

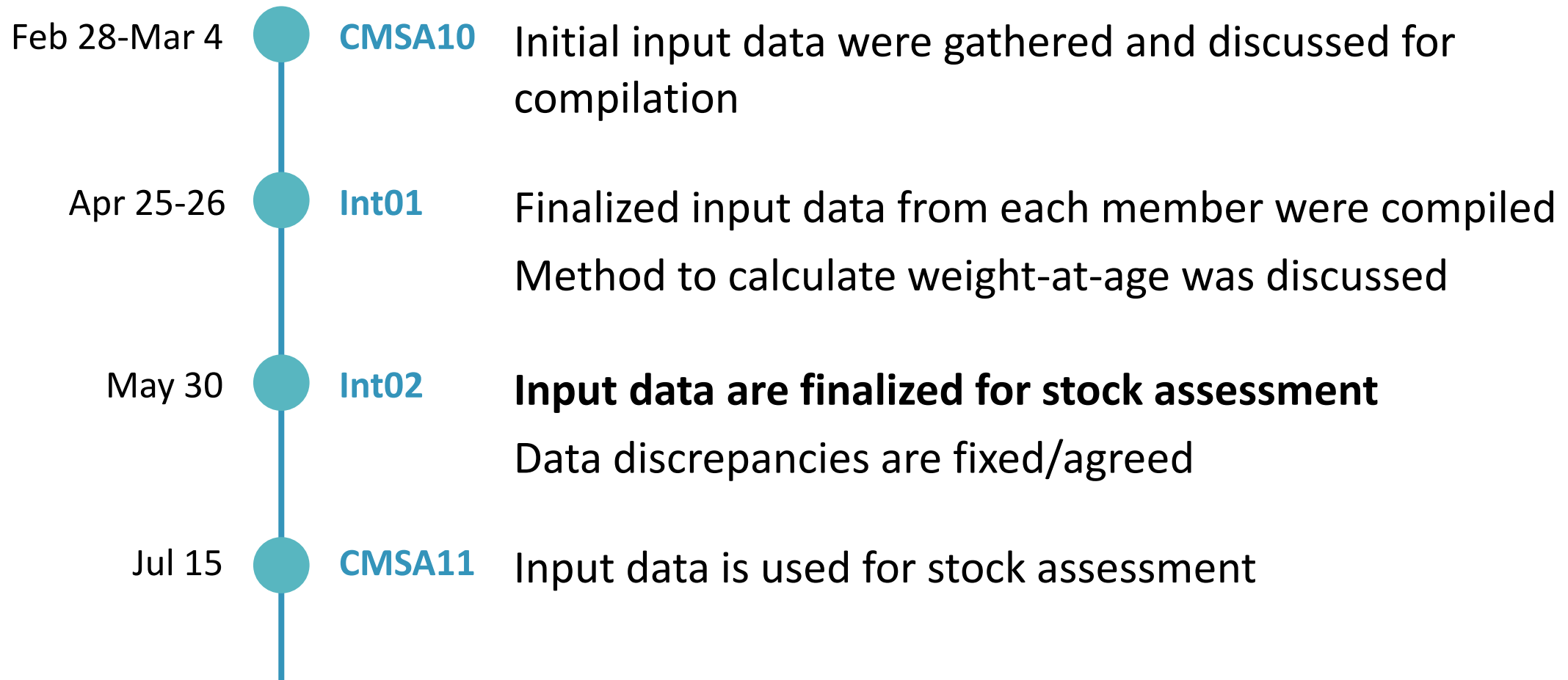
Agenda Item 5.1

Review of data used for stock assessment

NPFC-2025-TWG CMSA11-WP03

AKIHIRO MANABE (JPN) & KAROLINA MOLLA GAZI (EU)

