



Pacific  
Community  
Communauté  
du Pacifique

# Overview of tuna fisheries in the Western and Central Pacific Ocean, including economic conditions – 2017

(WCPFC-SC14-2018 -- WP-GN-1)

Peter Williams<sup>1</sup> and Chris Reid<sup>2</sup>

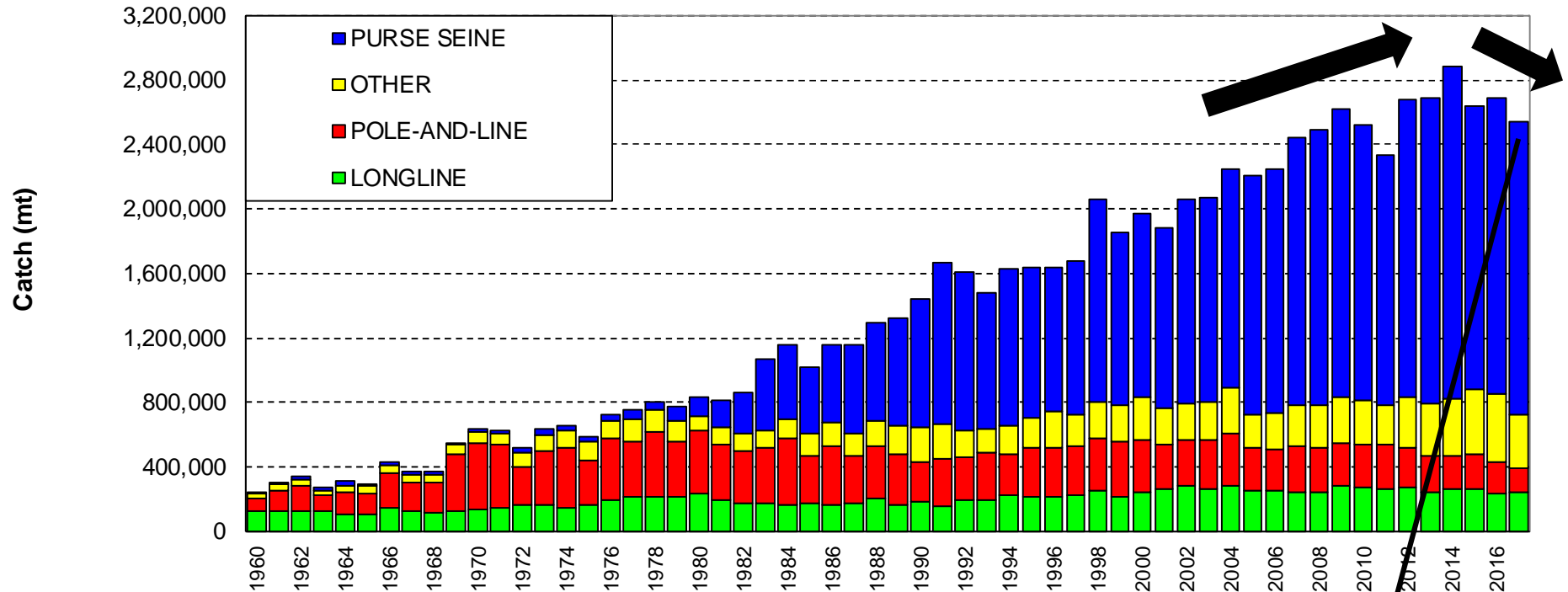
Fourteenth Regular Session of the Scientific Committee (SC 14)  
8-16 August 2018  
Busan, Republic of Korea

<sup>1</sup> Pacific Community (SPC), Oceanic Fisheries Programme (OFP), Noumea, New Caledonia

<sup>2</sup> Pacific Islands Forum Fisheries Agency (FFA), Honiara, Solomon Islands

# WCP-CA Tuna Catch by gear

Highlighting 2017 catches

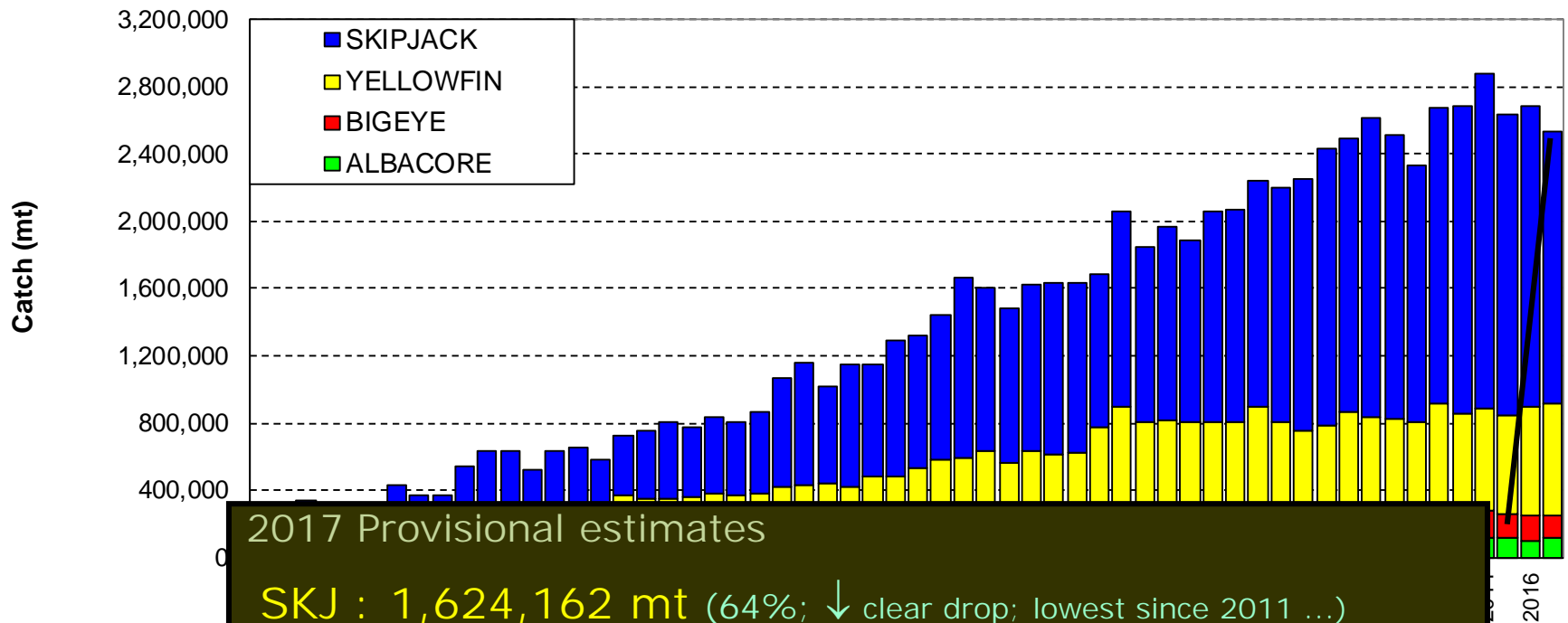


## 2017 Provisional estimates

- Total Catch – 2,539,950 mt (↓ lowest for 6 years...)
- Purse seine – 1,812,474 mt (71% → ; similar to 2016...)
- Longline – 240,387 mt (9% ↑ ; but lower than recent 5-yr average)
- Pole-and-line – 151,232 mt (7% ↓ ; lowest since mid-1960s)
- Other (mainly ID/PH artisanal) – (13% ↓)

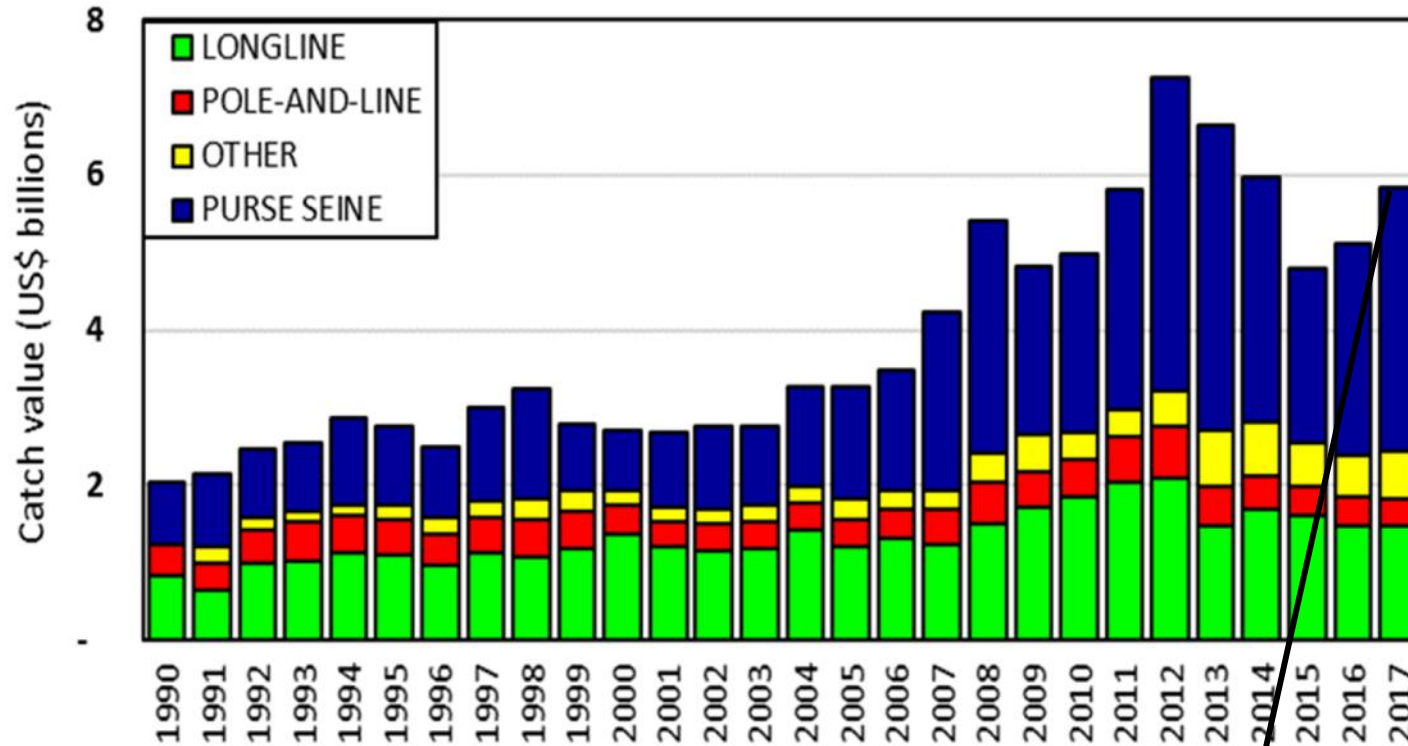
# WCP-CA Tuna Catch by species

Highlighting 2017 catches



# WCP-CA Tuna Catch Value by gear

Highlighting 2017 values

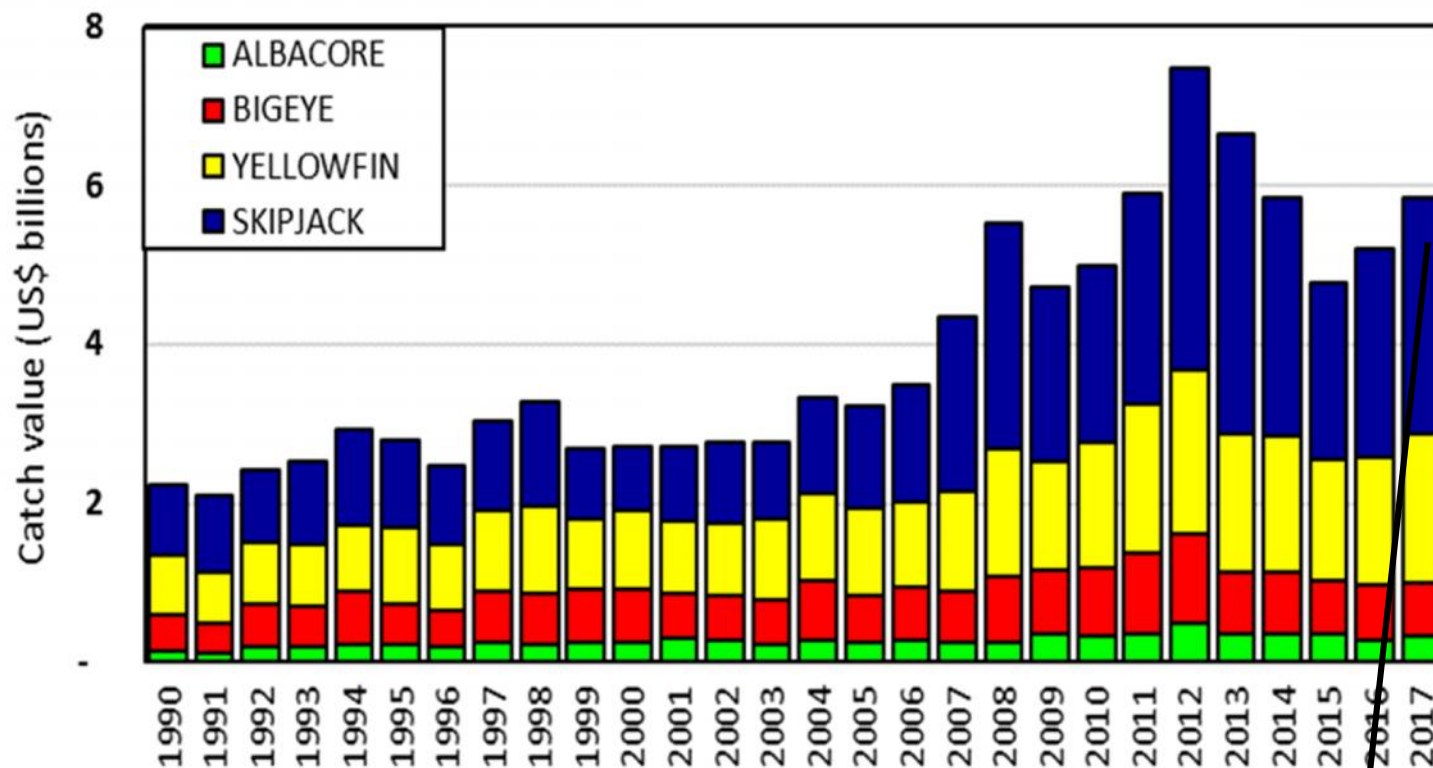


2017 estimates (billions)

