

A compendium of fisheries indicators for tuna stocks SPC-OFP

SA-WP-02 SA-IP-08

14th Scientific Committee 8-16 August 2018 Busan, Korea Introduction

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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

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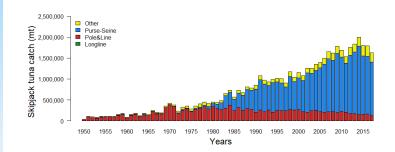
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Skipjack - 1,620,000t (79% PS) ~10% decline from 2016



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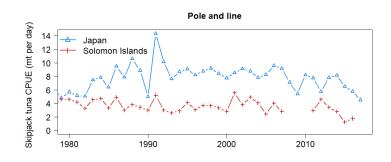
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Stable 1993-2015, lower in last two years



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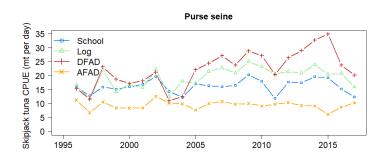
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Overall 2017 was lower than 2016 and lower than mean since 2005, except for aFAD, which is fluctuating without trend.



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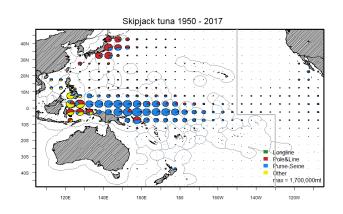
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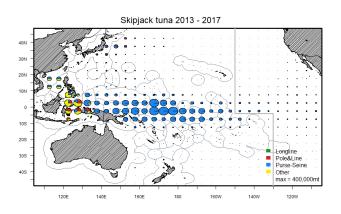
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Catch - recent past, note decline in PL



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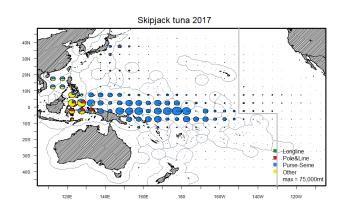
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Catch - last year, slight shift to the west



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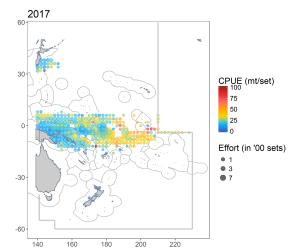
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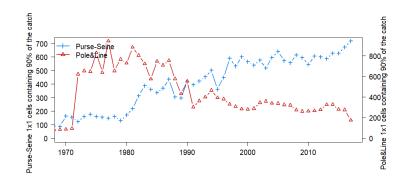
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PS - increase in recent 2 years,

PL - decline in 2017



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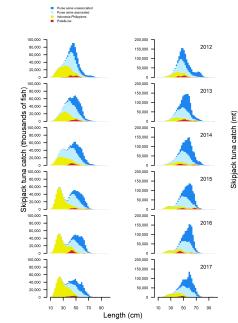
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- ➤ Slight increase in mass of UNA since 2014
- ▶ Decline in PL



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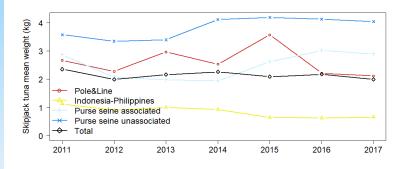
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ID/PH declining, UNA increase since 2014, ASS increase in 2016 and 2017

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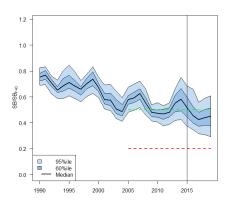
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Projecting on 2015 catch, effort and recruitment levels: Median $F_{2019}/F_{MSY} = 0.47$ $SB_{2019}/SB_{F=0} = 0.45$

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



Thanks for listening

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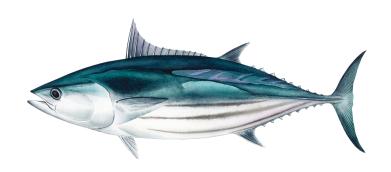
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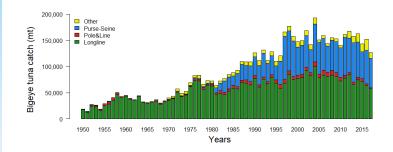
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Bigeye - 127,000t (45% - LL, 44%-PS) ~17% decline from 2016



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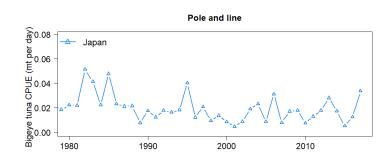
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Fluctuating without trend



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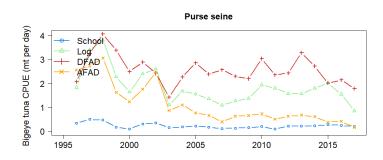
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Overall 2017 was lower than 2016 and lower than mean since 2005, except for free school fish which is fairly flat.



