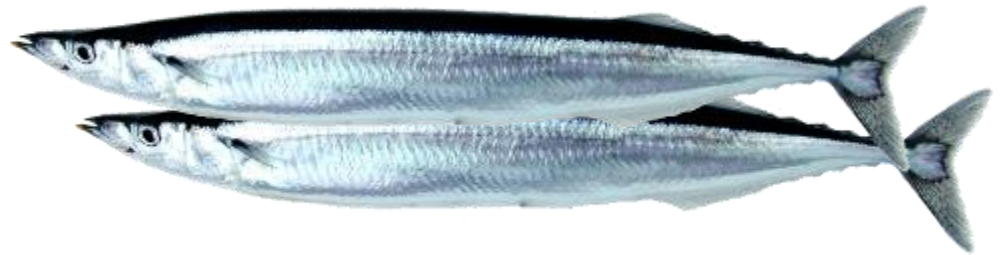


Review of progress on update/refinement of catch series

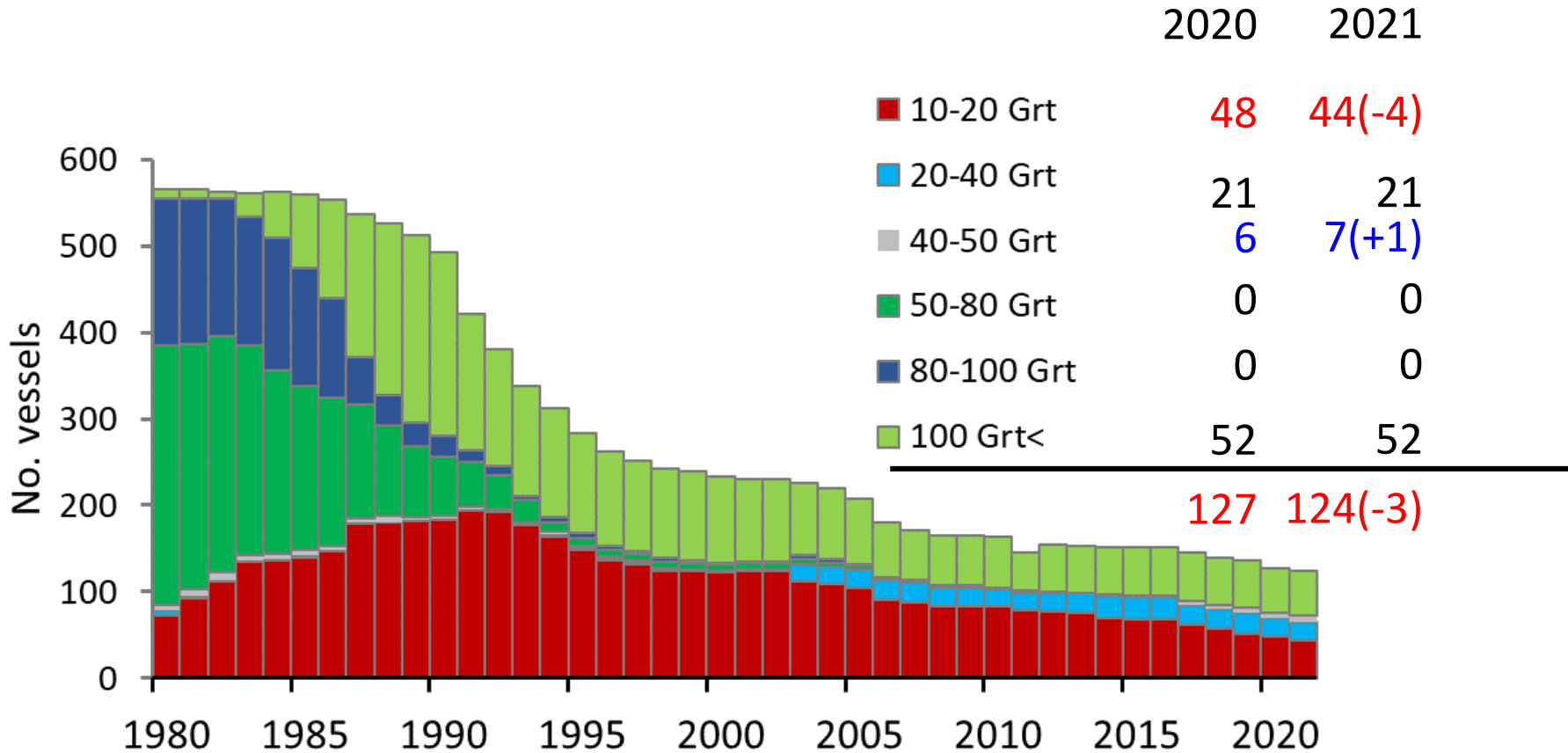
Pacific saury fishing condition in Japan in 2021 (until November)



