

**Draft Summary**  
**North Pacific Research Board**  
**Science Panel Meeting**  
**Seattle, WA**  
**April 17-19, 2013**

The Science Panel met on April 17-19, 2013, at the Westin Seattle in downtown Seattle, WA. The meeting was attended by panel members Vera Alexander, Carin Ashjian, Dick Beamish, Jim Berner, Don Bowen, Stew Grant, Tuula Hollmen, Pat Livingston, Seth Macinko, Cheryl Rosa, Tom Royer, Chris Siddon, Pat Tester, Polly Wheeler, Bill Wilson, and David Witherell. Absent was Andre Punt. The meeting was staffed by Francis Wiese, Carrie Eischens, Danielle Dickson, and Susan Dixon.

**1. Call to Order and Approve Agenda**

The meeting was called to order with the first item of business being the annual election of panel officers. Prior to the election, staff members reviewed the term end dates for all panel members. Following this, Tom Royer was re-elected as the chair. Cheryl Rosa and Stew Grant were re-elected as co-vice-chairs. These terms are for a one-year period.

**2. NPRB Conflict of Interest Policy and Proposal Review Process**

Conflict of Interest: The new COI Policy approved by the Board in May 2012 was in effect for this meeting. This policy requires that, at the beginning of the first regular meeting of every calendar year, the policy be reviewed by meeting attendees. In addition, panel members must sign a statement indicating that they have read, understand and agree to comply with the policy. These two tasks were conducted at the start of the meeting with all of the sign statements being collected by staff and returned to the NPRB office for filing.

A spreadsheet indicating the conflicts for each proposal at both the recusal and disclosure level for all Science Panel and staff members was distributed. Staff noted that recusal conflicts would be announced at the start of discussions for each individual proposal and those individuals with recusal conflicts would need to leave the room while the proposal was discussed.

After having completed the entire proposal review process while following this new conflict of interest policy, the panel discussed the implication of the new policy on their review process. Panel members found the new process to be disruptive to the review process. Panel members with high-level institutional conflicts, of which there were many, had to constantly come in and out of the meeting, creating a break in focus and concentration. Panel members noted that the new policy slowed down the review process and felt it was too strict. The Panel requests that the Board reconsider the level at which the institutional conflict switches from disclose to recusal. For example, the interpretation that for ADFG, conflict at the recusal level is at the department level rather than the division within the department was seen as too broad. Similarly, the finding that for NOAA, the recusal level was at the level of Science Center rather than division within the Science Center was seen as too strict.

Proposal review process - Staff went over the proposal review process approved by the Board in September 2011 and reviewed the Tier designation categories used by the Science Panel when ranking proposals. The panel asked for clarification regarding the new tier designation system, specifically the Tier 2 conditional category and how proposal that would have been Tier 1 and became Tier 2 conditional would be distinguished from proposals that were initially Tier 2 and became Tier 2 conditional. Staff

indicated that notes would be kept as each proposal was discussed and this distinction would be noted for the Board's information.

The panel also discussed the process used by the Advisory Panel for highlighting proposals with stakeholder relevance and asked how the Board weighted the AP vs. SP recommendations. Concern was raised by the SP members regarding how the Board treated Tier 1 proposals that did not receive a rating (or flag) of stakeholder relevance by the AP but that were of a critical scientific nature. The Panel concluded that they would add a sentence in their summary write-ups for each proposal aimed at highlighting the science need, so its relevance could be considered by the Board even in the absence of an additional stakeholder relevance flag that might be noted by the AP.

### **3. Overview of current research funded and 2013 proposals**

The Science Panel was given a quick overview of past projects regarding their status (completed or ongoing) and how they parse out into ecosystem priorities. It was suggested by staff that this be taken into account if faced with a choice between equally meritorious proposals. The panel was also updated on the accumulation of metadata and data files from completed projects and on the 297 peer review publications that have come out of NPRB funded projects since 2002.

### **4. Proposal Review for 2013**

The panel reviewed the 108 proposals that were sent out for review. Each panel member conducted primary and secondary reviews of a total of 13-14 proposals, which included considering anonymous technical reviews, leading the panel discussion on their proposals and development of a funding recommendation for the Board.

