Marine Mammal Commission

Multi-Stakeholder Collaboration to Monitor and Reduce Bycatch

7 May 2014

ISSF was formed in 2009 to to address tuna sustainability challenges and support RFMOs' enactment of science-based conservation measures.

ISSF INTERNATIONAL SEAFOOD SUSTAINABILITY FOUNDATION

A global coalition of leading scientists, the tuna industry and WWF, the world's leading conservation organization, committed to **science-based initiatives** for the long-term **conservation and sustainable** use of tuna stocks, **reducing bycatch** and promoting **ecosystem health**.

Participating Companies

nearly 75% of the world's canned tuna processing capacity

Our Stakeholders, Our Audiences, Our Partners

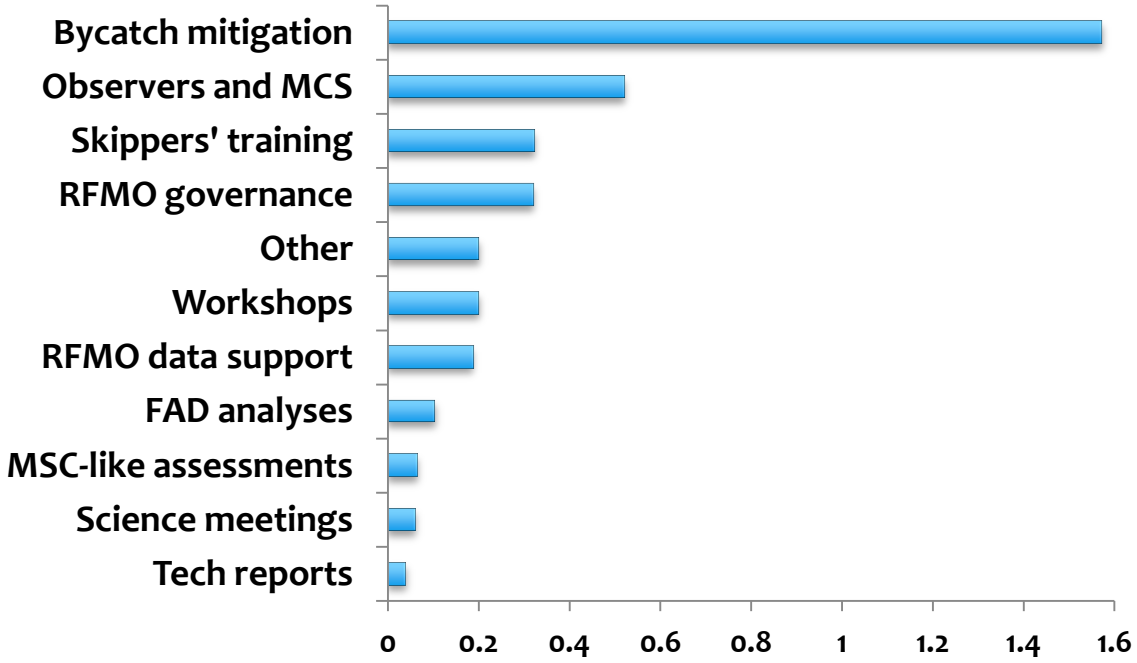
ISSF's Innovative Approach

Our Strategic Objective

*To improve **sustainability of global tuna stocks** by developing and **implementing verifiable, science-based practices**, commitments and international management measures that result in tuna fisheries **meeting the MSC certification standard[1] without conditions**, and becoming the industry standard for vessel owners, traders, processors and marketers.*

Pillar 1 - Science Funding Overview

- **$3.6 million** in 11 main project groups



Bycatch Mitigation

Bycatch Mitigation
Scientific Research

On-board research

Scientists conduct at-sea research onboard working purse seine tuna vessels.
Collaborate and exchange with skippers & fishers.

Workshops to share best practices

Working with skippers via interactive workshops around the world

Industry action

Processors adopt conservation commitments and exert market influence through procurement/advocacy

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FADS , Free Schools and Bycatch

FAD fishing by purse seiners represents about 37% of global Tuna catches and 48% of global Skipjack catches

Tuna Catches by Gear Type

	Total	Skipjack
Purse Seine FADs	37%	48%
Purse Seine School	24%	25%
Other (Long Line, P&L, etc.)	39%	27%
Total	100%	100%

Fishing on FADs results in higher catches of Skipjack – and higher catches of less desirable Bigeye

