

Current management at IATTC based on a “Best Stock Assessment” approach

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Management Strategies for Tuna Industry Stakeholders in the Eastern Pacific Ocean (EPO)
San Diego, August 12, 2019



Topics

- Antigua Convention: Objective
- Other management objectives
- Tropical Tuna fishery management in the IATTC
 - Harvest Control Rule and Reference Points
 - Implementation of Harvest Control Rule
 - Other management measures
- Management Strategies
- Conclusions

Antigua Convention: Objective

ARTICLE II. OBJECTIVE

The objective of this Convention is to ensure the long-term conservation and sustainable use of the fish stocks covered by this Convention, in accordance with the relevant rules of international law.

... ensure the long-term **conservation** and **sustainable use** of the fish...

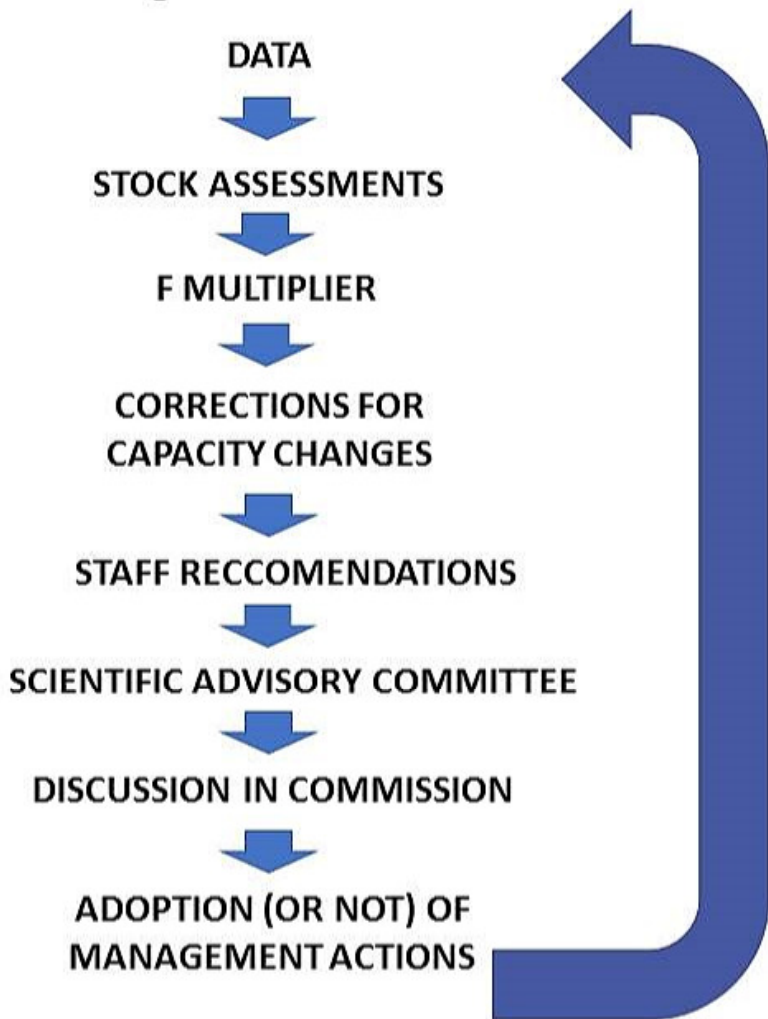
- Maintain or restore the populations of harvested species at levels of abundance which can produce the **Maximum Sustainable Yield (MSY)**
- Apply the **Precautionary Approach**:

“...be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.”

Other objectives (explicit or implicit)

- Maintain healthy fishing resources and viable industries
- Objectives:
 - Vary among stakeholders and countries
 - May change over time
 - May be in conflict

Tropical Tuna management in the IATTC



Harvest Control Rule Implementation

- Limited entry for new purse-sein vessels
- Fishing Capacity should remain constant
- Recommendations of IATTC Scientific Staff to implement Harvest Control Rule using a time closure of the fishery (vessels can choose among two periods)
- Duration of closure calculated using an F multiplier from the stock assessments of YFT and BET, can be adjusted given changes in fleet capacity.

