NPFC-2024-SSC BFME05-WP01 (Rev. 1)

**Five-Year Work Plan of the SSC BF-ME**

Abstract: The Five-Year Work Plan of the SSC BF-ME was updated by the SSC BF-ME Chair and submitted to the SSC BFME04 meeting. Members reviewed and revised the work plan during the meeting.

Priority list:

1. NPA: Review monitoring survey
2. NPA: Conduct stock assessment and provide management advice
3. SA: Conduct stock assessment and provide management advice
4. NPA, SA and Sablefish: Develop and implement harvest control rule
5. Sablefish: Evaluate historical harvest relative to trip limits and update trip limits if necessary
6. Sablefish and VME: Conduct trade-off analysis between commercial fishing and VME protection
7. VME: Assess the relative risk of SAI for VME as a step towards standardize approach to SAI

| ITEM | SSC BFME05 (2024) | SSC BFME06 (2025) | SSC BFME07 (2026) | SSC BFME08 (2027) | SSC BFME09 (2028) | Progress |
| --- | --- | --- | --- | --- | --- | --- |
| North Pacific Armorhead |  |  |  |  |  |  |
| Assess and monitor status of stock | Update catch data for NPA | Update catch data for NPA | Update catch data for NPA | Update catch data for NPA | Update catch data for NPA | Completed annually |
|  | Review results of NPA monitoring surveys | Review results of NPA monitoring surveys | Review results of NPA monitoring surveys | Review results of NPA monitoring surveys | Review results of NPA monitoring surveys | Completed annually |
|  | ~~Implement alternative methods for stock status~~ | Implement alternative methods for stock status | Implement alternative methods for stock status | Update status of stock | Update status of stock | Exploring alternative methods for stock status |
|  | Evaluate trend in directed effort relative to NPA catch |  | ~~Compare CPUE and acoustic estimates~~ |  |  | Completed summary of trend in directed effort (to be presented at BFME05) |
|  | Identify and conduct additional research on NPA | Identify and conduct additional research on NPA | Identify and conduct additional research on NPA | Identify and conduct additional research on NPA | Identify and conduct additional research on NPA | Completed annually |
|  | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Completed annually |
| Conserve stock | ~~Develop conservation objective(s)~~ |  | Develop conservation objective(s) |  |  | Not completed |
|  | ~~Implement adaptive management~~ |  | Implement adaptive management |  |  | Not completed |
|  | ~~Develop HCR and implement~~ | ~~Update data and implement HCR~~ | Develop HCR and implement | Update data and implement HCR | Update data and implement HCR | Not completed |
| Splendid alfonsino |  |  |  |  |  |  |
| Assess and monitor status of stock | Update catch data for SA | Update catch data and CPUE standardization for SA | Update catch data and CPUE standardization for SA | Update catch data and CPUE standardization for SA | Update catch data and CPUE standardization for SA | Completed annually |
|  | Implement life history based approach, and provide management advice | Update life history based approach and provide management advice if necessary | Update life history based approach and provide management advice if necessary | Update life history based approach and provide management advice if necessary | Update life history based approach and provide management advice if necessary | Completed life history based approach (to be presented at BFME05) |
|  |  | Apply data-limited integrated approach | Complete data-limited integrated approach |  |  | Not completed |
|  | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice |  | Completed annually |
| Conserve stock | ~~Develop conservation objective(s);~~  ~~Define and implement harvest control rule~~ | Develop conservation objective(s);  Define and implement harvest control rule based on stock synthesis approach | Update data and implement HCR | Update data and implement HCR | Update data and implement HCR | Not completed |
|  |  |  |  |  |  |  |
| Sablefish |  |  |  |  |  |  |
| Assess and monitor status of stock | Update catch data and CPUE index | Update catch data and CPUE index | Update catch data and CPUE index | Update catch data and CPUE index | Update catch data and CPUE index | Completed annually |
|  | Provide an update on USA-Canada stock assessment models for Sablefish and joint research on Sablefish | Provide an update on USA-Canada stock assessment models for Sablefish and joint research on Sablefish | Provide an update on USA-Canada stock assessment models for Sablefish and joint research on Sablefish | Provide an update on USA-Canada stock assessment models for Sablefish and joint research on Sablefish | Provide an update on USA-Canada stock assessment models for Sablefish and joint research on Sablefish | Completed annually |