Timeline towards finalized input data



Components of input data

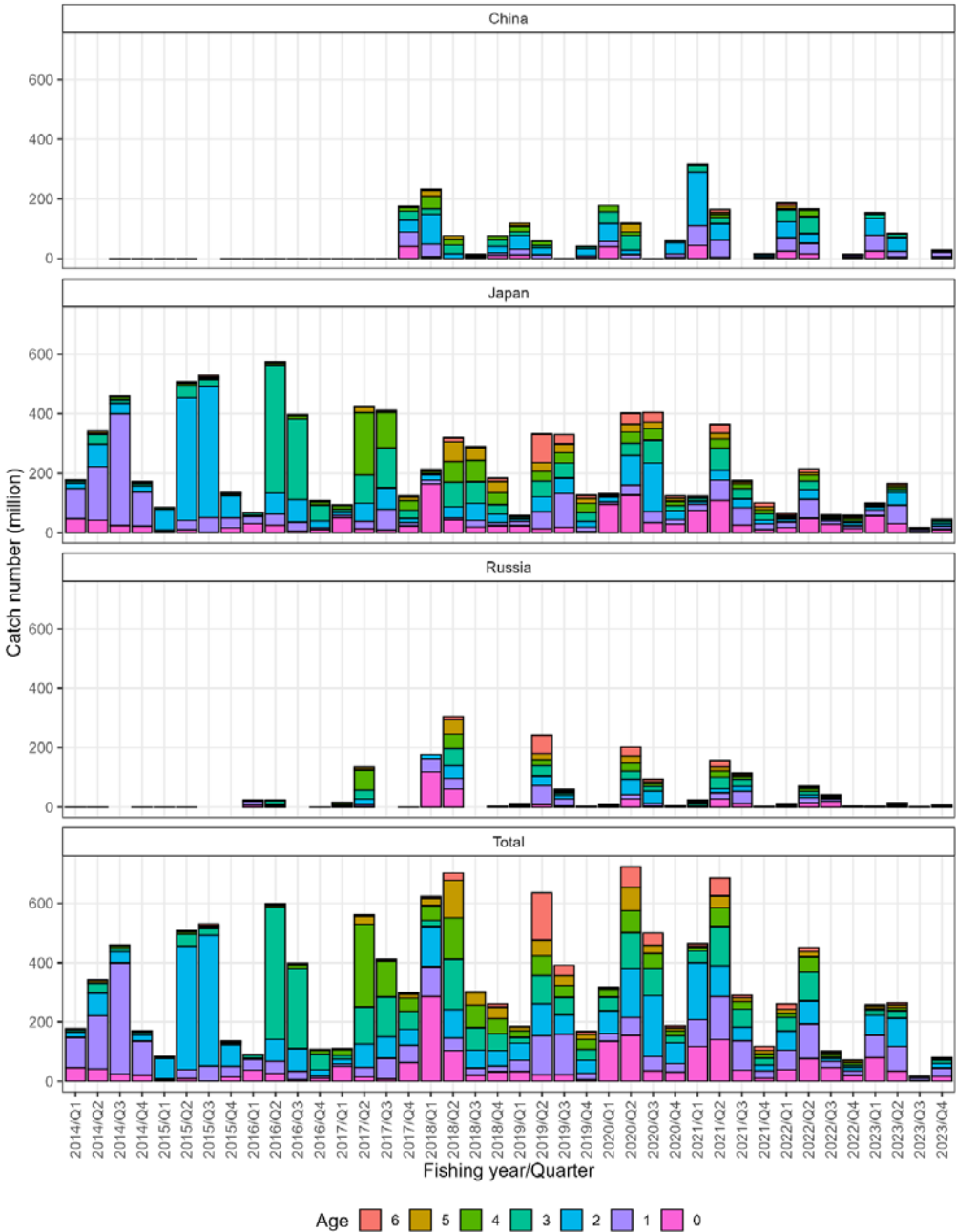
1. Catch number at age (CAA)
2. Weight at age (WAA)
3. Maturity at age (MAA)
4. Natural Mortality (M)
5. Abundance indices

Catch number at age

Catch is obtained by China, Japan, and Russia

Catch number data is supplemented if catch-at-length (CAL) or age-length-key (ALK) are unavailable

