Informing the Discussion on Pole-and-line and FAD-free Tuna

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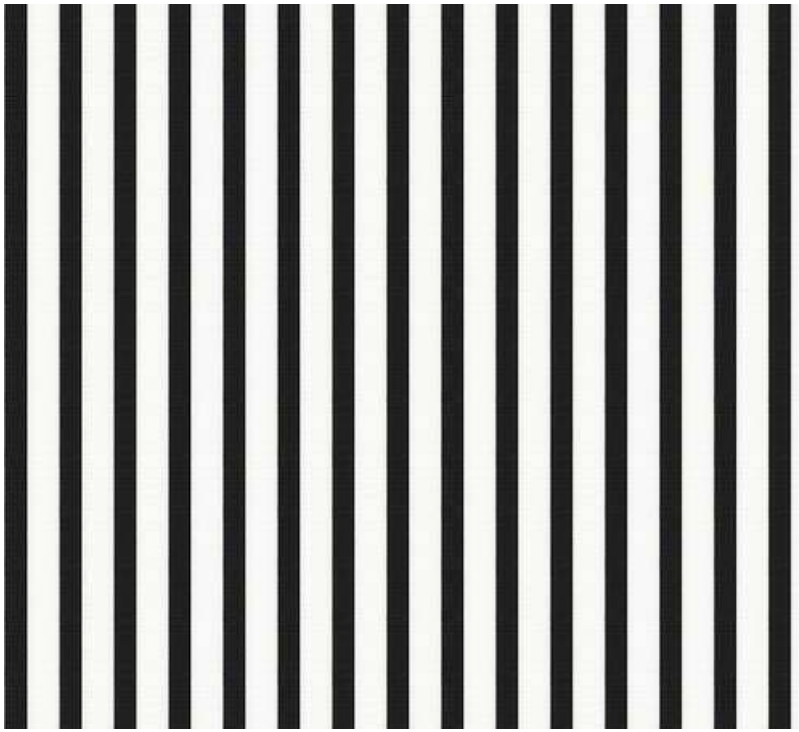
Alternative Titles



1. What is “FAD-Free”?

“Fad-Free”

Purse seine set types

aFAD, dFAD, Free School, Log, Dead animal, whale shark, cetacean association, etc.

Different purse seine set types have different characteristics

- Size distribution of tunas
- Occurrence of non-tuna species

“Fad-Free”

FAD-like

Purse seine set types

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Different purse seine set types have different characteristics

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- Occurrence of non-tuna species

“Fad-Free”

“A FAD-free set is defined as a set conducted **during daylight hours** at least **1 nautical mile away from any inanimate floating object** (including large dead animals).”

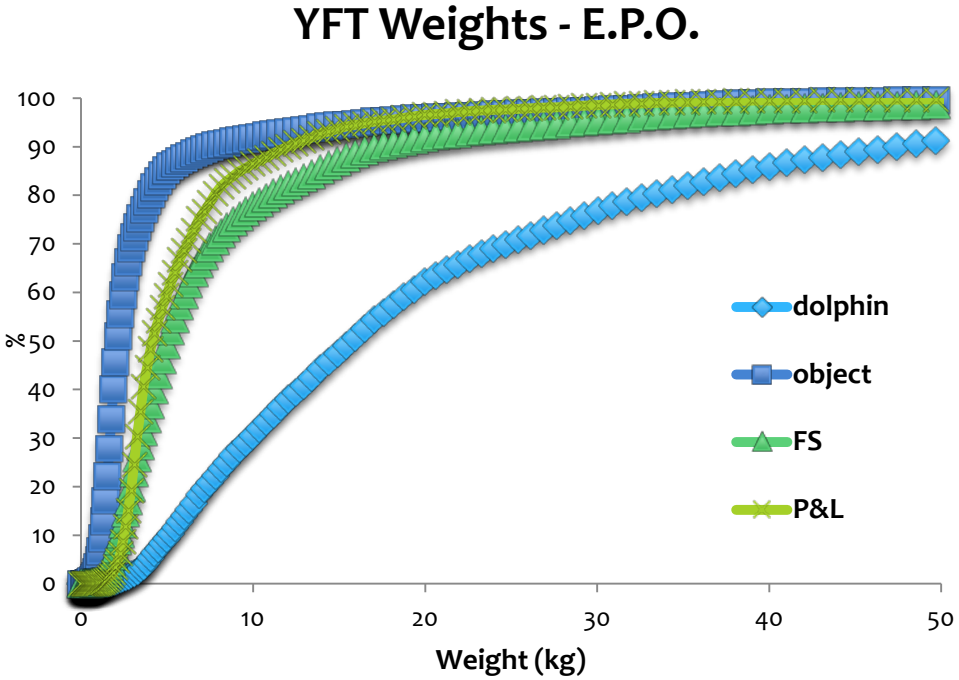
ISSF SAC, 2012

2. Do FAD sets catch juvenile tunas?

Juvenile tunas

True: FAD sets catch juvenile tunas.

