

## Fishery Fact Sheet

CECAF Fisheries Reports 2011

# Spain Bottom wet fish and freezer trawlers shrimp fishery - Moroccan Atlantic coast waters, 2011

*che fraiche et congelateurs*

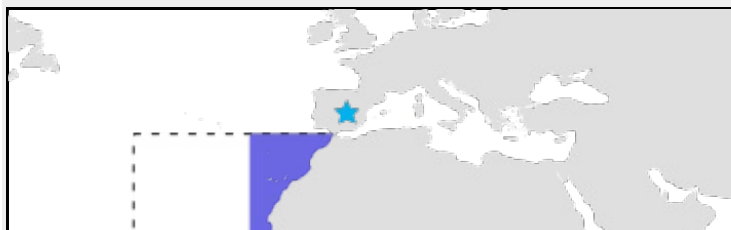
### Data Ownership

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**Fishery life cycle** This fishery terminated on 1999.

**Overview:** *The ice trawlers fleet was mainly based in the ports of Punta Umbría (Huelva, SW Spain), Almería and Málaga (SE Spain), while freezer vessels were mainly based in ports of the province of Huelva (SW Spain). The landing composition of wet fish-bottom trawlers was multispecific, being *P. longirostris* the main landed species (40%), followed by the European hake *Merluccius merluccius* (25%). Other important species for this fleet were the finfishes *Micromesistius potassou*, some species of the family Sparidae, *Trachurus* spp., *Lophius* spp., *Mullus barbatus* and the cephalopods *Sepia officinalis* and *Octopus vulgaris*. The fishing operations were conditioned by the fact that catches were preserved in ice. Therefore, fishing trips were of 7-9 days and fishing area was limited between 35°30' and 28°44', and between 100 and 700 m depth (Cervantes and Goñi, 1985). The most frequented fishing grounds were located between Larache and Kenitra (35° 30'N -34° 00'N), where 85% of annual effort was exerted (Ramos and Fernández, 1994). This fleet experimented a progressive reduction of 70% in number through the different fishing agreements. From 384 vessels in 1979, only 107 vessels operated in 1990 (Ramos et al., 2000). The freezer fleet was specialised in catching crustaceans, those constituting 90-97% of landings (Ramos and Fernández, 1994; Ramos et al., 2000). *Parapenaeus longirostris* was the main target species, with percentages oscillating between 40-64% in the period 1989-1998. Other crustacean species represented in proportions between 33-54% all together, were *Aristaeopsis edwardsiana*, *Aristeomorpha foliacea*, *Aristeus antennatus* and *Nephrops norvegicus*. Molluscs and fishes were in proportions lower than 5% by year. In the last fishing agreement (1995) only shrimpers bottom trawlers were allowed to operate in Moroccan waters (Ramos et al., 2000). The fishery was closed after the end of the agreement in 1999.*

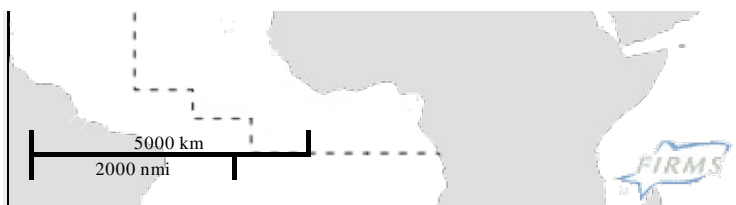
### Location of Spain Bottom wet fish and freezer trawlers shrimp fishery - Moroccan Atlantic coast waters



### APPROACH: FISHING ACTIVITY

#### Fishing Activity

Fishing Gear: Bottom otter trawls [more>>](#)  
 Type of production system : Commercial;  
 Industrial  
 Fishery Area: Morocco Atlantic coast-North  
 Zone; Morocco; Northern coastal subarea  
 Seasonality: March to December ...



