NPFC-2020-SSC PS06-WP01 (Rev. 1)

**SSC PS Work Plan for 2020-2025**

SSC PS Chair, Toshihide Kitakado

The five-year rolling 2020-2025 Work Plan of the SSC PS has been drafted by the SSC PS Chair, Dr. Toshihide Kitakado, for review at the SSC PS06 meeting in November 2020. The Work Plan outlines key tasks of the SSC PS for stock assessment and management of Pacific saury. It will be reviewed and extended for one more year on the annual basis.

Priority list

1. Conduct a stock assessment update based on BSSPM analyses
2. Further investigate improvements to the BSSPM
3. Develop an age/size-structured model
4. Develop a list of plausible ranges for biological parameters
5. Develop databases to support age/size-structured models
6. Continue joint CPUE work to incorporate broader spatial and temporal coverage
7. Update the biomass estimate using the existing method (swept area method)
8. Develop spatio-temporal model for the biomass estimate
9. Further refine the catchability coefficient of the Japanese survey and characterize its variance
10. Develop a longer-term roadmap for work related to Pacific saury stock assessment
11. Set biological reference points
12. Develop a timeframe for MSE process

Table 1. 5-year work plan of the SSC PS.

[H] and [M] indicate high and medium priorities. Cells with “TBD” depend on the progress of data preparation and analytical works.

| **ITEM** | **SSC-PS05 (2019 Fall)** | **SSC-PS virtual****(2020 June)** | **Intersessional** | **SSC-PS06****(2020 Fall)** | **2021** | **2022** | **2023** | **2024** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Regular update of inputs** |  |  |  |  |  |  |  |  |
| Update & improvement of biomass survey index | * Review 2019 survey outcomes
* Investigate/refine q\_biomass
* Review spatio-temporal modelling
* Review simulation results

[H] | Review 2020 survey plan [H] | Review 2020 survey outcomes and finalize for use in BSSPM  | Continue review of 2020 survey and analytical works, and then finalize for use in BSSPM [H]  | Continue regular review [H] of 1) survey plan2) analytical work3) any related issues  | Continue regular review [H] of 1) survey plan2) analytical work3) any related issues  | Continue regular review [H] of 1) survey plan2) analytical work3) any related issues  | Continue regular review [H] of 1) survey plan2) analytical work3) any related issues  |
| Update & improvement of CPUE indices | Review CPUEs up to 2018 fisheries [H] |  | Review CPUEs up to 2019 fisheries and finalize for use in BSSPM  | Continue review of CPUEs up to 2019 fisheries and finalize for use in BSSPM [H] | Continue review of outcomes of regular update and analytical works [H] | Continue review of outcomes of regular update and analytical works [H] | Continue review of outcomes of regular update and analytical works [H] | Continue review of outcomes of regular update and analytical works [H] |
| Development of joint CPUE index | Review results and choose some initial sets of series for trial use in BSSPM[M] | Review further results [M] | Review CPUEs up to 2019 fisheries and finalize for use in sensitivity test of BSSPM | Review CPUEs up to 2019 fisheries and finalize for use in sensitivity test of BSSPM [H] | Continue review of outcomes of regular update and analytical works [H] | Continue review of outcomes of regular update and analytical works [H] | Continue review of outcomes of regular update and analytical works [H] | Continue review of outcomes of regular update and analytical works [H] |
| **Regular update of the existing SA** |  |  |  |  |  |  |  |  |
| Routine update BSSPM as a benchmark | Set up data and modify specification (if necessary)[H] | Update with base case 2  | Conduct BSSPM analyses using updated data | Update with base and sensitivity cases and draft BSSPM stock assessment report for review by SC and Commission [H] | Continue review of outcomes of regular BSSPM update [M] | Continue review of outcomes of regular BSSPM update [M] | TBD  | TBD |
| Improvement and further investigation of BSSPM | Review any outcomes of improvements (see Para 29 in TWG04 report)[L] | Continue [L] |  | Continue [L] | Review any outcomes of improvements (see Para 29 in TWG PSSA04 report)[M] | Review any outcomes of improvements (see Para 29 in TWG PSSA04 report)[M] | TBD | TBD |
| **Toward age/size-structured models (ASSMs)** |  |  |  |  |  |  |  |  |
| Data inventory (CPUE and size/age in space and time) | * Review data availability for each member
* Discuss data sharing process

[H] | Review an initial data set for initial trials of conditioning (intersessionally) |  | Finalize an initial data set for initial trials of estimation [M] | Finalize data for 2021 stock assessment with ASSMs [H] | Continue update of data for stock assessment with ASSMs [H] | TBD | TBD |
| Summarizing available information on PS biology | Review comprehensive reports [H] |  |  | Finalize an initial list of assumptions for initial trials of estimation [M] | Finalize assumption for 2021 stock assessment with ASSMs [H] | Continue update of data for stock assessment with ASSMs [H] | TBD | TBD |
| Development of models | Review proposal and discuss evaluation methods (including simulation)[H] |  |  | After PS06 meeting [M]: * Start conditioning
* Compare with BSSPM results
 | Review results of analyses by an agreed initial set of ASSMs [H] | Finalize models and results of analyses by ASSMs [H] | TBD | TBD |
| Uncertainty in models (possible link with OM grid under MSE)  | Grid of uncertainty and information gaps[L] | Continue [L]  |  |  | Start investigation [M] | Finalize the procedure of assessing model uncertainty [H] | TBD | TBD |
| Examination of estimation performance and finalization of models | Develop simulation specification[M] |  |  | Plan conducting simulation [M] | Review initial simulation works [H] | Finalize simulation works [H] | TBD | TBD |
| **Toward development of reference points** |  |  |  |  |  |  |  |  |
| Set biological reference points (limit and target) | Review intensively RPs reportStart investigating reasonable options[H] |  |  | Identify candidate RPs [M] | Continue discussion and adoption [H] | Continue discussion and amend if necessary [M] | TBD | TBD |
| **Toward development of MSE (work formally starts in 2021)** |  |  |  |  |  |  |  |  |
| Development of management objectives | Review intensively RPs report [L] |  |  |  |  |  |  |  |
| Definition of performance measures | Review intensively RPs report [L] |  |  |  |  |  |  |  |
| Construction of OMs | See items in age-structured models [L] |  |  |  |  |  |  |  |
| Development of candidate MPs |  |  |  |  |  |  |  |  |
| Simulation performance tests |  |  |  |  |  |  |  |  |
| Comparison of MPs and finalize advice  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |