

Chilean Jack Mackerel Workshop



Introduction

The Third International Meeting of the International Consultations on the Establishment of the South Pacific Regional Fisheries Management Organization (SPRFMO) was held in Reñaca, Chile, from 23 April – 4 May 2007. These negotiations are placing a strong emphasis on effective implementation of the precautionary approach and the ecosystem approach to fisheries management in any future SPRFMO convention, and the scientific processes required to support implementation of these approaches.

The SPRFMO Scientific Working Group (SWG) met during the meeting to consider scientific matters related to development of management measures for the South Pacific high seas fisheries. The SWG meeting noted the important role that jack mackerel (*Trachurus murphyi*), play in the functioning of trophic systems as substantial predators and prey in the south Pacific Ocean.

In particular, the SWG recognised the critical importance of developing and agreeing on stock structure and stock discrimination hypotheses upon which to base future assessments, particularly for jack mackerel as the next major step towards effective management of this resource.

Specific proposals made to address this need included:

- Interim stock structure hypotheses will need to be developed as a basis for future assessments, until the SWG agrees to change these stock structure assumptions.
- Additional future research is needed to provide new data and information required to fill gaps in current knowledge regarding stock structure.

Jack mackerel occur throughout the South Pacific, from the shelf adjacent to Ecuador, Peru, and Chile; throughout oceanic waters along the Subtropical Convergence Zone; in the New Zealand EEZ south of about 34 °S; and in south-eastern waters of the Australian EEZ. Jack mackerel has become an important commercial species following a substantial increase in abundance in the early 1970s in the east and an associated large-scale westward expansion into the central Pacific, New Zealand and Australian waters (Figure 1).

In this region, jack mackerel have mainly been fished in the SE Pacific, in FAO statistical area 87. According to FAO data, jack mackerel catches in the SE South Pacific remained at low levels in the 1950s and 1960s, but increased rapidly from ~0.2 million tons in 1970 to a peak of almost 5 million tons in 1995 (Figure 2). Catches then declined rapidly to ~1.4 million tons by 1999. Total SE Pacific catches have averaged over 2.9 million tons per year over the past 20 years, and are currently (2002 - 2004) ~1.75 million tons.

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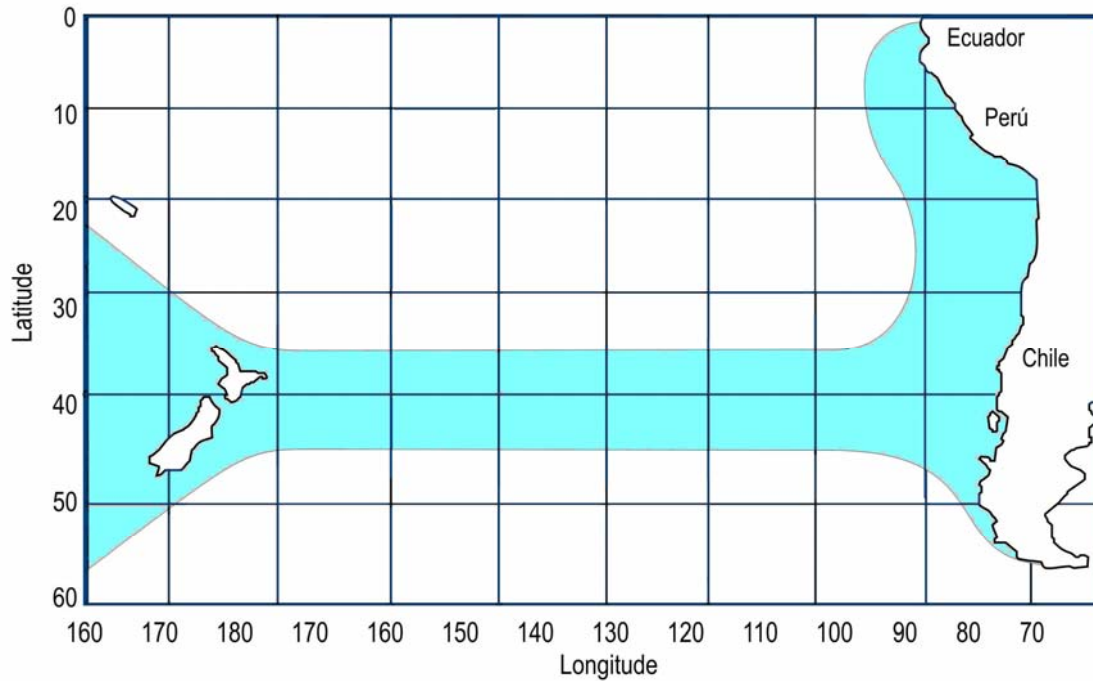


Figure 1. Distribution of jack mackerel on the high seas in the South Pacific.

