

Agenda Item 5.1

Recent status of Japanese sardine fishery by Japan

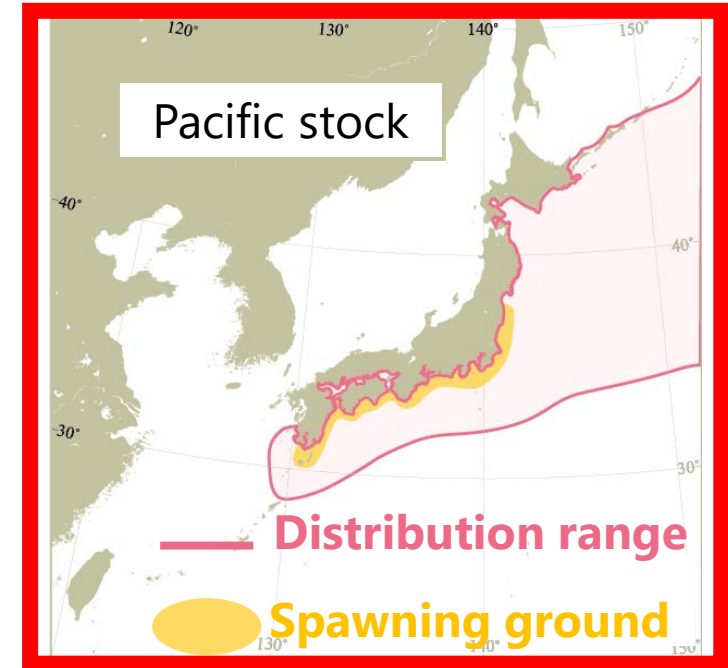
NPFC-2026-SSC JS01

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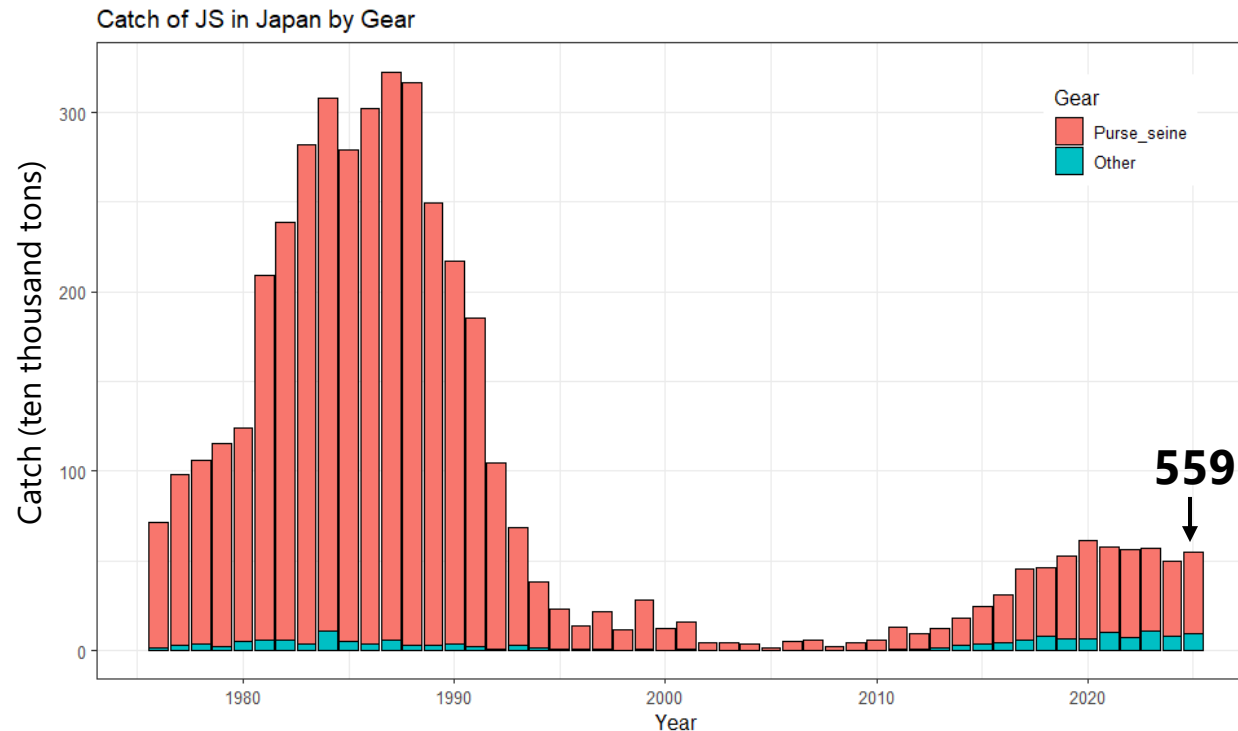
Japan Fisheries Research and Education Agency

JS fishery around Japan

- Two stocks of JS around Japanese water, segregated by distributions and biological features
 - Pacific stock
 - Tsushima Warm Current stock
- Only the Pacific stock is distributed in the NPFC CA
 - This IP discusses about the fishery on the Pacific stock



Catch of JS by Japanese fisheries (up to Dec 2025)



