

Sampling scheme identifier: **Madeira On Shore ICCAT**

MS: PRT
Region: Other regions
Sampling scheme identifier: Madeira On Shore ICCAT
Sampling scheme type: Commercial fishing trip
Observation type: SciObsOnShore
Time period of validity: 2025-2027
Short description (max 100 words): The objective of this sampling scheme (Work Plan – Table 2.5) is to collect length-frequency distributions of commercial fish species landed at auctions by Madeiran vessels operating in FAO 34.1.2 (RFMO/RFO/IO ICCAT), for species listed in Table 1 of the EU MAP Delegated Decision annex (2021/1167/EU). Occurrence of incidental bycatch of PETS (Protected Endangered and Threatened Species) is also recorded, but occurrences are not expected in this sampling scheme.
Description of the population
Population targeted: The primary sampling scheme design is set to measure the length of fish species (listed in the Work Plan – Table 2.2), landed at Madeira auctions (=ports) by Madeiran active vessels (licenced to operate in FAO 34.1.2 (RFMO/RFO/IO ICCAT)). Primary Sampling Unit (PSU): vessel * trip Population sampled: Lengths of species landed at port by the Madeiran active vessels operating pole-and-line in FAO 34.1.2. and considered based on the main species landed from previous reference years. Population sampled / not sampled per metier and sampling scheme: -Metier LHP_LPF: Population sampled: Main Madeiran ports of this metier (FUNCHAL, CANIÇAL and PAÚL DO MAR) Sampling frame identifier: LPF1_M3 Population not sampled: Minor Madeiran ports of this metier Sampling frame identifier: LPF3_M3_out of frame Stratification: Sampling scheme stratification is none. As such, all vessels landing in each of the selected sampling ports are susceptible to being sampled.
Sampling design and protocols
Sampling design description: The sampling design is a stratified multistage scheme, with vessel*trip as the Primary Sampling Unit (PSU): The Madeiran fleet is stratified by segment and métier, and by trip and month. According to EU Map requirements [EU Commission Delegated Decision (2021/1167/EU)]. Annual sampling effort (number of planned PSUs = vessel * trip = onshore events) is fixed per selected species (of the Work Plan - Table 2.2).

- b. Sampling effort (number of vessel * trip = onshore events = PSUs) is allocated to vessel and months based on landings from previous reference years.
- c. In every vessel * trip, for every selected species the observers attempt to sample every commercial size category, by randomly selecting 1 box from each commercial size category.
- d. Within each commercial category samplers randomly select boxes to be sampled for lengths aiming for a minimum number of 50 fishes. Nonetheless, sometimes there are less than 50 individuals from a certain commercial species in 1 box, therefore observers sample several different boxes in order to reach the minimum sampling size required.
- e. All ports in which limpets are landed in Madeira Island are considered for the above-mentioned sampling design, and around 10% of the total annual fishing trips are predicted to be sampled.
- f. Observation of PETS (Protected Endangered and Threatened Species) is also covered within the sampling scheme (along with quantification of PETS observation effort) but occurrences are not expected in this sampling scheme.

Is the sampling design compliant with the 4S principle?:

Y.

Regional coordination:

N.

Link to sampling design documentation:

<https://www.iccat.int/en/iccatmanual.html>

Design follows international recommendations:

Y.

Link to sampling protocol documentation:

<https://www.iccat.int/en/iccatmanual.html>

Protocol follows international recommendations:

Y.

Sampling implementation

Recording of refusal rate:

Y.

Monitoring of sampling progress within the sampling year:

Sampling design is monitored and adjusted throughout the year in order to reach the minimum number of samples required.

Data capture

Means of data capture:

Commercial species length data is obtained through measurements, using a measuring board. Observations are noted down on appropriate sampling sheets. Sampling is executed by two observers, one of which is responsible for measuring and the other for taking note of data.

Data capture documentation:

<https://www.iccat.int/en/iccatmanual.html>

Quality checks documentation:

Y.

Quality checks and validation procedures are implemented:

1. All samples are checked by the coordinator before the data is inputted into the local database;
2. After all data is introduced into the local database it is subsequently checked for errors and outliers;
3. A random check of 10% of the data is executed by inspecting the registered data for logical errors;

4. Length distribution and effort information is then connected with vessel logbooks for future cross examinations;
5. All data is made public in ICCAT Secretariat and respective website.

Data storage

National database:

Local Database.

International database:

<https://iccat.int/en/accesingdb.html>

Quality checks and data validation documentation:

Stocks of the main ICCAT species are assessed regularly by the Scientific Committee for Research and Statistics (SCRS) of ICCAT. The methods are defined and applied according to the SCRS work. The frequency of the stock assessments is predefined according to the SCRS schedule of assessments and requests from the ICCAT Commission.

Sample storage

Storage description:

NA.

Sample analysis:

NA.

Data processing

Evaluation of data accuracy (bias and precision):

<https://www.iccat.int/en/iccatmanual.html>

<https://www.iccat.int/en/submitSTAT.html>

Editing and imputation methods:

<https://www.iccat.int/en/iccatmanual.html>

Quality document associated to a dataset:

<https://www.iccat.int/en/iccatmanual.html>

Validation of the final dataset:

Data is submitted to quality check to meet ICCAT requirements and is validated by ICCAT.

Final datasets are validated by experts / stock assessors during expert / assessment working groups / regional coordination groups.