Data call concerning fisheries in Marine Protected Areas in the Baltic and North Seas, Atlantic EU Western Waters and EU Outermost Regions.

This data call is part of the EU MAPAfish project, which aims to provide an overview of the current state of play of Marine Protected Areas (MPAs) and associated fishing activities in EU waters to help local MPA managers, national authorities and the European Commission to better understand of how MPAs can work in the context of fisheries. It is related to the Specific Contracts 09 and 10 of the European Climate, Infrastructure and Environment Executive Agency (CINEA) on behalf of the Directorate-General for Maritime Affairs and Fisheries (DGMARE), and performed by a consortium of European national universities and research institutes.

Within this consortium, DTU Aqua takes the lead in the characterization of fishing activities in and around all European MPAs. We therefore kindly request fisheries data from the EU fisher logbook and Vessel Monitoring System (VMS). In this, we have adopted two methodologies: (1) A European-wide data request of fishing activity at the level of 0.05 x 0.05 longitude x latitude degrees (Csquares), which purposefully replicates the recent ICES call to reduce workload. (2) A shapefile-based request of fishing activity for MPA sites and surrounding areas specifically.

To facilitate the compilation of the requested data, we have created a github repository where a short R-script and a shapefile with the areas of interest can be found. You can find this repository here: https://github.com/kjova/MAPAfish.

Deadline: **31 August 2022**

1. European-wide inventory of fishing activities

We would like to study the broader view of trends in fishing activities surrounding MPAs. We therefore request for aggregated fishing effort data at the Csquare level of 0.05 x 0.05 longitude x latitude degree. More specifically, we would like to receive data from 2012-2021 in the following format:

- **Table_1.** Total landing of weights (in kg) and value (in Euro) and fishing effort as number of fishing days and kW*fishing days aggregated by
    - Year
    - C-square ID (0.05 level)
    - Métier level 6

2. Detailed inventory of fishing activity for MPAs and their direct surroundings

To characterize fishing activities in and around MPAs, we are requesting information on gear-specific fishing effort and landings on métier level six covering the MPA polygons. At the github repository (https://github.com/kjova/MAPAfish), you can find both the MPA polygons shapefile and an R-script that aggregates the VMS data at MPA polygon level. The shapefile ("MPA_polygons"; ESRI, EPSG 4326) contains polygons of the MPAs, and polygons of the area 5 km surrounding each MPA. We would like to receive the information for the years 2012-2021 in the following format:

- **Table_2.** Total landing of weights (in kg) and value (in Euro) and fishing effort as number of fishing days and kW*fishing days aggregated by
    - Year
    - Quarter
    - Métier level 6
    - Polygon sitecode

Please use the polygon sitecode as described in the shapefile under the column "SITECODE".

In addition, we would like to receive information on the most important species caught in and around each MPA, both in terms of biomass (kg) and revenue (euro). We are therefore requesting landing information on the five most frequently caught species (table 3a), and the five most profitable species (table 3b) in each polygon over the period 2012-2021, in the following format. Note that the table provides the names (three-letter-codes) of the five relevant species, but does not report the actual biomass (kg) or revenue (euro) for each species. The columns "rest_kg" and "rest_euro" report respectively the biomass and revenue of all remaining species combined, to assess the relevance of the top five species with respect to the total landings.

- **Table_3a.** The five most frequently retained species per polygon:
    - Polygon sitecode
    - Spec_1_kg
    - Spec_2_kg
    - Spec_3_kg
    - Spec_4_kg
    - Spec_5_kg
    - Rest_kg

- **Table_3b.** The five most profitable species per polygon:
    - Polygon sitecode
    - Spec_1_euro
    - Spec_2_euro
    - Spec_3_euro
    - Spec_4_euro

    - Spec_5_euro
    - Rest_euro

For each area of interest, we would like to estimate the VMS-coverage, as that could serve as a proxy for the activity of small-scale fisheries. We therefore would like to receive information on the total registered landings from both the VMS and the EU logbooks separately on métier level six per ICES rectangle. Specifically, we would appreciate to receive data from 2012-2021 in the following format:

- **Table_4a.** Total landings (in kg) assigned to VMS recordings, aggregated by
    - Year
    - Quarter
    - Métier level 6
    - ICES rectangle

- **Table_4b.** Total landings (in kg) registered in the EU logbooks, aggregated by
    - Year
    - Quarter
    - Métier level 6
    - ICES rectangle

3. Data usage and publication

The data obtained will be used to answer the questions posed to the MAPAfish consortium by CINEA/DGMARE. As such, the received VMS data will be integrated across nations and further analysed to determine international fishing activities in and around European MPAs. The national data will be combined by DTU Aqua, after which the submitted data will be destroyed. Any forthcoming reports or scientific papers will only present the aggregated data, and will be submitted to CINEA and DGMARE for approval before the submission to broader publication. Data will be stored and processed in a secured location within DTU's infrastructure and in accordance with DTU's policy for privacy sensitive data[1]. Access to this data is only granted to the persons processing the data after signing the confidentiality agreement that is attached as Annex 1.

[1] Preferably, I would like to link here to a document online that describes this policy?

4. Deadline and contact information

Please respond to this data call no later than 31 August 2022. Preferably, email the resulting tables in a zipped folder, named "DC_MAPAfish_[countryname]" to kjova@aqua.dtu.dk. In case you foresee any trouble in submitting the requested data for the deadline, please contact Karin van der Reijden as soon as possible to find a workable solution.

In case of any questions, please contact Karin van der Reijden, kjova@aqua.dtu.dk, +45-51979178; or Josefine Egekvist, jsv@aqua.dtu.dk, +45-93518949.

Thank you very much in advance for your cooperation.

Yours sincerely,

Karin van der Reijden
DTU Aqua – National Institute of Aquatic Resources.

Annex 1. Confidentiality Agreement.

When requesting for sensitive data (VMS -vessel monitoring system, black box data or data with logbook information), the data request shall include a short description of the aim of the data use. The data request (PDF) will be stored in the data folder as documentation for the request.

These person confidential data are only allowed to be stored at the secured Q-drive within the DTU's infrastructure. The location is structured with two sub folders one called "data" where the requested data will be stored and with reading access only and one folder called "home" where data handling can be conducted. It is only allowed to work with the data in this folder and it is not allowed to copy or distribute the raw data to any other locations.

I _____ hereby acknowledge that, in my capacity as an employee of DTU Aqua, that I have received and used data that are protected under GDPR.

I acknowledge my obligations with respect to access to data and confidential information and confirm that:

- VMS, black box data or data with logbook information that I have had access to during my involvement in MAPAfish, can only be used for the purposes of MAPAfish, and may not be published or passed on to a third party without the prior written consent by the data responsible.
- The received data (VMS, black box and logbook data) will not be copied or replicated in any manner and, upon request from the data responsible, I shall immediately stop using the confidential information and return or destroy all received confidential information.
- When working with the requested data I will ensure that no other persons have access to the computer and that the screen is locked when leaving the computer.
- If I have any doubt on how data are allowed to be used I will contact the data responsible person.
- I am accountable for correct and responsible use of the data and confidential information in accordance with the DTU Data Management Plan.
- If I fail to comply with these clauses, my access to the data will be withdrawn

By signing this document, I confirm my understanding and acceptance of the above clauses.

Date: _____ Signature: _____