

Data Collection and Statistics in Korea

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Changes in data collection system in Korea

❖ Legal basis : the Distant Water Fisheries Development Act

Paper logbook
(~ 2012. 11)

- Time for data submission
 - (home-based) within 30 days after completion of operations
 - (foreign-based) within 60 days

Elec. logbook
(2012. 12
~ 2015. 8)

- The Act strengthened
 - To oblige fishers to report every month (100% in its coverage)
 - To collect information on **discard/release**
 - To add data reporting format on **Ecologically Related Species**

Elec. Reporting
(2015. 9 ~)

- The reporting system changed
 - Fishermen **report fishing information every day** to the NIFS
 - The information are **cross-checked** with data of VMS and CDS

Data contents collected by logbook through system changes

Paper logbook

- Species reported
 - tuna : ALB, YFT, BET, PBF, SKJ, SBT
 - billfish : BUM, MLS, SWO, BLM, WHM, SFA
 - others : not identified
 - sharks : not identified
- Set details and catch
 - fishing date and position
 - fishing effort(hooks, floats)
 - retained catch(No/kg)

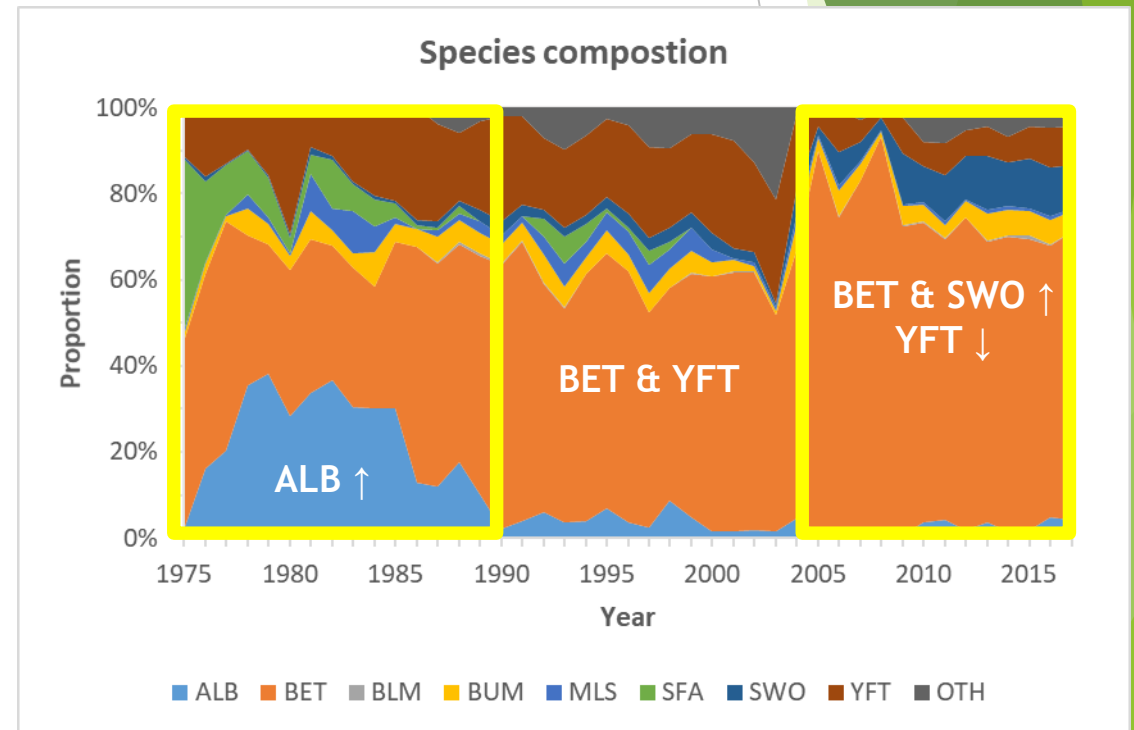
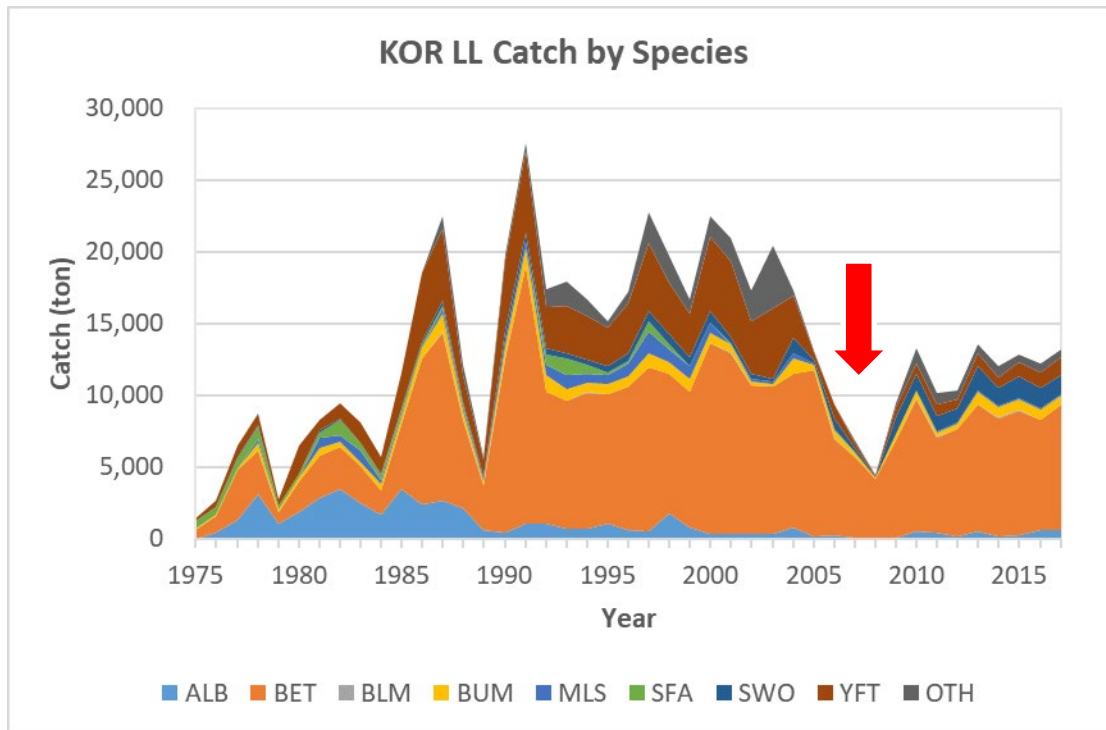
Elec. logbook

