

1st meeting of the Small Working Group on Observer Program in 2025

July 30, 2025 (9 am – 11 am Tokyo time)

WebEx

Summary

Agenda Item 1. Opening of the Meeting

The 1st meeting of the Small Working Group on Observer Program in 2025 commenced at 9 am on 30 July 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), the European Union (Karolina Molla Gazi), Japan (Kazuhiro Oshima, Shuya Nakatsuka), Korea (Hyejin Song), Russia (Vladimir Radchenko), Chinese Taipei (Hanching Chuang), the USA (Erin Bohaboy) and Vanuatu (Mei-chin Juan) as well as the Secretariat (Robert Day, Alex Zavolokin). The meeting was led by Dr. Janelle Curtis (SC Chair, Canada).

Agenda Item 2. Adoption of Agenda

The Chair proposed a new agenda sub-item 10.1 *Brief discussion about one question from TCC in 2024 to identify data that could be collected as part of a regional observer program (ROP) to improve stock assessment of priority species*. Participants agreed with the proposal from the Chair.

Agenda Item 3. Task from COM09 and Context for Five Questions from TCC

The Chair referred to the Convention, article 7, 2, b that calls for the development and implementation of an NPFC Observer Program. She noted that the NPFC has been discussing how best to develop an observer program for many years and that the SC spent time responding to 6 questions from the TCC last year. She also recalled some Members were concerned that feedback from the SC was insufficient during the TCC08 meeting and recommended that the TCC and SC continue to work intersessionally towards identifying the potential data needs for a broader ROP. The Commission endorsed this recommendation at COM09 in March 2025.

Given that the SC has discussed and noted data gaps that could be filled with an observer program to improve stock assessment advice during the past few years (as summarized in NPFC-2024-SC09-WP04 (Rev. 4)), any specific information SC provides this year on the types of data that could be collected as part of a ROP would be well-received by the TCC and the Commission.

The Chair received 5 new questions from the TCC Chair to help them better understand the SC's data needs and inform the development of a ROP. These 5 questions will require more thought and analyses to answer in a meaningful way. The Chair proposed a process for responding to these new

TCC questions:

- convene SWG ObserverProgram 2025-01 as a brainstorming session
- summarize key responses in a draft working paper
- circulate that working paper for comments twice between now and SC10
- discuss and revise the working paper during SC10
- communicate SC's responses to the TCC before the next TCC and COM meetings

The Chair also proposed that Members work with the Chairs of SC's subsidiary groups to identify at least 1-2 types of data that could be collected through a ROP to improve NPFC's stock assessments, and that these also be included in the draft working paper for SC10. As an example, she proposed that one type of data that could be collected to improve stock assessments of both chub mackerel and blue mackerel would be the ratio of these two species in catches.

Agenda Item 4. Question 1. What are the critical data points used for current/ongoing stock assessments and management of NPFC stocks?

4.1. Preliminary SC responses to question 1 with checklist based on the current stock assessments

What are the critical data points used for current/ongoing stock assessments and management of NPFC stocks?

The Science Manager presented a table of data used for current/ongoing stock assessments in SC's expert groups. The table outlines the data types and their temporal, spatial and fleet resolutions for seven priority species (chub and blue mackerels, Pacific saury, Japanese sardine, neon flying squid, North pacific armorhead and splendid alfonsino).

Participants reviewed and agreed with the table (Annex A).

Participants noted that this and other questions below aim at the development of an at sea observer program as opposed to in port observations. They also noted that additional data could be collected through a ROP but that does not mean that a ROP is the only method to collect such data.

4.2. Preliminary SC responses to question 1a

1a. Would it be valuable to have those data points confirmed through independent at sea monitoring?

Responses:

- From an SC perspective, any monitoring program conducted by Members through their national observer schemes or as part of a future ROP is considered independent.
- Ideally, observers would not be collecting data to confirm existing data or functions, rather they would collect more data (e.g. size data) in addition to what SC already has.
- It is always useful to collect additional data for stock assessment.
- Catch data listed for some species in Annex A is an important data point that should be

collected for all priority species.

