Comisión Interamericana del Atún Tropical
Inter-American Tropical Tuna Commission

Stock status indicators for tropical tunas in the eastern Pacific Ocean

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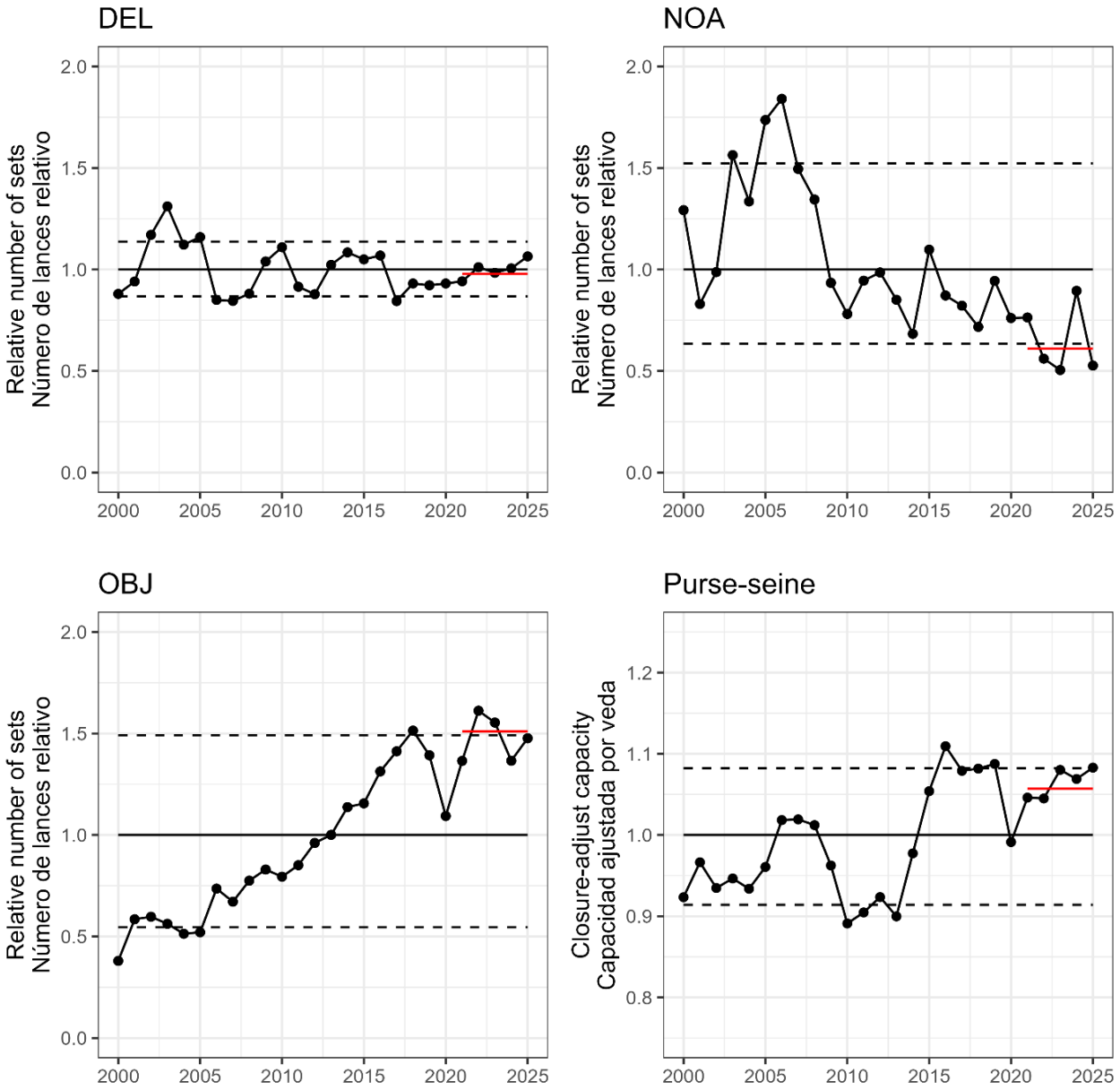
Introduction

- Datos: red de cerco y palangre
- Especies: patudo, aleta amarilla y barrilete
- Indicadores del estado del stock:
  - Captura, esfuerzo, CPUE y longitud promedio
  - Inicio en 2000
  - Primer año de muestreo de composición de especies con red de cerco
  - Después de la gran expansión en alta mar de la pesquería con objetos flotantes
  - Niveles de referencia establecidos en los percentiles 10% y 90%

- Data: purse-seine and longline
- Species: bigeye, yellowfin, and skipjack
- Stock Status Indicators:
  - Catch, effort, CPUE, and average length
  - Start in 2000
    - First year of purse-seine species composition sampling
    - After the major offshore expansion of the floating-object fishery
  - Reference levels set at the 10% and 90% percentiles

Purse-seine: number of sets by set type



En 2025:

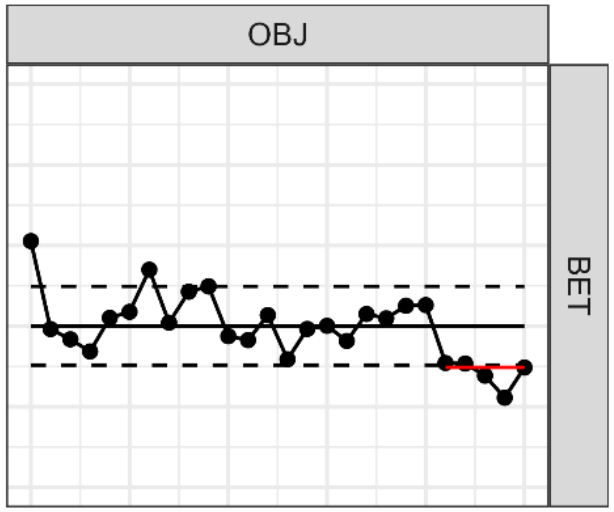
- Lances OBJ al nivel de referencia del **90%**
- Lances NOA por debajo del nivel de referencia del **10%**
- Lances DEL superiores al promedio
- La capacidad de pesca ajustada por vedas al nivel de referencia del **90%**

In 2025:

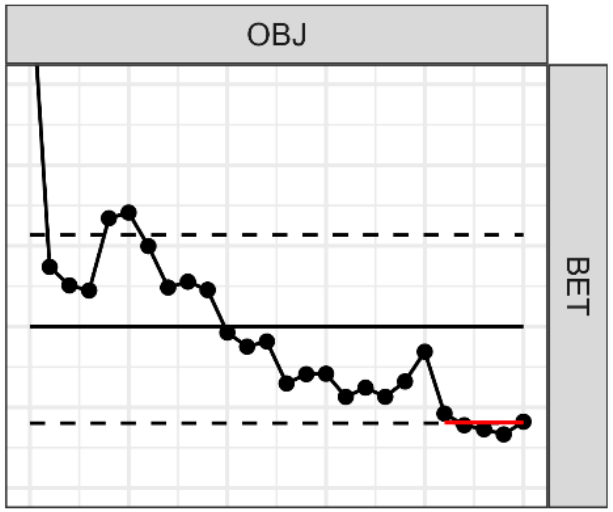
- OBJ sets at 90% reference level
- NOA sets below 10% reference level
- DEL sets higher than average
- The closure-adjusted fishing capacity at 90% reference level

Bigeye

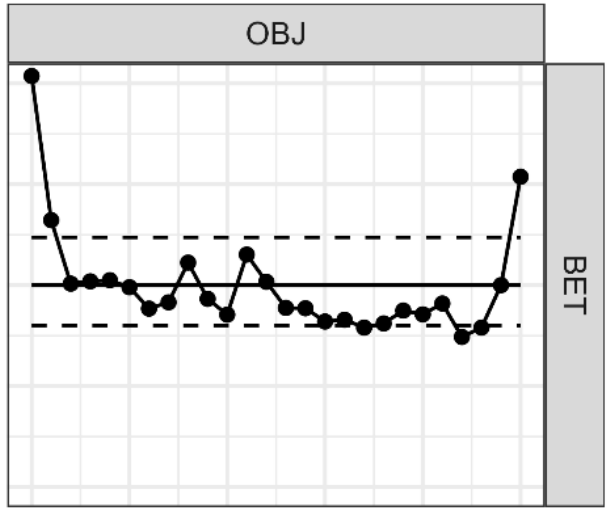
Captura / Catch



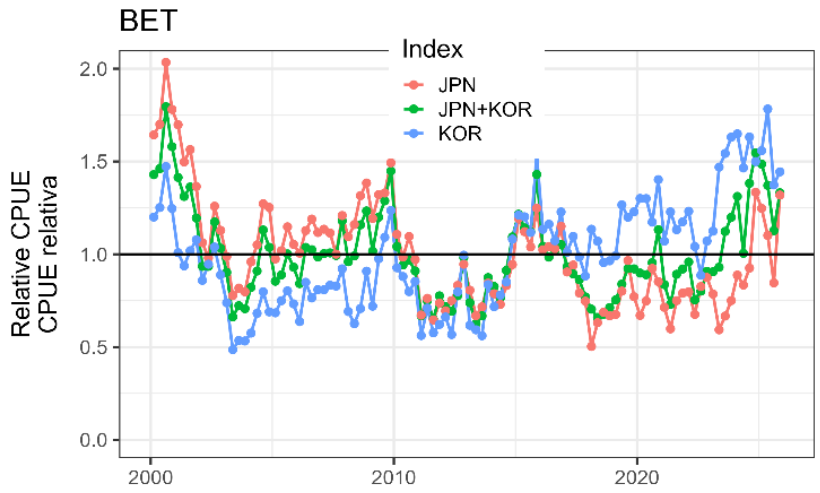
Captura por lance / Catch per set



Longitud Promedio / Average length



CPUE de palangre / Longline CPUE

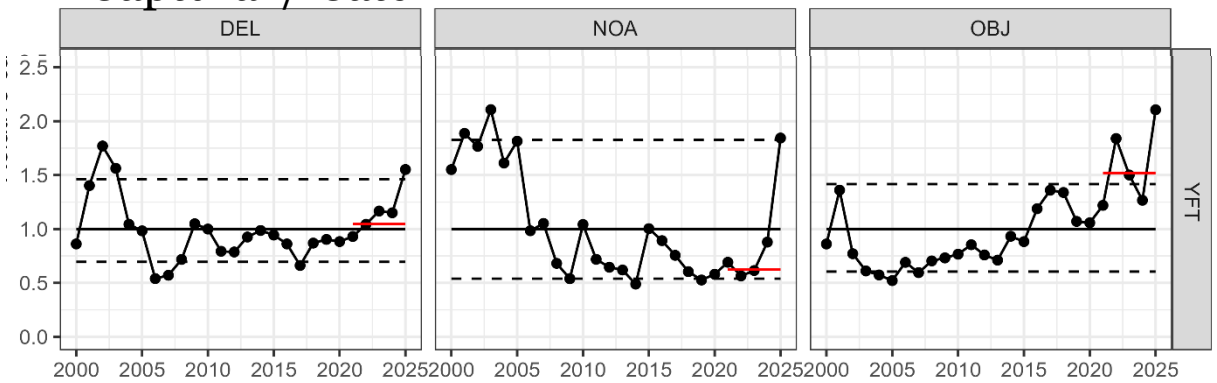


- Mortalidad por pesca en aumento
  - Aumento de los lances sobre OBJ
  - Reducción de la captura por lance sobre OBJ
  - Reducción inicial de la longitud promedio en OBJ
- La baja captura reciente de patudo en OBJ se debe probablemente al IVT
- El aumento de la CPUE de palangre en 2024 y 2025 se debe probablemente al IVT
- El aumento de la longitud promedio en OBJ se debe probablemente al reclutamiento

