North Pacific Fisheries Commission

1st Meeting of the Small Scientific Committee on Japanese Sardine
REPORT

26–28 July 2026

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26–28 July 2026
Hybrid

REPORT

Agenda Item 1. Opening of the Meeting

1. The 1st Meeting of the Small Scientific Committee on Japanese Sardine (SSC JS01) was held in a hybrid format, with participants attending in-person in Tokyo, Japan, or online via Webex, on 26–28 July 2026, and was attended by Members from Canada, China, the EU, Japan, the Russian Federation, and the United States of America. Dr. Tom Carruthers and Dr. Quang Huynh participated as invited experts.

2. The meeting was opened by the SSC JS Chair, Dr. Shuya Nakatsuka (Japan), who welcomed the participants.

3. The Science Manager, Dr. Aleksandr Zavolokin, outlined the procedures for the meeting.

4. Mr. Alex Meyer was selected as rapporteur.

Agenda Item 2. Adoption of Agenda

5. The agenda was adopted (Annex A). The List of Documents and List of Participants are attached (Annexes B, C).

Agenda Item 3. Review of SC/TCC/Commission meeting updates related to JS

6. The Science Manager provided an update on discussions and outcomes of meetings of the Scientific Committee (SC) and the Commission of relevance to JS.

7. With regard to the SC, he explained the background to the establishment of the SSC JS, the hiring of invited experts to support the SSC JS's work, and the development of a list of future tasks for the SSC JS. The Science Manager also noted that the SC had tasked each of its subsidiary bodies with preparing a data call, incorporating climate-related tasks into the workplan, adding a table of activities and timeline to meeting reports, defining invited experts' roles and tasks for 2026–2027, reviewing Members' sampling programs for transshipped catch if any, and considering science-based options for operationalizing the precautionary approach. He explained that these tasks have been reflected in the SSC JS's agenda. In addition, the

Science Manager explained that the SC had tasked each of its subsidiary bodies with discussing the frequency of benchmark and annual stock assessments and fisheries-dependent and fisheries-independent indicators of stock status, and that these tasks would be included on the SSC JS's agenda in the future.

8. As for the Commission meeting, the Science Manager informed the SSC JS that the Commission separated Conservation and Management Measure (CMM) 2025-11 for Japanese Sardine, Neon Flying Squid and Japanese Flying Squid into two CMMs, one for Japanese sardine (CMM 2026-18) and one for neon flying squid and Japanese flying squid (CMM 2026-11). He explained that CMM 2026-18 introduced catch and effort controls for Japanese sardine and that the relevant provisions of the CMM would be reviewed by the Commission once an NPFC stock assessment for Japanese sardine has been conducted.

Agenda Item 4. Review of ToR of SSC JS

9. The SSC JS reviewed the Terms of Reference of the SSC JS and did not recommend any amendments.

Agenda Item 5. Review of Members' fishery status and surveys

5.1 Member presentations prepared in advance

5.2 Fishery-independent surveys

Presentation Summary

10. China presented a review of its Japanese sardine fishery and related research activities (NPFC-2026-SSC JS01-IP02). The Japanese sardine and chub mackerel fishing grounds have a high degree of overlap and China catches both species through purse seine and trawl fishing. In 2024–2025, China operated light-purse seine nets (>97%) and pelagic trawl nets (3%) targeting sardine and mackerel. In 2025, three trawl vessels seasonally caught sardine in the Convention Area. The Chinese catch of sardine in the recent three years has been more than 200,000 tons every year. From 2019, sardine has become the most harvested species in the Chinese trawl and purse seine fisheries. Since 2020, China has collected samples in every month of the fishing season. In 2022, the fork length and weight of sardine were at their lowest, and in 2025, they were slightly reduced compared to 2024. This may indirectly reflect a change in the living marine environment of sardine or an increase in the proportion of small individuals. Age-1 to age-4 fish are the dominant age groups of sardine in the Chinese fishery. In terms of research activities, China collects and analyzes all fishing logbooks every year, has research specialists collect sample data on fishing vessels or in port, and monitors the monthly biological characteristics of Japanese sardine.

Discussion

11. In response to requests for further information about its sampling program, China explained

that it samples around 100–200 individuals each month for length and weight and otoliths are taken from around 200–300 individuals each year for aging. Caught fish are sampled randomly by fishers onboard before the fish are sorted into size categories. The fish samples are shipped back to China and sent to the lab for analysis throughout the fishing season. It takes around three months to ship the samples from the fishing grounds to the lab. China has monthly aging data and can create an age-length key (ALK).

12. The SSC JS requested Members to document their Japanese sardine sampling programs and present this information as part of data submission documentation at a future meeting of the SSC JS.

13. China also provided preliminary information about the status of its Japanese sardine fishery in 2026. China explained that as of 24 July, around 80 vessels have been operating so far, there has only been catch in June and July, and the catch has only been around 1,400 MT, which is extremely low compared to previous years.