4.2.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

4.3. Preliminary SC responses to question 1b

1b. Are there any critical data points missing that independent at-sea monitoring could obtain?

Responses:

- It was suggested that each of SC's expert groups makes up a list of missing data.
- Such missing data may include body length composition by fleet, operational data on species composition and target species, and data for separation of squid cohorts.
- It was noted that some parts of fishing fleets do not provide data for stock assessment. For example, records of transshipped fish do not include length data.
- There is inconsistency with how effort data is defined and recorded.
- Other missing data include basic species composition, the ratio of blue mackerel to chub mackerel, and length data that vary spatially and could be used to distinguish cohorts of squid.
- This question was partly answered last year. See NPFC-2024-SC09-WP04 (Rev. 4) and agenda item 10.1 below for more details.

4.3.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

4.4. Preliminary SC responses to question 1c

1c. What level of monitoring would need to be required to ensure that those missing data points are collected?

Responses:

- This is impossible to answer without data (e.g. from a pilot study), unless Members drew on domestic observer programs or used information from other RFMOs with similar fleets.
- Korea and China may have some data to inform this question.
- The level of coverage needed to address an objective should be estimated by fleet characteristics, including composition of the catch and how fishing effort is structured (e.g. by number of fishing days, trips, vessels...).
- A simulation study (e.g. parametric statistical test) may be conducted to determine the appropriate sample size for obtaining reliable results.
- Determining the level of monitoring requires information from fisheries about how rare and how variable events are.
- A regional observer program may cover all fleets or start with one fleet (although implementing it this way for all priority species would take a long time).

- Dip net and jigging fleets have less species richness in their catches in comparison with trawl and purse seine fisheries.

Canada shared two scientific papers:

Jiaqi Wang, Luoliang Xu, Bai Li, Siquan Tian, and Yong Chen. 2020. An evaluation of the effects of sample size on estimating length composition of catches from tuna longline fisheries using computer simulations. *Aquaculture and Fisheries*. Volume 5, Issue 3, Pages 122-130. <https://doi.org/10.1016/j.aaf.2019.09.001>

Elizabeth A. Babcock, Ellen K. Pikitch, and Charlotte G. Hudson. 2011. How much observer coverage is enough to adequately estimate bycatch. *Oceana*. 36 pages. https://www.researchgate.net/publication/267378274_How_much_observer_coverage_is_enough_to_adequately_estimate_bycatch

4.4.1 Relevant analyses that could be undertaken intersessionally before SC10

Participants discussed the development of metrics, such as number of trips or number of fishing days, to inform discussions about the level of monitoring required to ensure that missing data points are collected. None of the meeting participants volunteered to lead this intersessional analysis before SC10.

Agenda Item 5. Question 2. What is the current level of confidence in our stock assessments (i.e. what is the uncertainty in our stock assessments and stock assessment models)?

5.1. Preliminary SC responses to question 2

Question 2. What is the current level of confidence in our stock assessments (i.e. what is the uncertainty in our stock assessments and stock assessment models)?

Responses:

- The current level of confidence in the NPFC stock assessments is relatively high given the data available, however collecting more data would be desirable to improve stock assessments.
- Given retrospective patterns, residual patterns and confidence intervals for key estimates for some stock assessments, the level of confidence may not be considered high.
- This is a difficult question to answer because confidence is not quantified. To answer this, an agreed set of metrics is needed.
- The EU (Karolina Molla Gazi) volunteered to draft a list of metrics for answering this question.

5.2. Preliminary SC responses to question 2a

2a. In an ideal situation, what is the minimum/acceptable level of confidence would you as a scientist want to have in NPFC stock assessments to inform management?

5.2.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

5.3. Preliminary SC responses to question 2b

2b. Do you believe data from independent at sea monitoring could help reach or achieve that confidence level?

