



Activity Report of the 15th Meeting of the ISC July 2015 Kona, Hawaii

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ISC Chairman

<http://isc.ac.affrc.go.jp>

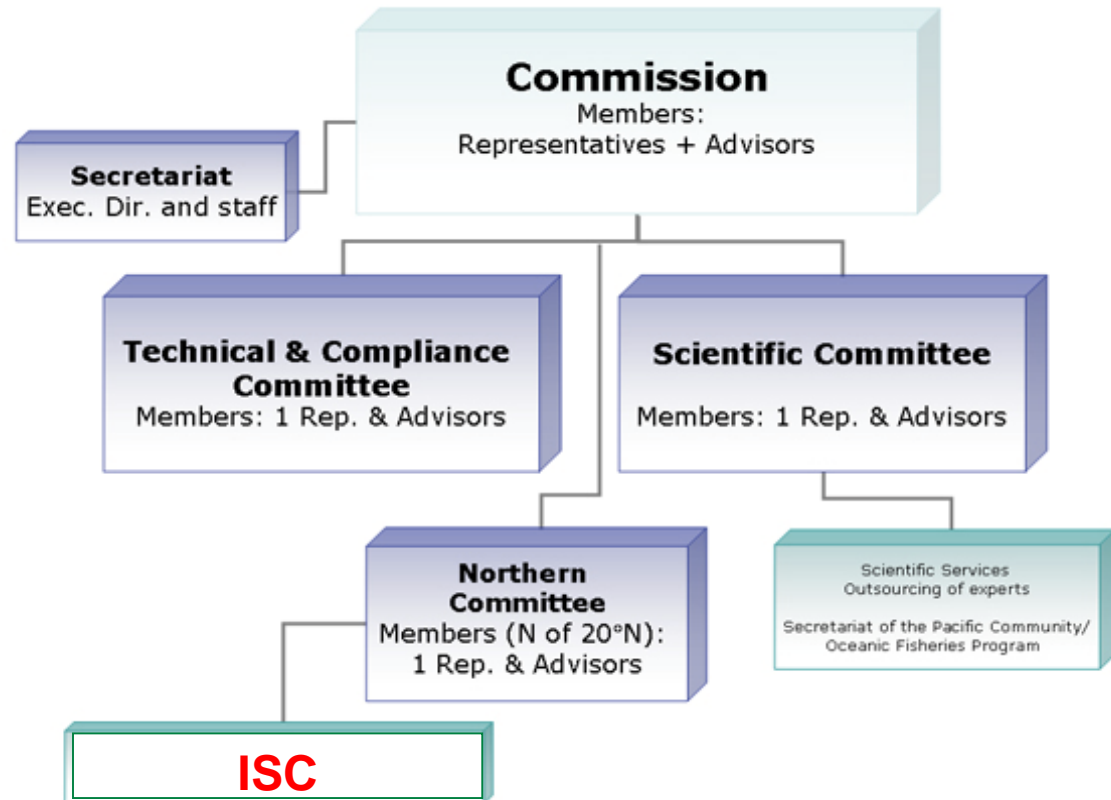
Presentation Topics

- **ISC Structure and Mission**
- **ISC15 Participants**
- **Stock Status & Conservation Advice**
- **Interactions with Regional Organizations**
- **Future Activities**

ISC Structure and Mission

- To **enhance scientific research of tuna and tuna-like species in the North Pacific Ocean** and to establish the scientific groundwork for the conservation and rational utilization of these species.
- Results of the **ISC stock assessments are made available** to participating members and RFMOs of the Pacific Ocean.
- The **ISC is the science provider** for the Northern Committee of the Western and Central Pacific Fisheries Commission (WCPFC).

WCPFC Organization Chart



ISC Structure and Mission



Working Group Key

1: Canada 2: China 3: Chinese-Taipei 4: Korea 5: Japan
6: Mexico 7: USA 8: PICES 9: SPC 10: IATTC 11: FAO



ISC15 Participants

July 2015 Kona, Hawaii USA

ISC Members

- Canada
- Chinese Taipei
- Japan
- Mexico
- Republic of Korea
- United States of America

Observers

- WCPFC
- PICES
- Pew Charitable Trust
- World Wildlife Fund for Nature - Japan
- International Seafood Sustainability Foundation
- Duke University

ISC Stock Assessments & Analyses

Full Assessment

- North Pacific Striped Marlin (UPDATE)
 - WCNPO stock

Indicator Analysis

- Shortfin Mako Shark

Previous Assessments

- NP swordfish (2014); NP blue shark (2014); NP albacore (2014); Pacific blue marlin (2013); Pacific Bluefin tuna (2014)

