

Comisión Interamericana del Atún Tropical Inter-American Tropical Tuna Commission



STOCK STATUS INDICATORS FOR TROPICAL TUNAS IN THE EASTERN PACIFIC OCEAN

IATTC staff

13^a Reunión del Comité Científico Asesor - 16-20 de mayo de 2022 (por videoconferencia)
13th Meeting of the Scientific Advisory Committee - 16-20 May 2022 (by videoconference)

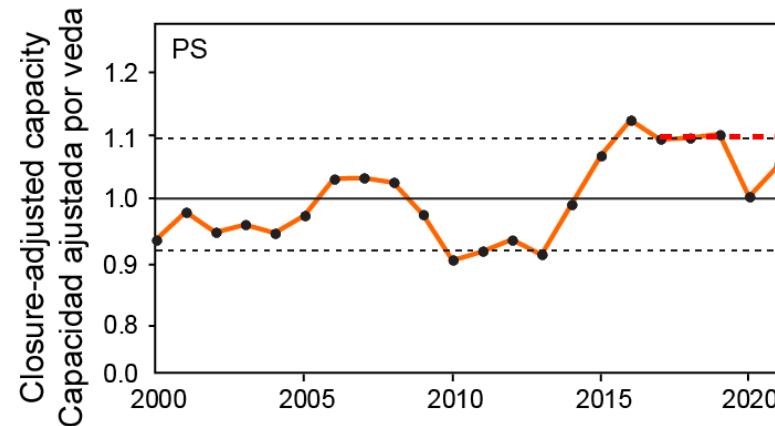
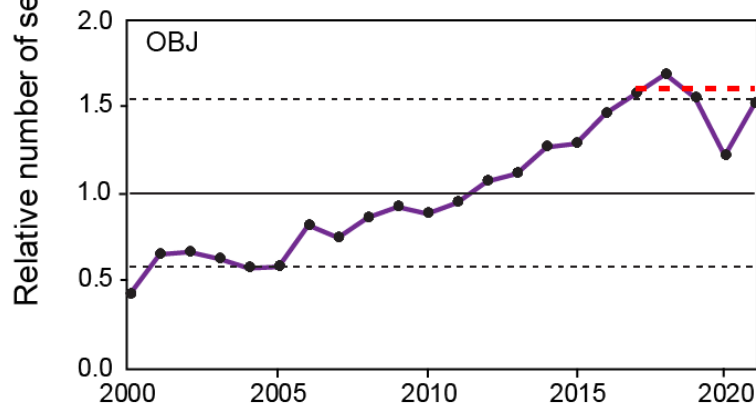
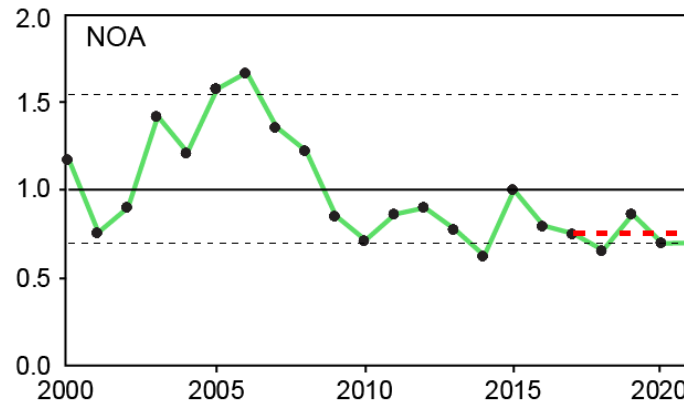
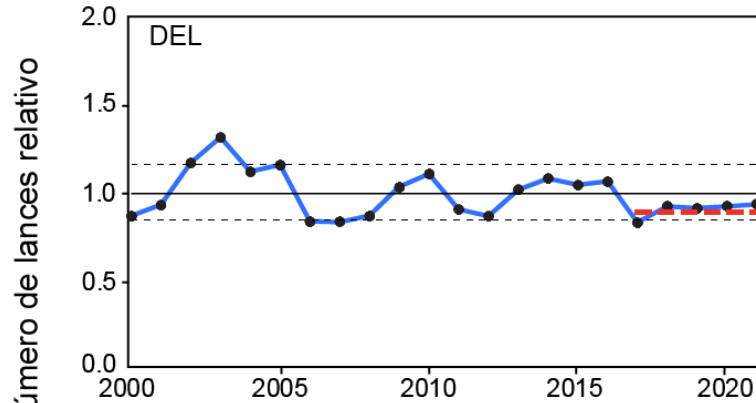
Outline

