

**Meeting Summary**  
**NPRB Advisory Panel meeting**  
**April 30-May 2, 2012**  
**NPRB Conference Room Anchorage, Alaska**

The Advisory Panel met on April 30 - May 2, in Anchorage, Alaska. In attendance were Helen Aderman, Gary Freitag, Ed Poulsen, Jeff Stephan, Mark Gleason, Gay Sheffield, Phil Zavadil, Dan Falvey, Rex Snyder, and Vera Metcalf. Absent was AP member Mike Macrander. Board members Dorothy Childers and Ian Dutton visited the meeting. The meeting was staffed by Cynthia Suchman, Carrie Eischens, Francis Wiese, Danielle Dickson, Nora Deans, Erin McKinley Quirk, and Tom Van Pelt.

**MONDAY – April 30th**

1. Call to Order

The meeting was called to order at 1:00 pm by the AP Chair Jeff Stephan.

MOTION: Approve agenda  
Maker: Dan Falvey  
Second: Gary Freitag  
Motion: passed

The AP was given a safety briefing.

The next order of business was the election of a chair and vice chair for the Advisory Panel. The chair noted that the former vice-chair, Mike Miller, has moved to the Board.

MOTION: Nominate Jeff Stephan as Chair  
Maker: Dan Falvey  
Second: Gary Freitag  
Motion: passed

MOTION: Nominate Gary Freitag as Vice-Chair  
Maker: Dan Falvey  
Second: Phil Zavadil  
Motion: passed

Jeff Stephan therefore continued to chair the current AP meeting.

MOTION: Approve minutes from September 2011 with no amendments.  
Maker: Mark Gleason  
Second: Ed Poulsen  
Motion: passed

The AP conveys its congratulations and best wishes to Mike Miller for his recent appointment to the NPRB Board of Directors, and recognizes the significant contribution and commitment that Mr. Miller has made to the Advisory Panel and NPRB during his many years as an AP member.

The AP recognizes NPRB Chair Dr. Ian Dutton for his many years of dedicated service to the NPRB Board of Directors, and for the distinguished leadership and vision that Dr. Dutton invested during his term as Chair of the NPRB Board of Directors and Executive Committee. The AP expresses its gratitude to Dr. Dutton for the confidence and support he has provided to the NPRB Advisory Panel.

While the AP recognizes that Ms. Heather McCarty will continue to serve in the designated Fishing Industry seat on the NPRB Board of Directors and Executive Committee until such time as the U.S. Secretary of Commerce acts on a pending appointment for such seat, the AP wishes to take this opportunity to recognize and thank Ms. McCarty for her contribution and service to the NPRB Board and Executive Committee, for her vision, perseverance and beneficial influence on the success and direction of the NPRB, and for the support and confidence that she has demonstrated to the AP.

The AP recognizes the NPRB staff for their hard work and dedication to performing their responsibilities in support of the mission of the NPRB, for their pleasant and helpful demeanor and for their assistance to the AP in meeting our responsibilities.

## 2. Perkins Coie/governance

This was an information-only item for the Advisory Panel. Suchman provided a status report, summarizing the information provided in Item 2 memorandum.

## 3. Conflict of interest policy

Suchman reviewed the draft conflict of interest policy presented in the Item 3 memorandum. AP members sought clarification on how potential conflicts would be identified, and Staff clarified that people involved in proposals will be summarized for the benefit of the AP-- the AP will not need to dig through individual proposals to identify potential conflicts. An AP member highlighted that the AP's input is inherently more advisory, and that AP members would be concerned about losing the opportunity to delivery community and stakeholder input if the conflict policy were excessively strict.

Additional discussion focused on the practical example of AP members being approached to contribute letters of support for proposals-- if the AP member did write a letter of support, they may be prevented from speaking in support of the proposal during the AP meeting.

Motion to endorse the conflict of interest policy with following amendments:

1. Staff prepare a list showing institutions, lead PI, co-PIs, and collaborators well in advance of the regular spring meeting so that AP can evaluate CoI.
2. Propose limiting recusals only to proposals with direct participation, and not the entire category-- taking policy as written and not adopting the tighter constraint that the SP is considering.
3. Named 'unfunded collaborators' will be disclosed and recused; non-named 'unfunded collaborators' will be disclosed and recusal will be decided on a case-by-case basis by AP and chair. [AP members tend to be part of coordinating committees and other participation in proposal preparation.]
4. The AP suggests that component items 1 and 2 in CoI policy be amended to read as follows:

1. Educate

Board, Panel, and staff members will participate in an initial training or educational session regarding COI after agreeing to serve.