CY	Quarter	Member	Missing	Solution
2015	Q2-Q4	China	CAL ALK	Use mean CHN CAL CY2016-2018 Use Eastern JPN ALK
2016-17	Q2-Q4	China	ALK	Use Eastern JPN ALK
2014-15	Q2-Q4	Russia	CAL ALK	Use mean RUS CAL CY2016-2018 Use Eastern JPN ALK



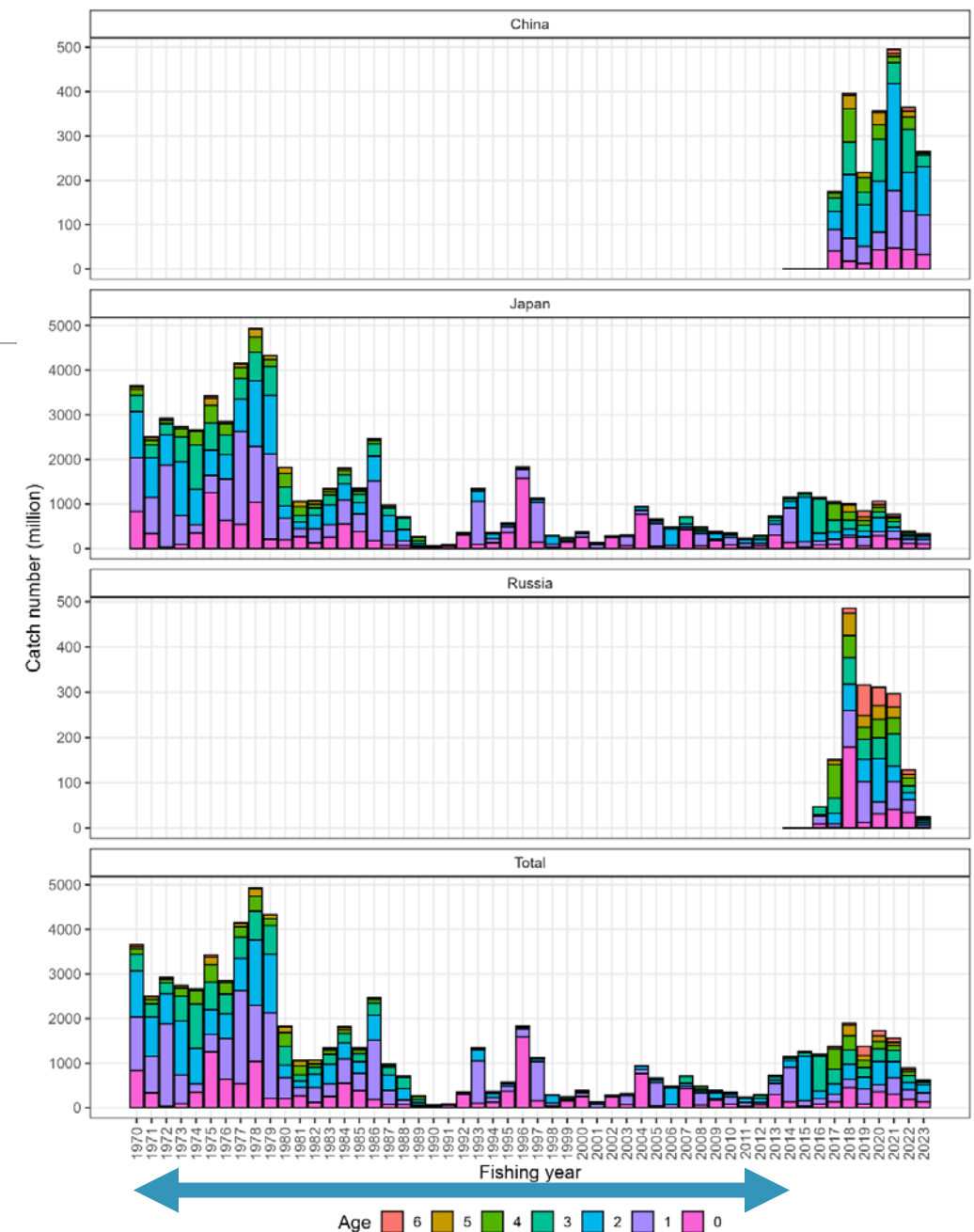
Catch number at age

Fishing year-based catch (Jul-next Jun)