- Introduction
- Purse-seine based indicators
- Longline based indicators

Introduction

- Data: Purse-seine and longline
- Species: bigeye, yellowfin, and skipjack
- Stock Status Indicators:
 - Catch, effort, CPUE, and average length
 - Begin 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

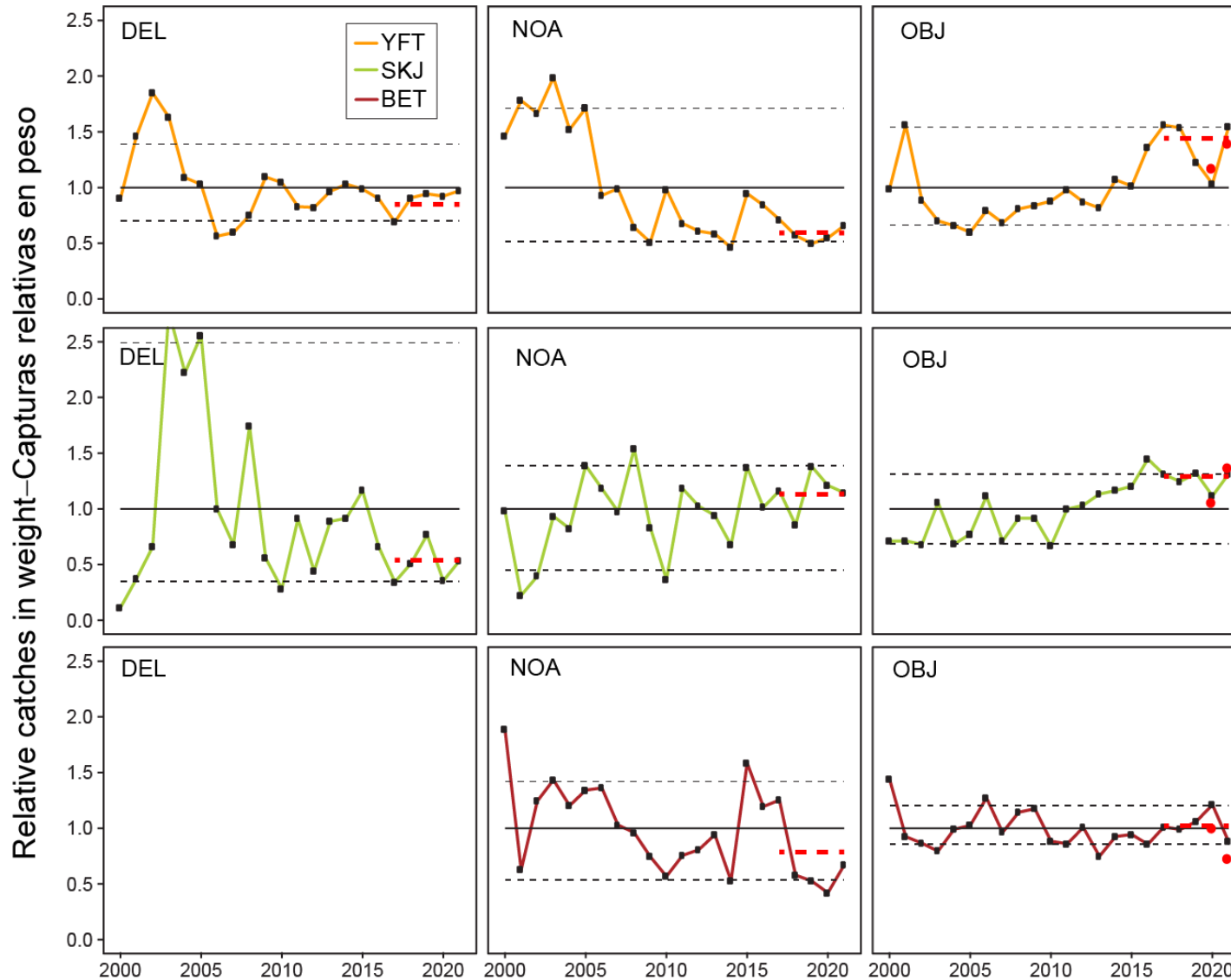


Black dashed lines: 10% and 90% percentiles

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

- Closure-adjusted capacities in 2020 and 2021 were below the *status quo* level
- The numbers of floating-object sets in 2020 and 2021 were below the *status quo* level

