THE PEW CHARITABLE TRUSTS

Toward true FAD deployment limits in the t-RFMOs

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2nd Joint FAD Working Group Meeting

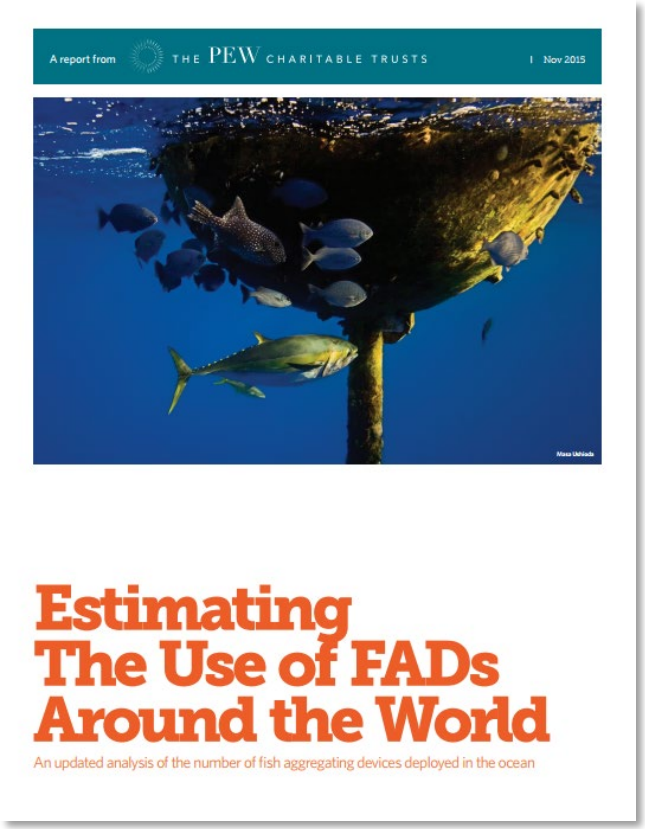
Outline

- Adjust buoy limits by adopting management objectives
- Consider legal, socio-economic and other priorities
- Ensure overall limit calculated at an RFMO scale

Growing numbers, globally

Just how many FADs are out there?

- EU 2014 report
  - 91,000
- Pew 2015 report
  - 121,000 new FADs every year
  - Conservative estimate
  - Significant increase in 2 years



FADs – a problem?

Impacts of FAD deployments:

- Entanglement of marine life, ghost fishing
- Unrecovered devices become marine pollution, impacts on coastal resources
- Potential reduction in CPUE in areas of great FAD density, incentivizing FAD setting to detriment of juvenile/small yellowfin and bigeye stocks

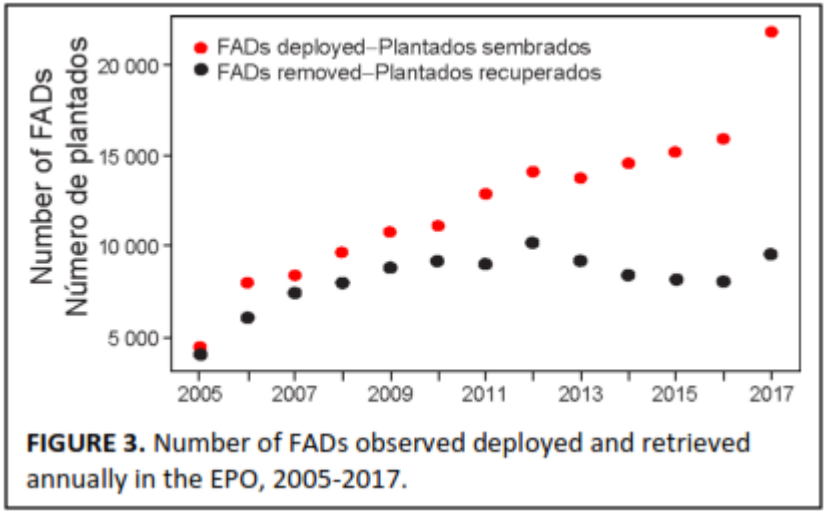
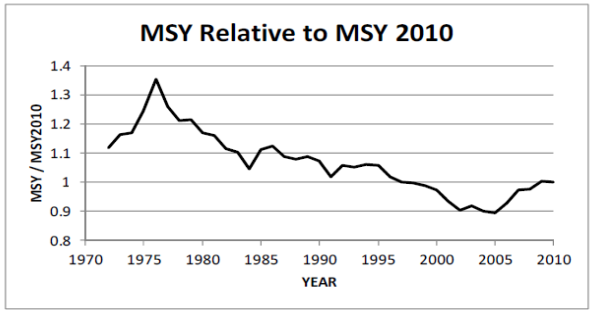


