



Social Science Planning Team REPORT

November 3, 2023, 8:30am – 4:30pm AKT; online meeting

The Social Science Planning Team met to consider and recommend top Research Priorities. All meeting materials are available on the [eAgenda](#) for the meeting.

Committee Members in attendance:

Sarah Wise (AFSC; <i>co-chair</i>)	Mike Downs (SSC; <i>co-chair</i>)	Sarah Marrinan (NPFMC; <i>coordinator</i>)
Caroline Brown (ADF&G)	Seth Macinko (former SSC)	Courtney Carothers (UAF)
Scott Miller (NMFS)	Sam Cunningham (NPFMC)	Mike Fey (AKFIN)
Marysia Szymokowiak (AFSC)		

Members absent: Kate Haapala (NPFMC)

Others in attendance:

Nicole Watson (NPFMC)	Mateo Paz-Soldan (City of St Paul)	Brenden Raymond-Yakoubian (Kawerak, Inc)
Stephanie Madsen (APA)	Loretta Brown (SalmonState)	Rachel Donkersloot (Coastal Cultures Research)
Jeff Kauffman (CBSFA)		

Introduction and Updates

Co-chair Mike Downs called the meeting to order and led introductions. He reviewed the agenda for the meeting.

Co-chair Sarah Wise and other members provided updates for the group:

- The Council adopted the Local Knowledge, Traditional Knowledge, and Subsistence (LKTKS) protocol in full during the October Council meeting as well as nine of the eleven suggested ‘on-ramps’. This is available to see on the NPFMC website.¹
- NMFS is amending their Seafood Strategy including more economic considerations as well as acknowledging the importance of subsistence within the Seafood Strategy.
- The National Academies of Sciences Engineering and Medicine have been working on more topics that may be relevant to the SSPT. This includes a recent study evaluating the data and information available to assess the equitability of the distribution of benefits from federally managed fisheries.² A report on this topic is expected early 2024. Another study in development focuses on co-production of environmental knowledge, methods, and approaches.³ This study will incorporate information gathered from a series of workshop, including one in Anchorage, AK October 23-24, 2023.

¹ [Link](#) to LKTKS Policy Statement and Protocol.

² [Link](#) to NASEM description for study Assessing Equity in the Distribution of Fisheries Management Benefits.

³ [Link](#) to NASEM description for study on Co-Production of Environmental Knowledge, Methods and Approaches.

- The National NMFS effort to develop an Equity and Environmental Justice (EEJ) Strategy is ongoing.⁴ Each regional Science Center is working on developing their own strategy as well.
- It was also noted that the Final Rule implementing the changes to the Economic Data Reports (EDR) was published on 2/6/2023 and became effective on 3/8/2023 (88 FR 7586). Therefore, this year represents the first round of reporting under which these changes will take effect. The SSPT participated in the process to recommend the amendments to this program.

Research Priority Review and Discussion

Next, Nicole Watson (NPFMC analyst) provided a presentation about the current planned process for consideration of 2024 Research Priorities, including the process before the SSPT at this meeting. She highlighted that the objectives for the SSPT were to:

- Review submissions relevant to the SSPT (new and previous),
- Review Plan Team member submissions,
- Receive public testimony,
- Determine Plan Team top 3-5 research priorities to send to SSC,
- (Optional) Provide a list of additional priorities seen as important but not included in the top 3-5. Please no more than 10,
- Also document methods at how the team arrived at their top 3-5 list, and
- Recommend any future improvements.

Nicole laid out the plan for this meeting and identified all the resources available on this topic. She reminded the group that the Magnuson-Stevens Act requires Councils to identify 5-year research priorities for fisheries, fisheries interactions, habitat and other areas of research that are necessary for management purposes. Research Priorities are selected based on how well they align with or inform management for the federal fisheries the Council manages.

In this current process, Plan Teams are acting as ‘filter’ meetings to give additional attention to the Research Priorities that fit within the Plan Teams’ areas of expertise. This process is intended to provide more transparency and additional opportunity for public input. These 3-5 recommendations from each group will be forwarded to the SSC. The SSC will give further consideration and identify top 8-10 priorities. The Council will consider these recommendations and identify the final 8-10 list. **The SSC and Council review will occur at the April 2024 meeting.**

Sarah Marrinan screen-shared the Excel spreadsheet of 31 existing research priorities which include elements related to human dimensions, and which the SSPT members were asked to review prior to the meeting. The group walked through each existing priority. **Attached is a table of all the Research Priorities reviewed by the SSPT which includes notes and suggested language changes from the SSPT.** Initially (through Research ID #179), members had more in-depth discussion about each priority, including its merit, the status of ongoing research related to the description, and the way the Research Priority was described. Given the level of discussion that could occur around each priority and the need to address the objectives requested of the SSPT, the group refocused the discussion specifically around any suggested language change for the existing Research Priorities.

Next, the group walked through the list of 9 new submissions from the public that had human dimensions components and the 3 new priorities submitted by SSPT members. **Additional comments for the newly suggested Research Priorities are included in the attached table.** It was noted that some of the newly

⁴ [Link](#) to NOAA Fisheries EEJ Strategy.

suggested priorities (e.g., N047d on the incorporation of Traditional Knowledge, SSPT001 assessment of equity in the distribution of fishery management benefits, and SSPT003 on the assessment of Tribal Nation reliance on, participation in, and impacts of federally managed fisheries) were suggested as stand-alone Research Priorities; however, these areas of focus should be a component or dimension of all Research Priorities to support Council’s decision-making process.

