



***Catalina Perales-Raya***

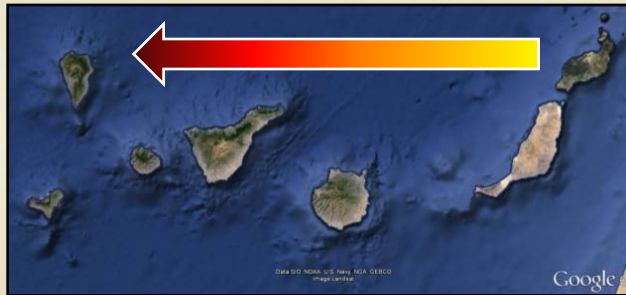
Applying the Data Collection Framework (DCF) to fisheries systems in the ORs: state of play and challenges in the Canary Islands



*1st Meeting of the Outermost Regions Forum  
for Maritime Affairs and Fisheries  
Brussels, 26 June 2018*



# The Canary Islands: ecosystem and SSF



- Location: approx. 100km off African coast (29°-27°N, 19°-13°W). Seven volcanic islands: narrow insular shelf. **EU waters in CE Atlantic - Africa**
- Oceanic waters transported by Canary Current: oligotrophic and influenced by African upwelling
- Soft east-west gradient of increasing  $T^a$  & Salinity
- Variety of marine resources (warm, subtropical and tropical species): tuna, small pelagics, demersal fish and invertebrates
- Fleet: **POLYVALENT** and **MULTISPECIFIC**. Most of vessels under “minor-gear” licences conducting daily trips