Presentation Summary

14. Japan presented an overview of the Japanese sardine stock in the Western North Pacific (NPFC-2026-SSC JS01-IP03). Japanese sardine is one of the most important commercial fish species in Japan, accounting for more than 30% of Japan's total fish landings in 2025. Japanese sardine around Japan is assessed and managed as two stocks: the Pacific Stock and the Tsushima Warm Current Stock. Only the Pacific Stock is distributed in the NPFC Convention Area. Long-term fluctuations in the Pacific Stock have been closely associated with climate variability in the North Pacific. The Pacific Stock consists of coastal and offshore groups, with the offshore group dominating during periods of high stock abundance. During the recent period of increasing catches, age-0 fish dominated the catches. Catches by Russia and China increased from 2020. Based on the Japanese domestic stock assessment, the biomass of the Pacific Stock has declined since 2023 despite the spawning stock biomass (SSB) still being above SSB_{MSY}, and the recent decline has been associated with poor recruitment and low recruitment per spawner (RPS).

Presentation Summary

15. Japan presented the recent status of its Japanese sardine fishery, focusing on the Pacific Stock (NPFC-2026-SSC JS01-IP04). Catch has been increasing from the 2010s and has been relatively stable since a modest peak in 2020. Catch is mainly taken by purse seine vessels (more than 80%). Catch has stayed at over 500,000 MT in 2025, while purse seine effort has been declining. Catch is separated into the Eastern Japan and Western Japan regions, with the border at around 137°E, the same as for chub mackerel. Japan ages Japanese sardine using otolith and scale readings and has developed ALKs by region and by month. The ALKs for 2014–2024 are available on the NPFC Collaboration site. Japan conducts summer, fall, and

egg surveys, and uses these to develop abundance indices for age-0 and age-1 fish, age-0 fish, and spawning stock biomass (SSB), respectively. The abundances of age-0, age-1, and SSB in 2025 are very low. Preliminary reports and news coverage suggest that 2026 catches are running very low. As of 24 July 2026, the catch has been 0–10% compared to the same period in 2025 in major landing ports on the Pacific coast.

Discussion

16. The United States informed the SSC JS that it conducts an annual California Current Ecosystem Survey (CCES) and that the CCES has collected and genotyped Japanese sardine every year since 2022 (Update on the presence of Japanese Sardine (*Sardinops melanosticta*) in the California Current Large Marine Ecosystem 2024). In 2025, this included age-0 Japanese sardine. There have also been reports of Japanese sardine larvae off the Oregon coast.

17. The SSC JS noted the need to continue to monitor information about the presence of Japanese sardine in the Eastern Pacific and requested that the United States provide updated information at a future meeting of the SSC JS.

Presentation Summary

18. Russia presented an overview of its Japanese sardine fishery (NPFC-2026-SSC JS01-WP03). Japanese sardine is mostly captured by midwater trawls. Before 2016, Japanese sardine was taken as bycatch in the Pacific saury, chub mackerel, and other fisheries. From 2016, it became a targeted fishery. Catch increased until 2024 but then dropped by one order of magnitude in 2025 to approximately 57,000 MT. Before 2025, more than 90% of Japanese sardine were caught in a very small region between Russia and Japan close to the shore, but in 2025, more than 77% of catches were taken in the Convention Area. Large vessels have increased their fishing effort annually, except in 2025. In 2025, Russian vessels had difficulty finding Japanese sardine of a commercially viable size, so they switched to targeting other species during the fishing season. So far in 2026, Russian vessels have not found Japanese sardine of a commercially viable size and there has not yet been any catch in the Convention Area or national waters.

Discussion

19. Russia provided additional information about sardine length distribution considering different age and size classes. Fish of older groups migrate into the Russian exclusive economic zone (EEZ). The average fork-length of these fish is around 17–22 cm, compared to mainly around 12–15 cm in the Convention Area. The average weight of Japanese sardine in the Russian EEZ is also much higher than that of Japanese sardine in the Convention Area.

20. The SSC JS noted that some vessels that target Japanese sardine also target other species as follows:

(a) **China: chub mackerel, Convention Area**
(b) **Japan: chub mackerel, national waters**
(c) **Russia: pollock and Pacific herring, Bering Sea and the Sea of Okhotsk**

Agenda Item 6. Review of abundance indices

6.1 Presentation on fishery-dependent abundance indices prepared by Members in advance

Presentation Summary

21. Russia presented standardized catch per unit effort (CPUE) for Japanese sardine caught by its fishery up to 2025 (NPFC-2026-SSC JS01-WP03). Russia explained that official coordinates of catches were only available after 2020, so it described CPUE for two periods: 2014–2025 and 2020–2025. Accordingly, Russia presented two standardizations: a standardization of data from 2014 to 2025 using a generalized linear model (GLM) and a standardization of data from 2020 to 2025 using sdmTMB. Russia recommended including the two CPUE standardizations in the sensitivity analyses of the stock assessment and choosing one of the standardizations for the base case based on the model results.

