



# A compendium of fisheries indicators for tuna stocks SPC-OFP

SA-WP-02  
SA-IP-08

**14<sup>th</sup> Scientific Committee**  
8-16 August 2018  
Busan, Korea

# Introduction

## Introduction

### Skipjack

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### Bigeye

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### Yellowfin

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### Albacore

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- ▶ SA-WP-02 provides indicators for the main tuna species caught in the WCPO.
- ▶ Presents several typical fishery indicators, and the stock projections.

Note: SA-IP-08 for more information on albacore.

# Catch and effort

Skipjack - 1,620,000t (79% PS)  
~ 10% decline from 2016

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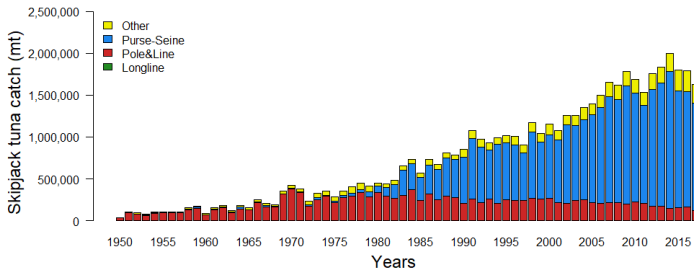
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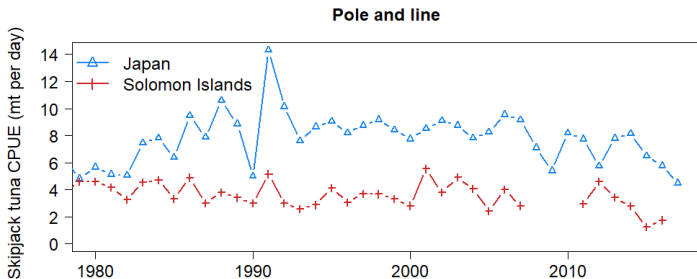
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# Catch and effort

Stable 1993-2015, lower in last two years



# Catch and effort

Overall 2017 was lower than 2016 and lower than mean since 2005, except for aFAD, which is fluctuating without trend.

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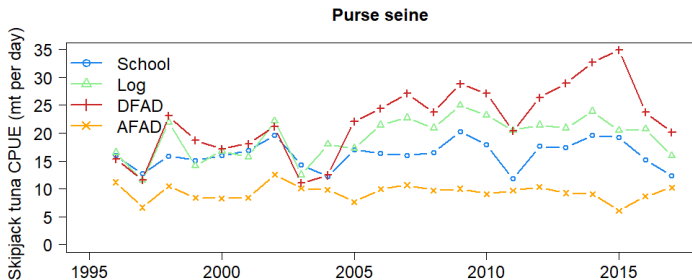
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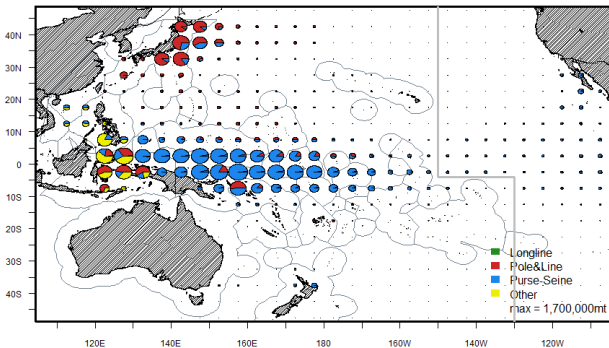
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## Catch - all years

Skipjack tuna 1950 - 2017



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Catch - recent past, note decline in PL

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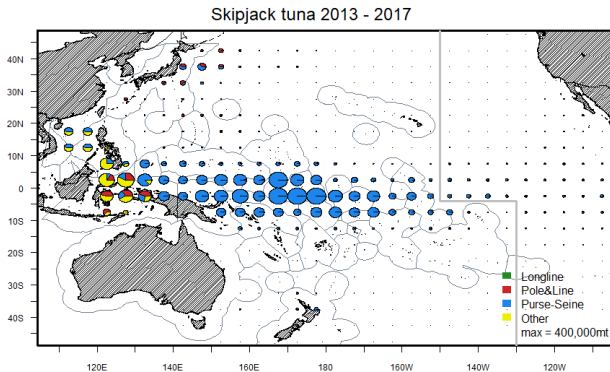
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Catch - last year, slight shift to the west

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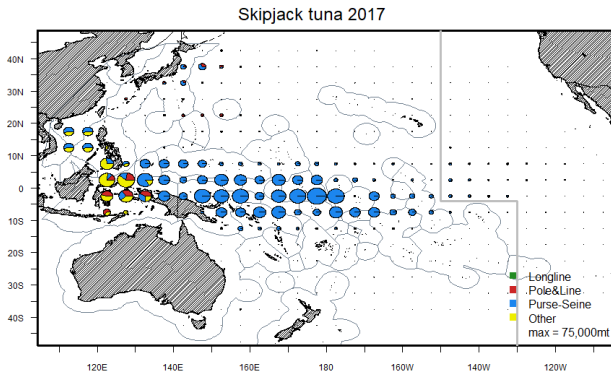
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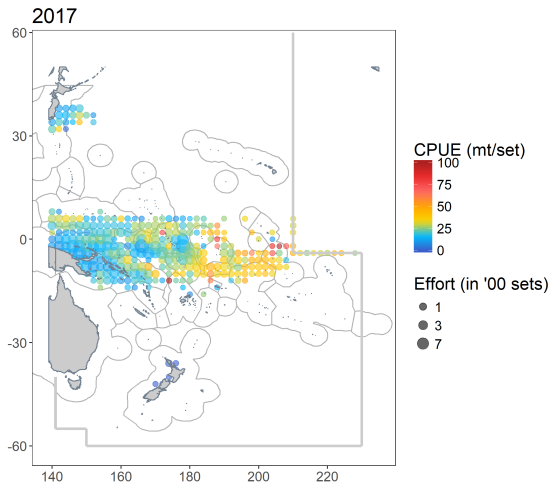
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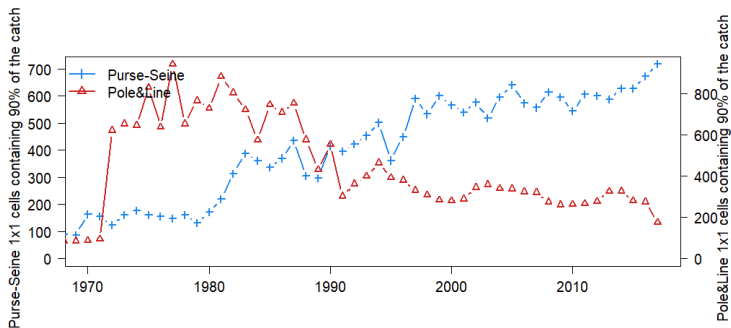
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# Distribution

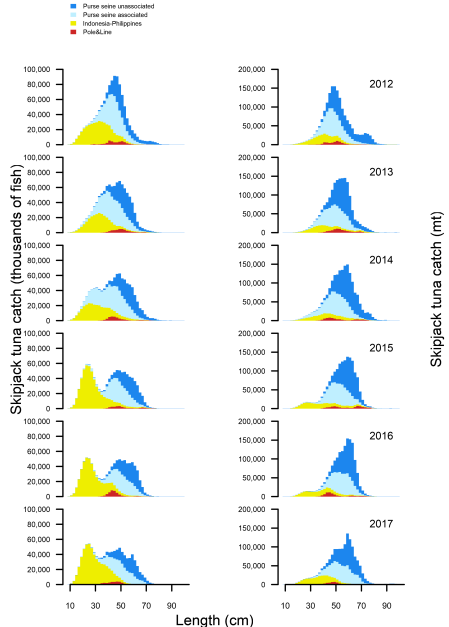
PS - increase in recent 2 years,  
PL - decline in 2017



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- ▶ Increased numbers in ID/PH & VN in recent years and shift left.
- ▶ Slight increase in mass of UNA since 2014
- ▶ Decline in PL



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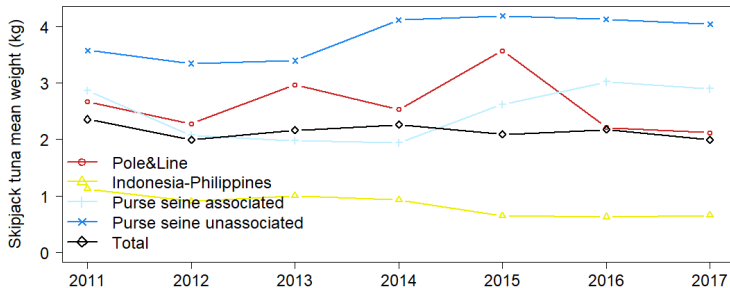
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ID/PH declining,  
UNA increase since 2014,  
ASS increase in 2016 and 2017

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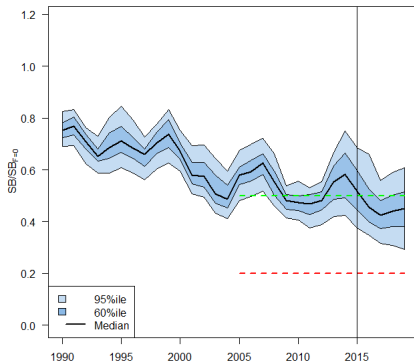
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Projecting on 2015  
catch, effort and  
recruitment levels:  
Median  
 $F_{2019}/F_{MSY} = 0.47$   
 $SB_{2019}/SB_{F=0} = 0.45$

In the longer-term the  
stock was projected to  
recover to around the  
interim TRP.