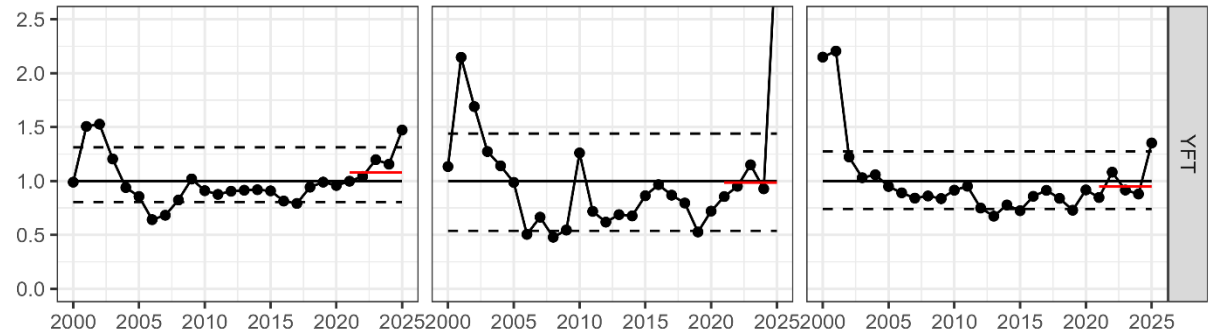
- Fishing mortality increasing
  - Increasing OBJ sets
  - Reducing OBJ catch-per-set
  - Initial reduction in OBJ average length
- Recent low catch of bigeye in OBJ likely due to the IVT
- Increase longline CPUE in 2024 and 2025 likely due to IVT
- Increase in OBJ average length likely due to recruitment

Yellowfin

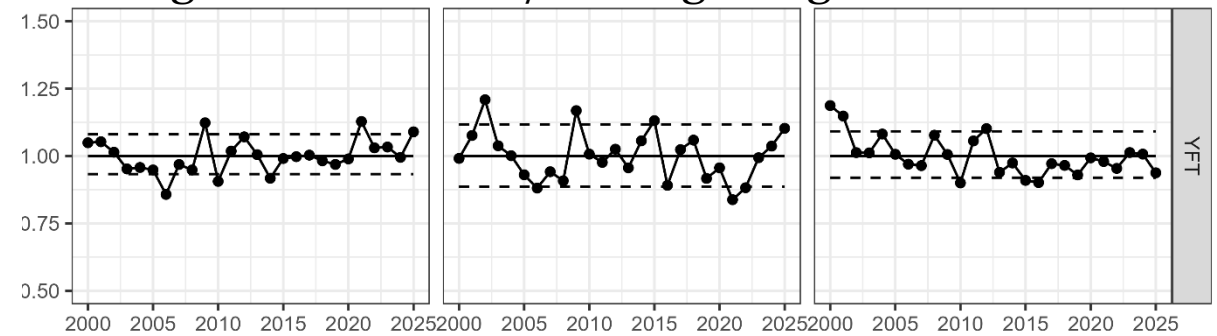
Captura / Catch



Captura por lance / Catch per set



Longitud Promedio / Average length

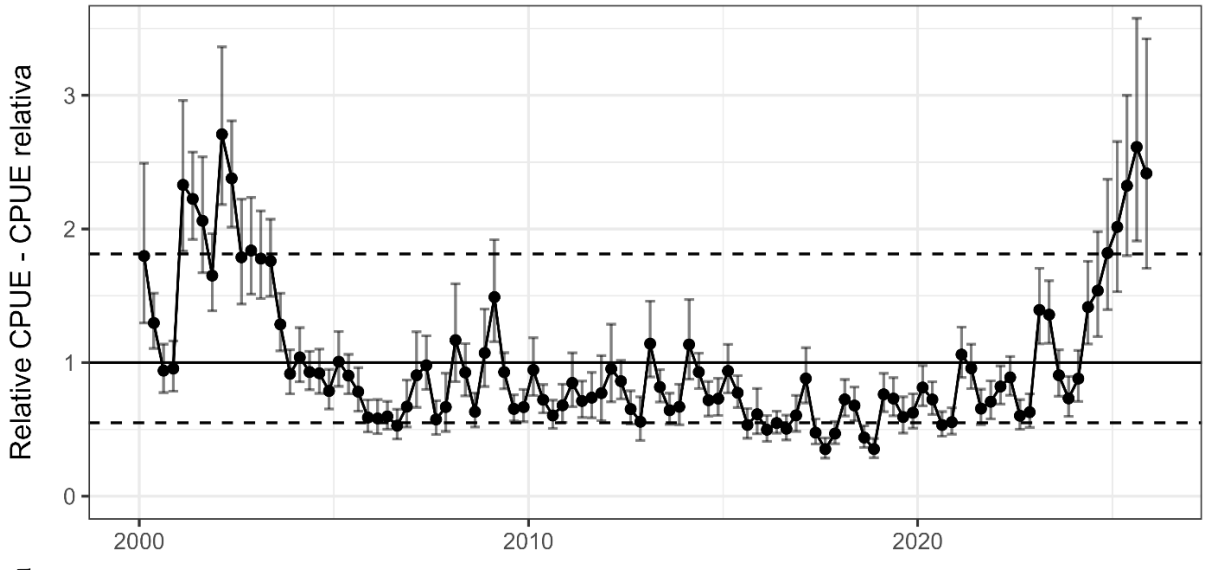


- Fishing mortality increasing?
  - Increasing OBJ sets
  - Increasing OBJ catch
  - Reduced OBJ catch-per-set and average length initially
  - DEL catch per set not decreasing
- High recent catches
- High recent catch-per-set
- Northeast and southwest stocks should be considered

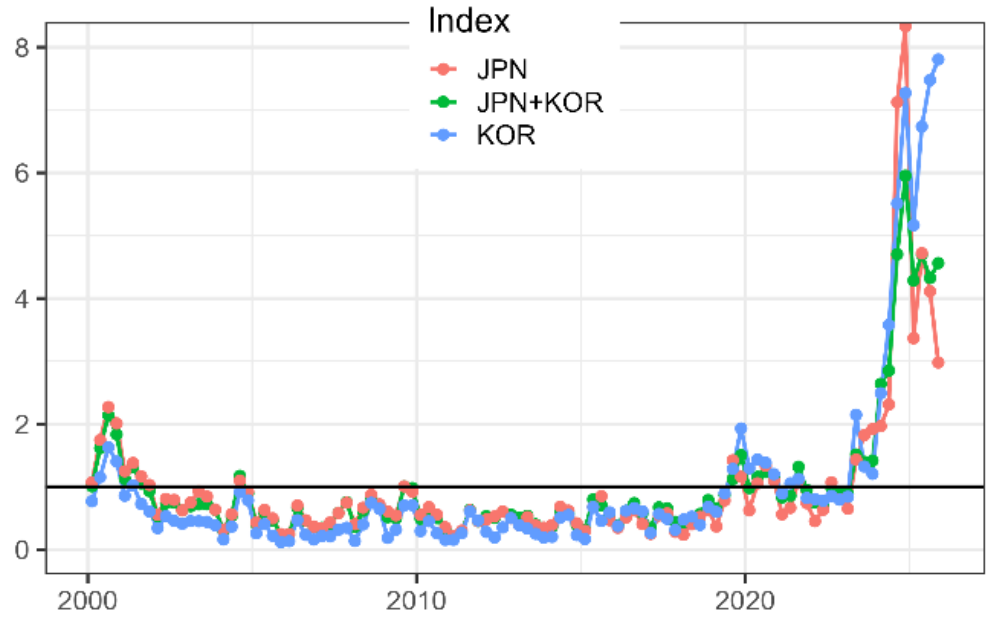
- ¿Mortalidad por pesca en aumento?
  - Aumento de los lances sobre OBJ
  - Aumento de la captura sobre OBJ
  - Reducción inicial de la captura por lance y longitud promedio sobre OBJ
  - La captura por lance sobre DEL no disminuye
- Altas capturas recientes
- Alta captura reciente por lanceDeben considerarse las poblaciones (stocks) del noreste y suroeste

