







Geo-referenced marine recreational fishing (MRF) stakeholders in Macaronesia (Activity 2.3.1)

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1. MRF stakeholders in Canarias

There are many agents involved in the development of marine recreational fishing (MRF) in the Canary Islands. The objective of this work has been to review and register these agents. Different types of actors in the Canary Islands have been selected according to their role with regard to recreational fisheries, for which social, economic and biological aspects have been considered. These actors have been divided into different groups; the issues of each group are described below. Because in the Canary Islands there are two competing fisheries administrations, national and regional civil services have been considered (this group has been described like 'Administration (civil service)'). Besides, the emission points of recreational fishing permits have also been included. Due to the development of business and port structures related to the fishing sector (professional and recreational), among others, two other groups were included: i) companies supporting the activity ('Company') and ii) port structures ('Port'). Specifically on the 'Company' group, as for businesses type fishing shops (dedicated to fishing and hunting products or similar), nautical equipment and nautical repair, as well as the sale of boats (in some cases also nautical equipment) or companies dedicated to fishing trips. The information purchased from the 'Cámara de Comercio de Tenerife' (Canary Islands https://camaratenerife.com/) and for free in 'Google map', have been used. Nautical schools dedicated to preparing for recreational titles have also been included. In the case of port structures, the web pages of Canary ports (https://puertoscanarios.es/) and state ports (https://www.puertos.es/es-es) were consulted.

Because the recreational fishing attracts to a relatively large number of followers in the Canary Islands, another of the groups created is that of associations in the Canary Islands ('Organization'). Although the government of the Canary Islands (Gobierno de Canarias, 2023) has a database of official associations, it does not have address or other important data. Therefore, in addition to this database, internet searches have been used as a source of information. 'Fisheries local action groups' ('GALP' in Spanish) have also been included as key actors in the development of coastal sectors. Marine research companies, universities and research institutions that may be related to recreational fishing have been reviewed and included. These provide information on recreational fishing activity in the analysis of data, surveys and studies of the marine environment. The conclusions aimed in these works could be considered in the regulation about this activity. This group of entities has been called 'Research'.

In short, the considered agents have been separated at a first general level (Group level 1) into five groups: i) Administration (civil service), ii) Company, iii) Organisation, iv) Port and v) Research. These groups were further subdivided in other more specific of interest (Group level 2; see Table 1 to details).

The following fields have been taken for each record (or agent):

- i) FISHERY: professional/recreational or recreational.
- ii) GROUPS LEVEL 1: the 5 described groups above ('administration (civil service)', 'company'...).
- iii) GROUPS LEVEL 2: the subgroups included in Table 1.
- iv) LOCALIZATION: the smallest Spanish territorial organisation (municipalities)

"The State is organized territorially into municipalities, provinces and the Self-governing Communities that may be constituted. All these bodies shall enjoy self-government for the management of their respective interests." (source:



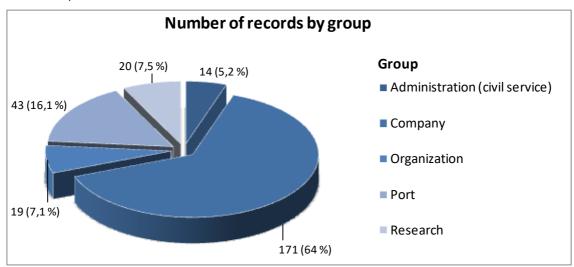






- v) FULL-NAME
- vi) ADDRESS (except in the case of 'port' group and some another register), the telephone number has been included in 'administration' group.
- vii) LATITUDE (in grades and tenth grades, e.g.: 27,92498)
- viii) LONGITUDE (in grades and tenth grades, e.g.: 15,40212, where the negative symbol indicates the western longitude.

The database presents a total of 267 records, of these, 14 are in administration (civil service), 171 in company, 19 in organization, 43 in port and 20 in research (see fig below, 'number of records by group). The Table 1 shows in more detail the different registered groups of agents and Table 2 shows all registered agents. As for the level of administration, the Canary Islands have a headquarters of the Spanish Ministry for Fisheries Affairs (national regulation) in the Island of Gran Canaria, 2 headquarters of the Canary Islands Autonomous Government (CIAG) (regional regulation), one in Tenerife and one in Gran Canaria. As for the points of issue of fishing licences, the two most populated islands, Tenerife (with approximately 930,000 inhabitants) and Gran Canaria (850,000 inhabitants) (ISTAC, 2023) are the ones that issue the most licences per year (DGP, 2023). Although all the islands have at least one point for issuing recreational fishing licences, there are 2 points in the islands mentioned and in La Palma too; a total of 11 points.