- Species reported
 - tuna : same
 - billfish : same
 - others : same
 - **sharks** : BSH, MAK, POR, FAL, OCS, HMS and OSH
 - **sea bird/sea turtle** (added)
- Set details and catch
 - fishing date and position
 - fishing effort(hooks, floats)
 - retained catch(No/kg)
 - **activity code**
 - **No. of discard(live/dead)**
 - **set start time**

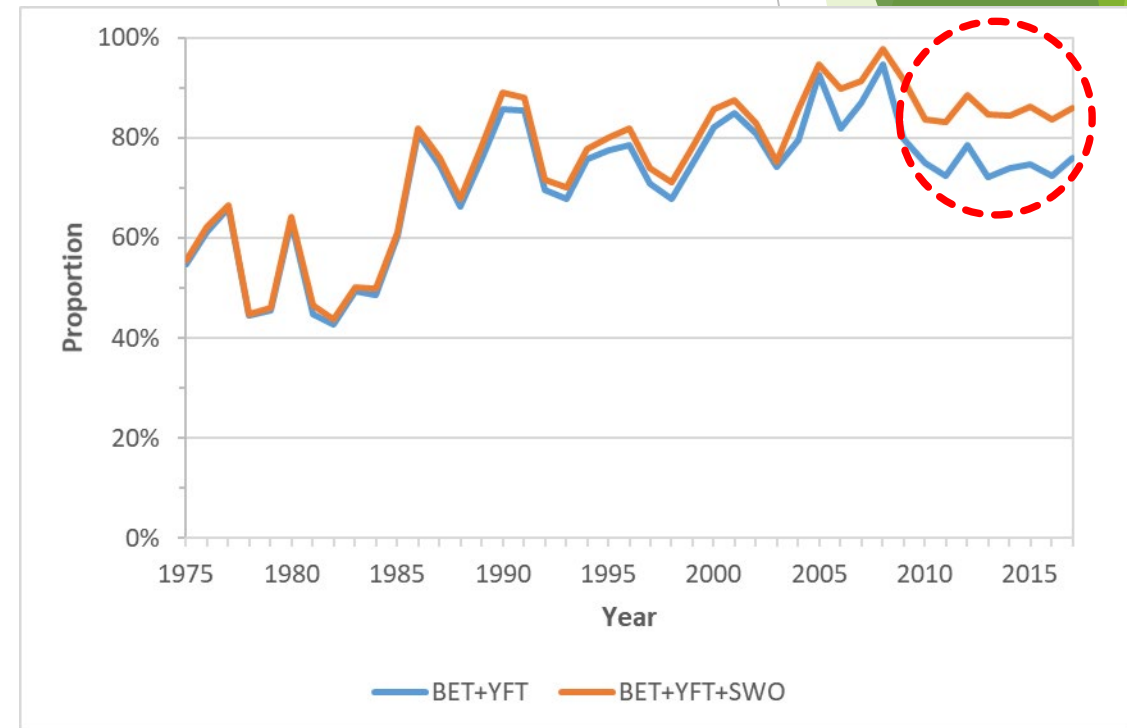
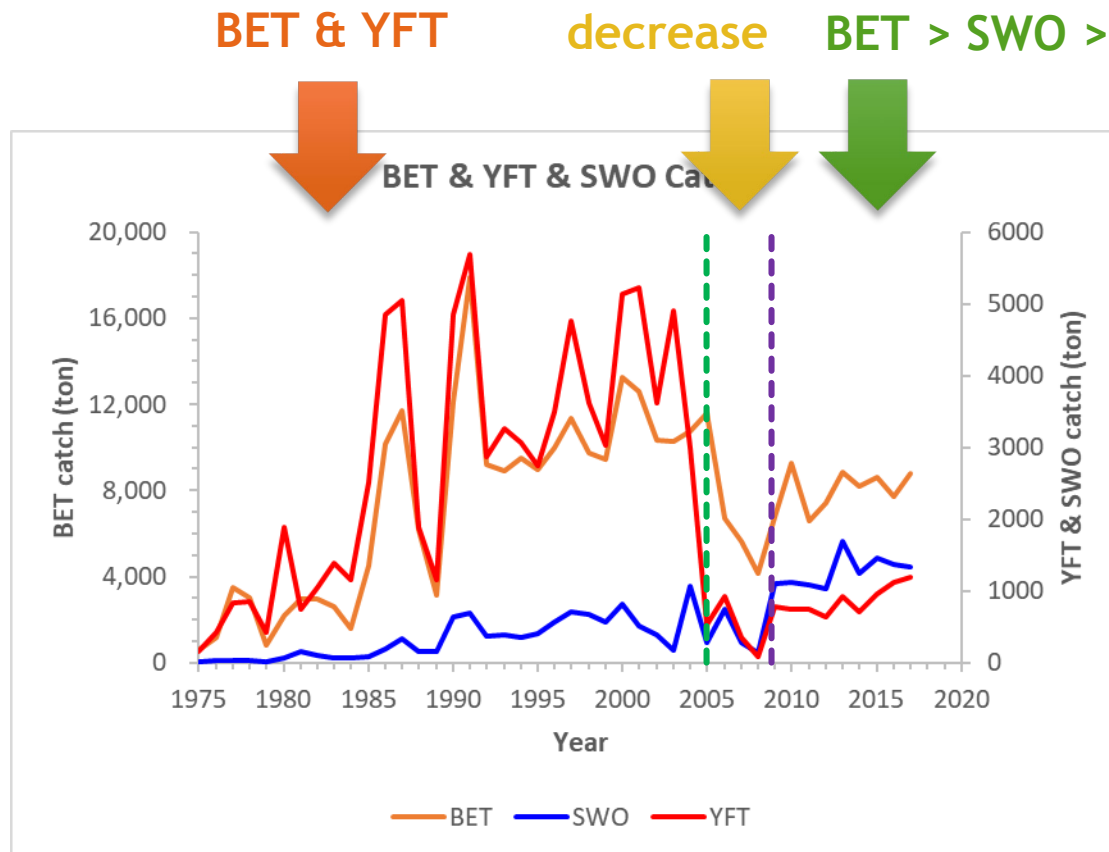
Elec. reporting

- Species reported
 - ✘ **enter all species by species as well as key species**
- Set details and catch
 - fishing date and position
 - fishing effort(hooks, floats)
 - retained catch(No/kg)
 - activity code
 - No/**kg** of discard(live/dead)
 - set start/**end** time

