

Fishery Fact Sheet

CECAF Fisheries Reports 2011

Spain Purse seine small pelagic fish fishery - Canary Islands waters, 2011

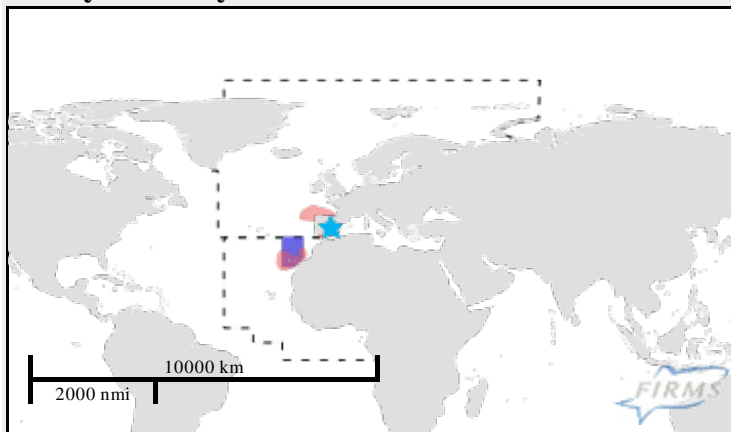
 *Islas Canarias*

Data Ownership



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Overview: *This is one of the most traditional fisheries of the Canary Islands. It targets the small pelagic resources of the islands, as sardines, sardinelles, chub-mackerels and horse-mackerels. The fishery is developed through all year long and around every island. The fleet is composed of purse seiners, which work supported by powerful lights used to attract the fish schools, fact that makes the fishery more effective. There is certain seasonality in the fishery, being sardines more abundant during the winter and sardinelles during the summer. The catches are commercialized as fresh fish in local markets, while the surplus catches are used as baits for the traps fishery.*

Location of Spain Purse seine small pelagic fish fishery - Canary Islands waters



Main layers

-  FAO areas and their sub-divisions
-  EEZ

Associated layers

-  Geographic reference

Intersecting layers

-  Intersecting: FAO major fishing areas

Base layers

-  200 nautical miles arcs

APPROACH: FISHING ACTIVITY

Fishing Activity

Fishing Gear: Purse seines
 Type of production system: Artisanal
 Fishery Area: Canary Islands; Spain;
 Canaries/Madeira insular
 Seasonality: All year long ...

Harvested Resource

Target Species: *Scomber colias*; European pilchard(=Sardine); Blue jack mackerel
 Associated Species: Round sardinella; Madeiran sardinella; European anchovy

Means of Production

Vessel Type: Purse seiners

Fishery Indicators

Nominal Effort: Number of vessels
 Participation:
 Production: Catch

Geographic reference: Spain

Spatial Scale: National

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Fishing Activity

Type of production system: Artisanal

Fishery Area

Climatic zone: Temperate. **Bottom type:** Soft_bottom_clean_sand; Hard_rocky_bottom. **Depth zone:** Coastal (0 m - 50 m); Shelf (50 m - 200 m). **Horizontal distribution:** Littoral; Neritic. **Vertical distribution:** Pelagic.

Geo References for: Canary Islands

Canary Islands

Exclusive Economic Zone Areas (EEZ)	ESP - Spain
FAO Fishing Statistical Divisions	34.1.2 - Canaries/Madeira insular

More Geo References

The following area codes have been found as intersecting the location of Spain Purse seine small pelagic fish fishery - Canary Islands waters

FAO Major Fishing Areas	27 - Atlantic, Northeast
	34 - Atlantic, Eastern Central
	37 - Mediterranean and Black Sea
Large Marine Ecosystem Areas (LME)	25 - Iberian Coastal
	26 - Mediterranean Sea