Other fisheries
- Mainly set net

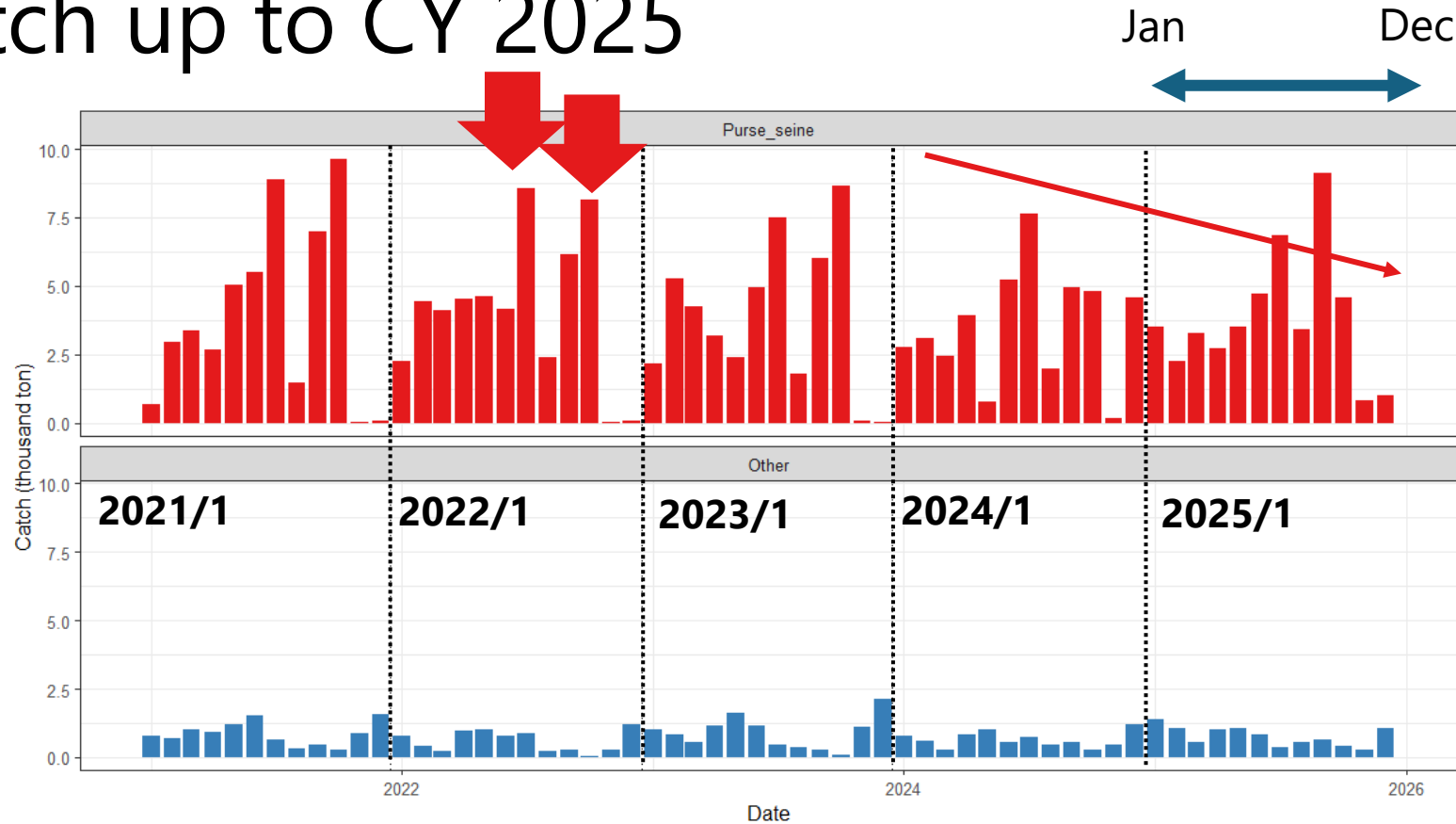
Minor catches
- Small scale seine
- Stick-held dipnet
- Bottom trawl

- Calendar year-based catch data (Jan-Dec)
- **Purse seine** as the primary catch, 464Kton in 2025, other catch 94Kton.
- Japanese catch is slightly decreasing since 2020

Monthly catch up to CY 2025

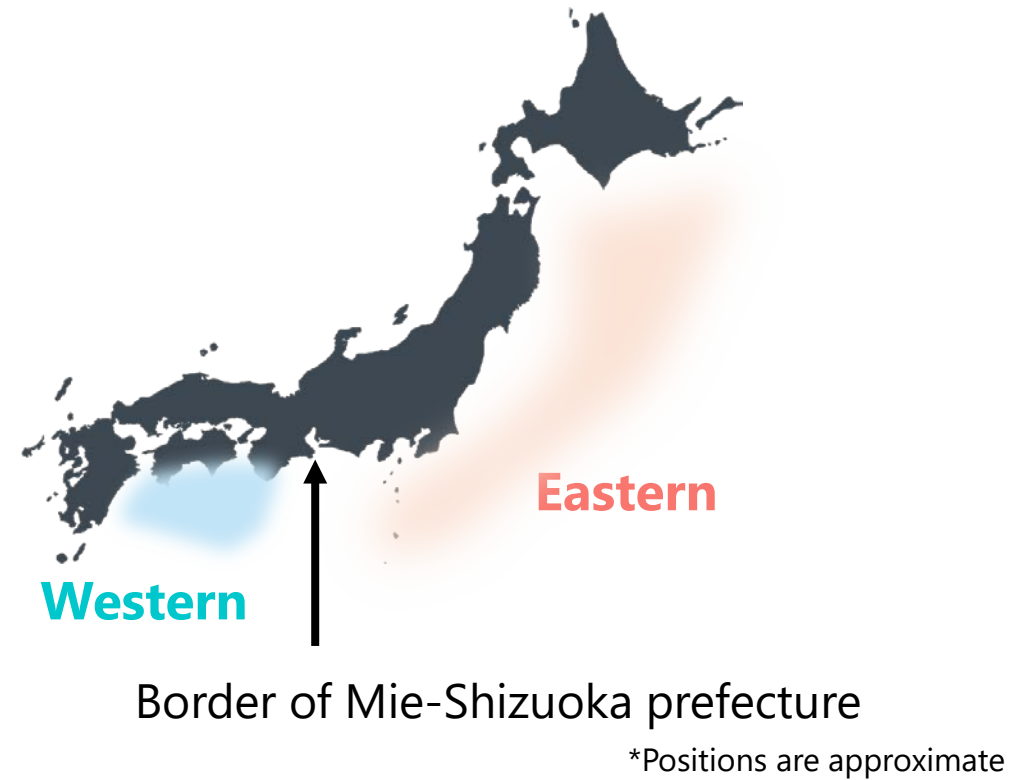
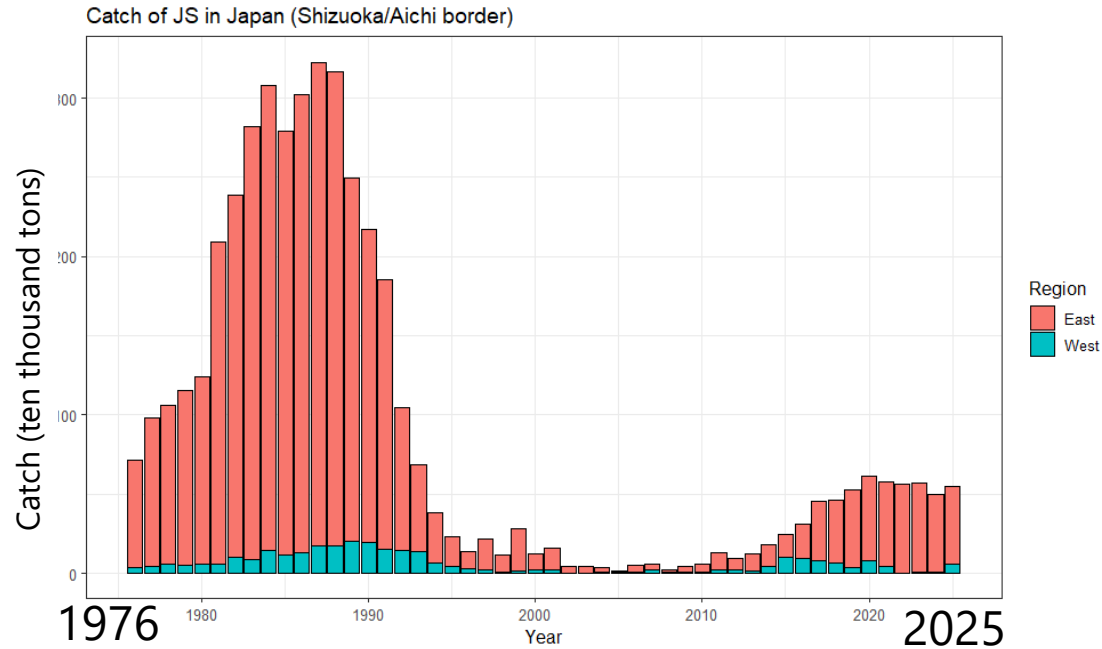
Purse seine

