

Comisión Interamericana del Atún Tropical
Inter-American Tropical Tuna Commission



DATA used in the assessment

1st External Review of IATTC staff's stock assessment of skipjack tuna in the eastern Pacific Ocean
07-10 November 2022 – La Jolla CA, USA

Outline

- Fisheries
 - Purse seine
 - Longline
 - Other (e.g. pole and line) take a minor component of the catch in recent years
- Data
 - Catch
 - Length Composition
 - Indices of abundance
 - Biology (e.g. tagging for growth, WCPO estimates of M , reproductive biology, ...)

Purse seine

- Fisheries
 - Floating object (OBJ)
 - Unassociated (NOA)
 - Dolphin associated (DEL)

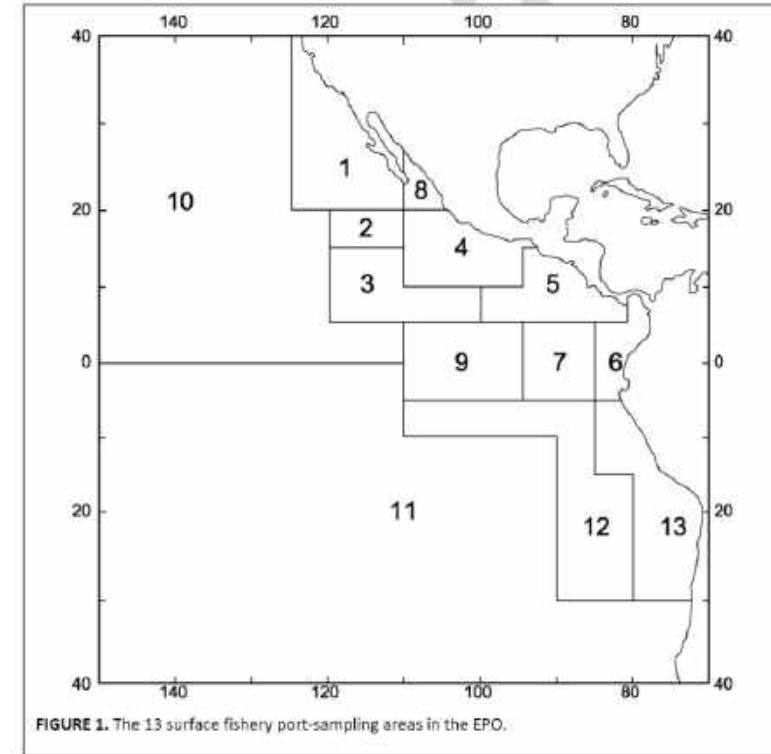
Purse seine

- Data: see WSBET-02-06
 - Vessel logbooks
 - Time and Location of sets
 - Catch by species
 - Observer records
 - Nearly 100% Class-6 (> 364t), approximately 10% for smaller vessels
 - Time and Location of sets
 - Catch by species
 - Small < 2.5 kg, medium 2.5-15 kg, large > 15 kg
 - Other details (e.g. gear characteristics, FAD characteristics)
 - Un-loading records provided by canners and other processors (Cannery data)
 - Total catch by species for each trip
 - Port-sampling program

Purse seine

- Port Sampling

- Changed in 2000
- Opportunistic sampling
- Wells sampled
- Catch in a well must come from the same vessel class/set type/sampling area/time strata
- Areas designed for YFT prior to the OBJ fishery
- 50-60% of trips of Class-6 sampled, 10-20% of smaller
- Goal of 50 fish of each species measured and 100 or more counted for species composition
- 5° cell also reported