Harvest Control Rule Implementation

- “Corralito”: spatial closure (Sep. 29 to Oct. 29)
- Equivalent to 3 closure days for all EPO (SAC-05-16)



Figure 1. Closure area

Harvest Control Rule Implementation

- Longline catch quotas by CPC



Other measures

- Fishing on FADs
- Total retention



Relationship to Management Strategies

Is the combination of **pre-agreed data, specific analyses** applied to those data and the harvest control rule used to determine **management measures** based on the results of those analyses (Punt et al 2016)

- In the IATTC context, data and analyses change as new research is conducted
- Management measures (e.g. closures) and other management actions can change in their implementation from year to year.
- Therefore, although there are elements of a Management Strategy in the IATTC, those elements could be defined and improved towards a more defined strategy, along with alternatives.

Conclusions

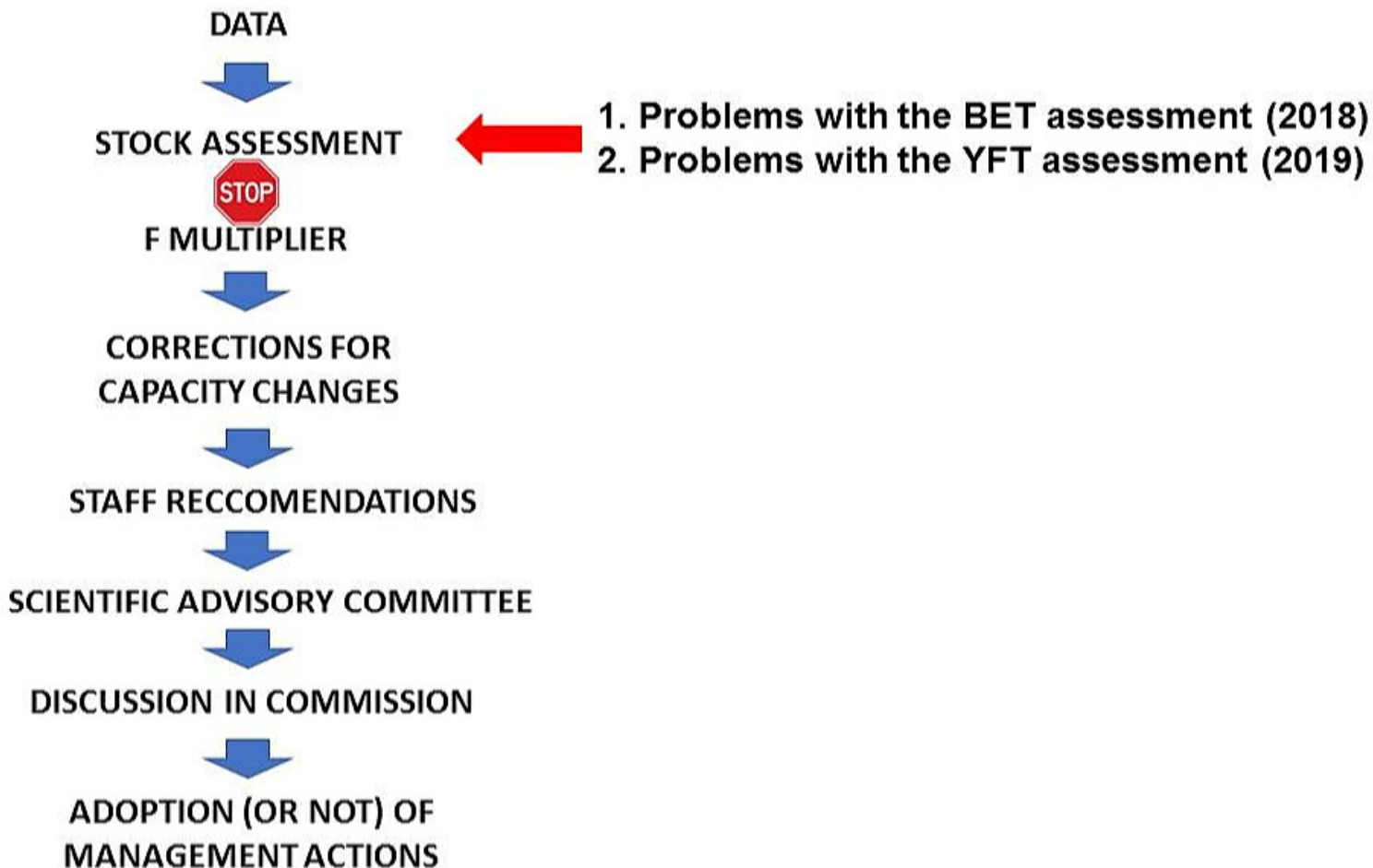
“Best assessment” approach

- Current IATTC management depends on stock assessment
- There are no stock assessments for SKJ tuna
- Stock assessment models can have problems, for example bigeye (2018) and yellowfin tunas (2019)