Fisheries Resources Institute,
Japan Fisheries Research and Education Agency

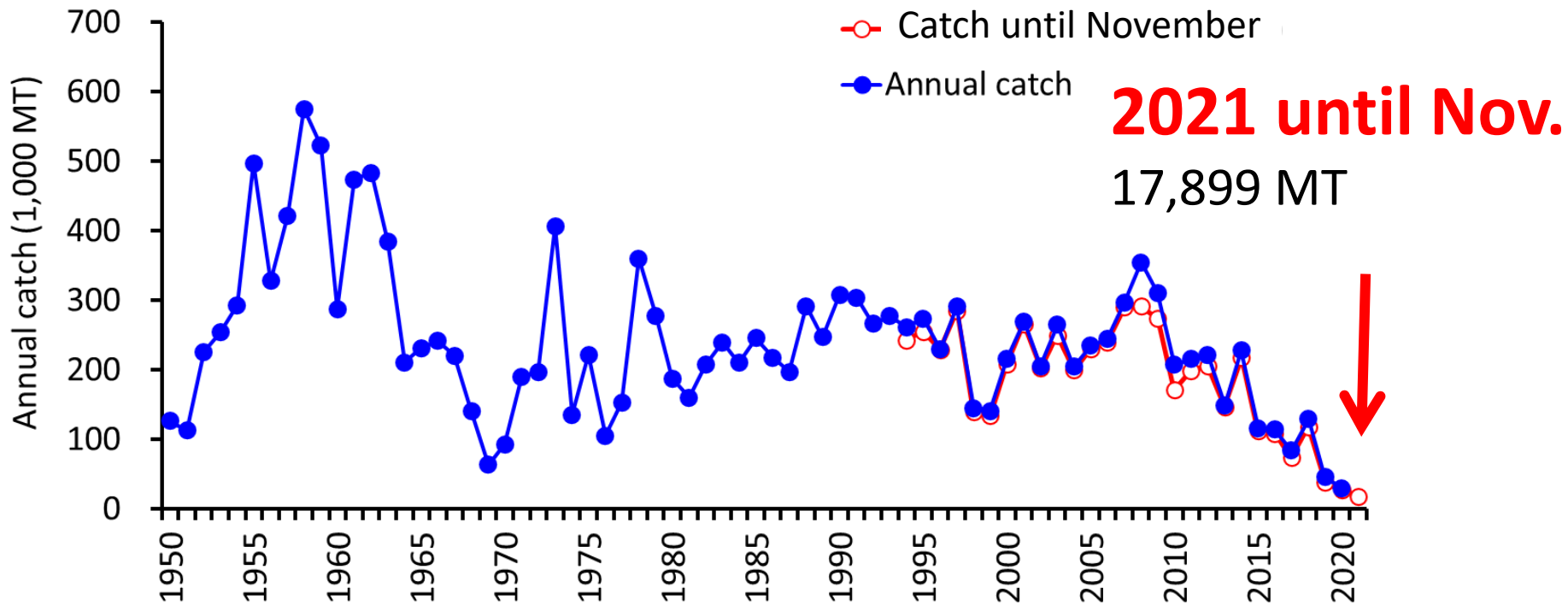
Number of vessels

Licensed by the Ministry of Agriculture, Forestry and Fisheries