Russian catch in FY1967-1988 is included in Japanese catch

CAA from Japanese domestic stock assessment report is used for FY1970-2013

(Yukami et al., 2025)

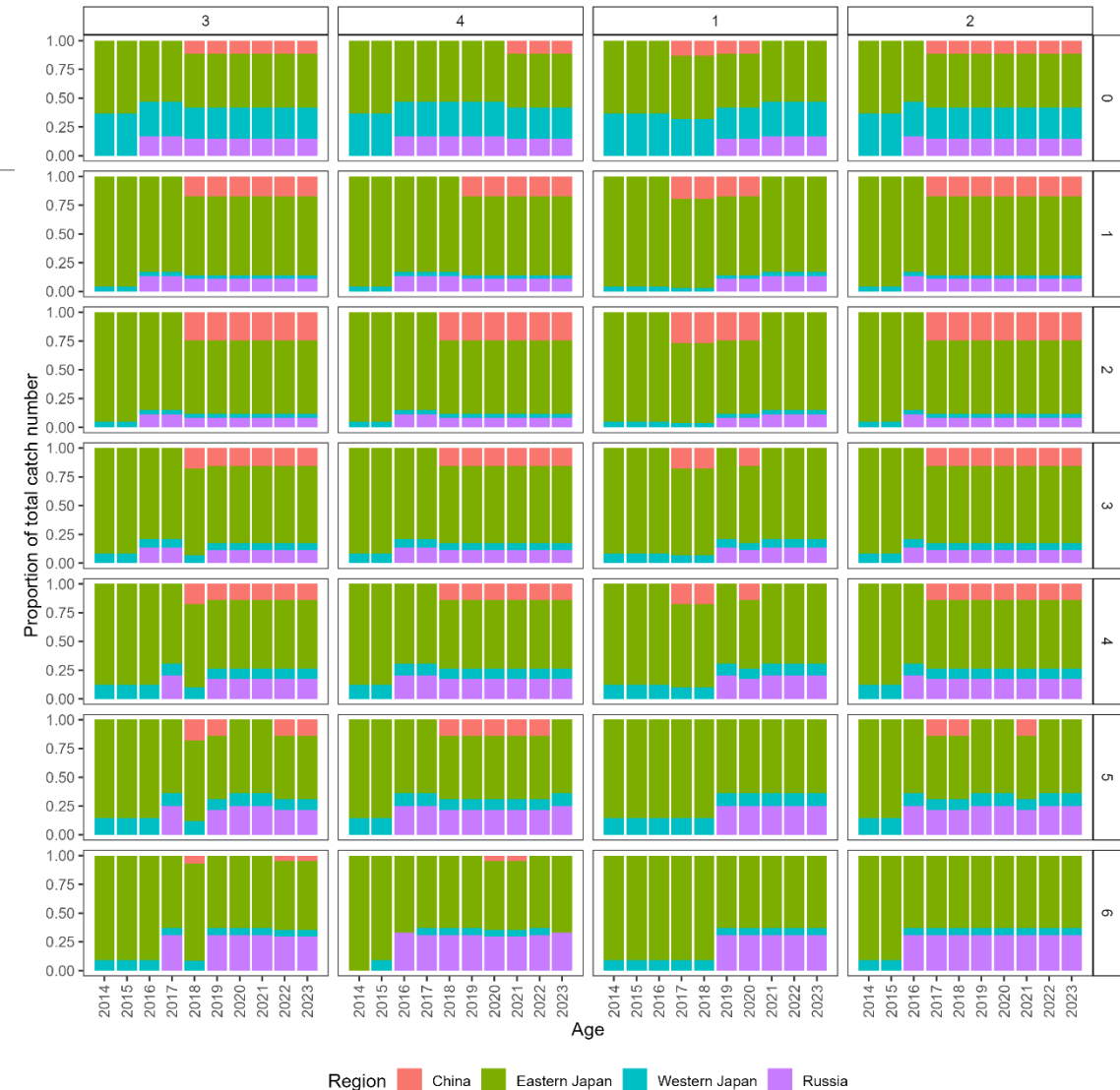


Weight at age

Weight at age from each member is averaged using weighting

Proportion of total catch number across all years (FY2014-FY2023)