# Thanks for listening

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# Catch and effort

Bigeye - 127,000t (45% - LL, 44%-PS)  
~ 17% decline from 2016

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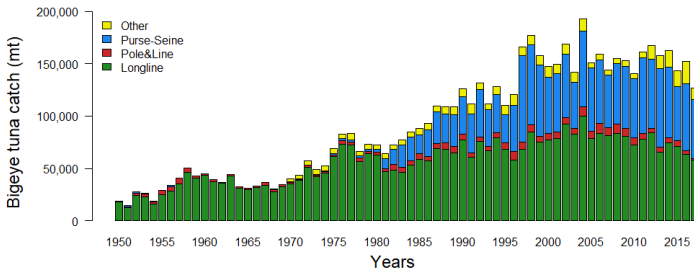
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# Catch and effort

## Fluctuating without trend

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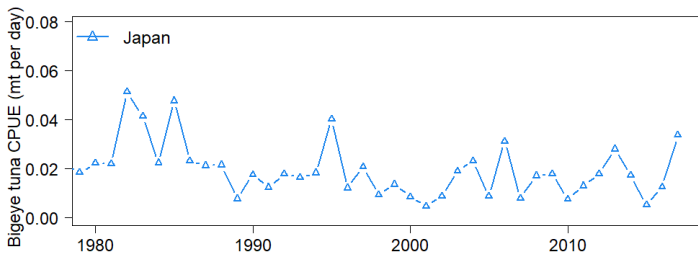
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Pole and line





# Catch and effort

Overall 2017 was lower than 2016 and lower than mean since 2005, except for free school fish which is fairly flat.

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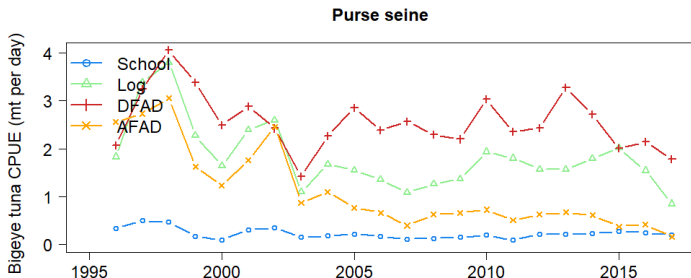
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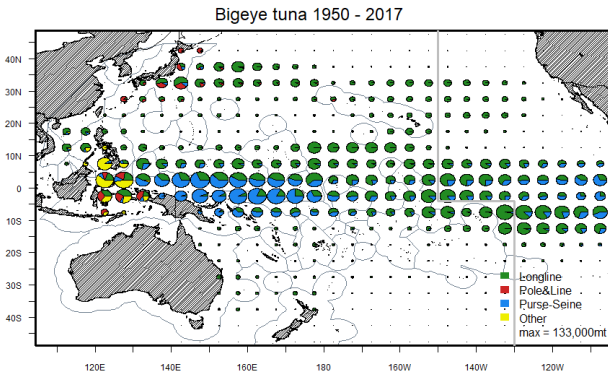
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Catch - recent past, note decline in PL

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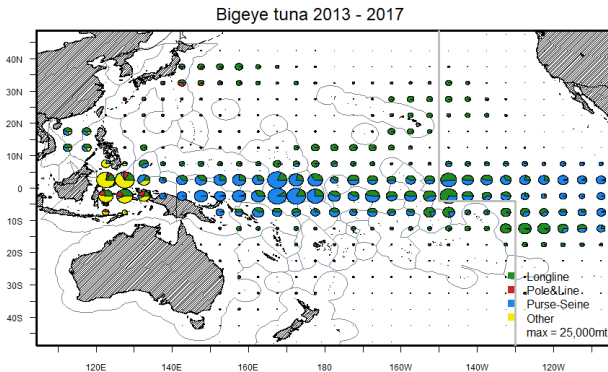
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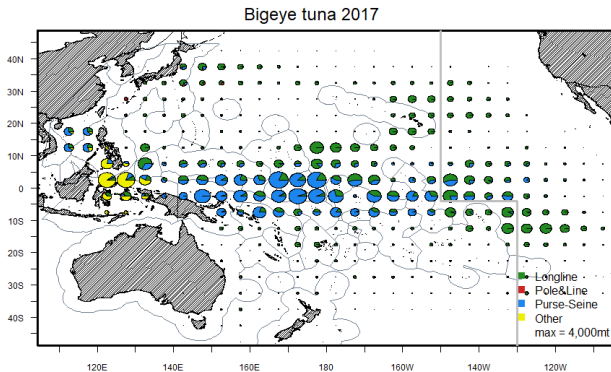
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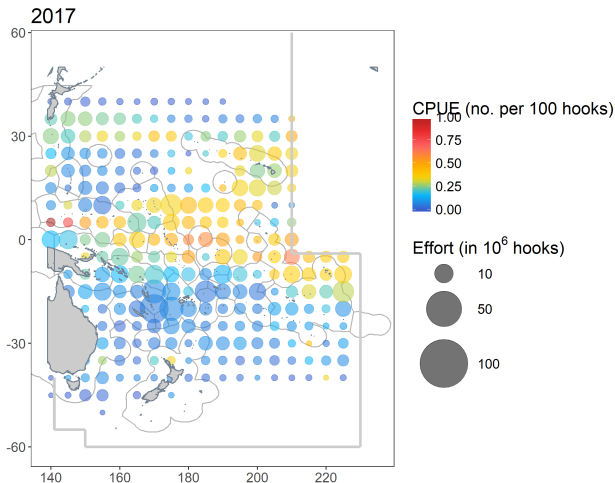
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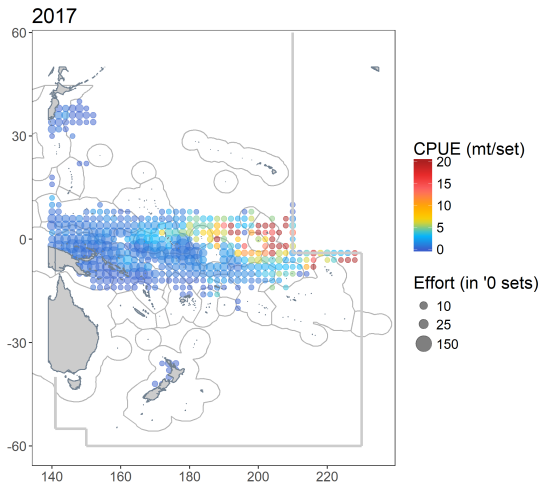
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PS - increase in 2017,  
LL - Fluctuating without trend