Discussion

22. The SSC JS thanked Russia for presenting the CPUE standardizations. The SSC JS encouraged Russia to continue to develop its standardization work, particularly reconsidering its use of targeting effect, which Russia currently defines by the catch composition including Japanese sardine. The SSC JS suggested that Russia test a different definition of targeting effect or not include it as a factor in the standardizations.

23. The SSC JS noted that if it were to use the Russian fishery-dependent abundance indices, it would need to understand the size-selectivity and age-selectivity of the Russian fishery. The SSC JS requested that Russia present size and age information from its fishery at a future SSC JS meeting.

24. China informed the SSC JS that it intends to begin work on a fisheries-dependent abundance index once the data from the current fishing season become available and to present its work at SSC JS02.

6.2 Presentation on fishery-independent abundance indices prepared by Members in advance

Presentation Summary

25. Japan presented a preliminary standardization of long-term spawning abundance data for the Pacific stock of Japanese sardine (NPFC-2026-SSC JS01-WP01). Monthly egg surveys for Japanese sardine have been conducted since 1978 over a broad area. Japan examined the appropriate temporal and spatial coverage of the spawning abundance data for use in the stock assessment of the Pacific Stock of Japanese sardine. Japan conducted a standardization of the

spawning abundance data from 2003 to 2025 for the Pacific coastal waters from Tohoku to eastern Kyushu, excluding the Satsunan region off southern Kyushu, using the vector-autoregressive spatio-temporal (VAST) model. The standardized index showed that spawning abundance gradually increased during the 2010s following the low-abundance period in the 2000s, peaked in 2019, and has declined in recent years. Japan recommended using the standardization of long-term spawning abundance data using VAST as an input for the stock assessment.

Discussion

26. The SSC JS thanked Japan for presenting the spawning abundance index standardization. The SSC JS encouraged Japan to continue to develop its standardization work, particularly investigating the definition of the standardization area and its effect on the standardization results. It also suggested that Japan evaluate standardization including the historical period.

27. The SSC JS noted that according to the Japanese survey, the peak of the Japanese sardine spawning season is in February to April. The SSC JS noted that it needs further discussion on the definition of the fishing year, as well as to which year recruitment should be accounted for.

Presentation Summary

28. Japan introduced its work to develop potential fishery-independent abundance indices for age-0 and age-1 Japanese sardine of the Pacific stock based on its summer and autumn surveys (NPFC-2026-SSC JS01-IP08). Recruitment of Japanese sardine is highly variable. Japan has conducted surveys for more than 20 years to estimate the abundance of age-0 recruits and age-1 fish in the Pacific Stock of Japanese sardine. These long-term survey data can be standardized using VAST. Understanding trends in young-fish abundance is essential for accurate stock assessment and forecasting. Japan plans to submit a working paper on these standardized indices to the SSC JS data preparatory meeting for consideration for potential use in the Japanese sardine stock assessment.

Discussion

29. The SSC JS welcomed Japan's offer to present a working paper at a future SSC JS meeting and encouraged Japan to develop this work further, including investigating the lack of a strong cohort effect in the survey indices and the difference in the trends shown between the summer and autumn survey indices.

Presentation Summary

30. China presented a preliminary standardized nominal index of Japanese sardine using trawl survey data collected by the RV Songhang in the Northwest Pacific from 2021 to 2025 (NPFC-

2026-SSC JS01-WP05). China used the sdmTMB framework and developed generalized linear mixed models (GLMMs) incorporating different spatial and spatiotemporal random-effect structures to evaluate Tweedie and delta-lognormal distributions for standardization. The Tweedie model with an independent and identically distributed (IID) process was selected as the final model for standardization. The standardized abundance index showed a generally consistent temporal pattern with the nominal index, with relatively higher values during 2021–2023 followed by a substantial decline in 2024 and reaching the lowest level in 2025. Among the environmental variables examined, only chlorophyll-a concentration showed a significant positive relationship with abundance.

Discussion

31. The SSC JS thanked China for presenting the standardized nominal index. The SSC JS encouraged China to continue to develop its standardization work, including updating it with additional years of survey data, incorporating size data to develop age-specific indices, considering models without longitude as a fixed effect, and investigating the effect of restricting the spatiotemporal effect to an IID structure rather than considering both IID and AR(1) structures.

32. The invited expert noted that many poorly performing models used AR1 spatiotemporal fields and delta models, which have too many estimated parameters for the short time series of the survey.

Presentation Summary

33. Russia presented a standardized fishery-independent index for Japanese sardine caught in ecosystem scientific midwater-trawl surveys in 2014–2025 using sdmTMB with a Tweedie distribution (NPFC-2026-SSC JS01-WP02). Russia recommended using the standardized fishery-independent index as input for the stock assessment.