Other fisheries



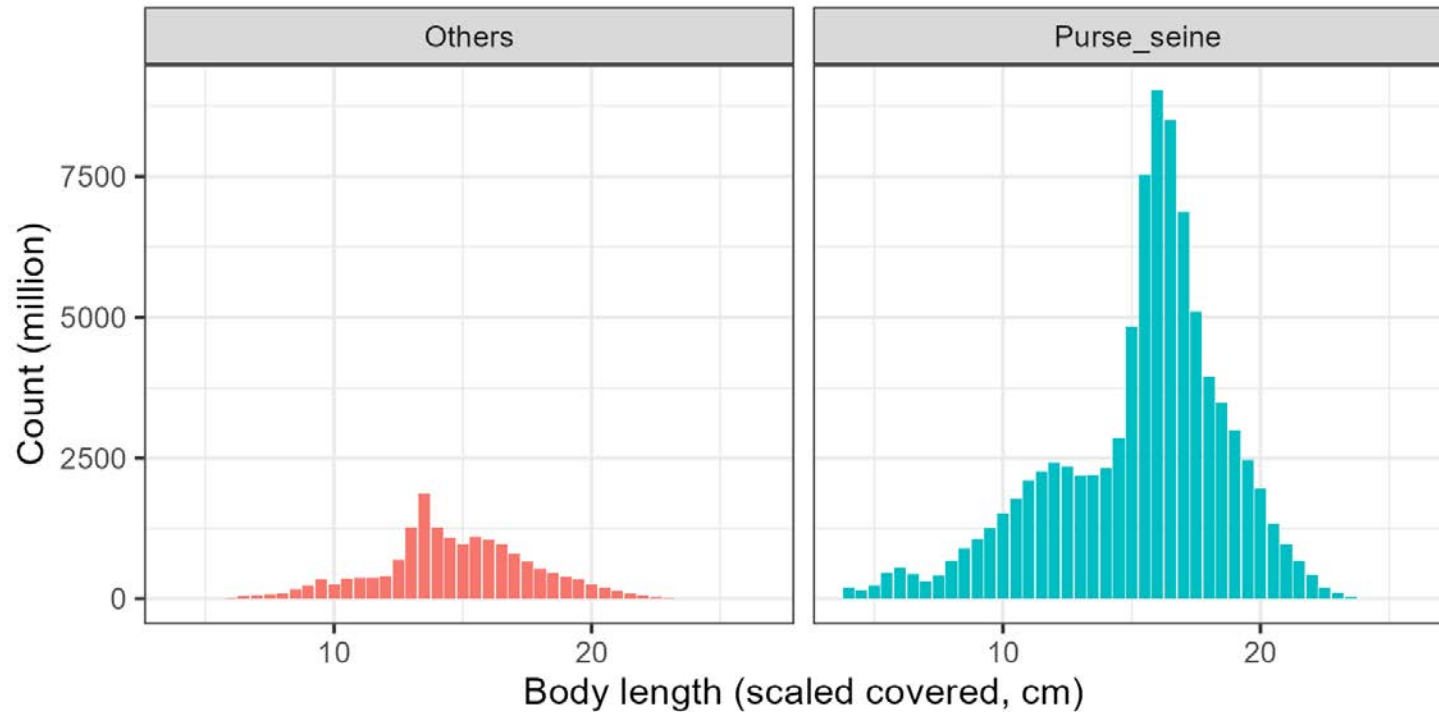
- June-July, September-October are the prominent seasons
- Overall catch in these seasons are decreasing in 2024-2025
- Other fisheries catch all-year-round with peak in Nov-Dec

Catch by region



- Catch is separated into two regions; **Eastern** and **Western** Japan
- Border located at Mie-Shizuoka prefecture (~137E, same as chub mackerel)
- Eastern catch represents majority of the catch with strong fluctuation
- Western catch is more stable, more substantial when the overall catch is low