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



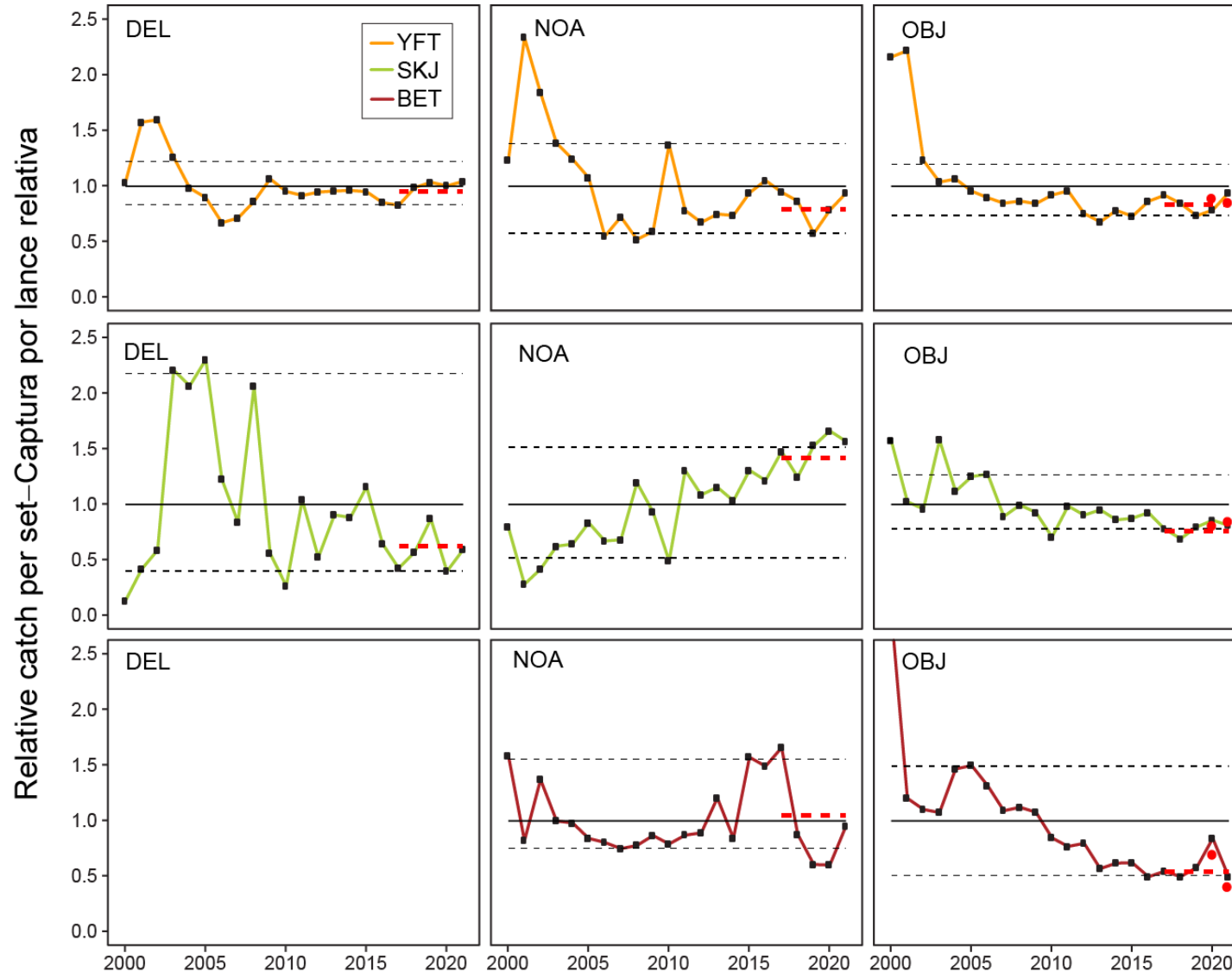
Red dashed lines: *status quo* (average in 2017-2019) level

