

# Summary of progress on Japanese flying squid



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# 6.1 Summary of progress on JFS

## **1<sup>st</sup> joint meeting of the Small Working Groups on JFS, JS, and BM (3<sup>rd</sup> July)**

1. Sharing data, including unpublished data if possible
2. Updating catch and effort data and discussing potential data sharing needs
3. Evaluating the influence of environmental variables on life history, biology, and population dynamics
4. Identifying climate-related analyses that could be undertaken to underpin development of climate-resilient fisheries management

## **2<sup>nd</sup> joint meeting of the Small Working Groups on JFS, JS, and BM (6<sup>th</sup> November)**

1. Report from China on availability of more biological information from the nursery area for Japan's domestic stock assessment
2. Identifying scientific objectives of a regional observer program (ROP)
3. Discussing data that would need to be collected and the level of observer coverage needed on fishing vessels to achieve the scientific objectives of a ROP
4. Observing domestic stock assessment of JFS, inter alia, Japan's standardized CPUEs
5. Updating the species summary documents

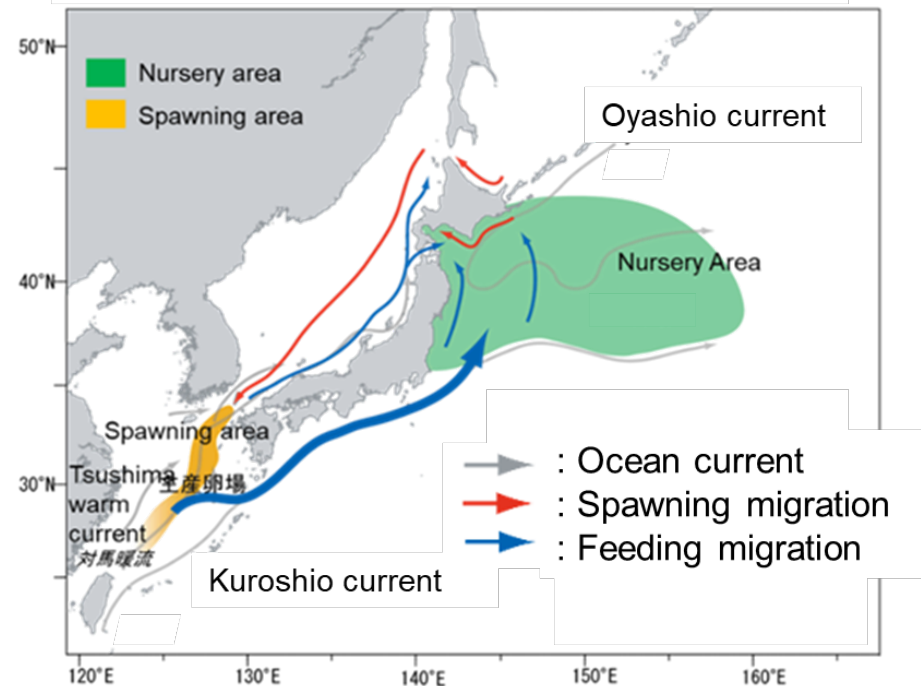
## 1st joint meeting of the Small Working Groups

1. Sharing data, including unpublished data if possible
2. Updating catch and effort data and discussing potential data sharing needs

## 2nd joint meeting of the Small Working Groups

1. Report from China on availability of more biological information from the nursery area for Japan's domestic stock assessment

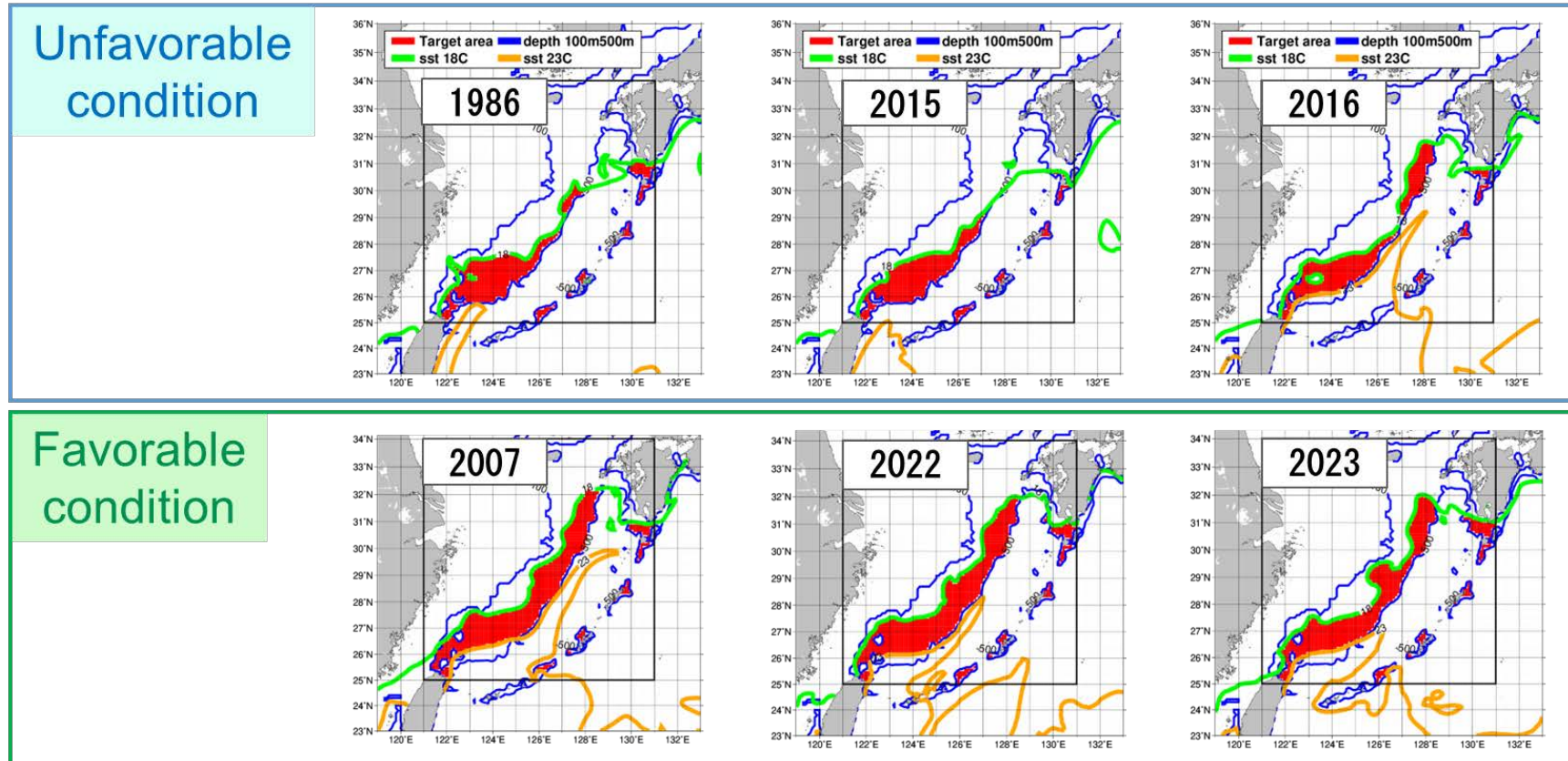
### Migration route of the winter spawning cohort JFS



