

Manual for sampling in the North Atlantic fisheries

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Ivo Šics, Maksims Kovšars

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Introduction

In accordance with the data collection requirements and thresholds set out in the European Union (EU) multiannual data collection program, if a Member State's total annual landings from a stock exceed 200 tons, biological data must be collected. Given the observed fishing activity in the North Atlantic with shrimp trawls in recent years and the average annual shrimp catch above a certain threshold, it has been decided to collect shrimp length data. There are currently no plans to collect additional biological parameters (weight, sex, maturity, etc.) until specific instructions regarding the required amount of data and sampling intensity are received from end users.

Planned amount of material

Shrimp length measurements must be taken once per quarter from a single trawl. Take a sample of 3–5 kg from the total unsorted catch using a bucket or container. Then count out 300 shrimp from this sample for length measurement purposes. If the shrimp catch is very small, measure 50 shrimp from each trawl and try to collect 300 measurements from several trawls within one quarter. In this case, record the information from each fishing log as a separate sample by filling in the catch and fishing effort data recording form (Annex 1) and the mass measurement card (Annex 2). If shrimp are discarded in the catch, this information is recorded in the same way and with the same regularity as shrimp from the catch.

Recording of catch and effort data

A catch and fishing effort data recording form (see Table 1) must be completed for each instance of biological material being collected. This form must be completed for each fishing activity from which biological information is collected.

The following information must be indicated when completing the form: the name of the vessel; the code of the fishing gear used; the date; the trawl number; and, if available, the electronic number of the fishing trip.

To record fishing effort information, the start and end coordinates and time of the trawl must be indicated, as well as the duration of the trawl, the ICES square, the fishing area and the fishing depth.

When recording catch information, the target species and the total catch of all species must be indicated. Additionally, record the total catch of each species in kilograms and any discards observed.

Table 1. Example of a catch and fishing effort data recording form

Trip number	Vessels name	Fishing gear	Date	Haul number
LVA20260101	DORADO	TBS	01.01.2026	59

Information on fishing effort			Haul start	Haul end
Fishing area	27.1.A	Latitude	74.13 N	74.15N
ICES rectangle	77J5	Longitude	35.66 E	35.15 E
		Fishing depth, m	270	265
Fishing duration	6:30	Time (UTC)	15:00	21:30

Information on catch					
Target species		PRA	Total catch, kg		2024
Species	Catch, kg	Discard, kg	Species	Catch, kg	Discard, kg
PRA	1154	30	PLA	149	
COD	351	10	CAS	73	
GHL	257				

Shrimps (*Pandalus borealis*) - measurement of length

The carapace length (CL) of the shrimp is measured. CL is measured from the eye socket to the dorsal rear edge of the carapace. The location of the shrimp carapace is shown schematically in Figures 1 and 2. The carapace length is measured with an electronic caliper to an accuracy of 0.1 cm (1 mm). If a caliper is unavailable, a plastic or metal ruler with millimeter divisions can be used instead. During the measurement process, hold the shrimp so that the carapace or shell part is facing upwards. Place the measuring instrument so that the starting point is in the eye socket (the partition between the eyes). Place the other end of the caliper against the posterior dorsal margin of the carapace and record the length in millimeters. Figure 3 shows the measurement of the shrimp carapace length. Record the results on the mass measurement form (Figure 4). If the catch includes shrimp that are not handed over by fishermen for some reason (discarded shrimp), information about these shrimps should be recorded on a separate length measurement form. In this case, note that they are discarded shrimp. When measuring length, the total weight of the shrimp or sample being measured is also indicated on the form.

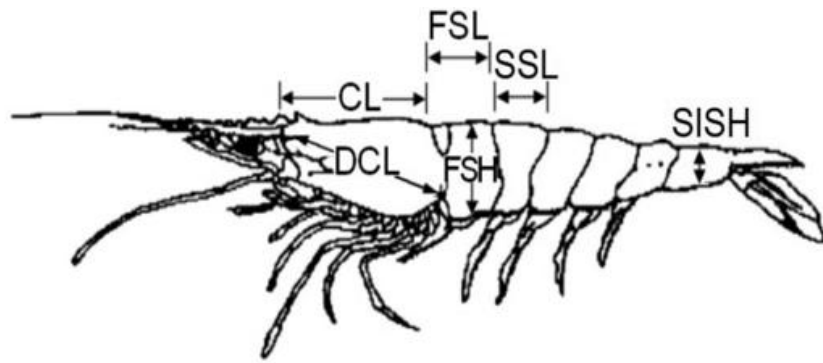


Figure 1. Location of the shrimp carapace (CL) within the body.