Public comment was received by Mateo Paz-Soldon (City of St Paul) stating his appreciation for the SSPT’s work to support the social, cultural, and economic dimensions in Research Priorities as they may affect future Council actions.

Members each had the opportunity to speak to priorities that constitute their own top priorities. The rationale provided by members is included in support of the SSPT’s top choices below.

Additional **public comment** was received by Brenden Raymond-Yakoubian (Kawerak, Inc.) on the LKTKS Taskforce’s work, its products and applicability. He noted that it is Kawerak’s view that the Council’s adoption of the LKTKS Protocol signals broad acceptance of its ideas for the Council process. Brenden stressed that while regional considerations and tweaks would be appropriate in working with TK in other regions, much of the guidance and work done through the BS FEP Taskforce can be generally applied when advancing LKTKS work in other regions. They would not want to see delay in meaningful effort in other regions because they didn’t have their own LKTKS Taskforce and a Protocol specifically designed for those regions. He stated that Kawerak would advocate for that application in a preamble to any Research Priority selections that are made. Kawerak also supports language change to priorities that reference ‘socio-economic’ to instead jointly but distinctly identify the need for *social, cultural, and economic* data, information, and or research.

Identification of SSPT’s Top Research Priorities

Following discussion, members used an online rank-choice voting tool (RCV123.org) for identifying the SSPTs top 5 priorities. In order to populate the ballot for this tool, each member emailed the Research ID # for their own 3-5 top choices. This would include choices from Kate and Seth who were unable to attend this part of the meeting, but who provided their choices ahead of time. Nicole and Sarah Marrinan collated all of the submitted numbers into one list. **Of the total 43 research priorities considered by the SSPT (including new and existing submissions), the ballot was comprised of 16 top choices.** From those 16 top choices, members ranked their top 5. The following table demonstrates the results of this voting.

The SSPT's top 5 Research Priorities and rationale:

Tied for 1st:	
	Research ID #230 - Examine social and economic interactions between coastal communities and commercial and recreational fisheries.
Rationale in support:	
Research Priority #230 is broad language that could focus research around better characterizing both economic dimensions and other social dimensions in fishery communities (social cohesion, operational diversity community resilience, etc.) While this would help describe current dynamics it could also be used in decision-making by helping to establish the baseline for action analyses.	
	Research ID #N037D - Traditional Knowledge: There are numerous ways Traditional Knowledge will strengthen all Research Priorities, including offering new frameworks for analysis; fostering relationships between Indigenous and Western scientific researchers and communities; and filling gaps in existing ecological and social scientific research.
Rationale in support:	
The identification of #N037D as a top Research Priority forward is in alignment with the recognition of Tribal sovereignty and importance of working with Tribal governments to bring the best scientific information available (not just Western science) in a way that is not extractive. It supports national initiatives to strengthen Tribal consultation and government relationships which extends to the research. This work can help management move away from the concept of attempting to assimilate TK into Western paradigms. This is in alignment with the two recent NAS consensus studies including co-production workshops and other national efforts towards better incorporation of TK.	
2nd:	Research ID #SSPT003 - Document and assess Tribal citizen and Tribal Nation reliance on, participation in, and impacts of federally managed fisheries (historically and throughout time)
Rationale in support:	
This Research Priority has some overlap with the additionally important Research Priority # SSPT001 on the assessment of equity in the distribution of fishery management benefits, but in particular it is more specifically focused around Tribal citizen and Tribal Nations. In particular, with national priorities to elevate and strengthen Tribal Consultation and Collaboration, Federal Trust Responsibility, inclusion of Indigenous knowledge systems, and racial equity in federal fisheries, and with 229 Tribal Nations in Alaska there is a lot of work that needs to be responsive to these national priorities. This is also one of the identified data gaps in the SSPT's ongoing Data Gap analysis.	
Tied for 3rd:	
	Research ID #165 – <i>suggested title change to:</i> 'Conduct routine surveys of subsistence uses of resources in communities across the Bering Sea, northern Bering Sea and Arctic Ocean'
Rationale in support:	
Research Priority #165 was a top priority with the suggested title change. Regular and solid collection of information on subsistence uses of resources in communities across the Bering Sea, northern Bering Sea and Arctic Ocean would be an essential part of monitoring and understanding the rapidly changing environment and the human response. There is a dearth of this information and these data would help respond to MSA requirements for fishery disasters. This effort could be advanced through a co-production approach (working with Tribes and Tribal organizations) to think about how to best conduct this type of data collection. It could be linked with goals for LKTKS work. Would contribute to SIAs and help to address National Standard 8 for actions related to this area. Also, members liked that this was not so broad that it could lose the desired focus.	
	Research ID #731 - Norton Sound Red King Crab case study
Rationale in support:	
Research Priority #731 may represent a significant example of work that can be done to bring together climate change information, LKTKS, Western science, etc. to work to address a locally important crab fishery that has seen substantial stock declines.	

This represents work that the SSC has recommended annually since 2018, but COVID derailed some of the work. This fishery has multiple community protection measures built in and the efficacy of these measures may not have been analyzed. This fishery has seen declines in stock status, but local harvesters depend on it to support subsistence, as well as a summer and winter commercial fishery. These communities are primarily indigenous and tribes in the area have been supportive of the initiative to incorporate more LKTKS information. This would be in line with the recently adopted LKTKS protocol.

