

Sampling scheme identifier: **AZ_OFF_EM_Touristic_ICES**

MS: PRT
Region: North-East Atlantic
Sampling scheme identifier: AZ_OFF_EM_Touristic_ICES
Sampling scheme type: Recreational (off site surveys)
Observation type: EMOnShore
Time period of validity: 2025-2027
Short description (max 100 words): AZ_OFF_EM_Touristic_ICES aiming to collect catch data from touristic fishing (charter boats companies) for elasmobranchs species as indicated in Table 4 of the EU MAP Delegated Decision annex.
Description of the population
Population targeted: The target population is touristic fishing (charter boats). The off-site methodology presents a direct frame with direct access to the individual elements of the target population. Each sampling unit within the frame corresponds to each respective license holder. Population sampled: The touristic fishing companies are the population aim to sample. Stratification: For touristic fishing (charter boats; AZ_OFF_EM_Touristic_ICES) it is implemented as census.
Sampling design and protocols
Sampling design description: In the Azores, the recreational fishing multispecies survey will focus on the catch estimation for the elasmobranch's species performed by the touristic fishing (charter companies). The methodology will be based on an off-site survey. The AZ_OFF_EM_Touristic_ICES survey component it is headed for recreational boat charters for big game fishing and bottom fishing. The new Pescador system (web and IOS/Android APP) were implemented as mandatory. Even though, the new "Pescador" system will be target of continuous development during 2025 - 2027, integrating new functionalities and tools (e.g., catch photos upload, complete trips validation tool). The old system e-form SRAF will work temporarily until all users start using the new Pescador system. Finally, enterprises will be contacted to confirm that they are reporting the data (retained catch and released per fishing trip). In cases of no-reporting, a 12-month recall phone survey will be applied. The AZ_OFF_EM_Touristic_ICES survey is planned to be a census. Is the sampling design compliant with the 4S principle?: NA. Regional coordination: N.

Link to sampling design documentation:

https://www.dgrm.mm.gov.pt/documents/20143/124668/17_Azores_ICES_RecreationalSamp.pdf/7863f6bf-23ee-e6de-0425-d68403671742

Design follows international recommendations:

Y.

Link to sampling protocol documentation:

https://www.dgrm.mm.gov.pt/documents/20143/124668/17_Azores_ICES_RecreationalSamp.pdf/7863f6bf-23ee-e6de-0425-d68403671742

Protocol follows international recommendations:

Y.

Sampling implementation**Recording of refusal rate:**

Y.

Monitoring of sampling progress within the sampling year:

Follow-up mechanisms by e-mail and phone are established quarterly basis in AZ_OFF_EM_Touristic_ICES. The monitoring system drive to detection of inactivity, no engagement in the survey by some companies, and informatics problems (e.g., APP) which trigger processes to analyse and find resolutions.

Data capture**Means of data capture:**

Dedicated new software Pescador was design to collect data, in particular, App (iOS & Android) and web-based logbook for tourist fishing (charter boats). Some companies are still using the old system (E-form SRAF), but this system will be disable.