Discussion

34. The SSC JS thanked Russia for presenting the standardized fishery-independent index. The SSC JS encouraged Russia to continue to develop its standardization work, including focusing on models with spatiotemporal random effects with an IID structure rather than an AR(1) structure.

35. The SSC JS noted that if it were to use the Russian fishery-independent abundance index, it would need to understand the size-selectivity and age-selectivity of the Russian scientific survey. The SSC JS requested that Russia present size and age information from its scientific survey at a future SSC JS meeting.

36. The invited expert noted that Russia's standardized fishery-independent index seemed to show

similar trends to the age-0 abundance index derived from the Japanese autumn survey, which could be due to spatial adjacency.

37. The SSC JS encouraged Japan and Russia to work collaboratively to compare the Russian standardized fishery-independent index and the age-0 abundance index derived from the Japanese autumn survey.

6.3 Discussion on CPUE Standardization Protocol for Japanese sardine

38. The SSC JS noted the similarity between the Japanese sardine and chub mackerel fisheries and fishery-independent surveys and agreed to use the CPUE Standardization Protocol adopted by the Technical Working Group on Chub Mackerel Stock Assessment (TWG CMSA) on a preliminary basis and in a flexible manner, taking into account each Member's standardization method. The SSC JS agreed that, if necessary, it could review and modify the CPUE Standardization Protocol at a future meeting.

Agenda Item 7. Review of biological information for JS

Presentation Summary

39. Japan presented a summary of recent knowledge on the distribution, growth, natural mortality, and maturation of Japanese sardine based on Japanese domestic stock assessments and recent scientific studies (NPFC-2026-SSC JS01-WP04). Biological parameters have been changing with changes in abundance. The distribution of age-1 sardine spread as far east as 180°E during the early 2020s but has contracted since 2024. Body growth (length and weight) has shown declining trends in recent years due to density-dependent effects. Natural mortality (M) is estimated with longevity of age-7 as M=0.4. The proportion of sardine reaching maturity at age-1 fluctuates with stock abundance, with a higher proportion mature during periods of low abundance.

Presentation Summary

40. China presented estimates of growth and M parameters for Japanese sardine using survey data collected by RV Songhang in the Northwest Pacific from 2021 to 2025 (NPFC-2026-SSC JS01-WP06). Fork length distributions showed clear interannual variation, with fish sampled in 2024–2025 generally smaller than those collected in previous years. Length-weight relationships also varied among years. Growth parameters estimated from length-frequency data exhibited noticeable temporal variability. An ALK constructed from otolith readings in 2025 identified three age groups (0+, 1+, and 2+), with age-0 and age-1 fish comprising the vast majority (50.9% and 43.9%, respectively) of the aged individuals. M estimated using eight empirical methods ranged from 0.23 to 1.41, and the annual geometric mean varied from 0.46 to 0.77, with pooled estimates at 0.63. China noted that these results are preliminary, yet highlighted pronounced temporal variability in Japanese sardine life history and recommended

that future stock assessments incorporate these time-varying, high-seas survey-based estimates for the stock, as they better reflect actual conditions in the Convention Area than fixed parameters.

Presentation Summary

41. Japan presented a review of the population dynamics of Japanese sardine (NPFC-2026-SSC JS01-IP06). Japanese sardine abundance has shown large multi-decadal fluctuations in the Northwestern Pacific. Periods of high and low abundance have alternated repeatedly over the last century. These large-scale transitions are widely recognized as regime shifts. Major transitions have been reported in the 1940s, 1970s, and the 1980s/1990s. The exact timing varies among studies but the overall pattern is consistent. It is unclear whether the 2020s are under a transition or not. There are changes in productivity across regimes. There are many hypotheses about possible drivers of regime shifts, such as the Pacific Decadal Oscillation and the North Pacific Index, but the complete mechanism is not clearly understood. Interpretation of stock dynamics is difficult without considering regime shift. Recognizing regime shifts can improve stock assessment and fisheries management.

Discussion

42. The invited expert noted that Japan's catch history seemed to show a cycle of booms and busts and suggested that, rather than "regime shifts," it may be more appropriate to describe the stock as having a cyclical nature.

43. The SSC JS discussed the potential treatment of growth, natural mortality, and maturity in the Japanese sardine stock assessment.

44. The SSC JS noted that it is critical to recognize the historical boom and bust of the Japanese sardine stock when developing its stock assessment model.

45. The SSC JS encouraged Japan and China to continue to refine their work on growth parameters and ALKs and to present an analysis comparing each other's results. The SSC JS requested that Russia also present its growth or age composition data for analysis and comparison with the Japanese and Chinese data if possible. The SSC JS also noted that it may be appropriate to consider annual-variable growth or area-variable growth.

