Comisión Interamericana del Atún Tropical
Inter-American Tropical Tuna Commission

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Stock status indicators for tropical tunas in the eastern Pacific Ocean

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15ª Reunión del Comité Científico Asesor – 10-14 de junio de 2024
15th Meeting of the Scientific Advisory Committee – 10-14 June 2024

Introduction

- 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
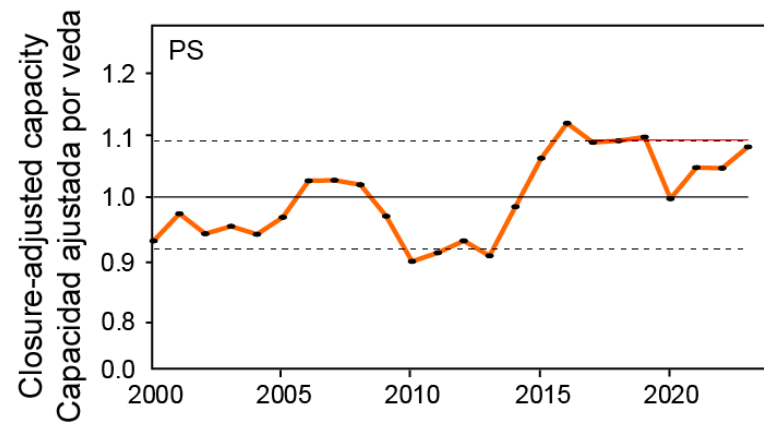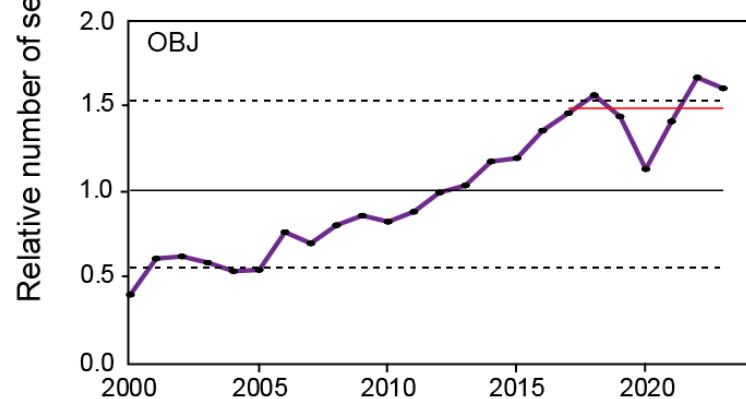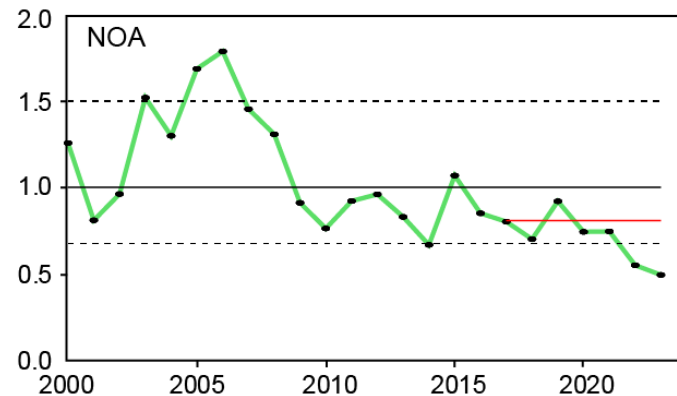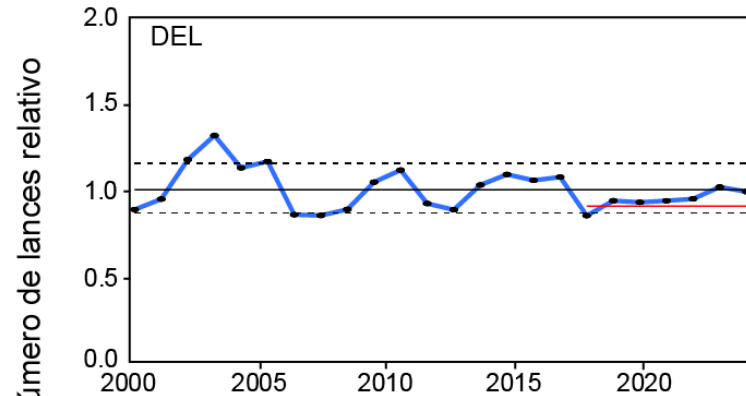
Black dashed lines: 10% and 90% percentiles