2. Agree

At the beginning of the first regular meeting of every year, Board and Panel members, as well as staff, will receive a short refresher on the CoI and will sign a statement asserting that he or she has read,

understands, and agrees to comply with the NPRB COI Policy. The signed statement will be held in NPRB offices.

5. The AP suggests that the Board review the CoI policy every three years.

Maker: Dan Falvey

Second: Gary Freitag

Motion passed.

#### 4. Budget Review

Staff presented an overview of the budget status, reviewing information presented in the Item 4 Memorandum. The AP discussed the budget projections, expressing concern about the impact of inflation on the T-bill future returns.

Motion: The AP recommends that the Board, for planning purposes, maintain future RFP funding in 2014 and 2015 at \$4M minimum (level funding or greater).

Maker: Dan Falvey

Second: Phil Zavadil

Motion passed.

#### 5. Proposal review for 2012

Staff led the AP through the information presented in the Item 5 Memorandum, including details on three subtopics a-c.

- a. Overview of current research funded by NPRB
- b. Overview of request for proposals and proposals received.
- c. Review of conflict of interest procedures

Motion: When reviewing the 2012 proposals during the current meeting, the AP will use the proposed CoI policy that is before the NPRB Board for their consideration during this meeting.

Maker: Dan Falvey

Second: Phil Zavadil

Motion passes unanimously.

#### e. Advisory panel review process

Staff led the AP through the current review process, with special attention to the new additional layer of AP input on Tier 1 and Tier 2 proposals. The AP discussed and considered options for the most efficient mechanism that would be applied toward fulfilling their responsibility to review and submit comments to the NPRB Board with respect to the proposals that they are given to address.

The AP reviewed two sources of guidance that outline the scope and responsibility of the Advisory Panel with respect to the Proposal Review Process, and upon which they relied for guidance as they proceeded with proposals that were designated as Tier 1 and Tier 2 by the Science Panel:

#### (1) From 2012 RFP:

The Advisory Panel Review of proposals is intended to highlight those proposals that have special stakeholder, community and other societal relevance and public interest value. The Advisory Panel will be provided with full proposal materials and the Science Panel summary paragraphs for all proposals that the Science Panel has determined to be responsive to the RFP and to have scientific merit. The Advisory Panel will review Tier 1 and Tier 2 proposals and provide a short summary of the attributes of a subset of these proposals that they wish to highlight as having significant stakeholder, community or other societal relevance. These summaries will be brought to the attention of the Board for consideration. It is not the

intent of the Advisory Panel to comment on all Tier 1 and Tier 2 proposals, but rather to highlight those they identify as having special value to stakeholders. The Advisory Panel contribution is also not intended to rank proposals, to provide comment on the scientific merit of proposals, nor the alignment of such proposals with category budgets. Standard Advisory Panel Conflict of Interest procedures will apply with respect to the AP review of proposals.”

(2) From DRAFT minutes of the September, 2011, meeting of the NPRB Board of Directors:

“A motion was introduced to ask the AP to consider proposals with a Tier 1 or Tier 2 ranking and advise the Board as to which would have particular stakeholder, community, or other societal relevance. The recommendation should include a short statement for each proposal forwarded to the Board, stating the AP’s rationale. . . . The original motion, without amendment, passed unanimously.”

The AP discussed and then made the following statement and adopted the following review process:

The AP wishes to express their appreciation to the NPRB Board for the expanded role in reviewing proposals. In response to guidelines for AP review of proposals described in Agenda Item 5g, and extended discussion of potential methods to review proposal, the AP developed the following process:

1. Each “Tier 2 conditional” and above proposal will be discussed in order.
2. Staff will provide a very brief synopsis of the proposal under discussion.
3. At the beginning of each proposal, potential conflicts of interest will be identified by individual AP members based on the DRAFT COI policy recently adopted by the AP.
4. The Chairman will rule on how to address the potential COI of each member. If recusal is required, questions of fact will be allowed of those AP members prior to him/her leaving the room during discussion of that specific proposal.
5. Each AP member will be polled for stakeholder relevance comments based on the stakeholder relevance criteria developed during an AP work-session and listed below.
6. If a proposal is highlighted for stakeholder relevance comments, staff will take notes and a lead AP member will be assigned to synthesize these notes into final comments.
7. Synthesized comments will be reviewed and approved by the AP as a whole.