46. Japan presented a comparison of Chinese and Japanese mean length-at-age data for 2021–2024.

47. **The SSC JS noted differences between the Chinese and Japanese observed growth patterns, particularly for older ages in 2021 and younger ages during 2022–2024. The SSC JS encouraged Japan and China to test whether the ALKs are equivalent and**

identify the causes of any differences, including sampling area, sampling method, length definition, data source, and aging methodology. The SSC JS further encouraged Members to determine the most informative combination of these data for developing ALKs for the NPFC stock assessment.

48. For natural mortality, the SSC JS recommended that Members conduct meta-analyses of the values suggested by Members and to develop a range of plausible M values, including age-specific and time-varying values.

49. The SSC JS agreed to continue to discuss the possibility of setting the maturity schedule based on Members' available data. The SSC JS also noted the potential usefulness of evaluating the uncertainty of the maturity parameters.

50. The SSC JS agreed that if possible, Members would submit working papers documenting biological assumptions for stock assessment at least two months in advance of SSC JS02, to facilitate preparation of the stock assessment model.

Agenda Item 8. Fisheries stock assessment

8.1 Review of existing stock assessments of JS

Presentation Summary

51. Japan presented a review of its domestic stock assessment of the Pacific stock of Japanese sardine in FY2025 (NPFC-2026-SSC JS01-IP09). Japan conducted the stock assessment using a ridge-Virtual Population Analysis (VPA) with four indices: an SSB index based on the Japanese egg survey, an age-0 abundance index based on the Japanese autumn acoustic survey, and age-0 and age-1 abundance indices based on the Japanese summer trawl survey. Biomass increased until 2022 and started decreasing from 2023. Reference points were applied based on a hockey-stick stock-recruitment relationship with two regimes. SSB_{2024} was 2.7 million MT and above SB_{MSY} (1.4 million). F_{2024} was above F_{MSY}.

Discussion

52. The SSC JS thanked Japan for presenting its domestic stock assessment. The SSC JS noted that Japan's domestic stock assessment is a useful reference for the NPFC's work and encouraged Japan to continue to present its domestic stock assessments to future meetings of the SSC JS.

8.2 Data inventory for stock assessment inputs

8.2.1 Data related to catch

8.2.2 Abundance indices

8.2.3 Biological parameters

53. The SSC JS reviewed and updated the data call for Japanese sardine for 2026/2027 (NPFC-2027-SC11-IP01 (Rev. 4)).

54. The SSC JS agreed that Members would share the data listed in the data call (Annex D) to the extent possible, at least two months in advance of SSC JS02, noting that this would support the development and determination of the stock assessment model structure and the identification of potential data gaps.

55. The SSC JS agreed that Members should also submit detailed descriptions of how they collected and/or generated their data, which waters the data are from (Convention Area and/or national waters), and the sampling coverages and its definition.

56. The SSC JS discussed how to define the Japanese sardine stock for the NPFC stock assessment.

57. Japan explained that in its domestic stock assessment, it separates the Japanese sardine stock into the Pacific Stock and the Tsushima Warm Current Stock in part for management purposes, but also because of differences in growth and population dynamics, including migration patterns. Japan suggested that the NPFC stock assessment should be conducted on the Pacific Stock as defined in the Japanese domestic stock assessment, as this is the stock that is distributed in the Convention Area.

58. In response to a request from the SSC JS, Japan presented a comparison of the recruitment trajectories, biomass, SSB, catch, and Von Bertalanffy growth curves for the Pacific Stock and the Tsushima Warm Current Stock. There were both similarities and differences between the Pacific Stock and the Tsushima Warm Current Stock. In most years, Japanese catch of Japanese sardine from the Pacific Stock is larger than the catch from the Tsushima Warm Current Stock.

59. The SSC JS noted that further investigation is needed before drawing a firm conclusion on whether or not they should be treated as separate stocks.

60. The SSC JS agreed, preliminarily, to treat the Pacific Stock and the Tsushima Warm Current Stock as separate and to conduct the NPFC stock assessment on the Pacific Stock. The SSC JS requested that Japan continue to investigate the relationship between the Pacific Stock and Tsushima Warm Current Stock and to provide its findings to the SSC JS. The SSC JS agreed that if the two stocks are found to be more strongly correlated than initially thought, the SSC JS could review and modify the stock assessment model structure.

61. The SSC JS noted that the inclusion of the Tsushima Warm Current Stock in the NPFC

stock assessment would require additional data from fleets other than Japan's, due to Japanese sardine fishery activity in the East China Sea, the Yellow Sea and the Sea of Japan.

8.3 Discussion of stock assessment model for JS

Presentation Summary

62. The invited expert presented a brief review of potential assessment models for Japanese sardine (NPFC-2026-SSC JS01-IP07). He recommended that, at minimum, the model needs sufficient biological complexity to describe species and support for relevant data inputs. It would also be important to have good documentation, transparency of computer code to the analyst, and ease of access to communicate with the developers. The invited expert suggested Stock Synthesis (SS3) and Woods Hole Assessment Model (WHAM) as initial candidate models, while noting that both have advantages and disadvantages. He suggested that the SSC JS did not need to select the "final" software yet and should maintain flexibility and experimentation. He recommended that the SSC JS start with a simple model and proceed with stepwise development to a more complex model. He also considered Japan's domestic assessment using VPA to be a useful guide for the work of the SSC JS.