The group composed of companies is the one with the most records, where specialized stores reach the highest figures (77 out of 171). They are followed by less than half those dedicated to recreational fishing tourism ('Recreational fishing charter') and those dedicated to the sale of boats (Table 1 and 2). The Canary Islands have 14 marinas or exclusive nautical ports; and also other ports (regional or state competence) that have areas similar to marinas within the total covered area. In total, a group with 42 records (of these, 12 are national ports and 16 are regional ones)(Tables 1 and 2). The Archipelago has two public universities. These in turn have different groups or research institutes dedicated to some aspects of insular fishing (biological, economic and social), including recreational fishing. On the other hand, some marine research companies in the archipelago have been engaged in fisheries research and others could do so in the future; both types have been included. Attached to this report is the database at "comma separated values" format (recreational_fishery_agents.csv) although these data are also included in Table 2. It is ready to be used as source of a layer from delimited text, in a









geographic information system program (e.g. Figures 2 and 3, made on the free program Qgis, https://www.qgis.org/es/site/).

Table 1. List of stakeholders from Canarias

AGENT GROUP	RECORDS
Administration (civil service)	14
Issuance of fishing licences	11
Nartional administration (civil service)	1
Regional administration (civil service)	2
Company	171
Boat sale	23
Fishing excursion on coast	1
Fishing store	77
Nautical equipment	13
Nautical repair services	15
Nautical school	10
Recreational fishing charter	32
Organization	19
Club	4
Fisheries local action group	7
Non-profit organisation	6
Sport federation	2
Port	43
Marina	15
National port	12
Regional port	16
Research	20
Company	7
Fundation	2
Non-profit organization	1
Public consortium	1
Regional public undertaking	1
Research institute	3
University research group	5
То	tal 267









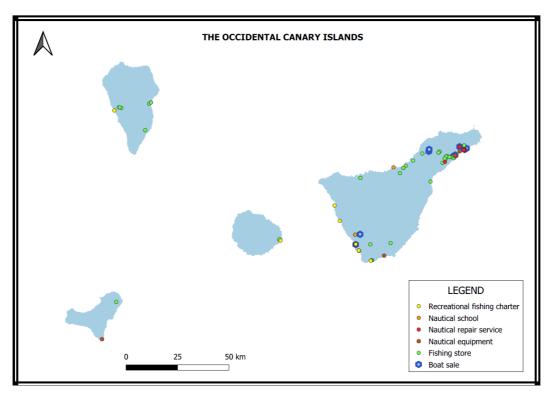


Figure 1. Example of a map made with the database of recreational fishing agents in the occidental Canary Islands (Company' group). Map made with Qgis 3.10.4 (QGIS Development Team, 2023). Source of the Canary Islands shape file, GRAFCAN-Gobierno de Canarias (2023).

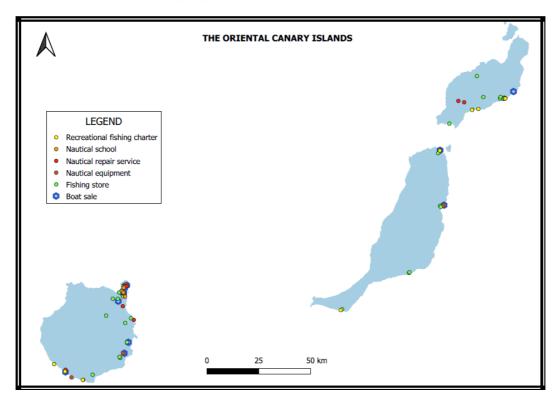


Figure 2. Example of a map made with the database of recreational fishing agents in the oriental Canary Islands ('Company' group). Map made with Qgis 3.10.4 (QGIS Development Team, 2023). Source of the Canary Islands shape file, GRAFCAN-Gobierno de Canarias (2023).









