



North Pacific Fisheries Commission

NPFC-2025-SC10-RP03

2nd joint meeting of the Small Working Groups on JFS, BM, and JS

October 21-22, 2025 (9 am – 1 pm Tokyo time)

WebEx

Summary

Agenda Item 1. Opening of the Meeting

The 2nd joint meeting of the Small Working Groups on JFS, BM, and JS in 2025 commenced at 9 am on 21 October 2025, Tokyo time in the format of video conferencing via WebEx. The meeting was attended by Members from Canada (Chris Rooper, Janelle Curtis), China (Libin Dai, Qiuyun Ma, Heng Zhang, Zhengyan Jiang), the European Union (Karolina Molla Gazi), Japan (Kazuhiro Oshima, Shuya Nakatsuka, Hajime Matsui, Kazunari Higashiguchi, Bungo Nishizawa, Yumiko Osawa, Hiroshi Kubota, Shota Nishijima) and Russia (Oleg Katugin, Vladimir Kulik, Dmitrii Antonenko) as well as the Secretariat (Robert Day, Alex Zavolokin, Sungkuk Kang).

The meeting was opened by Dr. Janelle Curtis (SC Chair, Canada) who served as the Chair of this joint meeting and was supported by the Leads of the SWGs: Dr. Hajime Matsui (Japan), Dr. Shuya Nakatsuka (Japan) and Dr. Kazunari Higashiguchi (Japan).

Agenda Item 2. Adoption of Agenda

There were no amendments to the agenda.

Agenda Item 3. Intersessional Updates from SWG JFS

Dr. Hajime Matsui led discussions of the SWG JFS.

The Lead informed participants that he had updated the species summary for JFS. He encouraged participants to review it intersessionally and provide comments and suggestions. The updated species summary is available on the Collaboration website under SC / [Japanese Flying Squid](#).

Agenda Item 4. Intersessional Updates from SWG BM

Dr. Kazunari Higashiguchi led discussions of the SWG BM.

4.1. Adding CM/BM ratio to the annual summary footprint

Following up with discussions at the previous meeting (SWG_JFS&BM&JS2025-02), the Lead presented a draft table with the ratio of chub mackerel to the total mackerel catch.

Participants revised the title of the table from “Ratio of Chub mackerel to Blue mackerel” to “Ratio of Chub mackerel to Chub+Blue mackerel catch in weight”. They requested the Secretariat to circulate the table to Members (China, Japan and Russia) and suggested that the Members provide data with 3 digits after the decimal point, where possible, by 15 November.

Participants **agreed** that the ratio will be added to the annual footprint table for CM+BM and posted on the Members’ domain of the NPFC website ([Statistics](#)).

4.2. Length-weight relationship and catch-at-length (in numbers and tons)

The Lead updated participants on the status of BM data sharing. He thanked China and Japan for providing length-weight relationship and catch-at-length data and noted that Russia did not share data due to no BM catch in its fisheries.

The Lead also informed participant that he will update the species summary for BM and requested China and Japan to provide a summary of biological information for inclusion in the species summary (see as example [NPFC-2023-SC08-WP11 \(Rev. 1\)](#)).

Agenda Item 5. Japanese Sardine Tasks

Dr. Shuya Nakatsuka led discussions of the SWG JS.

5.1. Scientific name and FAO ASFIS code

Participants discussed the scientific name and FAO 3-alpha code used by the NPFC for Japanese sardine and noted that:

- Currently, the FAO considers *Sardinops melanostictus* (scientific name used by NPFC) as a subspecies of *Sardinops sagax*.
- In the past, the Secretariat reached out to FAO with a request to create a new 3-alpha code for *Sardinops melanostictus* but its request was rejected for the above reason.
- 3-alpha code for JS currently used in NPFC databases (Vessel Registry, Annual Report, HSBI) does not exist in the FAO 3-alpha code listing.

Participants **agreed** to continue using *Sardinops melanostictus* as a scientific name for JS within the NPFC. They also **agreed** to use the FAO 3-alpha code for *Sardinops sagax*, CHP, as the new code for *Sardinops melanostictus* internally within the NPFC databases.

It was suggested to review literature on JS taxonomy, and request guidance from the SC in terms of collecting samples and undertaking genetic studies to further assess the taxonomy of JS. With further taxonomic analysis to determine if JS is a separate species, there may be grounds to prepare a science-based request to FAO for creating a new 3-alpha code. This may also require coordination with the World Register of Marine Species (WoRMS).

5.2. Draft TOR for a potential Small Scientific Committee on Japanese Sardine (SSC JS)

The Lead introduced a draft Terms of Reference (TOR) for a new Small Scientific Committee on Japanese Sardine (SSC JS). It had been circulated to Members for review intersessionally by the SC Chair.

Participants revised the TOR (Annex) and **agreed** to submit it to SC10 for final review and approval, subject to a decision on the establishment of a new Small Scientific Committee on Japanese sardine (SSC JS).

5.3. Japan's domestic stock assessment methodology

Japan (Kazunari Higashiguchi) gave an overview of Japan's domestic stock assessment for JS including some 2024 data (available on the Collaboration website under SC / [Japanese Sardine](#)). The presentation focused on stock assessment methodology and also outlined JS stock structure, biological information, catch statistics, description of data and abundance indices and stock assessment results. Japan used ridge virtual population analysis (ridge VPA) for its domestic stock assessment of JS. No severe retrospective biases were found. SSB increased in the 2010s and then remained relatively stable since 2020, while the total biomass demonstrated a declining trend since 2020. The increase in SSB was associated with high recruitments since 2011, however recruitment has declined after 2020. MSY reference points were estimated by a stochastic simulation with a random recruitment variability from the normal-regime SR relationship (see Ichinokawa et al. 2017, ICES JMS, for details). SSB in 2023 was above SSB_{MSY} . F in 2023 exceeded F_{MSY} .