- Total Value – \$5.84 (up 12%)
  - Purse seine – \$3.40 (up 24%)
    - 58% of total (2<sup>nd</sup> highest contribution)
  - Longline – \$1.46 (steady - down less than 1%)
    - 25% of total (2<sup>nd</sup> lowest contribution)
  - Pole-and-line – \$0.42 (down 8%)
  - Other \$0.63– (steady - up less than 1%)

# WCP-CA Tuna Catch Value by species

Highlighting 2017 values



2017 estimates (billions)

equal

SKJ : \$2.98 (up 13% and equal 3rd highest)

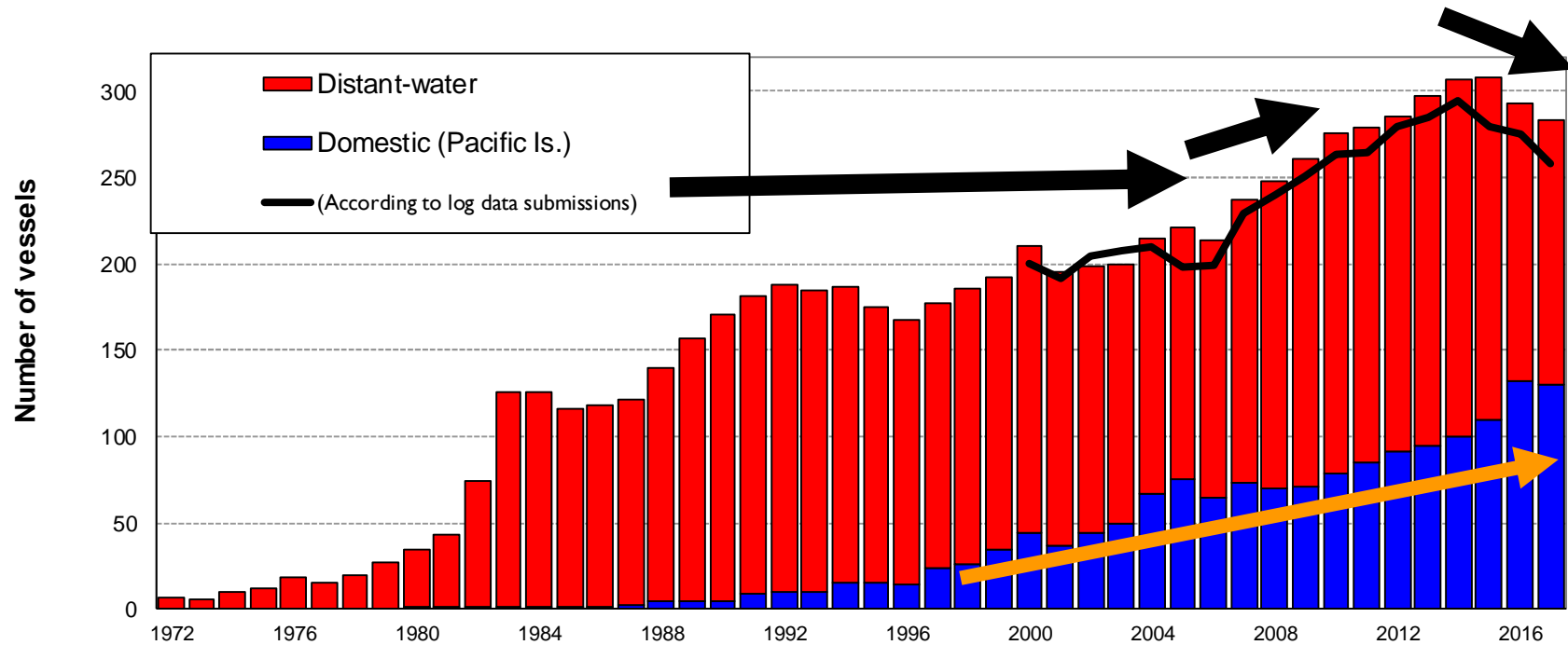
YFT : \$1.88 (up 17% and 2<sup>nd</sup> highest)

BET : \$0.65 (down 6% and lowest since 2005)

ALB : \$0.34 (up 21% but around 10 year average)

# WCP-CA Purse seine fishery

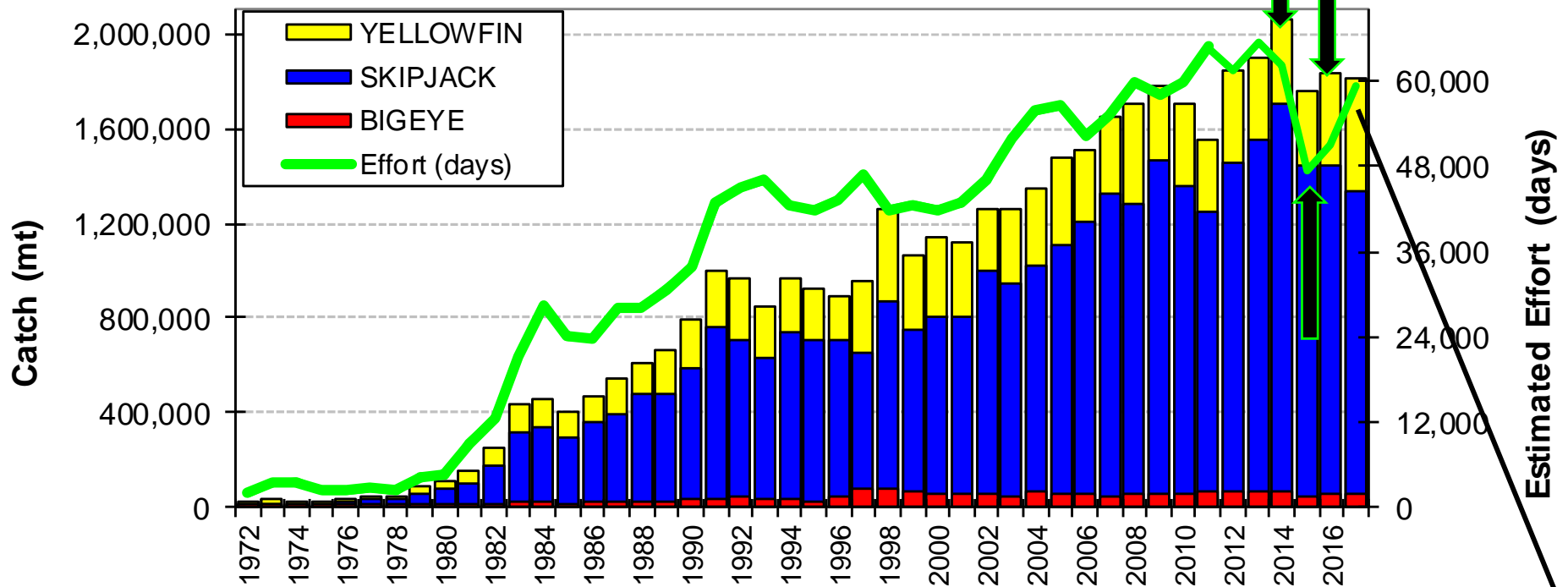
Number of vessels (according to WCPFC CCM submissions)



Also please see APPENDIX : Table A3 for vessel numbers according to logbooks

# WCP-CA Purse seine fishery

Annual catch (mt) by species and effort - Highlighting 2017 catches



## 2017 Provisional estimates

**TOTAL : 1,812,474 mt** ( less than 5yr avg.; similar to 2016 in catch; diff spp. comp.)

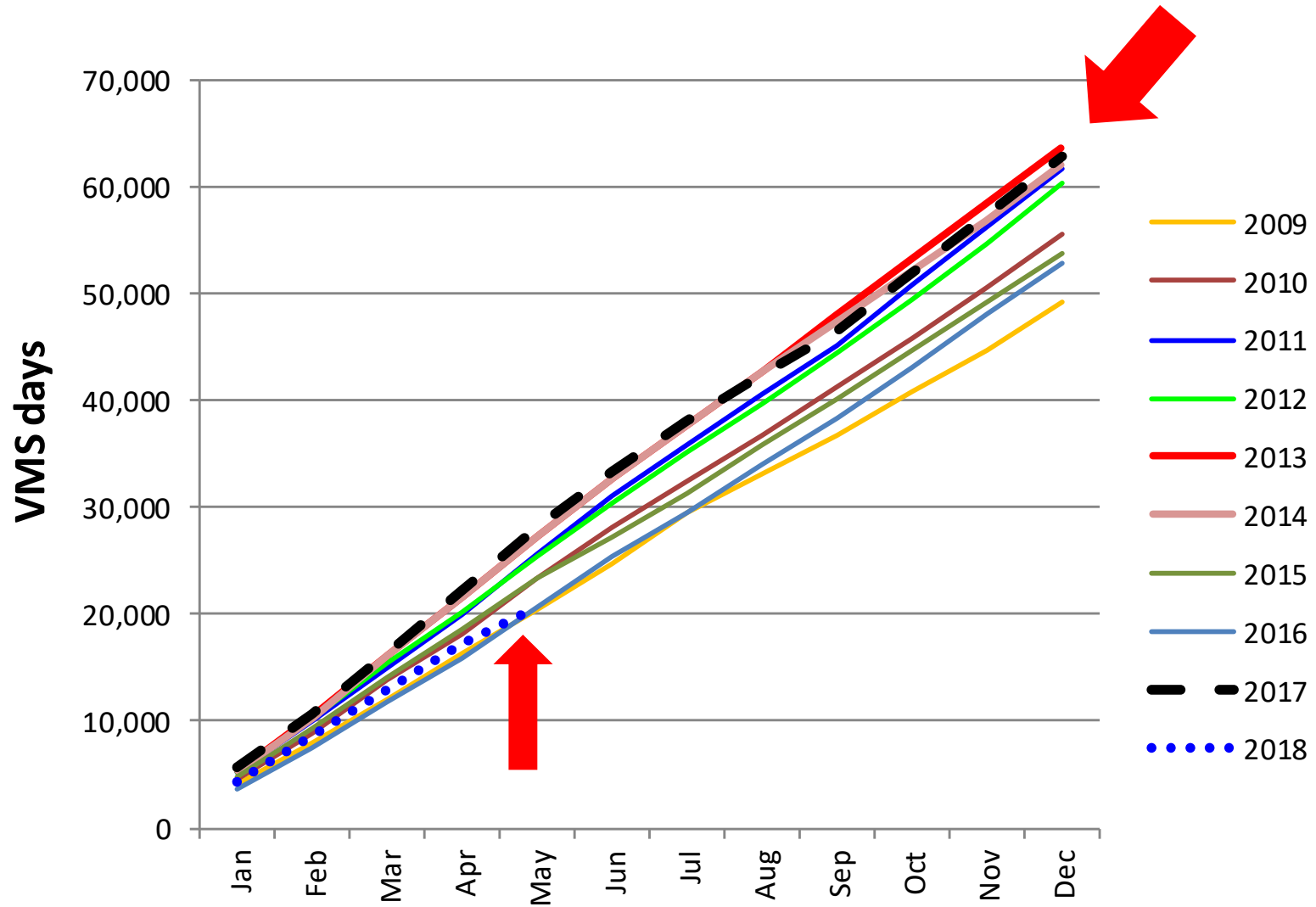
**SKJ : 1,280,311 mt** (71%; ↓ from 2016; lowest since 2011)

**YFT : 472,279 mt** (26% clear increase; RECORD; good UNA set catches)

**BET : 56,194 mt** (3%; ↓ from 2016; lower than recent 5yr avg.)

# WCP-CA Purse seine fishery

Cumulative monthly effort (according to VMS data)



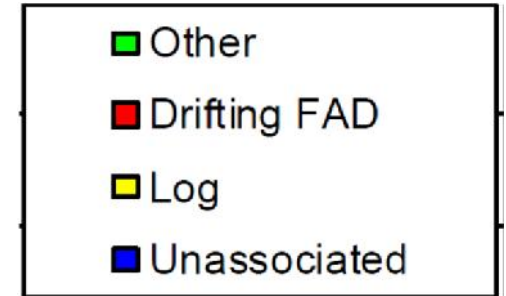
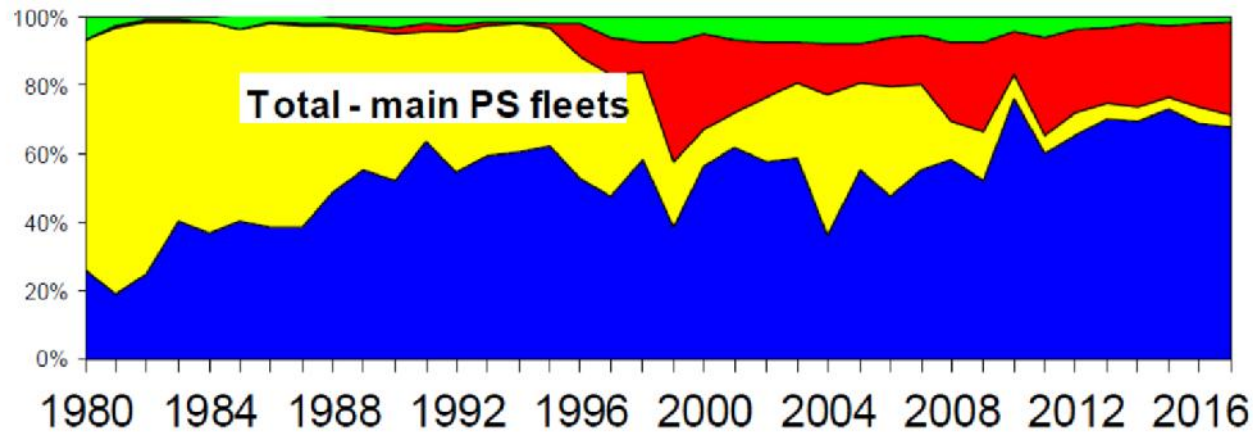
Excludes Indonesia/ Philippines domestic fisheries; includes some transit days