2. MRF stakeholders in Azores

In relation to the MRF Azores stakeholders currently the most important one is the ARPLA (Azorean Regional Recreational Fishing Association). This Association represents the three main fishing modes (shore angling, boat angling and spearfishing) and is currently the main Association that have been indicated for representation of this sector in establishment of MPA processes, Marine Spatial Planning meetings, Regional Fisheries Council and opinion on new legislation. In consideration of MRF Tourist Fishing (i.e. charter boats), they are maritime tourism companies and their activities are within the scope of the Association AOMA (Maritime-Tourist) operators in the Autonomous Region of the Azores). The position of ARPLA is that touristic fishing is not framed within the objectives of ARPLA since it's considered a commercial activity (Hugo Diogo, pers. comm.).

On the other hand, in Azores there are 22 Naval Clubs and Nautical Clubs with relevant importance at island level (or local level), since they are usually composed by many members and they organize shore angling and boat angling tournaments, in particular: Clube Naval de Lajes das Flores, Clube Naval de Santa Cruz das Flores, Clube Naval da Horta, Clube Naval da Madalena do Pico, Clube Náutico de Santa Cruz do Pico, Clube Naval de São Roque do Pico, Clube Naval de Velas, Clube Naval da ilha Graciosa, Clube Náutico de Angra do Heroísmo, Angra late Clube, Clube Naval da Praia da Vitória, Clube Naval de Ponta Delgada, Clube Naval de Vila Franca do Campo, Clube Naval da Povoação, Clube Naval do Nordeste, Clube Naval de Rabo de Peixe, Clube Naval de Santa Maria. Moreover. Also, there are Fishing Clubs that organize competitions events, such as: Clube De Pescas Desportiva Os Cagarros, Clube de Pesca Ilha Azul, Associação de Pesca Desportiva da Ilha do Pico, Sindicato do sector Financeiro, Clube Açoriano de Pesca Desportiva, Futebol Clube Calheta.

Table 2. List of stakeholders from Azores

Agent_name	Longitude	Latitude
ARPLA (Azorean Regional Recreational Fishing Association).	-28,6309242	38,5799585
2. Association AOMA (Maritime-Tourist) operators in the Autonomous Region of the Azores.	-25,1474542	36,9458342
3. Clube Naval de Lajes das Flores	-31,1709507	39,3789503
4. Clube Naval de Santa Cruz das Flores	-	-
5. Clube Naval da Horta >>> coordenadas del bar con ese nombre	-28,6266212	38,530648
6. Clube Naval da Madalena do Pico	-28,530149	38,5340726
7. Clube Nutico de Santa Cruz do Pico	-28,2532171	38,3982632
8. Clube Naval de São Roque do Pico a	-28,3218346	38,5300051
9. Clube Naval de Velas	-28,2045688	38,6789771
10. Clube Naval da ilha Graciosa	-27,9973876	39,0833331
11. Clube Náutico de Angra do Heroísmo	-27,2222452	38,6501902
12. Angra late Clube	-27,2222238	38,6502558
13. Clube Naval da Praia da Vit¢ria	-27,0574486	38,7330864
14. Clube Naval de Ponta Delgada	-25,6567999	37,7409261
15. Clube Naval de Vila Franca do Campo	-25,429854	37,7155512
16. Clube Naval da Povoaçao	-25,2468412	37,7460133









Agent_name	Longitude	Latitude
17. Clube Naval do Nordeste	-25,1467054	37,8362727
18. Clube Naval de Rabo de Peixe	-25,5827606	37,8162728
19. Clube Naval de Santa Maria	-25,1475327	36,9464591
20. Clube De Pescas Desportiva Os Cagarros	-25,043775	36,9600674
21. Clube de Pesca Ilha Azul	-28,6378326	38,5274161
22. Associação de Pesca Desportiva da Ilha do Pico	-28,334427	38,4165433
23. Sindicato do sector Financeiro	-	-
24. Clube Açoriano de Pesca Desportiva	-25,6735969	37,7354145
25. Futebol Clube Calheta	-28,0159747	38,601503
Total >>> 25		