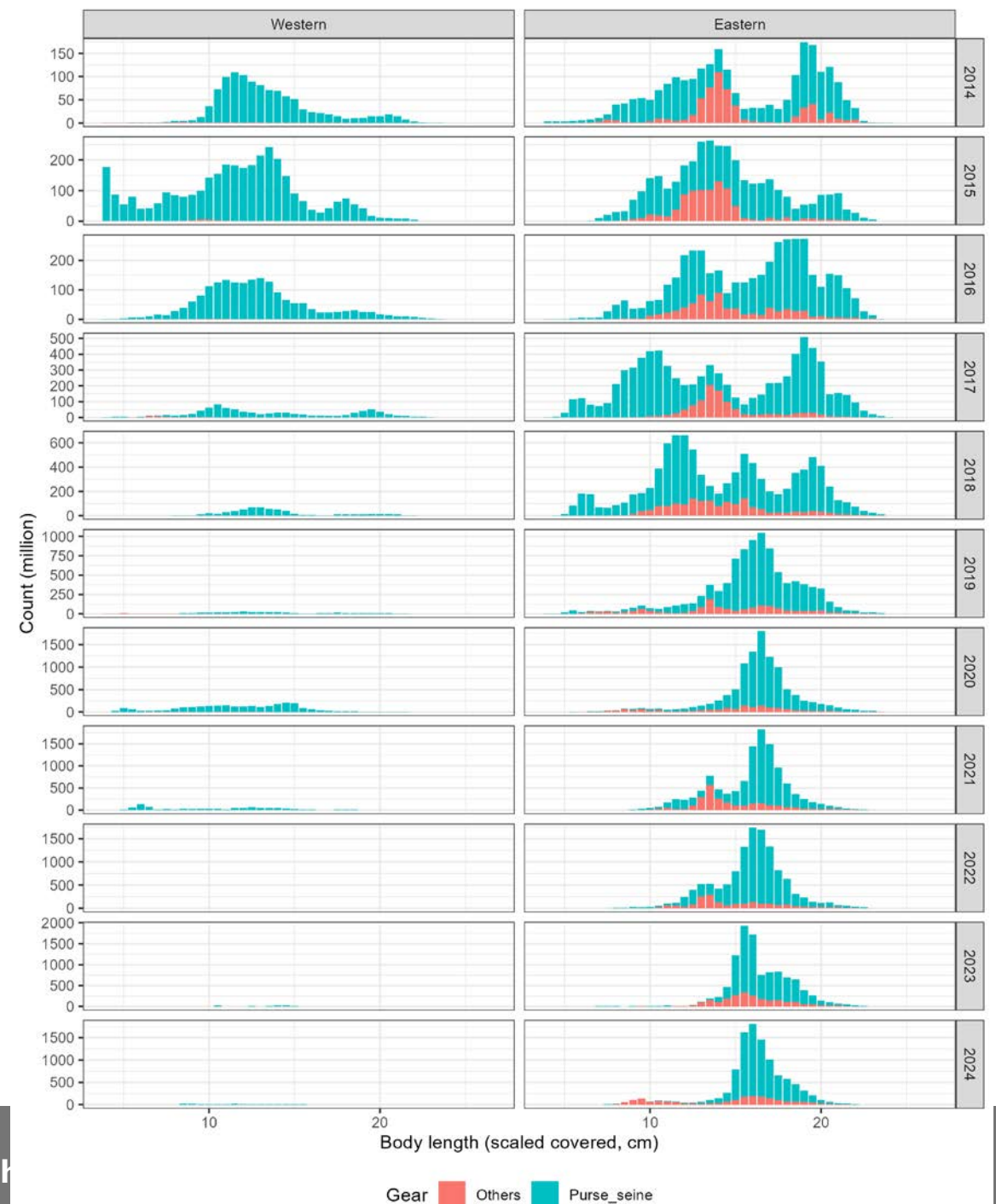
Catch length composition



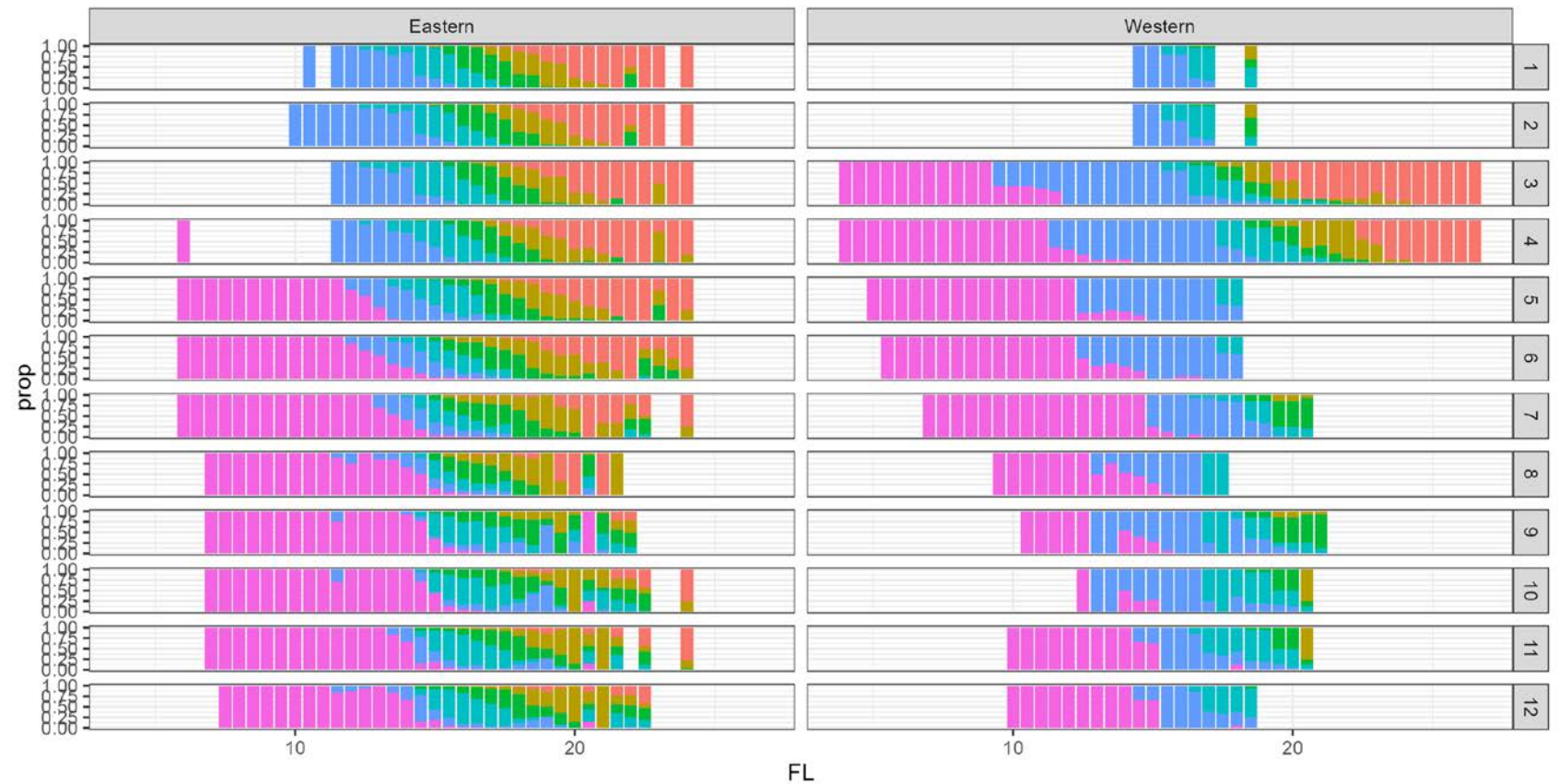
- Total count of catch-at-length from 2014-2024.
- Purse seine 4cm ~ 25cm, other fisheries 4cm ~ 26.5cm
- Purse seine caught larger fish than other fisheries which covers various FL universally

Length by region and year

- Eastern purse seine compositions have changed from catching wide size/ages to fewer size/ages
 - Especially after 2019?
 - Generally larger than 10cm
- Western purse seine covered wide range, with substantially low catch after 2017.
- Other fisheries covers wide range of size even purse seine had changed