# WCP-CA Purse seine fishery

Trends in the proportion of EFFORT and CATCH by set type (major fleets)

## EFFORT

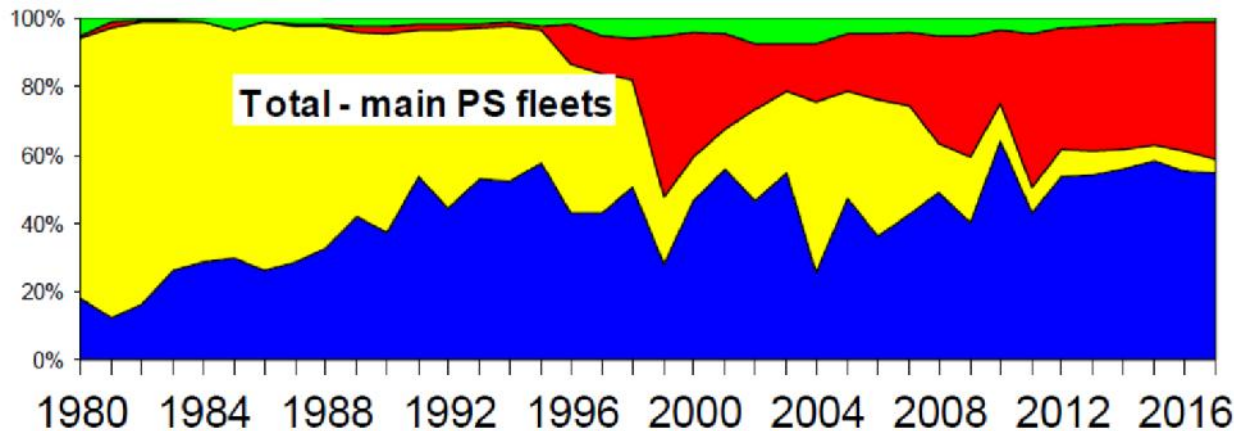


Unassociated

2017 Effort = 68%

2017 Catch = 55%

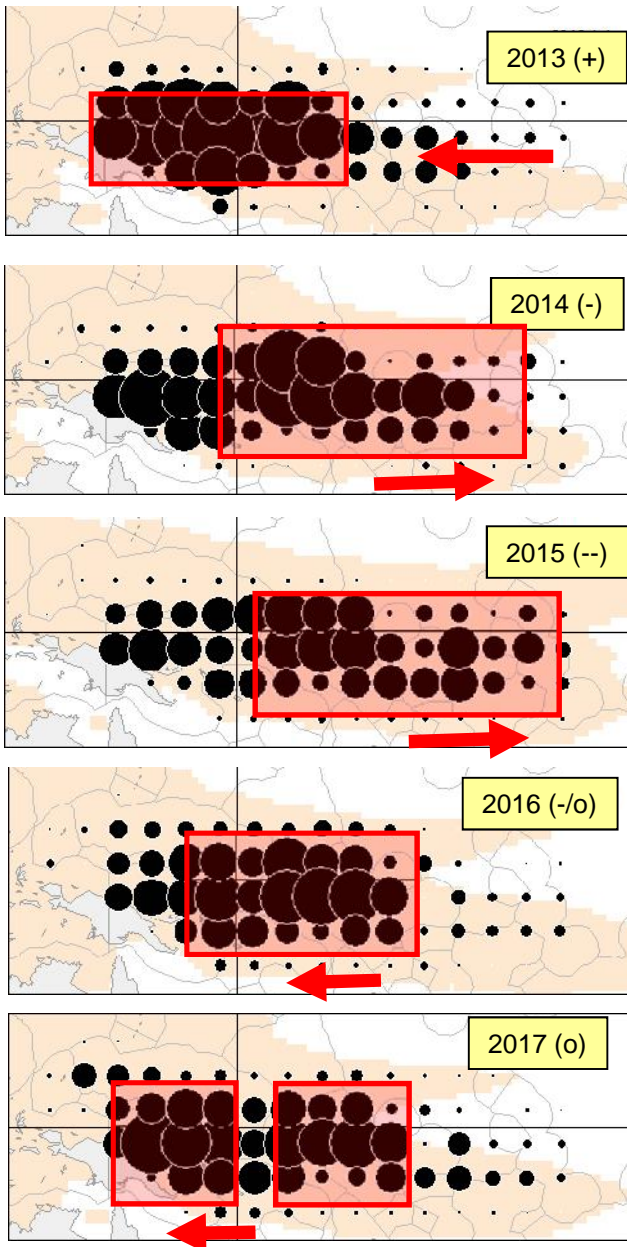
## CATCH



Drifting FAD

2017 Effort = 27%

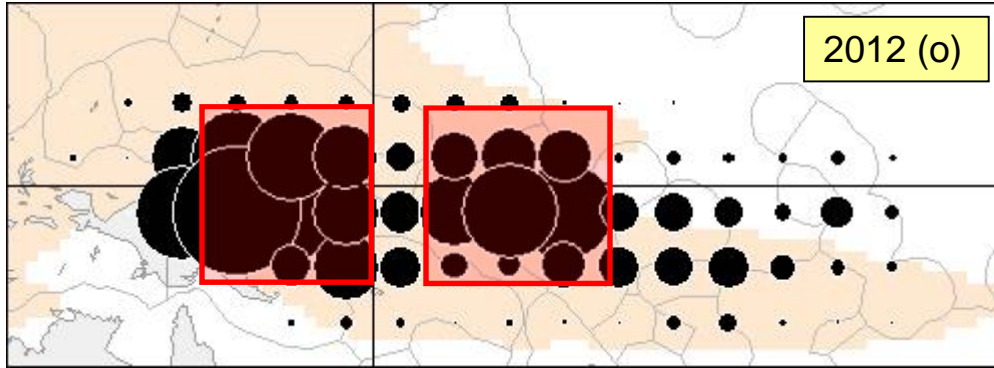
2017 Catch = 40%



# WCP-CA Purse seine fishery

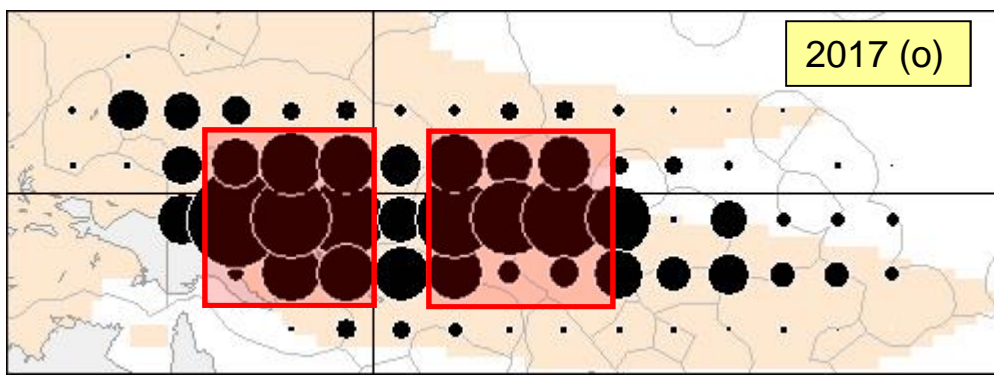
Distribution of effort

2017 - neutral ENSO conditions...  
More effort in the west...



# WCP-CA Purse seine fishery

Distribution of effort



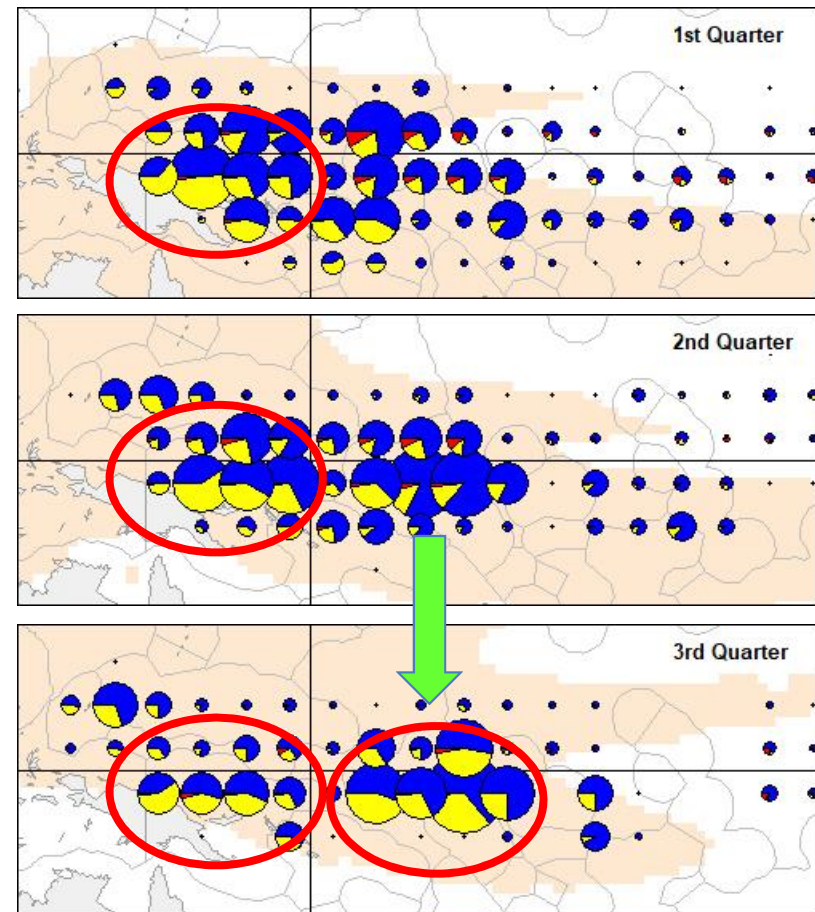
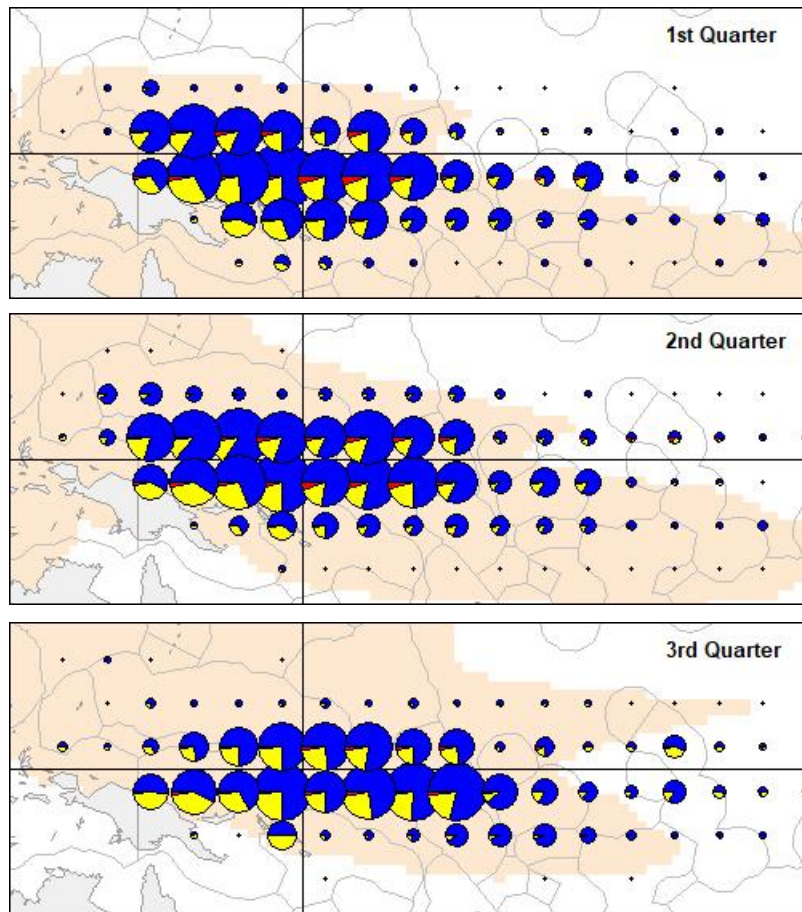
2017 – similarity with last neutral ENSO year in 2012