Yellowfin

CPUE estandarizada de DEL
Standardized DEL CPUE



CPUE estandarizada de palangre
Standardized longline CPUE

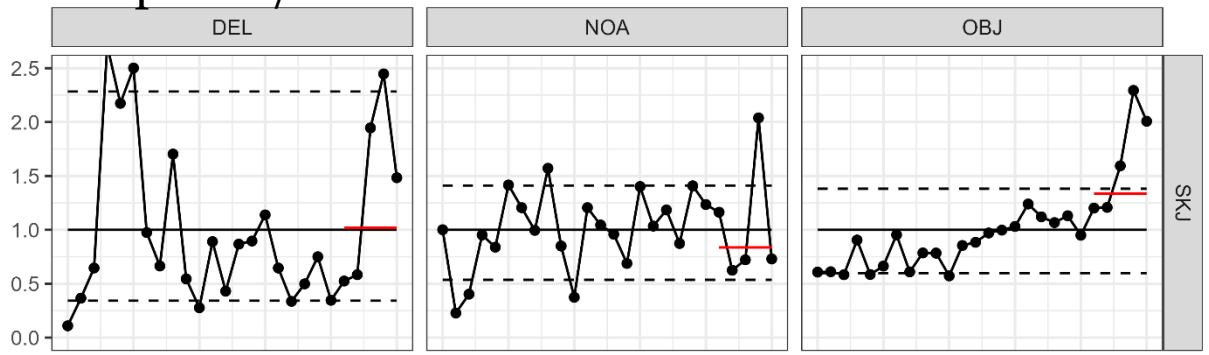


La alta CPUE reciente se debe probablemente a un gran reclutamiento.

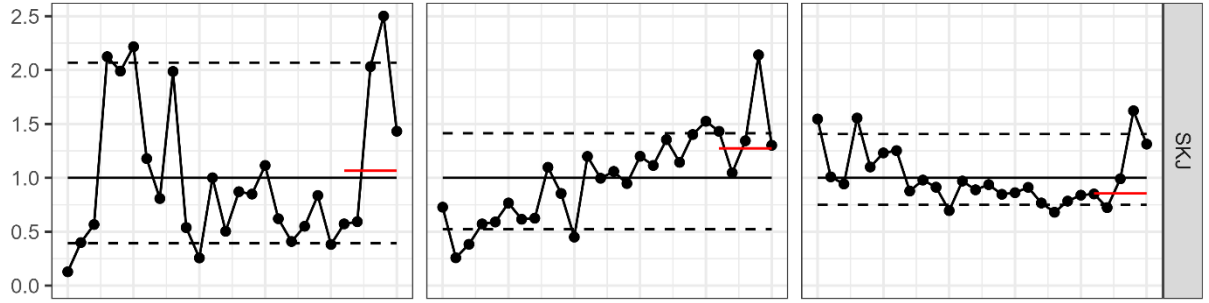
Recent high CPUE likely due to large recruitment