Annual catch of major species and species composition by Korean LL in the EPO

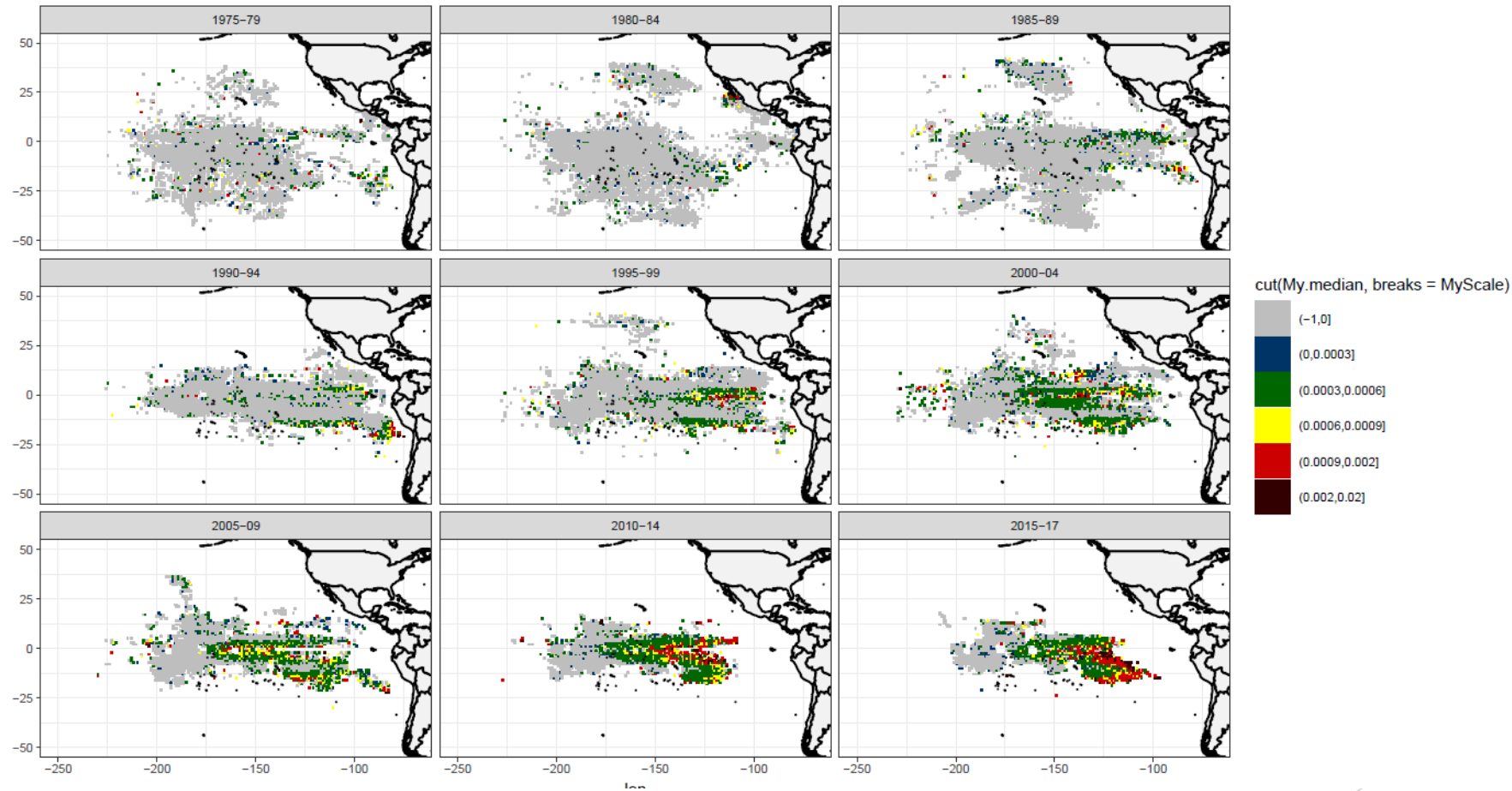


Changes in catch of BET & YFT & SWO by Korean LL fisheries in the EPO

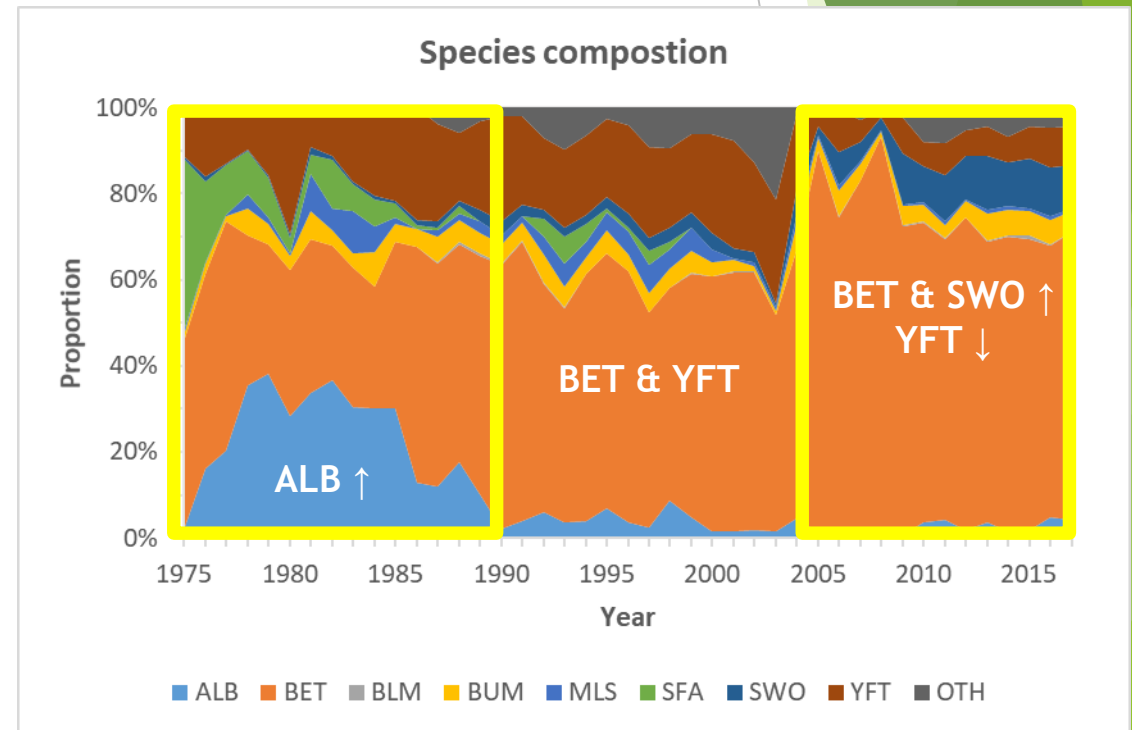
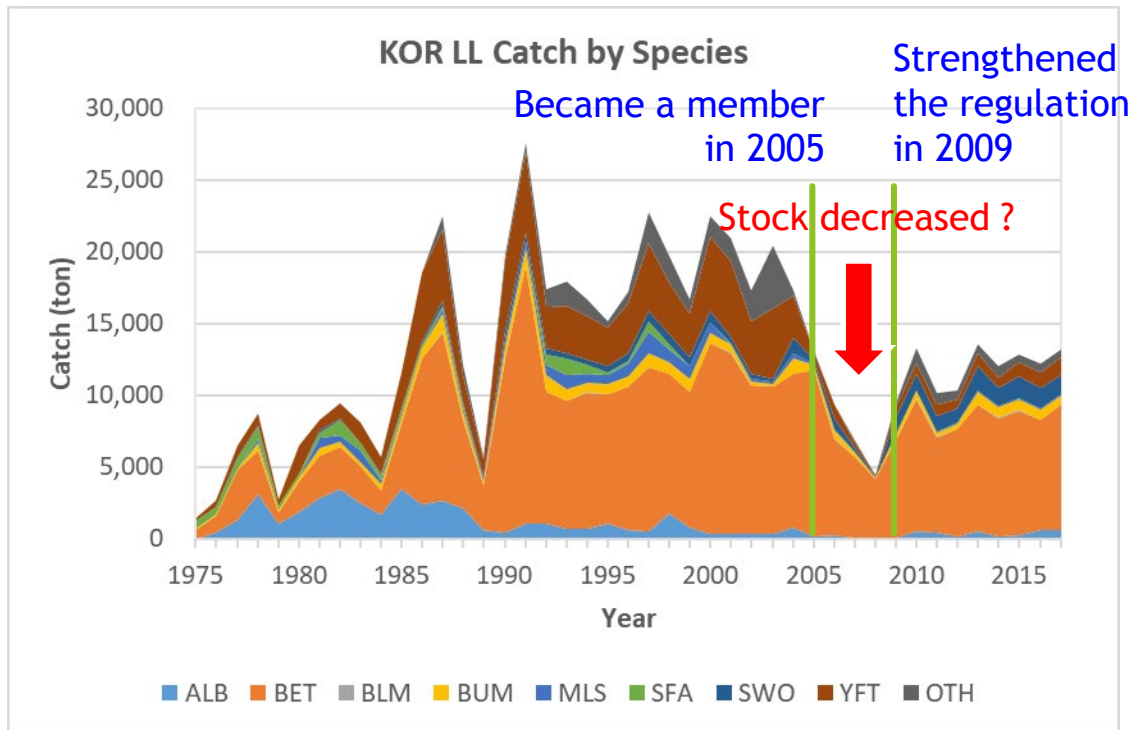


Geographical distribution of SWO CPUE