# WCP-CA Purse seine fishery

Quarterly Distribution of catch by species

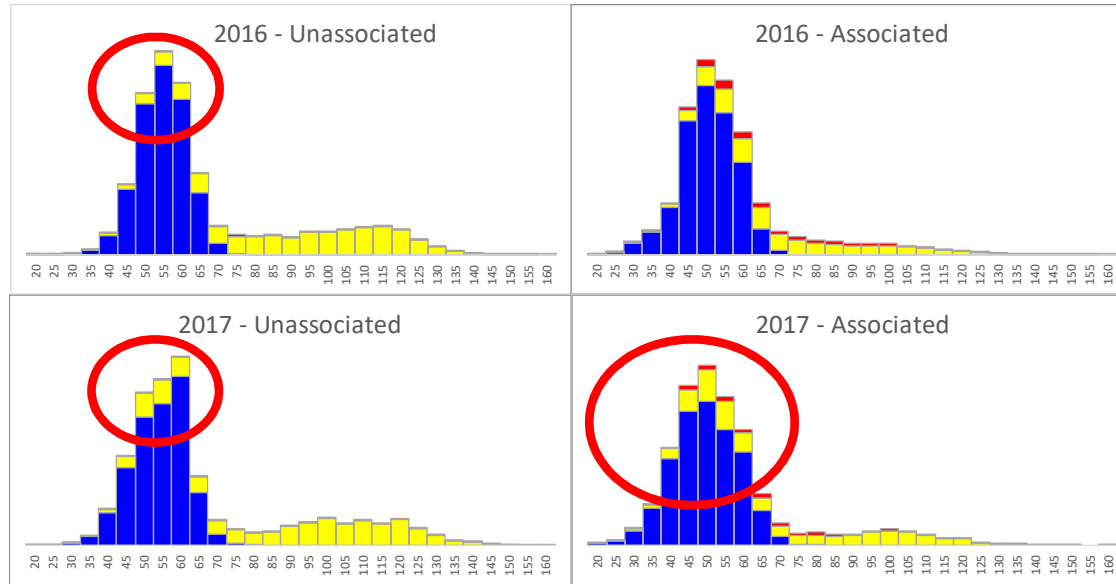
Average 2000-2016

2017



# WCP-CA Purse seine fishery

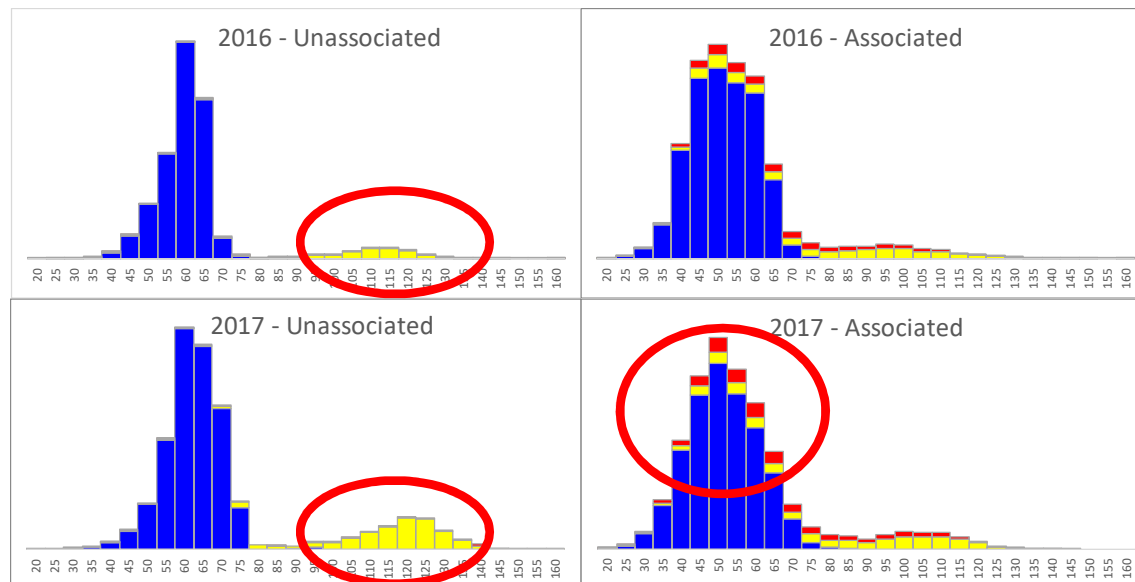
Species composition by broad area, set type and size class



West of 170°E

2016

2017

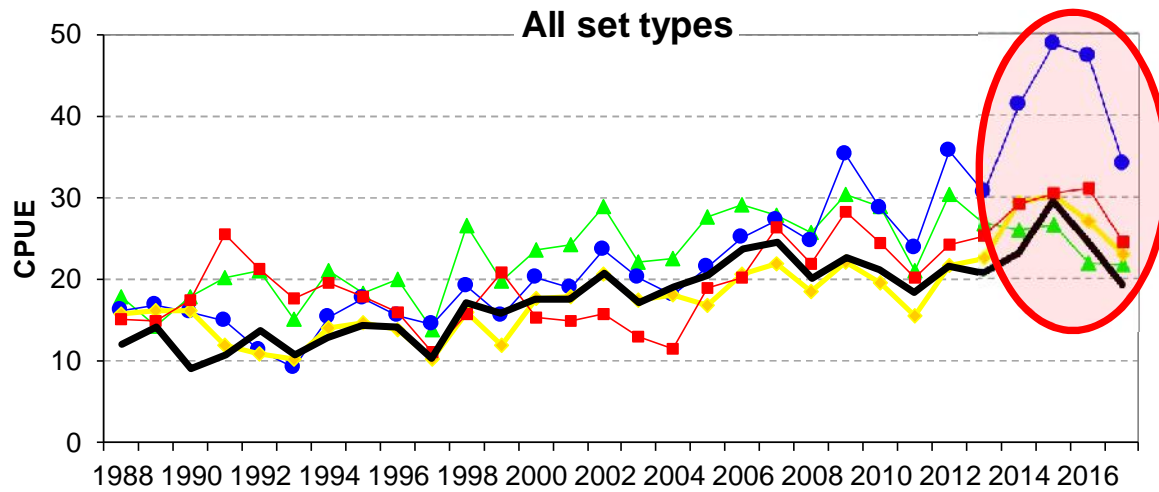


East of 170°E

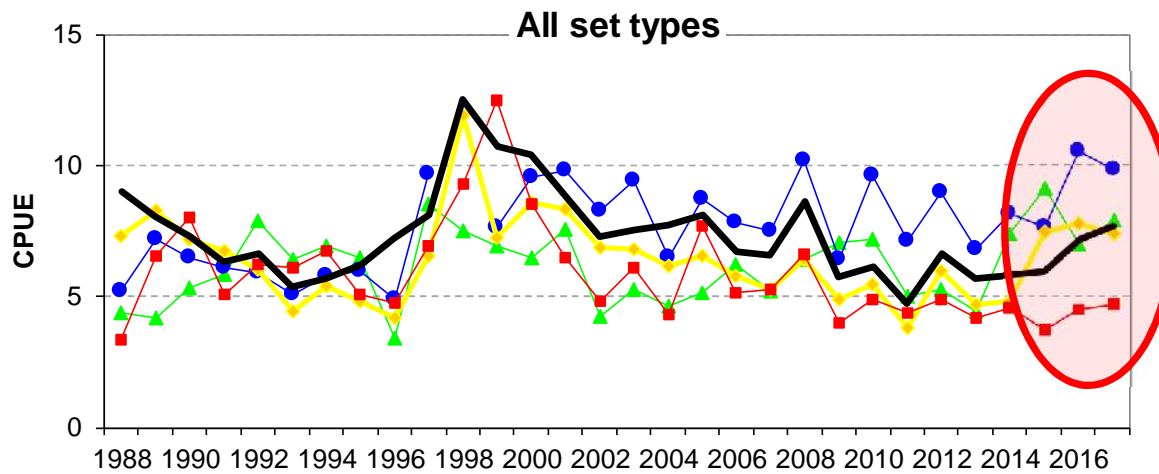
2016

2017

# WCP-CA Purse seine fishery – Nominal CPUE



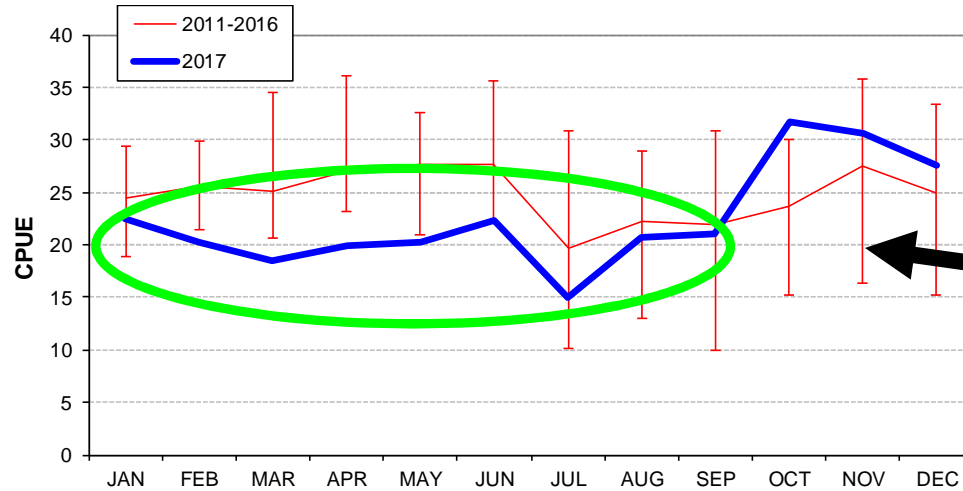
SKIPJACK



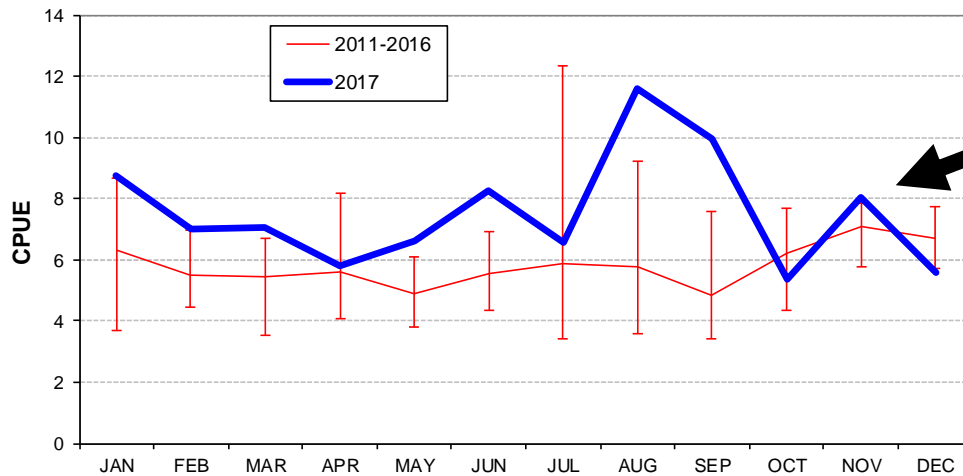
YELLOWFIN

# WCP-CA Purse seine fishery

Average Monthly SKJ (top) and YFT (bottom) CPUE, 2010-2017



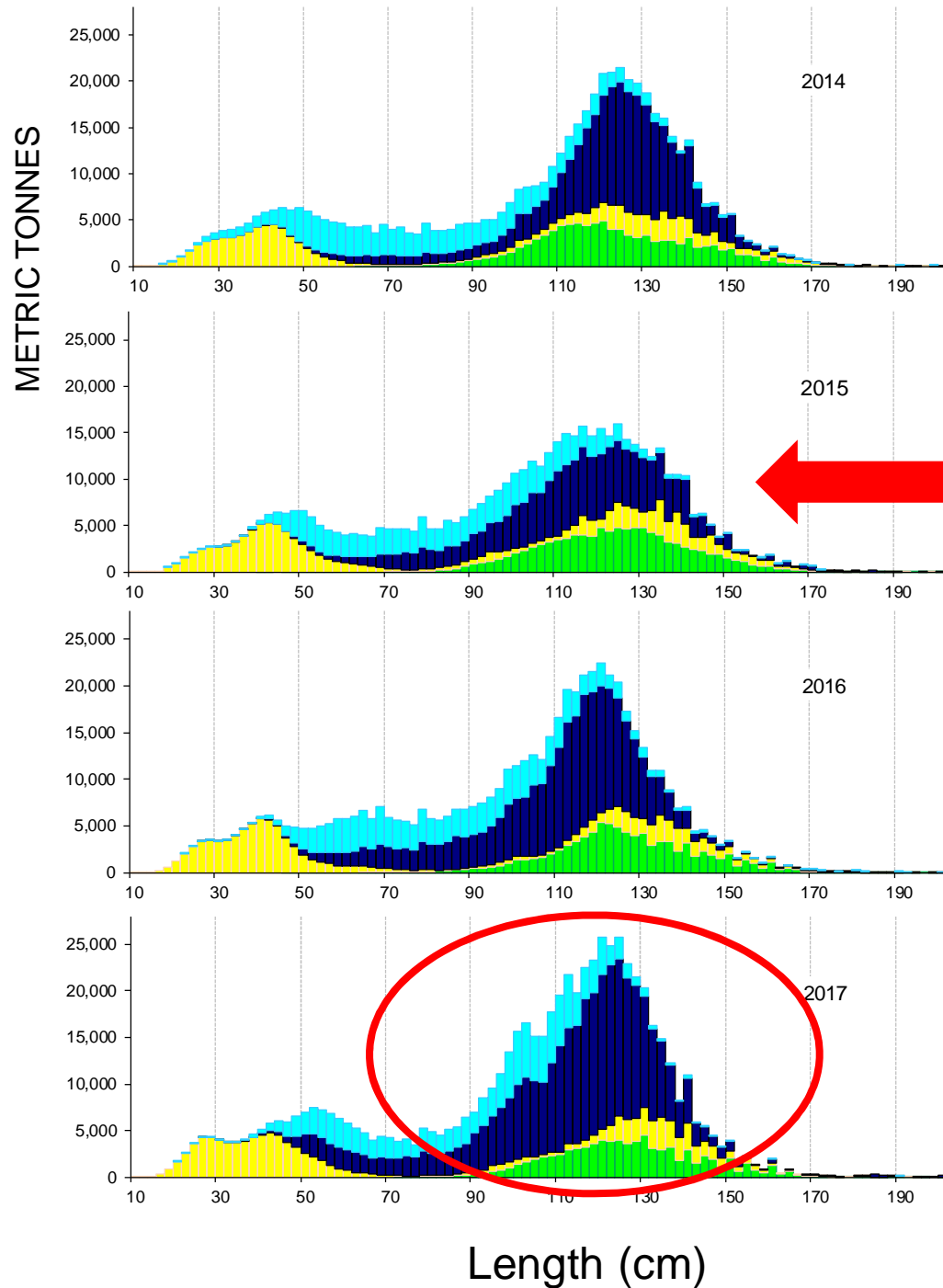
Q1-Q3 : below avg  
Q4 : above avg



Clearly above average; several monthly "highs"