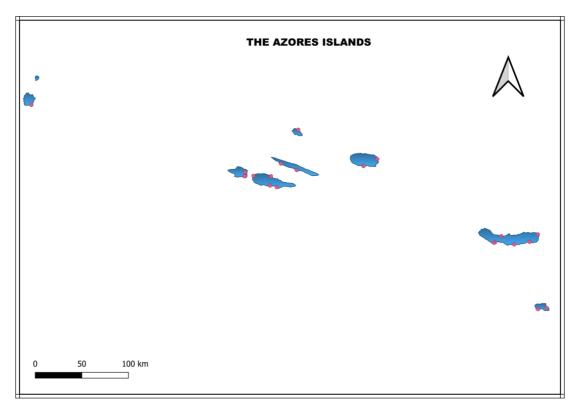


Figure 3. Example of a map made with the database of recreational fishing agents in the Azores Islands. Map made with Qgis 3.10.4 (QGIS Development Team, 2023). Source of the Azores Islands shape file, SIGAM-Governo dos Açores (2019).









MRF stakeholders in Madeira

In the Autonomous Region of Madeira, as in other regions, there are a diverse variety of recreational nautical organizations. In the region we have various Nautical Clubs composed by a relevant number of members that organize several fishing tournaments over the year. Fishing events are organized with more expression by the Associação de Pesca Desportiva da Região Autónoma Madeira that is responsible for organizing the regional individual and clubs fishing competitions and for disseminating and promoting the practice of the recreational fisheries in the Region. The clubs actively operating in the Autonomous Region of Madeira and incorporated in this Association are the following: Grupo de Amadores de Pesca Desportiva da Madeira; Clube Desportivo e Cultural do Porto Moniz; Grupo de Campismo Santo António; Clube de Tiro, Caça e Pesca da Madeira; Sporting Clube da Madeira; Clube Desportivo Mar e Serra and Centro Treino Mar. These local associations organise fishing tournaments every year, generally in multiple locations along the coastal regions of Madeira and Porto Santo islands.

The relationship of proximity we maintain with the fishing associations allows us to collect the data acquired through the carrying out these tournaments. With this and within the scope of the Data Collection Framework (DCF) for Madeira we are able to achieve the objective of covering at least 25% of the championships, obtaining morphometric parameters of all the species caught during these shore angling and spearfishing competitions. For the remaining fishing tournaments that are not covered in-situ, the fishing association or the clubs provide the capture reports with data at species level. The activities organized by these clubs and associations are of major relevance, since in these events fishermen can be informed about the surveys and the importance and objectives of the data collection, through awareness-raising and dissemination actions.

Table 3. List of stakeholders from Madeira

Agent_name	Longitude	Latitude
Associação de Pesca Desportiva da Região Autónoma Madeira	-16,9034377	32,6479888
GAPDM_Grupo de Amadores de Pesca Desportiva da Madeira	-16,9357663	32,639084
Clube Desportivo e Cultural do Porto Moniz	-17,175306	32,8562488
Grupo de Campismo Santo António	-16,9366311	32,6668677
Clube de Tiro, Caça E Pesca Da Madeira	-16,86767	32,6441737
Sporting Clube da Madeira	-16,9322658	32,6383478
Clube Desportivo Mar e Serra	-16,9444536	32,6699227
Centro Treino Mar	-16,9130827	32,6447294









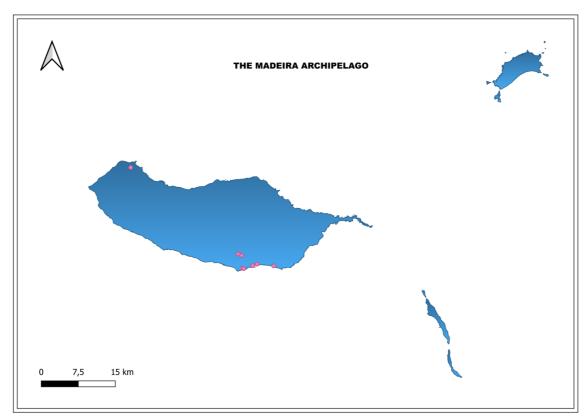


Figure 4. Example of a map made with the database of recreational fishing agents in the Madeira Archipelago. Map made with Qgis 3.10.4 (QGIS Development Team, 2023). Source of the Madeira Archipelago shape file, https://forest-gis.com/shapefiles-de-portugal/(2023); the Selvagens Islands have been omitted.