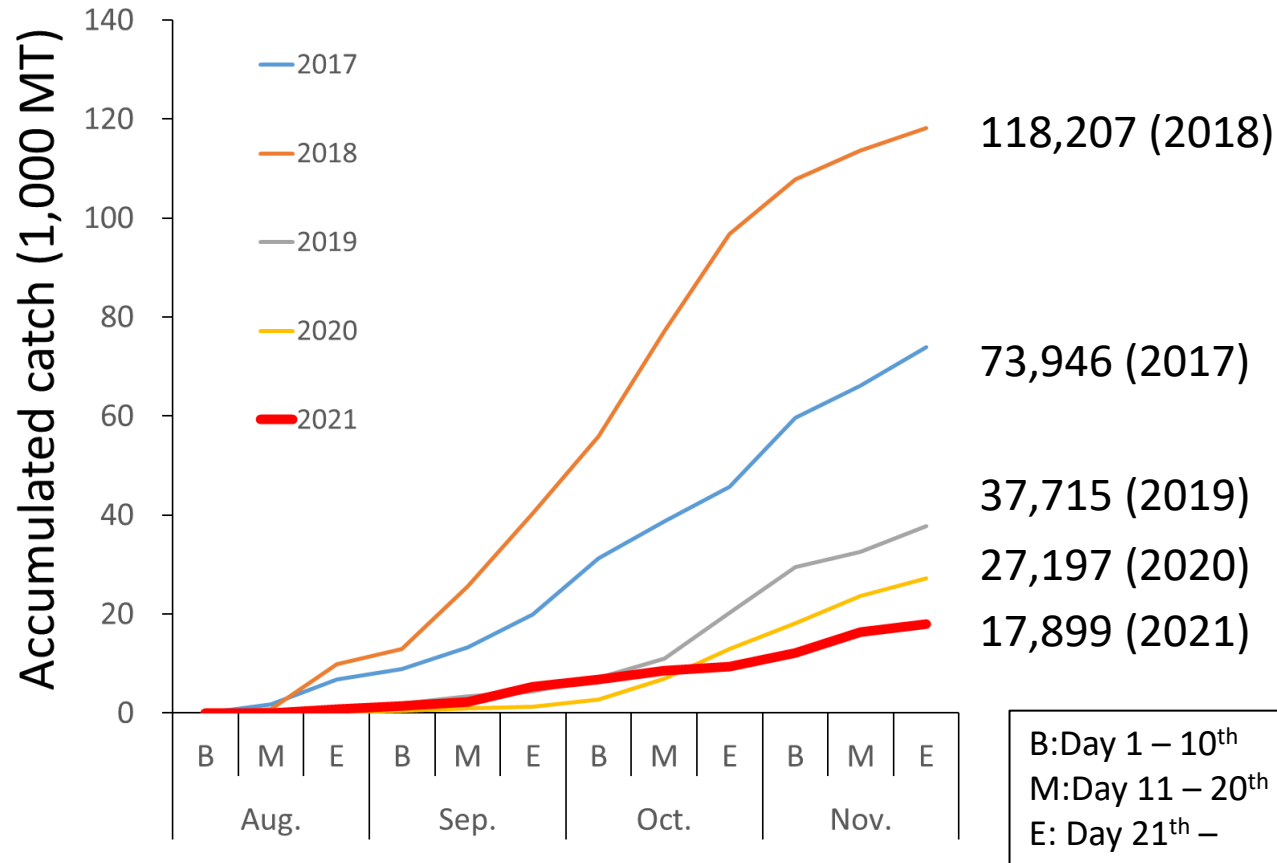
- One hundred and twenty-four fishing vessels are registered.
- Three vessels decreased compared to last year.
- Some small fishing vessels are suspending operation because the fishing ground is far.