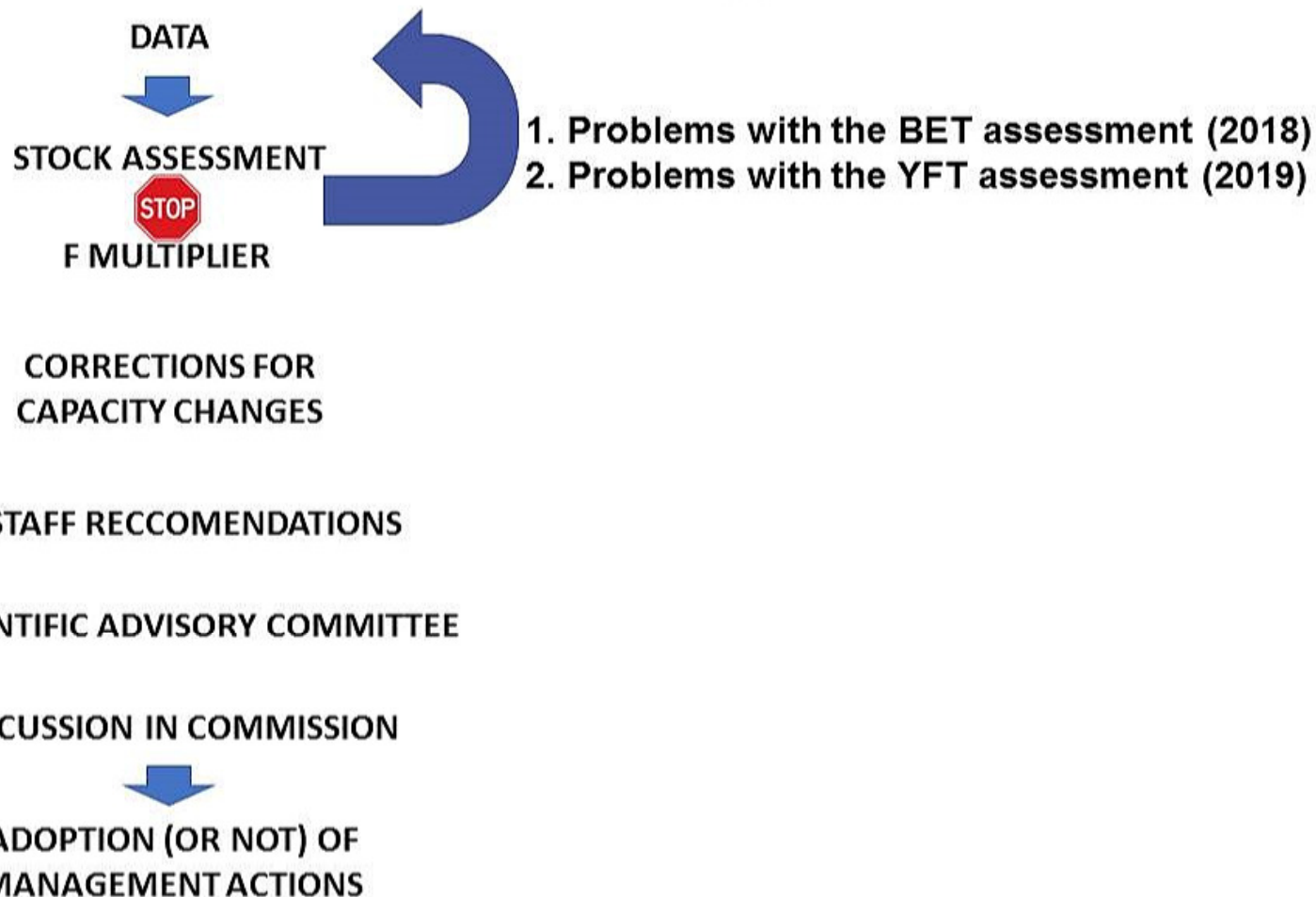
Management Strategies

- IATTC adopted elements of a management strategy for tropical tunas
- Only general objectives have been adopted
- Complex management: several measures in addition to closures, not clear how to include these measures and alternatives in an MSE

