



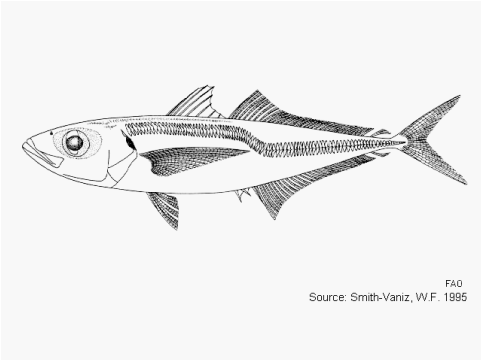


# Chilean jack mackerel SE Pacific

 Fishery:  SE Pacific  Ecuador EEZ  Ecuador  Purse seines

## IDENTIFICATION



### SCIENTIFIC NAME

*Trachurus murphyi*

### SPECIES NAME(S)

Chilean jack mackerel

### COMMON NAMES

Jurel (Spanish)

### STOCK IDENTIFICATION

Chilean jack mackerel is widespread throughout the South Pacific and the stock structure is not clear. Research based on genetic and otolith analysis supports the existence of a single population (SPRFMO, 2013a,b), as well as a recent analysis using a biophysical model, that indicates high dispersion range and spatial overlap of modeled recruitments, which supports the existence of a single panmictic population in the SE Pacific (*SPRFMO 2016*). A single assessment unit is here considered given the uncertainties.

Of the existing five management units, the Ecuadorian (*GdE 2014*), the Peruvian (*El Peruano 2017*) and the high seas fisheries (the SPRFMO Convention area; all pelagic trawlers) are exclusively for direct human consumption; Chilean fisheries operating (the northern, XV-II regions and the central-southern Chilean, III-X regions) are mainly used for fishmeal (*Quiroz 2017*).



### RELATED LINKS:

- [Ecuador Ministry of Agriculture, Livestock, Aquaculture and Fisheries \(MALAF\)](#)
- [South Pacific Regional Fisheries Management Organization \(SPRFMO\)](#)

## ASSESSMENT

### Strengths

- Since 2010, the South Pacific Regional Fisheries Management Organization conducts a joint jack mackerel assessment and since 2013, catch limits are agreed for the assessment unit area and for the Convention area, in accordance with scientific recommendations.
- A recovery plan (harvest control rule) has been adopted in 2014.
- The assessment model continues to be revised and improved. Data, information, and decisions from all fishing countries are integrated into the assessment process.
- Fishing mortality has been decreasing and is well below the target level.
- The spawning stock increased comparing to last years and is now above the MSY level.
- 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 by 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. There are also uncertainties in the assessment related to natural mortality, input data quality, and growth.
- The Ecuadorian scientific recommendation or defined TAC for the national fishery has not been available in the last years.
- Reference points are provisional and uncertainties were raised by the SPRFMO Scientific Committee about the discontinuities in the fishing mortality to be applied under the harvest control rule and the constraints in the interannual TAC variability.
- 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:

Management Strategy	Managers Compliance	Fishers Compliance
≥ 6	≥ 8 to 10	≥ 8 to 10

### Stock Health:

Current Health	Future Health
7.5	9.2

## FIPS

No related FIPs

## MSC

No related MSC fisheries

## RECOMMENDATIONS

### RETAILERS & 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 Fishery Management Organisation (SPRFMO) to set biological reference points and harvest control rules that consider the species role in the ecosystem.
- Encourage SPRFMO members and cooperating 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.