Annual catch (1950-2020)



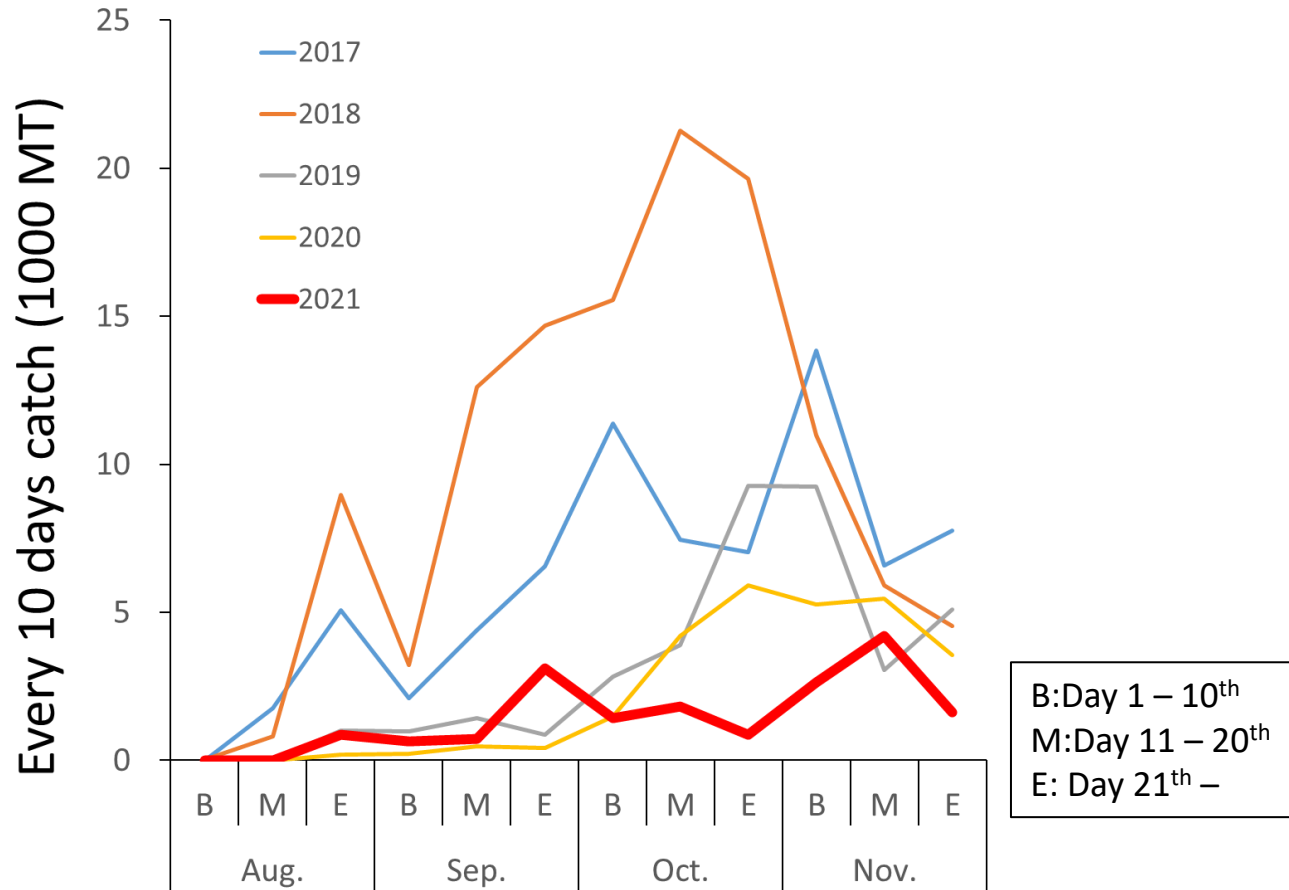
- Total catch in 2020 was 29,562 MT (Lowest after 1950)
- The catch by SHDNs until November accounts for more than 85% of the annual catch (after 1993).
- In 2021, the landing until November was 17,899 MT (27,197 MT in 2020).
- The annual catch in 2021 will be the lowest since 1950.