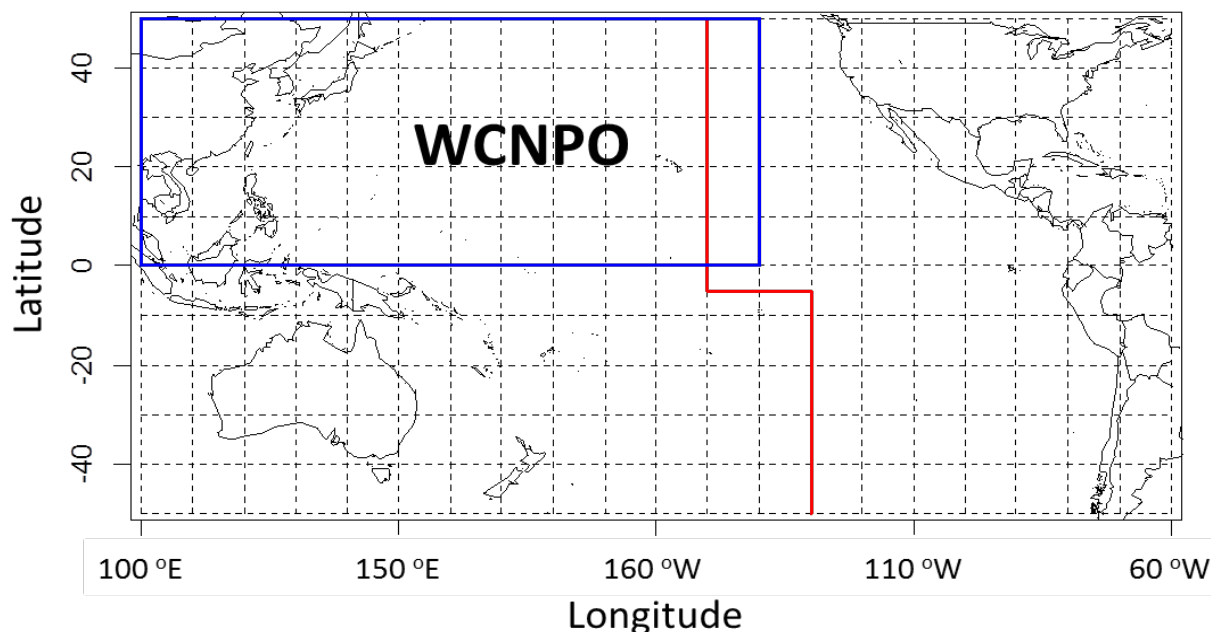
Stock Status & Conservation Advice

Shortfin Mako Shark (2015)

- **Stock Status and Conservation Advice:**
 - Recognizing that information on important fisheries is missing, the untested validity of indicators for determining stock status, and conflicts in the available data, stock status (overfishing and overfished) could not be determined.
 - Managers should consider the undetermined stock status of shortfin mako shark when developing and implementing management measures.

Stock Status & Conservation Advice

North Pacific Striped Marlin Stock Structure



Stock boundary for the stock assessment update of Western and Central North Pacific Ocean striped marlin (WCNPO) as indicated by the blue lines. Red lines indicates the WCPFC convention area.

Stock Status and Conservation Advice

North Pacific Striped Marlin – WCNPO (2015)

- **Stock Status**: When the status of striped marlin is evaluated relative to MSY-based reference points, overfishing is occurring and the stock is overfished.
- **Conservation Advice**: The stock has generally been in an overfished condition since 1977 and fishing appears to be impeding rebuilding, especially if recent low recruitment levels persist. Conservation advice under three scenarios (targets) was provided to support decision making – F_{MSY} , constant catch (2,850 t), fishing mortality (F) levels (2001-2003, 2010-2012).

Interactions with Regional Organizations

- **IATTC & WCPFC:**
 - Cooperate in research & assessments (species WG)
 - Exchange of data at WG and data inventory (Category I, II, and III)
 - Attended and participated in the April 2015 ISC MSE Workshop in April 2015
- **PICES:** Developed a framework for establishing an ISC-PICES collaborative research program to assess the impacts of climate change on HMS.

Future Activities (2015-2016)

- **Pacific Bluefin Tuna WG Workshops**
 - Nov. 2015 – Model development & data prep
 - Feb/Mar. 2016 – Complete stock assessment
- **Billfish WG Workshops**
 - Dec. 2015 – Pacific blue marlin data preparation
 - March 2016 - Complete Pacific blue marlin stock assessment

Future Activities (2015-2016)

- **Shark WG Workshop**
 - Spring 2016 – Blue and shortfin mako shark data preparation and research
- **Albacore WG Workshops**
 - Dec. 2015 (WCPFC) – Albacore MSE Input Table
 - April 2016 – MSE Workshop to finalize Input Table & future planning
 - Nov. 2016 – Data preparation and MSE progress
- **PBF Sampling to Support Close-Kin Research**
- **International Workshop on Indicators (2016/2017)**

Albacore MSE Input Table - DRAFT

Types of objectives and questions to consider when defining operational objectives. Note that the examples in **bold** are presented to show the level of detail necessary to craft a useful operational objective from policy statements for MSE.

Value	Question	Potential Management Objective	Target or Threshold Value	Measurement Time Horizon	Acceptable Risk (Probability for Achieving Target/Avoiding Threshold)	Performance Indicators/Criteria
Ecological	What is the desired status (i.e., abundance) of the stock?	Maintain biomass above the LRP	20% $SSB_{0 F=0}$	2 generations, 30 yr	95% of the projected years	Number of years in which stock in/not in overfished state
		Maintain biomass around its current level with reasonable variability	SSB_{2012}; average $SSB_{2008-12}$; total B_{2012}; median Biomass. Reasonable variability = CV 10%, 25%; = $\pm 10\%$, 25%; \pm	2 spawning cycles - 10 yr	50%	Proportion of projected years in which biomass is within variability limits
Socio-economic	What is the desired level of catch?	Maintain catch at average levels subject to achieving ecological objectives	Average catch	1981-2010; or 2008-2012	50% of projected years; or $\pm 10\%$ of average	Proportion of years in which average catch achieved
Socio-economic	What is the maximum change in catch (or effort)?	Limit average annual variability (AAV) in catch (or effort)	10%, 25%	5 yr, 10 yr	50%	CV of annual catch
Cultural	What is a viable level of resource access for harvestors?	Maintain current fishing effort in targeting and non-targeting fisheries	Average; Median(2008-12)	Annual	50% of projected years	Average annual fishing effort by fishery



THANKS!