Korean Fleet Pacific Ocean
nominal CPUE of SWO



What happened in the second half of the 2000s



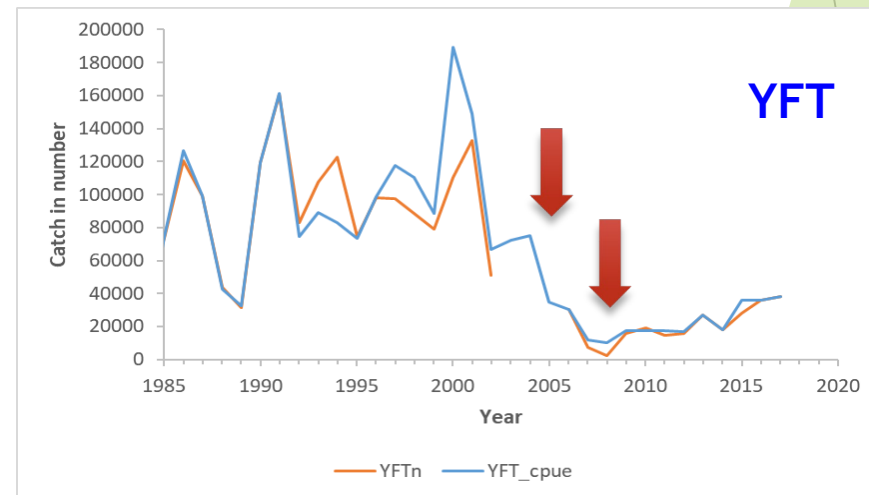
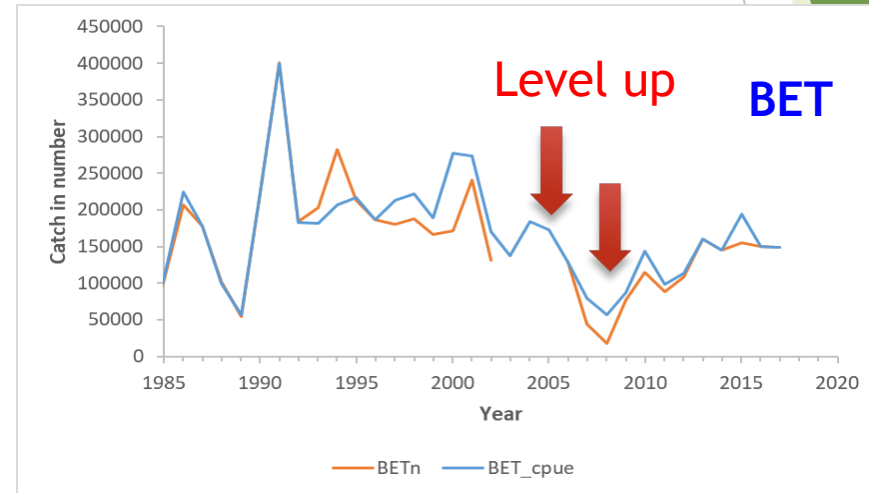
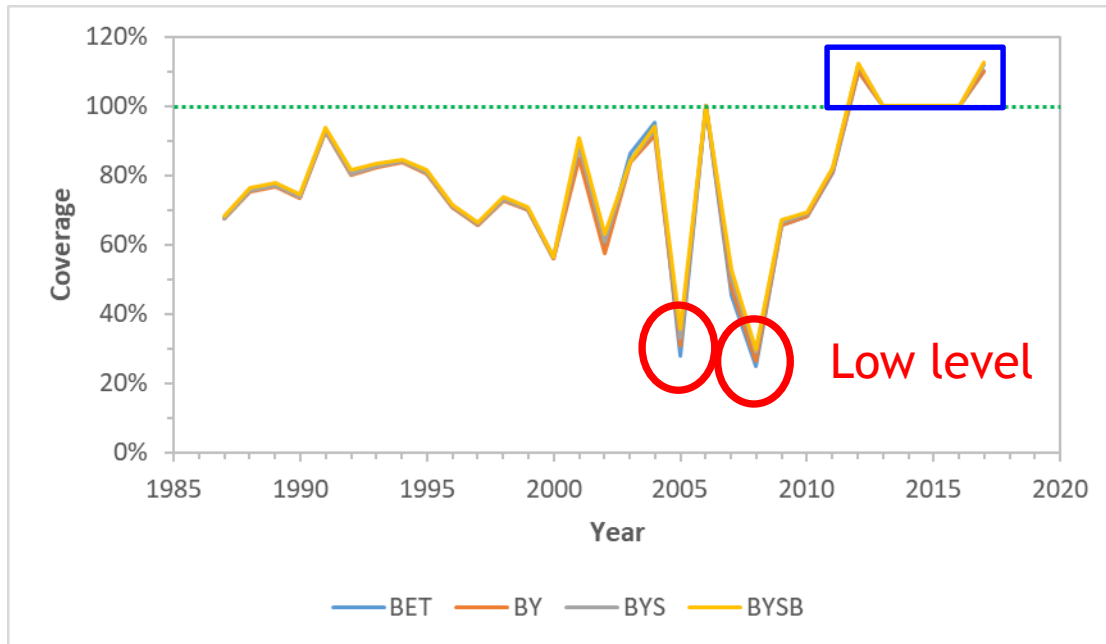
< Key Resolution/Recommendation on tuna conservation >