Accumulated catch after August



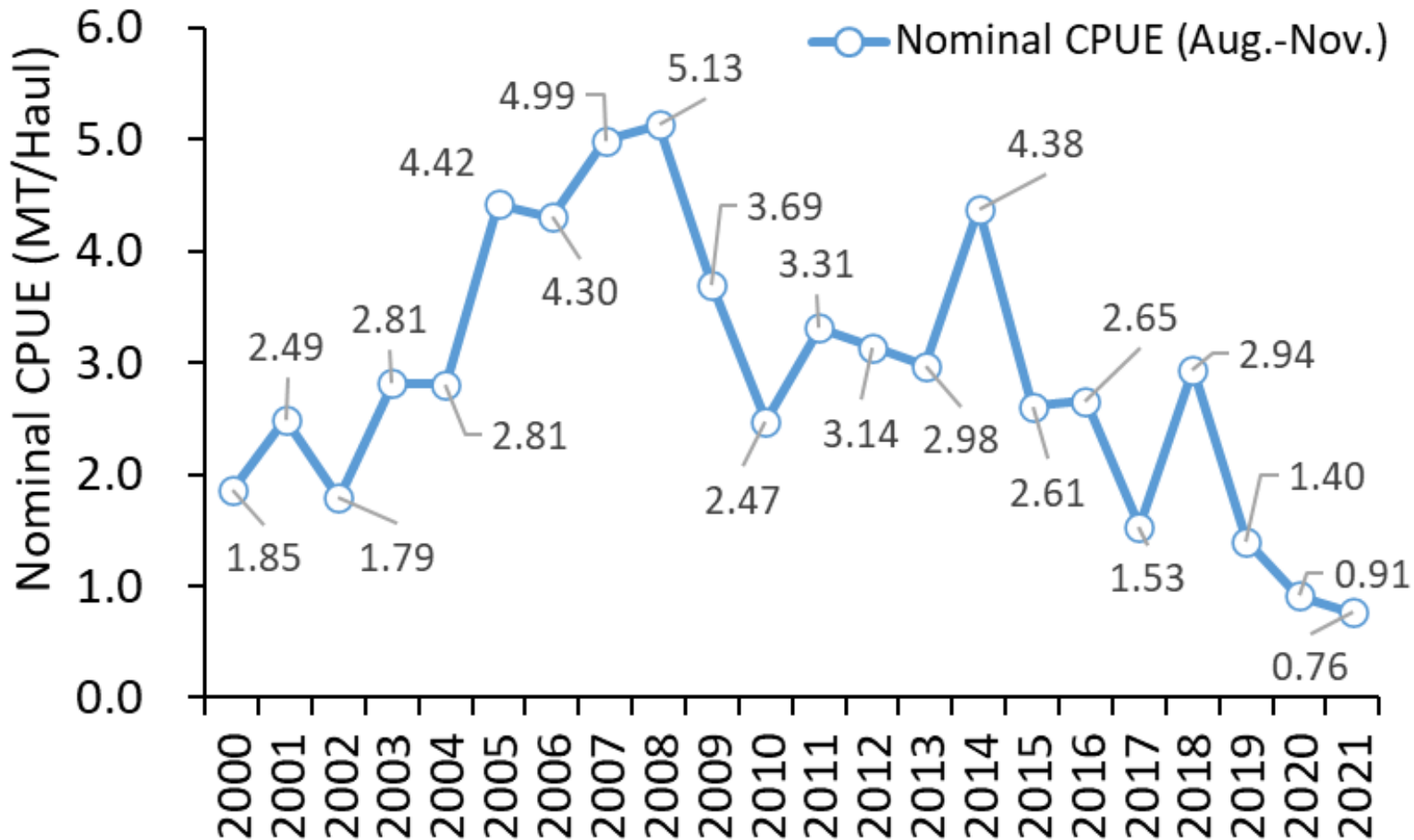
- Accumulate catches until September in 2021 were higher than in 2019 and 2020.
- However, accumulated catch until the end of November in 2021 is 65.8% of last year.