Stakeholder Relevance Considerations used by the AP in review of 2012 proposals

- 1) Leverage—Does the proposal leverage understanding of larger issues or enable management action. Does it address a critical management issues, is it especially useful in resource management, or address a bottleneck issue.
- 2) Timing—Does the proposal respond to urgent challenges facing stakeholders or take advantage of an opportune timing event.
- 3) Community involvement—How strong is the community involvement section of the proposal. Does it create new, enduring resources for community members or employ novel methods worthy of note.
- 4) Stakeholder involvement—Are stakeholders an integral part of the project. Is their role in data collection, project planning or execution worthy of note.
- 5) Bang-for-the-buck—Does the proposal leverage additional funds or is it a particularly good value for the stakeholder benefit.
- 6) Outreach and education—Is the education and outreach component worthy of note. Will communications education and/or outreach reach relevant communities and stakeholders.

The AP reviewed all 58 proposals that were designated as Tier 1 or Tier 2 by the Science Panel, and provided comment on a subset of those that the AP judged as being either “Significant” or “Noteworthy” with respect to their relevance to issues affecting stakeholders (**Please see Appendix 1**). In summary, the AP placed 20 proposals in the “significant” and 15 proposals in the “noteworthy” category. During the proposal review process, the AP noted several times that they would have liked to see evidence of stakeholder engagement during the proposal development process and suggested that the RFP

more explicitly encourage this. Some AP members also noted that the way stakeholder engagement should be approached differs among regions in Alaska, and that the protocols can be complex. Therefore, a general section about stakeholder engagement in the RFP boilerplate may not be sufficient. It was suggested that a stakeholder engagement working group be formed to design a product that would help proposers to identify a scope of stakeholders, and general options to contact them. The working group members would be responsible for helping staff to identify general scopes of stakeholders for each of the disciplines in the annual RFP by region. The AP informally endorsed this idea and several AP members volunteered to participate, including Gay Sheffield, Gary Freitag, Phil Zavadil, and Rex Snyder. Vera Metcalf volunteered to work on this indirectly with Gay Sheffield.

#### 6. Bering Sea Integrated Ecosystem Research Program (for information only)

Staff provided a brief review of recent Bering Sea Project activities. Highlights include the first special Bering Sea Project issue, with 24 manuscripts due to be published in May 2012, and the second special issue, with 29 manuscripts currently under review. A PDF copy of the first special issue will be provided to the AP when available. The 2012 Bering Sea Project Principal Investigator Meeting was also described; the AP received a copy of the agenda and a description of key parts of the meeting. Online movies of the meeting's 'meso-scale' presentations will be made available to the AP. The newly-available Bering Sea Project Data Archive was also described; this brings the BEST and the BSIERP data archives together in one place.

#### 7. Graduate Student Research Awards

Staff gave an overview of the GSRA history and process, and then provided a review summary of the applications received and an explanation of the Science Panel's ratings system.

The AP discussed the SP process and agreed to limit their review to the applications that were reviewed by the SP. The AP also agreed to follow the same CoI policy as the AP followed in their proposal reviews.

The AP had detailed discussions of the stakeholder relevance of individual applications, and developed a short list of notable applications binned into MS and PhD categories. The AP then voted on each notable application to arrive at three priority MS applications (#597- MacIntyre, #579 – O'Connor, #595 – Deemer) and three priority PhD applications (#554 – Whitefield, #596 – Boehm, #588 – Sohn).

#### 8. Communications, Education, and Outreach Report

Staff provided a review and status update of education, outreach, and communication, cutting across all elements of the NPRB programs. There was extensive discussion of elements to be aware of in improving stakeholder engagement and examples were given of ways to reach communities. KDLG radio in Dillingham was highlighted as a good outlet; radio communication in general was supported as an excellent outlet for remote parts of the state. The Advisory Panel expressed their appreciation of and support for the NPRB communication, education and outreach efforts.

9. Long-Term Monitoring

Staff reviewed the background information provided in the memorandum under Tab 9. The AP discussed the issue and noted that they continue to endorse their September 2011 motion on this topic.

10. Arctic

Arctic Synthesis RFP: Staff reviewed the background information provided in the memorandum under Tab 10. In reviewing the coverage of community input to the Arctic Synthesis RFP, AP members noted that Brevig Mission, Teller, and King Island were not included on the map that was part of the Synthesis RFP. Staff agreed that those communities would be important participants and will be added to the list of contacts; AP members will help in providing contact information.

Staff then presented an overview of the two proposals received in response to the Arctic Synthesis RFP, and an overview of the Science Panel review of the two proposals. Two conflicted AP members (Gay Sheffield and Gary Freitag) recused and left the room during this part of the Arctic item.

The AP expressed disappointment that both proposals fell short in terms of social science, and expressed support for the SP criticism of the inadequate social science dimension of both proposals.

