

## Summary

North Pacific Research Board  
Advisory Panel Meeting  
NPRB Conference Room  
Anchorage, Alaska  
March 15-16, 2004

The Advisory Panel (AP) met on March 15-16, 2004. Present were Michael Bradley, Patricia Cochran, Cora Crome, John Gerster, Shirley Kelly, Simon Kineen, Paul MacGregor, Heather McCarty (Chairman), Arni Thomson, Gale Vick, and Jon Warrenchuk. The meeting was staffed by Clarence Pautzke and Misty Ott. The Board meeting notebooks for March 17-19 served as a basis for the meeting along with additional information on the AP agenda items: Local Knowledge and Role of Advisory Panel. The meeting focused primarily on the Review of the Draft Science Plan and the Role of the Advisory Panel.

### 1. Call to Order/Approve Agenda

The meeting was called to order at 10:15 a.m. The meeting agenda was approved after adding a report of the last Board meeting and a discussion of the Role of the Advisory Panel before the Proposal Review for 2004. The discussion of the role of the Advisory Panel took most of the morning and was resumed after the review of the Draft Science Plan Outline.

### 2. Review Draft Science Plan Outline

The AP reviewed the Draft Science Plan Outline and made the following comments (see attached outlines).

### 3. Appointment of Subcommittees

The AP appointed the following subcommittees to provide input on the Science Plan, and made the recommendation that the Board appoint one or more Board members to work with each of the three subcommittees in a joint effort:

Local and Traditional Knowledge. Members include Gale Vick, Patricia Cochran (Chair), Mike Bradley, Shirley Kelly, staffed by Henry Huntington.

Education and Outreach and Community Involvement. Members include Cora Crome, Simon Kineen, Jon Warrenchuk, Heather McCarty (Chair), Arni Thomson, and Patricia Cochran.

Cooperative Research with Industry. Members include Paul MacGregor, Simon Kineen (Chair), and Heather McCarty.

### 3. Role of Advisory Panel

The AP agreed that it is helpful to have the proposal summary pages to gain a sense of what kind of proposals are coming in and how researchers are responding to the RFP.

There was a lengthy discussion about the AP interactions with the Board. In a motion the AP agreed on the following recommendation to the Board:

The AP would like to work with the Board on developing the following main elements of the AP's role:

1. Science Plan development

2. Cooperative Research
3. Local and Traditional Knowledge
4. Education and Outreach and Community Involvement
5. Development of RFPs including research priorities and key issues
6. The AP proposes to work with the Board to develop an effective way for the Advisory Panel to use their collective expertise to participate in the proposal process.

We propose a joint meeting with the Board to discuss this during the July meeting.

**Expanded Science Plan Outline**

(Advisory Panel Additions)

(Advisory Panel Comments)

~~AP Recommended Deletions~~

**1. Introduction (Pautzke)**

- a. About NPRB
  - i. Description of NPRB
  - ii. Legislative mandates
  - iii. Vision, mission, goals
  - iv. Perceived role in research planning and implementation
- b. NRC Involvement
  - i. Why NRC is involved
  - ii. Criteria for successful science plan
- c. NPRB Approach in Developing Science Plan

**2. Background (Two Crow)**

- a. Descriptions of three major regions off Alaska
  - i. North Gulf Coast east of Kodiak
  - ii. Bering Straits to Kodiak
  - iii. Arctic Ocean to Bering Straits (Beaufort, and Chukchi seas)
- b. Brief history of ecosystem research in each region
  - i. Major science programs – past and present
  - ii. NPRB association with ongoing programs
- c. (*Major workshops and plans, for example, Wisdom Seekers, workshops and other gray literature*)

**3. Identification of Core Research Activities (Fluharty)**

- a. Need and criteria for focusing
- b. Rationale for identifying Bering Straits-Kodiak as core area
- c. Relationships with non-core areas and how research needs will be addressed over time
  - i. Rationale for giving less attention to East Siberian Sea.

**4. Plan for Core Area: Bering Straits to Kodiak (Full Team)**

- a. Issues and concerns
  - i. Importance of region
  - ii. Three strong forcing functions
  - iii. Growing imperative for ecosystems-based management
  - iv. Ecosystems information must be in SAFE ecosystem chapter
  - v. **Management issues**
- b. Conceptual Foundation
  - i. Background
    - 1. Pathways of Energy Flow and Time-Space Scales
    - 2. Atmospheric and Oceanographic Features
  - ii. Ecosystems Dynamics
    - 1. Natural Forcing
    - 2. Human Forcing ~~via Global Warming and Fishing~~
    - 3. (*Global warming/climate change*)