Finalized proportion for each year/quarter based on the presence of catch

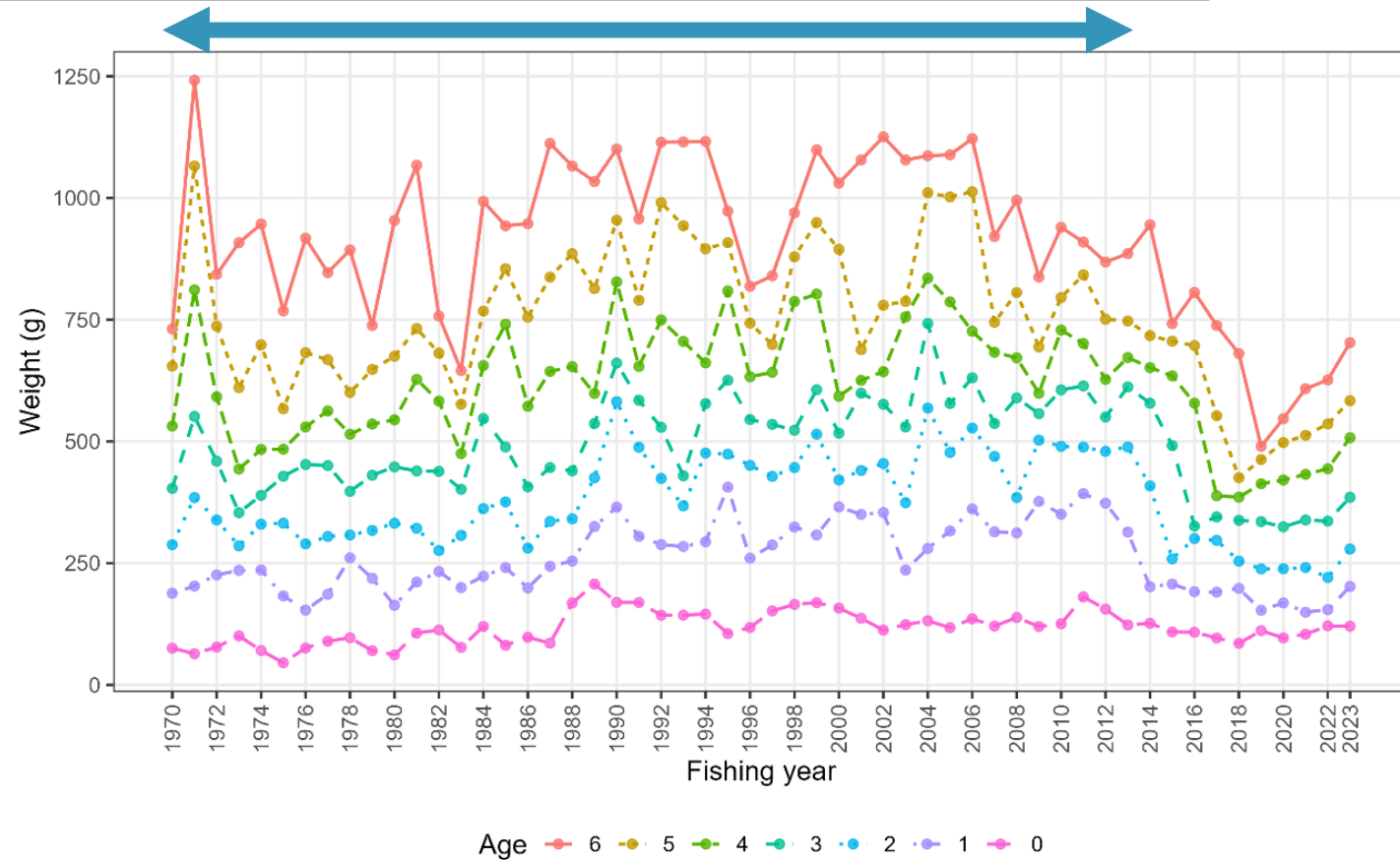


Weight at age

Finalized weighted-WAA

WAA from Japanese domestic stock assessment report is used for FY1970-2013