Res C-04-09 / C-06-02 ('04-'07 yr catch limit) : CPCs --- **will not** exceed the following catch levels.

Rec C-09-02 ('09-'10 yr limit) : CPCs --- **do not** exceed the following levels. ► decreased about 5% of quota

Data coverage of catch and effort submitted/revised

Submitted nominal catch as processed weight



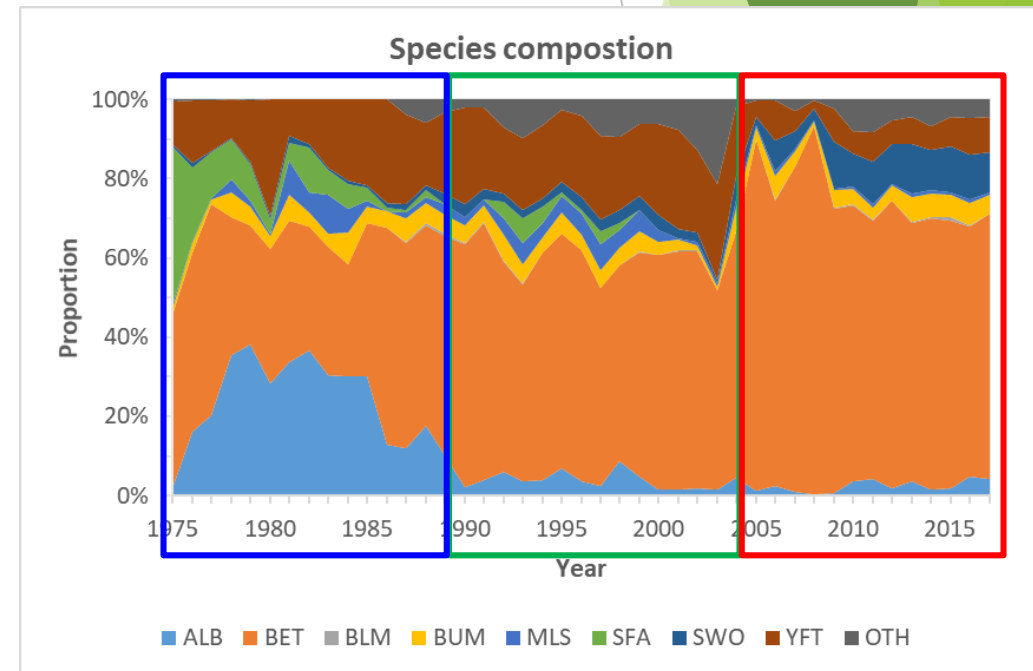
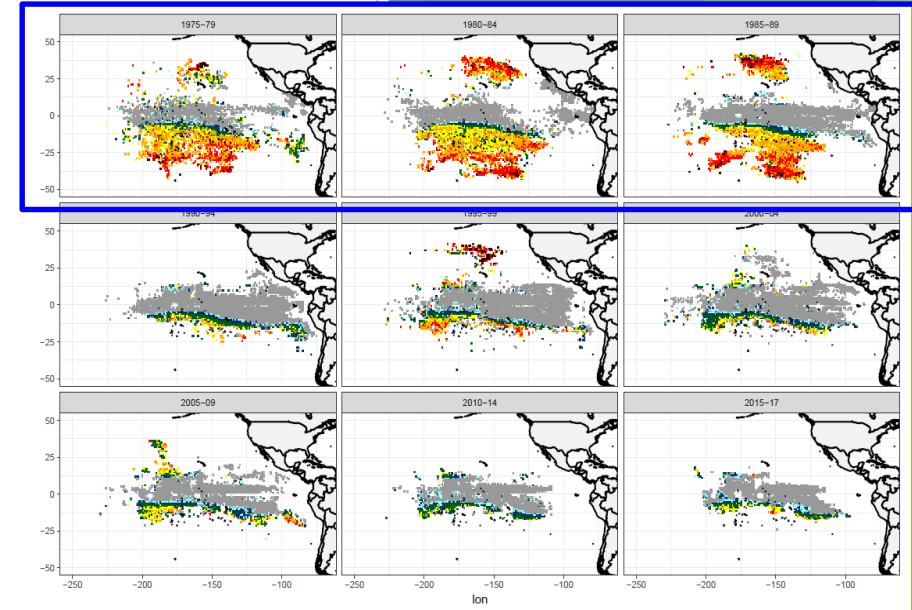
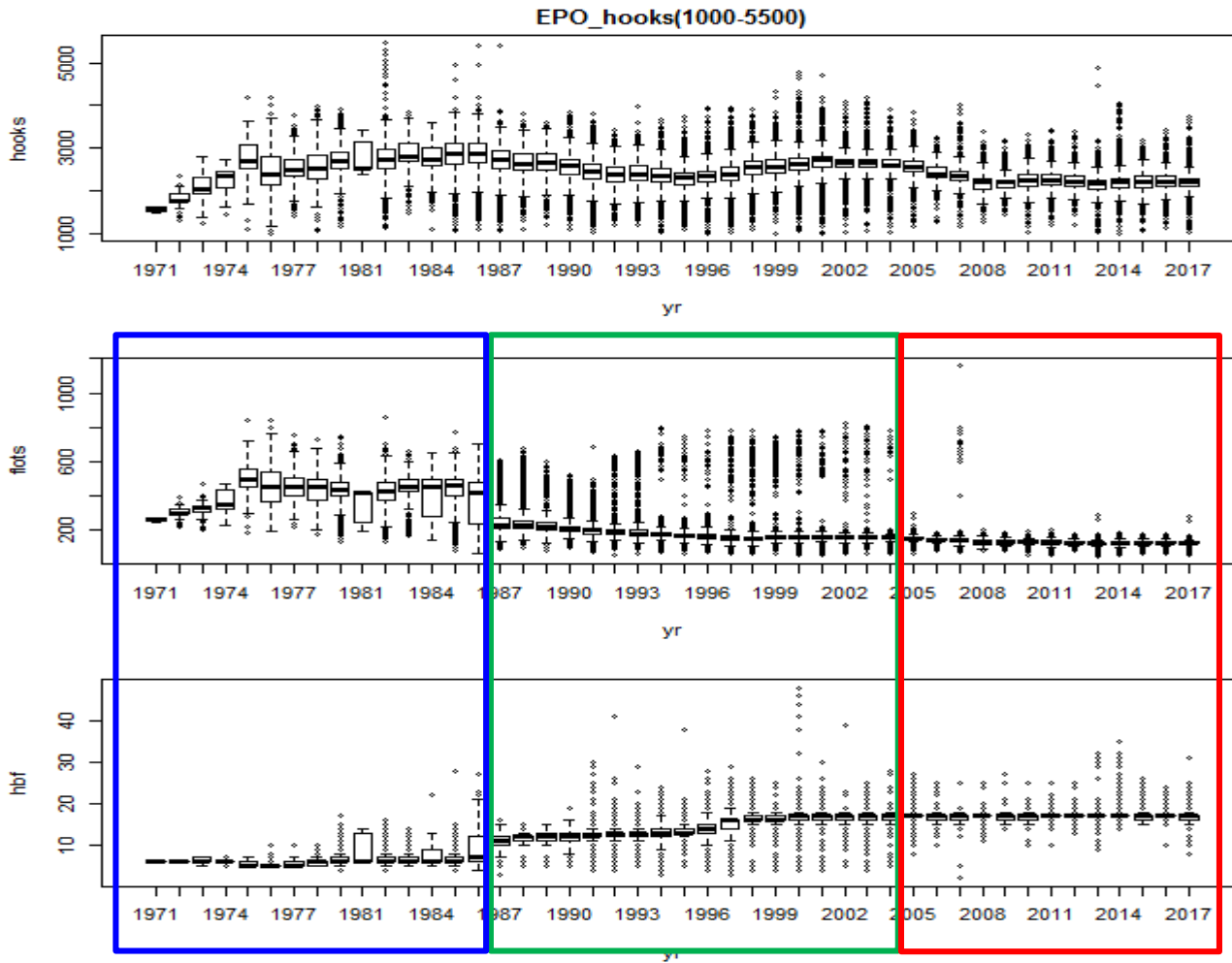
Data used for this collaborative work