Avg Purse Seiner Composition of Catch

	School	FAD
Skipjack	63%	75%
Yellowfin	35%	16%
Bigeye	2%	9%
Total	100%	100%

Bycatch of non-target species is higher for FAD fishing, but below 4% in three of the major oceans

Purse Seine By-Catch - Non-Target Species

	WTP	ETP	Indian	Atlantic
School	0.3%	0.8%	0.8%	2.8%
FAD	1.7%	2.4%	3.6%	8.9%
Observer Coverage	100% (1)	100%	< 10%	< 10%

(1) Implemented in 2011 and historic observer data is not broadly available

80-95% of bycatch is of species not at risk; primary issues are with two species of sharks
The Atlantic shows a high rate of bycatch but most of this fish has a market in western Africa

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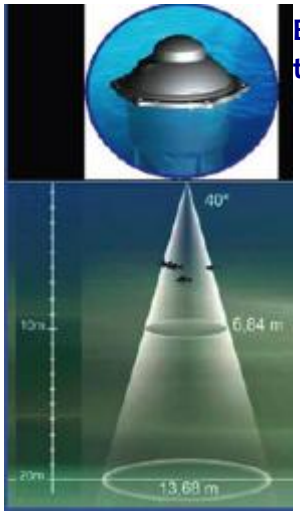
Bycatch Mitigation
Scientific Research

Observing Species Behaviour

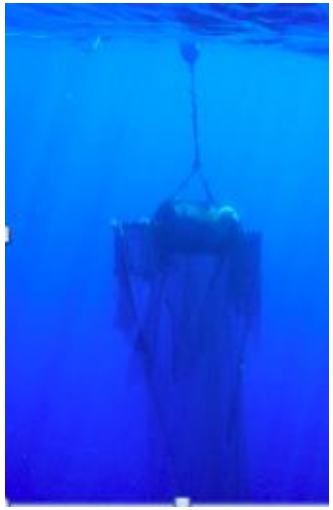
Acoustic tagging for behavioral study

Testing a Release Panel



Buoy with Echo Sounder to pre-estimate catch

Testing a new design Non-entangling FAD



Turtles – Habitat Protection

- All seven sea turtle species threatened at some level.
- Since 2010 ISSF Participating Companies, selling longline caught tuna, have paid a tax to fund community-based, on-the-ground nesting beach protection.
- Nesting beach conservation is a pre-requisite for at-sea mitigation measures to be effective.
- Averages $100,000 per year
    - Indonesia
    - Solomon Islands
    - Brazil
    - Tanzania
    - Peru
    - Oman

Data, Observers and MCS

Data, Observers & MCS

- Observer data harmonization (Kobe-like) meeting
  - Purse Seine meeting conducted in 2011
  - Longline coming up
- On-Line Observer guidebook
- Electronic Monitoring
  - PS and LL trials
  - Technical Reports / data analysis
- Electronic Observer Reporting
  - Trials of TUBS database for observers onboard
- Electronic Skipper logbooks
  - Trials of e-TUNALOG (PS and LL)

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Human Observer and Electronic Monitoring

* Electronic monitoring provides independent evaluations
* Ghana Testing
* Catch handling practices can be monitored
* Bycatch rates recorded
* Observers or electronic monitoring systems for specific species groups

Workshops, Science Meetings and Technical Reports

Environmental Impact

ISSF ratings measure environmental impact by fishing gear. All rankings are general and may vary by region or specific stock.

Purse Seiners - Free School, Dolphins
Troll
Handlines
Tuna Traps

Adverse population effects on bycatch species are not expected for a given fishing gear/fishing method.

Purse Seiners - FADs & logs
Pole and line

Adverse population effects on bycatch species are expected for a given fishing gear/fishing method, but there are either management measures or research programs in place expected to mitigate these effects. In addition, there is adequate monitoring of bycatch.

Longline
Midwater trawl
Gillnet

Adverse population effects on bycatch species are expected for a given fishing gear/fishing method, and there are no management measures or research programs in place expected to mitigate these effects. In addition, bycatch monitoring is inadequate.

Focus on Dolphins

La Jolla Conference – Oct. 2012

* Purpose – to determine if the ISSF Green rating is defensible
* 22 participants with acknowledged different views on the issue, including ISSF, NOAA, INAPESCA, IATTC, UCSC and WWF
* Fully Funded by Private Sector

Recommendations

- Abundance Data (fishery independent or other) trends must be accurate and up to date – last survey in 2006

- And 7 other recommendations for research, analysis, data collection for ways in which some of the remaining uncertainties could be addressed.

Thank you!