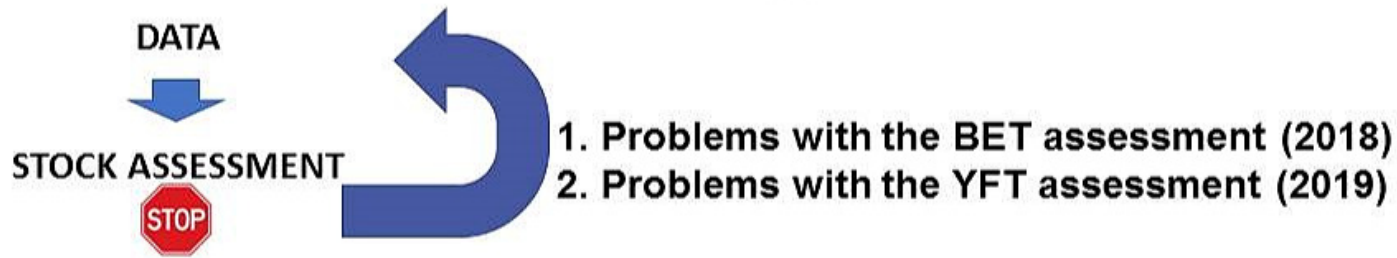
Tropical Tuna management in the IATTC



Tropical Tuna management in the IATTC

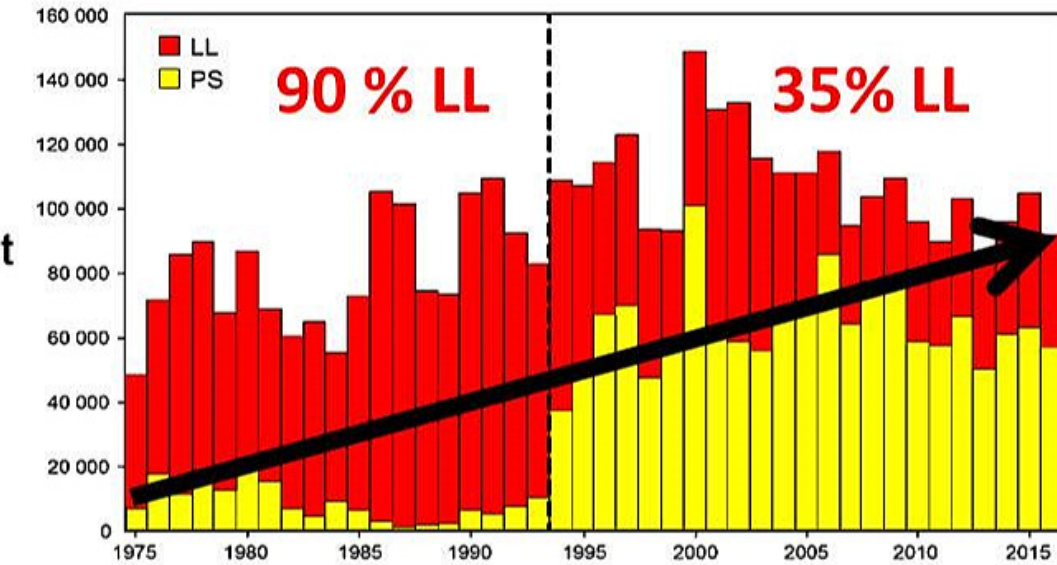


Tropical Tuna management in the IATTC

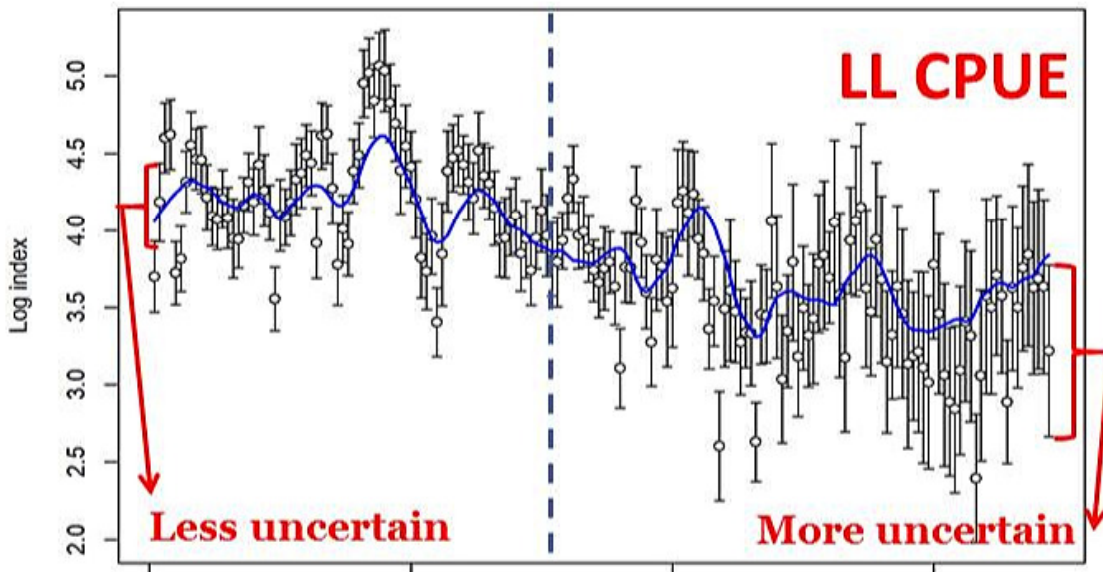


- BET and YFT assessments in the EPO depend on