Red dots: bias-adjusted (see SAC-13-05) catch in 2020 and 2021

For the floating-object fishery:

- The catches of yellowfin in 2020 and 2021 were below the *status quo* level
- The catches of skipjack in 2020 and 2021 was below and slightly above the *status quo* level, respectively
- The catches of bigeye in 2020 and 2021 were below the *status quo* level

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

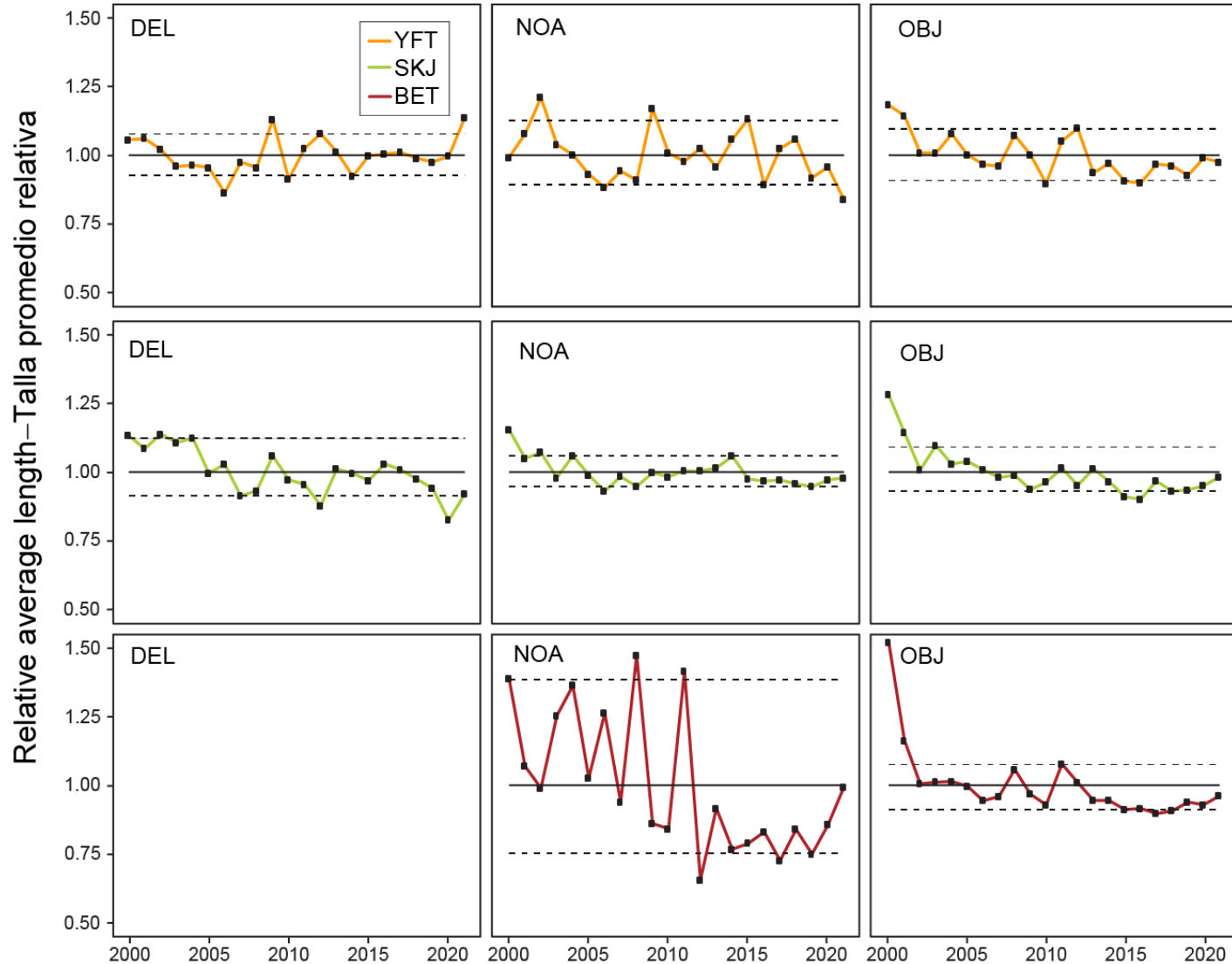