Special Mention and Ballot List

Research Priority #611 did not make into the SSPT's top 5 list from rank choice voting; however, this priority (with the changes described in the attached table, including recommendations from N039c) did receive the most ranked votes from SSPT members that ranked their top 5. This is a broad Research Priority around the importance of collecting social and cultural information that can be used in management. As described in the table, it is recommended this is expanded to include subsistence fisheries, as well as information shared through Tribal Consultation and other informal means, to support the development of SIAs. Several members expressed their support for this priority.

In addition, the 16 Research Priorities that made it to the ballot were all within members' top 3-5 choices. Additional support for these priorities is captured in the attached table. In addition to the 6 specified above, these included the following (listed in numerical order, not ranked):

Research ID #178: Develop a framework and collect economic information.

Research ID #179: Conduct pre- and post-implementation studies of the benefits and costs, and their distribution, associated with dedicated access privileges.

Research ID #226: (*suggested title change*) Monitor the economic, social, and cultural effects from fishery policy changes on coastal communities.

Research ID #365: Retrospective analysis of the impact of Chinook PSC avoidance measures on communities of western Alaska.

Research ID #431: Develop tools for analyzing coastal community vulnerability to fisheries management changes.

Research ID #714: (*suggested title change*) Evaluate impacts on Northern Bering Sea communities, commercial fishermen, and shore-based processing facilities from climate impacts, for example Pacific cod and pollock shifts northward.

Research ID #N020: Identify pathways and other opportunities for fishermen and communities to diversify and adapt in the face of climate-driven changes to fisheries (e.g., Bering Sea crab crashes).

Research ID #N032: Retrospective analysis of whether and how social science is or is not used regarding predictions of changed fishing behavior in light of proposed changes to management structures.

Research ID #SSPT001: Assessing equity in the distribution of fishery management benefits.

Research ID #SSPT002: Regional Economic Impact Modelling

Next Steps

The group had a short discussion of next steps. Sarah Marrinan described sentiment members have previously expressed on next steps for the group. Members continue to express support for the mission of

the group and feel that there is still work to be done in achieving the groups' mission.⁵ There have been concerns raised about how to be most productive with this time together given other work obligations and what level of commitment should be expected (number of meetings, outside work, etc.). It was noted that members find value in having space for broad interdisciplinary discussion. There were questions about what we'd be asking from the Council to be success in the mission (i.e., clear direction vs us providing examples of what could be accomplished).

Mike Downs highlighted all the work that had been done on the Data Gaps Analysis and the interest in completing that project so the document could be public. This project will require commitment from all and at least one member to lead the effort. At this point, we are looking for volunteers in leading that effort.

Mike Downs suggested following up with an additional meeting on next steps some time in early 2024. In terms of moving forward, members were asking to consider the groups' mission statement and what they think the group could accomplish in the next year or two.

Additionally, it was noted the group currently has less economic representation so it may consider soliciting membership.

⁵ Link to SSPT mission statement: <https://www.npfmc.org/about-the-council/plan-teams/social-science-planning/>

Attachment 1. Table of Research Priorities considered by the SSPT with suggested changes and notes

Research ID #	Title	Description	SSPT suggested changes	SSPT comments	Original notes
155	Evaluation of salmon PSC mitigation measures	Develop a research program that will facilitate evaluation of salmon (both Chinook and non-Chinook) PSC mitigation measures in the BSAI and GOA. This includes updated estimates of the amounts reasonably necessary for subsistence, timing of runs and openings relative to subsistence requirements, and access to cost data for the commercial pollock and salmon industries so that impacts on profits (not gross revenues) can be calculated.		Some overlap with # 231. Note that this requires access to cost of production data that we don't currently have.	
158	Research ecosystem indicators and their thresholds for inclusion in ecosystem-level management strategy evaluation.	Initiate/continue research on the synthesis of ecosystem indicators, developing and evaluating thresholds for ecosystem indicators, and ecosystem-level management strategy evaluation.		<p>Ongoing, but still important (ESR, ESPs). More development on ecosystem indicators is being outside of human dimensions, but ecosystems include people so important to include social, cultural, and community dimensions and indicators in EBFM. Note literature around complexity of indicators for these dimensions (e.g., Breslow et al. 2017: https://doi.org/10.1080/20964129.2017.1411767) Breslow et al. 2016 https://doi.org/10.1016/j.envsci.2016.06.023</p> <p>Note that in many places we have inadequate data in order to create the kind of human dimension indicators that could feed into EBFM. Some of these other research priorities seek to address this.</p> <p>** think about in next steps - larger questions about human dimensions in EBFM</p>	