The AP agrees with the SP summary recommendations regarding Grebmeier et al proposal. The AP recommends that Grebmeier et al revise the proposal to more clearly define community and stakeholder engagement and consultation in the identification of research needs as outlined in the RFP. The AP also recommends that Grebmeier et al revise the proposal to include more direct consultation with the communities identified in the RFP. Additionally, the AP recommends that Grebmeier et al revise the proposal to define how the results of the project will be communicated back to the communities and stakeholders within the geographic scope identified in the RFP.

Arctic legislation: Staff reviewed the status of Arctic legislation in the Senate (S.2147 and S.2154) as currently pending, noting that increased federal support for Arctic research is a welcome development but also noting several areas of concern as expressed in the letter sent by Board Chair Dutton to Senator Begich.

Board Chair Ian Dutton visited the AP meeting during the Arctic discussions, providing Board perspective on the issue of Arctic representation and thanking the AP for their hard work.

MOTION: The AP recommend to the NPRB to create two new seats on the Board that directly represent Arctic regional interests.

Maker: Rex Snyder

Second: Vera Metcalf

Discussion: The NPRB is increasingly active in the Arctic, and the AP anticipates further increased engagement in the Arctic. The AP feels that the Board should reflect that increased engagement in its membership. The AP recognizes that Board membership is established in the enabling legislation, but encourages the Board to consider ways to increase Arctic representation on the Board. It was noted that the Board does not have regional representation, and also that the upcoming revision of the Science Plan and also the pending Arctic legislation are two key opportunities for enhancing Arctic engagement.

Motion withdrawn.

11. Other matters

a. Strategic planning

This item was not addressed during the meeting.

b. Social science workshop

Board member Dorothy Childers joined the AP meeting for this item, and presented background on the social science workshop that was held during the 2012 Alaska Marine Science Symposium. Childers and Board Chair Ian Dutton had led preparation of a report summarizing the workshop background and outcomes; this report was distributed to the AP during the meeting and the AP members were invited to provide input.

The AP supports the initiative outlined in the social science report of enhancing NPRB investment in the social sciences, and look forward to further direction from the Board on ways the AP can constructively support social science. This could include participation in a working group that includes AP, SP, and Board members to develop a focal RFP section and/or a special call for background or synthesis information on social science in the region. The AP is ready and willing to work on this issue prior to and/or during the September 2012 meeting.

c. Upcoming RFP development

Not addressed.

d. Outside funding requests

Not addressed.

e. Update on Project 815

Not addressed.

f. Meeting schedule and location, 2012 and 2013

The next AP meeting will be 6-7 September 2012.

g. Advisory Panel memberships – call for nominations.

Not addressed.

h. Other matters as Appropriate

None.

12. Gulf of Alaska Program Update

This item was not addressed during the meeting.

## AP Meeting Summary - Appendix 1

Date: May 2, 2012

To: North Pacific Research Board (NPRB) Board of Directors

From: NPRB Advisory Panel

Re: Advisory Panel comments on 2012 Proposal Review

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The AP wishes to express its appreciation to the NPRB for our expanded role in reviewing 2012 proposals. The AP has developed the following protocols for reviewing proposals, based on a description of our role in the action memo under Agenda Item 5g:

1. All Tier 1 and Tier 2 Proposals were addressed and discussed in numerical order.
2. The NPRB staff first provided the AP with a brief synopsis of each proposal in the order that it was addressed by the AP.
3. The AP adopted the draft COI Policy that was provided to the AP for review (and to the NPRB Board for final action) for the purpose of governing the activities of the AP as it proceeded with addressing its responsibilities for Proposal Review. Therefore, AP members addressed Conflicts of Interest (COI) according to the protocol that was outlined in the draft COI Policy.
4. When a conflict was identified by an AP member, the AP Chairman issued a ruling based on the draft COI Policy. If recusal was required, AP members were permitted to ask the recused individual questions of fact prior to their departure from the room. Recused AP members were required to be absent from the room for the duration of the discussion that addressed the Proposals for which they were recused.
5. AP members provided comments on those Proposals that they identified as including “attributes” that addressed “special stakeholder, community and other societal relevance and public interest value” and “special value to stakeholders” (hereinafter referred to as “stakeholder relevance”). The AP utilized stakeholder relevance criteria that had been developed earlier during the AP meeting, and during an AP work session. These criteria are listed below in the section entitled “*Stakeholder Relevance Considerations used by the AP in Review of 2012 Proposals.*”
6. When a proposal was identified as possessing stakeholder relevance, NPRB staff took notes, and a lead AP member was assigned to synthesize such notes into final comments. A subcommittee was appointed and tasked with compiling the final comments into a document that would identify and explain the AP consideration of those Tier 1 and Tier 2 Proposals that they chose to “highlight” because of their respective stakeholder relevance attributes.
7. The AP reviewed and edited the draft document that was intended to communicate AP comments on the highlighted Tier 1 and Tier 2 Proposals. The AP Chairman will present the final document to the full NPRB Board for its consideration.

### **Stakeholder Relevance Considerations used by the AP in Review of 2012 Proposals**

- 1) **Leverage**—Does the proposal leverage understanding of larger issues or is it especially useful in resource management issues?
- 2) **Timing**—Does the proposal respond to urgent challenges facing stakeholders or take advantage of an opportune timing event?

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3) **Community involvement**—How strong is the community involvement section of the proposal? Does it create new, enduring resources for community members or employ novel methods worthy of note?

4) **Stakeholder involvement**—Are stakeholders and community members an integral part of the project? Is their role in data collection, project planning or execution noteworthy?

5) **Bang-for-the-buck**—Does the proposal leverage additional funds or is it a particularly good value for the stakeholder benefit?

6) **Outreach and education**—Is the education and outreach component noteworthy? Will communications education and/or outreach reach relevant communities and stakeholders?

As the AP prepared for and considered its Proposal Review responsibilities, it became apparent that many of the proposals presented varying degrees of stakeholder relevance. Many of the proposals had particular significance and relevance; these proposals are presented below as “Significant”. Many other proposals, while certainly relevant to stakeholders, did not rise to the level of being “Significant”; these proposals are presented below as “Noteworthy”.

Following, the AP respectfully provides the NPRB Board with a short summary of those 35 proposals that it has highlighted and identified as possessing attributes of particular stakeholder, community or other societal relevance and special value to stakeholders.

### **SIGNIFICANT (20 Proposals)**

*Proposal #10- Age validation of big (Raja binoculata) and longnose (R. rhina) skates using bomb-derived radiocarbon (14C)*

The Science Panel notes this study could be conducted anytime, as the samples have been previously collected and are well preserved. However, the Advisory Panel notes that this issue is very timely and relevant now, given the importance of skates as both a directed fisheries target, as well as an important bycatch species. The AP also notes that the NPFMC is currently considering action related to Habitat Areas of Particular Concern (HAPCs) for skates, and the information gleaned from this research may directly inform Council action on this issue. The AP further notes that the Community Involvement portion of this proposal has a strong education and outreach component.

*Proposal #15- Variability in maturation and fecundity of walleye pollock in the Gulf of Alaska, eastern Bering Sea, and Aleutian Islands*

The AP notes the timeliness and relevance of this proposal in terms of gaining a better understanding of maturity, fecundity, and spawning seasonality for walleye pollock. A better understanding of these life history parameters will improve the quality of stock assessment models, which may have immediate and direct implications for management of the fishery. This will have significant relevance for a broad range of stakeholders, given the importance of the pollock resource to not only the directed fishery, but also to other groundfish fisheries and marine mammal subsistence harvesters.

*#17--Environmental and demographic factors affecting the spatial-temporal variability in key predator-prey interactions in the Gulf of Alaska*

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The AP notes the importance of this proposal in that it may provide significant insight into predator/prey relationships of commercially-important groundfish. In particular, competition with arrowtooth flounder is important when evaluating the recent change in size-at-age seen in halibut. This study is timely, considering that the NPFMC and IPHC are currently working on halibut bycatch issues where size-at-age will play an important role.

### *Proposal #19- Small scale abundance and movement of Atka mackerel and other Steller sea lion groundfish prey in the Western Aleutian Islands*

The AP notes the significance of this proposal given the high degree of uncertainty regarding prey availability as it affects the recovery of Steller sea lions; the resultant fisheries closures; the ongoing litigation; and the significant community impacts, particularly to Adak, that have come as a result of the closure. The AP would like to further note that given the significant stakeholder relevance of this research, the PIs may wish to expand upon the education and outreach component of the project in order to increase stakeholder engagement.

### *Proposal #24- Discard mortality for the giant Pacific octopus, *Enteroctopus dofleini*, in the Gulf of Alaska.*

The AP wishes to note the timeliness of this issue as the Annual Catch Limit (ACL) for octopus was exceeded in the Bering Sea this past year. Considering the conservative approach to management that the Council must take when little information is available upon which to base management decisions, this proposal has great promise in terms of increasing the accuracy of discard mortality estimates, thus reducing the potential of unnecessary fishery closures in the future. The community involvement section has a good education and outreach component, and the reasonable budget provides particularly good value in terms of the anticipated benefits to stakeholders.