The Canary Islands archipelago and its surrounding waters are part of the Canary region, which is located on the eastern edge of the subtropical gyre of the North Atlantic and is bathed by the Canary current fed by the Azores current (Fiekas et al., 1992). The Canary Islands act as a barrier to the Canary Current and the trade winds which introduce strong variability in the atmospheric and oceanic flows, giving rise to mesoscalar oceanographic processes, such as eddies and warm wakes, to leeward of the islands (Mittelstaedt, 1991, Hernández-Guerra et al., 1993; Arístegui et al., 1997; Barton et al., 1998). On a biological level, these phenomena entail an increase in planktonic production. Likewise, the water masses from the Northwest African upwelling displaced offshore towards the Canary Islands by the Ekman transport and the upwelling filaments may reach the eastern part of the Canary region. Consequently, this region straddles the transition between the cool, nutrient-rich waters of the coastal upwelling regime and the warmer, oligotrophic waters of the open ocean (Barton et al., 1998). All of this results in variability of the oceanographic conditions in the Canary region, both in a longitudinal and a latitudinal sense. Thus, it is expected that the effects will be manifested at the biological level, affecting the whole trophic chain.

Resources Exploited

Other resources: Stock de Sardinelles and Sardines 26°15'-28°17'.

Target Species

Scomber colias

Sardina pilchardus

FAO Names : en - European pilchard(=Sardine), fr - Sardine commune, es - Sardina europea, ar - سردين
أوروبا, zh - 沙丁鱼, ru - Сардина европейская

Trachurus picturatus

FAO Names : en - Blue jack mackerel, fr - Chinchard du large, es - Jurel de altura(=Chicharro), ru -
Ставрида океаническая

Adults

Associated Species (Bycatch)

Sardinella aurita

FAO Names : en - Round sardinella, fr - Allache, es - Alacha, ru - Сардинелла круглая (=алаша)

Sardinella maderensis

FAO Names : en - Madeiran sardinella, fr - Grande allache, es - Machuelo

Engraulis encrasicolus

FAO Names : en - European anchovy, fr - Anchois, es - Boquerón, ru - Анчоус европейский

Adults

Vessel Type

Purse seiners

Flag State

 Spain

These are wooden purse seiners of 15 m length and 200 h.p.

Crew

5 persons (Spanish nationality) (2009)

Fishing Gear

Purse seines

This gear is locally called “traina” or “sardinal”. The main body-net is composed of a number of long and rectangular sheet nets, horizontally delimited throughout all its length by resistant net strips, called “cadenetas”. There are “lead-cadenetas” and “cork-cadenetas”, depending if they connect the main net either with the lead-line or with the float-line.

Seasonality

All year long

Environmental limitations: Strong trade winds during the summer

Trip Duration

1 fishing day

Ports

mains port of each island

Fishery Indicators

Type	Measure	Value	Unit	Time period
Nominal Effort	Number of vessels	30	vessels	1999
Participation	Number of fishermen (Canary Island)	150	persons	2009
Production	Catch	1079	tonnes	1999-2004

Post Harvest

Fish Utilisation

Local consumption

Markets

Local markets of Canary Islands

Management

Management unit: No

Jurisdictional framework

Management Body/Authority(ies): Spanish Ministry of Agriculture, Fishery and Food and Department of Agriculture, Livestock, Fishery and Food of the Government of Canary

Mandate: Management.

Area under national jurisdiction: Spain

Maritime Area: Exclusive Economic Zone Areas (EEZ).

Management Regime

Law 6/2007, 13 April, modification of the law 17/2003, 10 April (BOC 77, 23/4/2003; BOE 162, 8/7/2003), of Fishery in Canaries (BOC 78, 19/04/2007; BOE 124, 24/05/2007). Management measures of the Spanish purse seiners in Canary Islands are included in the "Law of the Fishery" of the Canaries (BOC 78, 19/04/2007; BOE 124, 24/05/2007).

Management Methods

Conservation and management measures with focus on Effort control, catch control, fish size limits and environment protection.