#### 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

### Harvested Resource

Target Species: Deep-water rose shrimp; European hake

Associated Species: *Aristaeopsis edwardsiana*; Giant red shrimp; Blue and red shrimp ...  
more>>

### Means of Production

Vessel Type: Stern trawlers wet-fish more>>

### Fishery Indicators

Nominal Effort:

Production:

Participation:

**Geographic reference:** Spain

**Spatial Scale:** National

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Overview - Fishery History - Fishing Activity - Post Harvest - Management - Status and Trends - Source of Information

## History

Andalusian bottom-trawl fleet traditionally exploited Moroccan fishing grounds, targeting both European hake and deep water rose shrimp, keeping the catches in ice. From 1986 onwards, some of these vessels, mainly from Huelva, transformed their holds in freezer cameras (Cervantes et al., 1992). This was the beginning of a specific freezer shrimp fishery.

## Fishing Activity

Type of production system: Commercial; Industrial

### Fishery Area

Climatic zone: Temperate. Bottom type: Soft\_bottom. Depth zone: Shelf (50 m - 200 m); Slope (200 m - 1000 m).  
Horizontal distribution: Neritic. Vertical distribution: Demersal/Benthic.

Geo References for: Morocco Atlantic coast-North Zone

### Morocco Atlantic coast-North Zone

Exclusive Economic Zone Areas (EEZ)	MAR - Morocco
FAO Fishing Statistical Sub Areas	34.1 - Northern coastal subarea

### More Geo References

The following area codes have been found as intersecting the location of Spain Bottom wet fish and freezer trawlers shrimp fishery - Moroccan Atlantic coast waters

FAO Major Fishing Areas	34 - Atlantic, Eastern Central
	37 - Mediterranean and Black Sea
Large Marine Ecosystem Areas (LME)	26 - Mediterranean Sea
	27 - Canary Current

The Moroccan Atlantic coast is part of one of the four major trade-wind driven continental margin upwelling zones in the world oceans, the northwestern African upwelling system (or the Canary Current System). In the Eastern Central Atlantic, the dynamics of an eastern boundary current interacting with trade wind-driven upwelling control this marine ecosystem with exceptionally high primary and secondary productivity (Cury and Roy, 1989; Binet, 1997; Demarcq and Faure, 2000). While coastal upwelling occurs mostly on the shelf, biogenic particles derived from upwelling are deposited mostly at the upper continental slope. Nutrient-rich coastal water is transported within the Cape Ghir filament region at 30°N up to several hundreds of kilometres offshore. Both upwelling intensity and filament activity are dependent on the strength of the summer Trades (Freudenthal et al., 2002).

## Resources Exploited

Deepwater rose shrimp - Morocco, Mauritania, Senegal and Gambia

European hake - Morocco

Blue and red shrimp - Morocco, Mauritania, Senegal and Gambia

Giant red shrimp - Morocco, Mauritania, Senegal and Gambia

Seabreams - Northwest Africa

Horse mackerel - Northern area of the Eastern Central Atlantic

Cuttlefish - Morocco, Mauritania Senegal and Gambia

Octopus - Northern Areas of the Eastern Central Atlantic (FAO Statistical Area 34)

Other resources: Stocks of norway lobster, blue whiting, anglers, red mullet and aristaeidae.

## Target Species

*Parapenaeus longirostris*

FAO Names : en - Deep-water rose shrimp, fr - Crevette rose du large, es - Gamba de altura, ar - إيريان  
وردية أعماق المياه, zh - 长额拟对虾, ru - Креветка розовая глубоководная

*Merluccius merluccius*

FAO Names : en - European hake, fr - Merlu européen, es - Merluza europea, ru - Мерлуза  
восточноатлантическая

*Parapenaeus longirostris* for freezers vessels and *Parapenaeus longirostris* and *Merluccius merluccius* for ice trawlers vessels.