- ▶ Data source / Area : logbook / : whole pacific ocean
- ▶ Period : 1971-2017 (but data before 1976 have a lot of missing information)
- ▶ Data format

Call Sign	Date	Year	Mon	Lat01	NS	Long01	EW	hooks	floats	SP (catch in number)
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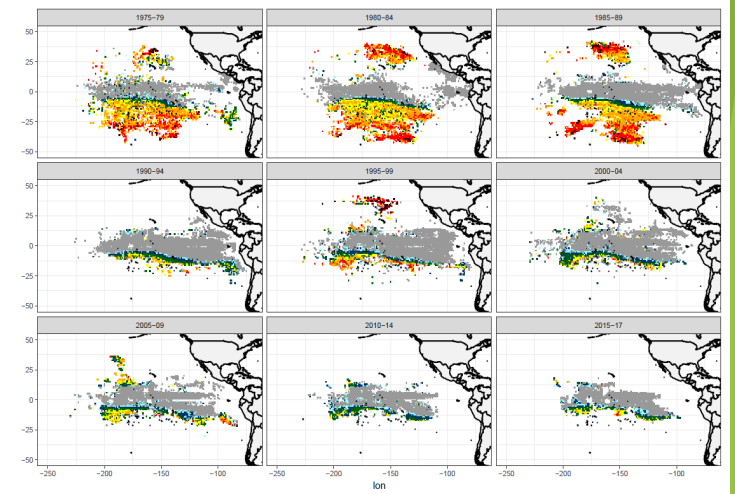
- ▶ Species
 - Tuna : ALB, BET, SKJ, YFT
 - Billfish : BLM, BUM, MLS, SFA, SWO
 - OSH(sharks), OTH (other fishes) : not classified
- ▶ In call sign,
 - number + character : real call sign (if same, it is the same vessel;
once a call sign is assigned, a vessel has the call sign until it disappears)
 - ZA000, ZB000 : arbitrarily assigned number (if same, it is the same vessel)
 - ZZ-NA : not available (not identified)