Skipjack

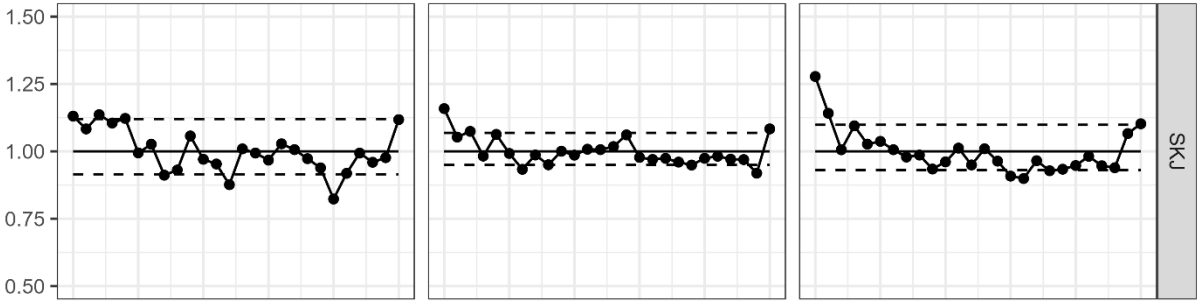
Captura / Catch



Captura por lance / Catch per set



Longitud Promedio / Average length

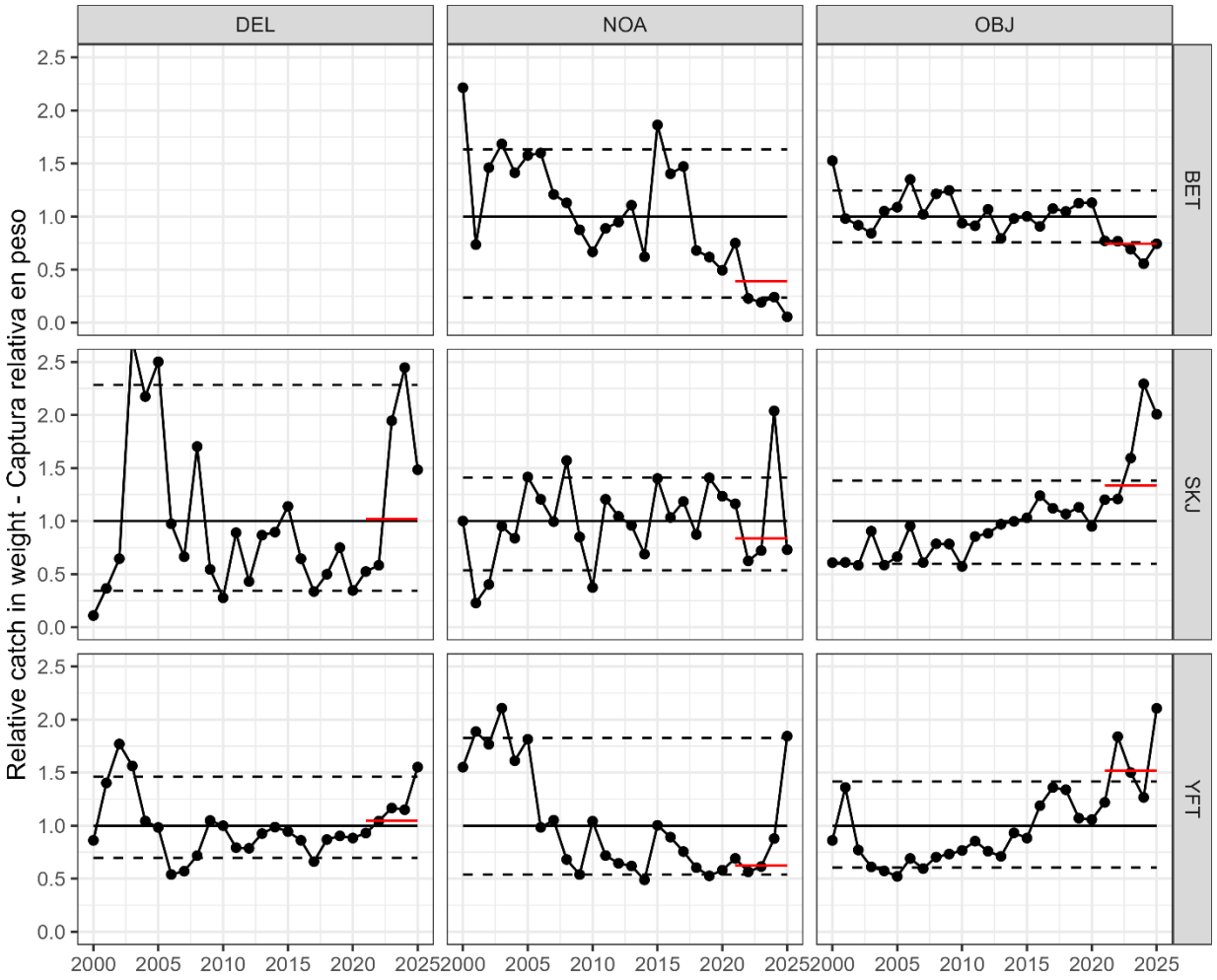


- Fishing mortality increasing
  - Increasing OBJ sets
  - Increasing OBJ catch
  - Reducing OBJ catch-per-set
  - Initial reduction in OBJ average length
- Increased recent OBJ catch-per-set and average length likely due to large recruitment

- Mortalidad por pesca en aumento
  - Aumento de los lances sobre OBJ
  - Aumento de la captura sobre OBJ
  - Reducción de la captura por lance sobre OBJ
  - Reducción inicial de la longitud promedio en OBJ
- El aumento reciente de la captura por lance y de la longitud promedio en OBJ se debe probablemente a un gran reclutamiento.


Questions

Purse-seine: catch in weight by species and set type



Para la pesquería sobre objetos flotantes en 2025:

- Aleta amarilla en el nivel más alto de la serie de tiempo
- Barrilete (listado) en el segundo nivel más alto, solo por debajo de 2024
- Patudo se mantiene bajo

Para la pesquería no asociada en 2025:

- Barrilete (listado) reducido sustancialmente respecto al nivel de 2024

Para la pesquería asociada a delfines en 2025:

- Aleta amarilla por encima del nivel de referencia del 90%

For the floating-object fishery in 2025:

- Yellowfin highest in the time series
- Skipjack second highest only to 2024
- Bigeye remains low

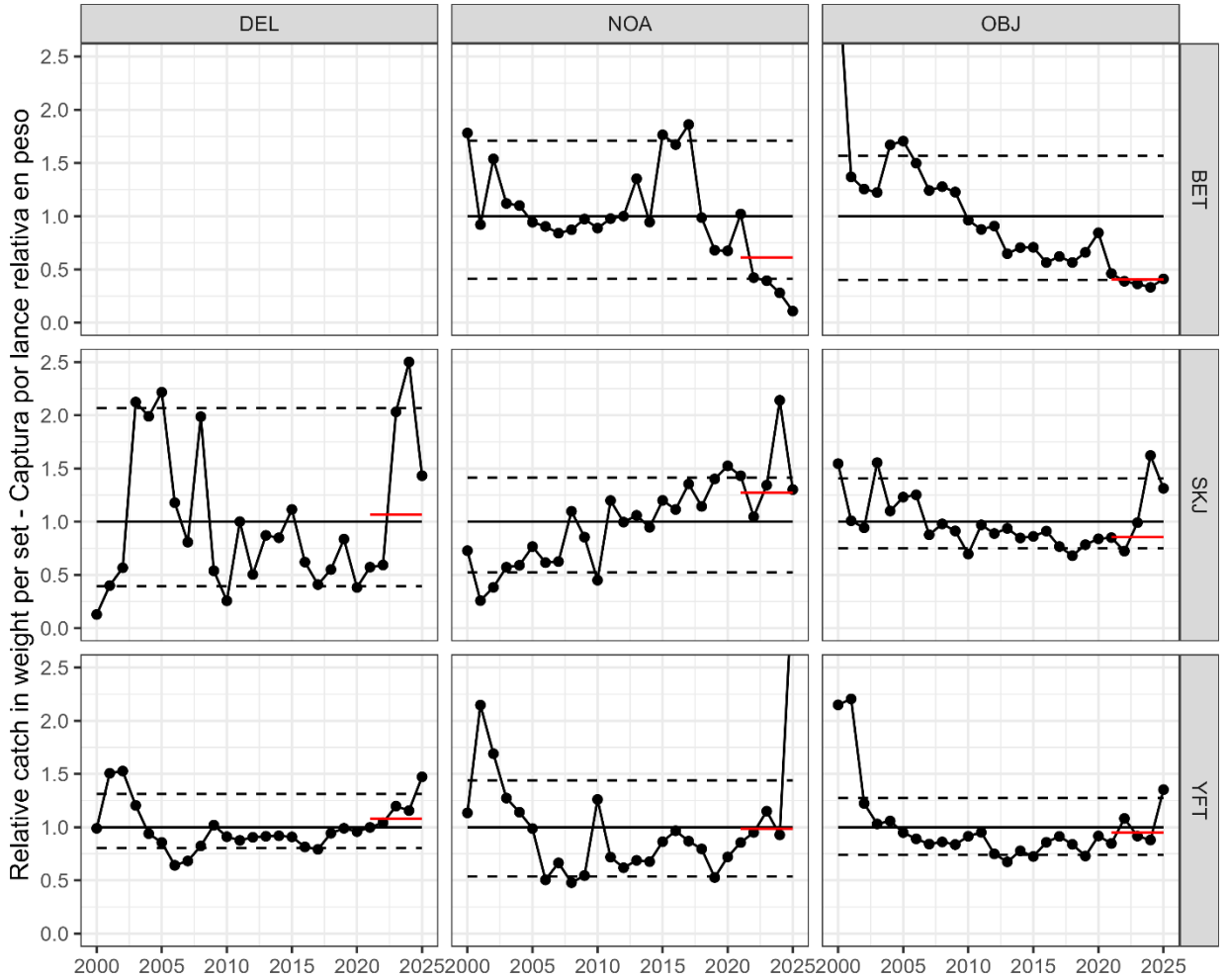
For the unassociated fishery in 2025:

- Skipjack reduced substantially from the 2024 level

For the dolphin-associated fishery in 2025:

- Yellowfin above the 90% reference level

Purse-seine: catch per set by species and set type



OBJ

- Yellowfin
  - No obvious trend since 2010
  - 2025 is above the 90% reference level
- Skipjack:
  - No obvious trend since 2010
  - 2024 was the highest since 2000
  - 2025 also high
- Bigeye
  - Remains at the lowest level

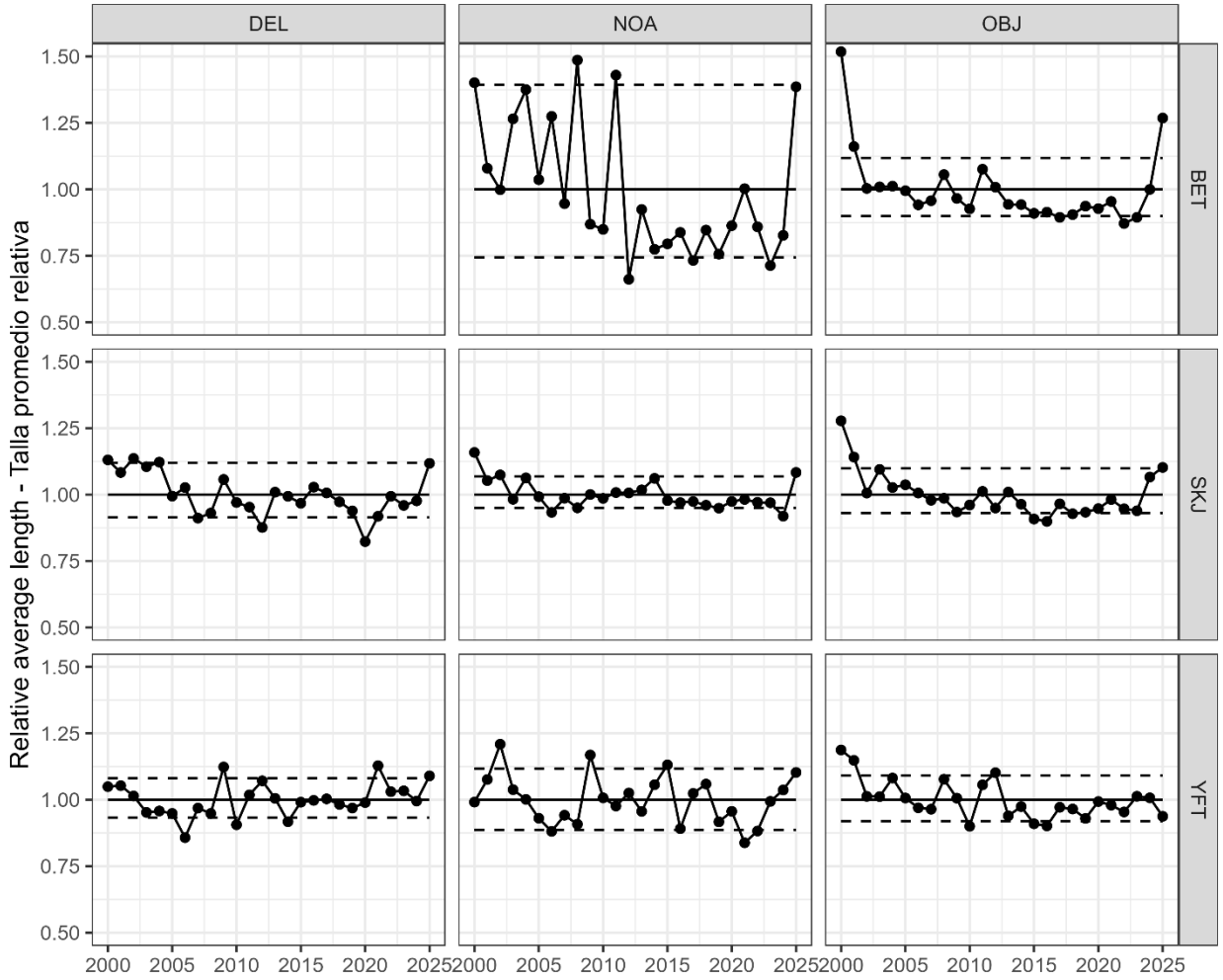
NOA:

- Skipjack:
  - Continued to increase since 2000
  - 2024 was the highest since 2000
  - 2025 also high
- Yellowfin
  - Extremely high in 2025