Red solid lines: *status quo* (average in 2017-2019) level

- Closure-adjusted capacities have been below the *status quo* level since 2020
- The number of floating-object sets was below the *status quo* level in 2020 and 2021 due to COVID, but above the *status quo* level in 2022 and 2023

# Purse-seine: catch in weight by species and set type
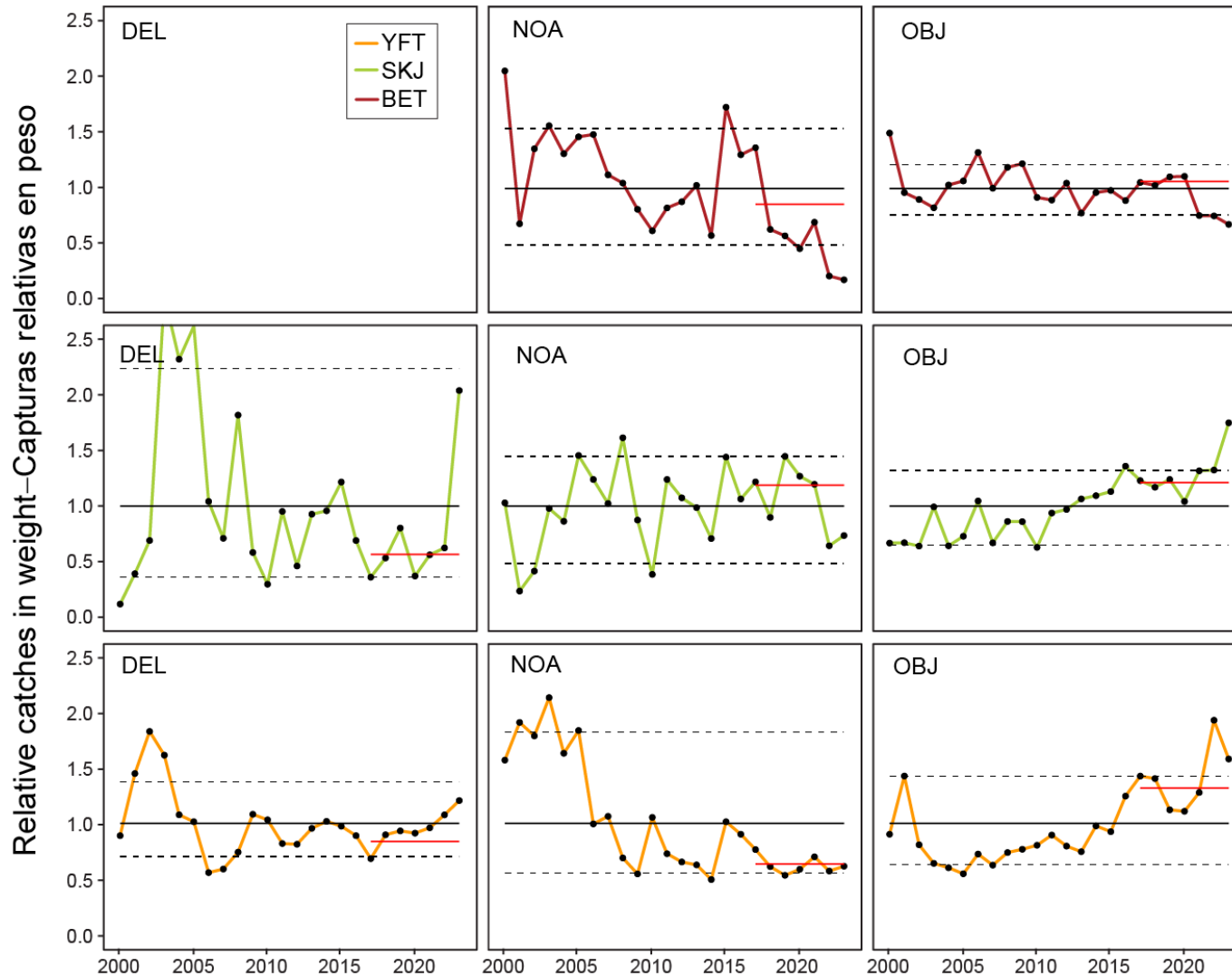
Red solid lines: *status quo* (average in 2017-2019) level