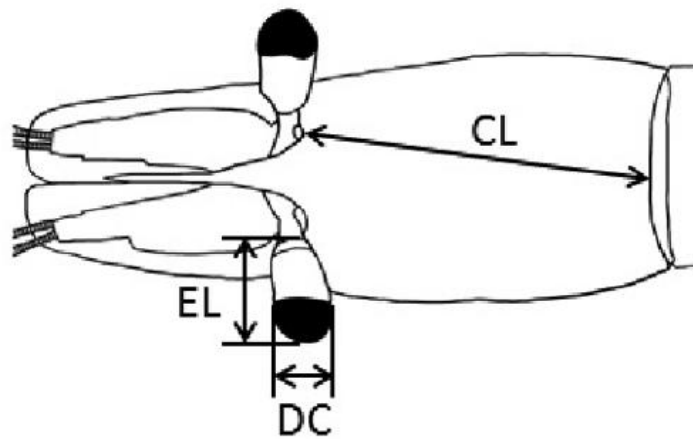


Figure 2. Length of shrimp carapace (CL), as viewed from above.



Figure 3. Measuring the length of a shrimp carapace (CL) with a caliper.

Annex 1. A catch and fishing effort data recording form

Trip number	Vessels name	Fishing gear	Date	Haul number

Information on fishing effort			Haul start	Haul end
Fishing area		Latitude		
ICES rectangle		Longitude		
		Fishing depth, m		
Fishing duration		Time (UTC)		

Information on catch					
Target species		Total catch, kg			
Species	Catch, kg	Discard, kg	Species	Catch, kg	Discard, kg

Annex 2. Fish mass measurement form

Zivju masu mērijuma kartiņa

Lapušu skaits Lapas nr.

Zivju suga
Reisa No
Zvejas akta No
Apakšrajons
Zona
LV kvadrāts
Loms, kg

Datums
Kuģa No
Zvejas rīks
Acs izmērs, mm
Zvejas ilgums
minūtēs

Parauga veids:

- Rūpnieciskā zveja jūrā
 Pētnieciskā zveja
 Osta Bez atlases
 Izmetums Ar atlasi

Parauga svars, kg	
Izmēra kategorija	

No.	Garums, cm	Dzim.	Stad.	No.	Garums, cm	Dzim.	Stad.	No.	Garums, cm	Dzim.	Stad.	No.	Garums, cm	Dzim.	Stad.	No.	Garums, cm	Dzim.	Stad.
1				51				101				151				201			
2				52				102				152				202			
3				53				103				153				203			
4				54				104				154				204			
5				55				105				155				205			
6				56				106				156				206			
7				57				107				157				207			
8				58				108				158				208			
9				59				109				159				209			
10				60				110				160				210			
11				61				111				161				211			
12				62				112				162				212			
13				63				113				163				213			
14				64				114				164				214			
15				65				115				165				215			
16				66				116				166				216			
17				67				117				167				217			
18				68				118				168				218			
19				69				119				169				219			
20				70				120				170				220			
21				71				121				171				221			
22				72				122				172				222			
23				73				123				173				223			
24				74				124				174				224			
25				75				125				175				225			
26				76				126				176				226			
27				77				127				177				227			
28				78				128				178				228			
29				79				129				179				229			
30				80				130				180				230			
31				81				131				181				231			
32				82				132				182				232			
33				83				133				183				233			
34				84				134				184				234			
35				85				135				185				235			
36				86				136				186				236			
37				87				137				187				237			
38				88				138				188				238			
39				89				139				189				239			
40				90				140				190				240			
41				91				141				191				241			
42				92				142				192				242			
43				93				143				193				243			
44				94				144				194				244			
45				95				145				195				245			
46				96				146				196				246			
47				97				147				197				247			
48				98				148				198				248			
49				99				149				199				249			
50				100				150				200				250			