



**NOAA  
FISHERIES**

**Southeast  
Fisheries  
Science Center**

# **2016 SCRS Research Activities and U.S. Participation**

**Spring Species Working Groups Meeting of the  
Advisory Committee to the U.S. Section to ICCAT**

**March 9, 2016**



SCRS Officers

Chairman, SCRS

David Die (USA)

Sub-Committee on Ecosystems

Kotaro Yokawa (Japan) - convener/bycatch

Alex Hanke (Canada) - Ecosystem Based Fisheries Mgmt

Sub-Committee on Statistics

Guillermo Diaz (USA)

Methods Working Group

Michael Schirripa (USA)

Tropical Tunas Coordinator

Paul Bannerman (Ghana)

*Bigeye tuna*

Hilario Murua (EU)

*Yellowfin tuna*

Shannon Calay (USA)

*Skipjack*

Monin Justin Amade (Côte d'Ivoire)

Atlantic Albacore:

Haritz Arrizabalaga (EU)

Mediterranean Albacore

José M<sup>a</sup> Ortiz de Urbina (EU)

Bluefin tuna Coordinator:

Clay Porch (USA)

*Eastern Atlantic Bluefin*

Sylvain Bonhommeau (EU)

*Western Atlantic Bluefin*

John Walter (USA) will chair 2016 WBFT Data meeting

Billfishes

Freddy Arocha (Venezuela)

Swordfish Coordinator:

Rui Coelho (EU)

*North Atl Swordfish*

Rui Coelho (EU)

*South Atl Swordfish*

Rui Coelho (EU)

*Mediterranean Swordfish*

George Tserpes (EU)

Sharks

Enric Cortés (USA)

Small tunas

Nouredine Abid (Morocco)

Enhanced Billfish Research Pgm Coord: John Hoolihan (USA)

East

Fambaye Ngom Sow (Senegal)

West

John Hoolihan (USA)



<u>SPECIES</u>	<u>Last/Next assessment</u>
YFT, Yellowfin Tuna, <i>Thunnus albacares</i>	2011 / <b>2016</b>
BET, Bigeye Tuna, <i>Thunnus obesus</i>	2010 / 2015
SKJ, Skipjack Tuna, <i>Katsuwonus pelamis</i>	2014 / not scheduled (2020?)
ALB, Albacore, <i>Thunnus alalunga</i>	2013/ <b>2016</b> (N. Atl)
	2011/ <b>2016</b> (S. Atl)
	2011/ <b>2016</b> (Med.)
BFT, Atl. Bluefin Tuna, <i>Thunnus thynnus t.</i>	2014/ 2017 (E&W Atl.)
SWO, Swordfish Atl. , <i>Xiphias gladius</i>	2013/ 2017
SWO-Med., <i>Xiphias gladius</i>	2014/ <b>2016</b>
SAI, Sailfish, <i>Istiophorus albicans</i>	2009/ <b>2016</b>
BUM, Blue Marlin, <i>Makaira nigricans</i>	2011 / 2017
WHM, White Marlin, <i>Tetrapturus albidus</i>	2012 / 2018
	BSH, <i>Prionace glauca</i> 2015 / ?
Small Tunas (various) [none scheduled]	SMA, <i>Isurus oxyrinchus</i> 2012 / 2018
Pelagic sharks	POR, <i>Lamna nasus</i> 2009 / 2017



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# Selected SCRS Methods Working Group meeting Objectives

- Review progress on MSE, Harvest Control Rules, Limit, Threshold and Target Reference Points; propose a work plan to develop advice for the July Panel 2 meeting
- Continue work on a simulation study on how best to bring spatially changing oceanographic and environmental conditions into the assessment process.
- Review the results of the EffDis re-estimation effort
- The proposed additions to the ICCAT glossary and discuss the role of the WGSAM in the future development of the glossary
- ICCAT software catalogue and the process to incorporate new methods in both the stock assessment and the software catalogue
- Discuss options for increasing the ICCAT WGSAM involvement, cooperation, and interaction with other tuna RMFO Methods Working Groups and the Strategic Initiative on Stock Assessment Methods (SISAM)





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# Selected Yellowfin Tuna Data Preparatory meeting Objectives

