE BALTIC SEA

8. Recreational fishermen fish for cod, salmon and halibut in the Baltic Sea using watercrafts. All Lithuanian recreational boats under 6 metres must be registered at the Register of Inland Vessels of the Republic of Lithuania. Recreational boats longer than 6 metres must be registered in the Register of Seagoing Vessels of the Republic of Lithuania.

9. All recreational watercrafts, regardless of their purpose, destination and type, are monitored and registered by the Coast Guard of the State Border Guard Service.

10. Data on recreational fishing is collected all year round or during trips to the sea in certain fishing seasons at fish unloading places or passenger boarding and disembarking places.

11. The following data is collected during each trip:

11.1. name or registration number of the watercraft, engaged in recreational fishing;

11.2. number of people fishing in the watercraft;

11.3. information on the number of people on the watercraft that have a recreational fishing license;

11.4. type and number of the fishing tools on the watercraft;

11.5. amount (kg and pcs) and length (cm) of the fish caught according to species on the watercraft;

11.6. amount (kg and pcs) and length (cm) of the fish caught on the watercraft and released according to species;

11.7. data registration date.

SECTION IV

COLLECTION OF THE DATA ON RECREATIONAL FISHING EFFORTS IN THE INLAND WATERS

12. Recreational fishermen fish for eel, salmon and trout in Lithuanian rivers, lakes and the Curonian Lagoon. Data on fishing in inland waters is collected by conducting surveys of recreational fishermen. Surveys can be conducted both by phone or direct interview:

12.1. A phone survey is conducted by the principle of generating random phone numbers of all adult (18 years old and older) recreational fishermen in Lithuania;

12.2. A direct interview may be conducted at fishing locations, during sport fishing or other fishing-related events, etc. The frequency of data collection and locations must be planned, considering the fishing season and distribution of respective fish species.

13. The survey form is provided in Annex 1.

SECTION V

DATA VALIDATION, PROCESSING

14. Data, collected during trips to the Baltic Sea and surveys is manually entered into the subsystem – Fisheries Data Information System (hereinafter – FDIS) – of the Lithuanian Agricultural and Food Products Market Information System.

15. Before entering the data into the system:

15.1. Check the data format – whole numbers and their fractional parts must be separated by a decimal point, which is a comma;

15.2. Check if the data of each of the vessels contains records on fish indices, listed in clauses 10.4 and 10.5.

15.3. Use the available biological parameters of the fish for a length-weight relationship to check if any of the weight values deviate from the regression line. This can be done according to an equation:

$$W = a e^{bL}$$

where W – weight, L – length, a and b – coefficients;

15.4. If the only data available is the length of the fish, only approximate weight is determined.

16. All data is accumulated in the FDIS.

SECTION VI

MATHEMATICAL STATISTICS OF THE DATA AND CALCULATION OF THE FINAL RESULTS

17. The final result of the data collected – the amount of fish (kg and pcs) caught and released per year. The total amount of fish caught and released per year is obtained by conducting the calculations, indicated below:

17.1. Average amount of fish (caught or released) per year (kg or pcs):

$$\bar{X} = \frac{1}{n} \sum_{i=1}^{n} X_i$$

where: $\bar{X}$ – average amount (kg or pcs), X_i – amount of fish (kg or pcs), caught or released by the i-th vessel, n – number of vessels inspected;

17.2. Amount of fish (kg or pcs) caught or released per year Y:

$$Y = \bar{X}N$$

where: N – total number of vessels (pcs) that engaged in recreational fishing, $\bar{X}$ – average amount of fish caught or released (kg or pcs).

18. The processing of data, obtained during surveys, may be done in two ways:

18.1. If the data processing involves information on the number of recreational fishing licenses, the calculations, indicated below apply:

18.1.1. Total number of fishermen fishing a certain type of fish per year:

$$N = \frac{L}{\bar{d}}$$

where: L – the total number of licenses, issued per year (information on the number of licenses issued is obtained from the Environmental Permit Information System (EPIS) at: https://www.alisas.lt/public-info/L06), $\bar{d}$ – average number of days of fishing per year;

18.1.2. Average amount of fish (caught or released) per day (kg or pcs):

$$\bar{X} = \sum_{i=1}^{n} \frac{X_i}{d_i}$$

where: X_i – total amount of fish (kg or pcs), caught or released by the i-th fisherman, d_i – total number of the days of fishing of the i-th fisherman;

18.1.3. Amount of fish (kg or pcs) caught or released per year:

$$Y = \bar{X}N$$

where: N – total number of fishermen fishing a certain type of fish per year, $\bar{X}$ – average amount of fish (caught or released) per day (kg or pcs).