<p>165</p>	<p>Conduct routine surveys of subsistence in the northern Bering Sea and Arctic Ocean</p>	<p>Conduct routine surveys of subsistence use of marine resources in the northern Bering Sea and Arctic Ocean. These surveys will become increasingly important under ongoing warming ocean temperatures because range expansions of harvested fishery resources may occur. If range expansions or shifts occur, data will be needed to adjust standard survey time series for availability.</p>	<p>Suggested title change: 'Conduct routine surveys of subsistence <u>uses of resources in communities across the Bering Sea, northern Bering Sea and Arctic Ocean</u>'</p>	<p>Members spoke to the importance of this priority. We don't have data and things are changing rapidly. There are MSA requirements in the case of fishery disasters - that are asking for impact information and information isn't all there.</p> <p>Should there be more specific timeframe than 'routine?' More systemic and regularly scheduled survey. (Currently some ad hoc data collections happening.) Also marine resources in the larger context as subsistence instead of a single resource category.</p> <p>Could advance co-production approach (working with Tribes and Tribal organizations) to think about how to best conduct this type of data collection.</p> <p>Could link with goals for LKTKS work. Would contribute to SIAs and address Nat Standard 8 for actions related to this area. Examples of useful topics could include changes in harvest levels over time, changes in species presence and communities adaptive harvesting or processing behavior.</p>	<p>In light of budgets this should be important, not urgent. There is Arctic IERP starting this year so could be considered underway or partially underway as I don't know if subsistence is the main focus?</p>
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178	Develop a framework and collect economic information	Develop a framework for the collection of economic information on commercial, recreational, and charter fishing, as well as fish processing, to meet the requirements of the MSFCMA sections 303(a)(5, 9, 13), 303(b)(6), and 303A.		<p>This is a very broad priority and members had questions about whether it was intended to reference a more specific effort - i.e, recent discussion about a holistic econ data collection across all fisheries? Economic data is currently very uneven across sectors.</p> <p>We have requirements under MSA for certain types of analysis and we need certain econ data to conduct these analyses. This research priority is important for supporting baseline economic data collection at the community level, business level, crew level etc in order to meet the legal requirements cited.</p> <p>This is similar to # 611 and currently may overlap in terms of economic research priorities. There was discussion about whether to attempt to combined these priorities or separate them. Concerns were expressed around what might be lost if these two were collapsed, therefore members suggested separating the broad need for economic data into # 178 and retaining the broad need for other types of social and cultural information described in # 611.</p>	2021 - top ten
179	Conduct pre- and post-implementation studies of the benefits and costs, and their distribution, associated with dedicated access privileges	Conduct pre- and post-implementation studies of the benefits and costs, and their distribution, associated with changes in management regimes (e.g., changes in product markets, characteristics of quota share markets, changes in distribution of ownership, changes in crew compensation) as a consequence of the introduction of dedicated access privileges in the halibut/sablefish, AFA pollock, and crab fisheries. Benefits and costs include both economic and social dimensions.		<p>Will likely be more of an emphasis on post-implementation, less of a priority for pre-studies given many of the Fed fisheries already rationalized. But noting that there is a new PCTC program. Some members questioned what is the scope of 'dedicated access programs' (e.g., just LAPPs or also LLP endorsements)?</p> <p>This was a top priority for some members as one of the bigger types of management decisions that directly affects human dimensions.</p> <p>Elevation of social, cultural and community and equity assessments implication of programs, including the efficacy of specific community components.</p>	2018 - Top Ten

180	Economic, social, and cultural valuation research on protected species	Economic, social, and cultural valuation research on protected species is needed (i.e., non-market consumptive use, passive use, non-consumptive use).	Suggested change to description: <i>remove words in the parenthesis.</i>	Some concerns about the lack of relationality in the framing. It was noted this is currently in reference to specific economic valuation methodology.	
182	Evaluate the effectiveness of current and alternative Council PSC/bycatch reduction initiatives	Analyze the effects of recent Council actions on PSC and bycatch, including the interaction among PSC and bycatch reduction initiatives (e.g., halibut, salmon, crab). Attention should be given to different incentives that have the potential to cost-effectively reduce PSC.			
187	Continue to develop and improve the use of indicator-based ecosystem assessments throughout the range of the Council's managed resources	Maintain indicator-based ecosystem assessment for EBS.		Similar to # 158. Ongoing, still important (ESR, ESPs). More development on ecosystem indicators outside of human dimensions but ecosystems include people so important to include social, cultural, and community dimensions and indicators in EBFM. Note literature around complexity of indicators for these dimensions (e.g., Breslow et al. 2017 https://doi.org/10.1080/20964129.2017.1411767) Breslow et al. 2016 https://doi.org/10.1016/j.envsci.2016.06.023 ** think about in next steps	
198	Initiate and expand non-market valuation research of habitat, ecosystem services, and passive use considerations	Initiate and expand non-market valuation research of habitat, ecosystem services, and passive use considerations.		Are required to consider non-market valuation. Speaks to a specific methodology.	
209	Continue to collect guided angler sector data for the halibut fishery	Continue to collect the guided angler sector data for the halibut fishery. Continue to explore factors that affect angler demand and trip supply. (note the IPHC collects unguided angler sector data)	Suggested change to description: <i>remove words in the parenthesis.</i>	Note that unguided angler data not collected by the IPHC. Data on the unguided recreational sector is collected by the ADF&G Statewide Harvest Surveys. Data on the guided angler sector is systematically collected through the ADF&G Saltwater Logbooks, and guided/ unguided angler data has been collected through ad hoc	