Responses:

- This is a difficult question to answer quantitatively. However, in general, at sea monitoring that increases data that are collected correctly would help improve stock assessments and confidence in the stock assessment results.

5.3.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

5.4. Preliminary SC responses to question 2c

2c. Are the national programs (or other programs being used) providing sufficient information to achieve the SC's desired level of confidence in stock assessments?

Responses:

- There is insufficient data to answer this question.
- Data from national programs may not be representative of NPFC stocks.
- The report on existing Observer Programs (NPFC-2024-SC09-WP02 (Rev. 4)) helps answer this question. However, it lacks some important information, such as fleet characteristics.

5.4.1 Relevant analyses that could be undertaken intersessionally before SC10

The Secretariat was requested to circulate NPFC-2024-SC09-WP02 (Rev. 4) to participants for review.

5.5. Preliminary SC responses to question 2d

2d. In an effort to actionize Performance Review Recommendations (e.g. 4.2.1), are Members providing data to the SC and the Commission in a harmonized and standardized way that can be used for comparative analyses (i.e. across regions/species/gear types/members)? Are these data collected/submitted (in-part or in-whole) independently verified in some way?

Responses:

- The SWG Data is working on standardized templates for data provision taking into account templates developed by SC's expert groups.
- Regarding independent verification of data, any scientific observer, both domestic and regional, is assumed to be independent.
- Members noted that catch and effort data may require verification, although it may not be possible for an at sea observer to verify catch due to its potentially large volume. At sea observers are best suited for collecting samples and recording catch data (e.g. species composition).

5.5.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

Agenda Item 6. Question 3. If the Commission is seeking to detect and collect data on rare events, what level of statistical power would be required and what would be the associated level of monitoring required? For this question and those below, please provide an answer for each of the following “rare events:” bycatch, incidental catch, marine mammals, seabirds, sharks, and marine reptiles.

6.1. Preliminary SC responses to question 3

Responses:

- Information about how rare these species are is important.
- A simulation study may be conducted to answer this question.
- There is a need to define what “bycatch”, “incidental catch”, “marine mammals”, “seabirds”, “sharks”, and “marine reptiles” mean in the context of answers to this question.

6.1.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

6.2. Preliminary SC responses to question 3a

3a. What level of confidence (percentage) would you as a scientist want to have in detecting rare events and to assist in informing the management?

Responses:

- The answer to this question is related to the answer in the previous question.
- One needs to know the true zeros to devise a sampling strategy.

6.2.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

6.3. Preliminary SC responses to question 3b

3b. Do you believe data from independent at sea monitoring could help reach or achieve that confidence level?

Responses:

- There is a tradeoff between 0% and 100% observer coverage that results in different levels of confidence or the probability of detecting a rare event, where 100% observer coverage would result in a very high level of confidence.

6.3.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

6.4. Preliminary SC responses to question 3c

3c. Are the national programs (or other programs being used) providing any information on rare events? If so, are they providing sufficient information to achieve the necessary level of confidence so that decisions can be made?

Members did not identify existing programs that provide information on rare events.

6.4.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

6.5. Preliminary SC responses to question 3d

3d. Are data being submitted to the SC and the Commission compiled in a way that can be compared across fisheries and/or verified? Is the data collection standardized?

Responses:

- Currently, none of the data on “rare events”, including bycatch, is submitted to SC, except data on the capture of sharks (CMM 2023-14) and salmon (CMM 2024-16).
- Standardized data templates by SWG Data could be applied to any species.

6.5.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

Agenda Item 7. Question 4. In considering the development of management procedures and accounting for potential effects of climate change, what additional data, e.g., fine scale environmental data, would be valuable to collect from the fishery to develop and test management strategies?

7.1. Preliminary SC responses to question 4

Responses:

- It was noted that fine scale environmental data may be straightforward to collect but scientists were unsure how such data could be integrated into an MSE process.
- Spatially-explicit environmental data may be useful for the development of MSE, but it is considered a lower priority.
- Identifying and collecting basic environmental data that could inform about catchability is more important.