### *Proposal #28- Effects of a changing climate on the distribution and recruitment of snow crab in the Bering Sea: a mechanistic modeling study*

The AP notes the significance, timeliness, and relevance of this proposal given the shortcomings of the snow crab stock assessment model currently being employed by the State of Alaska and the North Pacific Fishery Management Council. From the perspective of stakeholders, it is very important to have a better understanding of recruitment and spatial distribution given the biomass fluctuations typical of snow crab, as well as the gradual northward range extension currently being observed in the face of changing environmental conditions. The AP further wishes to note that the PIs may consider additional education and outreach efforts in order to convey the results of their research to the stakeholders who are most affected. These stakeholders would consist of participants in the directed fishery, as well as crab dependent communities and residents of the communities that may be impacted by the anticipated northern range extension.

### *Proposal #36- Habitat, blue king crabs, and the benthic community: Comparisons within space and time*

This proposal is particularly relevant considering the failure of the blue king crab stock around the Pribilof Islands to recover despite significant restrictions on fisheries. Increased understanding of the cause of the recovery failure may leverage future actions, which may help restore the stock. If funded, the communications, education and outreach components (CEO) should be improved. The AP notes that there is a willingness of local contacts to help improve the CEO component of this project.

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### *Proposal #37- Characterization and spatial modeling of Pacific sand lance (*Ammodytes Hexapterus*) habitats off Southeast Alaska*

Sand lance is an extremely important keystone species, and this project will increase the understanding of the essential fish habitat that supports this important forage fish. The map products will be useful to a variety of community and resource management stakeholders. This proposal could have been improved by including more community involvement.

### *Proposal #40- Developing a euphausiid biomass time series for the central Gulf of Alaska continental shelf to understand fish-zooplankton interactions and ecosystem conditions*

The timeliness of this project is significant when considering the current lack of baseline euphausiid abundance data within the context of the NPFMC. Euphausiids play a critical role in the survival of many marine birds, mammals, and fishes that are essential subsistence and commercial marine resources. This project has implications for a wide variety of stakeholders; it is timely, and potentially leverages a better understanding of ecosystem function.

### *Proposal #50- A management strategy simulation to examine the potential indirect effects of commercial groundfish fisheries on Steller sea lion populations.*

This proposal provides a novel approach to addressing the relationship between commercial fisheries and sea lion decline and has the potential to leverage future management actions. If successful, this approach could also prove useful in other fisheries and marine mammal issues. The Community involvement component of this proposal can be improved by consulting with the appropriate marine mammal co-management organizations. Also, given the high relevance of this topic, efforts should be made to increase the outreach to local communities.

### *Proposal #69- A systematic approach to empirical characterization and analysis of fishing communities: Measure, monitor, and manage*

The base line data generated by this project will be useful for resource managers as they attempt to understand the community impacts of future management actions. The reasonable budget creates a particularly good value for the stakeholder benefit.

### *Proposal #71- Testing community-based paralytic shellfish poisoning monitoring in Alaska*

This proposal may result in an enduring capacity for PSP testing in many rural communities. Given the death of several people from PSP poisoning last year in Southeast Alaska, there is no question as to the timeliness and relevance of this proposal. The proposal also has a strong community involvement component.

### *Proposal #72- Evaluating that Abraxis Saxitoxin Enzyme-Linked Immunosorbent Assay (ELISA) for testing subsistence Alaska shellfish*

This proposal also addresses the PSP issue. As with the previous proposal, the research proposed here is both timely and relevant given the death of several people last year in Southeast Alaska. This proposal also may also provide significant value to communities and stakeholders in that it will significantly reduce the cost of testing shellfish. If funded, the outreach and education should be focused in rural communities.

### *Proposal #75- Toward eradication of the invasive tunicate *Didemnum vexillum* for Alaska: a pilot study of invader removal from the seafloor of Whiting Harbor, Sitka*

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This proposal is extremely timely and relevant given the concern that many residents of Sitka have with respect to the potential spread of the invasive tunicate from Whiting Harbor to Sitka and adjoining areas. The spread of this tunicate may have implications for not only the naturally-occurring ecosystem, but also the mariculture industry that is developing in Southeast Alaska. The insight gained from this project may have broader applicability in terms of the eradication of invasive species in the future.

### *Proposal #78- Pribilof Island Seabird Youth Network*

The AP notes the significance of this project in terms of long-term capacity building within the community, as well as the broader implications this research can have in terms of adding to the body of knowledge with respect to how climate change can impact marine ecosystems. The AP would also like to express its appreciation to the PIs for directly addressing a priority issue that has been identified by the Pribilof Islands communities of St. Paul and St. George. The AP would also like to encourage the PI's to include a "lessons learned" component to this research that may inform other communities who may wish to develop a similar monitoring program that involves local youth.