FIGURE 3. Number of FADs observed deployed and retrieved annually in the EPO, 2005-2017.



Atlantic Yellowfin

RFMO FAD limitations

RFMO	Year adopted	Most recent provision	Limit	In use according to literature reviewed
IATTC	2017	Res. C-17-02, Para 8	Class 6 purse seiner (1,200 m^3 and greater): 450 active FADs Class 6 (< 1,200 m^3): 300 active FADs Class 4-5: 120 active FADs Class 1-3: 70 active FADs	Very few made more than 400 deployments in 2016 (Hall and Roman, 2018)
ICCAT	2015	Rec. 16-01, Para 16	500 FADs with or without instrumented buoys active at any one time	200 FADs – daily average (Fonteneau et al., 2014) 429 - average per year (Delgado et al., 2014)
IOTC	2016	Res. 18/08, Para 3	350 active instrumented buoys at any one time; no more than 700 acquired annually for each purse seine vessel	
WCPFC	2017	CMM 2018-01, Para 23	350 FADs with activated instrumented buoys deployed at sea	Few to no vessels have more than 350 active FADs (Escalle et al., 2018)

- Despite some improvements, RFMO data collection insufficient to monitor FAD use
- Existing literature, however, indicates these limitations are not restrictive at the RFMO or fleet level

The need for objectives

- Develop management objectives for the buoy limitations
  - Establishes agreed-upon purposes and measuring sticks to assess success
  - Provides a basis to negotiate quantitative limits
- Candidate objectives could include:
  - Avoid adverse impacts to tropical tunas (such as via measurement of CPUE)
  - Limit impacts to habitats from FADs
  - Avoid further increase in number of FADs deployed
- RFMO members may articulate a range of socio-economic, legal and other priorities

Identify trade-offs

- Scientific analysis can help identify trade-offs between levels of FAD use and the objectives
- Consider the availability, or lack thereof, of complementary strategies:
  - Are FADs recovered?
  - Are biodegradable materials used?

Agree to RFMO cap

- A FAD deployment limit should be agreed on an RFMO basis
  - If number of vessels is not limited, the limit needs to be applied RFMO-wide

- Options for apportionment
  - Assigned to States, fleets, vessels
  - RFMO, regional-entity ownership
  - Trading among pooling participants

FAD Tracking to Track Use

- RFMOs and States should collaborate to collect electronic data from FAD buoys for science, management, and compliance
  - Information transmitted to industry on FAD location could be shared with RFMOs or science organizations at no additional cost
  - This has already proven successful in the WCPO through a project by the Parties to the Nauru Agreement and in the AO and IO through a collaboration between French industry and government scientists
  - Data can be displayed on a map to show drifts, locations, and potential fates of FADs
  - Analysis useful to refine management measures and develop more targeted interventions

In summary …

1. RFMO buoy limitations should be made restrictive
2. Develop management objectives to clarify the purpose and measure success
3. Limits should be applied as an RFMO-wide cap

Masa Ushioda, SeaPics.com