# 1st joint meeting of the Small Working Groups

## 3. Evaluating the influence of environmental variables on life history, biology, and population dynamics

● → Potential suitable area\* for spawning in mid-February



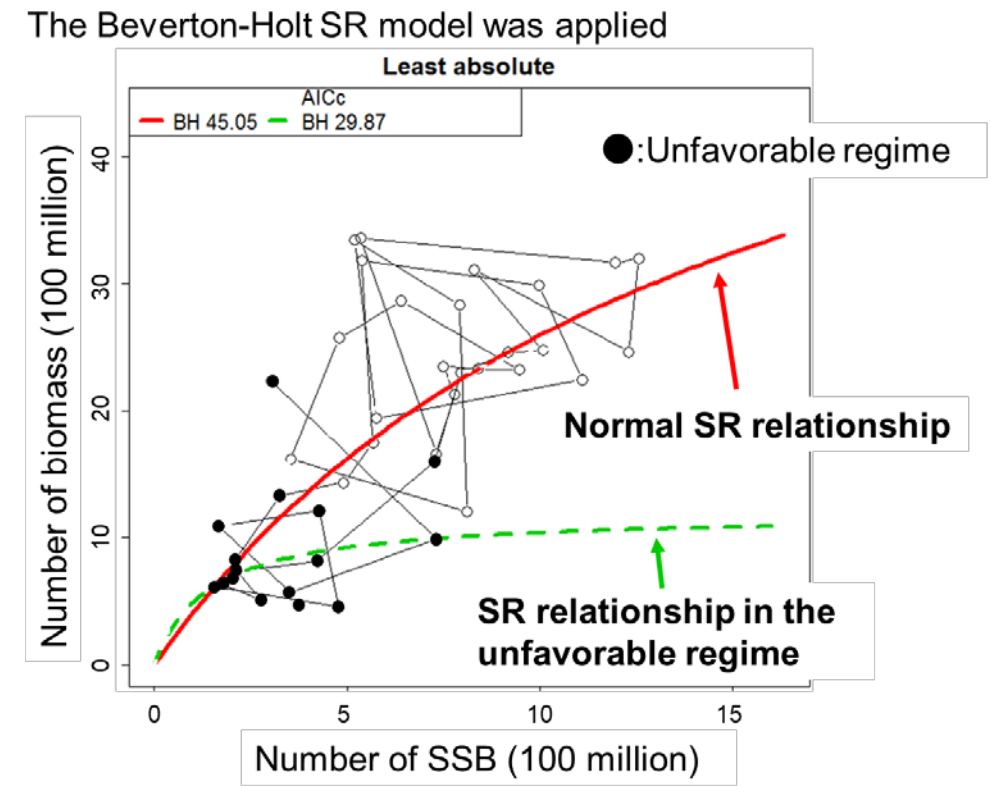
\*18-23°C SST range  
within a range of  
100-500m depth  
(Sakurai 2006)

The Lead introduced a monitoring program of the oceanographic conditions in the JFS spawning grounds conducted by Japan

### 4. Identifying climate-related analyses that could be undertaken to underpin development of climate-resilient fisheries management

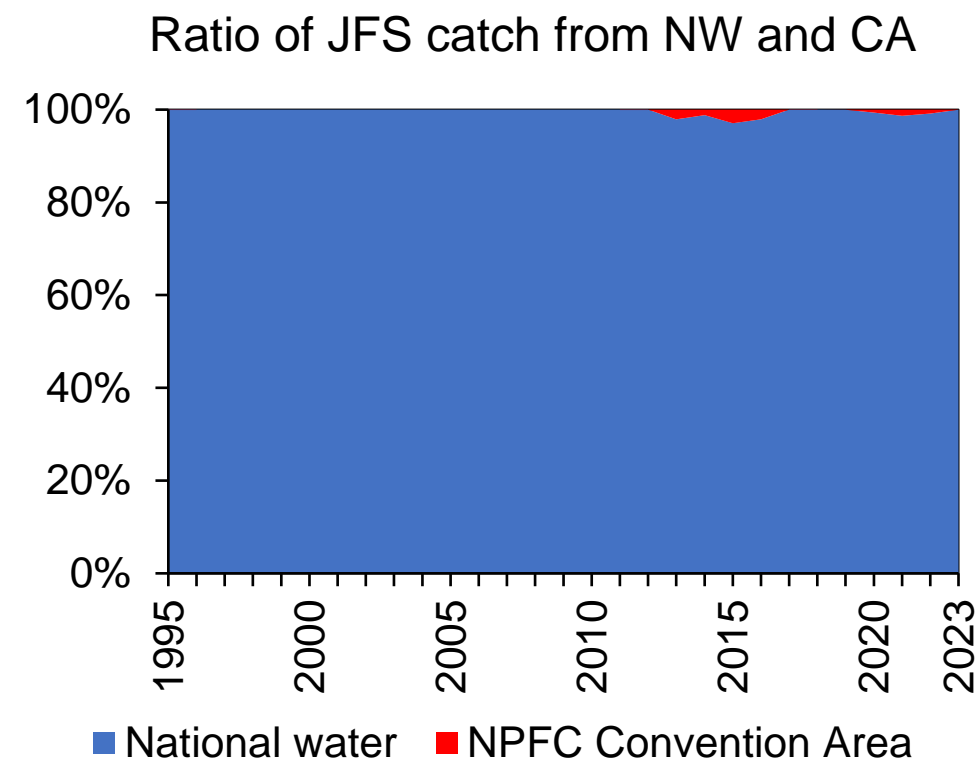
**The Lead presented a study by Japan to examine the effect of fisheries management when the stock-recruitment (SR) relationship could change with the regime shift (regime-based fisheries management)**