### *Proposal #81- Testing two countermeasures to reduce sablefish depredation by sperm and killer whales in the Gulf of Alaska and Bering Sea*

The AP wishes to note the significance of this proposal given the persistent and increasing problem of whale predation on baited hooks in the sablefish longline fishery. In addition to the economic considerations for the sablefish fishery, the AP also wishes to note the potential broader applicability of this research to longline fisheries other than sablefish, as well as to reducing the potential for marine mammal entanglement in the vertical line portion of crab gear.

### *Proposal #87- Development of Biochemical Measures of Age in the Alaskan Red King Crab: Validation, Refinement and Initial Assessment*

The AP wishes to note the significance of this research given that current methods to age red king crab rely on length-based analysis as well as the faulty assumption that crab growth is linear. In terms of timeliness, the AP wishes to express its hope that information gleaned from this research will be of sufficient quality to be incorporated into the stock assessment methodology as soon as it is realistically feasible. The AP also wishes to note the very real possibility that the techniques validated by this research will be more broadly applicable to species other than king crab, as evidenced by the experience in Chesapeake Bay with blue crab.

### *Proposal #91- A project to increase energy efficiency on commercial fishing vessels by creating long-term capacity to identify, develop, quantitatively test and employ innovative ideas, technologies and best practices*

The AP would like to note the significance of this research in terms of immediate benefits to stakeholders. The AP would also like to note the fact that this research has the potential to positively impact everyone who operates an internal combustion engine in the waters of Alaska, not just the commercial fishing fleet. In addition to the economic benefits of increased energy efficiency given the high cost of fuel, the AP would also wish to note the positive environmental benefits of increased engine efficiency including reduced carbon emissions and reduced noise pollution. And finally, the AP wishes to note that if the PIs were to include a "best practices" component to the research, the outreach benefits would be increased tremendously.

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*Proposal #104- Arctic cod in a warming ocean: The interactive effects of temperature and food availability*

The timeliness of this project, the need for the basic information envisioned therewith, and the critical role of Arctic cod in the Arctic ecosystem helped to elevate this proposed project. The community involvement portion of this project was considered very strong. Additionally, the AP recognizes the PIs commitment to education and outreach. The current availability and utilization of the Barrow Arctic Science Consortium (BASC) should be further investigated.

*Proposal #106- Arctic coastal ecosystems: Evaluating the functional role and connectivity of lagoon and near shore areas*

This proposal is responsive to the type of research in which the people of the region have expressed an interest. It contains stakeholder involvement in planning and execution, and has a strong education and outreach component. The current availability and utilization of the Barrow Arctic Science Consortium (BASC) needs to be investigated further.

### **NOTEWORTHY (15 Proposals)**

*Proposal #6- The effect of sea ice mobility on shelf basin exchange in the Alaskan Beaufort Sea*

This proposal is notable because of the fundamental role ice plays in the Beaufort Sea ecosystem, and the downstream linkages to the Bering Sea ecosystem. Improved understanding of upwelling, circulation and productivity could provide benefits to subsistence users and commercial fisheries.

*Proposal #9- Monitoring carbon in the Arctic Ocean: Establishing high-resolution baseline to study ocean acidification*

The AP notes that this research will have major, global implications in terms of establishing baseline data regarding the physical and chemical parameters related to ocean acidification in the Arctic. For that reason the AP flagged the proposal as “Noteworthy.” However, given the fact that the potential knowledge gained from this research is more global in scope, the AP feels that this proposal does not rise to the level of “Significant” in terms of the immediate stakeholder relevance.

*Proposal #22- Population structure and spawning site fidelity of Pacific cod (*Gadus macrocephalus*) in Prince William Sound, Alaska*

The PI has worked with the local commercial fisherman for background information, and will continue with local contacts for local knowledge input. Investigating the spatial dynamics of Pacific cod in PWS is relevant, and the results of this work will provide needed input into current fisheries management decisions.

*Proposal #26- Causes and management implications of increasing fish and invertebrate biodiversity in the southeastern Bering Sea*

The AP would note the timeliness and relevance of this research in terms of understanding the role of the “cold pool” as it affects marine biodiversity and species richness in the southeastern Bering Sea. By reducing the uncertainty regarding cold pool implications, both managers and communities may gain greater insight in terms of longer-term planning, and the ability to adapt to changing conditions. Given the significance of this research in terms of community planning and resilience, the AP notes that this proposal may wish to consider increasing the outreach component beyond the scientific and management community.

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*Proposal #33- Tracing the flow of terrestrial organic nutrients and ancient glacial carbon through coastal marine food webs*

This project has a very good connection to marine stakeholders throughout the Gulf of Alaska, as they do not have a good understanding of the role that glacial runoff contributes to the high productivity of the region. This proposal could have been improved with an improved education and outreach component. Additionally, work in a “remote” area in Alaska should require, not preclude, meaningful outreach efforts.