Discussion

63. The SSC JS expressed a preference for a statistical catch-at-age model. The SSC JS noted that it is not necessary to select a stock assessment model at this stage of development and that SS3 and WHAM could be initial candidate stock assessment models. The SSC JS noted that SAM could also be an initial candidate stock assessment model given Member scientists' familiarity with it. The SSC JS requested the invited expert to start working on a preliminary model based on available data.

64. The SSC JS noted that developing a conceptual model would be useful for NPFC stock assessments.

65. The SSC JS noted that it may be valuable to have an invited expert run the stock assessment, at least in the initial years, as this could accelerate its development and completion.

8.4 Recommendations for future work

66. The SSC JS requested that the invited expert explore development of a preliminary stock assessment.

67. The SSC JS welcomed the offer from the EU to explore development of a preliminary stock assessment model using SAM.

Agenda Item 9. Review of the SSC JS Work Plan

68. The SSC JS reviewed and updated the draft SSC JS Work Plan (NPFC-2026-SSC JS01-WP07 (Rev. 1)). The SSC JS recommended that the SC adopt the SSC JS Work Plan (NPFC-2026-SSC JS01-WP07 (Rev. 1)).

Agenda Item 10. Other matters

10.1 Next SSC JS meetings

69. The SSC JS recommended the holding of a 4-day virtual meeting on 9–12 March 2027 and a 4-day hybrid meeting tentatively scheduled for July 2027.

10.2 Table of activities and timeline

70. The SSC JS developed a table of intersessional activities and timelines for 2026 and 2027 (Annex E).

10.3 Invited expert

71. The SSC JS identified the invited expert's roles and tasks to support the work of the SSC JS in 2026-2027 (Annex F).

72. The SSC JS recommended that the SC continue to hire an invited expert(s) in 2027 to support the SSC JS during its meetings and to conduct other work to support the SSC JS as appropriate.

10.4 Other

73. The SSC JS requested that the Secretariat create a dedicated SSC JS GitHub repository.

74. The SSC JS requested that the Chair work intersessionally with Members to update the species summary for Japanese sardine and submit it to SC11.

Presentation Summary

75. The NPFC secondee, Ms. Yume Kawai, presented the investigation results on Japanese sardine's 3-alpha code (NPFC-2026-SSC JS01-IP01). Based on the recommendation of the SC, the SC Chair followed up with the FAO on whether a new 3-alpha code could be assigned to Japanese sardine. FAO responded that Japanese sardine is not a new species in the Aquatic Sciences and Fisheries Information System (ASFIS), that the 3-alpha code for Japanese sardine remains "JAP," and that this code should be maintained to ensure consistency with historical data. However, in 2021, the codes for Japanese sardine (*Sardinops melanostictus*; JAP), Pacific sardine (*Sardinops sagax*; CHP), and South African sardine (*Sardinops ocellatus*; PAI), were merged into one code: CHP. In the 2025 version of the ASFIS list, two

separate codes existed for *Sardinops*: JNX (*Sardinops* spp.) and CHP (*Sardinops sagax*). Since CHP includes *Sardinops melanostictus* and *Sardinops ocellatus*, all Members have reported these species under CHP, not JNX. In response to the interest from NPFC, FAO decided that from 2026, there will be separate codes for *Sardinops* spp., *Sardinops melanostictus*, *Sardinops sagax*, and *Sardinops ocellatus*. However, to avoid confusion with historical data, the code for Japanese sardine (*Sardinops melanostictus*) will not be changed from "JAP." Therefore, the options for Members going forward are to continue using JAP, use CHP, or find another option.

Discussion

76. The SSC JS recommended that the SC continue the use of JAP as the 3-alpha code for Japanese sardine.

77. The Science Manager reminded the SSC JS of the following taskings from the SC10, while noting that no related papers had been submitted to the meeting:
   (a) Review Members' sampling programs for transshipped catch.
   (b) Incorporate climate-related tasks into workplan.
   (c) Discuss science-based options for operationalizing precautionary approach.

78. Regarding the review of Members' sampling programs for transshipped catch, the SSC JS noted that:
   (a) **Chinese catch is sampled by fishing crews at the point of capture, before transshipment occurs.**
   (b) **Japanese catch is taken in the Japanese EEZ and not transshipped.**
   (c) **Russia will confirm internally and provide further information at a later date.**

79. Regarding the other two taskings, the SSC JS agreed that it would be better positioned to discuss these tasks once the development of the stock assessment has begun.