- ✓ Regime-based fisheries management was not adopted by Japan because of its higher risk
- ✓ Instead, future projections considering the recent recruitment status are conducted



2. Identifying scientific objectives of a regional observer program (ROP)
3. Discussing data that would need to be collected and the level of observer coverage needed on fishing vessels to achieve the scientific objectives of a ROP

**The SWG JFS agreed that there is no need for an ROP in the Convention Area to collect data on JFS and/or bycatch species from squid jigging fisheries.**



4. Observing domestic stock assessment of JFS, inter alia, Japan's standardized CPUEs
5. Updating the species summary documents

✓ The Lead explained overview of the CPUE standardization for the winter spawning stock JFS by Japan

✓ Updated the species summary document

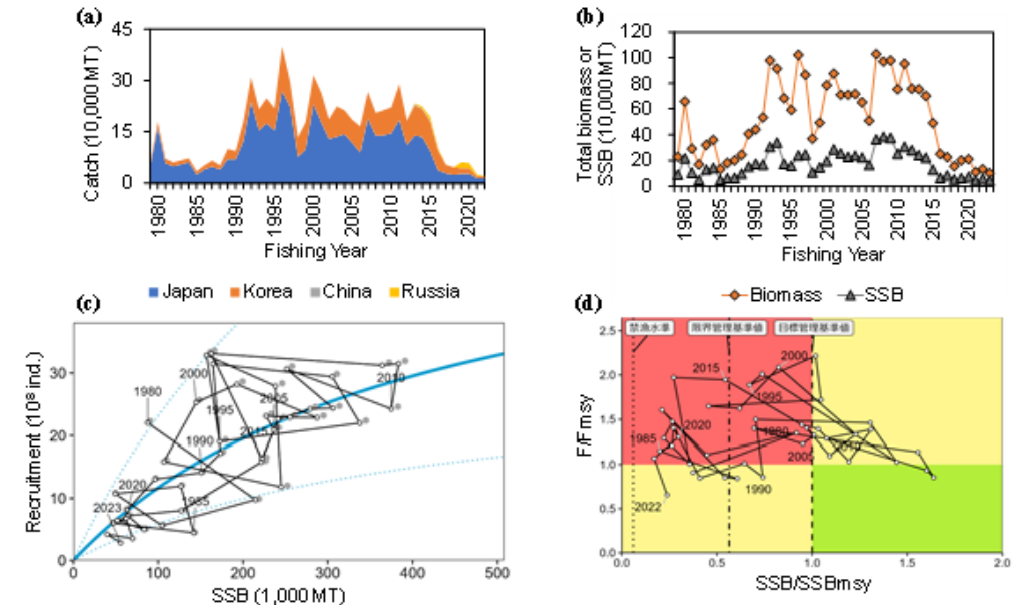


Figure 1. Summary of the stock assessment for the winter-spawning stock Japanese flying squid by Japan (Okamoto et al. 2024<sup>3</sup>). (a) Time series of catch of each Member from fishing year 1979 to 2024<sup>4</sup>. (b) Estimated biomass and SSB. (c) Stock-recruitment relationship. (d) Kobe plot.<sup>4</sup>



# Future activities on JFS

## **Any anticipated activities during the coming year**

- Update Members' catch and effort data
- Update the species summary
- Japan: provide a summary of its 2024 stock assessment at SC10