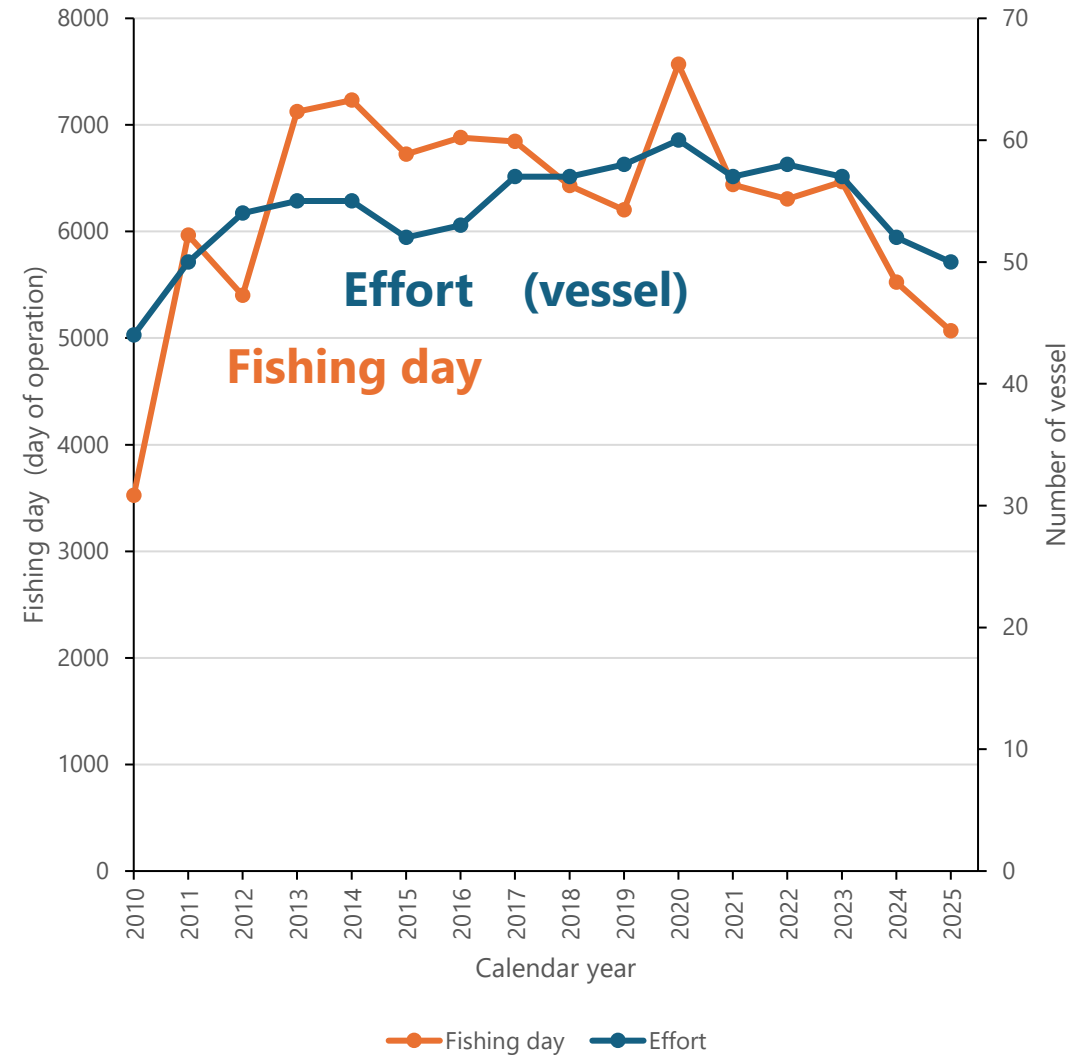
Age length key



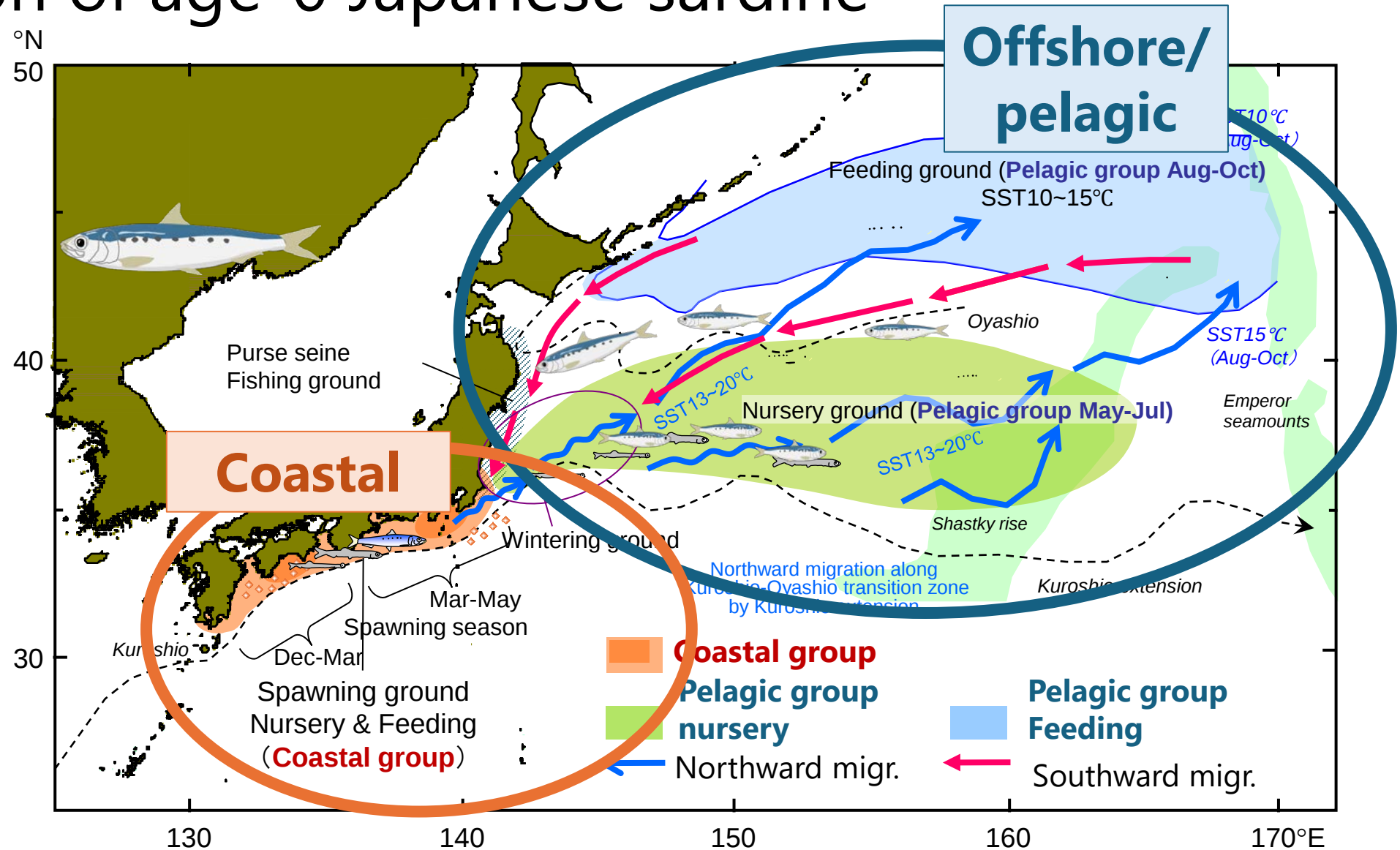
- Aging is conducted by otolith and scale readings
- Due to rapid growth of JS and different biological characteristics, ALKs are developed by region and by month
- ALKs are available in the collaboration site from 2014-2024 (2025, in prep)

Effort – from annual footprint

- Fishing day is a day which a vessel operated and hauled at least once
- Operation of Japanese purse seine vessel consists of daily trip
- No traveling day is counted as effort.
- Total effort is declining since 2020



Migration of age-0 Japanese sardine



Research survey

- Midwater trawl (mesh size = 17mm)
 - Transition zone to Oyashio region
 - Summer survey (May-Jul)
 - Fall survey (Sep-Oct)
 - Data available for 2005-present
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- Summer survey is used for age-0 and age-1 indices
 - Fall survey combined with acoustic survey is used for age-0 index

