

Sampling scheme identifier: **Azores On Shore NA**

MS: PRT
Region: Outermost regions
Sampling scheme identifier: Azores On Shore NA
Sampling scheme type: Commercial fishing trip
Observation type: SciObsOnShore
Time period of validity: 2025-2027
Short description (max 100 words): Sampling scheme (Work Plan - Table 2.5) aiming at sampling length of specimens landed at ports by Azorean hand collectors or vessels operating in ICES 10.a.2. All landed species are sampled, including species listed in Table 1 of the EU-MAP Delegated Decision annex. 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 since in on shore sampling of commercial fishing trips only the “Landings” fractions are sampled.
Description of the population
Population targeted: Lengths of species landed at port by Azorean hand collectors or vessels operating in ICES 10.a.2 and licensed for limpets harvesting and for the use of set gillnets. Primary Sampling Unit (PSU): port*day Population sampled: Lengths of species landed at port by a subset of Azorean hand collectors or vessels operating in ICES 10.a.2 are sampled based on the result of the application of a developed algorithm for previous year combinations. No sampling occurs during the weekends. Population sampled/not sampled per metier and sampling scheme: -Metier GNS_MPD Population sampled: Ports with licensed vessels using set gillnets targeting mixed pelagic and demersal species Sampling frame identifier: AZM22 - GNS_MPD Population not sampled: Other ports with landings from vessels using set gillnets targeting mixed pelagic and demersal species Sampling frame identifier: AZ53 - GNS_MPD_out of frame -Metier GRAPP Population sampled: Ports with registered hand collectors targeting limpets Sampling frame identifier: AZM51 - GRAPP Population not sampled: Other ports with landings from grappling <i>Patellidae</i> Sampling frame identifier: AZ52 - GRAPP_out of frame Stratification:

In order to improve sampling coverage through the year (by quarter) and in the most important auctions (main ports) to be sampled within this metier allocated by quarter proportionally to previous sampling year.

Sampling design and protocols

Sampling design description:

Scientific observers on shore attempt to sample a predefined number of sale events (landing of one harvesting event or vessel trip) for every auction*visit date. This is conducted by random selection from hand collectors or vessels present at the harbour. Boxes of all species landed are sampled by conducting concurrent sampling scheme for all catch fractions landed. A fishing effort related questionnaire is also performed to the hand collector or shipmaster of the vessel selected for sampling.

On shore sampling schemes sample Landings (All fractions).

- a. Sampling effort is established as number of harvesting events or number of trips expected to be sampled and allocated to auctions and quarters proportionally to last year's landings;
- b. In every port*day, samplers attempt to sample a predefined number of limpets_sale event or vessel_sale_event (parrotfish). Each limpets_sale event or vessel_sale_event corresponds to the landings of one harvesting event. Samplers randomly select the limpets_sale event from hand collectors or of one fishing trip present at the harbor;
- c. In each limpets_sale event or vessel_sale_event, the samplers aim to sample boxes from every commercial species and commercial category. This way, a concurrent sampling scheme is applied, although sometimes the coverage of all species is not possible;
- d. Within each commercial category samplers randomly select boxes to be sampled aiming for a minimum number of 50 individuals;
- e. A fishing effort related questionnaire is also performed to the hand collector selected for sampling;
- 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 since in on shore sampling of commercial fishing trips only the "Landings" fractions are sampled. Within a sampled commercial fishing trip, PETS observation effort is done in all boxes sampled for other species (protocol described in topics a-d);
- g. Refusal rates are recorded.

During the sampling period covered, fish length measurements will also be recorded in four auctions using an electronic system composed by a local unit for automatic image acquisition of fish boxes and a remote database to record the processed images using Fishmetrics system.

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

N.

Regional coordination:

NA.

Link to sampling design documentation:

Documentation on sampling design works as an internal working paper, disclosed to all scientific observers assigned and under constantly improving.

Design follows international recommendations:

NA.

Link to sampling protocol documentation:

Documentation on sampling protocol works as an internal working paper, disclosed to all scientific observers assigned and under constantly improving.

Protocol follows international recommendations:

NA.

Sampling implementation
Recording of refusal rate: Y. Monitoring of sampling progress within the sampling year: Monthly monitoring of the executed number of PSU per trimester of this sampling scheme is followed by rescheduling (when possible) of the number of PSU planned but not executed (due to operational/logistical limitations).
Data capture
Means of data capture: Lengths are collected using electronic/analogic calipers or measuring boards. Scales are used for weight data. Fishing effort questionnaires are conducted in person or by phone. Data capture documentation: Documentation on data capture works as an internal working paper, disclosed to all scientific observers assigned and under constantly improving. Quality checks documentation: Documentation on quality checks works as an internal working paper, disclosed to all scientific observers assigned and under constantly improving.
Data storage
National database: NA. International database: NA. Quality checks and data validation documentation: 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; (4) Length distribution and effort samples are then connected with the market landings for future cross examinations.
Sample storage
Storage description: NA. Sample analysis: NA.
Data processing
Evaluation of data accuracy (bias and precision): N. 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; (4) Length distribution and effort samples are then connected with the market landings for future cross examinations. Editing and imputation methods:

N.

Access for editing data is limited to specific senior technicians with different levels of access.

Quality document associated to a dataset:

N.

Validation of the final dataset:

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