# WCP-CA Purse seine fishery

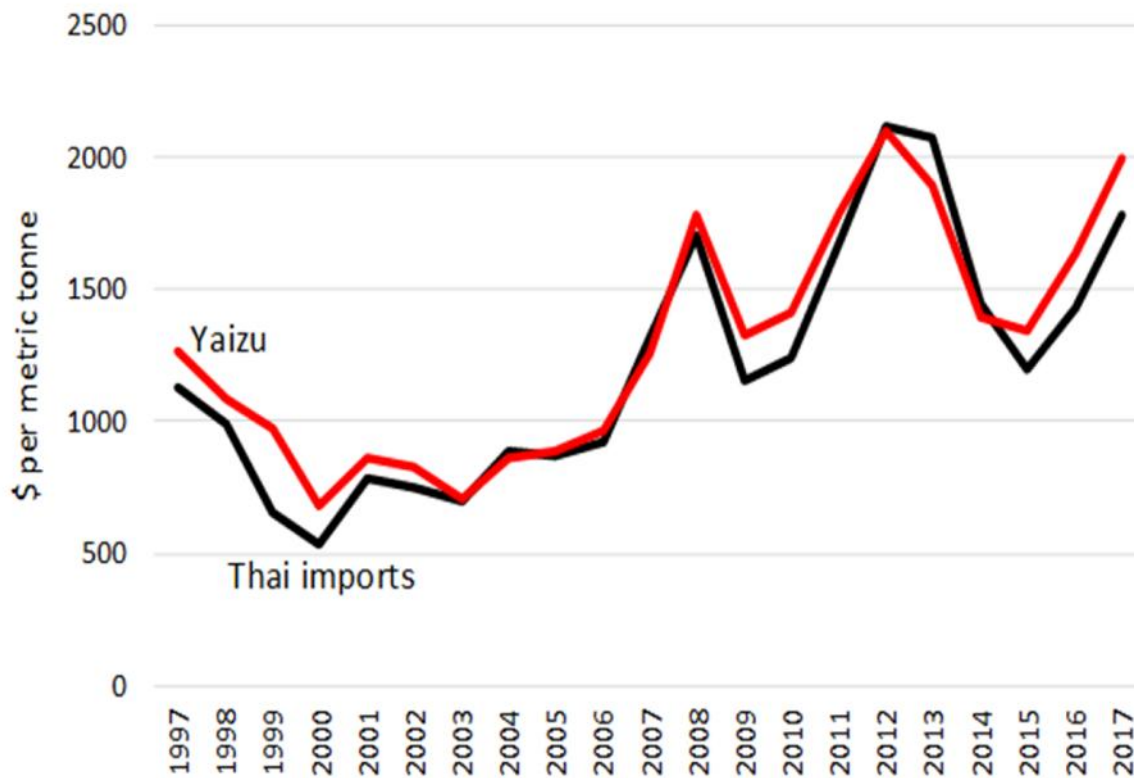
Good catches of large YFT from UNA schools in 2017





# Purse seine – Economic Overview

## Skipjack Prices



### 2017

#### **Thai imports \$1,782/mt**

Up 25% on 2016

Up 50% on 2015

3<sup>rd</sup> highest in nominal terms  
but still 15% lower than 2012  
5<sup>th</sup> highest in real terms

#### **Yaizu \$1,998/mt**

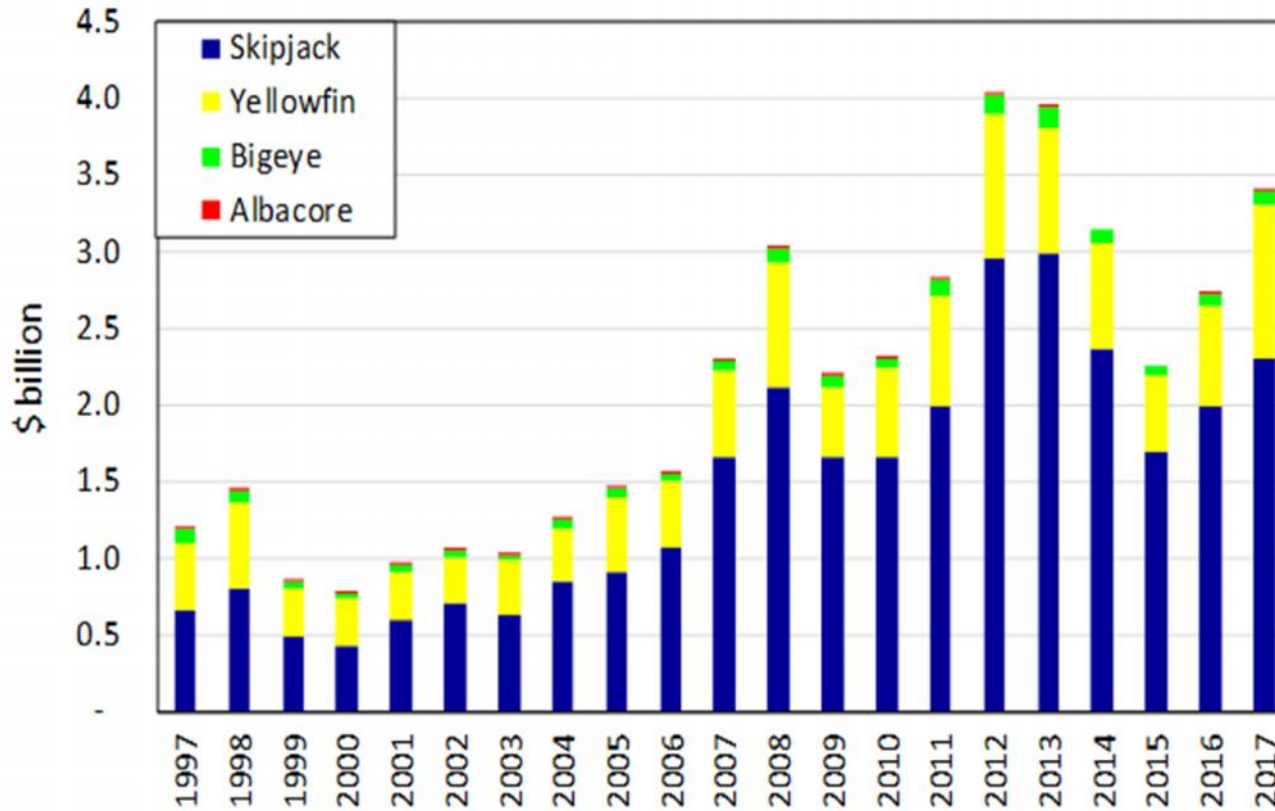
Up 22% on 2016

Up 48% on 2015

2<sup>nd</sup> highest in nominal terms  
and just 5% lower than 2012  
3<sup>rd</sup> highest in real terms  
25% higher than the 20 year  
average

# Purse seine – Economic Overview

## Catch value



### **2017**

Total value \$3.4 billion

Up 24% (\$667 million)

3<sup>rd</sup> highest in nominal terms

4<sup>th</sup> highest in real terms

Skipjack \$2.3 billion

Up 16% (\$323 million)

25% increase in prices offset  
by 7% decline in catch

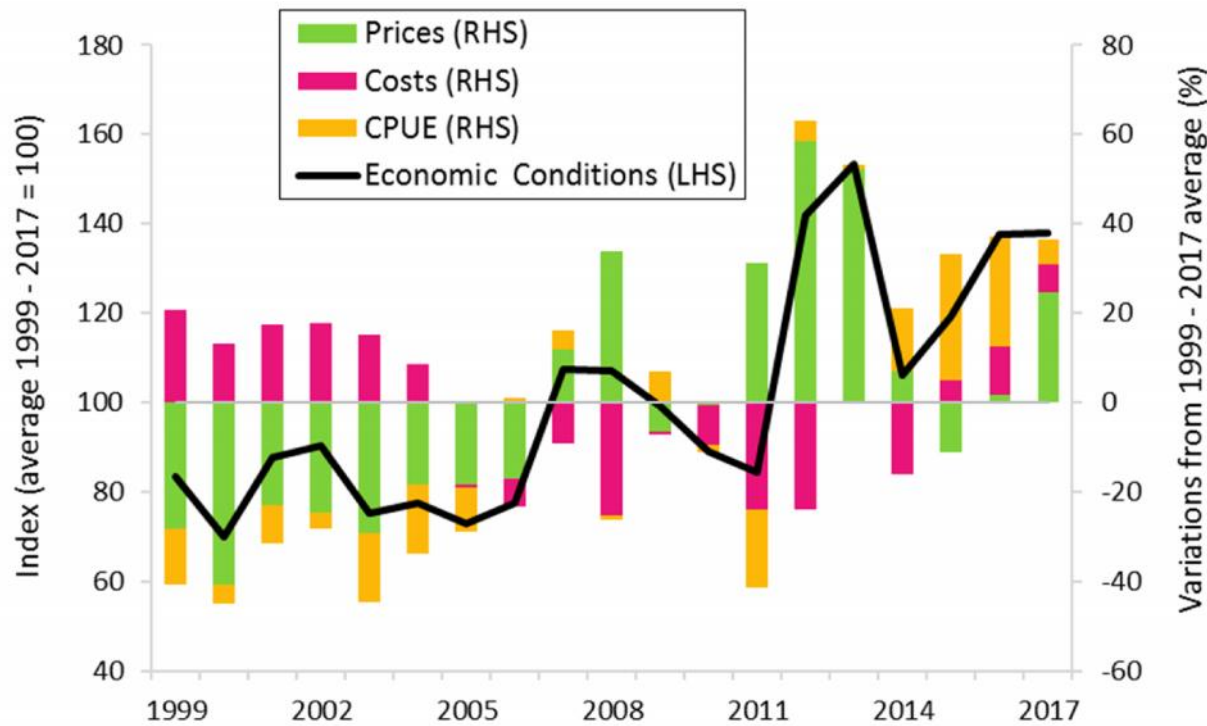
Yellowfin \$0.99 billion

Up 50% (\$328 million)

25% increase in prices and  
20% increase in catch

# Purse seine – Economic Overview

## Economic Conditions



**PURSE SEINE ECONOMIC CONDITIONS INDEX**

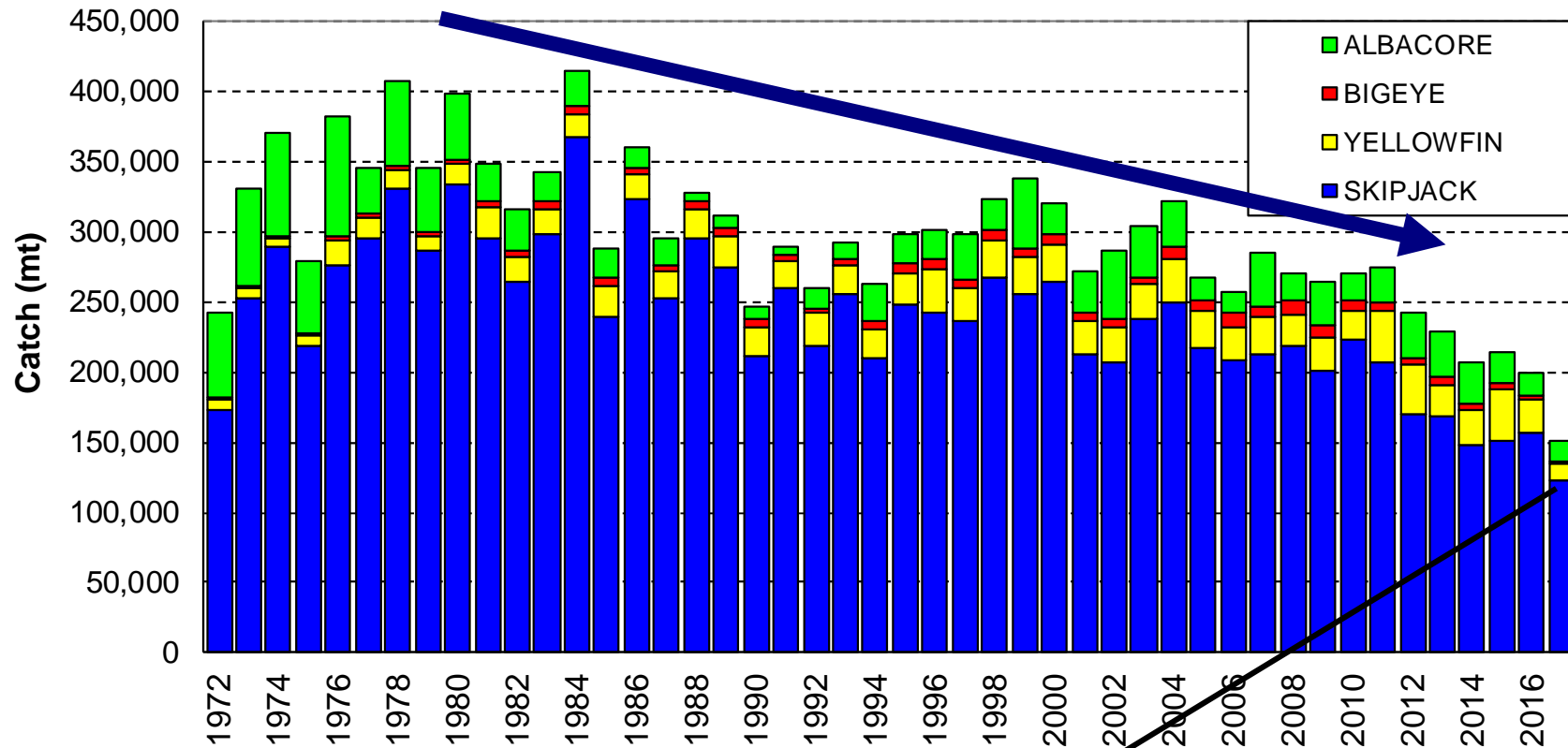
Good economic conditions maintained in 2017 due to a significant rise in prices which offset declines in catch rates.

