2024 South Pacific Albacore

Thomas Teears et al. (2024): Assessment

Arni Magnusson: TAF analysis

The Pacific Community (SPC) is the science provider for the sustainable management of tuna, billfish, and shark fisheries in the Western and Central Pacific Ocean. The South Pacific albacore tuna is assessed jointly by SPC and IATTC, as the distribution spans the Western, Central, and Eastern Pacific Ocean.

SPC assessments are in public TAF repositories since 2023.

Data

The TAF data tables are especially useful in SPC assessments, as the PDF report does not include any tables with data values.

The table dimensions would not fit on A4 pages, but the online CSV files contain:

  2 areas (west, east)
69 years (1954-2022)
50 length bins (30-128 cm)
17 fisheries (longline)
  3 CPUE (longline, troll)

A new sampling programme of close-kin mark-recapture (CKMR) data will focus on South Pacific albacore tuna.

Model

The MULTIFAN-CL model for tuna assessments was developed by Dave Fournier and colleagues.

The albacore model is age-structured (1-12 yr) and is fitted to CPUE series, length comps, and otoliths, estimating the growth curve.

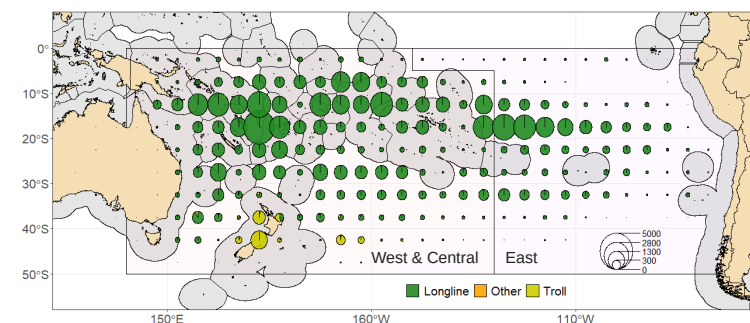Movement rates between the two areas is estimated externally using a model called SEAPODYM.

The model takes a long time to run, but model_shortcut.R allows the option to bypass the model step.
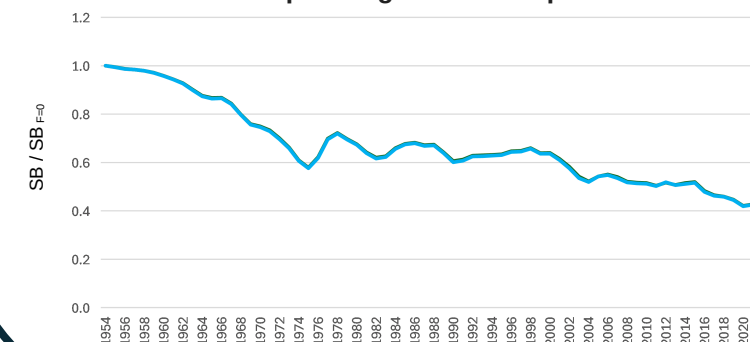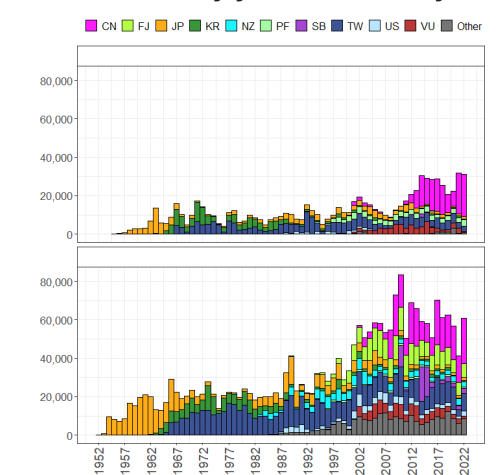
Output & Report

Albacore tuna
(Thunnus alalunga)

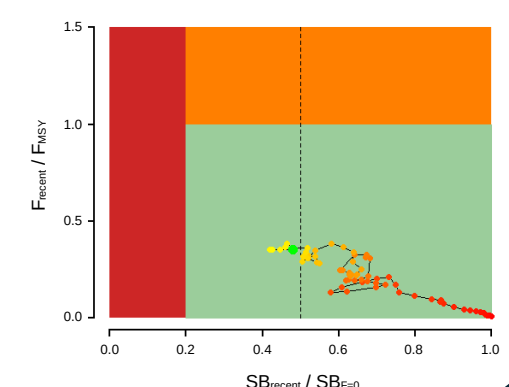**Catch distribution by gear (2013-2022)**

West & Central | East

Longline   Other   Troll

Catch by year and country

CN FJ JP KR NZ PF SB TW US VU Other

Spawning biomass depletion

$SB / SB_{F=0}$

Stock status over time

F_{recent} / F_{MSY}

$SB_{recent} / SB_{F=0}$

Data sources:

https://github.com/PacificCommunity/ofp-sam-alb-2024-diagnostic

Pacific Community
Communauté du Pacifique

CIAT IATTC

Annual Science Conference ICES 2025 | 15-18 September, Klaipeda University, Lithuania

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