Seasonal catch (Catches in 10 days)



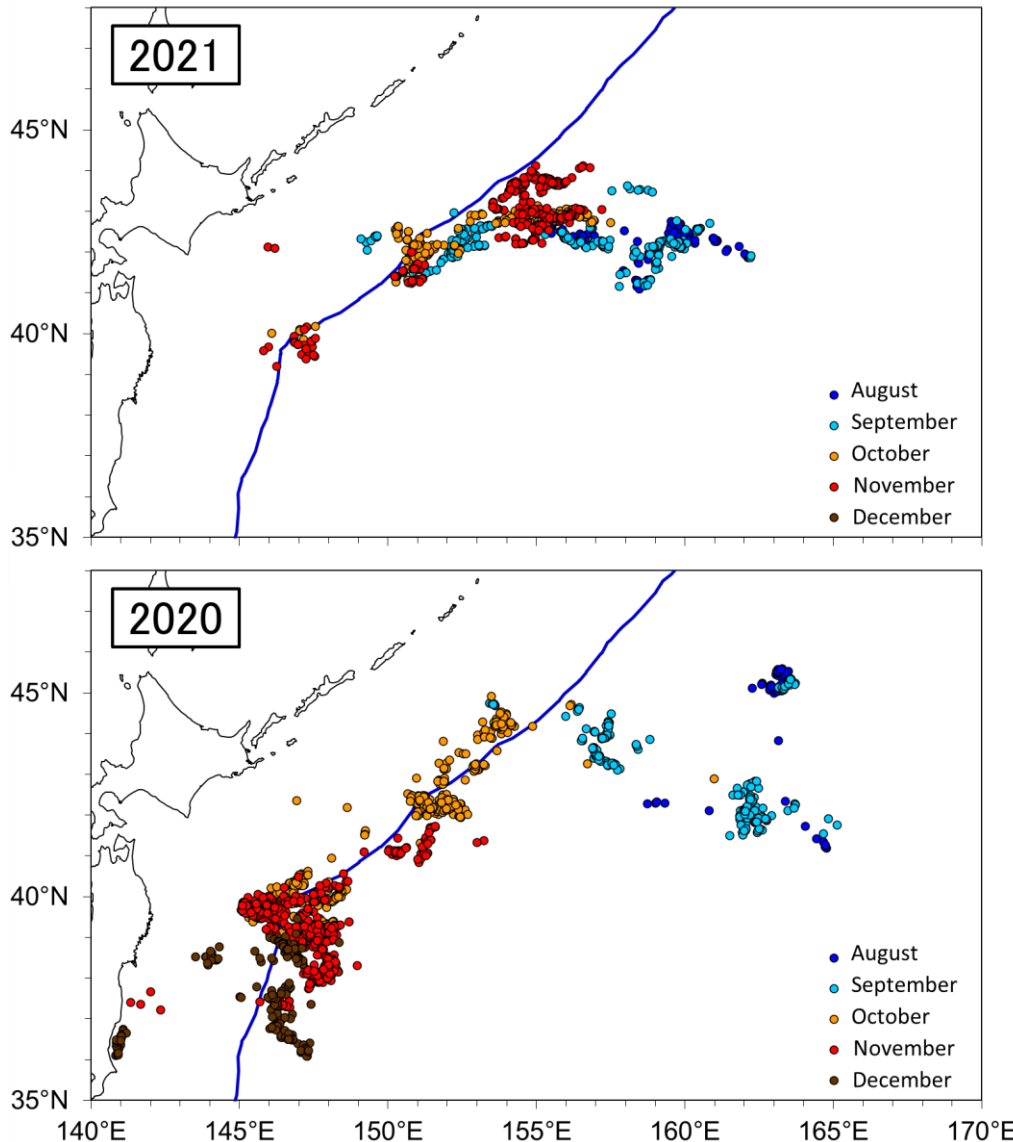
- Catches in 10 days until early October in this year were higher than last year.
- Since mid-October has been lower than last year.

Nominal CPUE



■ **Nominal CPUE was 0.76 and lowest since 2000.**

Fishing grounds after August



August

High seas

September to November

Mainly high seas

More than 90% of catch was from high seas.