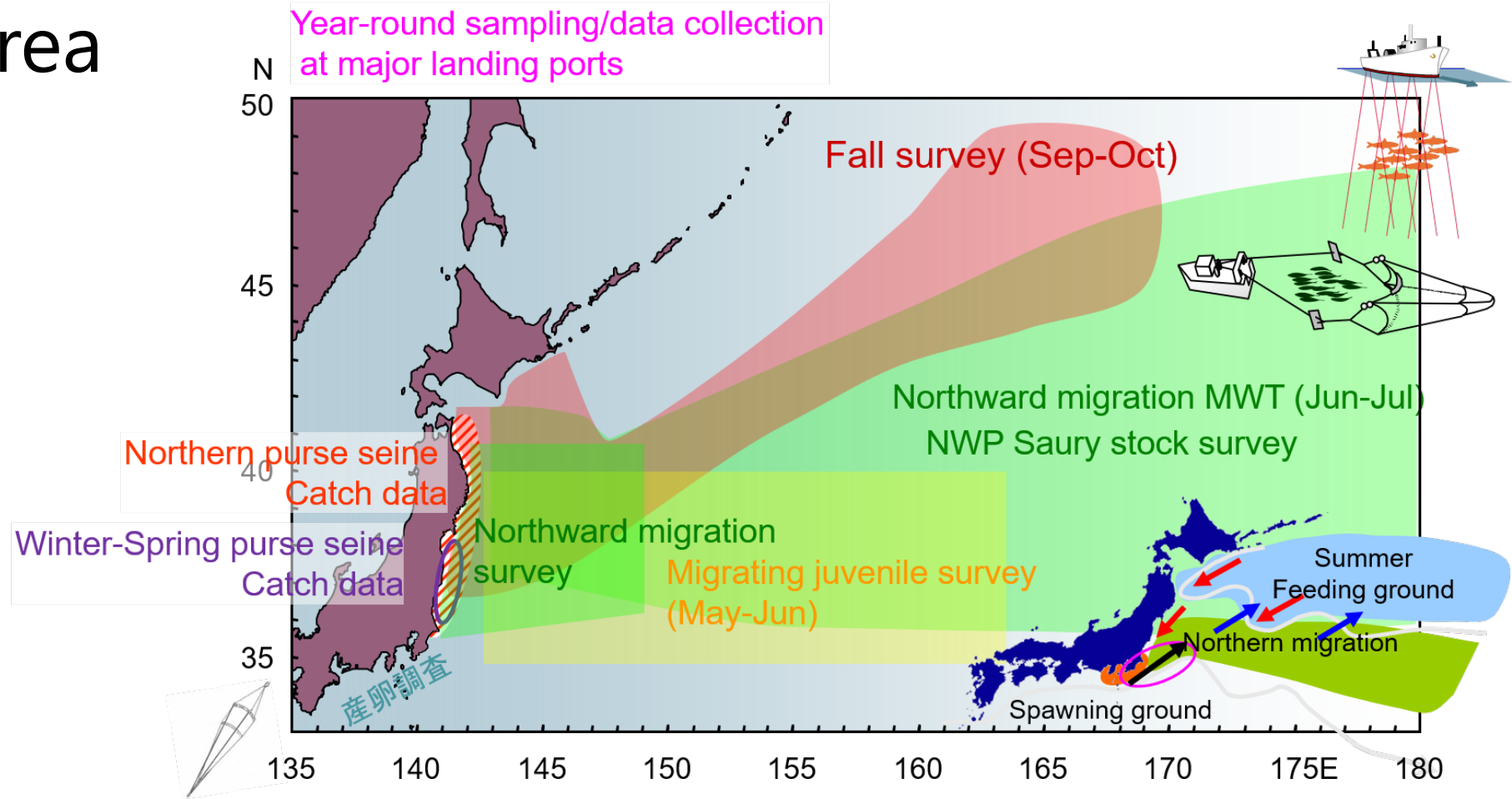
RV Hokkomaru 北光丸



RV Hokuhomaru 北鳳丸



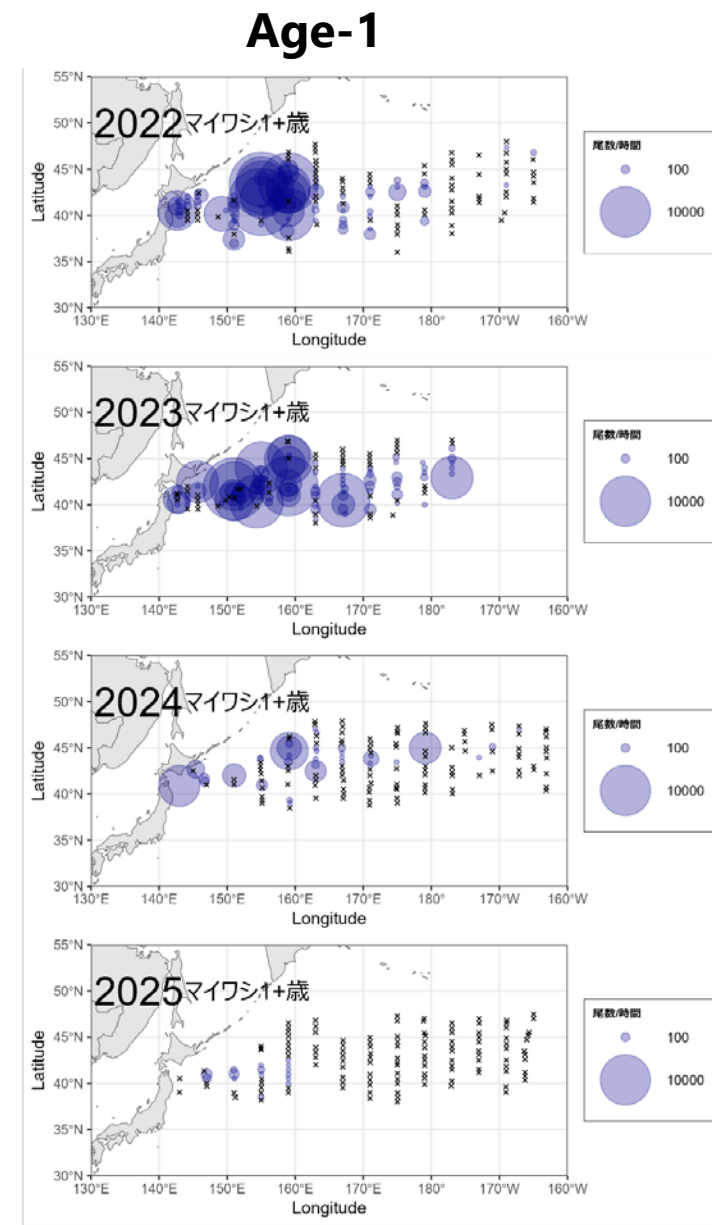
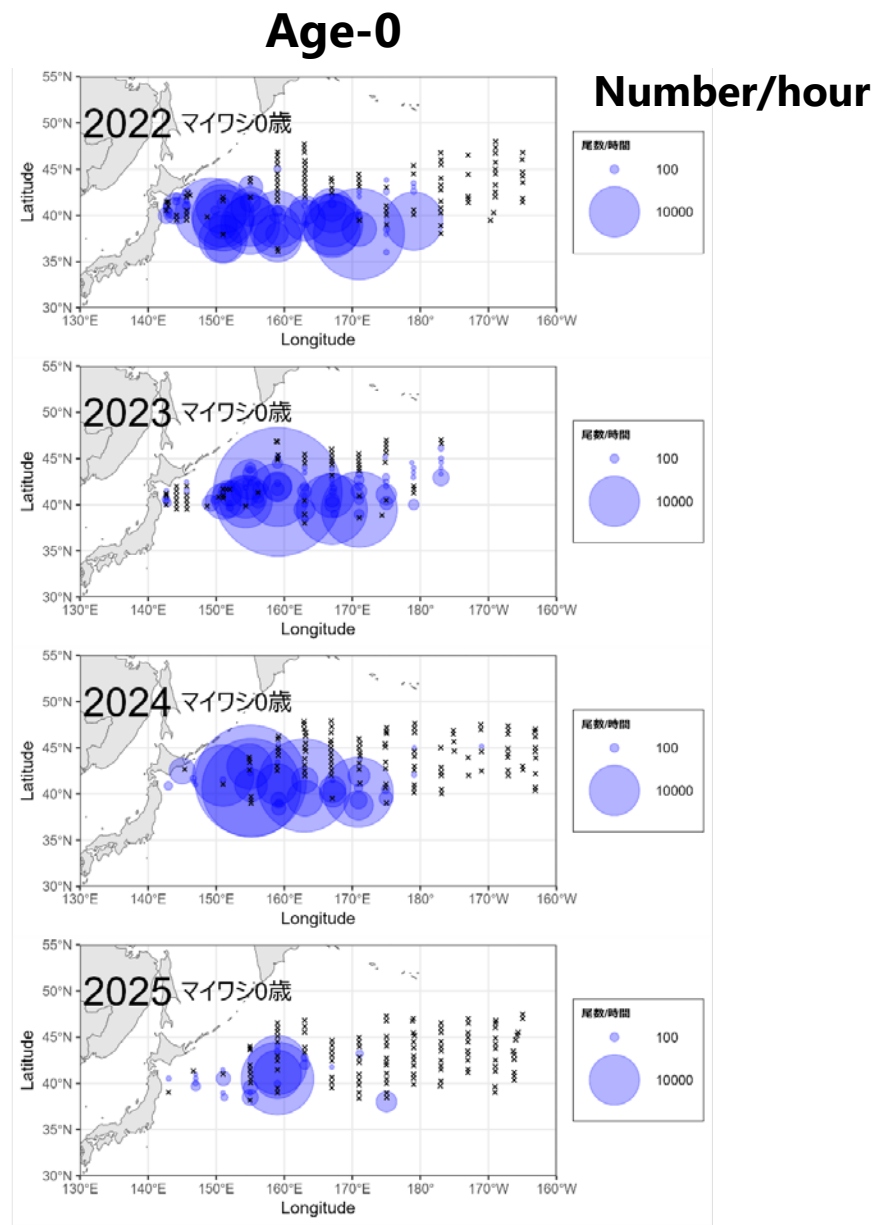
Survey area



