European pilchard

**NW Africa southern**

**Fishery**

- NW Africa southern
- Morocco
- Spain
- Purse seine

**STOCK IDENTIFICATION**

Many studies have investigated the stock structure of the European pilchard (commonly, "sardine") population widely distributed in the Northwest and Eastern Central Atlantic, and the Mediterranean and Black Sea (e.g. [Spanakis et al. 2009](https://www.fishsource.org/fishery_page/5986), [Chlaida et al. 2009](https://www.fishsource.org/fishery_page/5986)). Some uncertainty remains ([Kasapidis et al. 2012](https://www.fishsource.org/fishery_page/5986)), and further research into regional stock subunits is needed ([ICES 2016](https://www.fishsource.org/fishery_page/5986)).

The West African European pilchard profiles presented on FishSource reflect two assessment units delineated by the FAO Working Group on Small Pelagic Fish in Northwestern Africa, [FAO-2014](https://www.fishsource.org/fishery_page/5986) one in zones "A + B" (Central) and another in zone "C" (Southern). The recent work of [Shukhgalter 2013](https://www.fishsource.org/fishery_page/5986) supports the distinction of these two stock units.

The Southern stock unit, considered here, reflects the population occurring in the waters of Morocco and countries south, between Cap Blanc at 26ºN through the southern limit of the species extent; while the Central stock unit reflects an entirely Moroccan population from Cap Blanc north to Cap Bonpier at 32ºN.

In addition to the Western stock, FishSource considers the following assessment units throughout the species' distribution: International Council for the Exploration of the Sea (ICES) stock assessment units - of the 8 stock assessment units ([ICES 2014](https://www.fishsource.org/fishery_page/5986)), these 2 are already covered in profiles:
- Western (ICES Divisions 8.a,b,d and Subarea 7).
- Northern Alboran Sea (GSA17) and Northern African Sea (GSA17B).

- General Fisheries Commission for the Mediterranean (GFCM and FAO 2018) (GFCM/FaO) stock assessment units - of the 8 stock assessment units, assumed ([Kasapidis et al. 2012](https://www.fishsource.org/fishery_page/5986) and [ICES 2015](https://www.fishsource.org/fishery_page/5986)), these 3 are already covered in profiles:
- Northern Adriatic Sea (GSA17B) and Northern African Sea (GSA17B).

The West African stocks are captured in industrial and artisanal small pelagic fisheries in Morocco, Mauritania, Senegal, and the Gambia that also target European anchovy, Sardinella auricula, sardinella Sardinella spp., horse mackerel Trachurus spp., and chub mackerel Scomber japonicus.

**ASSESSMENT**

**Strengths**

- The stock is regularly surveyed; in 2017, however, only the Russian and Moroccan acoustic surveys were conducted.
- The stock status is assessed by both the FAO and the INRH for the FAO provides annual scientific advice.
- Scientists, with both the INRH and the FAO, found the stock to be in a relatively good health with respect to biomass reference points.
- There is a Sub-Regional Fisheries Commission (Commission Sous-régionale des Pêches, CSRFT) that includes Mauritania and Senegal that has conducted efforts to assess and manage the transboundary small pelagic stocks shared within the countries of the region, jointly with Morocco.

**Weaknesses**

- There is some misalignment between the INRH and the FAO regarding the exploited status of the stock; some methods by INRH will conflict with results.
- Some species in the broad stock fishery are overexploited - including Atlantic and Common horse mackerel, and round and Madeiran sardinella.
- Stock assessment advice by the FAO is not released in a timely manner; little or no ETP interactions were detected.
- There is some uncertainty in management advice to which management adapts to these factors with respect to catch limits.

**Scores**

- Management Quality:
  - Management Strategy: ≥ 6
  - Managers Compliance: ≥ 6
  - Fishers Compliance: < 6 or ≥ 6
- Stock Health:
  - Current Health: ≥ 6
  - Future Health: ≥ 6
- FIPS: no related FIPs
- MSC: no related MSC fisheries

**RELATED morocco**

- Ministry of Agriculture and Maritime Fisheries (MARR)
- Fisheries Committee for the Eastern Central Atlantic (ICEAF)
RECOMMENDATIONS

RETAILERS & SUPPLY CHAIN

- Support the Sub-Regional Fisheries Commission and Morocco in their efforts to develop a strategic plan for management of the small pelagics fisheries in the region. The management plan should include species-specific TACs, joint setting of TACs, and consideration of how environmental variability may affect stocks.

- Work with scientists to understand the uncertainties in the stock assessment and improve the different assessment models and input data (catches, discards, biological data) to reduce the level of uncertainty in the assessment and to work towards resolving the differences between the models.

- Encourage management authorities to release stock assessment results sooner and improve transparency of subsequent management actions, including the setting of catch or effort limits.

- Ask the government/regional authorities to continue to improve catch and discard reporting and to publish fishery compliance information, especially for Mauritania.

- Work with scientists to conduct studies to clarify the stock structure of northwest African pilchard/sardine.

- Press managers to implement a recovery strategy for other target species in this multi-species fishery to ensure that all such species are at least above biologically-based limit reference points (or proxies for the point of recruitment impairment), especially for Cunene and Atlantic horse mackerels, and round and Madeiran sardinellas.

- Work with scientists and managers to expand the at-sea observer programme to provide representational coverage of all components of the fishery to better understand catches and discards, as well as interactions with habitats and all types of bycatch.

Fishery Profile

https://www.fishsource.org/fishery_page/5986

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