

Collection of Information of Recreational Fishing at Sea

Information is collected separately for each fishing trip at sea during recreational fishing. One fishing trip is considered the time period from when the vessel leaves the port until it returns to the port. The following information is recorded on the record card for each trip:

- Date
- Number of anglers
- Total number of fishing rods
- Type of fishing (angling/trawling/other). It is advisable to specify the type of angling, such as spinning, jigging, etc.
- Duration of fishing – the difference between the start and end of fishing (hours/minutes)
- Average coordinates of the fishing location
- Maximum depth in meters

If the fishing location is changed during the day, the coordinates of the new fishing location and the maximum depth and duration of fishing are indicated. In the case of trawling, the starting coordinates of the fishing location are indicated.

Collection of Fish Biological Information

Information must be collected for each fish caught during the fishing trip. The record card includes the fish's name, total length (see attached drawings), and fish weight in grams.

Biological Analysis for Cod, Salmon, and Trout

Biological analysis is performed for cod and salmonid fish species. During the fishing season, it is desirable to perform biological analysis for approximately 50 cod and all salmonid fish. Information about the fish that undergo biological analysis is also duplicated in logbooks. A new logbook is used for each trip, and information about cod and salmonid fish is compiled in separate logbooks. The following information is required on the first page of the scale logbook:

- Date of fishing
- Name of the vessel

For cod biological analysis, the following information is recorded:

- On each page of the scale logbook, the specific fish's sequence number corresponds to the record card.
- Total length, cm
- Total weight, g (weight of the uncleaned fish)
- Otoliths

For biological analysis of salmonid fish, the following information is recorded:

- On each page of the logbook, the specific fish's sequence number corresponds to the record card.
- Total length, cm
- Total weight, g (weight of the uncleaned fish)
- Scales sample
- For each salmonid fish, the logbook indicates whether it is gutted or not gutted.
- If a fish has a clipped fin, information from the clipped fin is recorded in the scale logbook.

Explanatory information

Otolith Extraction Methodology.

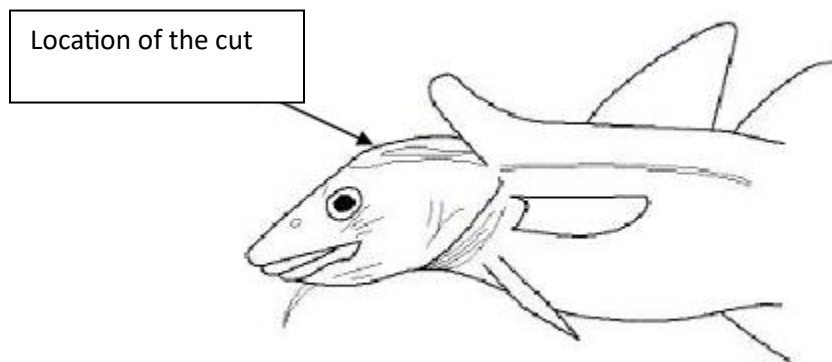


Figure 1. The cutting scheme for removing cod otoliths.



Figure 2. Cod otoliths

For otolith extraction, a scalpel is used. The fish head is held, inserting both the thumb and index finger into the fish's eye simultaneously. Another option is to insert the thumb into the fish's throat. The scalpel is placed approximately 1 centimetre above the eyes and makes a sharp cut at a 30-degree angle, followed by a sharp incision through the head relative to the body. In the case of an ideal cut, the upper part of the skull is exposed, revealing the brain beneath it. Otoliths are removed with tweezers and wrapped in the respective page of the otolith logbook.

Fish Length:

For salmonid species, the length is measured from the snout to the nearest point on the caudal peduncle, while for other fish, it is measured from the snout to the tip of the longest tail fin ray.

Individual Fish Weight:

The fish is weighed using "Pesola" spring scales with a precision of 50g. The fish's total (undried) weight is recorded.

Sampling Location for Salmonid Fish Otoliths:

The sampling location for salmonid fish otoliths is indicated in Figure 2 with a red rectangle. Before taking each new otolith sample, the scalpel should be wiped clean with a paper napkin. Prior to removing otoliths in the direction of the tail, the scalpel should be passed once over the otolith sampling location to remove mucus from the otoliths.