				AFSC surveys. Also, ADF&G has dockside creel surveys.	
210	Develop bioeconomic models	Develop bioeconomic models with explicit age- or size-structured population dynamics for BSAI and GOA groundfish fisheries to estimate maximum economic yield and other bioeconomic reference points under uncertainty.		This work seeks to aid in identification of maximum economic yield.	
211	Benefits and costs of directed halibut catch and halibut PSC utilization	Research the benefits and costs of directed halibut catch and halibut PSC utilization in different fishing sectors. For halibut and other PSC and bycatch species, conduct research to better identify where regulations restrict the utilization of fish from its most beneficial use and evaluate how changes in existing regulations would affect different sectors and fisheries			
225	Develop projection models to evaluate management strategies under varying climate, ecological, and economic conditions and evaluate impacts to managed resources and coastal communities.	There is a need to develop projection models that evaluate the robustness and resilience of different management strategies under varying climate, ecological, and economic conditions. Projection models should forecast seasonal and climate related shifts in the spatial distribution and abundance of commercial fish and shellfish, and impacts to communities.	Suggested change to the title: Develop projection models to evaluate management strategies under varying climate, ecological, and economic, <u>social and cultural</u> conditions and evaluate impacts to managed resources and coastal communities. Also suggest this language change in the description.	Suggested language change in this and other priorities is meant to emphasize the different social science dimensions, rather than collapsing this term into 'economic' or 'socio-economic'.	CPT 2017-05: how is this different from 158? Consider merging
226	Monitor the economic effects from fishery policy changes on coastal communities.	Monitor the socio-economic effects from fishery policy changes on coastal communities. This includes understanding socio-economic impacts (both direct and indirect) and how the impacts are distributed among communities and economic sectors.	Suggested change to the title: Monitor the economic, <u>social and cultural</u> effects from fishery policy changes on coastal communities.	Suggested language change in this and other priorities is meant to emphasize the different social science dimensions, rather than collapsing this term into 'economic' or 'socio-economic'.	

			Also suggest this language change in the description.	Some members highlighted as one of their top priority with the addition of the suggested language.	
228	Monitor subsistence harvest (patterns, norms, quantities) in communities affected by Council actions.	Monitor the subsistence harvest patterns, norms and quantities in communities that depend upon resources that may be affected by Council action.		Some overlap with # 165. But that one is specific with BS and Arctic Ocean.	
230	Examine social and economic interactions between coastal communities and commercial and recreational fisheries	Examine social and economic interactions between coastal communities and commercial and recreational fisheries (e.g. subsistence-commercial linkages, adaptations to changes in resource use, economic opportunities for coastal communities).		Similar to # 226, but different in that this research would better characterize the status quo/ current dynamics vs # 226 which appears to be more about evaluating impacts of policy.	Dropped by CPT May 2015
231	Retrospective analysis of the impact of Chinook salmon PSC avoidance measures on the BSAI pollock fishery	Conduct retrospective analyses to assess the impact of Chinook salmon PSC avoidance measures on the BSAI pollock fishery. Analyses should include an evaluation of the magnitude and distribution of economic effects of salmon avoidance measures for the Bering Sea pollock fishery. In this case, it is important to understand how pollock harvesters have adapted their behavior to avoid bycatch of Chinook and other salmon, under various economic and environmental conditions and incentive mechanisms.		Questioning the usefulness of this priority given the changing landscape; unlikely to inform the future.	
234	Analyze current determinants of demand for principal seafood products	Analyze current determinants of ex vessel, wholesale, international, and retail demand for principal seafood products from the GOA and BSAI.			
235	Investigate gear modifications and changes in fishing practices to	Gear modifications and changes in fishing practices to reduce bycatch and PSC are needed.			

	reduce bycatch and PSC				
247	Assess the relative importance of non-commercially exploited species to human communities	Assess the relative importance of non-commercially exploited species (invertebrates, fish, marine mammals, and seabirds) to human communities, particularly in Arctic.	Suggested change to the title: Assess the relative importance <u>role</u> of non-commercially exploited species to human <u>coastal</u> communities Also suggest this language change in the description.	National work going on having to do with this - looking beyond subsistence at species that currently don't have commercial fisheries, but could, especially with a changing climate. Not sure if this research priority covers everything that could be important here.	
365	Retrospective analysis of the impact of Chinook PSC avoidance measures on communities of western Alaska	Conduct retrospective analysis using qualitative and quantitative methods on salmon dependent communities of western Alaska that may be affected by Chinook salmon PSC avoidance measures in the BSAI. Analysis should evaluate long-term changes in local Chinook abundance and uses, and provide detailed ethnographic work exploring the meaning of salmon to these communities in the context of industrialized offshore fisheries.			2018 - Top Ten
431	Develop tools for analyzing coastal community vulnerability to fisheries management changes	Develop tools for for assessing and predicting coastal community vulnerability to fisheries management changes. Assess changes in community vulnerability over time by FMP and individual catch share fishery.		NMFS has developed indicators nationally, efforts to develop indicators that could be better applied to the NP region	2018 - Top Ten
491	Assess dependence and impacts of halibut management actions on communities	Quantitatively and qualitatively examine the suite of engagements, dependencies, and vulnerabilities of halibut dependent communities and impacts of halibut management actions.			2018 - Top Ten
492	Investigate factors underlying fishery responses to halibut PSC caps	There is need to understand the underlying factors through which industry can adjust its behavior and its corresponding halibut encounter rates, in response to potential changes in halibut PSC caps. Investigations		Lot of work done recently related to this. With the recent adoption of halibut ABM the recent past may not be a good representation of the near future, therefore some may not rank it as high.	