Red dashed lines: *status quo* (average in 2017-2019) level

Red dots: bias-adjusted (see SAC-13-05) catch per set in 2020 and 2021

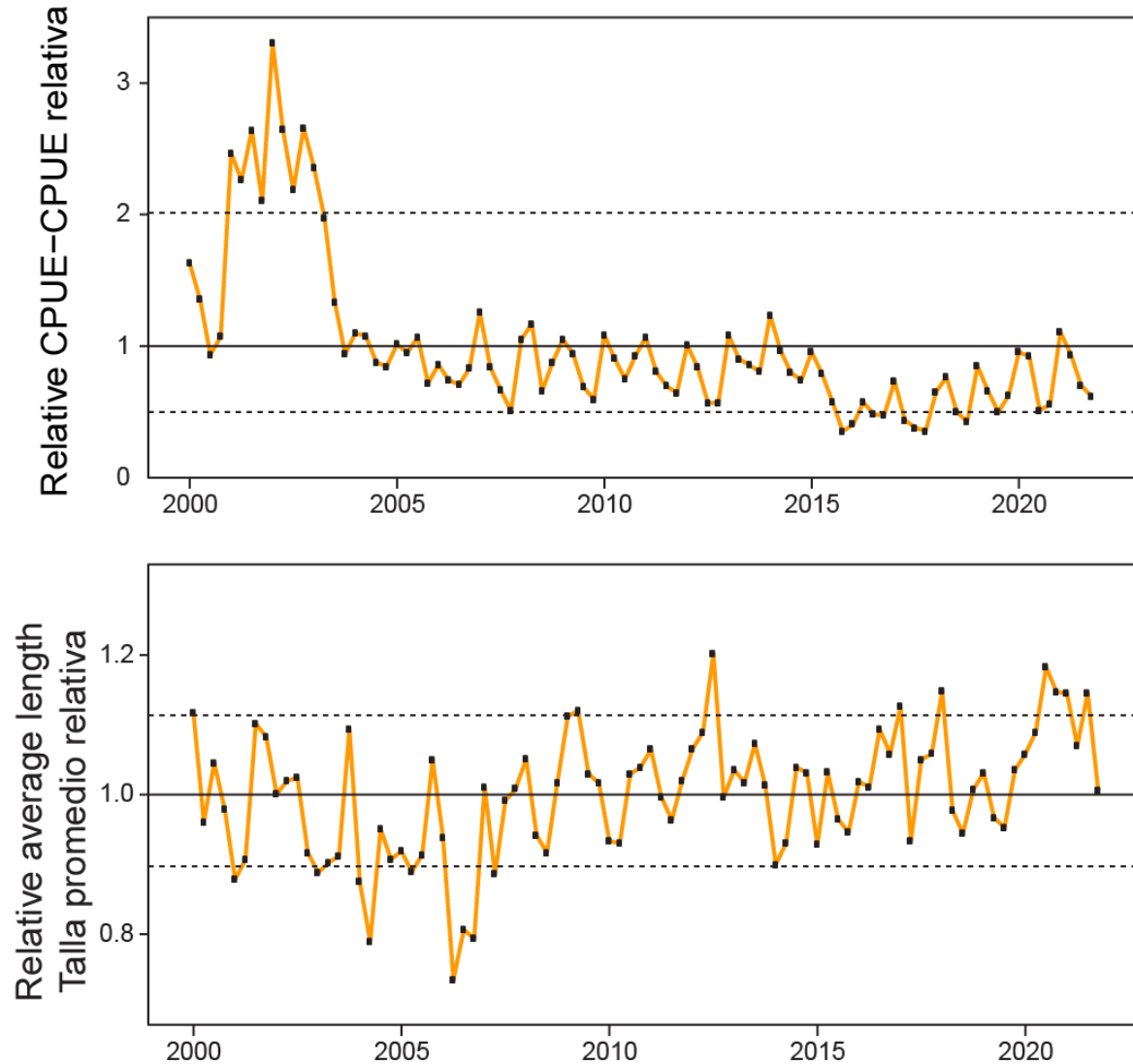
- Increase in catch per set for skipjack in the unassociated fishery
- The catch per set for bigeye in the floating-object fishery in 2020 and 2021 were above and below the *status quo* level, respectively
- The catch per set for yellowfin and skipjack in the floating-object fishery in 2020 and 2021 were close to the *status quo* level