Purse seine

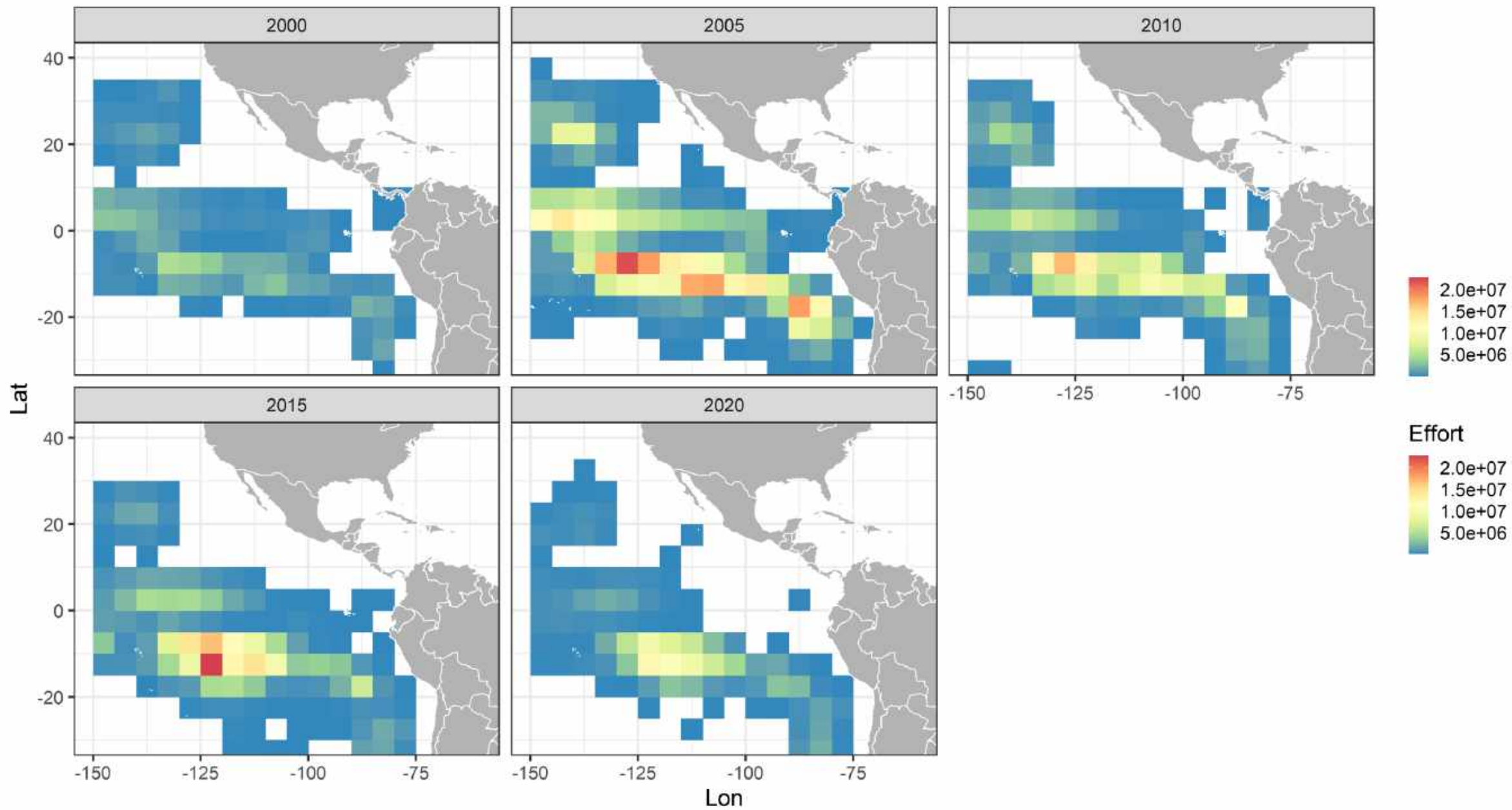
- Catch and length composition
 - Total catch of all species (YFT+BET+SKJ)
 - Cannery -> Observer -> Logbook
 - Prorated to strata ([vessel class]/set-type/fishery/quarter)
 - Observer -> Logbook
 - Prorated to species
 - Port-sampling
 - Prorated to length (1 cm bins)
 - Port-sampling
 - Strata area based on fishery definitions and reported 5°