		under this category could be conducted in combination with evaluations of alternative management actions for halibut PSC under Research Priority 385.			
611	Collection of socio-economic information	Collect socio-economic information on commercial, recreational, and charter fishing, as well as fish processing, to meet the requirements of the MSFCMA Sections 303(a)(5, 9, 13), 303(b)(6), and 303A.	<p>Suggested title change: 'Collect <u>social and cultural</u> socio-economic information'.</p> <p>Also suggest this language change in the description.</p> <p>Suggest this be expanded in the ways that # N039c recommends.</p>	<p>This priority is similar to # 178 in the collection of econ data and was discussed in tandem.</p> <p>Important not to collapse terms so that only econ info is provided. We separated to have a broad research priority linked to social and cultural information, whereas the need for economic data is intended to be focused in # 178 in order to not be redundant. However, these broad priorities will be overlapping in some cases.</p> <p>Suggest this is expanded in the ways that N039c recommends. A) <i>This should be expanded to include subsistence fisheries as well, utilizing information through the Subsistence Division of the Alaska Department of Fish and Game, as well as information shared through Tribal Consultation and other informal means, to support the development of Social Impact Assessments expected in a variety of upcoming actions</i></p> <p>A number of members rated this as one of their top priorities with the language change suggested.</p>	<p>Improved wording requested by SSC - need guidance.</p> <p>2021 - top ten</p>
615	Evaluate the interactions between fisheries and killer whales and sperm whales	Attempt to quantify killer whale and sperm whale depredation on halibut, sablefish, and turbot in the CV and CP longline and trawl fleets. Study the effects on DMRs, the observer program, stock estimates, wastage, and unobserved mortality. Evaluate methods of avoidance, deterrence, and cost.			

<p>691</p>	<p>Develop comparable measures of net value, total value, and economic impacts for the Area 2C and 3A charter and commercial halibut fisheries.</p>	<p>Completion of this project is needed to develop a framework of the types of social/economic data that could be helpful when conducting the 2021 allocation review for the Halibut Catch Sharing Plan.</p>	<p>Suggested title change: 'Develop comparable measures of net value, total value, and economic impacts for the Area 2C and 3A charter and commercial halibut fisheries.'</p> <p>Suggested description change: '<u>These economic metrics can help evaluate trends within sectors overtime and could aid in analyses potential effects from changes in management.</u>'</p>	<p>Note that the SSPT helped to review and recommend this research priority prior to the Catch Sharing Plan Allocation review - so the description is outdated.</p> <p>The term 'comparable' was included because this was going to be an allocation review, but even in that case, there are know difficulties in developing truly comparable metrics in such different fisheries. However, these types of data would have value on their own merit, even if not comparable. These metrics could also help with the next allocation review, but even before that they could be useful for other management actions.</p>	
<p>692</p>	<p>Conduct ethnographic research and collect information on the indirect effects of the Area 2C and 3A charter and commercial halibut fishing.</p>	<p>Completion of this project is needed to develop a framework of the types of social/economic data that could be helpful when conducting the 2021 allocation review for the Halibut Catch Sharing Plan.</p>	<p>Suggested title change: Conduct ethnographic research and collect information on the indirect effects of the on <u>community engagement, operational diversity, and social dynamics</u> related to Area 2C and 3A charter and commercial halibut fishing.</p> <p>Suggested change to description: '<u>This information would provide important context for management decisions, including proposed commercial or charter management actions, allocations decisions, and charter management measures.</u>'</p>	<p>Note that the SSPT helped to review and recommend this research priority prior to the Catch Sharing Plan Allocation review - so the description is outdated.</p> <p>The suggested language change is intended to less specific to methodology and instead focused more broadly on community engagement, operational diversity and social dynamics. So beyond economic impacts (which is captured in # 691). Includes charter crew information.</p>	

714	Evaluate impacts on Northern Bering Sea Communities from Pacific cod and pollock shifts northward	Pollock and cod stocks in the Bering Sea have been seen in greater volumes since the NBS survey was conducted in 2017. These stocks may have impacts on local harvest of other species as well as increased interactions with groundfish fishing sectors such as the Pacific cod longline fleet that are active in the region.	Suggested title change: Evaluate impacts on Northern Bering Sea communities, <u>commercial fishermen, and shore-based processing facilities</u> from <u>climate impacts, for example</u> Pacific cod and pollock shifts northward.	There are other types of climatic changes that may be important to consider here other than only Pacific cod and pollock movement. Understanding that Northern Bering Sea communities means, 'Northern Bering Sea Climate resilience area.'	
731	Norton Sound Red King Crab case study	Needed to help understand and address urgent stock assessment and management challenges in the NSRKC fishery, including the efficacy of previously instituted community protection management measures through the collaborative involvement of the LKTKS taskforce and the Climate Change taskforce. This could be informative for better understanding predation by groundfish on juvenile crab in nearshore areas and population bottlenecks, and to improve management to improve stock condition. What is happening in this fishery involves cross-jurisdictional considerations, points to the need to work with multiple knowledge systems, highlights the intertwined nature of human dimensions and fishery changes (e.g. the effect of climate changes on species distribution and harvest capabilities), and is an urgent matter given the gravity of the changes occurring with the crab population and harvest.		One member highlighted as their top priority. This is something that the SSC has recommended annually since 2018, but COVID derailed some of the work. This fishery has multiple community protection measures built in and the efficacy of these measures may not have been analyzed. This fishery has seen declines in stock status, but local harvesters depend on it to support subsistence, as well as a summer and winter commercial fishery. These communities are primarily indigenous and tribes in the area have been supportive of the initiative to incorporate more LKTKS information. This would be in line with the recently adopted LKTKS protocol. Could be a significant example of work that can be done.	2021 - top ten priority
732	LK and TK data collection	This research priority would support more structured and consistent sources of ecosystem information for use in annual reports (such as ESRs), specific fishery management actions, or future development of conceptual models, especially as there are some areas that are data poor. Ultimately want to build systematic onramps into the Council process, but need data to be able to populate those onramps also.	Suggested title change: LK and TK data collection Suggested description change: add ' <u>This is consistent with Council's adopted LKTKS protocol.</u> '	Note that the LKTKS protocol is specific for the BSAI region, but for any LKTKS data collections in other regions also need to appropriately consider how to address data sovereignty and best data handling practices, similar to the guidance provided on treatment of LKTKS data in the BSAI LKTKS protocol.	BSFEP Priority