Best 5 years occurred in last 6 years

- 2012, 13 and 17 conditions driven by high prices
- 2015 and 16 conditions driven by high CPUE

# WCP-CA Pole-and-line fishery

Annual catch by species



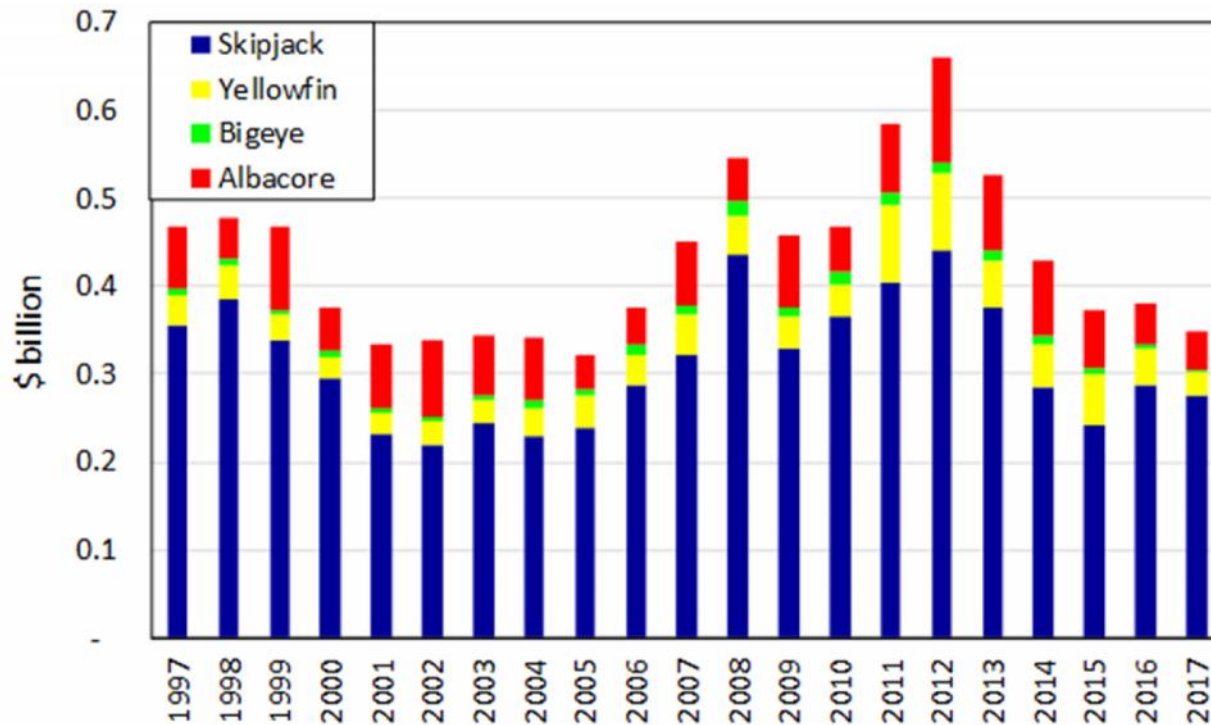
2017 Provisional estimates

**TOTAL : 151,232 mt**

- lowest since mid-1960s ...
- drop in Indonesia catch ...

# Pole and line – Economic Overview

## Catch value



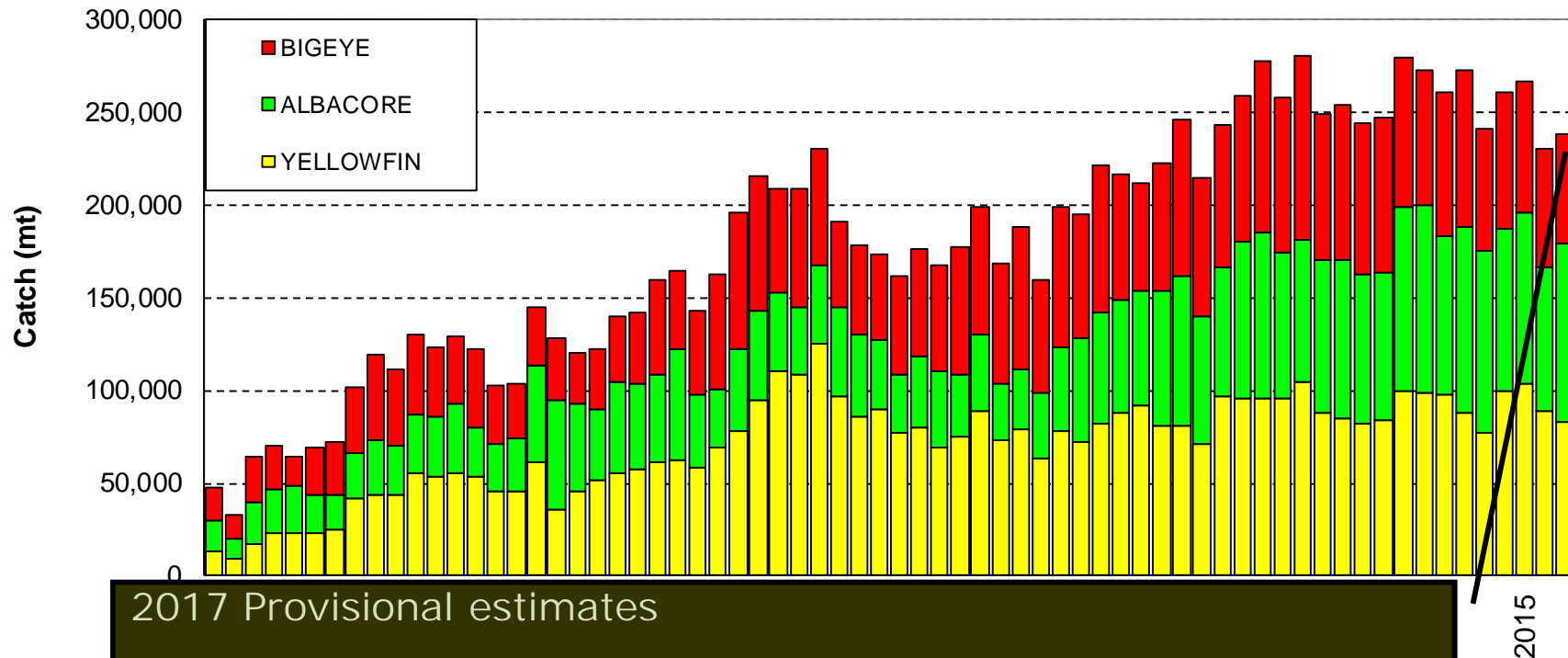
### 2017

Total value \$348m

- Down 8% - significantly less than the 24% decline in catch due to higher prices.
- 47% lower than 2012 peak

# WCP-CA Longline fishery

Annual catch (mt) by species - Highlighting 2017 catches (prov.)



2017 Provisional estimates

**TOTAL : 240,387 mt** ( lower than recent 5-year avg.)

**YFT : 83,399 mt** (35% lower than recent 5-year avg.)

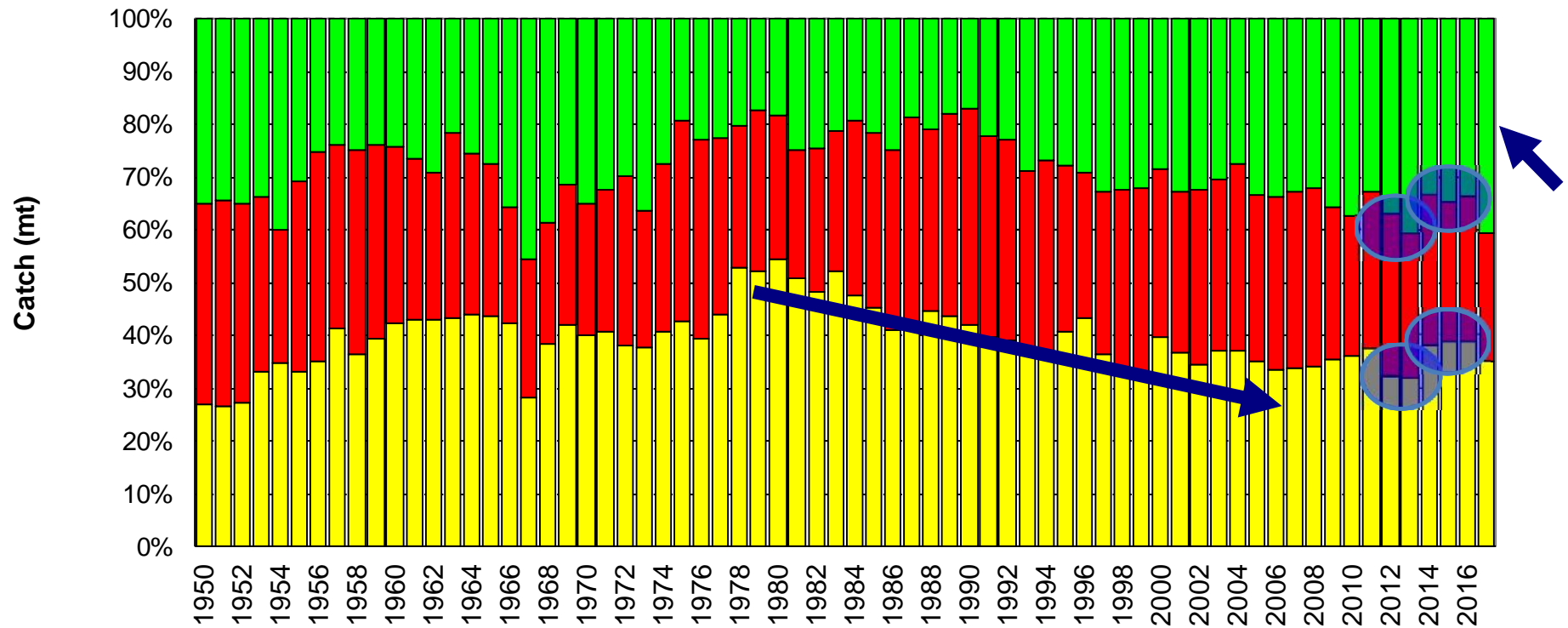
**BET : 58,164 mt** (25% lowest since 1996; reduction in effort; prov. ?)

**ALB : 96,280 mt** (40% ↑ only 5,000t less than record)

**ALB (S Pac) : 89,388 mt** ( RECORD)

# WCP-CA Longline fishery

## Annual TUNA SPECIES COMPOSITION



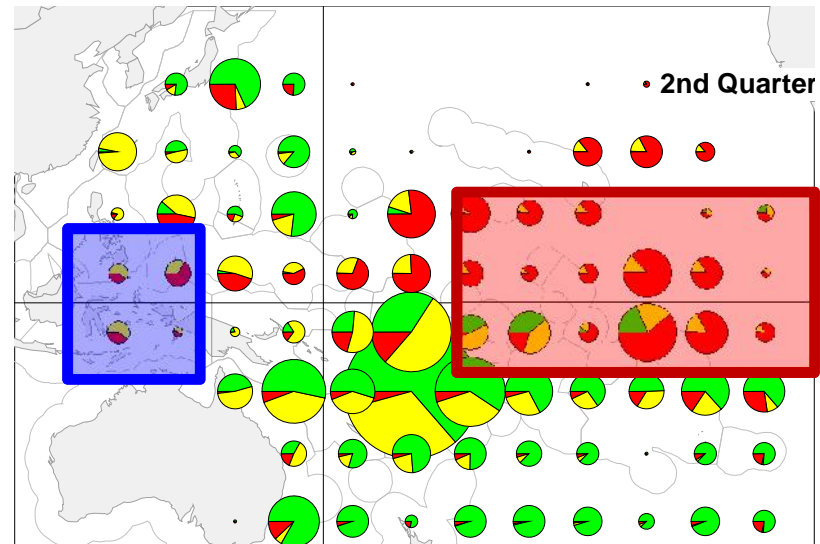
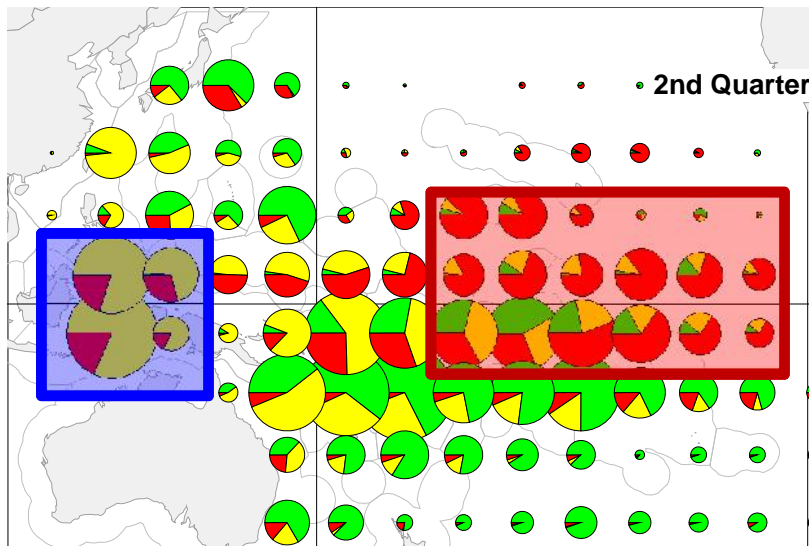
ALB catch rebound in 2017 – link to recent changes in ENSO ?