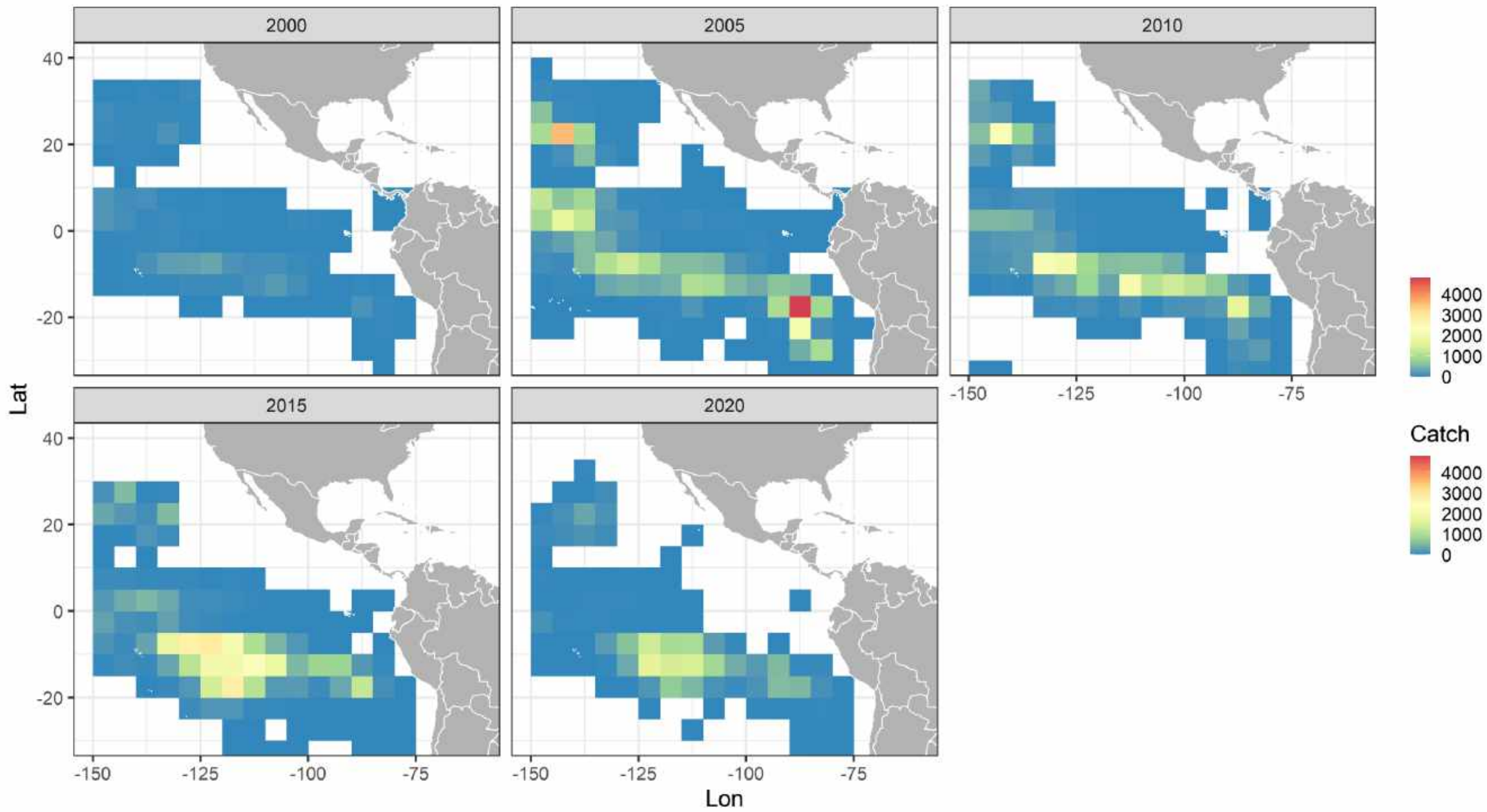
Purse seine

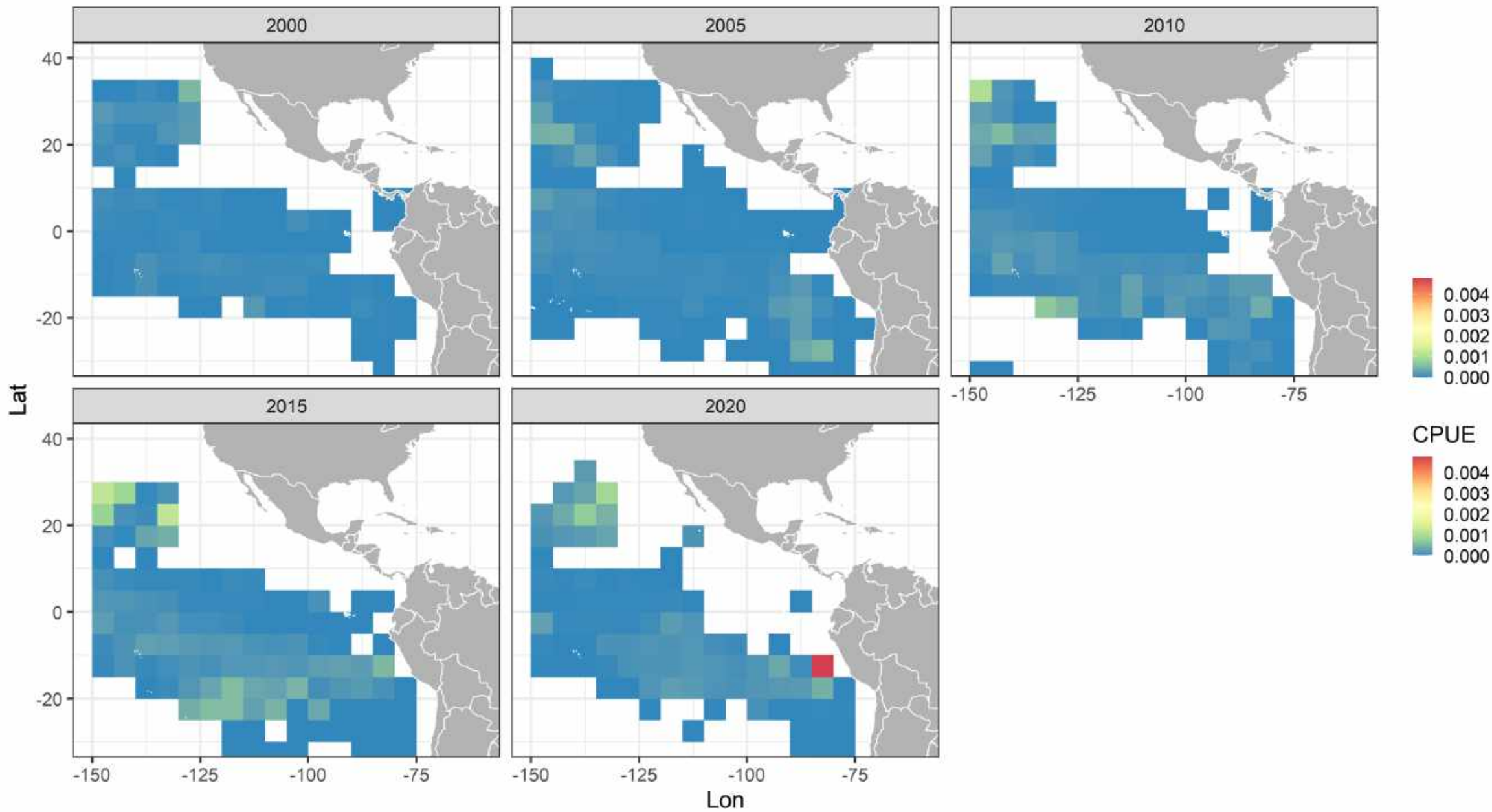
- CPUE
 - Catch per day fished
 - Can't separate days fished by set type
 - FAD sets are pre-determined (no searching)
 - No longer used
 - Catch per set
 - See Haikun's presentation
 - Echosounder buoys
 - See Jon's presentation
 - Species composition is not corrected using port sampling

Longline

- Data: see WSBET-02-03
 - Provided by countries
 - Spatial and temporal resolution differs by country and time period
 - Catch
 - Main fisheries 5° cell-month
 - Others monthly or annual for whole EPO
 - Some in numbers some in weight
 - Very minor component of the SKJ catch
 - Annual values taken from the FSR and distributed evenly among quarters