As in the past few years, the panel again found the quality of submitted proposals to be very high and produced a Tier 1 ("should fund or fund with non-science tweak") recommendation of 36 proposals totaling \$7.2M. A Tier 2 category of proposals ("fund if extra money is available or if proposal is tweaked slightly") was also established containing 24 proposals requesting a total of \$4.5M. The remaining 48 proposals were placed in Tier 3, indicating that they had substantial scientific flaws and should not be funded. The SP then considered reviewing all Tier 1 proposals a second time to determine if there were any scientific nuances amongst them that might be relevant to the Board when making final funding decisions. After some discussion the panel chose not to nuance the Tier 1 proposals as all proposals in this category were deemed to scientifically fit in the "should fund" category.

The panel's consideration of the various sections of the RFP and the final recommendations are presented below. This summary will be accompanied by a spreadsheet identifying the tier for each of the proposals, and a document which summarizes the panel comments for each of the 108 proposals considered.

Oceanography and Lower Trophic Level Productivity (RFP section 1a – **Funding cap: \$500,000**): Nine responsive proposals were submitted to this section of the RFP with requests for more than three times the amount of funding allotted to this category. The panels funding recommendation includes five Tier 1 proposals for just over **\$1.0M**. The remaining four proposals in this category were ranked as Tier 3.

Fish and Invertebrates (RFP section 1b – **Funding cap: \$1.2M, individual proposals capped at \$500,000**): Requests for more than \$6M, encompassing 25 responsive proposals, were received in this category. Eleven proposals were given a Tier 1 ranking, totaling just over **\$3.0M**, exceeding the category funding cap by \$1.8M. Another nine proposals (\$2.0M) ranked as Tier 2 by the Science Panel. The remaining 5 proposals were given a Tier 3 ranking.

Marine Mammals (RFP section 1c – Funding cap: \$800,000): Twenty-four proposals were submitted to this RFP category, requesting over \$4.7M in funding (6 times the category budget). The panel recommendation consists of five Tier 1 proposals totaling over **\$1.2M**, exceeding the category funding cap by \$445K. Another three proposals (\$592K) ranked as Tier 2 by the Science Panel with the remaining 16 proposals given a Tier 3 ranking.

Seabirds (RFP section 1d – Funding cap: \$100,000): Two responsive proposals were submitted to this section of the RFP with a total funding request of **\$193,492**. The panel's recommendation includes one Tier 2 proposal for \$93K and one Tier 3 proposal.

Other Prominent Issues (RFP section 1f – Funding cap: \$100,000): Nine proposals, requesting over \$760K in funding, were sent out for review in this category. The panel ranked three proposals as Tier 1 with a funding request of **\$208,227**. One proposal was placed in the Tier 2 category with a budget of \$91,164 and the remaining five proposals given a Tier 3 ranking.

LTK and Community Involvement (RFP section 2 – Funding cap: \$200,000): Nine proposals were received in this category requesting just under \$1.2M. The panel's recommendation places three proposals in the Tier 1 category for **\$211,995**, two proposals in the Tier 2 category for \$354,420, and four proposals in the Tier 3 category.

Cooperative Research with Industry (RFP section 4 – Funding cap: \$400,000): Eight responsive proposals were submitted to this category of the RFP, requesting just under \$2.0M. Three proposals, totaling **\$576,187**, were given a Tier 1 ranking by the panel. Two proposals (\$547,733) were ranked as Tier 2 and the remaining three proposals were ranked as Tier 3.

Technology Development (RFP section 5 – Funding cap: \$200,000): Fourteen responsive proposals were received to this section of the RFP, requesting over \$1.8M. The panel recommended two proposals in the Tier 1 category for **\$205,962**. Five proposals, requesting \$618,620, were ranked as Tier 2 and seven were ranked as Tier 3.

Data Rescue (RFP section 6 – Funding cap: \$100,000): Four proposals, requesting \$232,077, were submitted to this RFP category. The panel recommends two proposals at the Tier 1 level for a total of **\$191,067**. Two proposals in this category were ranked as Tier 3.

Social Science Focus (Funding cap: \$400,000): Four responsive proposals were received under this category, requesting \$866,041 in funding. The panel's recommendation was to fund two proposals at the Tier 1 level for **\$545,672**. One proposal, requesting \$121,727, was ranked as Tier 2 and one proposal was ranked as Tier 3.