# WCP-CA Longline fishery

Quarterly Distribution of Catch by species  
2010-2016 compared to 2017

Average 2010-2016

2017



● Yellowfin

● Albacore

● Bigeye

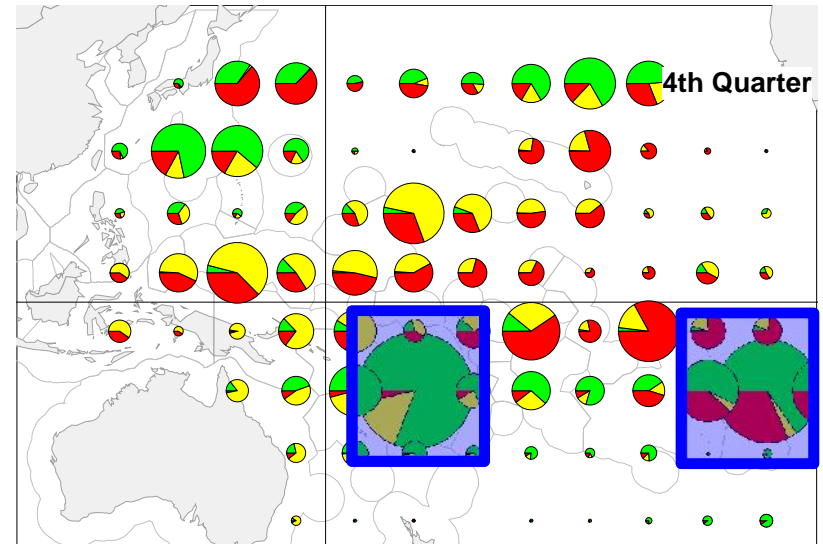
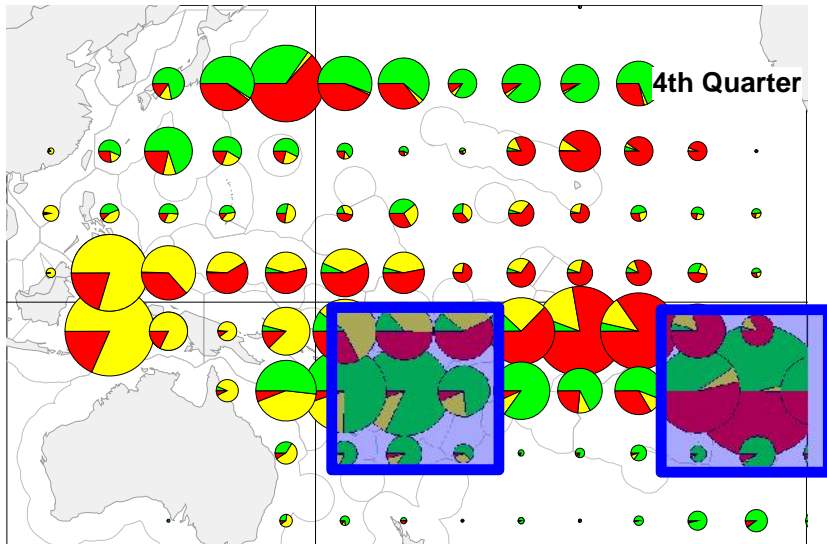


# WCP-CA Longline fishery

Quarterly Distribution of Catch by species  
2010-2016 compared to 2017

Average 2010-2016

2017



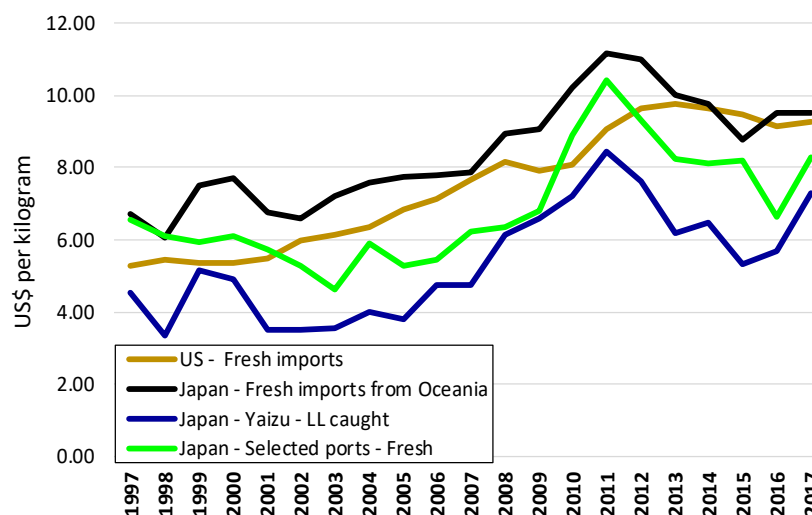
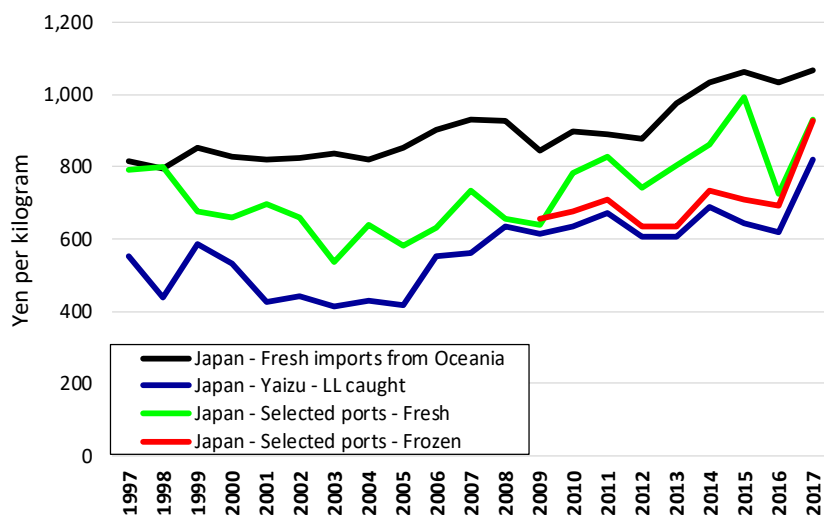
● Yellowfin

● Albacore

● Bigeye

# Longline – Economic Overview

## Yellowfin prices (Yen LHS – US\$ RHS)



2017

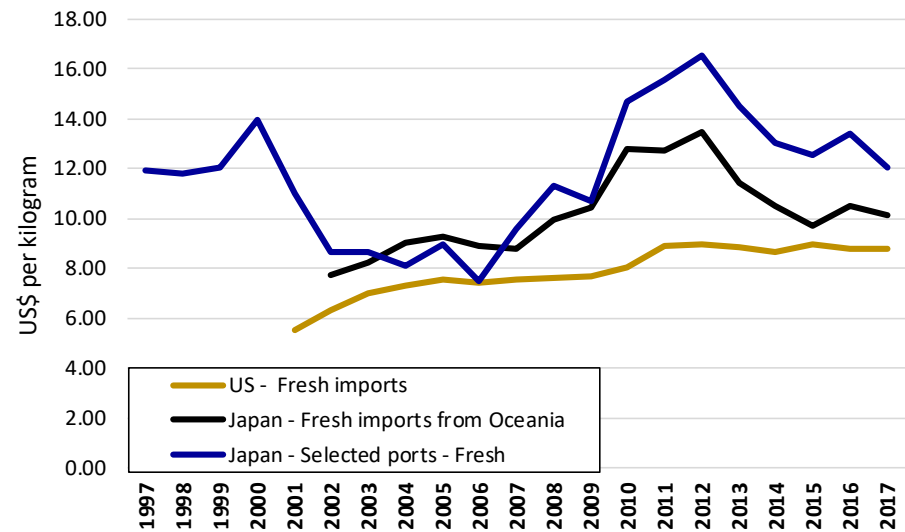
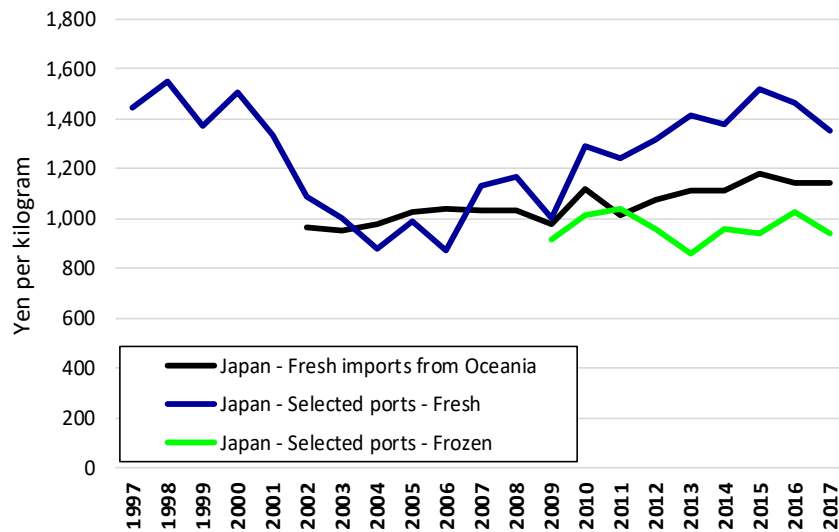
Prices in Japan generally saw significant increase to be at or near highest levels over past 2 decades:

- Yaizu LL caught up 32% to ¥819/kg
- Frozen prices at selected port prices up by 34% to ¥926/kg,
- Fresh prices at selected port prices were up 29% to ¥931/kg.
- Fresh imports from Oceania up 3% to ¥1,065/kg

Prices for US fresh imports rose 2% to \$9.27/kg

# Longline – Economic Overview

Bigeye prices (Yen LHS – US\$ RHS)



2017

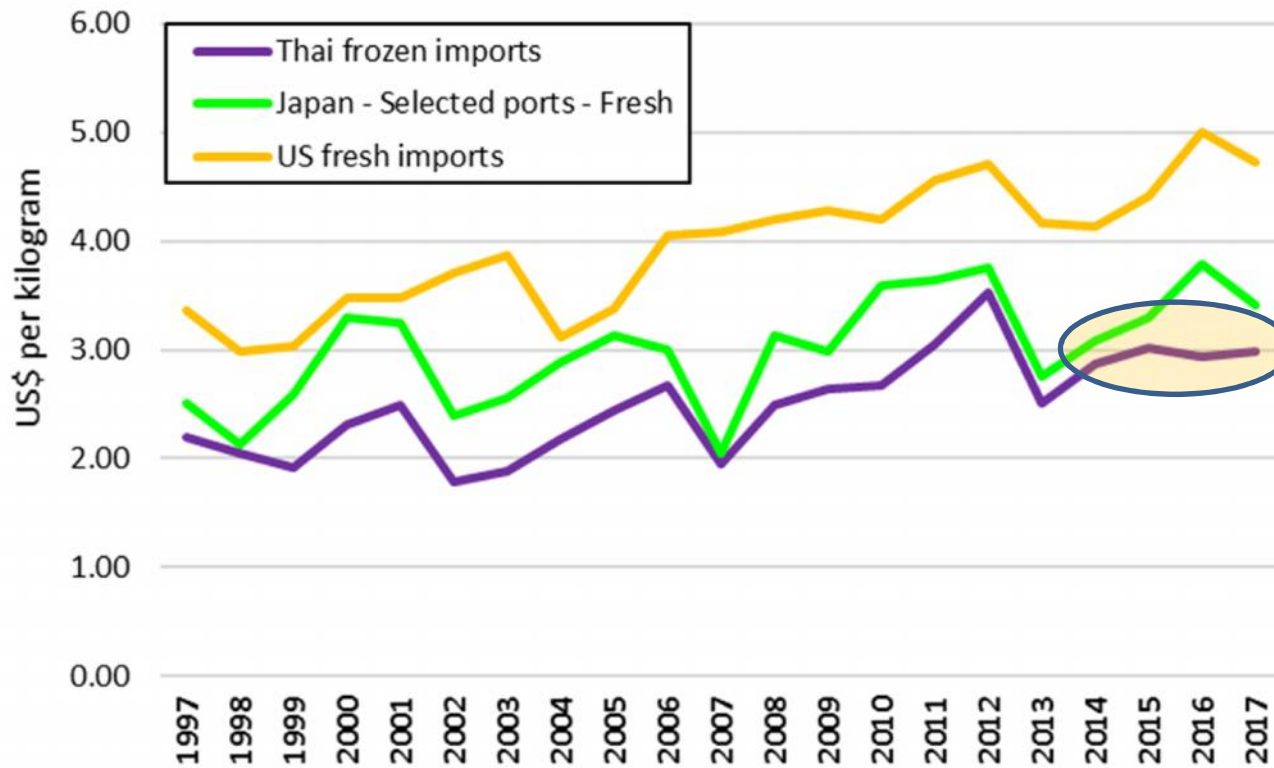
Prices in Japan declined or were steady

- Frozen prices at selected port prices down 9% to ¥937/kg,
- Fresh prices at selected port prices down 7% to ¥1,353/kg
- Imported fresh bigeye from Oceania steady at ¥1,140/kg.