- 4. An Intersection of Forcing Functions
  - iii. Human Dimensions
  - iv. References
  - c. Overall Goal and Overarching Hypotheses
    - i. Overall Goal: integrated program to monitor, understand, and predict ecosystem dynamics
    - ii. Hypothesis 1: Natural variability
    - iii. Hypothesis 2: Human impacts
    - iv. Hypothesis 3: Impacts on humans
    - v. Based mainly on Science Panel recommendations and hypotheses found in BSRP98.
  - d. Marine Ecosystem Research Themes and Approaches (Based on BSRP98)
    - i. Variability and mechanisms in physical environment (work with AOOS)
    - ii. Individual species responses to perturbations
    - iii. Food web dynamics
    - iv. Habitat
  - e. Management Issues ~~Module~~
    - i. Long term human impacts on ecosystem
      - 1. Long term impacts on habitat
      - 2. Fishing impacts on ecosystem structure and components
    - ii. Pressing Fishery Management Issues (with some examples)
      - 1. Groundfish
        - a. Differential harvesting of mixed productivity stocks
        - b. Bycatch and gear interactions
      - 2. Crabs
        - a. Low productivity of stocks
        - b. Bycatch other fisheries
      - 3. Salmon
        - a. Declines in salmon stocks
        - b. Bycatch and interceptions of intermixed salmon stocks with emphasis on NPAFC-BASIS, Bristol Bay, and AYK areas
      - 4. Seabirds
        - a. Bycatch
        - b. Food web impacts
        - c. Emphasis on ESA-listed species
      - 5. Marine Mammals
        - a. Interactions with fisheries
        - b. Food web impacts
        - c. Emphasis on ESA-listed species
- 6. Habitat**
- a. Mapping**
  - b. Association of habitat with health of species**
  - c. Importance of biodiversity**
- f. Other issues
  - iii. Contaminants and Other Introductions
    - 1. Sources and fates
    - 2. Issues and studies
  - iv. *Long-term* issues
    - 1. Ice free Arctic
    - 2. Aquaculture

\*See Chapter 4  
Outline for comments  
on #4 and #5.

3. Invasive species
4. Harmful algal blooms
5. *(Climate change)*
- v. Human Dimensions
  1. Social and economic
- g. Approach over next 5-7 years – Performance Indicators and Schedules
  - vi. Balance emergent short term issues with programmatic, longer term needs
  - vii. Alternating Cycles of research priorities
  - viii. Changes in NPRB funding cycle to accommodate ecosystem SAFE chapter
  - ix. Synthesis!

## 5. Adjacent Areas

Categorizing proposals and/or funds by geographic area could be limiting. Earmarks based on percentages may cause problems. Projects funded by other agencies should be included so the public doesn't get the perception that certain issues or areas are being ignored.

Add a general statement such as “not just limited to core area, may include Russian Federation impacts on Bering Strait.” Or “Proposals that may occur outside the core area that demonstrate applicability to core areas may be considered.”

- a. Arctic Ocean to Bering Straits (Beaufort and Chukchi seas) (Two Crow)
  - i. Issues and concerns
  - ii. Science programs that overlap NPRB priority interests
  - iii. Approach over next 5-7 years
    1. NPRB-funded synthesis of Arctic biological information in 2004-2005
    2. Interactions with SEARCH
    3. North Slope Science Initiative
    4. Specific projects now funded or anticipated in 2005-2010
- b. North Gulf Coast east of Kodiak (to Dixon Entrance) (Kruse)
  - i. Issues and concerns
  - ii. Science programs that overlap NPRB priority interests
  - iii. Approach over next 5-7 years
    1. NPRB-funded Synthesis of SE AK biological information in 2004-2005
    2. Interactions with GEM and Northern Salmon Fund
    3. Specific projects now funded or anticipated in 2005-2010

## 6. Coordination with Other Entities and Programs (Pautzke)

- a. Identify major agencies, entities and programs that NPRB must coordinate with, e.g.:
  - i. State (ADFG, ADEC, AKFIN, GEM, AOOS, PCCRC, AYKSSI, Norton Sound SSI, PWSSC, ASLC, North Pacific Salmon Fund, NPFMC, ANSC, Native organizations, WWF)
  - ii. National (NOAA, USGS, FWS, MMS, ONR, NSF, ARC, ARCUS, IPHC, NMML, GOOS, IOOS, CMI, EPA, IARPC, Sea Grant)
  - iii. Regional Programs (GLOBEC, SEBSCC, BEST, SALMON, BASIS, EFOCI)
  - iv. International (NPAFC, PICES, COML, SEARCH)
  - v. *(Include Russian programs)*
- b. Hold annual planning meeting of program managers
  - i. Descriptions of research activities and interests as well as agency missions
  - ii. Map out ongoing research and 3-year outlook and anticipated funding available