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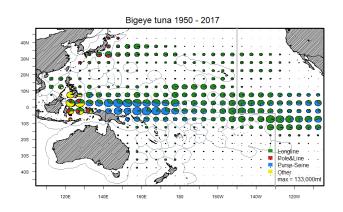
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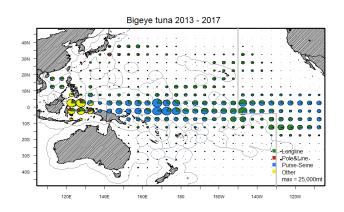
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Catch - recent past, note decline in PL



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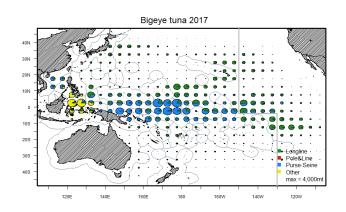
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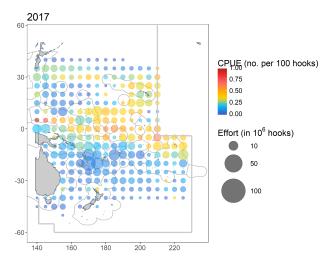
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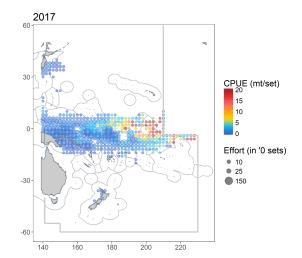
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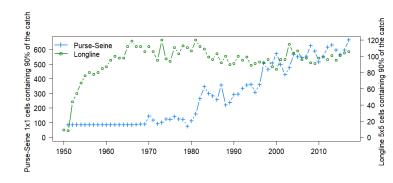
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- PS increase in 2017,
- LL Fluctuating without trend



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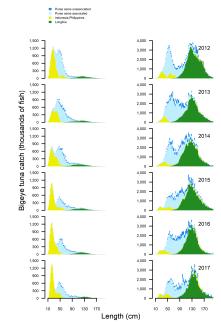
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Increased numbers in ID/PH & VN in recent years.



Bigeye tuna catch (mt)

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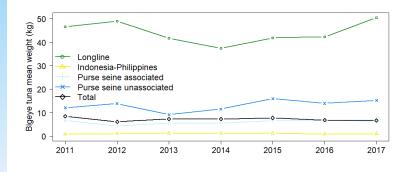
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Most are fluctuating without trend, mean LL weight has increased in 2017

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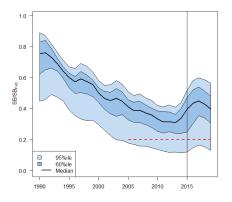
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Projecting on 2015 catch, effort and recruitment levels: Median $F_{2019}/F_{MSY} = 0.96$ SB₂₀₁₉/SB_{F=0} = 0.40

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



Thanks for listening

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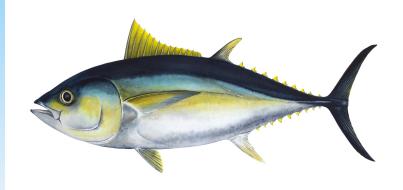
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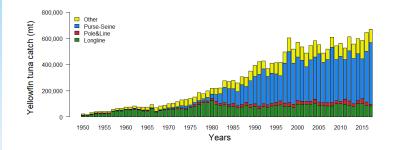
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Yellowfin - 671,000t (70% - PS, 15% - other, 12% - LL) ~4% increase from 2016, mostly from PS



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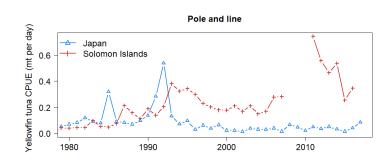
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Stable 1993-2017



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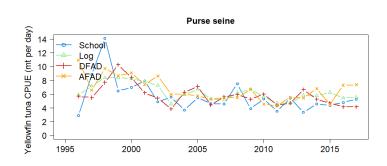
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Overall fluctuating without trend



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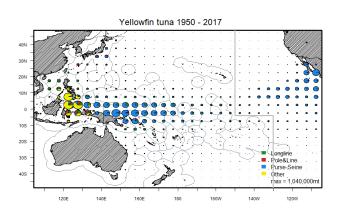
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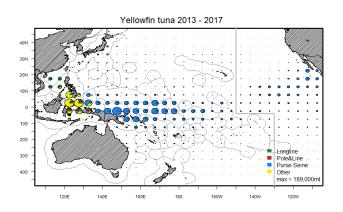
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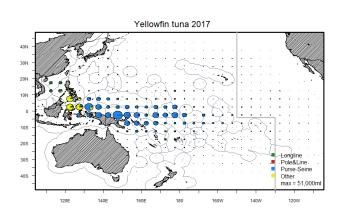
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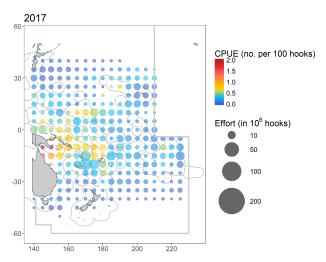
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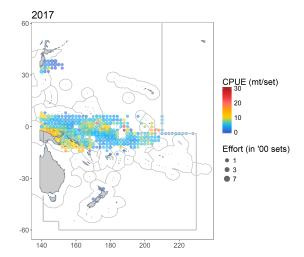
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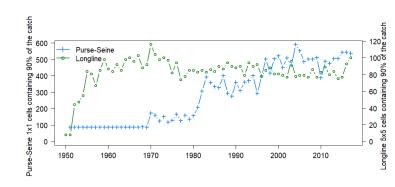
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LL - slight increase in 2017