For the floating-object fishery:

- Yellowfin: catches in 2020 and 2021 were below the *status quo* level, and those in 2022 and 2023 reached the highest level
- Skipjack: the catch in 2020 was below the *status quo* level, and those in 2021 and 2022 were above the *status quo* level, and that in 2023 reached the highest level
- Bigeye: the catch in 2020 was slightly above the *status quo* level, and those in 2021-2023 were at the lowest level since 2000

Purse-seine: catch per set by species and set type
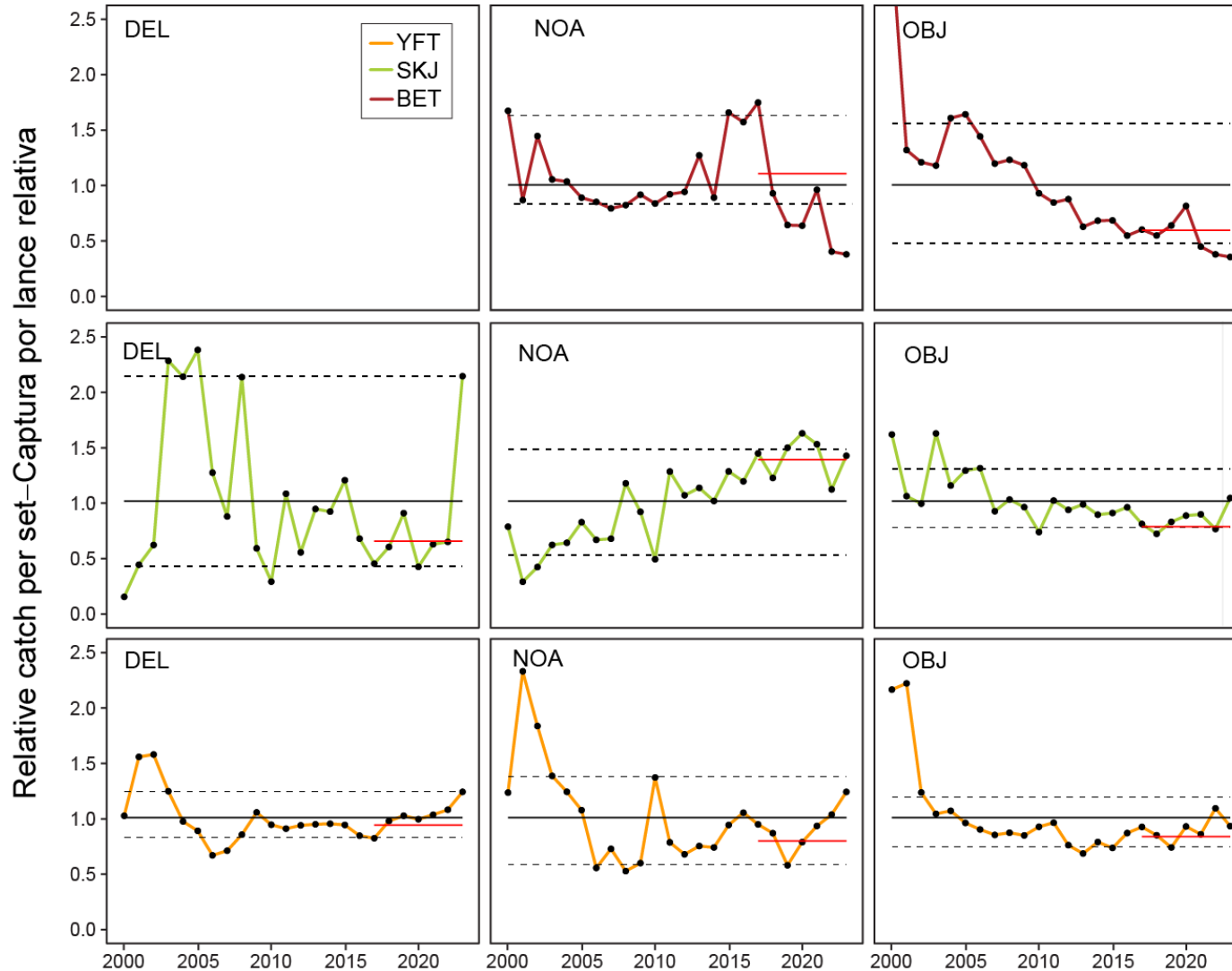
Red solid lines: *status quo* (average in 2017-2019) level