## Review. . .

- the re-estimation of the historic Ghanaian statistics (landings and catch at size) for bigeye and yellowfin tuna
- any updated biological information (stock structure and mixing, morphometric relationships, age and growth, natural mortality, reproduction)
- updated fisheries statistics (Task 1, catch and effort, size composition)
- process of developing catch at size, catch at age
- available fisheries indicators/abundance indices
- updated tagging information

## Determine. . .

- The indices to be used in stock assessment, assuming any recommended improvements are accommodated.
- the models/procedures to be used for the stock assessment
  - propose model structures and procedures
  - recommend model diagnostics





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## Objectives of the 2nd Meeting of the Ad hoc Working Group on FADs meeting

Assess the use of FADs in tropical tuna fisheries in ICCAT, notably by estimating the past and current number of different types of buoys and FADs operating in ICCAT tropical tuna fisheries, and evaluate ways to improve the use of information related to FADs in the process of stock assessments, in particular to quantify the effort associated to this type of fishery;

In view of the identification of data gaps, review the information provided by CPCs pursuant to the FAD related provisions in the relevant ICCAT conservation and management measures;

Assess the relative contribution of FADs to the overall fishing mortality in ICCAT tropical tuna fisheries;

Assess the developments in FAD-related technology, notably with regard to:

- Technological improvement steps in relation with fishing mortality.
- FAD and buoys marking and identification as a tool for monitoring, tracking and control of FADs.
- Reducing FADs ecological impact through improved design, such as non-entangling FADs and biodegradable material.

Identify management options, including the regulation of deployment limits and characteristics of FADs, and evaluate their effect on ICCAT managed species and on the pelagic eco-systems, based on scientific advice and the precautionary approach. This should take into consideration all the fishing mortality components, the methods by which FAD fishing has increased a vessel's ability to catch fish, as well as socio-economic elements with the view to provide effective recommendations to the Commission for FAD management in tropical tuna fisheries.





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# Shark Species Group meeting (Madeira, Portugal, April 25-29, 2016): Main activities planned in which US scientists are involved

- All the following activities were conceived in preparation of the stock assessment of *shortfin mako* planned for 2017:
  - Review progress on the SRDCP (Shark Research and Data Collection Program) projects on *shortfin mako* age and growth dynamics, genetics, post-release survival, movements, and trophic dynamics, which is a collaboration among members of the Shark Species Group (SSG), mostly Portugal, Uruguay, Japan, and the USA (SEFSC)
  - Provide stock status indicators of *shortfin mako* (standardized CPUE from the pelagic longline fishery and average size time series)



# Shark Species Group meeting (Madeira, Portugal, April 25-29, 2016): Main activities planned in which US scientists are involved

- Start review of historical catches, CPUE indices, and spatial length composition data of *shortfin mako* to help define fleets for the SS3 model to be used in the 2017 stock assessment
- In response to previous ICCAT External Expert recommendations, present updated SS3 model results which consider spatial structure in North Atlantic fleets to account for the differences in size composition of fish in different areas (using blue shark as an example). This activity is necessary to inform the SSG's planned review of spatial length composition data necessary to define fleets for the SS3 *shortfin mako* model before the data are compiled. Methods for accounting for the relative reliability and consistency of different data streams in Stock Synthesis emanating from the CAPAM Data Weighting Workshop held in La Jolla, California, in 2015, will also be presented





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# Selected Bluefin Tuna species group meeting objectives

## Review. . .

- and continue to develop age-length keys for the next assessment.
- and continue to develop stock composition keys (otolith microchemistry and shape, genetics, etc.).
- all indices, catch data and VMS data available for use in the 2017 assessment
- and continue to analyze tagging data to be used for the next assessment.
- progress on life history studies such as fecundity schedules, natural mortality and stock structure

## Development of indices by combining data from multiple CPCs

Scientists from the USA, Japan, Canada, and Mexico plan to meet during the week prior to the Bluefin tuna working group meeting, to conduct joint analyses with the goal of developing a single index for western BFT from pelagic longline data.





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# Selected Sub-Committee on Ecosystems intersessional meeting objectives

## Review. . .

- progress made in implementing EBFM
- ecosystem indicators for use in stock assessment
- new indicators and explore the adequacy of indicators
- ecosystem drivers of abundance and mode of action