August

High seas (East of 155E)

September

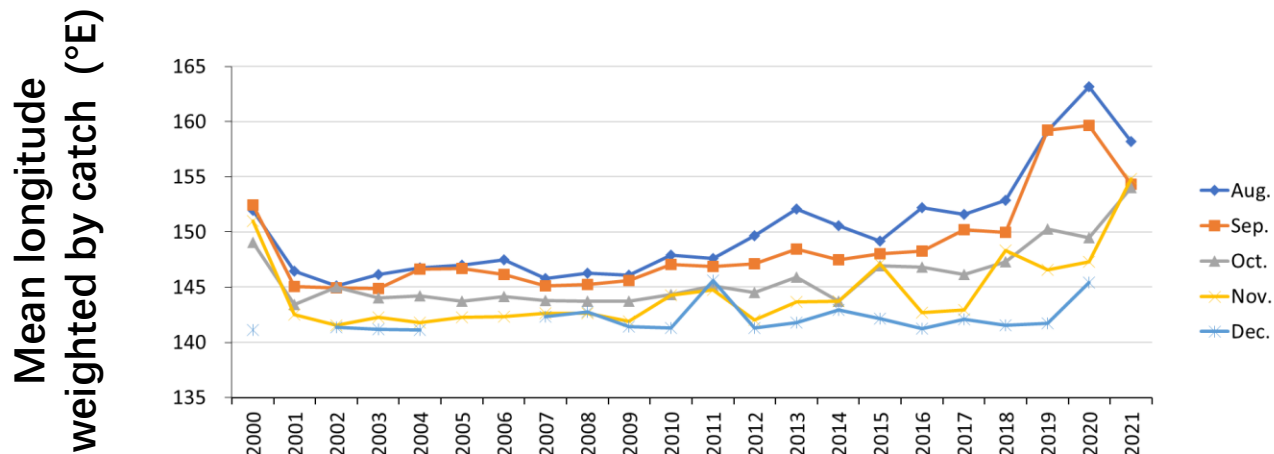
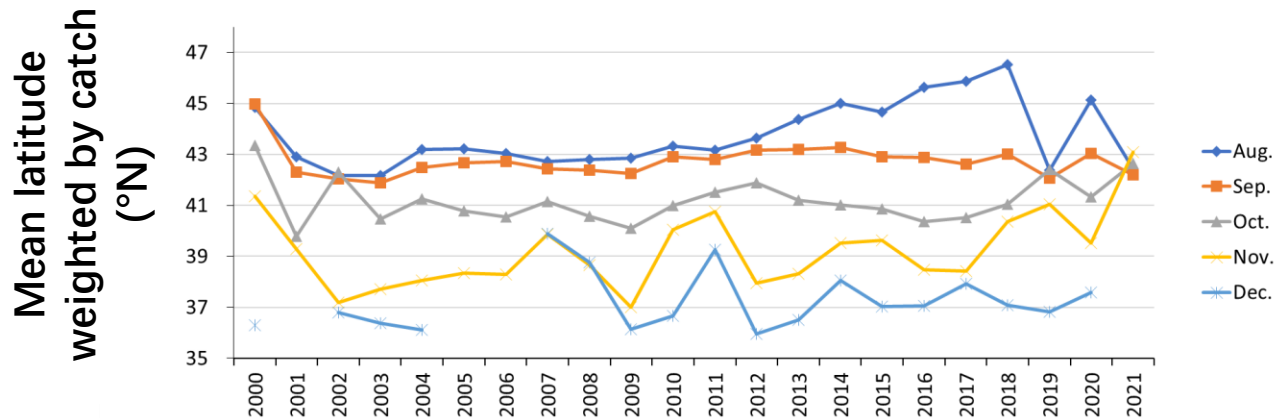
High seas (East of 150E)

October & November

High seas and EEZ

59% of catch was from high seas.

Annual change of fishing ground



- Since 2010, the fishery ground has gradually moved east, particularly after 2019.
- In 2021, fishing ground has hardly moved from September to November.

Body length and age compositions

Aug. Sep.

Oct.

Nov.