The Lead clarified that the main purpose of this presentation was to begin identifying a model for a collaborative stock assessment of JS. He invited participants to provide feedback on the stock assessment methodology presented by Japan.

Participants made the following notes for further discussion after a new SSC for JS is established:

- Post-hoc estimation of the hockey-stick relationship was conducted separately for the high recruitment period and ordinary recruitment period. There may be a need to also consider treating biological data separately for these two regimes.
- Large uncertainty in the standardized abundance index from the summer survey in 2020 was caused by the reduction of the survey area due to the Covid-19 pandemic.
- In the summer survey, the majority of JS catch comprises of age-0 and age-1 classes. That is why Japan conducts CPUE standardization for these two age classes only.
- This summer survey collects data for three NPFC priority species, i.e. Pacific saury, chub mackerel and Japanese sardine. The survey was designed primarily for covering

optimum SST for Pacific saury and may not be appropriate for the other two species. This issue requires further investigation.

5.4. Methods for determining age and maturity

Methods for determining age and maturity will be discussed after the establishment of a new SSC for JS.

5.5. Potential NPFC collaborative stock assessment model(s)

Participants discussed approaches for the development of a collaborative stock assessment model(s) and noted that:

- It would be desirable to identify a stock assessment model in a timely manner (potentially on an interim basis) as opposed to starting a lengthy process for model selection.
- From this perspective, participants will consider using a VPA model presented by Japan, while recognizing its shortcomings and the need to develop a more sophisticated model in the future.
- Stock Synthesis may be one of the candidate models for future stock assessments. It was used by the USA for assessing Pacific sardine in the eastern North Pacific.
- Members were encouraged to share information about other models they use for stock assessment of JS.
- It is recommended to hire an invited expert to support the new SSC for JS.

5.6. Data collection and data sharing for a collaborative NPFC stock assessment

Data collection and data sharing will be discussed after the establishment of a new SSC for JS.

5.7. CPUE standardization

CPUE standardization will be conducted after the establishment of a new SSC for JS.

Members were requested to provide their CPUE standardizations for fishery-dependent and fishery-independent indices at the 1st SSC JS meeting.

5.8. Review paper on impacts of climate change for PICES 2025

Canada (Chris Rooper) presented a draft literature review of studies relating environmental conditions to Japanese Sardine (*Sardinops melanosticta*) in the North Pacific Ocean (available on the Collaboration website under SC / [Japanese Sardine](#)). The review is conducted collaboratively by NPFC Members and the Secretariat. It will be finalized in October, circulated to Members for review and presented at the annual PICES meeting in November. It will then be submitted to SC10 as a meeting paper.

Agenda Item 6. Focus and date of a 3rd intersessional meeting, if needed

Participants agreed that additional intersessional meetings are not needed this year.

Agenda Item 7. Intersessional work before SC10

7.1. Prepare written summaries of 2024 stock assessments of JFS, BM, and JS for SC10

7.2 Present stock assessment of JFS, BM, and JS for SC10

Japan will prepare written summaries of 2024 stock assessments of JFS, BM, and JS and present them at SC10.

7.3 Revise and update species summary documents of JFS, BM, and JS

The Leads will update species summary documents of JFS, BM, and JS, circulate them to Members for review, revise, if needed, and submit them to SC10.

7.4 Prepare one or more draft species status slides for the SC Chair to present at COM10

The Leads will prepare one or more draft species status slides for the SC Chair to present at COM10.

Agenda Item 8. Close of the Meeting

The Chair thanked Dr. Hajime Matsui, Dr. Shuya Nakatsuka and Dr. Kazunari Higashiguchi for leading SWG JFS, SWG JS and SWG BM, and all participants for their participation in joint meetings of these SWGs in the past year.

The meeting closed at 11:54 am on 21 October 2025, Tokyo time.

Terms of Reference for the Small Scientific Committee on Japanese Sardine (SSC JS)
(December 2026)

1. To review and evaluate fishery data
 - Catch and efforts (including spatial-temporal distribution of landings and discards)
 - Age/size composition data
 - Evaluation of data quantity, data quality, sources of uncertainty
 - Others
 - Recommendation for future works
2. To review and evaluate fishery-dependent and fishery-independent indices
 - Evaluate/update sampling design for fishery-independent survey
 - Characterize the source of uncertainty for the fishery-dependent and fishery-independent data
 - Develop/review/update the CPUE standardization Protocol taking into account of characteristics of respective fisheries
 - Conduct CPUE standardization
 - Review and update fishery-dependent and fishery-independent indices
 - Recommendation for future works
3. To review, share, and update biological and other information/data relevant to stock assessment
 - Stock structure (including taxonomy of JS)
 - Growth
 - Reproduction and maturity schedule
 - Natural mortality
 - Migration pattern
 - Environmental influences (e.g. oceanographic, habitat, or species interactions)
 - Others
 - Evaluation of data quantity, data quality, sources of uncertainty
 - Recommendation for future works
4. To conduct the stock assessment
 - Identify and apply an appropriate stock assessment model
 - Develop/review/update the Stock Assessment Protocol
 - Conduct stock assessment following the Stock Assessment Protocol
 - Create the scientific advice on management based on the results of the stock assessment
 - Recommendation for future works
5. To facilitate data- and code- sharing processes
6. To review/improve presentation of stock assessment results (including stock status summary report in a format to be determined by the SSC)