European pilchard

IDENTIFICATION

SCIENTIFIC NAME
Sardina pilchardus

SPECIES NAME(S)
European pilchard, Sardine, European sardine

COMMON NAMES
European pilchard, Sardine, European sardine

STOCK IDENTIFICATION

Several studies have been conducted to understand European pilchard stock structure, which is widely distributed in the northeast and Eastern Central Atlantic, and the Mediterranean and Black Sea (e.g. Sparano et al., 1988; Tinti et al., 2002; Kasapidis et al., 2004; Atarhouch et al., 2006; Chlaida et al., 2006; Silva et al., 2006; Laurent et al., 2007; Chlaida et al., 2009; Antonakakis et al., 2011). However, further research is needed to consider uncertainties (Kasapidis et al., 2012; Atarhouch et al., 2006; Chlaida et al., 2006; Silva et al., 2006; Laurent et al., 2007; Chlaida et al., 2009; Antonakakis et al., 2011). Therefore, here we consider the following assessment units along the European pilchard distribution:

1. Portuguese Ministry of Sea (MM) - (zones C+B; 32ºN – 26ºN) and (zones A+B; 32ºN – 26ºN)
2. Northern Adriatic Sea
3. Northern Alboran Sea
4. NW Africa southern
5. NW Africa central (zones A+B; 12ºN – 26ºN)
6. NW Africa central (zone C; 26ºN – the southern extent of the species distribution)
7. NW Africa central
8. BAEX

ASSessment

Strengths

- The stock is assessed with an analytical age-based model and a benchmark assessment was conducted in 2012. Fishing effort and catch limitations have been in place for over a decade (ICES, 2008b). Impacts on fish species and benthic habitats are deemed low. A new management plan, with a harvest control rule, has recently been reportedly adopted and has been found to be provisionally precautionary (ICES, 2016a). In 2013, overall catch (46,000 tons) represented 8% of those recommended by scientists (58,000 tons).
- Portugal has national catch limits in place consistent with the adopted harvest control rule and has fished with these limits in the most recent year (2012).

Weaknesses

- The biomass of age 1 and older fish has decreased since 2006 and is currently around the historic low. Recruitment has been below the long-term average since 2015. Fishing mortality since 2006 has been above the average of the last ten decades prior to 2009 (ICES, 2014). No international annual TAC is set by management authorities and this has led to the most recent catches to significantly exceed scientifically recommended limits (ICES, 2016a).
- The extent of mixing with sardine stocks to the north is unknown. The main uncertainties in the assessment relate to the discrepant signals about the stock trends provided by the daily egg production method (DEPM) and the comparability of Portuguese and Spanish acoustic surveys, on survey and fishery selection patterns, and on the weighting of the different data sources in the assessment (ICES, 2016a). The level of discards and slaughters is not completely known.
- The perception of the stock status has deteriorated with the 2012 assessment results. Stock biomass (B0) is at historical lows and well below the historical average. Fishing mortality is above the F0.8 proxy, and above the implied target of the management plan (ICES, 2013a). For international annual TAC is set by management authorities (ICES, 2016a). The extent of mixing with sardine stocks to the north is unknown. Acoustic survey inter-calibration is still outstanding (ICES, 2016b).

Scores

Management Quality: 5.5
- Management Strategy: 8
- Managers Compliance: ≥ 8
- Fishers Compliance: > 8

Stock Health:
- Current Health: < 6
- Future Health: 5.5

FIPS
- Not related FIPs

MSC
- Portugal Sardine Purse Seine: Withdrawn

RECOMMENDATIONS

CATCHES & REGULATIONS
1. Support a decrease in fishing mortality.
2. Ensure that catches follow scientifically recommended limits.
3. Explore stock dynamics at low biomass levels further and translate findings into precautionary criteria to improve the proposed management plan.

RETAILERS & SUPPLY CHAIN
1. Refer to the FishSource profile and encourage the formation of a Fisheries Improvement Project.
2. Attend or have a trade association representative attend the Southern Western Waters Regional Advisory Council meetings.