*Proposal #34- Environmental light characteristics essential to the Atka mackerel (Pleurogrammus monoapterigijs) spawning habitat with potential implications for Steller sea lion (Eumetopias jubatus) feeding success in the Aleutian Islands*

The AP notes the timeliness and relevance of this research given the current fisheries closures in the western Aleutians, the resultant community impacts (particularly Adak) and ongoing litigation. The AP also notes that while this proposal is very novel in its approach, and is certainly worth exploring, there is some concern as to the applicability of the results to the management context. Therefore, while the AP notes that this research is noteworthy, the AP does not feel that the proposal should be elevated to the level of “Significant” from the perspective of stakeholders.

*Proposal #35- Large-scale geographic comparison of essential forage fish habitat across three large marine ecosystems of the northern Pacific through assessment of growth and condition of fish forage species*

Given the current state of knowledge of juvenile salmon survival in open ocean conditions, this project has a considerable impact on marine stakeholders over large regional areas and ecosystems. This project also has implications regarding water masses and essential habitat qualities. Community involvement, education, and outreach efforts are well defined and considerable. It was noted that the Arctic coastal communities with the current moratorium on commercial fishing have noted an increase in salmon occurrence, and that interest exists in receiving baseline data for this region.

*Proposal #42- Trophic interactions between jellyfish, zooplankton and fish: investigation the ecosystem impacts of jellyfish variability in the Bering Sea*

While noting the global importance of this research, and the importance of understanding the role of jellyfish and zooplankton in marine ecosystems (i.e. “unlocking the secrets of the universe”), the AP feels this proposal lacks the immediate stakeholder relevance that would have elevated it to the “Significant” category. The AP further wishes to commend the PIs for involving community members in the proposal given the concerns coastal communities and subsistence users have about ecosystem change.

*Proposal #48- Retrospective study of walrus foraging and movement patterns during a major ecosystem shift in the Bering and Chukchi Seas*

The essential subsistence stakeholder relevance to coastal communities in northern and western Alaska was noted, as well as the federal management implications given that this species is to be ESA listed.

*Proposal #61- Seasonal relationships between foraging effort, prey and vital rates of two sympatric Bering Sea kittiwake species*

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This proposal is noteworthy for the strong community involvement and the long-term impacts provided through the educational component.

### *Proposal #63- Seabirds as indicators of forage fish stocks and marine ecosystems in Alaska*

This project has relevance for all marine regions of Alaska and is noted as an innovative project that may increase our understanding of larger issues related to forage fish communities in the GOA and Bering Sea. This project provides an ecosystem perspective that deals with forage fish and multiple seabird species, and has relevance to a wide range of marine stakeholders.

### *Proposal #79- Salmon Blitz: Engaging community volunteers in documenting salmon habitat in the Copper River watershed*

The high level of community involvement and financial leverage for this proposal was prominent. The Copper River is a critical watershed for salmon species that use this system; several AP members were surprised that this important project in this high profile region hadn't already been conducted.

### *Proposal #82- Extending marine mammal acoustic tracking ranges in the Beaufort Sea using a vertical array*

The relevance of this project was noted based on the success of previous acoustic projects in the Chukchi and Beaufort Seas, and the probability that such projects will not only provide relevant biological data on bowhead whales, but also needed assistance in the mitigation of resource extraction activities and industrial shipping traffic. The AP notes that the timing and location of the project necessitate that the PIs engage the Alaska Eskimo Whaling Commission (AEWC), as well as Beaufort Sea coastal communities. This project would be greatly improved if its outreach was not solely provided in Sitka, but also provided to the AEWC member communities.

### *Proposal #85- Mitochondrial DNA-based identification of eggs, larvae and dietary components of commercially and ecologically important fish species and selected invertebrates in the northeast Pacific Ocean*

This proposal would allow researchers to gather diet information that is otherwise unavailable. The project has a significant funding match, and the reasonable budget creates a particularly good value for the stakeholder benefit.

### *Proposal #94- Crowdsourcing large scale environmental data recovery for the North Pacific-Arctic region from 1850 to the satellite era*

This proposal would provide comprehensive information from the past that has not otherwise been accessible. This information can provide insights with respect to previous regime changes and weather patterns. The proposal leverages a significant match, and may be a particularly good value for the stakeholder benefit.

## **Conclusions and Observations**

The AP notes that there were a considerable number of proposals that could be improved through greater emphasis on community involvement, addressing long-term community impacts, improvements in stakeholder engagement in planning and the inclusion of greater communication, education and outreach components. The AP would like to work with NPRB staff during the development of the 2013 RFP to strengthen these aspects of future proposals.