Japanese longline CPUE to estimate trends and status of stocks. There has been a decrease of longline fishing.

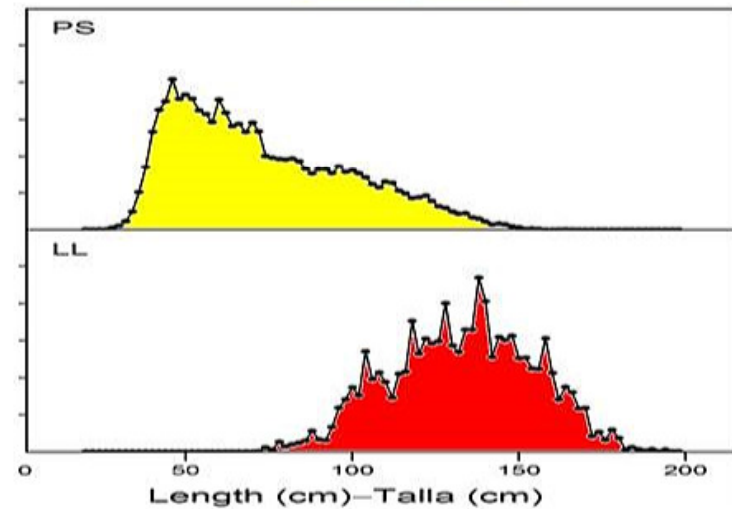
Expansion of FADs (Bigeye tuna)



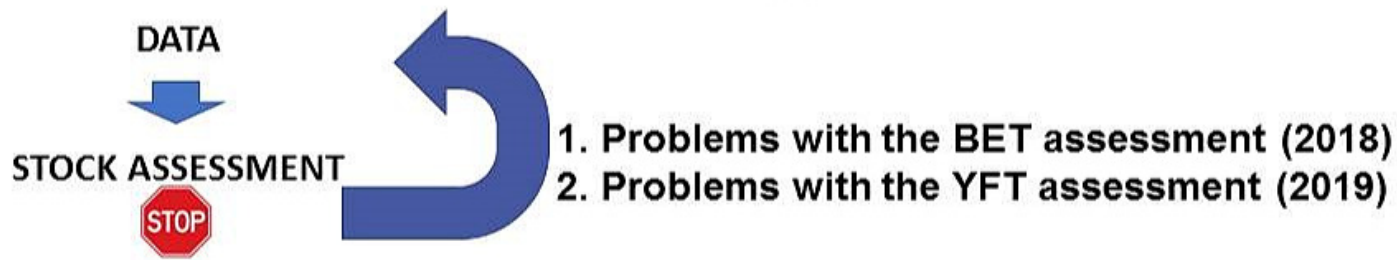
Expansion of **Purse Seine** fishery
Increased **TOTAL** catch