Yellowfin in OBJ: catch per set did not have an obvious trend since 2010; the values in 2020-2023 were above the *status quo* level

Skipjack in OBJ: catch per set did not have an obvious trend since 2010; the values in 2020-2023 were at or above the *status quo* level

Skipjack in NOA: catch per set continued to increase since 2000; fluctuated around the status quo level since 2020

Bigeye in OBJ: catch per set continued to decline since 2010; the values in 2021-2023 were the lowest since 2000

# Purse-seine: average length by species and set type

- The average length of all three tropical tunas in floating-object sets declined between 2000 and 2015 and remained relatively stable thereafter
- The average length of bigeye in floating-object sets was at the lowest level in 2022 and 2023
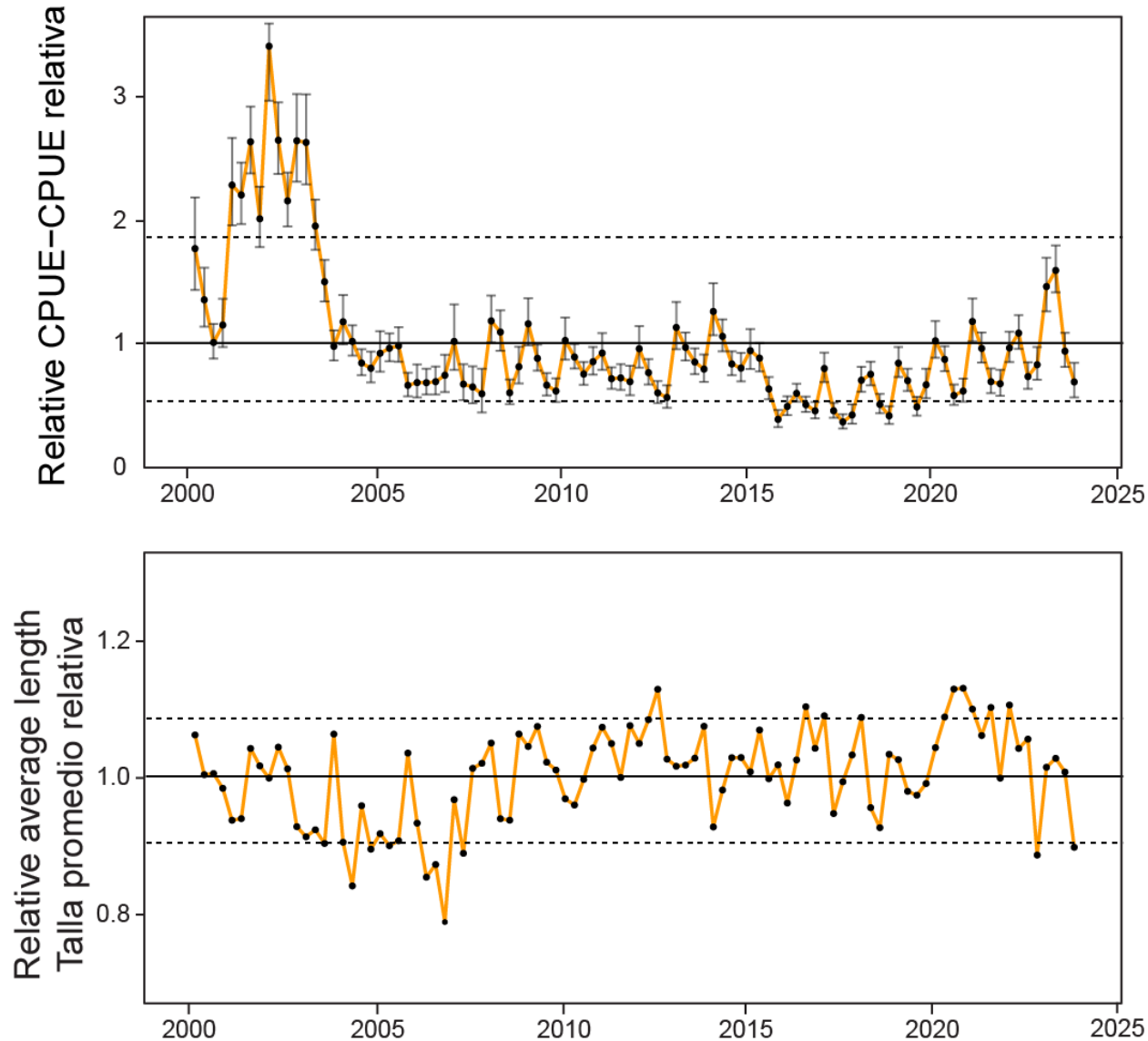
- The index of relative abundance for yellowfin in the dolphin-associated purse-seine fishery shows an increasing trend since 2015
- The average length of yellowfin in dolphin sets was relatively stable since 2010 without an obvious trend
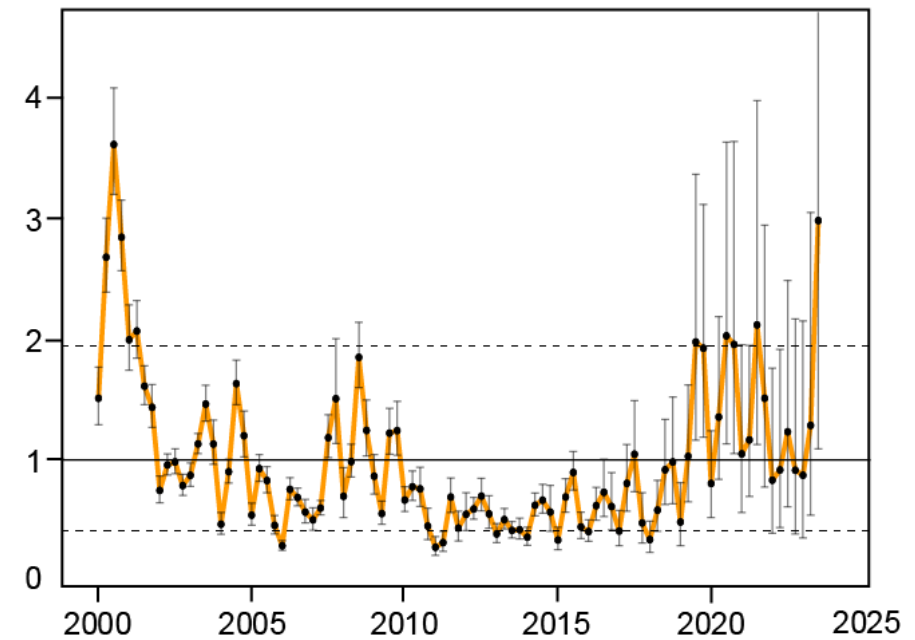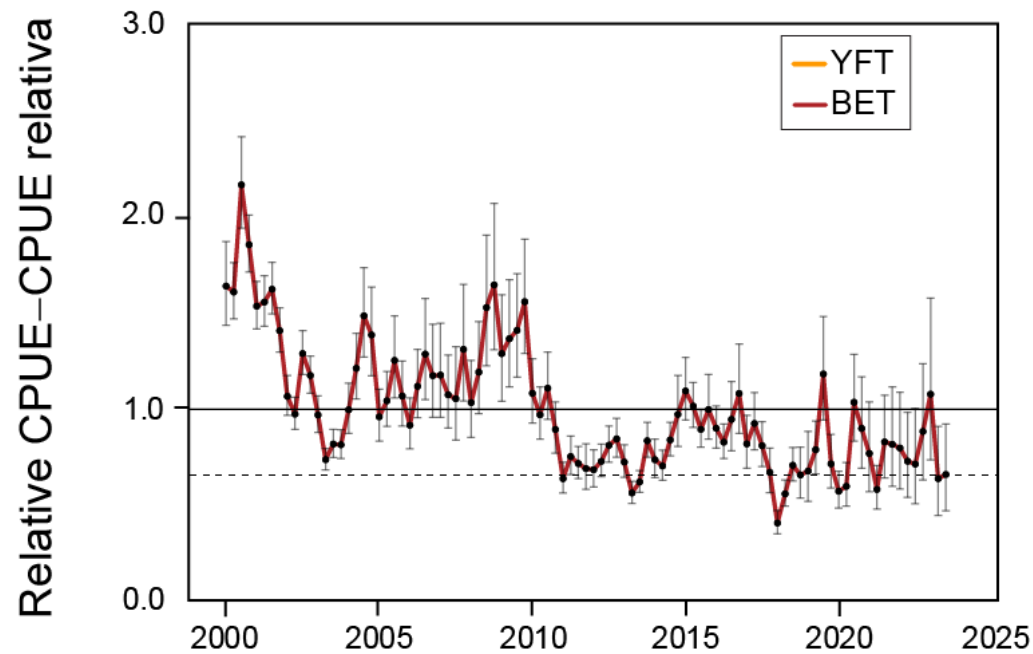
Longline (all CPCs): catch and effort