OSRI Collaboration: Four proposals (18, 22, 80 and 122) were considered to be of potential mutual interest to NPRB and OSRI. Scott Pegau, the OSRI Research Program Manager and Tom Royer (who sits on both panels) met jointly with the NPRB Science Panel to discuss these proposals. After this joint consideration the NPRB Science Panel only placed proposal #122 in the Tier 1 category. OSRI representatives indicated that this proposal was not of interest to their organization and they would not be willing to commit their funds to this project. However, OSRI noted that they supported proposal #22, which the NPRB Science Panel placed in Tier 2. If proposal #22 (\$269,434) was funded, a total of \$100K would be available from OSRI for leverage. Proposal #18 was also placed in Tier 2 by NPRB but was not supported by OSRI. Proposal #80 was placed in Tier 3 by the SP and not supported by OSRI.

BOEM Collaboration: Two proposals (#9 and #101) were considered to be of potential mutual interest to NPRB and BOEM. These two proposals were shared with Cathy Coon, program manager for the BOEM Environmental Studies office in Anchorage. Proposal #9 was deemed to not be of interest to BOEM at this time; however, BOEM indicated interest in providing collaborative funding (\$97,000) for proposal #101 if the Board were to fund that project. The NPRB Science Panel, however, was not supportive of this proposal and placed it in Tier 3.

## **5. Bering Sea Project**

Staff gave a status report and update on developments in this program since the panel last met in August 2012. Highlights of this include:

1. Planning of a special session at the February 2014 Ocean Science Meeting in Honolulu, HI. An “Open Science Meeting” for the Bering Sea Project is also being planned in conjunction with the 2014 Ocean Science Meeting. This is intended to be the final science splash event for PIs and other researchers working in the project.
2. The second special issue of *Deep-Sea Research Part II* is almost completed with 24 manuscripts have been accepted by guest editors. Nearly all of these are currently available on the ‘in press’ section of the *Deep-Sea Research Part II* website: <http://www.sciencedirect.com/science/journal/aip/09670645>. A call for manuscripts for the third Bering Sea Project special issue went out in August 2012. Twenty-six manuscripts were received and the guest editor team is currently working on these with an anticipated publication date in early 2014.
3. Short “Headline” summaries of project results are being coordinated by NPRB staff and contract program manager and graphic designer, using material provided by both NPRB- and NSF-funded researchers. These Headlines will serve as the backbone for the Bering Sea magazine that staff will lead in writing this summer.
4. Photo Contest - To celebrate in pictures the tremendous diversity of work that has been accomplished by the Bering Sea Project and to pull together a library of Bering Sea Project photos for future use, we announced a special photo contest in March 2013 open only to Bering Sea Project participants.
5. The NSF proposal submitted last summer has gone through peer review and has been recommended for funding by the responsible program manager. We are currently awaiting a final decision on this.

## **6. Gulf of Alaska Project**

Staff gave a status report and update on developments in this program since the panel last met in August 2012. Highlights include:

1. A successful PI meeting was held March 19-21, 2013 in Seattle. The project is progressing well and integration among the components is occurring.
2. At this time the federal fiscal situation is uncertain and it remains unclear if NOAA will be able to deliver all of the leveraged resources that were promised in their proposals, including some vessel time for the 2013 field season.
3. The Sitka Sound Science Center (SSSC) has been contracted to support communication, education, and outreach for the GOAIERP project. SSSC will keep the website updated and post blogs that the PIs send from the field, create and maintain a Facebook page, produce four brief videos about the project, publicize the project and arrange radio interviews with the scientists,

promote the project using social media, and develop an inventory of educational resources related to the Gulf of Alaska that will be hosted on our website.

In response to item 2 above, the Science Panel passed a motion to write a letter to the Board encouraging them to provide additional funds to cover the vessel funding shortfall for the Tiglak, should that occur. The letter should also convey the importance of having the Dyson available for fall sampling as originally planned, although this did not appear to be due to a funding issue.