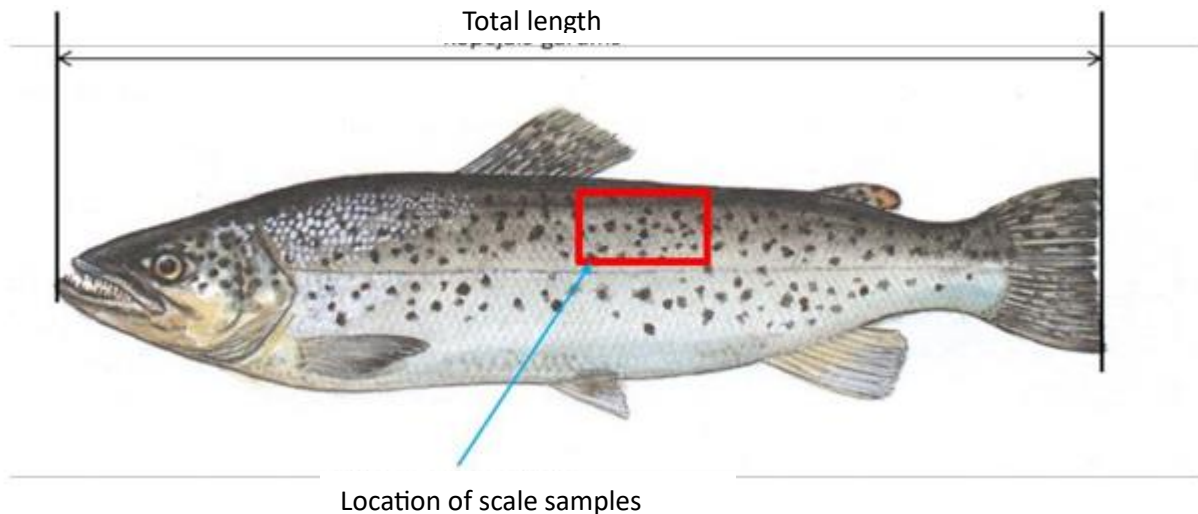


Figure 3. Schematic for taking salmonid fish scales.

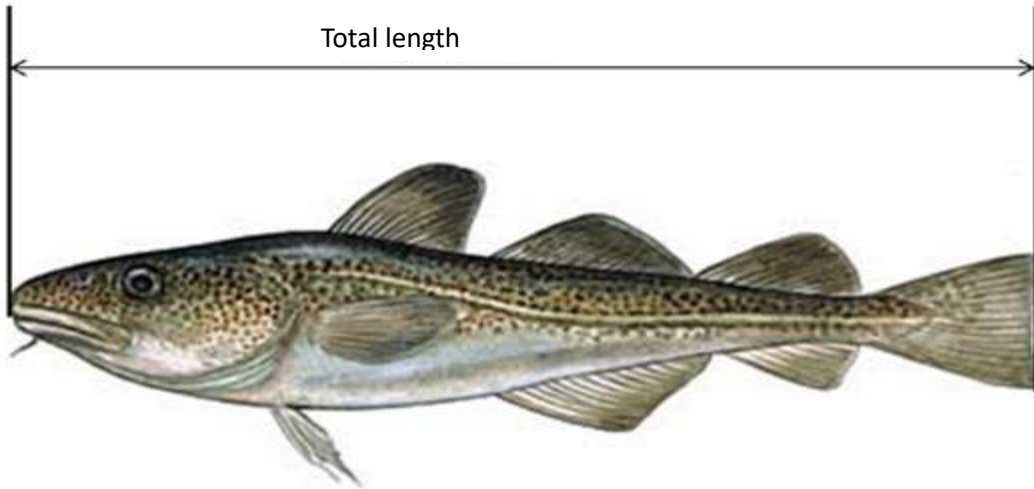


Figure 4. Cod length measuring

ĀTPŪTAS ZVEJAS UZSKAITES KARTIŅA

Zvejas kuģis	
Zvejas datums	

Makšķernieku skaits	Kopējais makšķeru skaits	Zvejas veids (makšķerēšana/velcēšana/cits)

Zvejas koordinātes		Dziļums (m)	Zvejas laiks (min)	Piezīmes
Platums	Garums			

Bioloģiskā informācija (aile vai otolīti, vai zvīņas paņemtas)

Zivs numurs	Zivs nosaukums	Kopējais garums (cm)	Svars (g)	Vai otolīti / zvīņas ir paņemti	Griezta taukspura Jā/Nē
1					
2					
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ATPŪTAS ZVEJAS UZSKAITES KARTIŅA (PARAUGS)

Zvejas kuģis	<i>Reina</i>
Zvejas datums	<i>21.05.2019</i>

Makšķernieku skaits	Kopējais makšķeru skaits	Zvejas veids (makšķerēšana/velcēšana/cits)
<i>3</i>	<i>5</i>	<i>makšķerēšana</i>

Zvejas koordinātes		Dziļums (m)	Zvejas laiks (min)	Piezīmes
Platums	Garums			
<i>56.28</i>	<i>20.51</i>	<i>32</i>	<i>120</i>	

Bioloģiskā informācija (aile vai otolīti vai zvīņas paņemtas)

Zivs numurs	Zivs nosaukums	Kopējais garums (cm)	Svars (g)	Vai otolīti / zvīņas ir paņemti	Griezta taukspura Jā/Nē
<i>1</i>	<i>Menca</i>	<i>48</i>	<i>950</i>	<i>Jā</i>	
<i>2</i>	<i>Plekste</i>	<i>22</i>	<i>180</i>		
<i>3</i>	<i>Lasis</i>	<i>101</i>	<i>8300</i>	<i>Jā</i>	<i>Jā</i>
<i>4</i>	<i>Taimiņš</i>	<i>57</i>	<i>1495</i>	<i>Jā</i>	<i>Nē</i>
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