Changes in fishing efforts

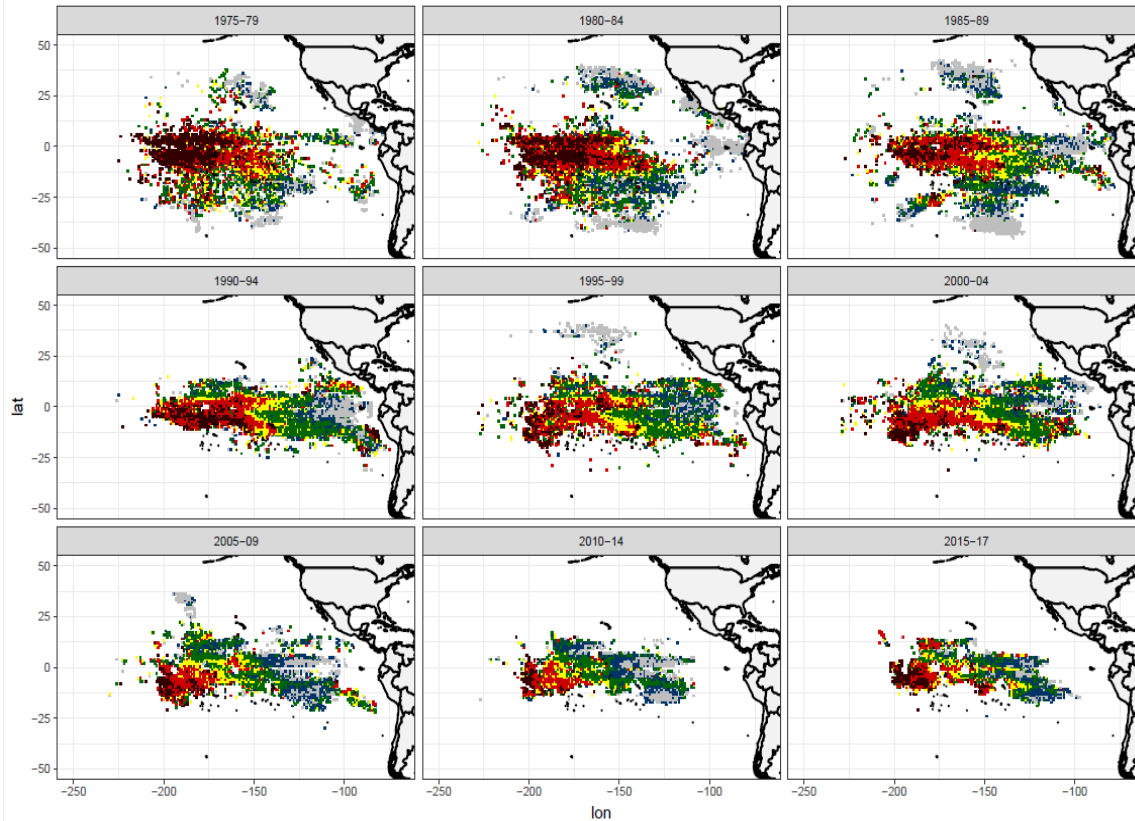


Geographical distributions of CPUEs of YFT & BET and ALB

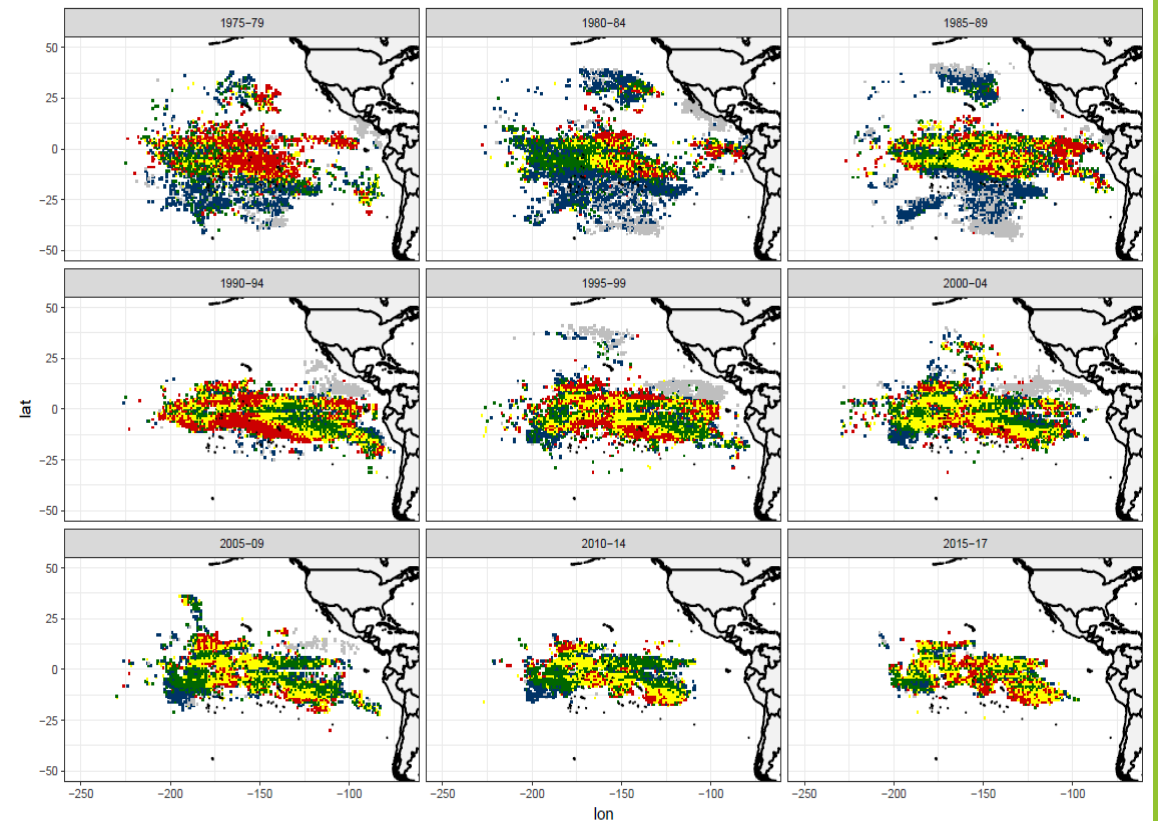
ALB