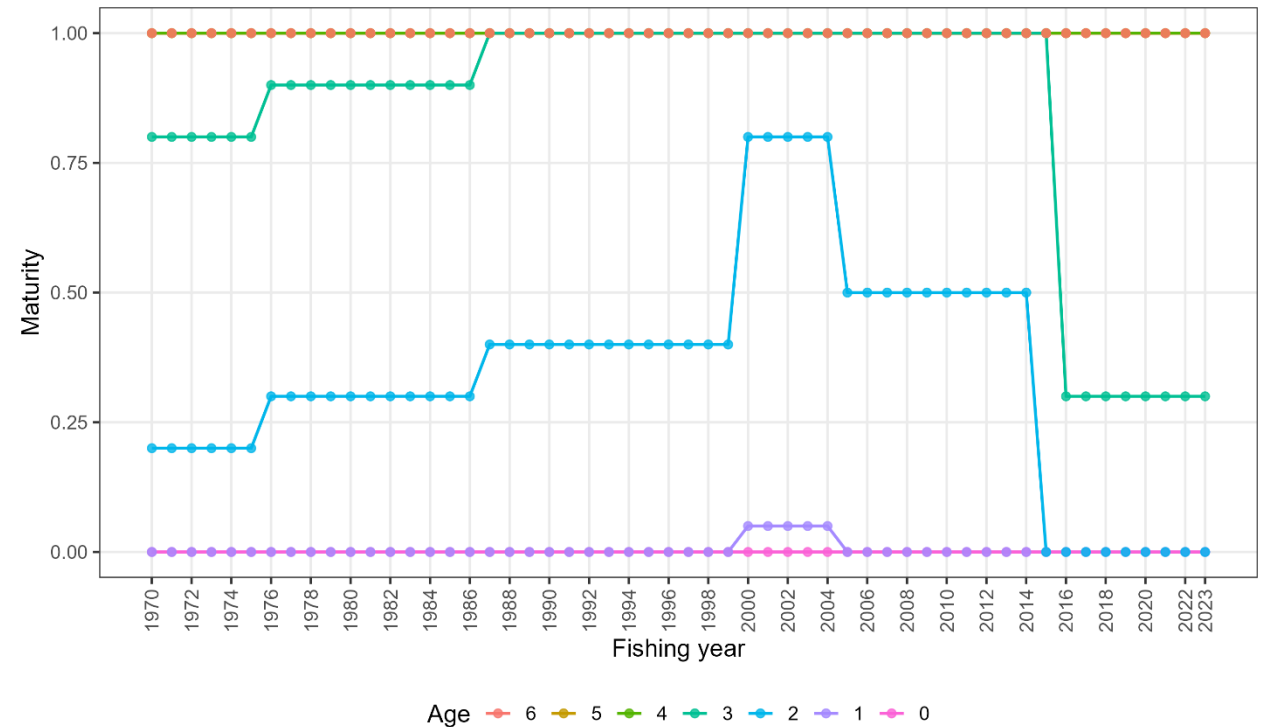
(Yukami et al., 2025)



Maturity at age

Use MAA data submitted from Japan
Equal to MAA data used in Japanese
domestic stock assessment

(Yukami et al., 2025)

