Chilean jack mackerel

SE Pacific

**IDENTIFICATION**

**SPECIES NAME(S)**

*Trubruurus murphyi*

**SCIENTIFIC NAME**

Chilean jack mackerel

**COMMENTS**

Jarl [espagnol]

**STOCK IDENTIFICATION**

Chilean jack mackerel is widespread throughout the Southeast Pacific. Stock structure in the SE Pacific is not clear. Research based on genetic and otolith analysis supports the existence of a single trans-continental population. A recent analysis using a biophysical model indicates high dispersion range and spatial overlap of modelled recruitments, which support the hypothesis of a single panmictic population in the SE Pacific. There are numerous and competing hypothesis considered with no definitive structure; five stocks were already described but research and analysis are still being conducted. The SPRFMO considers 2 working hypotheses until further stock assessments are conducted. The purely straddling the adjacent high seas; and the central-southern Chilean fishery within the Chilean EEZ and the central-southern Chilean fishery within the EEZ and the central-southern Chilean fishery within the Chilean EEZ and the central-southern Chilean fishery within the Chilean EEZ (Quiroz 2017). The Ecuadorian scientific recommendation or defined TAC for the national fishery could not be located. Reference points are provisional and a harvest control rule is not yet in place. Important environmental events, such as the strong 2015-2016 El Niño, influence the spatial distribution of jack mackerel, but effects on the overall population productivity are unclear.

**ASSessment**

**STrengths**

- Since 2010, the South Pacific Regional Fisheries Management Organization (SPRFMO) is conducting a stock assessment and management assessment and since 2013, global catch limits are agreed for the high seas in accordance with scientific recommendations.
- A recovery plan has been adopted in 2014.
- The stock assessment model continues to be revised and improved. Data, information and decisions from all fishing countries are integrated in the assessment process.
- Fishing mortality has been decreasing and is well below the target level.
- The spawning stock increased around 25% comparing to last years and is now above the MSY level.
- A project is underway to advance toward an Ecosystem-Based Approach.
- Joint efforts are in place to control illegal, unreported and unregulated fishing – list of IUU vessels, a Commission Vessel Monitoring System is being implemented and work is in progress to set up an SPRFMO observer program.
- Bycatch rates of commercial species appear to be low in most fleets, but comprehensive lists of bycatch species are not known to be produced.
- No interactions of the fishery with protected species are reported but it is unclear if reporting is adequate.
- A Chilean management plan was recently published for the fishery but does not include a harvest control, which is pointed out to the SPRFMO.

**Weaknesses**

- Although efforts have continued to elucidate the stock structure, conclusive evidence is not available and further research is required, e.g. tagging experiments. Uncertainties on stock assessment are well related to data ageing and recruitment estimates.
- The Peruvian TAC (for national waters) summing up to the Convention Area TAC slightly overpasses what was agreed as a limit under the SPRFMO (for the whole assessment unit). The Ecuadorian scientific recommendation or defined TAC for the national fishery could not be located.
- Reference points are provisional and a harvest control rule is not yet in place.
- Important environmental events, such as the strong 2015-2016 El Niño, influence the spatial distribution of jack mackerel, but effects on the overall population productivity are unclear.

**SCORes**

**Management Quality:**

<table>
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<th>Management Strategy</th>
<th>Managers Compliance</th>
<th>Fishers Compliance</th>
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**Stock Health:**

<table>
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<th>Future Health</th>
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**FIPs**

no related FIPs

**MSC**

no related MSC fisheries

**Recommendations**

**Retail & Supply Chain**

- Work with scientists to support the continuous improvements underway in stock assessment and research on stock structure and especially the effects of environmental variability on the population.
- Encourage the South Pacific Regional Fisheries Management Organisation (SPRFMO) to set biological reference points and harvest control rules that consider the species role in the ecosystem.
- Encourage SPRFMO members and consenting non-members to fully implement and comply with SPRFMO’s Conservation and Management Measures.
- Push the Government of Peru to set their domestic TAC within the agreed catch limit for coastal countries.
- Encourage the Government of Ecuador to publish their scientific advice.