Adults

## Associated Species (Bycatch)

*Aristaeopsis edwardsiana*

*Aristaeomorpha foliacea*

FAO Names : en - Giant red shrimp, fr - Gambon rouge, es - Gamba española

*Aristeus antennatus*

FAO Names : en - Blue and red shrimp, fr - Crevette rouge, es - Gamba rosada

*Nephrops norvegicus*

FAO Names : en - Norway lobster, fr - Langoustine, es - Cigala

### *Micromesistius poutassou*

FAO Names : en - Blue whiting(=Poutassou), fr - Merlan bleu, es - Bacaladilla, ar - عُجْبُرْ أَزْرَق, zh - 小鳍鳕, ru - Путассу северная

### *Sparidae*

FAO Names : en - Porgies, seabreams nei, fr - Dentés, spares nca, es - Dentones, sargos nep, ru - Спаровые (=морские караси)

### *Trachurus spp*

FAO Names : en - Jack and horse mackerels nei, fr - Chinchards noirs nca, es - Jureles nep, ru - Ставриды

### *Lophius spp*

FAO Names : en - Monkfishes nei, fr - Baudroies nca, es - Rapes nep

### *Mullus barbatus*

FAO Names : en - Red mullet, fr - Rouget de vase, es - Salmonete de fango, ru - Султанка обыкновенная (=барабулька)

### *Sepia officinalis*

FAO Names : en - Common cuttlefish, fr - Seiche commune, es - Sepia común

### *Octopus vulgaris*

FAO Names : en - Common octopus, fr - Pieuvre, es - Pulpo común

Aristaeopsis edwardsiana, Aristaeomorpha foliacea, Aristeus antennatus, Nephrops norvegicus for the freezer fleet; *Micromesistius poutassou*, Sparids, *Trachurus spp*, *Lophius spp*, *Mullus barbatus*, *Sepia officinalis* and *Octopus vulgaris* for the ice-trawlers fleet.

## **Related Fisheries - Fishery(ies) switching activity seasonally or targeting the same stock**

Spain Freezer bottom trawl shrimp fishery - Mauritanian waters

Morocco Offshore freezer bottom trawlers shrimp fishery - Atlantic coast

Morocco Artisanal coastal bottom trawl shrimp fishery - Atlantic coast

Morocco Industrial coastal freezer bottom trawl shrimp fishery - Atlantic coast

## **Related Fisheries - Same fishing activity(ies) described by another national perspective (at the same or different aggregation level)**

Morocco Spanish bottom trawlers shrimp and hake fishery - Northern zone

## **Vessel Type**

Stern trawlers wet-fish

Stern trawlers freezer

## **Flag State**

 Spain

The average characteristics of these vessels during the last period of the fishery (1991-1998) were 67 GRT, 354 h.p. and 19 m length (for wet-fish trawlers vessels) and 99 GRT, 415 h.p. and 23 m length (for freezer vessels).

## Catch Handling and Processing Equipment

Freezing (for freezer vessels) or conservation in ice (for wet-fish trawlers vessels)

## Crew

15-18 persons (2009)

## Fisherfolks Community

Andalusian and Moroccan fishermen community

## Fleet segment

The Andalusian bottom-trawl fleet traditionally exploited Moroccan fishing grounds, targeting both European hake and deep water rose shrimp, keeping the catches in ice. From 1986 onwards, some of these vessels, mainly from Huelva, transformed their holds in freezer cameras (Cervantes et al., 1992). This was the beginning of a specific shrimp freezer fishery. Freezer vessels were mainly based at ports of the province of Huelva (SW Spain), while the wet-fish trawlers fleet was mainly based at the ports of Punta Umbría (Huelva, SW Spain), Almería and Málaga (SE Spain). Only shrimper bottom trawlers were allowed to fish in Moroccan waters in the fishing agreement expired in 1999 (Ramos et al., 2000). This fishing category was not contemplated in the new Agreement of 2006.

## Fishing Gear

Bottom otter trawls  
Bottom shrimp trawls

At the beginning of the fishery, only wet fish trawlers operated in Moroccan waters by using bottom otter trawls. When freezer trawlers incorporated to the fishery, they changed the gears to bottom shrimp trawls with outriggers.

## Seasonality

March to December (during the last fishery agreement)

## Trip Duration

Average trip duration of 7 fishing days (wet fish trawler) and 40 fishing days (freezer fleet) during the period 1991-1998.