OBJ

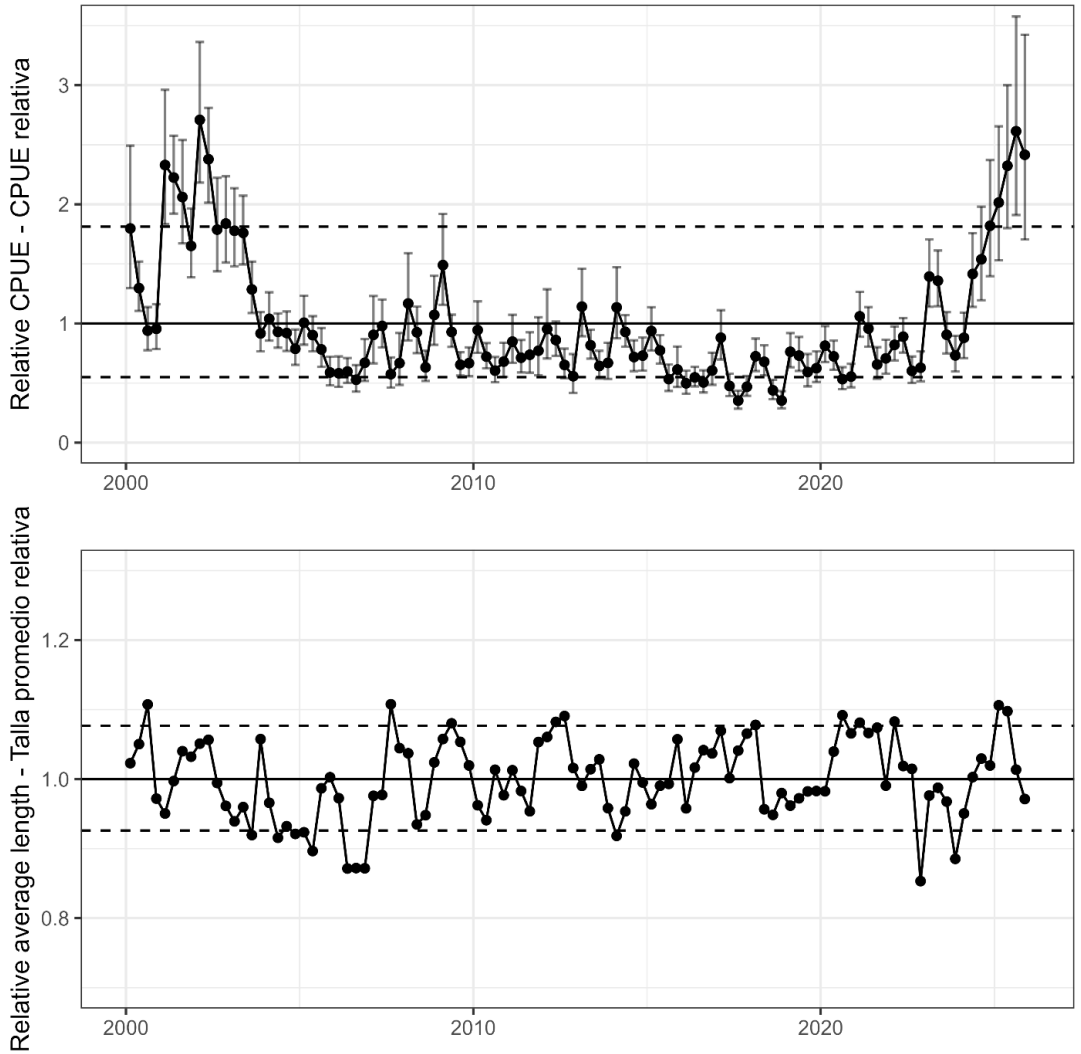
- Bigeye
  - Continued to decline since 2010; the values for 2022-2024 continued to decline and were the lowest since 2000

Purse-seine: average length by species and set type



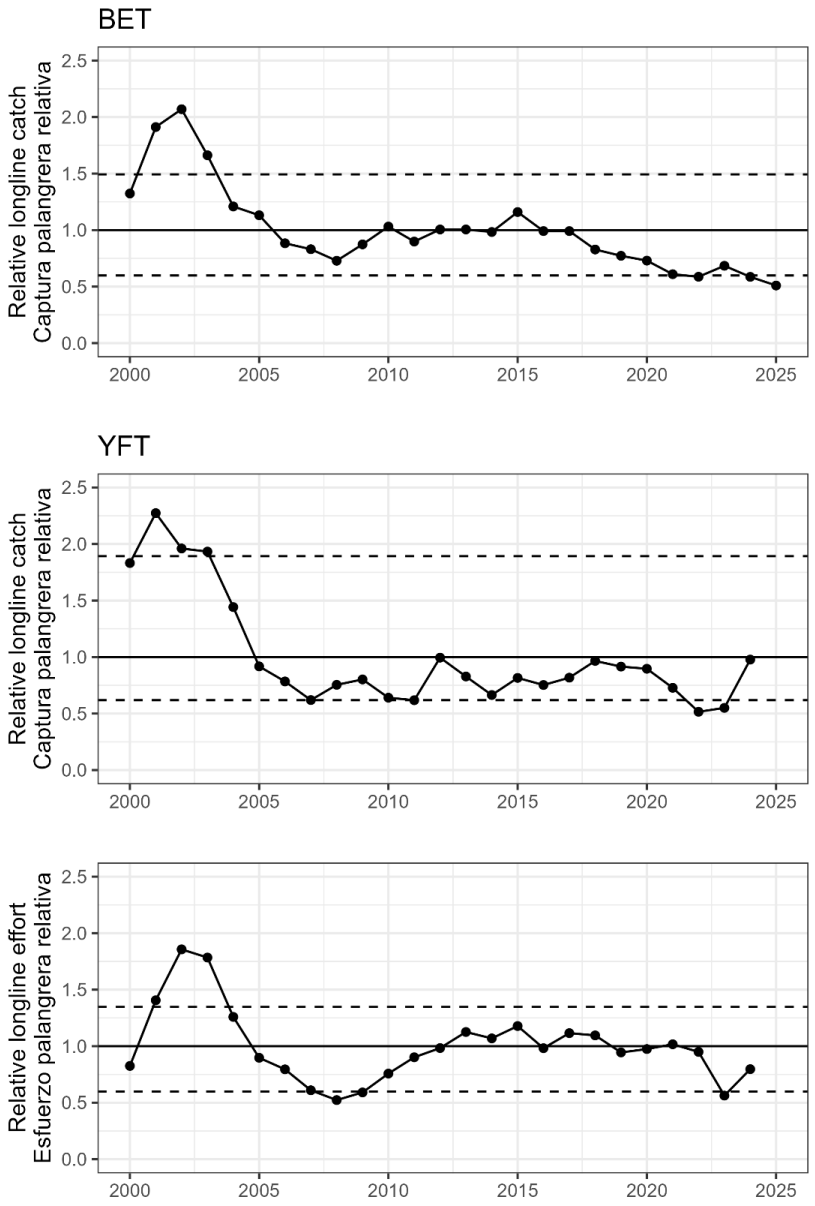
- OBJ
  - All three tunas declined between 2000 and 2015 and remained relatively stable thereafter
  - SKJ and BET increased in 2024 and 2025