#### **7. Social Science Working Group (Polly, Cheryl & Seth – please review this section in detail!)**

Science Panel members, led by Polly Wheeler, Cheryl Rosa and Seth Macinko, discussed the white /scoping paper written by the Danish group from the Innovative Fisheries Management Center at Aalborg University. This paper was commissioned in an effort to understand how social science is used elsewhere in the world to inform resource management.

In summary, the white paper provided a good review of the state of social science and integration with management but did not provide guidance on terms of developing the annual RFP. To phrase a different way – the paper identifies problems but does not provide suggestions for solutions. While the authors had clearly fulfilled the terms of reference, Science Panel members regretted not asking for more within the terms of reference.

Some of the highlights from the paper included:

- ~ social science tends to be qualitative while natural sciences tend to be quantitative. This results in a disconnect and bias; what is really needed is a way to bridge that divide
- ~ social science needs to be brought in at the front end to provide information about the social implications of management and can also be used to evaluate outcomes of management decisions;
- ~ raises the question of how traditional knowledge can be incorporated in to the natural resource knowledge system (potential topic for 2014 RFP as a pilot study?)
- ~ three very useful case studies that probe the limits of what social science can do;
- ~ role of social science is to inform management but not necessarily influence or make decisions or predictions about management policy

The issue of scale was brought up by panel members – local and traditional knowledge tends to be local and on a relatively small spatial scale. However, management needs to address broader population level issues and is not currently set up to absorb smaller scale information, although Bayesian methods can address this to some degree. This was seen as another possible RFP topic for 2014.

Overall, the Science Panel members felt the paper provided a lot of food for thought in terms of how social science should be incorporated into an updated NPRB Science Plan and perhaps also provided some things that could be used in the next RFP. The panel members agreed that the white paper should be made widely available on the NPRB website (once authors had a chance to clean it up a bit) and that this was a valuable piece of work. They also suggested that the Board, or perhaps the social Science working group, should have a candid discussion about what is possible in terms of incorporating social science, and in particular LTK, into the projects that are funded.

#### **8. 2013 Graduate Student Research Awards**

Fifty-four applications were received in response to the 2013 NPRB Graduate Student Research Award solicitation. Four applications were subsequently rejected because their research topic was outside of the

scope funded by NPRB or they did not follow the formatting guidelines of the application process. The Science Panel reviewed the remaining 50 applications (17 from Masters students and 33 from doctoral students). Each panel member conducted a primary or secondary review on 5-6 and rated the proposal as poor, fair, good, very good or excellent.

Recognizing that the aim of these awards is to assist young marine scientist in their professional development, the panel, as in past years, followed a slightly different process from that used for evaluating regular proposals. For Masters level applications, the panel first limited discussion to those applications that had received at least two “very good” ratings from the Science panel member’s independent reviews. This narrowed the field of Master level applicants from 17 to 10 applicants. For doctoral level applicants, the quality of applications was sufficiently high that the Science Panel chose to limit the discussion to those applications that received an “Excellent” and “Very Good” ranking or better. In addition, Science Panel members who felt strongly about other applications were allowed to champion that proposal for consideration in the finalist group. These criteria narrowed the field of applicants from 33 to 8. The Panel then gave two separate rankings (out of 10) to each remaining application. The first ranking was for student qualification and the second was for proposal merit, recognizing that for graduate awards, student qualifications should be weighed just as high, if not higher than, the scientific merit of the proposal.

Based on the criteria and ranking system stated above, the Science Panel recommended awarding the 2013 GSRA's to:

Masters level:

1. Alex Godinez, University of Alaska Fairbanks - *A seascape genetics approach to resolving population structure in Bering Sea and Aleutian Islands blackspotted rockfish (Sebastes melanostictus)*
2. Erin Fedewa, Oregon State University - *Interannual variation in pre- and post-settlement processes of the northern rock sole (Lepidopsetta polyxystra) in relation to temperature variability in the Gulf of Alaska*

*Tied for third place:*

3. Sarah Traiger, University of Alaska Fairbanks - *Assessing the impact of climate induced changes in glacial discharge on recruitment and succession in coastal rock communities*
3. Matthew Fowler, Oregon State University - *Salmon blood plasma to control texture softening of surimi and fresh salmon fillets*
3. Courtney Shuert, University of Alaska Fairbanks - *Steller sea lion survivors: A retrospective on the impact of alternative research methods on an endangered species*