Date	Coordinates	Temperature
24-Aug-21	42.24N, 159.46E	16.8°C
1-Sep-21	42.23N, 155.57E	17.6°C
15-Sep-21	42.03N, 159.03E	16.3°C
21-Sep-21	42N, 158.53E_1	6.5°C
5-Oct-21	42.49N, 156.43E	14°C
13-Oct-21	42.51N, 156.46E	13.6°C
25-Oct-21	42.03N, 152.54E	16°C
1-Nov-21	42.52N, 155.42E	14.2°C
14-Nov-21	43.41N, 155.43E_11.2°C	11.2°C
24-Nov-21	42.35N, 154.5E_14.3°C	14.3°C

■ Age-1 ■ Age-0

■ Age-1 ■ Age-0

■ Age-1 ■ Age-0

■ Age-1 ■ Age-0

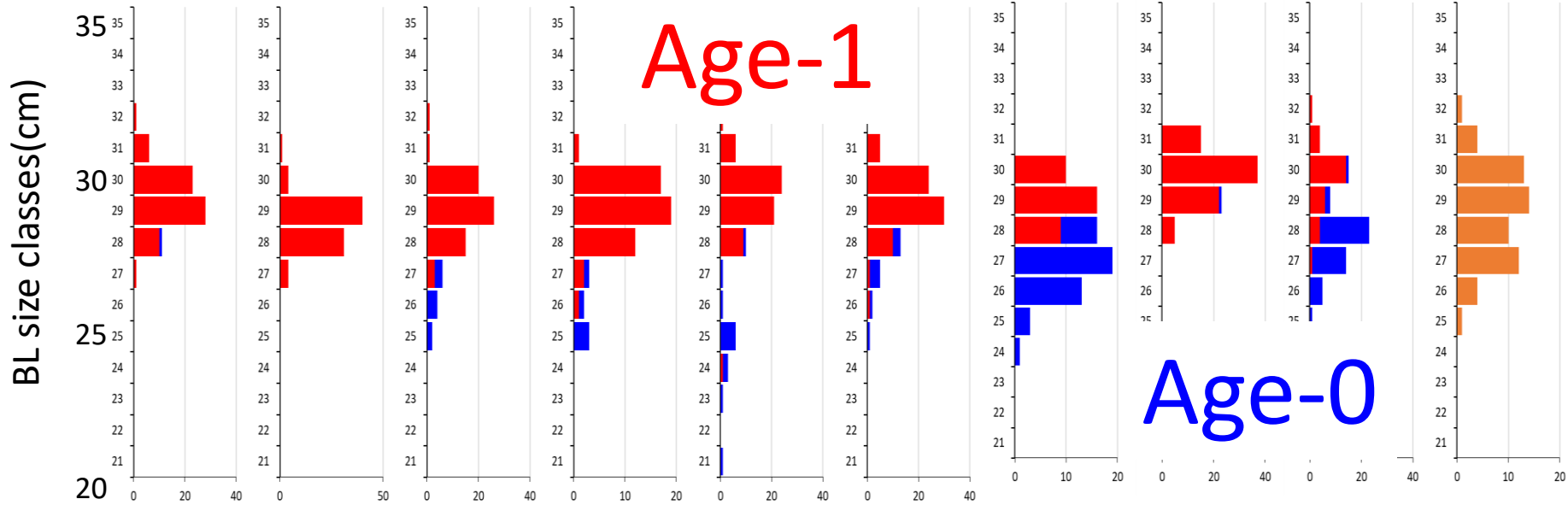
■ Age-1 ■ Age-0

■ Age-1 ■ Age-0

■ Age-1 ■ Age-0

■ Age-1 ■ Age-0

■ Age-1 ■ Age-0



No. individuals.

Age determination has not finished yet

■ Mainly age-1 fish until middle of October.

Summary

Pacific saury fishing condition in Japan in 2021

- The annual catch in 2021 will be the lowest since 1950.
- Nominal CPUE was 0.76 and lowest since 2000.
- More than 90% of catch was from high seas.

Thank you for your attention !