- Fisheries independent survey covers migrating stages
- Fisheries in-& dependent data for assess the stock dynamics/stage

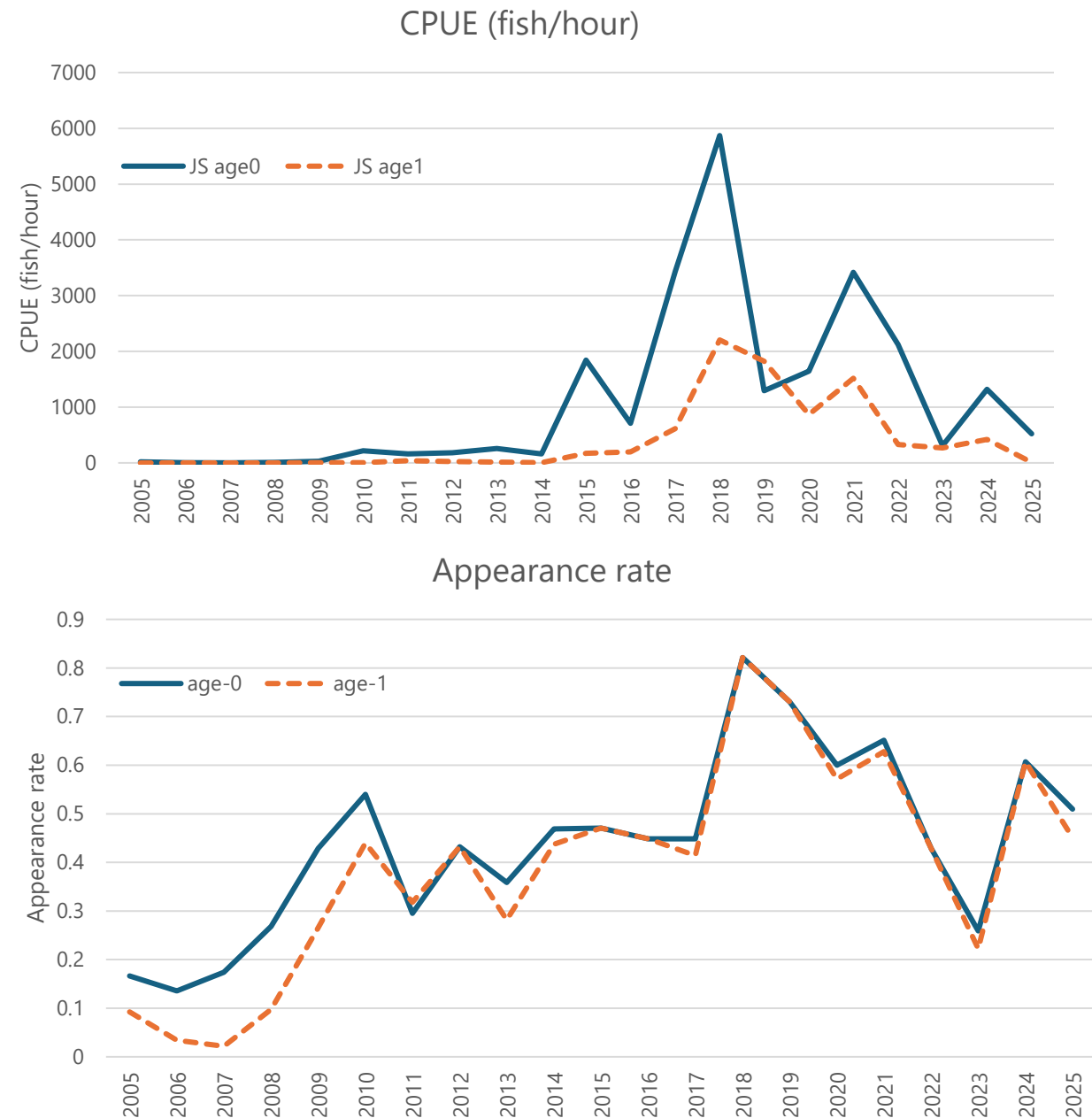
Summer survey

- Trawl mouth width 30m, mesh size 17mm
- Age-0 exhibits wide broad distribution
- Age-1 is more coastal, typically west of 160E
- 2025 distribution and abundance are extremely low
- 2026 is even lower



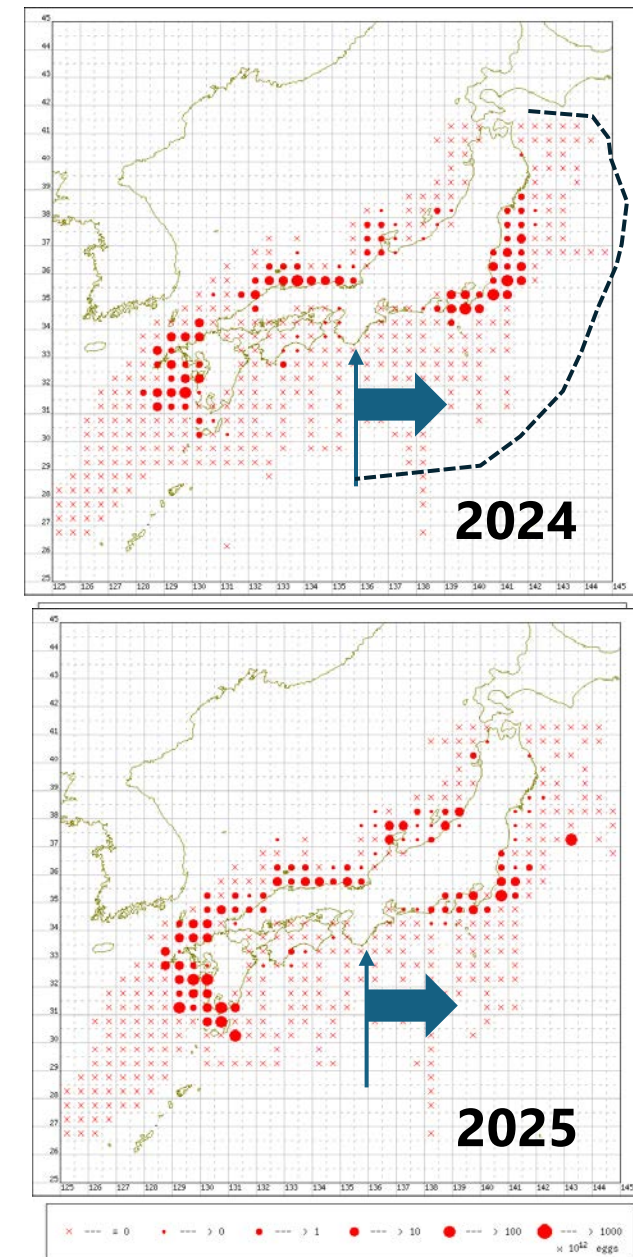
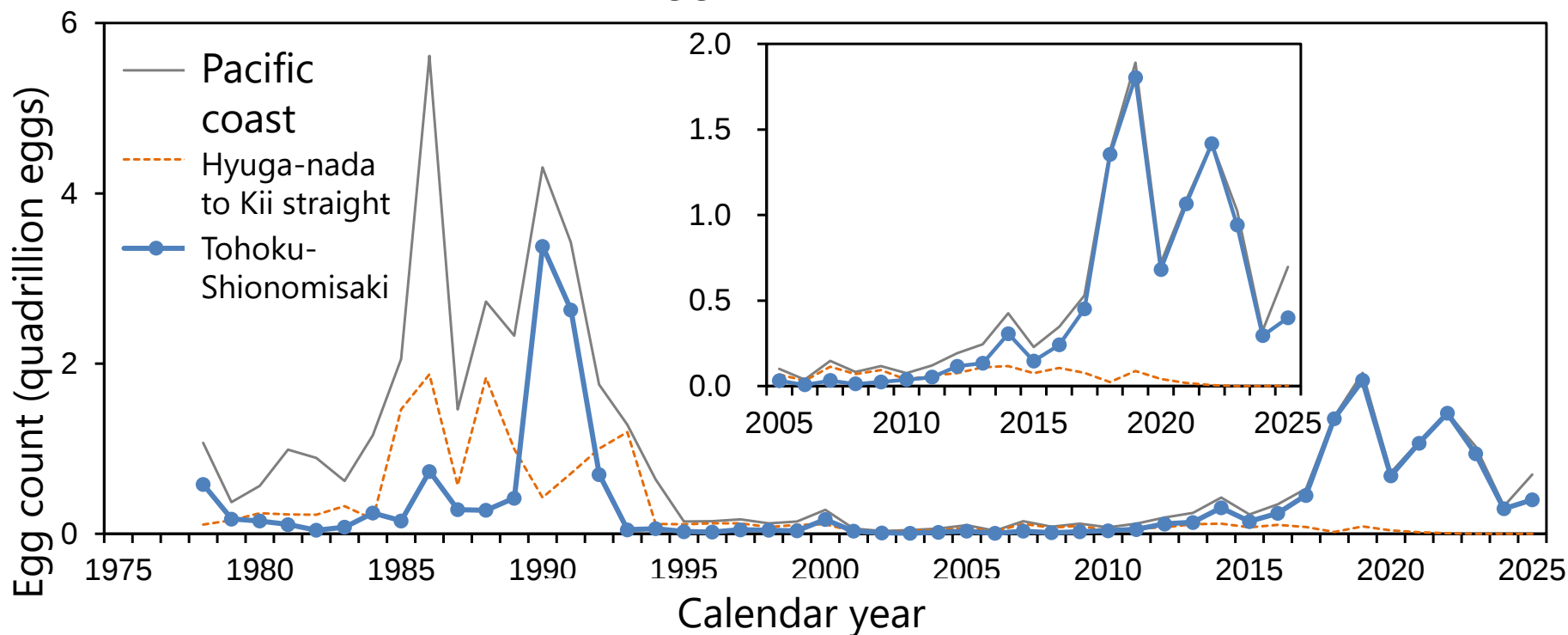
Fall survey

- Primary catch of JS is age-0
- CPUE data show several strong cohorts
 - 2017-2022 for age 1
 - 2018-2021 for age 2
- CPUE in 2023 and 2025 were low
- Appearance rate and CPUE suggest distribution of JS in 2025 is broad but low



Egg survey

- Conducted along the Pacific coast
- Data from the east of Shionomisaki to Tohoku region are used for abundance index of SSB
- Low densities in 2024-2025 suggest low SSBs



Conclusion

- The trend of increasing catch from 2010s had a modest peak in 2020 and relatively stable since 2020
- Main catch is based on purse seine (more than 80%)
 - Still maintaining 500+ K tons in 2025
 - Effort of purse seine is declining
- Summer, fall, and egg surveys are conducted
 - Abundances of age-0, age-1, and SSB in **2025 are very low**
- Preliminary reports/news present that 2026 is running **very low**