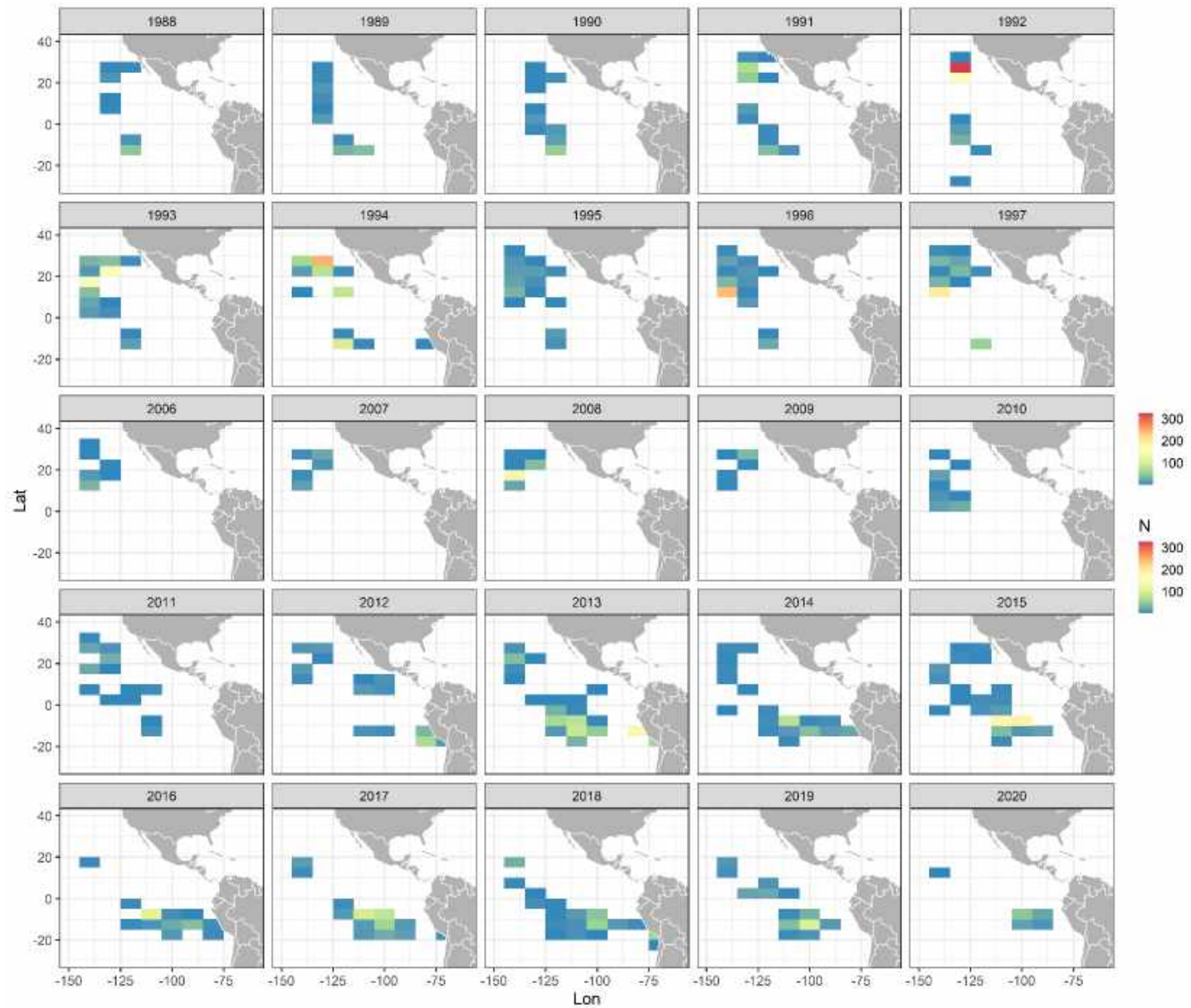






Longline

- Data: see WSBET-02-03
 - Length composition
 - Only use Japan
 - 5x5 (previously 10x20)
 - Starts in 2006 (no data for 1998-2005)
 - Reported in both length and weight, but only length since 2006
 - (not sure if measured in length or weight)
 - Available from other countries, but some issues
 - Just summed up all data for a year/quarter (no spatial weighting by CPUE)
 - CPUE
 - Japan catch in numbers per hook



Biology and other

- **Growth**
 - Daily rings counts in otoliths available, but not one ring per day (see Dan's presentation)
 - Tagging growth increment data (see growth presentation)
- **Natural mortality**
 - No maximum age, growth is not VonB,
 - Estimates from tagging in the WCPO
 - See Tobias' presentation for using recent tagging
- **Reproductive biology**
 - See Dan's presentation

Summary

- Purse seine
 - main fishery
 - main data source
 - Extensive data collection program
- Longline
 - Low catch
 - Space data
- Biology
 - Some biological data
 - Generally poor information (see following presentations)



Questions