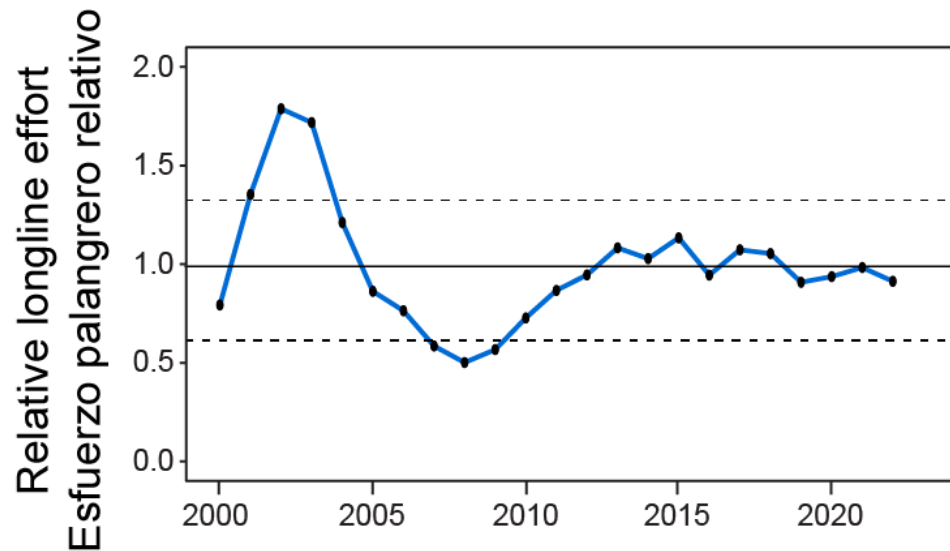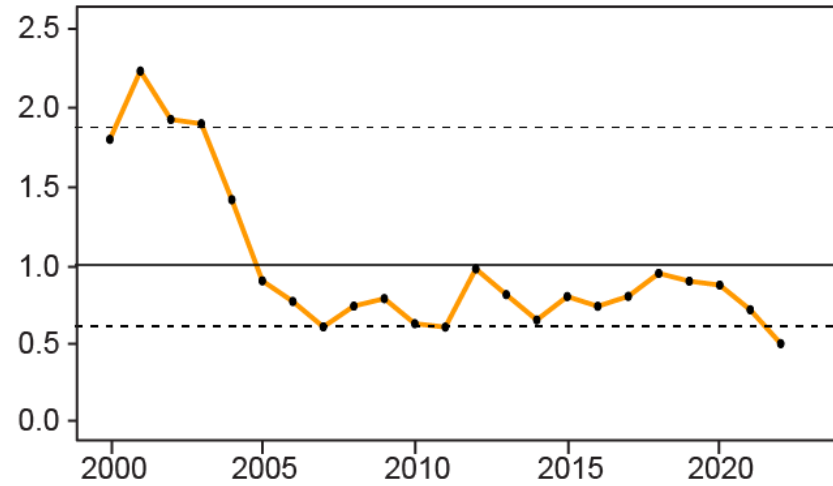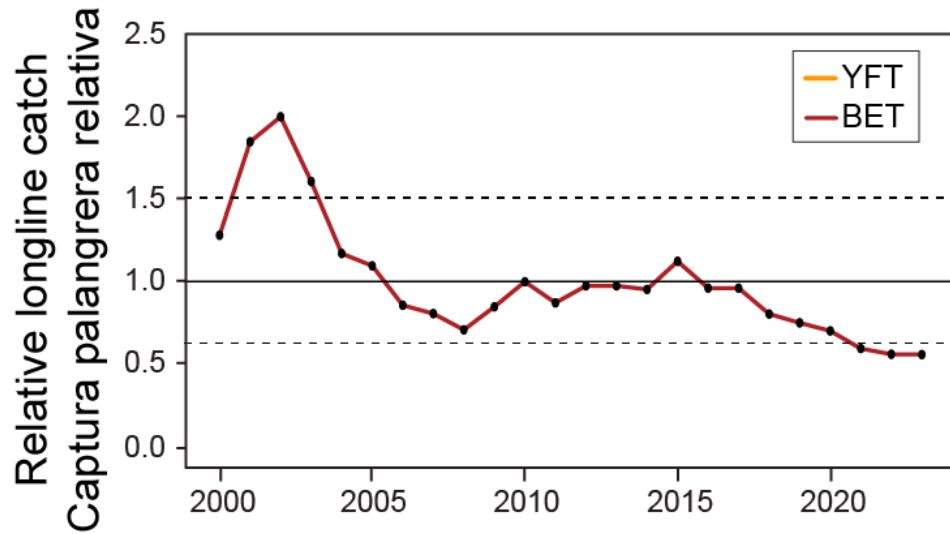
In the last decade (2014-2023):
- Longline effort decreased slightly
- Bigeye catch decrease greatly and reached the lowest level in 2021-2023

Longline (JPN): standardized CPUE

- Yellowfin CPUE has become very uncertainty since 2020
- Bigeye CPUE does not have an obvious trend since 2015

Questions