But other gears do too.

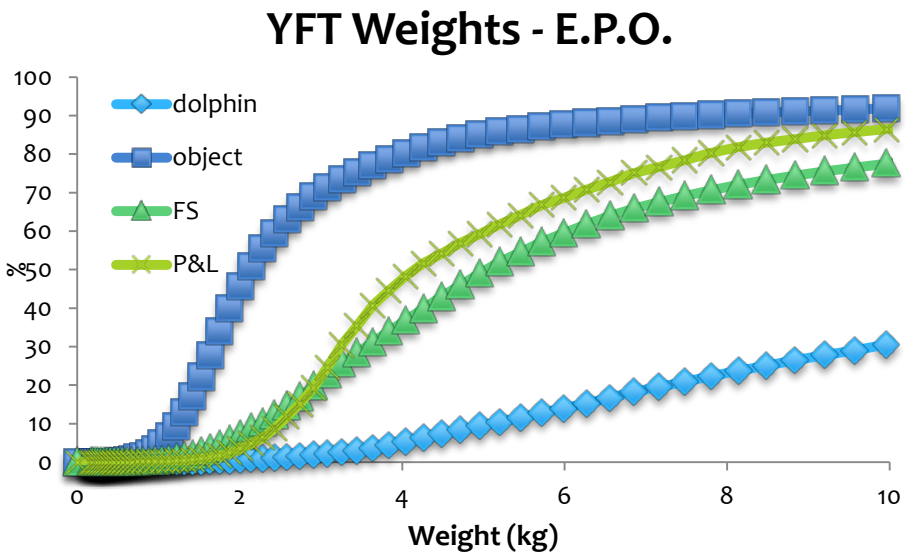


Set Type	% under 25 Kg
Dolphin	70%
Free School	94%
P&L	98%
FAD	97%

weight at maturity ~ 25 kg

Small tunas

The main difference is for very small tunas



Set Type	% under 5 Kg
Dolphin	9%
Free School	49%
P&L	59%
FAD	85%

3. Does catching **juvenile** tunas lead to overfishing?

Catching juveniles = Overfishing?

Not necessarily.

* Catching too many fish of any segment of the population can result in overfishing.
* A stock can be overfished by catching too many adults, too many juveniles, or too many of both.
* All forms of fishing affect spawning biomass, either now or in the future.

4. Does catching **small** tunas waste potential yield?

Catching small tunas = Wasteful?

True for yellowfin and bigeye.

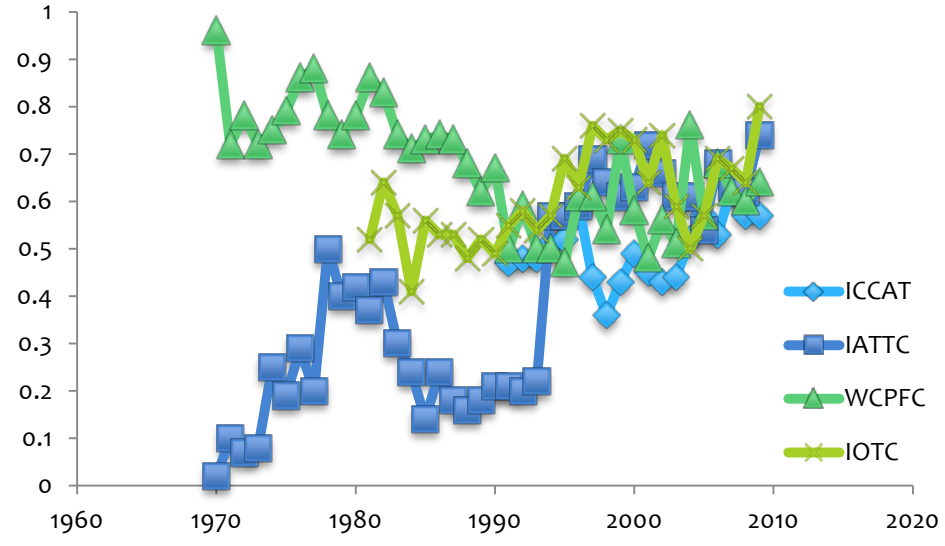
* In the Pacific, MSY for bigeye and yellowfin is ~1/2 of what it was when fisheries were dominated by longline or dolphin sets (EPO YFT).
* Moving towards more FAD-free (instead of Objects) will increase yields (though not double)

5. Has the use of FADs increased precipitously?

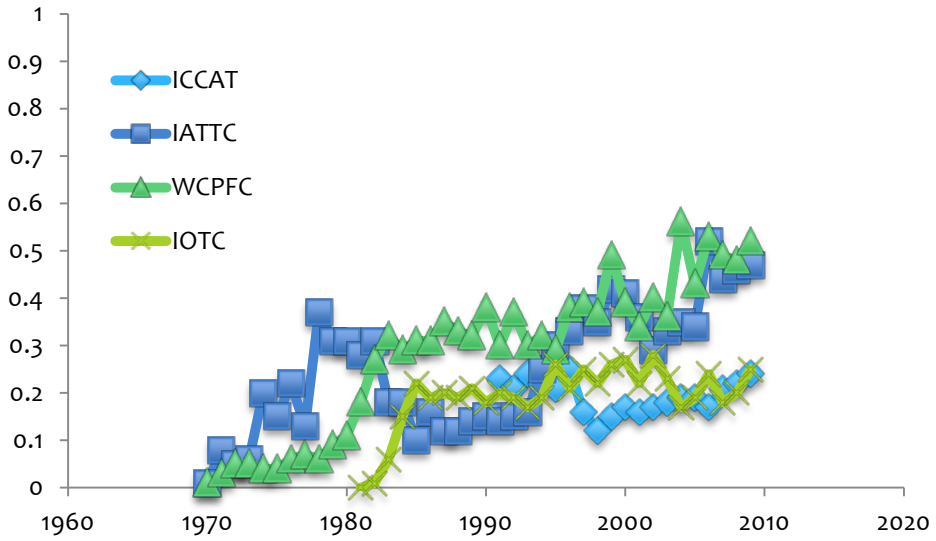
Fraction of purse seine catch (SKJ+YFT+BET) on floating objects

Steadily more than precipitously

Relative to PS sets



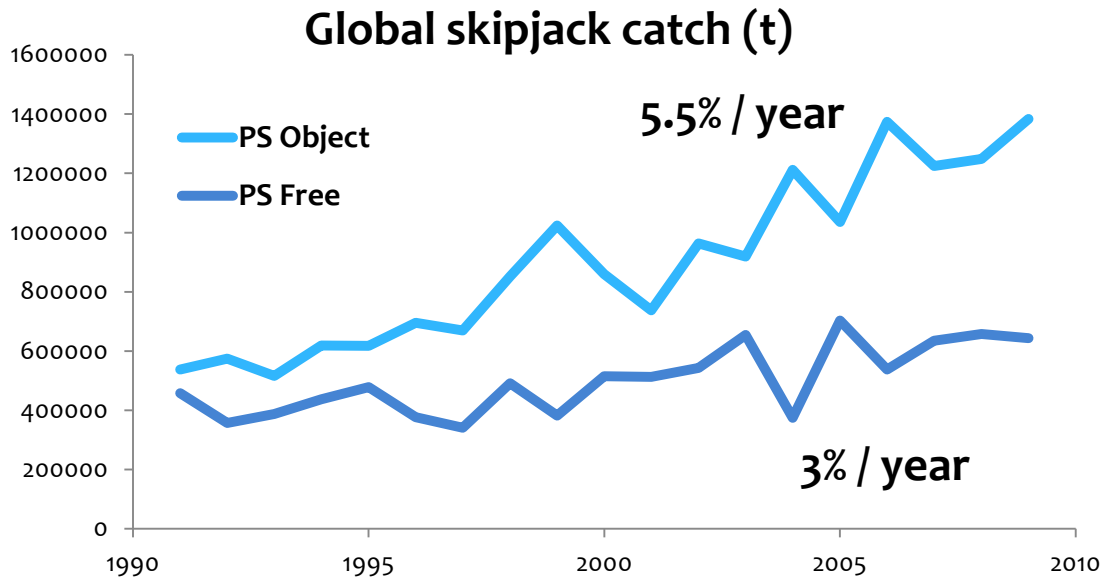
Relative to all gears



Global Skipjack catch by PS set type

Skipjack catch has increased faster on object sets,

likely due to FAD usage



6. Do FADs generate a huge level of bycatch?

Bycatch … Non-target species
Purse Seine

Not huge.

* PS bycatch % is **comparable to, or lower**, than many other industrial fisheries
* But, bycatch in Object sets is **3 to 7 times greater** than in Free school sets
* Most of that (~90%) is other tuna species and other fish that can be utilized.
* The main problem is with object sets lies with vulnerable sharks. Mitigation techniques need to be developed and mandated. ISSF is working on this.

Bycatch … Non-target species
Pole and line

* No major catch of non-target species

EXCEPT

* Baitfish are used (~3% of tuna catch).
* Low-trophic level species are important to these fisheries and the ecosystem and need to be managed

Thank you!