Doctoral level:

1. Carley Schacter, Memorial University of Newfoundland- *Behavioral ecology of movement and migration of two North Pacific planktivorous seabird species*
2. Jonathan Whitefield, University of Alaska Fairbanks - *Analysis of Freshwater and Heat Pathways between Pacific, Arctic and North Atlantic Oceans*
3. Suzanne Teerlink, University of Alaska Fairbanks - *Combining traditional and innovative monitoring methods to describe humpback whale population structure near Juneau, Alaska.*

## 9. **Arctic Program**

Status report on Pacific Marine Arctic Regional Synthesis (PacMARS) - Staff provided an update on Phase I of the Arctic Plan and the accomplishments of the PacMARS program to date. Highlights include:

1. PacMARS PI meeting held in December 2012 in Boulder, CO
2. Joint workshop with the BOEM-funded SOAR program at AMSS 2013
3. PacMARS Hub meetings in Barrow, Kotzebue and Nome in February 2013 - allowed an opportunity to hear first-hand the perspectives of Alaska Native communities that should be considered when NPRB develops a new Arctic research program.

Update on planning for an integrated ecosystem study in the Arctic (PAGES) - Staff updated the panel on the ongoing planning for Phase II of the Arctic Program which has now been named the Pacific-Arctic Gateway Ecosystem Study (PAGES) program. A Science Plan has been drafted for this project and potential partners are being pursued. To date, partnerships have been formed or are in the formative phase with NSF, ONR, BOEM, the North Slope Borough, Arctic LCC (USFWS), AOOS, and industry. Panel members suggested that staff approach other organizations for partnership including the Coast Guard, NOAA, the State of Alaska (perhaps through NSSI), the Northwest Arctic Borough and NGOs such as the World Wildlife Fund.

Staff also described their involvement with the IARPC Chukchi and Beaufort Sea Ecosystem Implementation Team that is implementing the recently-released IARPC 5-year plan. Staff members serve on the steering committee for an upcoming Arctic Conceptual Model Workshop and will travel to Washington, D.C. Apr. 29 – May 2. A whitepaper of the Arctic conceptual model has been drafted and will be the focus of the workshop. The results of this workshop, in combination with the interim report from PacMARS, will form the foundation for the request for proposals that NPRB staff plan to write this summer for the PAGES program in collaboration with program managers from partner organizations. Panel members requested that the Arctic conceptual model paper be distributed to panel members along with the 2-page synopsis used in the drafting of the white paper.

Arctic Legislation introduced by Senator Begich – Staff provided an update on the Arctic Science Legislation that was re-introduced by Senator Begich in February 2013. Should this legislation pass there would be some significant implications for funding programs for NPRB, AOOS and the US Arctic Research Commission.

## **10. Long-term Monitoring**

Staff provided some background and an update on the status of the Long-Term Monitoring Program endorsed by the Board at their September 2012 meeting. Staff and the long-term monitoring working group drafted a pre-proposal RFP. The program implementation timeline requests a call for pre-proposals in June 2013 with the short 3 page project descriptions due in mid-July and evaluated in the late summer/early fall meetings of the Panels and Board. The Science Panel was asked to review and comment on the draft pre-proposal RFP.

Science Panel members expressed concern regarding the limited budget and suggested that the interdisciplinary and consortia-funded requirements would favor agency PIs over academic PIs. The requirement for letters of commitment from other partners at the pre-proposal stage was considered problematic; instead, the requirement should be a list of potential partners and funding sources at the pre-proposal stage with letters of support necessary with full proposal down the line.

Panel members discussed the need for long-term monitoring projects needing to be institutional-based rather than researcher-based as the interests of the researchers are likely to change or fade over time. It was also suggested that information from the IERPs should be used to prioritize what needs to be measured or monitored. Panel members also wanted to know if the Board was committing funds to this

program for the long-term of just this initial 5-year phase. Would the Board commit to funding this program for 20 years? Staff noted that no time period had been determined but it was assumed the program would continue in perpetuity as does the regular RFP. Furthermore, it was mentioned that the working group had made the decision to put the onus of data collection on the proposers and not pre-determine what should be measured where and how often. Overall, it was felt that the comment on an institutional-based approach was a good one, but that it was one to be deferred about a project had been funded for one or two 5-year cycles.