18.2. If the data, provided by the respondents during the survey, is generalised to the entire population based on the data on the number of residents in Lithuania, provided by Statistics Lithuania, then the standard error (SE) and a 95% confidence interval apply:

18.2.1. The standard error for a given variable is calculated as follows:

$SP = \frac{s}{\sqrt{n}}$, when the measured index is calculated as the average value;

$SP = \frac{s}{\sqrt{\frac{p(1-p)}{n}}}$, when the measured index is calculated as the proportion of the value;

where, p – index value acquisition proportion, n – sample size, s – standard deviation, calculated according to an equation:

$$s = \sqrt{\frac{1}{n-1}\Sigma(X_i - \bar{X})^2}$$

where: n – sample size, X_i – i-th index value, $\bar{X}$ – average index

SECTION VII

ENSURING CONFIDENTIALITY OF STATISTICAL AND PERSONAL DATA

19. The Fisheries Service is obliged to accumulate, store and process data, submitted by economic entities, in accordance with the procedure, established by the law.

20. The data is stored at the data centre in accordance with the procedure, established by the law.

21. Collecting, processing, analysing and submitting the data to the final users, the Fisheries Service ensures confidentiality of the data, submitted by fishing vessels, as defined by the following legislation:

21.1. Regulation (EU) No. 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;

21.2. Regulation (EU) No. 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation);

21.3. Law on Personal Data Protection of the Republic of Lithuania;

21.4. Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics and repealing Regulation (EC, Euratom) No 1101/2008 of the European Parliament and of the Council on the transmission of data subject to statistical

confidentiality to the Statistical Office of the European Communities, Council Regulation (EC) No 322/97 on Community Statistics, and Council Decision 89/382/EEC, Euratom establishing a Committee on the Statistical Programmes of the European Communities;

21.5. Order No. 3D-707 'Regarding the certification of the fisheries data provision', issued on 4 August 2010 by the Minister of Agriculture of the Republic of Lithuania.

22. Employees of the Fisheries Service, processing personal data, must protect it if this personal data is not intended to be published. This duty also applies upon leaving the civil service, transfer to another position or at the end of the employment relationship.

SECTION VIII

FINAL PROVISIONS

23. Based on a data call, the data collected may be provided to expert group, such as the International Council for Marine Research (ICES), Baltic Fisheries Assessment Working Group (WGBFAS), Baltic Salmon and Trout Assessment Working Group (WGBAST), Working Group on Eels (WGEEL) and the preparation of the Annual Economic Report on the EU Fishing Fleet by the European Commission. The inquiry must always indicate the term and method of data provision.

24. The data accumulated is also used for the annual Data Collection Programme Activity Report, submitted by established terms to the coordinator of the Data Collection Programme – the Fisheries Department of the Ministry of Agriculture of the Republic of Lithuania. The report consists of various tables and text, the structure of which is established in the guidelines, provided by the European Commission.

25. In case of changes in the legislation, listed in this methodology, the provisions of the amendments of the said legislation applies.

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Recreational Fishing Data
Collection Methodology
of the Fisheries Service
under the Ministry of Agriculture
of the Republic of Lithuania
Annex 1

SURVEY ON EEL, SALMON AND TROUT, CAUGHT DURING RECREATIONAL FISHING

1.	Have you fished in the inland waters (including the Curonian Lagoon) in the year N?	YES NO (end of survey)			
2.	Indicate the number of fishing days or times in the year N.				
3.	Did you have a valid recreational fishing license?	YES NO (skip to question 5)			
4.	What type of fish does the license cover?	Salmon/trout General			
5.	What fishing gear did you use?	Fishing rod Speargun Fish trap Other (indicate)			
6.	Did you catch a salmon, trout or eel in the year N?	YES NO (skip to question 10)			
7.	How many pieces did you catch in the year N?	Salmon - pcs Trout - pcs Eel - pcs			
8.	Did you release the fish caught?	YES NO			
9.	Could you remember the length and/or weight of each fish (taken or released)	Type	Length, cm	Weight, kg	Released Yes/No
10.	Your gender:				
11.	Your age				
12.	Place of residence (city, rural area)				
13.	Employment	1. Highest, middle level manager 2. Specialist, officer 3. Worker, technical worker 4. Small entrepreneur 5. Farmer 6. Unemployed 7. Pensioner 8. Student, pupil 9. Housewife 10. Other			