The EU reminded participants about two scientific papers from SC09 which may help answer this question:

[NPFC-2024-SC09-OP02](#) Developing the climate test: robustness trials for climate-ready management procedures

[NPFC-2024-SC09-OP03](#) Developing the climate test: performance metrics of climate robustness

7.1.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

Agenda Item 8. Question 5. In considering the use of EM in similar fisheries where electronic monitoring systems are being used to successfully attain needed data, how can we utilize EM in NPFC to attain scientific data needed?

8.1. Preliminary SC responses to question 5

Responses:

- EM does not replace an observer program, but supplements it.
- EM might be useful for verifying catch and effort in some fleets, however some biological data (e.g. age) cannot be collected.
- In general, EM is not feasible for estimating catch composition or collecting length data.

8.1.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

8.2. Preliminary SC responses to question 5a

5a. What minimum standards would be needed for their implementation?

No minimum standards were identified.

8.2.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

8.3. Preliminary SC responses to question 5b

5b. Would it be useful to have a third party (e.g. EM vendor) present on options to better understand what is feasible and necessary for NPFC?

Responses:

- This is a question for the Commission.

8.3.1 Relevant analyses that could be undertaken intersessionally before SC10

None were identified.

Agenda Item 9. Next steps for responding to the Five TCC Questions

The Chair and Secretariat will circulate a summary of this meeting to Members. The Chair will then draft a working paper and share it with Members for review and revision as follows:

- First draft to Members - by mid-August
- Compile responses – in September
- Second draft to Members - in October
- Working paper to SC10 – by 16 November

Agenda Item 10. Other Matters

10.1 Brief discussion about questions from TCC from last year about data that could be collected to improve stock assessment of priority species

The Chair reminded participants about NPFC-2024-SC09-WP04(rev 4) from the SC09 meeting that identified data needs for Pacific saury, chub mackerel and neon flying squid. The Chair will reach out to the Chairs and Leads of SC's subsidiary groups to ask them to review these data needs for PS, CM and NFS and suggest 1-2 types of data for the rest of the priority species that can be collected by an ROP. Members were also encouraged to work with the Chairs and Leads of SC's subsidiary groups.

Participants agreed to have intersessional communication among Members only. Observers will have an opportunity to review the meeting summary and draft working paper when these are posted in mid-November and to contribute to discussions at SC10 in December.

Agenda Item 11. Close of the Meeting

The meeting closed at 10:45 am on 30 July 2025, Tokyo time.

Data used for current/ongoing stock assessments

Species	Data Type	Temporal Resolution	Spatial Resolution	Fleet Resolution
CM	ALK	Quarter	EEZ and CA	all Member's fleets
CM	Age composition	Quarter	EEZ and CA	all Member's fleets
CM	Length composition	Quarter	EEZ and CA	all Member's fleets
CM	Maturity ogive	Quarter	EEZ and CA	all Member's fleets
CM	Chub and blue mackerel ratio	Annual	EEZ and CA	all Member's fleets
PS	Catch	Month	1 x 1 degree	Gear
PS	Effort	Month	1 x 1 degree	Gear
PS	Length composition	Month	1 x 1 degree	Gear
PS	Age composition	Month	1 x 1 degree	Gear
PS	ALK	Month		Gear
JS	Catch	Month	EEZ and CA	Gear
JS	Effort	Month	EEZ and CA	Gear
JS	Length composition	Month		Gear
JS	Length-weight	Annual		Gear
NFS	Catch	Month	1 x 1 degree	Gear
NFS	Effort	Month	1 x 1 degree	Gear
NFS	Length composition			Gear
BM	Chub and blue mackerel ratio	Annual		
BM	Length composition	Month		
BM	Length-weight	Annual		
NPA, SA	Length composition	Month	Seamount	Gear
NPA, SA	Age composition	Month	Seamount	Gear
NPA, SA	Maturity ogive	Month	Seamount	Gear
NPA, SA	Effort	Decade	30" x 30"	Gear