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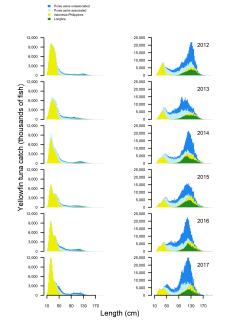
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Increased numbers in ID/PH & VN in recent years and shift left.



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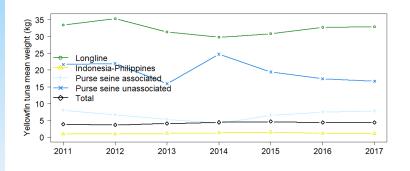
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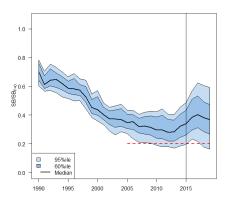
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Projecting on 2015 catch, effort and recruitment levels: Median $F_{2019}/F_{MSY} = 0.63$; $SB_{2019}/SB_{F=0} = 0.37$



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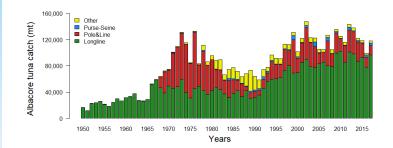
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Albacore - 92,000t (96% - LL) ~35% increase from 2016



Catch and effort



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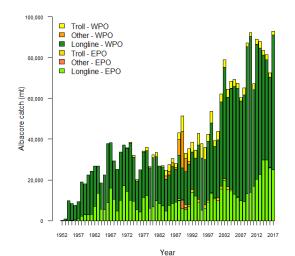
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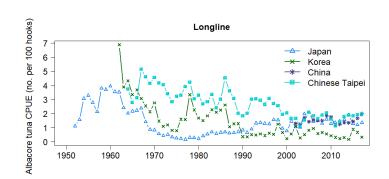
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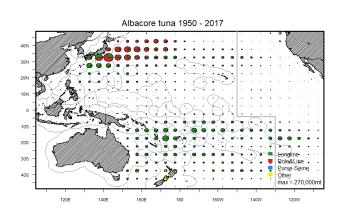
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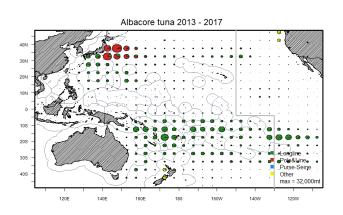
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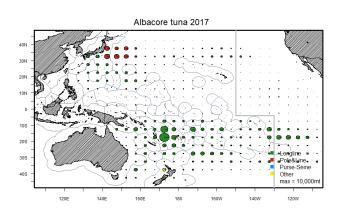
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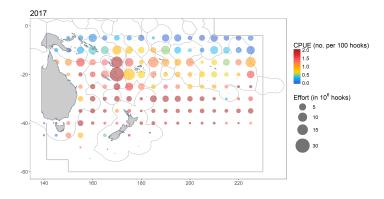
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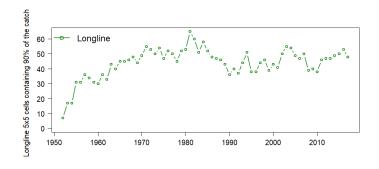
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LL - relatively flat





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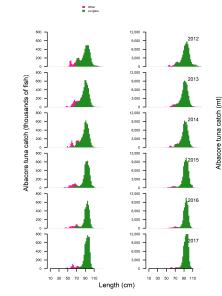
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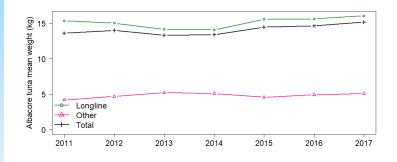
Catch and effort

Distribution Projections

Size

Albacore

Catch and effort Distribution



Thanks for listening



14th Scientific Committee

Introduction

Skipjack

Catch and effort

Siza

Projections

Bigeye

Catch and effort

Caten and er

Distribution

Size

Projections

Yellowfin

Catch and effort Distribution

DELL

Size Projections

Albacore

Catch and effort