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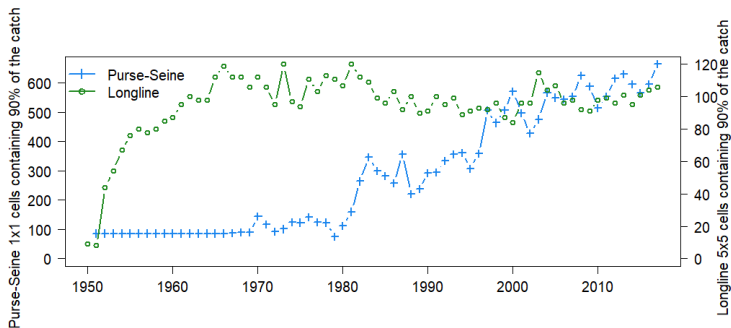
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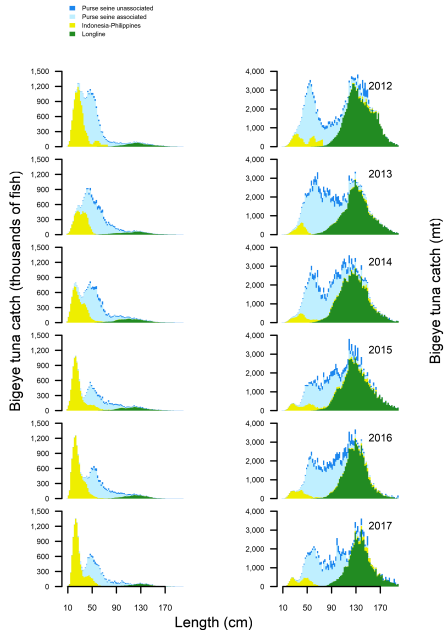
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► Increased numbers in ID/PH & VN in recent years.





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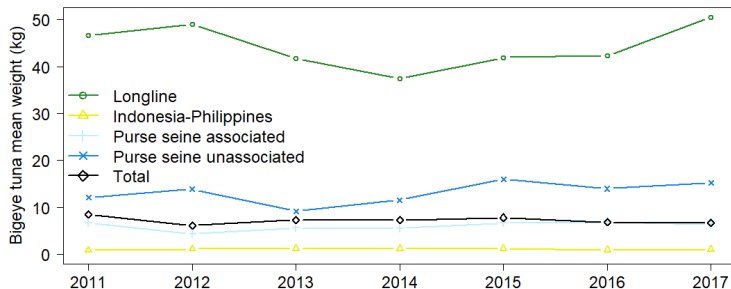
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Most are fluctuating without trend,  
mean LL weight has increased in 2017

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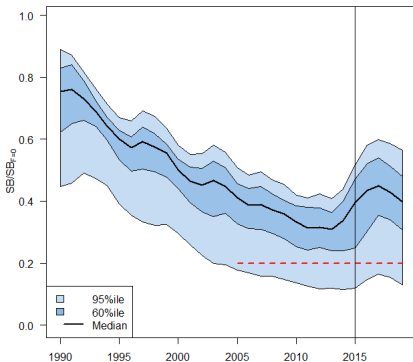
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Projecting on 2015  
catch, effort and  
recruitment levels:  
Median  
 $F_{2019}/F_{MSY} = 0.96$   
 $SB_{2019}/SB_{F=0} = 0.40$

The stock was  
projected to increase in  
the short-term,  
followed by a decline  
towards 2019.



