



Curated List of Research Priorities (RP) for 2024 – 2027

This document represents the curated list of research priorities in consideration for the Top 10 list for 2024 - 2027. The SSC Subgroup for research priorities reviewed all [new public submissions](#) and [Plan Team](#) recommended RPs. Additionally, the SSC subgroup revised, combined, or added to these RPs to improve clarity, reduce redundancy, and broaden topics that spanned input from multiple groups to the best of their ability. Care was taken to minimize any potential change of intent from the original RPs to the extent practicable.

Guide for using this document:

- Each numbered RP below has a research Id # (RID), a list of Citations, and a list of Related RIDs. An * indicates this RP (or something very similar) was on the 2021 Top 10 list.
- Citations indicate what group brought forward this (or related) research priority on their "Top 5", COM, or Supplemental (Supp) list and whether the RP was also identified by the Public.
- Related RID indicates all the ID numbers that the SSC subgroup determined to be sufficiently similar in intent to the numbered RP.
- Research ID #s (RID) are provided in parentheses with each priority to provide context.
 - Numeric RID greater than or equal to 800 are new or edited priorities for 2024.
 - Numeric RID from 100-799 are existing priorities in the [database](#).
 - Alpha-numeric RID starting with "N" are [new public submissions](#) received during the submission period (July 1, 2023 - October 31, 2023).
 - Alpha-numeric RID also represent [Plan Team submissions](#): BSFEP = Bering Sea FEP Team; CPT = Crab Plan Team; GPT = Groundfish Plan Team; ScPT = Scallop Plan Team; SSPT = Social Science Planning Team; SSCSub = SSC Subgroup Team

The SSC subgroup suggests that these first 12 Research Priorities constitute a suitable starting point for deciding the SSC's Top 10 list to forward to the Council.

1. Further research to reduce western Alaska salmon bycatch in Bering Sea groundfish fisheries (808).
 - a. Citations: Public, SSCsub, GPT, SSPT (Supp)
 - b. Related RID: N024 (155, 156, 157, 182), N029, N031, N034, N035c, 235, SSCSub001.
2. Quantify the magnitude of fishing gear impacts on crab and their associated benthic habitat and develop fishing gear innovations where needed (809).
 - a. Citations: Public, BSFEP, CPT, SSCsub, Council, GPT (Supp)
 - b. Related RID: N025, N028, N030, N033, N039d, CPT 004, SSCSub002, Council001, BSFEP006, 235
3. Evaluate direct marine mammal-fishery interactions (including feeding on discards and spatio-temporal trends in bycatch) and potential mitigation measures for marine mammal conservation (810).
 - a. Citations: Public, SSCsub (Supp), GPT (Supp)
 - b. Related RID: N037b, N039f, SSCsub007, SSCsub008, GPT011

4. * Examine the economic, social, and cultural effects of fisheries and fishery management policy on coastal communities over time (including impacts from fishery policy changes and Tribal citizen and Tribal Nation reliance on, participation in, and impacts of federally managed fisheries) (811).
 - a. Citations: Public, SSPT (x3), BSFEP, CPT (Supp)
 - b. Related RID: 230, BSFEP009, SSPT003, 226, 731, N020
5. * Develop actionable ecosystem indicators relevant to single-species stock assessments and ecosystem assessments that address climate change impacts to managed stocks (812).
 - a. Citations: Public, BSFEP, GPT
 - b. Related RID: N035a, 189, BSFEP10, GPT015
6. * Continue to acquire basic life history information with an emphasis on improved estimates of size/age at maturity to advance understanding of the mechanisms for how maturity changes over space and through time (813).
 - a. Citations: Public, ScPT, CPT, GPT
 - b. Related RID: N008, 171, 592, CPT002, CPT003
7. * Increased understanding of the spatial distribution, habitat requirements, and movement of crabs relative to life history events and fishing (814).
 - a. Citations: Public, CPT, BSFEP
 - b. Related RID: N003, N011, N035b, N039a, 148, BSFEP006
8. Develop predictive tools and models that evaluate the impact of multiple projected climate scenarios on managed resources to inform management options related to ecosystem production and resilience and adaptation of fishing communities (815).
 - a. Citations: BSFEP, GPT, CPT
 - b. Related RID: 223, 225, 733, BSFEP008, GPT016, CPT006
9. Retrospective and meta- analysis regarding whether, how, when and why objectives and goals of fishery management plans are or are not achieved over time (e.g., Bmsy proxy evaluation) (816).
 - a. Citations: Public, SSCsub, GPT (Supp), SSPT (Supp)
 - b. Related RID: N027, N032, GPT014, 365
10. * Norton Sound Red King Crab case study.
 - a. Citations: SSPT, CPT (Supp)
 - b. Related RID: 731
11. Improve surveys in untrawlable habitat, particularly for rockfish, Atka mackerel, sculpins, and snow crab (817).
 - a. Citations: Public, GPT.
 - b. Related RID: N003, N017, N022, 146.
12. Improve discard mortality rate estimates for scallops, crab, and groundfish stocks by gear types (818).
 - a. Citations: Public, ScPT.
 - b. Related RID: 203, N035f.

Alternatives: These RPs only received recognition from one Plan Team and a number of them are only found on the Supplemental list.

13. Conduct routine surveys of subsistence uses of resources in communities across the Bering Sea, northern Bering Sea and Arctic Ocean (163).
 - a. Citations: GPT, 2021 Top 10.
 - b. Related RID: 163.

14. Characterize expected changes in benthic production due to climate change, including collecting time-series data and understanding the impact of fisheries (819).
 - a. Citations: BSFEP.
 - b. Related RID: BSFEP008.
15. Incorporate economics into decisions (820).
 - a. Citations: GPT.
 - b. Related RID: GPT008.
16. Estimate scallop stock abundance (166).
 - a. Citations: ScPT, 2021 & 2018 Urgent.
 - b. Related RID: 166
17. Population structure of scallops (553).
 - a. Citations: ScPT, 2021 & 2018 Important.
 - b. Related RID: 553.
18. Develop population dynamic models for scallop assessment (821).
 - a. Citations: ScPT.
 - b. Related RID: ScPT002.
19. Physiological responses of crab to climate stressors (715).
 - a. Citations: CPT, 2021 Important.
 - b. Related RID: 715.
20. Early life history population bottlenecks for crab (822).
 - a. Citations: CPT.
 - b. Related RID: CPT001.
21. Explore optimal sampling strategies and geospatial approaches for time series of survey data (533).
 - a. Citations: GPT, 2021 & 2018 Urgent.
 - b. Related RID: 533 (Currently on COM).
22. Analyses on loss of biological samples due to implementation of EM (823).
 - a. Citations: GPT (Supp), 2021 Top 10.
 - b. Related RID: GPT017.
23. Develop spatially explicit stock assessment models (174).
 - a. Citations: GPT (Supp), 2021 & 2018 Urgent.
 - b. Related RID: 174.
24. Modernization of fisheries-independent groundfish monitoring methods (824).
 - a. Citations: GPT (Supp).
 - b. Related RID: GPT001.