**IEO:** monitoring the SSFs through *EU-Data Collection Framework*

**Canary/Spanish Fishery Offices:** first-sale notes for official statistics of landings and effort

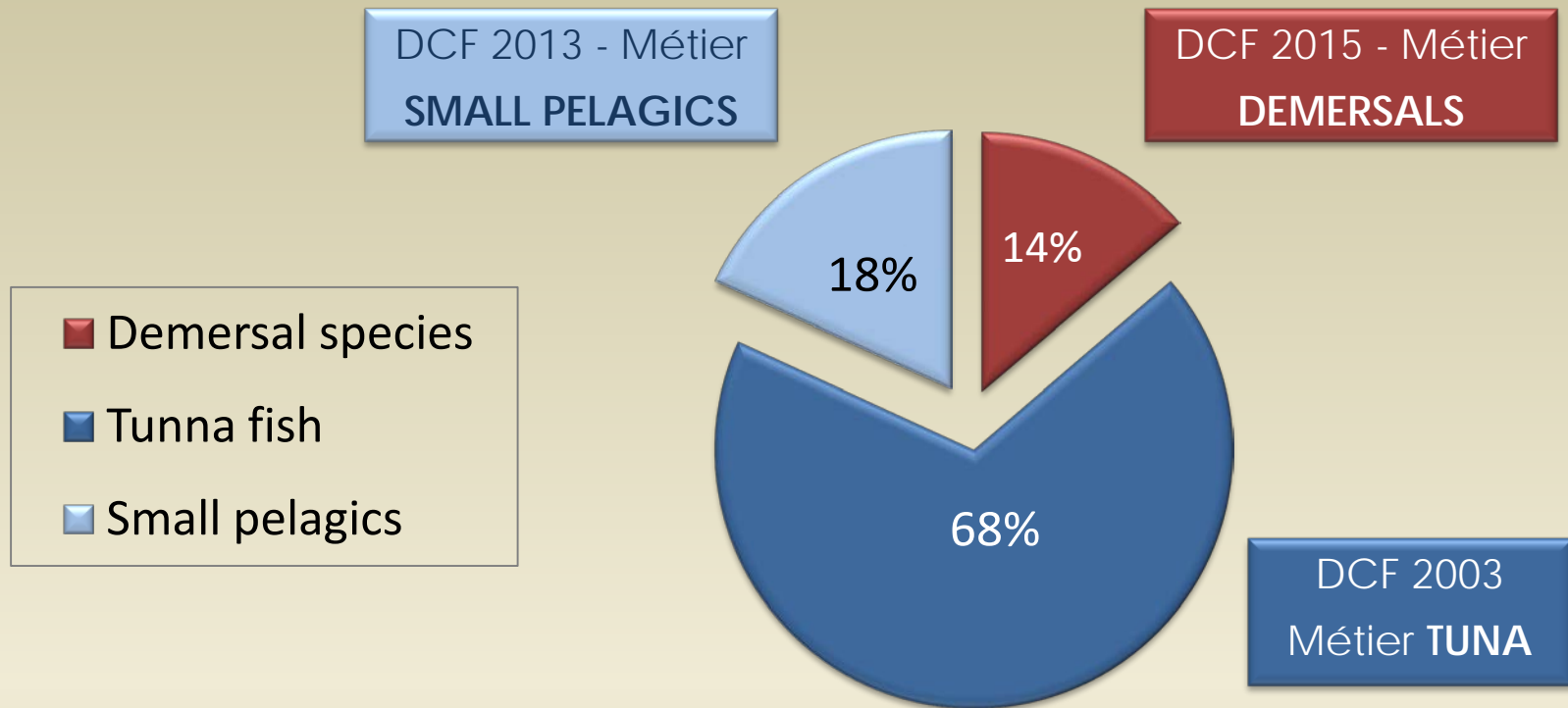
# The fleet - Canary fishing grounds



- Polyvalent and opportunistic alternation demersal-pelagic species
- Most vessels <math><10\text{ m}</math> length. Total number varies (~ **650** recent years)
- Many landing sites along the archipelago



# Landing composition – 2017 (official statistics – Firs Sale Notes)



IEO (Canary Oceanographic Centre) in charge of EU-DCF: Three **MÉTIER**S\*

\* **MÉTIER**: group of fishing operations targeting similar species, with similar gears and/or seasonality, area and exploitation pattern



# 1. Métier of baitboats for TUNA - target species



*Thunnus obesus* - BIGEYE TUNA/tuna



*Thunnus albacares* - YELLOWFIN TUNA/rabil



*Katsuwonus pelamis* – SKIPJACK TUNA/bonito



*Tunnus alalunga* – ALBACORE/barrilote



*Tunnus thynnus* - BLUE FIN TUNA/patudo



# Baitboats using handline and pole-line



BAIT: purse seine fishing small pelagics as live bait



## 2. Métier – SMALL PELAGICS using purse seiners “traiñas”



*Scomber colias* - CHUB MACKEREL



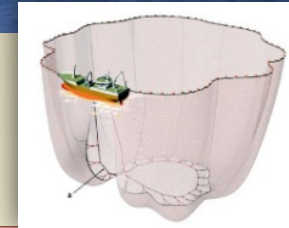
*Trachurus picturatus* - BLUE JACK MACKEREL



*Sardina pilchardus* - SARDINE



*Sardinella aurita* - ROUND SARDINELLA





### 3. Métier DEMERSAL SPECIES using traps, lines, nets...



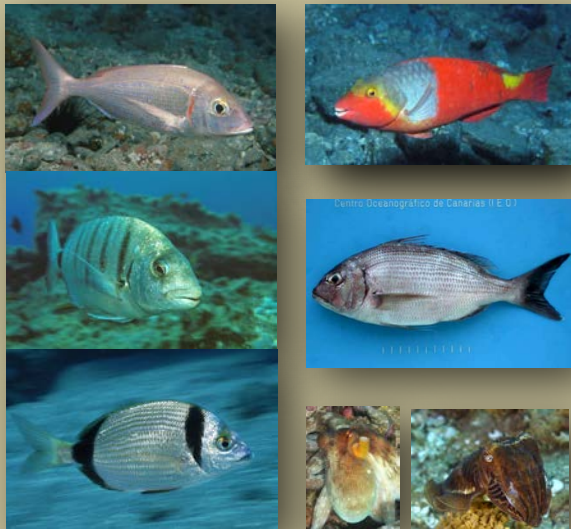
**TRAPS-FISH:** *Sparisoma cretense*,  
*Sparidae*, crabs, octopuses...



**TRAPS-SHRIMPS:**  
*Plesionika* spp. morays...



**TRAPS-MORAYS:** *Muraena*  
spp, *Gymnothorax* spp...





# LINES



**HANDLINE:** *Seriola* spp,  
*Dentex* spp, *Pagrus* spp.  
*Beryx* spp, Serranidae...



**LONGLINE:** *Beryx* spp  
*Merluccius merluccius*, *Phycis*  
*phycis*, Scorpaenidae ...



**HANDLE JIGGING:**  
squids (Loliginidae and  
Ommastrephidae)



# TRADITIONAL NETS



**GILLNETS:** *Mullus surmuletus*, *Sparisoma cretense*, *Spondyliosoma cantharus*, *Pagellus bellottii*, *Diplodus sargus*, *Sarpa salpa*...



**SEINE / LIFT NETS:** *Sparisoma cretense*, *Boops boops*, *Thalassoma pavo*, sand smelt and other coastal fish



# DCF monitoring – sampling strategy



- **Concurrent** \* length sampling:
  - AT MARKET - tuna fish
  - ON BOARD of purse seine and demersal fleets (Tenerife): retained catch and discards
  
- **Stock-specific** (target species): length sampling at market in most landing sites of Canary Islands
  
- **Biological sampling** of target species (3 tuna and 4 small pelagics) in the lab. From 2016 age and growth of club mackerel was included in DCF Working Plans



*\* **CONCURRENT SAMPLING STRATEGY** : length structure of all species landed  
Not only target species. **ECOSYSTEM APPROACH***



# STATE OF PLAY – ACHIEVEMENTS



- Characterization of Canary *métiers* under DCF directive for long-term monitoring
- On board samplings and/or seasonal tagging campaigns. Fishermen cooperation
- Good coverage of IEO sampling web in the main landing sites
- Acoustic surveys launched by IEO since 2016 for a future assessment of small pelagic stocks



- **ASSESSMENT progress:**



**TUNA:** assessment under the corresponding Regional Fisheries Management Organization (RFMO) for Atlantic tuna - ICCAT



**SMALL PELAGICS:** recently included by IEO in the corresponding RFMO - CECAF/FAO. Data from 2013 for future assessment.