# Thanks for listening

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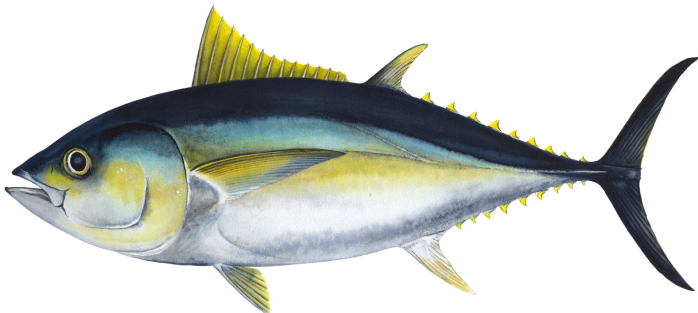
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# Catch and effort

Yellowfin - 671,000t (70% - PS, 15% - other, 12% - LL)  
~4% increase from 2016, mostly from PS

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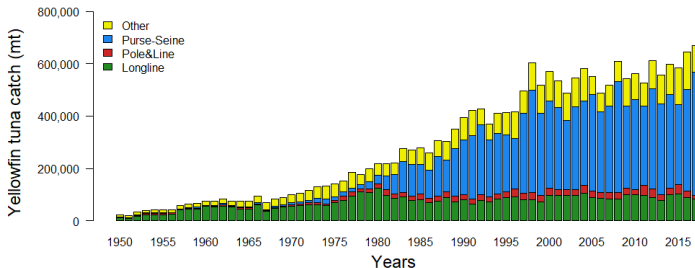
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# Catch and effort

Stable 1993-2017

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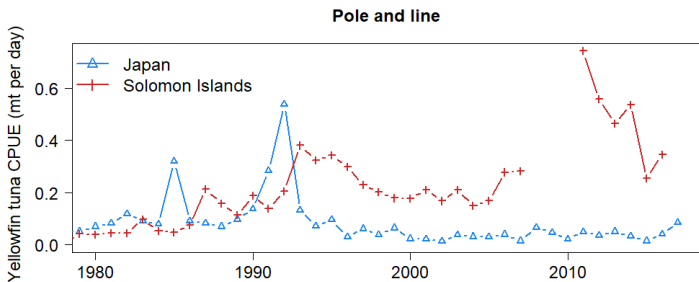
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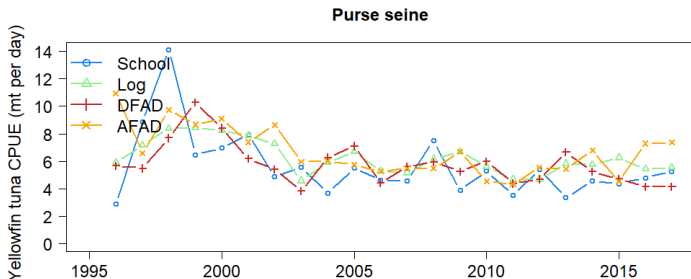
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# Catch and effort

Overall fluctuating without trend.



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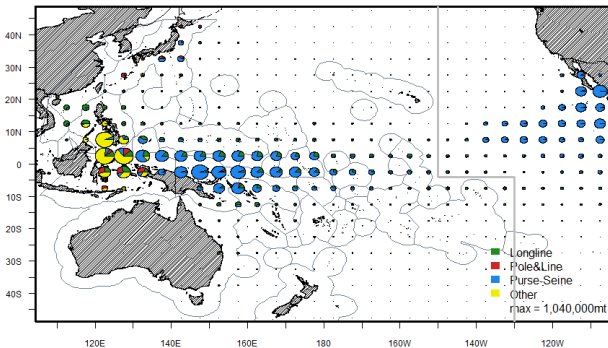
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Yellowfin tuna 1950 - 2017