NEW from the public				
researchID	description	management concern addressed	SSPT comments	category
N020	Identify pathways and other opportunities for fishermen and communities to diversify and adapt in the face of climate-driven changes to fisheries (e.g., Bering Sea crab crashes).	Recent fishery collapses, in part driven by climate change, highlight the need to help fishermen and communities diversify to better handle disruptions. In addition to an assessment of vulnerability, fishermen and communities would benefit from actionable steps to building resilience and adaptation planning with a focus on those most vulnerable fishermen and communities first.	Some members highlighted this as a critical topic. It may be addressed both through research and other types of efforts.	Urgent (1-2 years)
N021	Develop appropriate crab PSC limits and trawl performance standards in groundfish fisheries to provide stronger incentives to minimize crab bycatch.	Some species of crab are not avoided when encountered at high rates like other PSC species, which has proved to be a great tool used to reduce bycatch. Similarly, performance standards that don't work (i.e., pelagic trawl), fail to provide vessels incentive to move away from PSC hot spots.	Little confusing language in the description - this could be referencing fishery monitoring issues or unobserved mortality of crab? This seems to be proposing specific management measures - which could require additional research, but not defined what that research is they are asking for.	Urgent (1-2 years)
N026	Retrospective analysis of whether and how social science is or is not used regarding predictions of changed fishing behavior in light of proposed changes to management structures.	Fishery management is fundamentally about managing human behavior. Many Council-body discussions pertaining to management actions revolve around discussions of fishing behaviors which may or may not occur in light or proposed changes to management structures. However, it is often unclear whether these assessments are well-grounded in the analysis based on the best scientific information available. Social science would be the key scientific discipline associated with providing relevant analytical insights.	Similar to # N032 - title is the same, different description. Some questions about what this would look like - retrospective meta- analysis about how well we were able to predict changes in fishing behavior? One example of this might be looking at the types of community protection measures built into LAPPs and retrospectively assessing if they functioned the way they were predicted/ intended. There was one study commissioned through the AFSC looking at the methods used in NEPA analysis to predict impacts.	Critical ongoing monitoring
N027	Retrospective and meta- analysis regarding whether, how, when and why objectives and goals of fishery management plans are or are not achieved over time. In light of the PEIS discussion, a fruitful first focus would be the existing BSAI groundfish FMP.	Changes to fishery management plan structures may be beneficial in light of changing conditions, updated information, and changing approaches to fishery management. However, such work should be prefaced by analyzing whether, how, when and why objectives and goals of previous/existing structures are or are not achieved over time. Failure to do so risks, among other things, misunderstandings of the rationales for structural changes and misapplication of effort towards requisite changes (e.g., modifying goals and objectives vs modifying the implementation of such goals and objectives).	This would be (at least in part) built into the existing process for the PEIS.	Urgent (1-2 years)

N032	Retrospective analysis of whether and how social science is or is not used regarding predictions of changed fishing behavior in light of proposed changes to management structures.	Changes in fisheries management structures have social-economic-cultural impacts towards fishermen, stakeholders, and Tribes. Social science is a tool to understand how behaviors of these groups in fisheries change in response to NPFMC management decisions e.g., bycatch and prohibited species catch limits, gear types, individual fishing quotas, etc. A retrospective analysis of if and/or how social science of fishing behavior is used in informing NPFMC management decisions can benefit future management decisions to have comprehensive understandings and be equitable towards those who are impacted.	Similar to # N026 - title is the same, different description. Maybe a higher priority to get the information we need to conduct more robust analyses given our known gaps. But still important.	Urgent (1-2 years)
N035g	Strategies for precautionary management addressing climate change impacts.	Informing ecosystem-based fisheries management with data collection and research that bolsters use of ecosystem indicators, and dynamic management frameworks, within stock assessments, fishery management plan development, and TAC setting processes. These approaches are increasingly critical considering the large-scale changes occurring in North Pacific ecosystems, the cascading effects of those changes, and the complexity of interactions/impacts between fisheries.	Similar to some of our current priorities, important area of research. Title seems like more of a focus on management rather than research. Could include a focus for fishing communities as well.	
N037d	Traditional Knowledge: There are numerous ways Traditional Knowledge will strengthen all Research Priorities, including offering new frameworks for analysis; fostering relationships between Indigenous and Western scientific researchers and communities; and filling gaps in existing ecological and social scientific research.	In accordance with the new Local Knowledge Traditional Knowledge Subsistence Protocol, the Council and associated bodies should acknowledge that all 2024 Research Priorities inherently include Traditional Knowledge as a way of knowing and understanding ecosystems to inform the Council's decision-making process at every level.	Several members voiced support for this as a key priority area. Moving this research priority forward is in alignment of the recognition of Tribal sovereignty and importance of working with Tribal governments to bring the best scientific information available (not just Western science) in a way that is not extractive. It supports National initiatives to strengthen Tribal consultation and government relationships which extends to the research. Moving away from assimilating TK into a Western paradigm. This is in alignment with the two recent NAS consensus studies including co-production workshops and other national efforts towards better incorporation of TK. Members felt this priority could be included here as its own, but also could be incorporated as a dimension into many other priorities. Important to be distinct from the LKTKS data collection priority. This priority specifies broader	