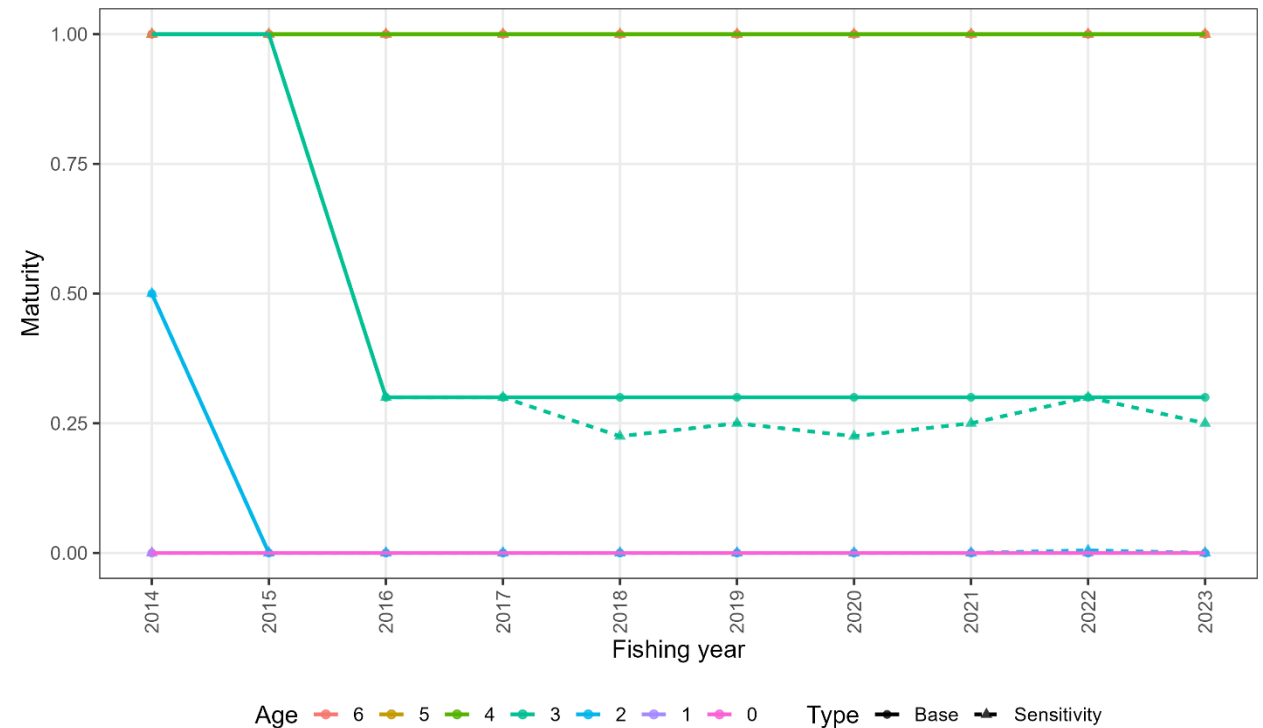


Maturity at age – sensitivity scenario

Refer to maturity at age from China

Mean of Chinese and Japanese maturity at age

- Slightly lower than the base case for age 3
- Note Chinese data is based on CY and Japanese data is based on FY



Natural mortality at age

Age dependent natural mortality based on
Chinese and Japanese data

(Ma et al., 2024; NPFC 2024-TWG CMSA08-WP12)

(Nishijima et al., 2024; NPFC-2024-TWG CMSA08-IP06)

M=0.5 for all age, is used for sensitivity runs

Age	M (1/year)
0	0.80
1	0.60
2	0.51
3	0.46
4	0.43
5	0.41
6+	0.40

Abundance Indices

Abundance index	Target	Up to	Final date
CHN Purse seine CPUE (CMSA10-WP09)	Chinese exploitable Biomass	2023	December 2023
JPN Autumn survey (CMSA10-WP05)	Age-0 Number	2024	October 2024
JPN Autumn survey (CMSA10-WP05)	Age-1 Number	2024	October 2024
JPN Dip-net CPUE (CMSA10-WP06)	SSB Tonnage	2024	June 2024
JPN Egg survey (CMSA10-WP07 Rev1)	SSB Tonnage	2024	July 2024
JPN Summer survey (CMSA10-WP08)	Age-0 Number	2024	July 2024
RUS Trawl CPUE (CMSA11-WP05)	Russian exploitable Biomass	2024	Autumn 2024