- *Aquatic species-related measures*

Minimum fish sizes established by Spanish legislation in the National Fishing Ground of Canary Islands: *Engraulis encrasicolus*: 12 cm, *Scomber colias*: 18 cm; *Trachurus* spp.: 15 cm, Boops. boops: 11 cm and *Sardina pilchardus*: 11 cm. Prohibition of catches of certain species.

- *Gear-related measures*

Gear dimension (maximum size: 350 m length, “calones” and “puños” excluded, and 80 m high) and mesh size (minimum mesh size: 10 mm).

- *Fishing activity-related measures*

Closed areas: 3 Marine Reserves: La Restinga (El Hierro), Fuencaliente (La Palma), La Graciosa (North- Lanzarote).

More information on fisheries legislation at: FAOLEX legislative database

Status and Trends

Stability in the catches

Source of Information

Aristegui, J. et al., 1997. The influence of island generated eddies on chlorophyll distribution: a study of mesoscale variation around Gran Canaria. *Deep-Sea Res.* I, 44, 71–96.

Barton, E. D., J. Aristegui, P. Tett, M. Canton, J. Garcia-Braun, S. Hernandez-Leon, L. Nykjaer, C. Almeida, J. Almunia, S. Ballesteros, G. Basterretxea, J. Escanez, L. Garcia-Weill, A. Hernandez-Guerra, F. Lopez-Laatzten, R. Molina, M.F. Montero, E. Navarro-Perez, J.M. Rodriguez, K. van Lenning, H. Velez and K. Wild, 1998. The coastal transition zone of the Canary Current upwelling region. *Prog. Oceanogr.*, 41, 455–504.

Boletín Oficial de Canarias, 2007. Ley 6/2007, 13 abril, de modificación de la Ley 17/2003, 10 abril (BOC 77, 23.4.2003; BOE 162, 8.7.2003), de Pesca de Canarias. BOC 78, 19/04/2007.

Boletín Oficial del Estado, 2007. Ley 6/2007, de 13 de abril, de modificación de la Ley 17/2003, de 10 de abril, de pesca de Canarias. BOE 124, 24/05/2007.

Fiekas, V., J. Elken, T.J. Müller, A. Aitsam and W. Zenk, 1992. A view of the Canary Basin thermocline circulation in winter. *J. Geophys. Res.*, 97, 12495–12510.

Hernández-Guerra, A., J. Aristegui and M. Cantón, 1993. Phytoplankton pigment patterns in the Canary Islands area as determined using Coastal Zone Colour Scanner data. *Int. J. Remote Sens.*, 14, 1431–1437.

Mittelstaedt, E., 1991. The ocean boundary along the Northwest African coast: Circulation and oceanographic properties at the sea surface. *Prog. Oceanogr.*, 26, 307–355.

González, J.F., M.T.G. Santamaría, L.J. López Abellán, A. Barrera, M.E. Quintero, E. Balguerías, J.A. Díaz Cordero, C. López and C. Presas, 2008. Length and recruitment analysis of small pelagics off the Canary Islands. In: Symposium Science and the challenge of managing small pelagic fisheries on shared stocks in Northwest Africa. 11–14 March 2008, Casablanca, Morocco (Manuscript submitted).

López Abellán, L.J., M.T.G. Santamaría, J.F. González, A. Barrera, E. Balguerías and M.E. Quintero, 2008. The incidence of SST and SSTA on the small pelagics catches from the Canary Islands. In: Symposium Science and the challenge of managing small pelagic fisheries on shared stocks in Northwest Africa. 11–14 March 2008, Casablanca, Morocco (Manuscript submitted).

Santamaría, M.T.G., J.F. González, A. Barrera, L.J. López Abellán, M.E. Quintero and E. Balguerías, 2008. Substitution of sardine (*Sardina pilchardus*) for round sardinella (*Sardinella aurita*) in the Canary Islands waters. In: “Eastern Boundary Upwelling Ecosystems. Integrative and comparative approaches”. Las Palmas de Gran Canaria (España), 2-6 junio de 2008.