Purse-seine: average length by species and set type



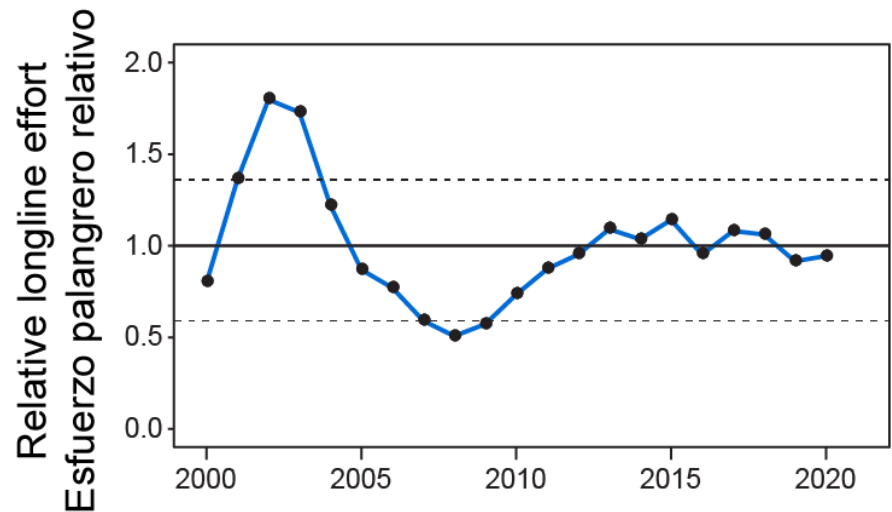
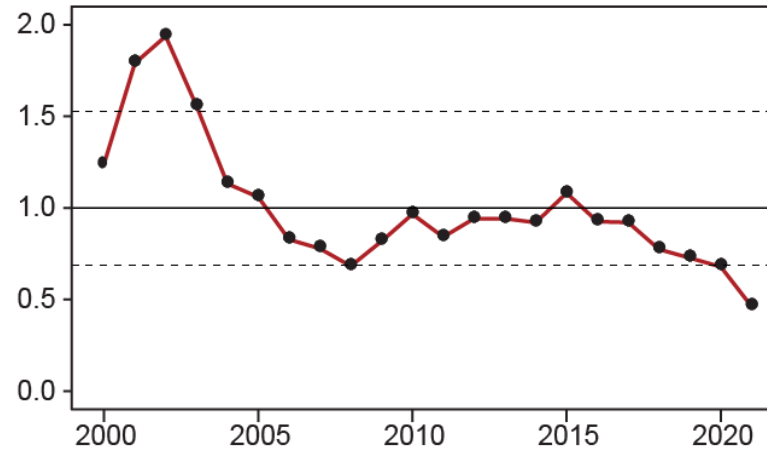
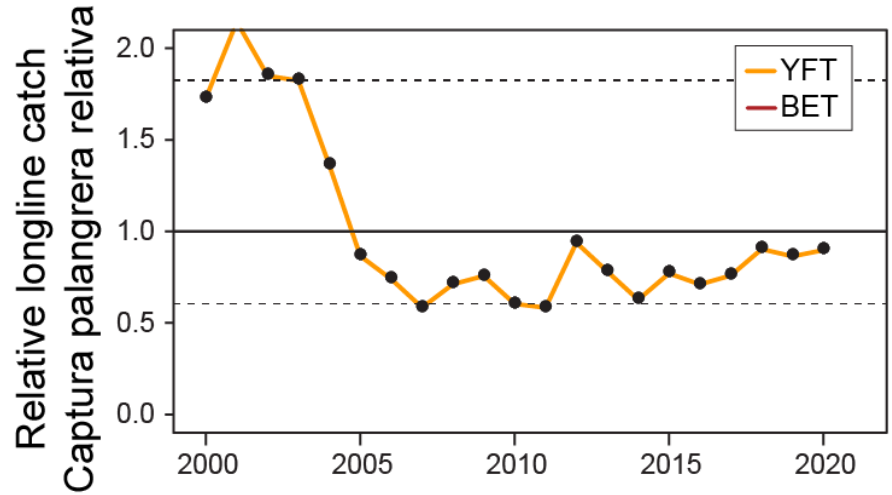
- A decline in the average length of all three species in the floating-object fishery
- A decline in the average length of skipjack in the unassociated fishery