Prices for US fresh imports were steady at \$8.77/kg

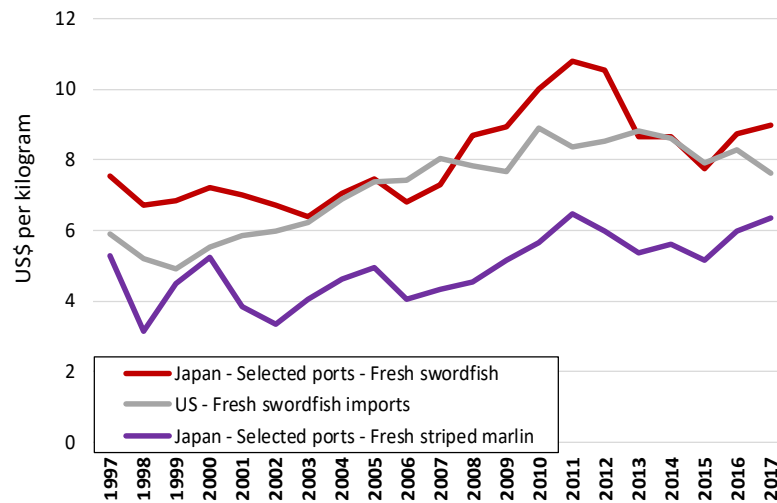
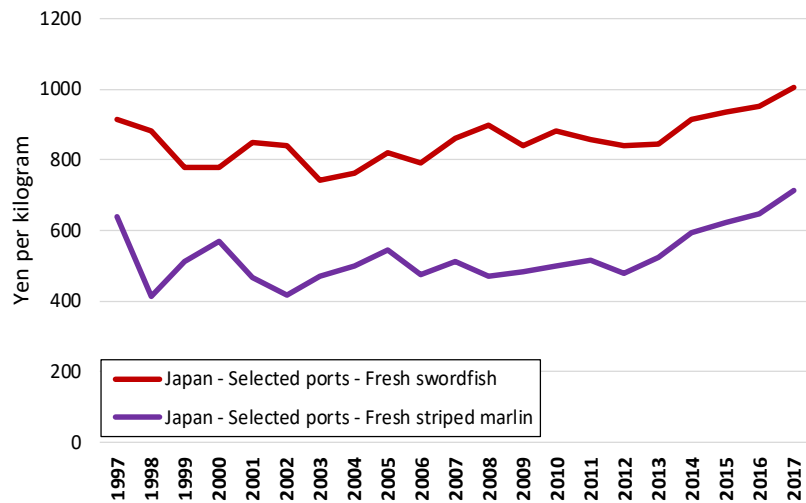
# Longline – Economic Overview

## Albacore prices (US\$)



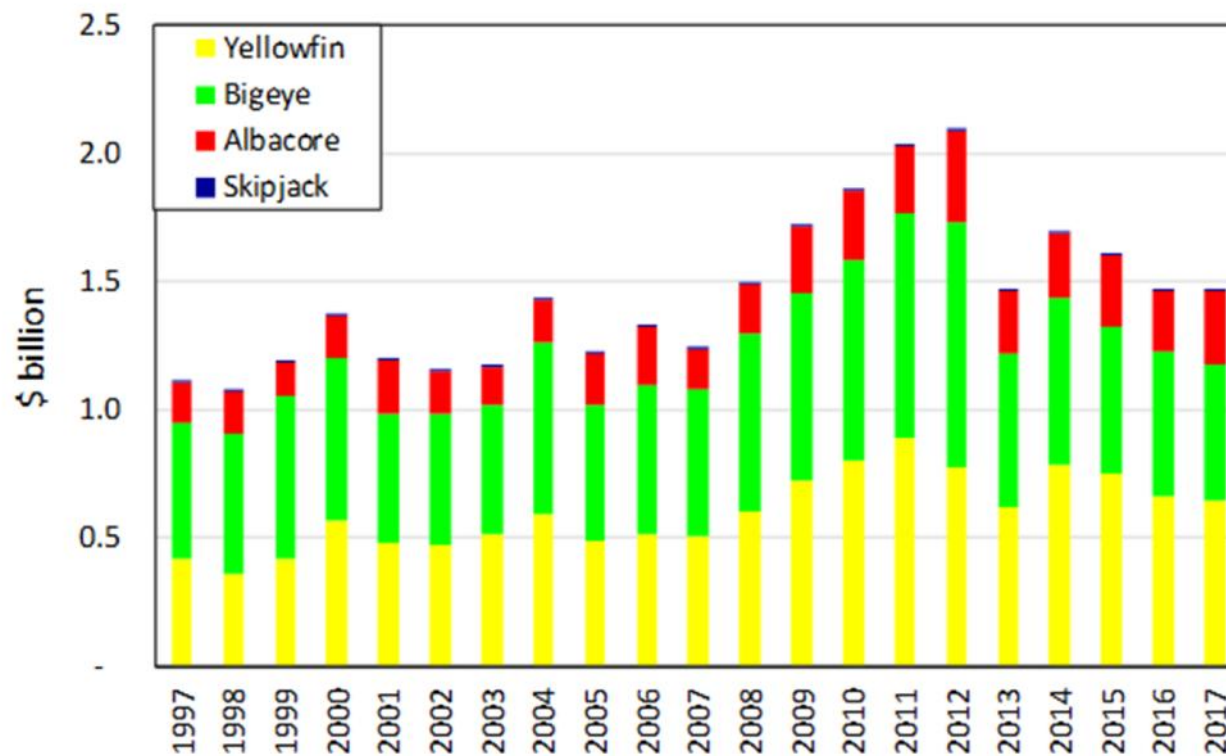
# Longline – Economic Overview

Swordfish and striped marlin prices (Yen LHS – US\$ RHS)



# Longline – Economic Overview

## Catch value



### 2017

Total **tuna** catch value \$1.46b  
Down marginally on 2016

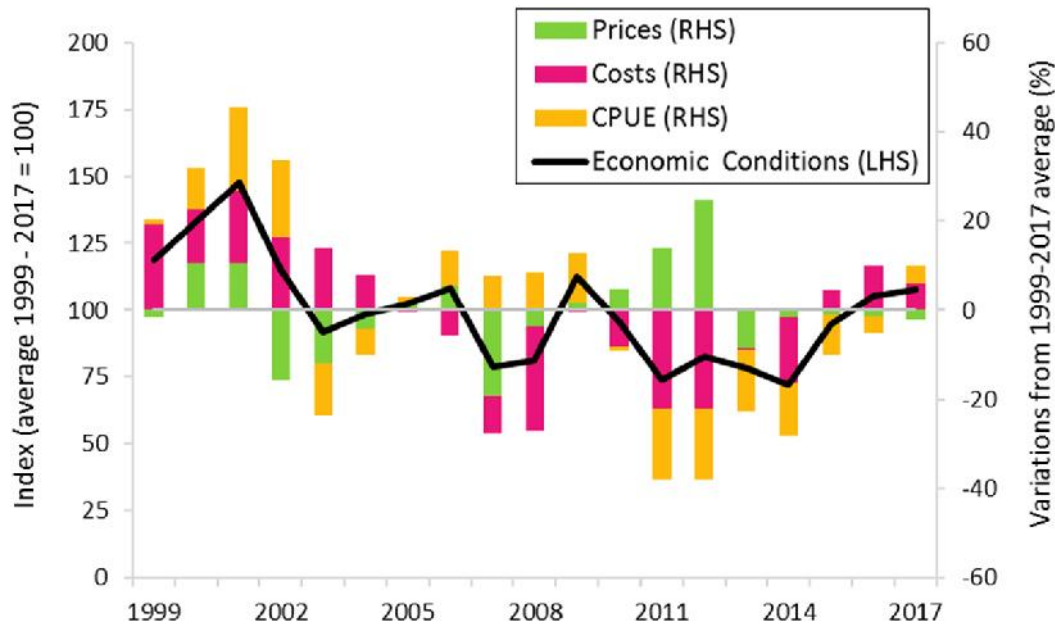
Albacore \$287m  
Up 26% (\$59m) driven by  
24% increase in catch

Yellowfin \$648m  
Down 2% driven by 6%  
decline in catch

Bigeye \$524m  
Down 7% driven by similar  
decline in catch  
Lowest value since 2005

# Longline– Economic Overview

## Economic Conditions – Southern Longline



**SOUTHERN LONGLINE ECONOMIC CONDITIONS INDEX**

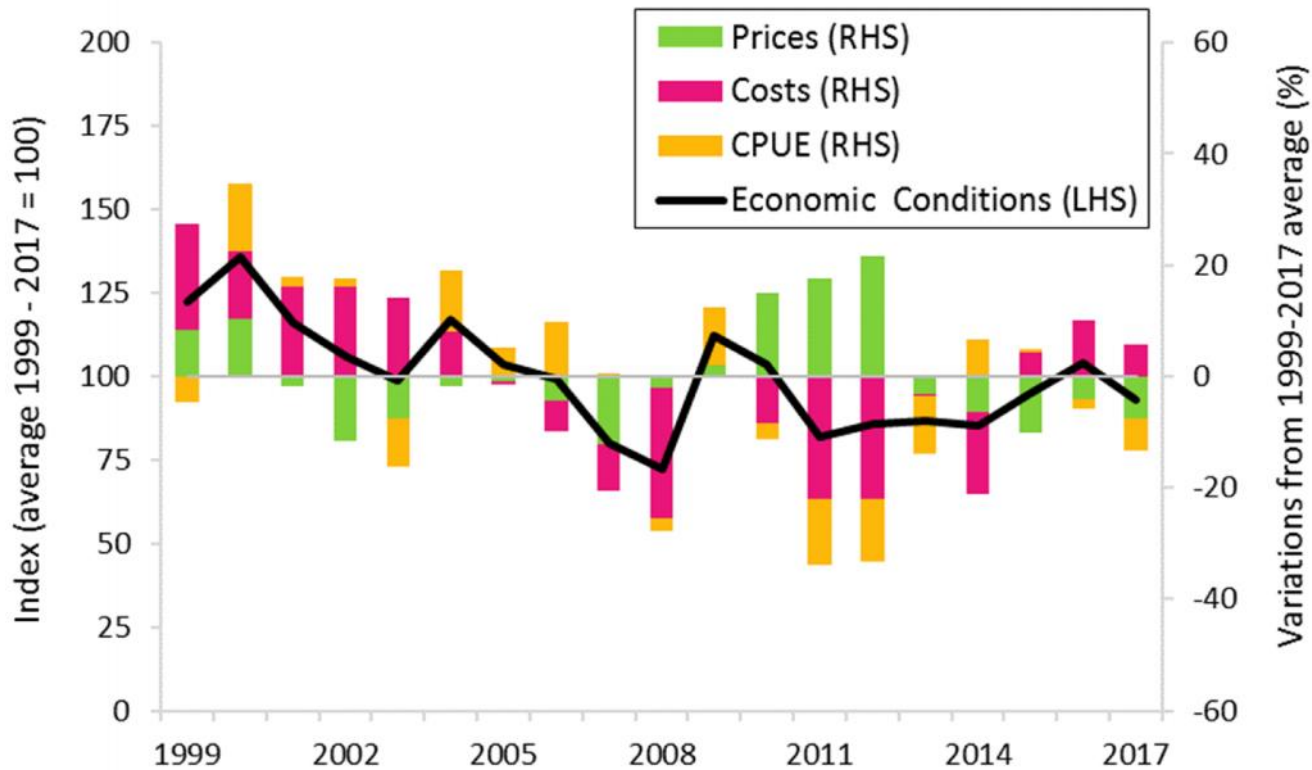
In 2017 economic conditions index stood at 108 its highest reading since 2008.

Improvement in the economic conditions in the southern longline fishery in recent years driven by higher catch rates and lower costs.

Important to note that after peaking in 2012 effort levels declined significant through to 2016 (when it was 32% lower than in 2012) but with economic conditions improving effort increased in 2017 to be at its highest level since 2013 and 30% higher than 2016 levels.

# Longline– Economic Overview

## Economic Conditions – Tropical Longline



**TROPICAL LONGLINE ECONOMIC CONDITIONS INDEX**



# WCP-CA Tuna Fisheries

## 2017 – MAIN POINTS OF INTEREST

### 1. Trends in catch estimates

- Total catch - 2,539,950 mt (↓ 5% - lowest since 2011)
- Record Total YFT catch - 670,890 mt (↑ 4% - due to record in PS fishery)
- Record PS YFT catch - 472,279 mt (↑ 2% - good catches in 1<sup>st</sup> – 3<sup>rd</sup> qtrs)
- Record SPAC ALB catch - 92,291 mt (↑ 35% - due to Longline increase)
- Record SPAC LL ALB - 89,388 mt (↑ 36% - China took 45% of catch)
- LL BET catch - 58,164 mt (↓ 8% - lowest since 1996 Provisional ?)
- PL – lowest since 1960s - 151,232 mt (↓ 24% - drop in Indonesia catch)

### 2. PS fishery in 2017

- Clear drop in SKJ catch and CPUE (related to move from El Nino to neutral ENSO ?)
- Continuation of good Yellowfin catches (RECORD)
- Drop in PS BET catch (but provisional)
- Neutral ENSO conditions - more effort/catch further west (similar spatially to 2012)
- Combined Pacific Island PS fleet continues to be most significant (36% of PS catch)

### 3. Increases in purse seine and declines in longline catch values

- LONGLINE - US\$ 1.5 billion (steady)
- PURSE SEINE - US\$ 3.4 billion (24% increase on 2016)
- Total - US\$ 5.8 billion