Agenda Item 11. Recommendations to the Scientific Committee

80. The SSC JS agreed to:
   (a) **share the data listed in the data call (Annex D), to the extent possible, at least two months in advance of SSC JS02.**
   (b) **submit working papers documenting biological assumptions for stock assessment at least two months in advance of SSC JS02 if possible.**
   (c) **continue to refine Members' fishery-independent and fishery-dependent indices.**
   (d) **continue work to develop a preliminary stock assessment model focusing on statistical catch-at-age models, such as SAM, SS3, and WHAM.**

81. The SSC JS recommended that the SC:

(a) **adopt the SSC JS Work Plan (NPFC-2026-SSC JS01-WP07 (Rev. 1)).**

(b) **continue to hire an invited expert(s) in 2027 to support the SSC JS during its meetings and conduct other work to support the SSC JS as appropriate.**

(c) **endorse the holding of a 4-day virtual meeting on 9–12 March 2027 and a 4-day hybrid meeting tentatively scheduled for July 2027.**

(d) **adopt the updated species summary for Japanese sardine, which the SSC JS Chair will prepare and submit to SC11.**

(e) **continue the use of JAP as the 3-alpha code for Japanese sardine.**

Agenda Item 12. Adoption of Report

82. The SSC JS01 Report was adopted by consensus.

Agenda Item 13. Close of the Meeting

83. The meeting closed at 12:10 on 28 July 2026, Tokyo time.

LIST OF ANNEXES

Annex A – Agenda

Annex B – List of Documents

Annex C – List of Participants

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Annex F – Invited expert's roles and tasks to support the work of the SSC JS in 2026-2027

Annex A:

Agenda

Agenda Item 1. Opening of the Meeting

Agenda Item 2. Adoption of Agenda

Agenda Item 3. Review of SC/TCC/Commission meeting updates related to JS

Agenda Item 4. Review of ToR of SSC JS

Agenda Item 5. Review of Members' fishery status and surveys
- 5.1 Member presentations prepared in advance
- 5.2 Fishery-independent surveys

Agenda Item 6. Review of abundance indices
- 6.1 Presentation on fishery-dependent abundance indices prepared by Members in advance
- 6.2 Presentation on fishery-independent abundance indices prepared by Members in advance
- 6.3 Discussion on CPUE Standardization Protocol for Japanese sardine

Agenda Item 7. Review of biological information for JS

Agenda Item 8. Fisheries stock assessment
- 8.1 Review of existing stock assessments of JS
- 8.2 Data inventory for stock assessment inputs
  - 8.2.1 Data related to catch
  - 8.2.2 Abundance indices
  - 8.2.3 Biological parameters
- 8.3 Discussion of stock assessment model for JS
- 8.4 Recommendations for future work

Agenda Item 9. Review of the SSC JS Work Plan
- 9.1 Review and update of the SSC JS Work Plan

Agenda Item 10. Other matters
- 10.1 Next SSC JS meetings
- 10.2 Table of activities and timeline
- 10.3 Invited expert
- 10.4 Other

Agenda Item 11. Recommendations to the Scientific Committee

Agenda Item 12. Adoption of Report

Agenda Item 13. Close of the Meeting

Annex B:

List of Documents

MEETING INFORMATION PAPERS

Number	Title
NPFC-2026-SSC JS01-MIP01 (Rev. 1)	Meeting Information
NPFC-2026-SSC JS01-MIP02	Provisional Agenda
NPFC-2026-SSC JS01-MIP03 (Rev. 1)	Annotated Indicative Schedule

WORKING PAPERS

Number	Title
NPFC-2026-SSC JS01-WP01	Preliminary standardization of long-term spawning abundance data for the Pacific stock of Japanese sardine
NPFC-2026-SSC JS01-WP02	Standardized fishery-independent indices for the Japanese Sardine (*Sardinops melanostictus*) caught in trawl surveys conducted by Russia in 2014-2025
NPFC-2026-SSC JS01-WP03	Standardized CPUE of Japanese Sardine (*Sardinops melanostictus*) caught by the Russia's fishery up to 2025
NPFC-2026-SSC JS01-WP04	Distribution and migration, growth, and biological parameters for Japanese sardine *Sardinops melanostictus* from Japan
NPFC-2026-SSC JS01-WP05	Preliminary standardized fishery-independent index of Japanese Sardine (*Sardinops melanostictus*) based on the Chinese research vessel "Song hang" from 2021 to 2025
NPFC-2026-SSC JS01-WP06	Temporal Variation in Growth and Mortality of Japanese Sardine based on Chinese survey in the Northwest Pacific
NPFC-2026-SSC JS01-WP07 (Rev. 1)	SSC JS Work Plan, 2026-2030

INFORMATION PAPERS

Number	Title
NPFC-2026-SSC JS01-IP01	Investigation Results on Japanese sardine's 3-alpha code
NPFC-2026-SSC JS01-IP02	Review of Japanese Sardine fishery in China and research activities
NPFC-2026-SSC JS01-IP03	Overview of the Japanese Sardine Stock in the

	Western North Pacific
NPFC-2026-SSC JS01-IP04	Recent status of Japanese sardine fishery by Japan
NPFC-2026-SSC JS01-IP05 (Rev. 1)	Draft table of intersessional activities and timelines for the SSC JS in the 2026 operational year
NPFC-2026-SSC JS01-IP06	Review of population dynamics of Japanese sardine
NPFC-2026-SSC JS01-IP07	Quick review of potential assessment models for Japanese sardine
NPFC-2026-SSC JS01-IP08	Potential fishery-independent abundance indices for age-0 and age-1 Japanese sardine in the Pacific stock
NPFC-2026-SSC JS01-IP09	Review of the domestic stock assessment of the Pacific stock of Japanese sardine in FY 2025 by Japan
NPFC-2027-SC11-IP01 (Rev. 4)	Scientific Committee Data Call – 2026/2027

REFERENCE DOCUMENTS

Number	Title
	Terms of Reference for the Small Scientific Committee on Japanese Sardine

Annex C:

List of Participants

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Annex D:

Data call for SSC JS

Deadlines

Subsidiary body	Chair	Deadline
SSC JS	Shuya Nakatsuka	9 Jan 2027

Data to report

Datatype (Fishery independent/dependent)	Data source / type	Temporal Scope	Aggregation
FI	Survey abundance indices, if available		Annual
FI	Size/age composition		Annual
FD	Catch at age		Annual (by quarter if possible)
FD	Catch at length		Annual (by quarter if possible)
FD	Weight at age		Annual (by quarter if possible)
FD	Age length key		Annual (by quarter if possible)
FD	Maturity at age		Annual (by quarter if possible)
FD	Standardized CPUE, if available		Annual

Annex E:

Table of intersessional activities and timelines for the SSC JS in the 2026 operational year

Activity/Task	Deadline	Responsibility and Reference/Comment
Members		
Data sharing, including detailed descriptions of how Members collected and/or generated their data, which waters the data are from (Convention Area and/or national waters), and the sampling coverages and its definition	**9 Jan 2027** (two months before SSC JS02). See Data call	• Members operating JS fisheries and/or conducting research surveys • Collaboration site / SC database
Updates of biological information for JS / biological assumptions for stock assessment	**9 Jan 2027** (two months before SSC JS02)	• If available • WP or IP
Standardized fishery-dependent and fishery-independent abundance indices up to 2025 (2026, if possible), including size and age information from fisheries / scientific surveys	Same as above	• Members operating JS fisheries • WP • See CPUE Standardization Protocol for CM
Stock assessment modelling results	**23 Feb 2027** (two weeks before SSC JS02)	• If available • WP
Research on climate change impacts on JS	Same as above	• If available • WP or IP
Members' sampling programs for transshipped catch (subject to discussions at SC11)	Same as above	• Members conducting transshipment of JS • WP or IP
Fisheries-independent indicators (from SC10): i. Egg abundance in East Japan ii. Acoustic survey in autumn	Same as above	• Members conducting research surveys • WP

(Sep-Oct) (abundance of age 0 fish) iii. Trawling survey in summer (Jun-Jul) (abundance of age 0 fish) iv. Trawling survey in summer (Jun-Jul) (abundance of age 1 fish) v. Standardized CPUE from China's summer survey		
Fisheries-dependent indicators: None identified in SC10.	Same as above	• Members operating JS fisheries • WP
Updates on Members' fishery status and research activities up to 2026	Same as above	• Members operating JS fisheries and/or conducting research surveys • IP (ppt slides)
Chair/Secretariat/Invited expert		
Data call	**Aug 2026**	Secretariat Post the updated data call on the website https://www.npfc.int/sc-data-call
Invited expert's roles and tasks for the 2026 operational year (annexed to SSC JS01 report)	Same as above	Secretariat/Chair Deliver to invited expert, draft/update a consultancy agreement
Species summary for JS update	**23 Dec 2026**	Chair/Secretariat
Annotated Indicative Schedule	**23 Feb 2027** (two weeks before SSC JS02)	Secretariat
Work Plan of the SSC JS	Same as above	Chair/Secretariat Update up to 2031; including climate change issues

Annex F:

Invited expert's roles and tasks to support the work of the SSC JS in 2026-2027

1. Participate in the SSC JS01 hybrid meeting (26-28 July 2026 (2.5 days)) and SSC JS02 virtual meeting (9-12 March 2027 (2 full days)) and support the SSC JS in reviewing data, abundance indices and candidate stock assessment models.
2. Explore development of a preliminary stock assessment and report to SSC JS02 (5 days).
3. Assist the SSC JS Chair, Members and Secretariat, if needed, in drafting meeting papers and other related documents (3 days).