Purse-seine standardized YFT DEL CPUE and average length



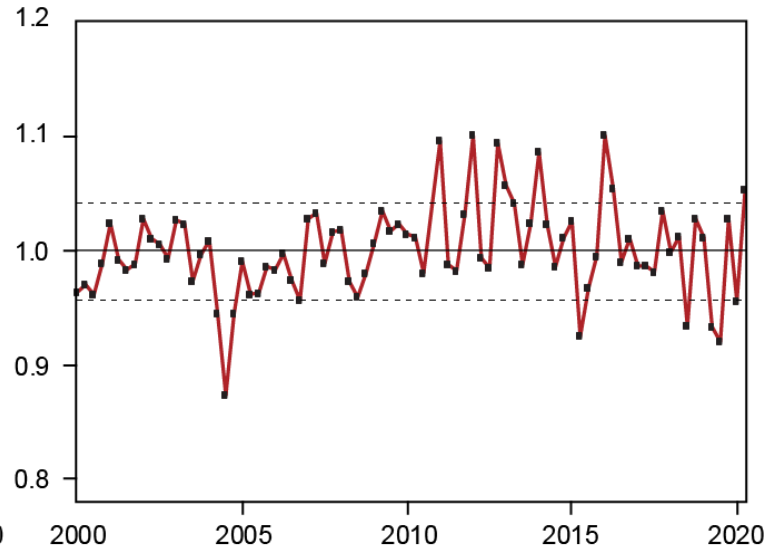
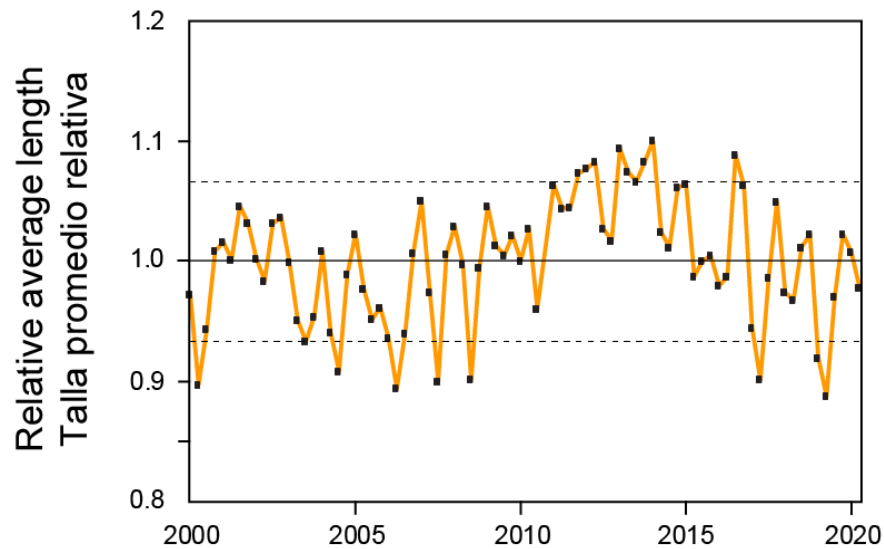
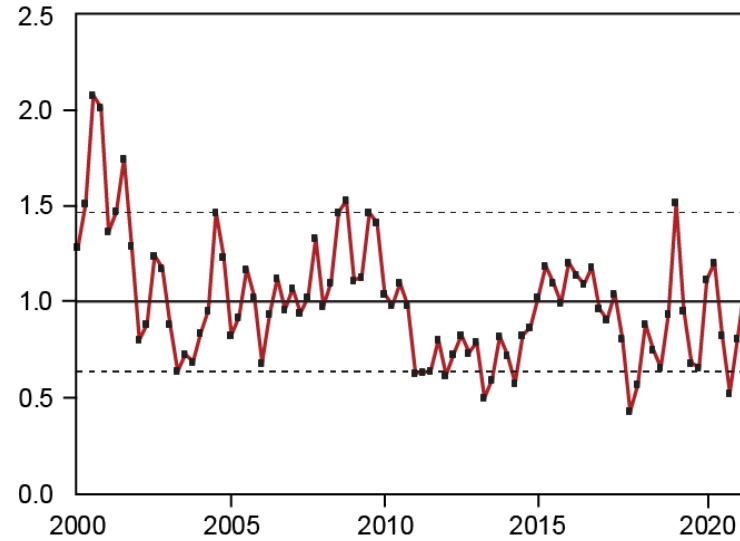
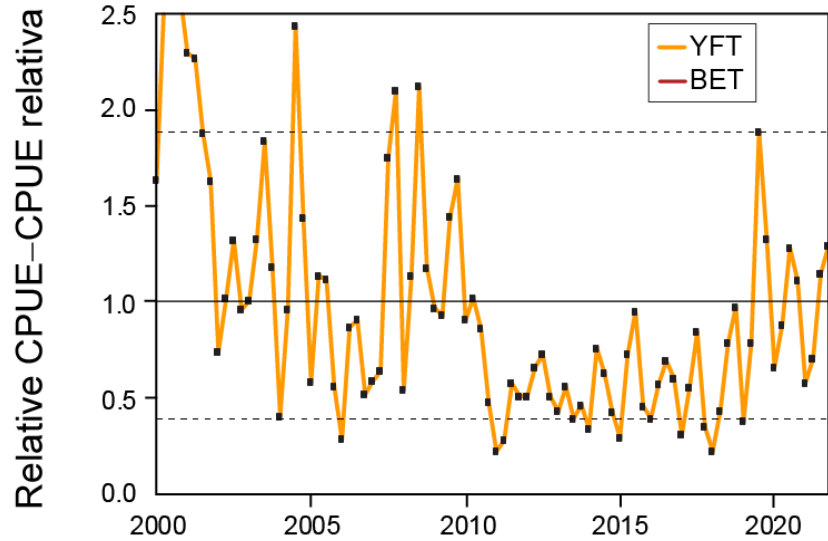
- Both CPUE and average length of yellowfin increased in the dolphin-associated fishery since 2015