Smaller fish in **Purse Seine** fishery



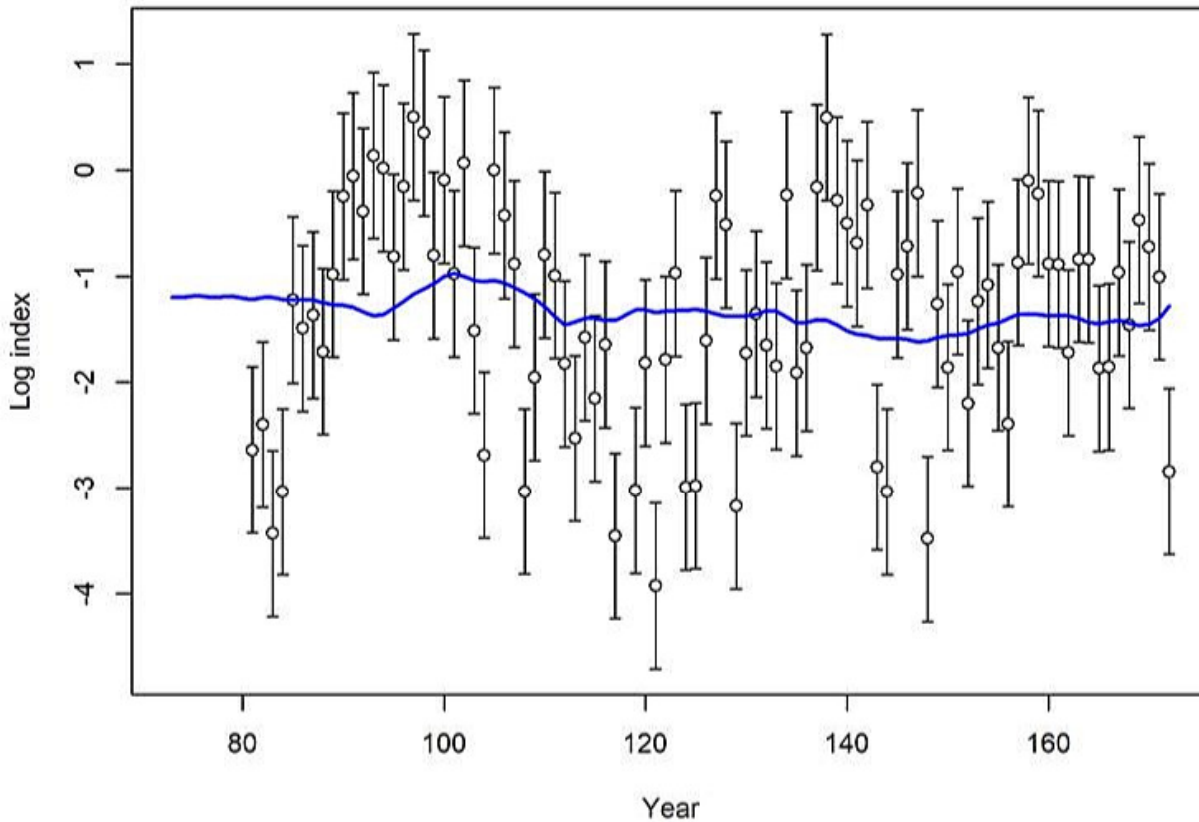
Tropical Tuna management in the IATTC



- BET and YFT assessments in the EPO depend on Japanese longline CPUE to estimate trends and status of stocks. There has been a decrease of longline fishing.
- Increase of purse-seine fishing on FADs, no reliable standardized FAD CPUE, lack of additional information about FADs, no standard measure of effort for FADs.

Purse-seine CPUE on FADs for BET

No reliable standardized FAD CPUE, lack of additional information about FADs, no standard measure of effort for FADs.





Thank you!