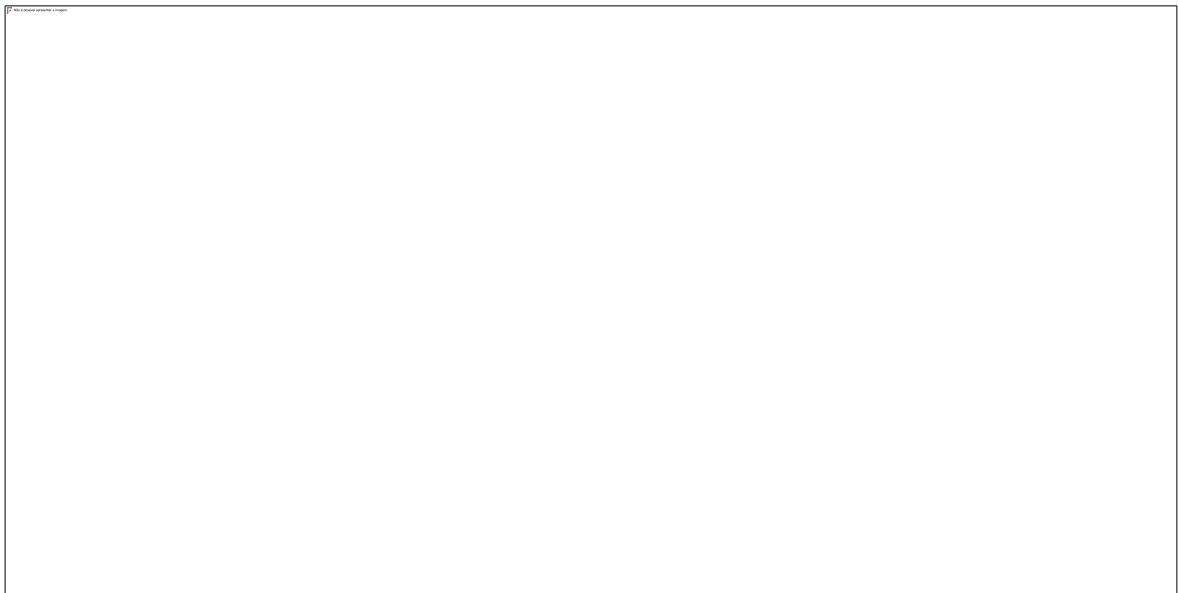


Figure 1. Web and APP Pescador system catch and effort data collection for touristic fishing (charter boats) (in Portuguese, Spanish and English language).

Data capture documentation:

https://www.dgrm.mm.gov.pt/documents/20143/124668/17_Azores_ICES_RecreationalSamp.pdf/7863f6bf-23ee-e6de-0425-d68403671742

<https://pescas.azores.gov.pt/pescaludica> (The survey is available in Portuguese, English and Spanish language, and a print screen is available in Figure 1).

Guidance Documentation of the new Pescador system (in Portuguese language):

<https://drive.google.com/file/d/1PbPQT2YKb81fyQ2FSgwW8FDL8Zc02SKR/view?usp=sharing>

Quality checks documentation:

N.

Quality checks procedures can be found in STECF report (pilot studies), however new and updated documentation will be available in 2025 - 2027.

https://www.dgrm.mm.gov.pt/documents/20143/124668/17_Azores_ICES_RecreationalSamp.pdf/7863f6bf-23ee-e6de-0425-d68403671742

Data storage

National database:

NA.

International database:

NA.

Quality checks and data validation documentation:

Recreational Fishing database will be transferred from Excel files into a database to be constructed during the sampling period covered. This is expected to contain internal routines for both basic errors detection (e.g., errors in dates) as well as implementation of checking of errors. Quality checks and validation procedures are implemented: (1) All samples are checked by a coordinator before the input of data; (2) All data introduced in database is checked for syntax errors; (3) A random check of 10% of the data is executed by inspecting the registered data for logical errors.

Sample storage

Storage description:

NA.

Sample analysis:

NA.

Data processing

Evaluation of data accuracy (bias and precision):

N.

The AZ_OFF_EM_Touristic_ICES is evaluated with complementary methods (phone recall survey) to identify missing trips or no engagement cases in the mandatory survey.

Editing and imputation methods:

N. This sampling scheme is a census, and no imputation method is being used.

Quality document associated to a dataset:

Documentation will be developed in 2025 - 2027.

Validation of the final dataset:

Recreational Fishing database will be transferred from Excel files into a database to be constructed during the sampling period covered. This is expected to contain internal routines for both basic errors detection (e.g., errors in dates, species codes) as well as implementation of checking of errors. Quality checks and validation procedures are implemented: (1) All samples are checked by a coordinator before the input of data; (2) All data introduced in database is checked for syntax errors; (3) A random check of 10% of the data is executed by inspecting the registered data for logical errors.