## Ports

Algeciras, Puerto de Santa María, Cádiz (Cádiz) and Lepe, Punta Umbría, Huelva (Huelva), al in Andalucía (S Spain) for the freezer fleet. Santa Pola (Alicante), Almería (Almería), Málaga (Málaga), Algeciras, Puerto de Santa María, Sanlúcar de Barrameda (Cádiz) and Lepe, Punta Umbría, Isla Cristina. Huelva (Huelva) for wet fish trawlers.

## Fishery Indicators

Type	Measure	Value	Unit	Time period
Nominal Effort	Number of vessels (wet fish trawler)	64	vessels	1998
	Number of vessels (freezer)	30	vessels	1998
Production	Catch total (wet fish trawlers)	5716	tonnes	1993-1998

	Catch P. Longirostris (wet fish trawlers)	1754	tonnes	1993-1998
	Catch M. Merluccius (wet fish trawlers)	1504	tonnes	1993-1998
	Catch total (freezer trawlers)	1377	tonnes	1993-1998
	Catch P. Longirostris (freezer trawlers)	750	tonnes	1993-1998
Participation	Number of fishermen (ESP)	1400		2009
	Number of fishermen (MAR)	1700		2009

## Post Harvest

### Fish Utilisation

Consumption (wet fish) and/or exportation (frozen shrimps)

### Markets

Huelva (SW Spain), Cádiz and El Puerto de Santa María (Cádiz, S Spain)

## Management

Management unit : No

### Jurisdictional framework

Management Body/Authority(ies): Ministère de l'Agriculture et de la Pêche Maritime. Département de la Pêche Maritime

**Mandate:** Monitoring; Management.

Area under national jurisdiction: Morocco

Maritime Area: Exclusive Economic Zone Areas (EEZ).

Management Body/Authority(ies): European Union

**Mandate:** Flag state responsibility for its fishing vessels operating in foreign area under national jurisdiction.

Area under national jurisdiction: Morocco

Maritime Area: Exclusive Economic Zone Areas (EEZ).

### Legal definition

Shrimpers Bottom Trawlers

### Management Regime

Agreement on Cooperation in the sea fisheries sector between the European Community and the Kingdom of Morocco of 1995 (OJ L 306, 19.12.1995, p. 7–43). Management measures of the Spanish shrimp bottom trawl fishery were included into the different Fisheries Agreement between the European Community and the Kingdom of Morocco. This fishery was closed after the end of the Agreement of 1995-1999. Management measures described below are those included in the last Fishery Agreement where this fishery was allowed (OJ L 306, 19.12.1995, p. 7–43) under the fishing category “Shrimpers Bottom Trawlers”.

## Management Methods

### CONSERVATION AND MANAGEMENT MEASURES with focus to Effort control- Licences system

- *Gear-related measures*  
Gear type (ban of double-net in the cod-end, ban of bending of the cod-end threads), mesh size (minimum mesh size of 50 mm).
- *Vessel-related measures*  
Access control: Vessel size- Maximum 8 200 GRT/1999 (113 vessels)
- *Fishing activity-related measures*  
Licences, vessel number (maximum of 113 vessels in 1999), closed area (Northern 28°44'N and inside the 12 miles zone) and closed season (two months: January and February).

### Related Fisheries - Fishing activity(ies) managed under the same management unit or being ruled by the same fishing agreement

Spain Coastal purse seine sardine fishery - Moroccan Atlantic coast waters, South zones B and C  
Spain Small scale purse seine anchovy fishery - Moroccan Atlantic coast waters, North zone  
Spain Spain Offshore gillnetter hake fishery - Morocco Atlantic coast waters  
Spain Offshore longliner hake fishery - Moroccan Atlantic coast waters  
Spain Freezer bottom trawlers cephalopods fishery - Moroccan Atlantic coast waters, South

More information on fisheries legislation at: FAOLEX legislative database

## Status and Trends

The fishery was closed in 1999, when the Agreement expired. The new EU-Kingdom of Morocco Fishery Agreement does not include shrimp fishery

## Source of Information

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