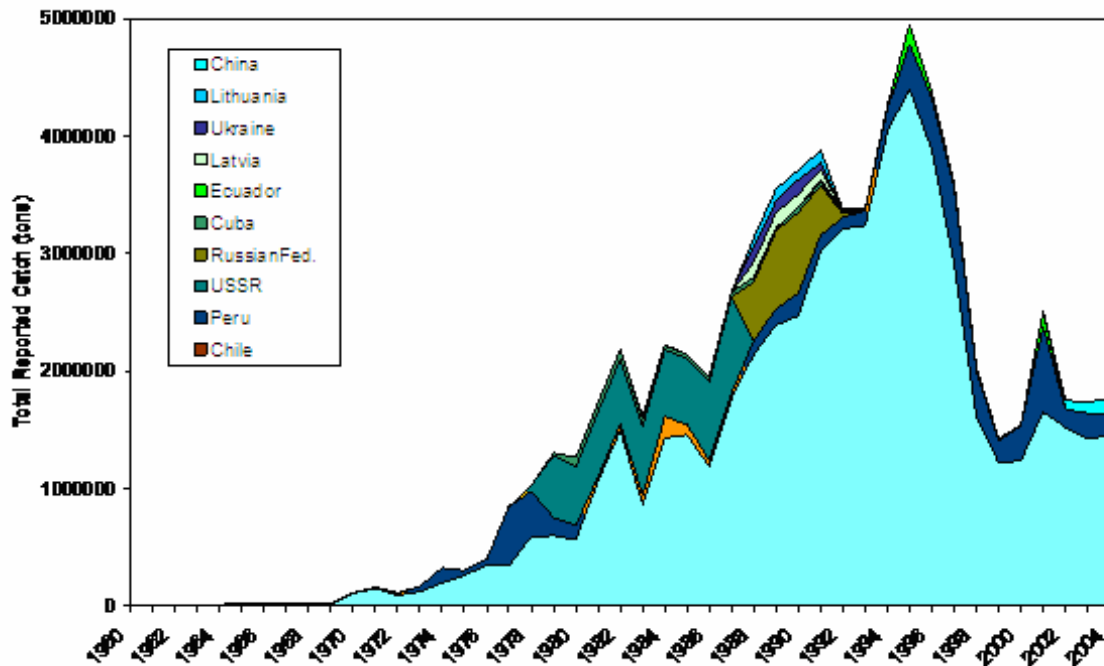


Figure 2. Total reported jack mackerel catches (million tons) in FAO area 87 (SE Pacific) by the top ten fishing nations from 1960 – 2004. (Source: FAO Database 2006)

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Since the start of the fishery in 1950 the majority (~75%) of the global catch has been taken by Chilean vessels predominantly within its EEZ. During the period 1978-1990 the fleet of the former USSR took a catch of ~10 million tonnes in the high seas area. Between 1994 and 2002, most of the Chilean catch of *T. murphyi* was taken within its EEZ, but in 2003 and 2004 32% and 28% was taken outside the EEZ. In 2004 the Chilean catch was ~363 000 tonnes from the high seas within the South Pacific region. In recent years other flags including China, Netherlands, Republic of Korea, and Russia have taken catches on the high seas in the South Pacific region. At the western extent of the species range the high seas catch is much smaller, with New Zealand catches of <1 ton in 2005. It is not currently possible to accurately quantify high seas catches as reporting is incomplete and those data that are reported do not separate between high seas and within EEZ catches.

Having identified the need for urgent work to be conducted to develop working stock structure hypotheses upon which to base future assessments of jack mackerel, the SPRFMO III SWG meeting proposed that a special *Jack Mackerel Stock Structure and Assessment Workshop* be conducted to discuss and develop agreed working hypotheses, and to consider assessment requirements and inputs under such stock structure hypotheses.

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