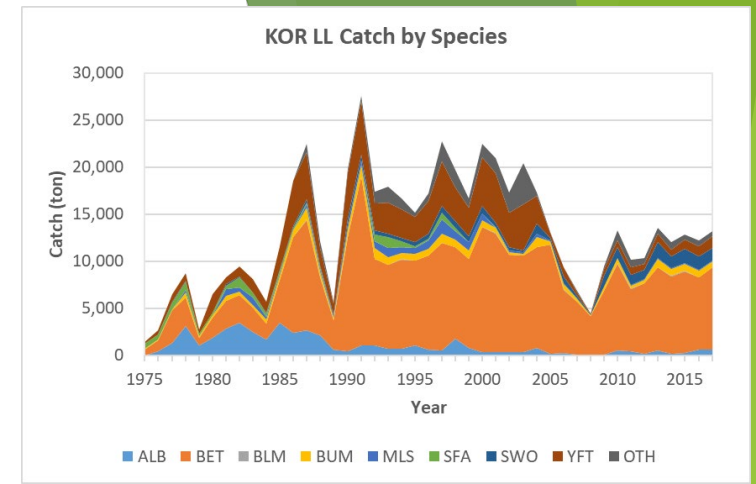
YFT



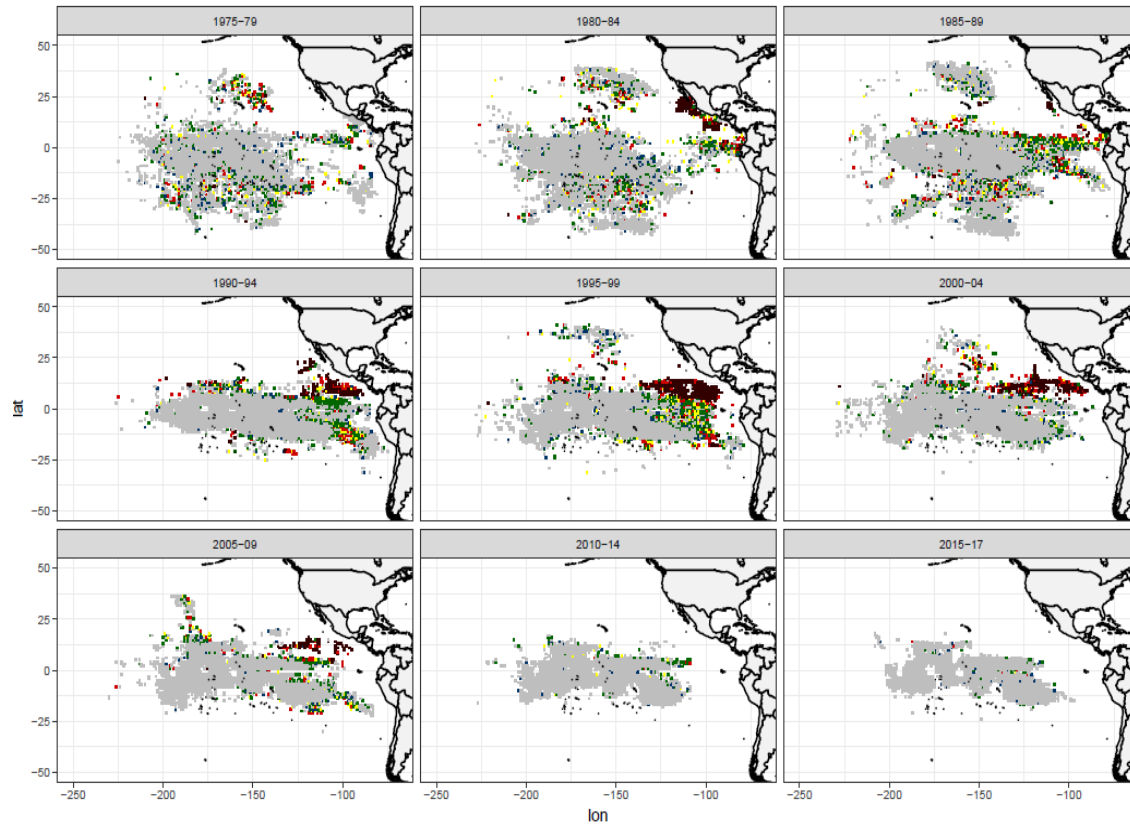
BET



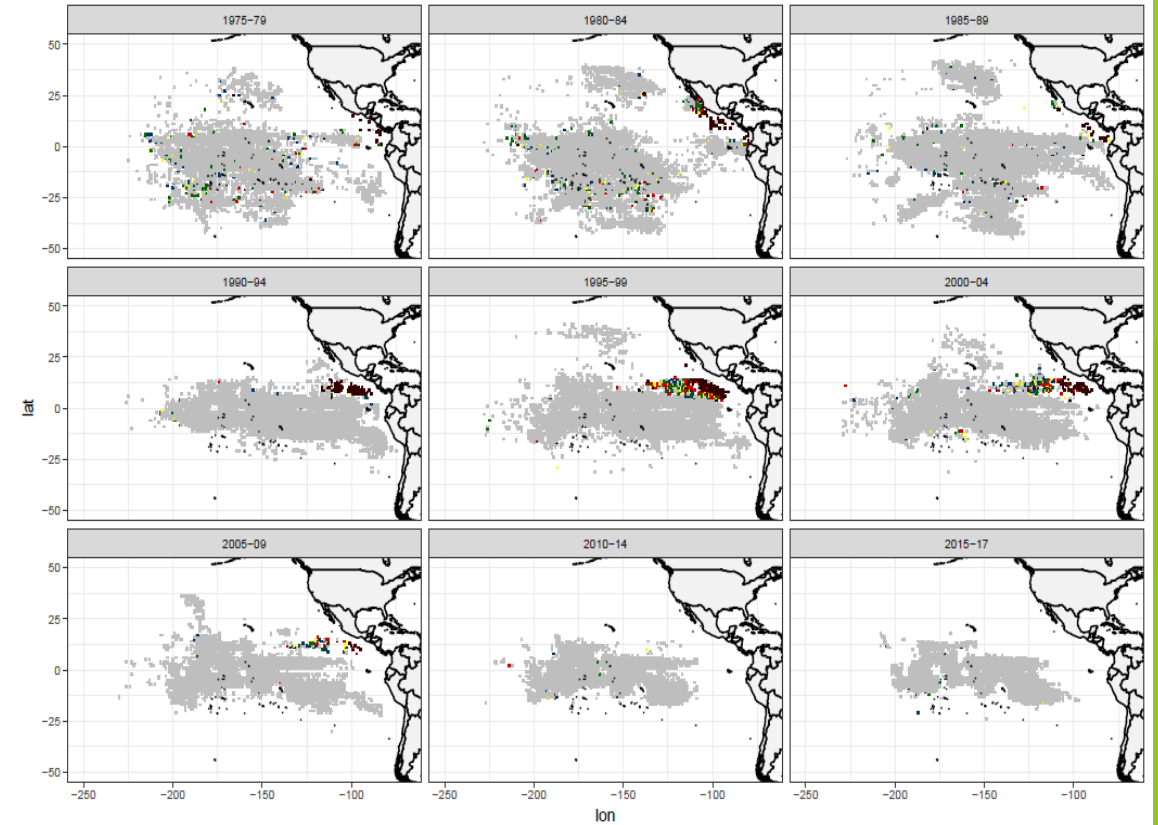
Targeting SFA or MLS?



MLS



SFA



Thank you for your attention!