**DEMERSAL species:** recently included by IEO in the corresponding RFMO - CECAF/FAO. Data from 2015 and lengths of *Sparisoma cretense* for future assessment. Next CECAF/FAO WG of SSFs in July 2018

- **MANAGEMENT:** IEO collaborates in the implementation of management measures

# Gaps-Challenges



- **LANDINGS:** gaps in First Sale Notes (fishing areas/gears, problems with species labeling, unreported catches...)
- **SAMPLING:** limited coverage on-board and biological
- **SPECIES KNOWLEDGE:** poor knowledge of biological cycle in most species (maturity size, growth pattern...)
- **ASSESSMENT:** Additional complexity of demersal fishing operations (polyvalence and multi-species)
- **MANAGEMENT:** Many management measures poorly based on scientific advice. New marine protected areas required



# Next steps / recommendations



- More collaboration of Fishery offices to implement the landing labeling (re-codification of wrong/grouped target species...)
- Expand the current on-board samplings to eastern islands (e.g. Gran Canaria)
- Demersal species: new biological studies of target species  
DEPENDING ON THE AVAILABILITY OF STAFF AND FUNDS
- Tuna: access to large sizes (price) and specialized staff in ageing, analysis of heavy metal composition (food quality for consumers)  
DEPENDING ON THE AVAILABILITY OF STAFF AND FUNDS
- GENERAL: Greater collaboration of all stakeholders (fishermen, scientific community, Canary fishery offices...) CO-MANAGEMENT STRATEGY

WITHOUT GOOD DATA FROM LANDINGS AND SPECIES BIOLOGY  
NO RELIABLE ASSESSMENT IS POSSIBLE

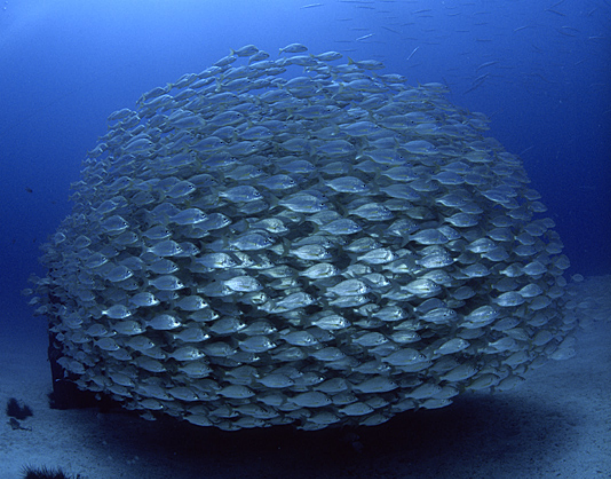


## Other current IEO activities in Canary ecosystems/fisheries



- **EU-Marine Strategy Framework Directive.** Canaries marine demarcation. Implementation of good environmental status in the marine environment. [www.mapama.gob.es](http://www.mapama.gob.es)
- **EU-EASME Marine Spatial Planning. Outermost Regions - Macaronesia MarSP.** Development of MSP in line with the EU Directive on MSP (2014/89/EU) and following an Ecosystem Based Approach. [www.msp-platform.eu/projects](http://www.msp-platform.eu/projects)
- **UE-MARE Project ORFISH:** Development of innovative, low-impact offshore fishing practices for small-scale vessels in outermost regions [www.orfish.eu](http://www.orfish.eu)
- **EU-Life project INTEMARES:** integrated management of marine protected areas. [www.fundacion-biodiversidad.es](http://www.fundacion-biodiversidad.es)
- **EU-INTERREG Atlantic project CEPHS & CHEFS:** Octopus, squid, cuttlefish, sustainable fisheries and Chefs. [www.cephsandchefs.com](http://www.cephsandchefs.com)
- **WG of experts (International Council for the Exploration of the Sea – ICES):** Small pelagics, cephalopods. [www.ices.dk](http://www.ices.dk)





Thanks for your attention

*Gracias por su atención*

*Merci votre attention*

*Thanks to the Fishermen's Associations of Canary Islands for their collaboration in DCF*



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE ECONOMÍA, INDUSTRIA  
Y COMPETITIVIDAD

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