Standardized DEL CPUE and average length for yellowfin



- The index of relative abundance for yellowfin in the dolphin-associated purse-seine fishery shows an increasing trend since 2018
- Rapidly increasing in 2024-25
- The average length of yellowfin in dolphin sets has been relatively stable since 2010 without an obvious trend

Longline (all CPCs): catch and effort



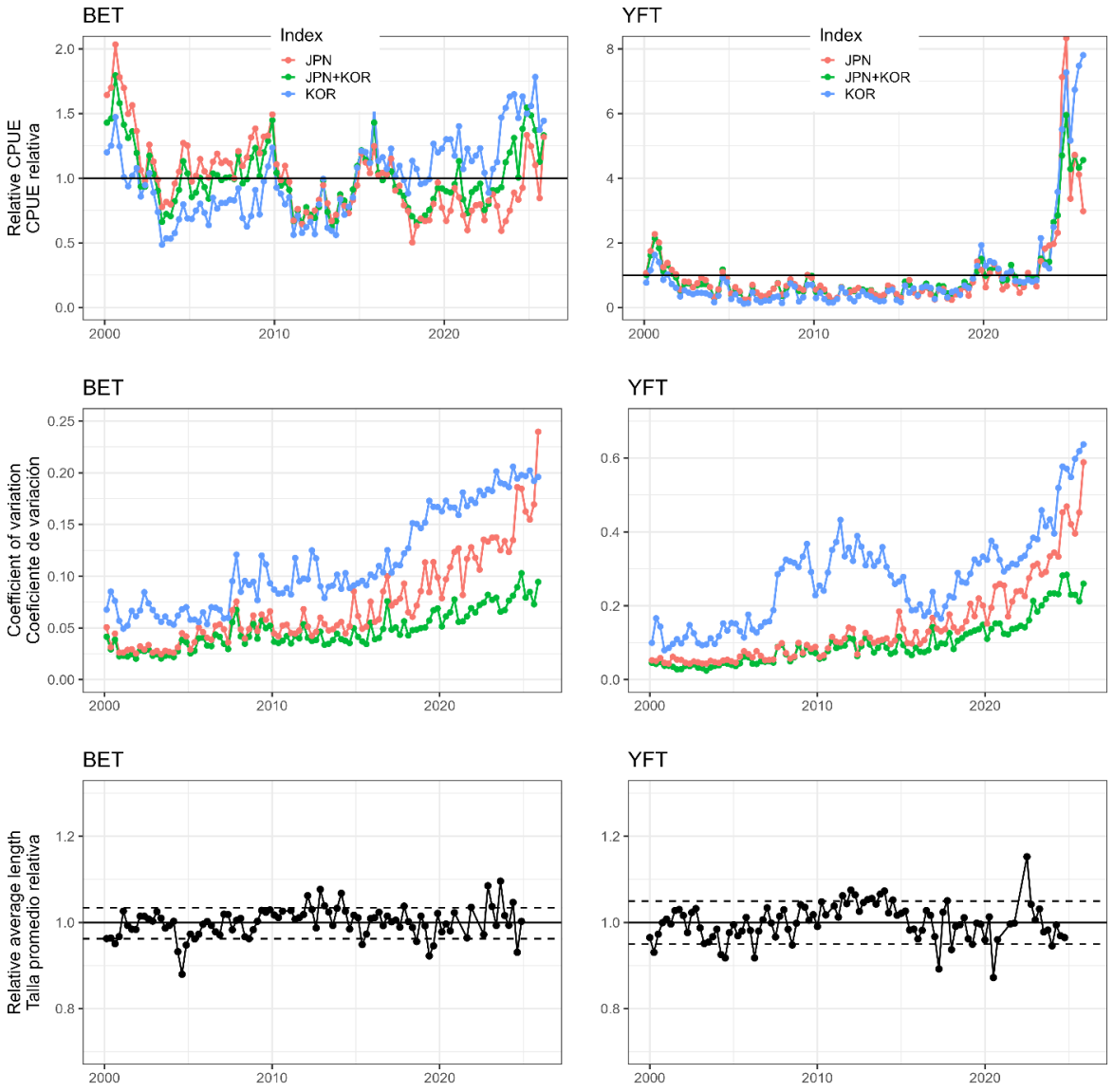
In the last decade (2014-2024):

- Longline effort decreased slightly
- Bigeye catch decreased greatly to about 60% of the average level since 2000
- The terminal values in this figure are considered preliminary and are likely underestimated

Standardized longline CPUE

- Thanks to Japan, China, Korea, and Chinese Taipei who provide the staff with high-quality CPUE data during the same period, a joint longline index of abundance has been developed for both bigeye and yellowfin in the EPO (SAC-16 INF-U)
- As this document focuses on developing a joint longline index of abundance for use in the benchmark assessment of yellowfin tuna, the joint index of abundance for bigeye is considered preliminary and requires further investigation.
- The chosen joint indices of abundance for bigeye and yellowfin in the EPO includes CPUE data from both Japan and Korea

Standardized longline CPUE



Yellowfin:

- Joint index consistent with Japanese index and lower uncertainty
- Indices increasing trend since 2018, increasing rapidly in 2024-25 consistent with the DEL index

Bigeye:

- Joint index different trend from Japanese index
- Increased in 2024-25