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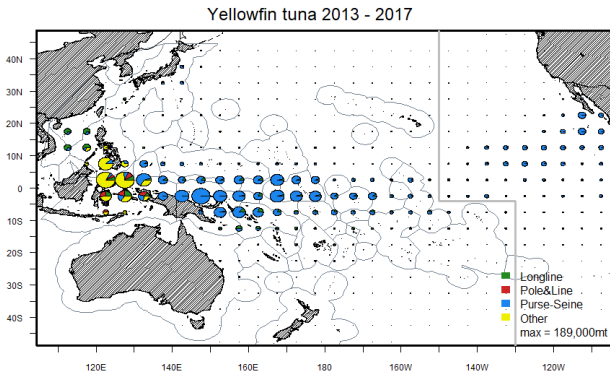
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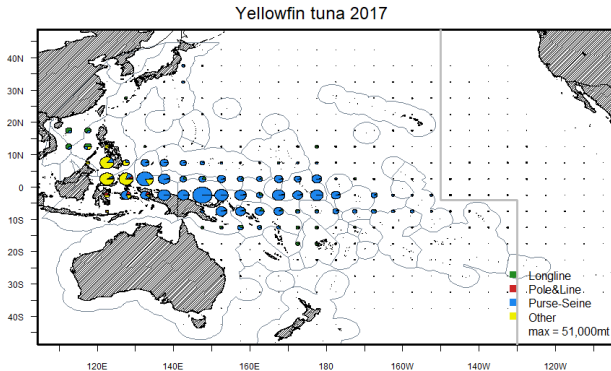
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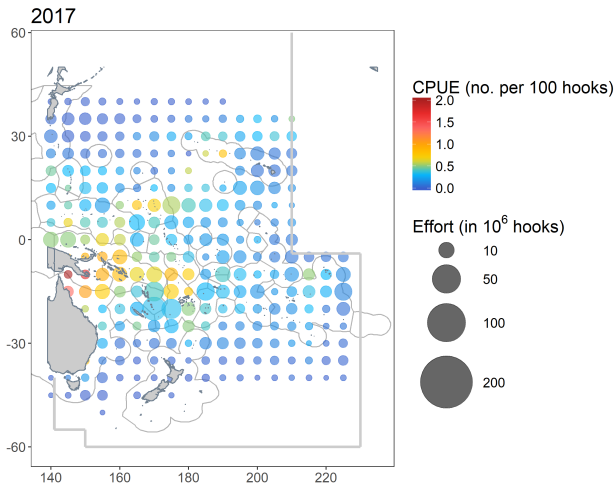
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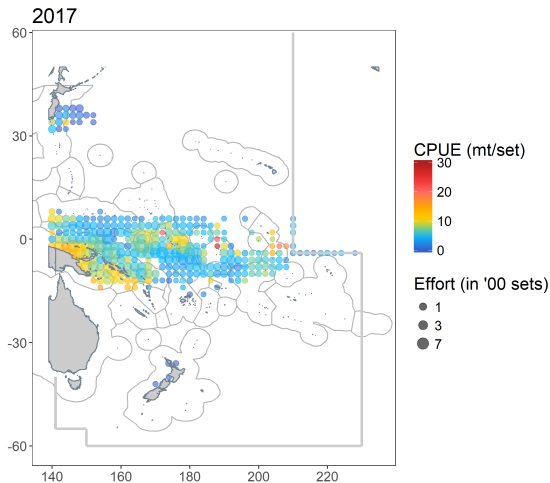
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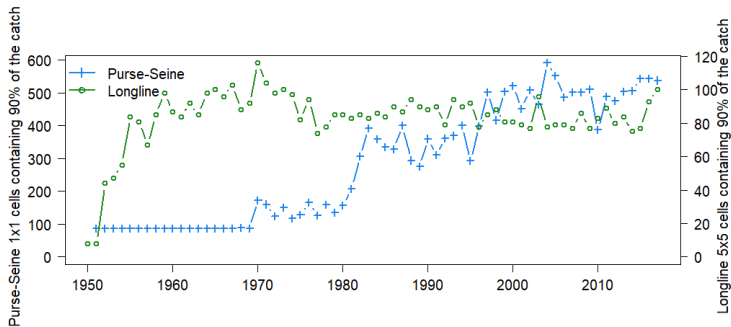
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LL - slight increase in 2017



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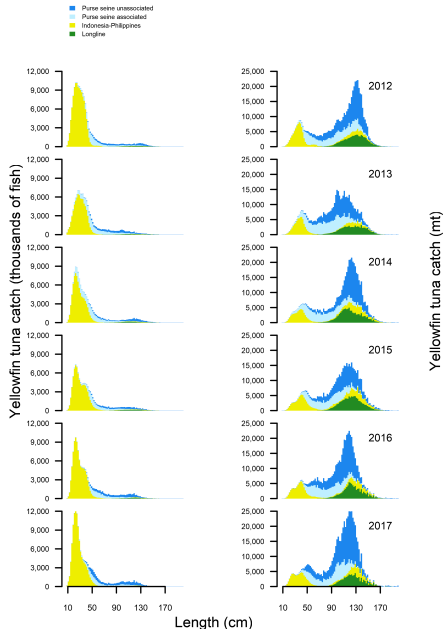
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► Increased numbers in ID/PH & VN in recent years and shift left.