			<p>ways to incorporate TK (e.g., relationship building, etc).</p>	
<p>N037 e</p>	<p>Bycatch Impacts: In an increasingly unpredictable and warming climate, anthropogenic activities like bycatch that suppress life-history diversity could have serious consequences, particularly for depressed populations persisting at ecological and physiological limits such as salmon (Sturrock et al. 2019). When considering impacts to communities and climate-vulnerable species, the Council must think more broadly about ecosystem impacts associated with target harvest and bycatch removals from the system.</p>	<p>A new Research Priority should address the impacts of bycatch on genetic diversity and long-term viability for depressed, climate-vulnerable species such as salmon and/or crab (spp.).</p>		

<p>N039 c</p>	<p>AMCC strongly encourages the completion of the existing research priority: #611: Collection of socio-economic information: A) This should be expanded to include subsistence fisheries as well, utilizing information through the Subsistence Division of the Alaska Department of Fish and Game, as well as information shared through Tribal Consultation and other informal means, to support the development of Social Impact Assessments expected in a variety of upcoming actions; and B)To the extent possible, economic information and analysis regarding the landings values and harvest values of single species harvested through various gear types, i.e. trawl/HAL sablefish, trawl/POT/JIG cod, trawl/gillnet salmon</p>		<p>Support for the expansion to # 611 by part A.</p> <p>We are suggesting that collection of economic information be seperated into Research Priority # 178 - given this, the suggested part B may fit better with Research Priority # 178.</p>	
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NEW from SSPT members				
researchID	description	management concern addressed	SSPT comments	category
SSPT 001	Assessing equity in the distribution of fishery management benefits.	Several national initiatives (EEJ Strategy, N'tl Academies of Sciences equity working group, EOs) have identified a pressing need to assess equity in the distribution of fishery management benefits.	Equity has been an under-considered dimension in understanding the distribution of fishery benefits. In line with national initiatives. Could be considered under other research priorities, but helpful to identify with more specificity.	Critical ongoing monitoring
SSPT 002	Regional Economic Impact Modelling: The Alaska Fisheries Science Center has developed a multi-region Social Accounting Matrix Model for Alaska fisheries that can estimate economic impacts of fishery "shocks," such as TAC reductions or market collapses, at the borough and census area level. This model will be reviewed by the Council's Scientific and Statistical Committee in February of 2024. The model will then be available to analysts and data products, at the borough and census area level, will need to be developed to aid in application of the model to analysis of council actions and in other analytical reports. Further, baseline data updates and model maintenance needs are ongoing.	This model establishes baseline economic conditions in Alaska fisheries (groundfish, crab, halibut, salmon, and by gear type) that provide the foundation for estimation of impacts to industry output (revenue), employment, value added, household income, and state and local government revenue, that would occur from shocks to a fishery such as a TAC reduction, market impacts, or other constraints on harvesting or on location of landings. Thus, it is applicable to many fishery management actions that constrain, in space or time, a fishery and can be used to estimate regional economic impacts. Application of this model requires development of data products, such as landings and economic value at a regional level as well as continued collection of baseline condition data to update the model.	Alaska fisheries, communities and support sectors are unique, so this tool, which is intended to provide greater detail of expenditure patterns and the impacts of economic shocks to local economies, is data intensive. Requires a large amount of data collection at the community, Borough, and census level. Helps to identify sector-specific multipliers for economic shocks. Some members stated their support for this priority.	Critical ongoing monitoring

<p>SSPT 003</p>	<p>Document and assess Tribal citizen and Tribal Nation reliance on, participation in, and impacts of federally managed fisheries (historically and throughout time)</p>	<p>Several recent national priorities elevate and aim to strengthen Tribal Consultation and Collaboration, Federal Trust Responsibility, inclusion of Indigenous knowledge systems, racial equity in federal fisheries. Collaboration with Tribes and other federal agencies (e.g., BIA, DOI) may help inform data gaps, protocols for data sovereignty, priority areas for research.</p>	<p>This priority may have some overlap with SSPT001 with a focus on equity, but is more specifically focused around Tribal engagement. This is in line with national priorities to strengthen Tribal Consultation and Collaboration and it is one of the identified data gaps in the SSPT's ongoing Data Gap analysis.</p> <p>Members felt this priority could be included here as its own, but also could be incorporated as a dimension into many other priorities.</p>	<p>Local knowledge, Traditional knowledge, Subsistence (LTKS), Management /policy research</p>
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