|  | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Completed annually |
| Conserve stock | ~~Design HCR specific to NPFC Sablefish (joint intersessional work with Canada and USA assessment authors~~ | [Design HCR specific to NPFC Sablefish (joint intersessional work with Canada and USA assessment authors] | Update data and implement HCR | Update data and implement HCR | Update data and implement HCR | Not completed |
| Other research | ~~Update trade-off analysis for Sablefish fishing and VME protection (as new data is available)~~ |  | Update trade-off analysis for Sablefish fishing and VME protection (as new data is available) |  |  | Not updated (no new data available) |
| Vulnerable marine ecosystems |  |  |  |  |  |  |
| Defining and Identifying VMEs | Summarize VME indicator taxa observation data from various sources and map for NPFC area |  | Consolidate other potential data sources and clarify gaps and deficiencies in VME data |  |  | Completed mapping (SWG VME report) |
|  | Review and update quantitative definition of VMEs as needed | Review and update quantitative definition of VMEs as needed | Review and update quantitative definition of VMEs as needed | Review and update quantitative definition of VMEs as needed | Review and update quantitative definition of VMEs as needed | Completed annually |
|  |  | Update identification of new VME and areas likely to be VMEs as new data becomes available | Update identification of new VME and areas likely to be VMEs as new data becomes available | Update identification of new VME and areas likely to be VMEs as new data becomes available | Update identification of new VME and areas likely to be VMEs as new data becomes available | Completed annually |
|  | Review updated taxonomy for corals and VME indicator taxa as needed (Hydrocorals) | Review updated taxonomy for corals and VME indicator taxa as needed | Review updated taxonomy for corals and VME indicator taxa as needed | Review updated taxonomy for corals and VME indicator taxa as needed | Review updated taxonomy for corals and VME indicator taxa as needed | Completed annually |
| Identifying and defining SAI's | Determine data requirements and spatial/temporal resolution for SAI assessment and continue developing risk assessment for SAI | Determine data requirements and spatial/temporal resolution for SAI assessment and continue developing risk assessment for SAI | Assess risk of SAI for bottom fisheries | Conduct integrated SAI assessment | Conduct integrated SAI assessment | Work in progress |
|  |  | Develop standardized and measurable metrics to assess cumulative impacts of fisheries on VME | Assess other threats to VME, such as climate change and lost fishing gear |  |  |  |
| Quantifying interactions between fisheries and VMEs | Update spatially explicit fishing effort data | Update spatially explicit fishing effort data | Update spatially explicit fishing effort data | Update spatially explicit fishing effort data |  | Completed annually |
|  | Use data-based methods applied to Japan and Korea’s indicator taxa bycatch to further refine encounter thresholds | Develop or research alternative methods to apply to Japan and Korea’s indicator taxa bycatch to further refine encounter thresholds that are taxon and gear specific |  |  |  | Completed - To be presented at BFME05? |
|  | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Review fisheries observer program data collection for adequacy to produce data streams to support management advice | Completed annually |
| Conserving VMEs | ~~Refine framework for future monitoring of recovering VMEs~~ | Refine framework for future monitoring of recovering VMEs | Periodic review of VME management | Periodic review of VME management | Periodic review of VME management | Not completed |
| Other ecosystem components |  |  |  |  |  |  |
| Assess the impact of fisheries on other ecosystem components | Examine discards over time (species composition, weight of discards) for bottom fisheries in CA |  | Work towards assessment of fishing impacts on other (non-target) ecosystem components |  |  | Completed - To be presented at BFME05 |
| Climate Change | SSC BFME05 (2024) | SSC BFME06 (2025) | SSC BFME07 (2026) | SSC BFME08 (2027) | SSC BFME09 (2028) | Progress |
| Preparing for climate change effect on bottom fish |  | Literature review for SA, NPA (SWG NPA&SA) Or Sablefish (Canada) |  |  |  | NA |