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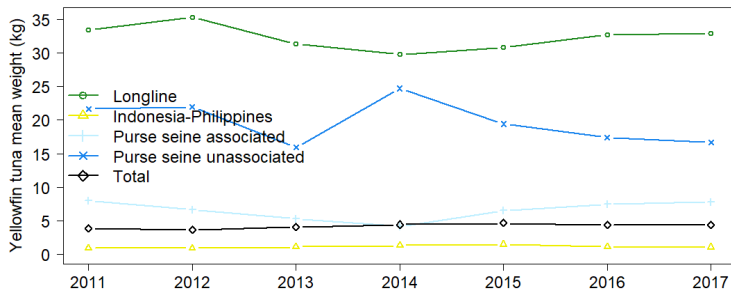
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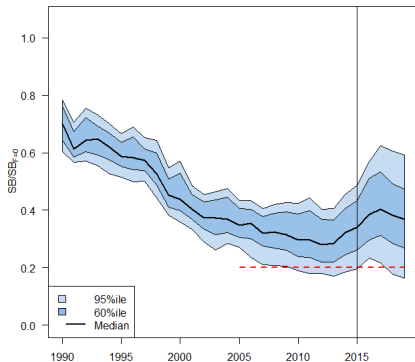
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Projecting on 2015  
catch, effort and  
recruitment levels:  
Median  
 $F_{2019}/F_{MSY} = 0.63$ ;  
 $SB_{2019}/SB_{F=0} = 0.37$ .



# Thanks for listening

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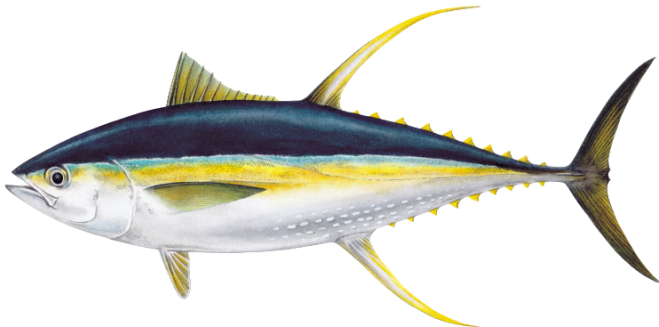
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# Catch and effort

Albacore - 92,000t (96% - LL)  
~35% increase from 2016

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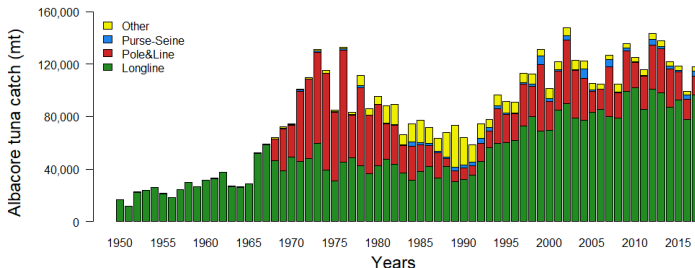
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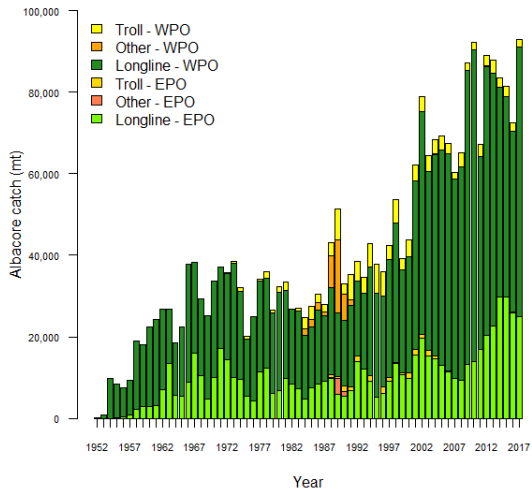
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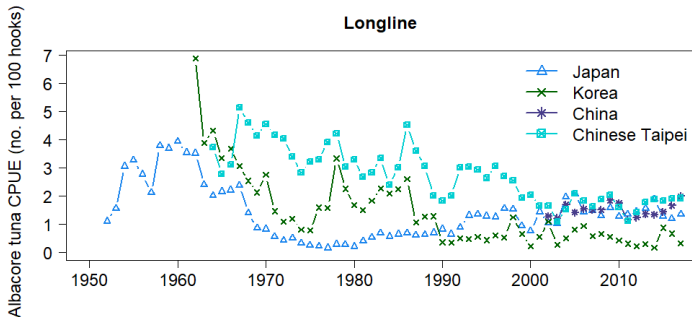
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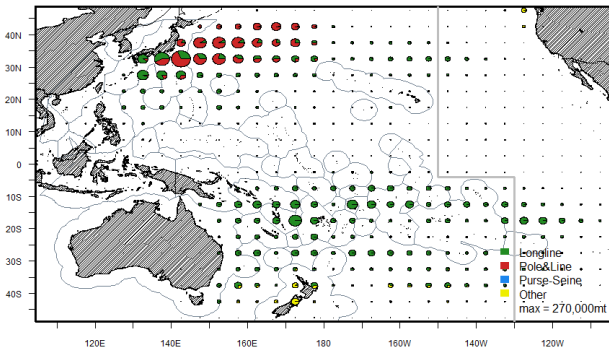
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Albacore tuna 1950 - 2017



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# Distribution

## Catch - recent past

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Bigeye

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Yellowfin

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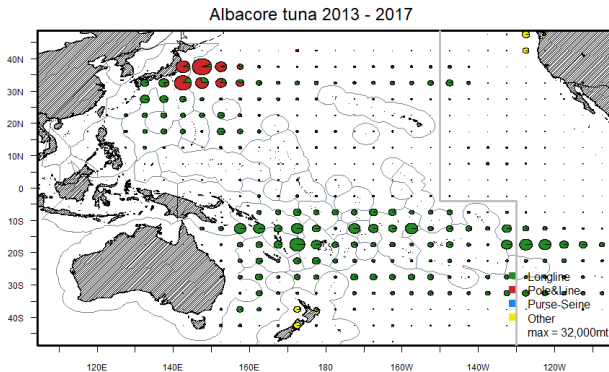
Projections

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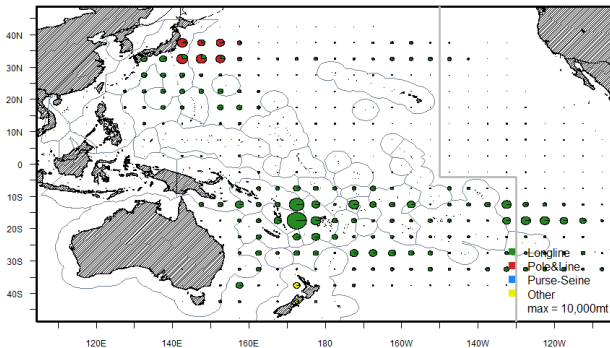
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Catch - last year

Albacore tuna 2017



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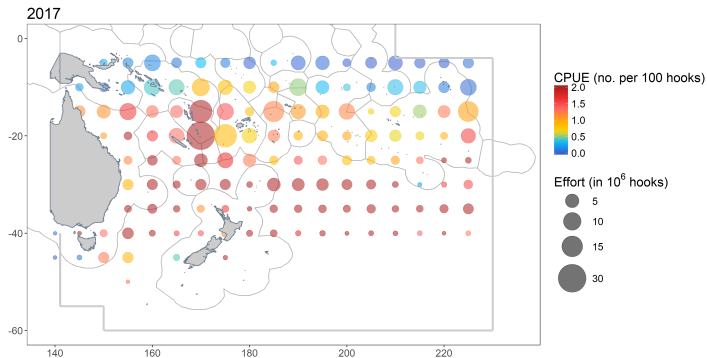
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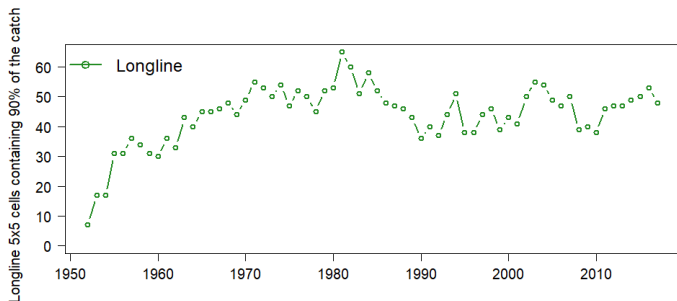
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## CPUE - LL



# Distribution

LL - relatively flat





## 14<sup>th</sup> Scientific Committee

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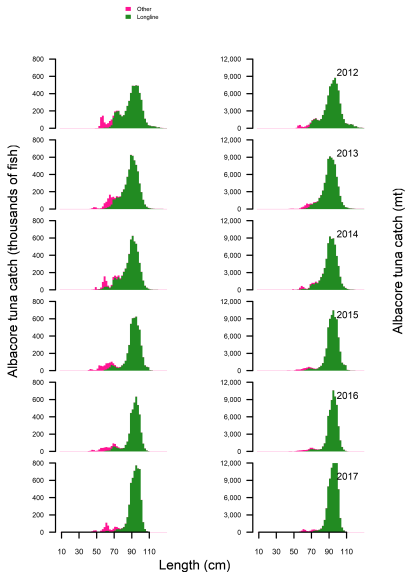
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# Mean weight

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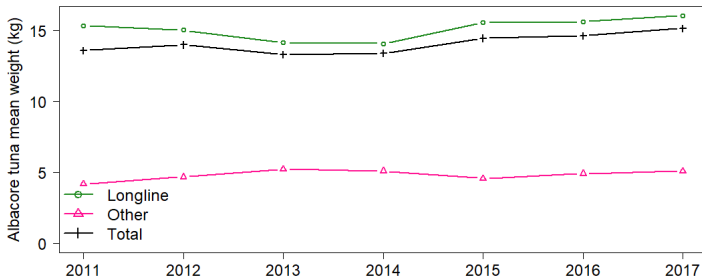
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# Thanks for listening

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