Longline: catch and effort

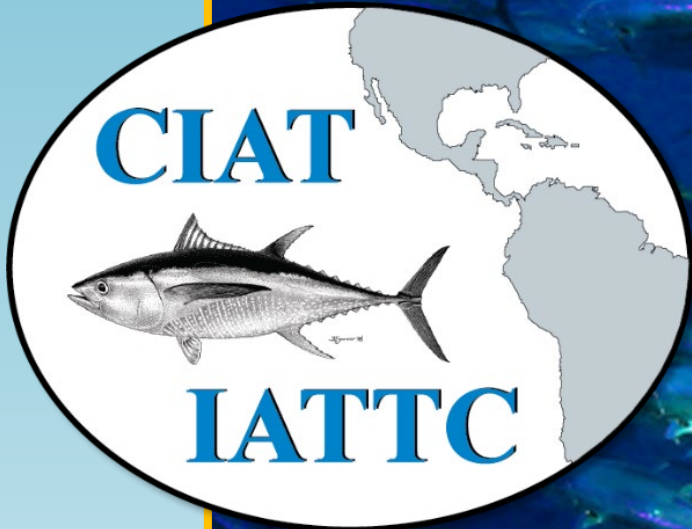


- Longline effort remained stable since 2012
- Increase in yellowfin catch and decrease in bigeye catch in recent years
- The bigeye catch in 2021 is preliminary (from monthly longline report)

Longline: standardized CPUE and average length



- Increase in yellowfin CPUE and decrease in yellowfin average length since 2015
- Decrease in bigeye CPUE and average length since 2015



Questions