In conclusion, the panel recommended several language changes regarding the level of commitment needed from potential partners for the consortia at the pre-proposal level. In addition they also stated that the proposal should allow for 3 pages of text and 3 pages of tables and figures as a maximum with the Budget not inclusive of the 3 page limit. With these changes, the SP supports this pre-proposal RFP and looks forward to reviewing these submissions in August.

## **11. Other Matters**

**2014 RFP Development:** Staff requested that the panel consider how they would like to participate in the development of the 2014 RFP prior to their August 2013 meeting. After some discussion the panel agreed to proceed as in 2012. That is, by forming subgroups to develop RFP topics for each category prior to the meeting. This process would begin in June with drafts of research topics and text to describe these research requests due to staff in early July. Staff requested that the input from the subgroups be more than an edit of the 2013 topics, and that the subgroups should consider new topics for the RFP.

**Strategic Planning:** Staff indicated that the Board was in favor of moving forward with updating the NPRB Science Plan, but noted that funds had still to be allocated for this and no timeline has yet been developed. Ideas and thoughts from the Science Panel on the revised structure of the science plan and how to proceed with this venture are welcomed by the staff. The SP noted that it would strategically be better to wait with the revision of such an important document until a permanent Executive Director has been selected.

**Education and Outreach update:** Staff updated the Panel on Education and Outreach products created since their last meeting in August 2012. Staff also gave an update on the Communication Director position which was left vacant when Nora Deans moved on to exciting opportunities closer to home in California. Interviews for the new Communications Director were held just prior to the SP meeting and staff hopes to have the new hire onboard by early June.

**Updates on other working groups:**

**GSRA Working group** – the panel was updated on the efforts to expand the GSRA program either through partnerships with industry or coordination with other fellowship programs. This work is still ongoing and will hopefully move forward in the next few months.

**Small grants working group** – staff updated the panel on the development of a small grants program with the aim of providing five \$20K grants annually to communities for capacity building projects. The working group still needs to develop criteria by which these proposals would be judged. In recent months the group has not been able to meet due to conflicting schedules but it hoping to reconvene and move forward with their charge in the near future.

**Stakeholder Engagement working group** - The Stakeholder Engagement working group is trying to develop a strategy for encouraging (not requiring) stakeholder engagement. The group suggested that the 2014 RFP boilerplate and the online proposal system include space for three paragraphs in the proposal template that would encourage proposers to articulate their plans for stakeholder engagement during the

1) proposal development, 2) research, and 3) close-out phases of the proposed project. This would prompt those who may not have considered stakeholder engagement at the proposal writing stage to think about it. This approach would also provide reviewers with information that could be used to highlight proposals based on their plans for stakeholder engagement. The working group will meet again later this spring and will further develop a strategy in preparation for the next annual RFP.

Fukushima tsunami debris update – Tom Royer led a brief discussion on the status of marine debris arriving from the Fukushima tsunami. Debris is arriving on Alaskan coastal areas but there are few funds available to clean up, monitor or study the distribution of debris.

Goodman Symposium - NPRB is one of the sponsoring organizations for a symposium at Montana State in Bozeman March 6-7, 2014 in honor of Dr. Dan Goodman who passed away in January. Tom Royer is part of the organizing committee and asked that the SP nominate someone to speak about ecosystem modeling. The panel unanimously recommended Andre Punt, given his role in ecosystem modeling and his participation on both the EMC and as a BSIERP PI. The Science Panel asked that NPRB consider supporting travel costs for select SP members who are interested. Tom Royer, Don Bowen, Jim Berner, Andre Punt and Seth Macinko indicated they would like to attend, as would some staff members.

Meeting Schedule: The Science Panel confirmed the schedule of their fall meeting for August 20-22, 2013 in Anchorage, AK. The panel also tentatively scheduled their April 2013 meeting for April 1-4, 2014 and requests support for it to be in Nanaimo, BC. The location was chosen in honor of Dr. Beamish, a Science Panel member since December 2002, who is from Nanaimo. The April 2014 meeting will be Dr. Beamish's last meeting as a Science Panel member.