- iii. Identify important research gaps that need to be addressed
- iv. Foster communication and coordination and joint synthesis meetings
- c. Encourage joint research and funding of projects
- d. Schedule and Performance Indicators
  - i. Annual science symposium
  - ii. Projects funded by multiple sources
  - iii. Success of meetings, attendance, products, data and information sharing

## 7. Cooperative Research with Industry (Gauvin)

- a. Fishing industry
  - i. Focused research on management issues, e.g., bycatch reduction, gear research
  - ii. Summary of current industry involvement in research
  - iii. Models from other areas, PCCRC, IPHC, etc
  - iv. Vessel registries for research availability
  - v. Observer program
- b. Shipping, Oil and Gas – explore strategies for cooperation
- c. Schedule and Performance Indicators

## 8. Local Knowledge (Huntington)

The term “Traditional Ecological Knowledge” is limiting and not used throughout Native communities. “Local and Traditional Knowledge” (LTK) is a more accurate term.

“Traditional” knowledge refers chiefly to Native, cultural knowledge, while “local” knowledge refers as well to that knowledge held by residents, for example, local fishermen.

(The Advisory Panel did not follow the drafted outline but agreed with the presentation given by Henry Huntington, summarized below)

- a. *(Principals)*
  - i. *Engage knowledge holders – preparation and follow-up*
  - ii. *Find out if we have an appropriate home for LTK in NPRB – measurements – are communities happy?*
- b. *Issues*
  - i. *Relationship between community involvement and local and traditional knowledge*
    - 1. *Don’t lump the two together; community involvement belongs in the Education and Outreach chapter.*
    - 2. *Community research priorities – how do we find that out? – through partnerships.*
  - ii. *What to include in plan*
    - 1. *What it is, who its holders are, including fishermen*
    - 2. *Considerations for its use, include proprietary rights, sets of protocols – AFN, ANSC; credit*
  - iii. *Setting overall goals – cost indicators*
    - 1. *Documenting observations through ACCOS*
    - 2. *Specific documentation of phenomena*
    - 3. *Hypothesis generation – regional workshops*
    - 4. *Adding rigor*
    - 5. *Describing review process – proper peer reviewers*
    - 6. *Describing connections to rest of NPRB work*

iv. *Goals of LTK in NPRB*

1. *Observations – recording through ACCOS, an Alaska Coastal Community Observer System*
2. *Hypothesis generation*
3. *Cooperative analysis*
4. *Participation in specific projects and maybe others*

iv. *Collaborate with the Advisory Panel*

*The AP discussed the issue of how and whether to mentor the proposal and/or the proposers. Both Cochran and Huntington thought it was unlikely to work well., and suggested instead that the NPRB could help put partnerships together – by sending prospective researchers to villages, for example)*

~~e. Option 1: Proposal Driven~~

- ~~i. Maintain status quo wherein RFP expresses interest in receiving LK related proposals and see what comes in.~~
- ~~ii. Possibly earmark funding amounts (\$200-300k) annually for 2005-2010 for such proposals~~

~~d. Option 2: Directed~~

- ~~i. Convene panel of scientists including anthropologist, physical and biological scientists, Native experts (working in conjunction with ANSC and NPRB Advisory Panel) to develop LK program for Bering Straits to Kodiak region and implementation schedule for 2006-2010. Program must be sensitive to cultural issues and panel should include ADFG Subsistence Division representative such as Mary Peet~~
- ~~ii. NPRB would establish annual target funding for the program~~
- ~~iii. Program would be designed to establish:~~
  - ~~1. Protocols and approaches for accessing local knowledge~~
  - ~~2. Approaches for addressing the notion that such information is regarded as sacred and proprietary to indigenous people~~
  - ~~3. Inventory of LK based hypotheses that could be tested through research~~
  - ~~4. Observational program in rural communities that would contribute to ecosystems understanding and long term monitoring~~
  - ~~5. Mentoring initiative by scientists to enhance RFP response capabilities~~
  - ~~6. Pilot programs by 2006 and 2007~~
- ~~iv. NPRB could fund staff position or contractor to coordinate program~~
- ~~v. NPRB would establish database for LK collections~~

~~e. Schedule and Performance Indicators~~

**9. Data Management and Quality Control (Pautzke)**

- a. Describe and update as necessary, current policies for data submission, quality control, archiving, and sharing required for NPRB-funded research
- b. Hire data manager for NPRB staff in 2004
- c. Convene workgroup in 2005 to develop consolidated data and metadata requirements
  - i. NPRB, GEM, AOOS, PWSSC, NOAA, USGS, FWS, ASLC
  - ii. Other agencies and entities as appropriate
  - iii. Linkages to other programs such as AKFIN
- d. Develop interim website map-based navigational display for research projects in 2004
- e. Develop Alaska Marine Information System and web portal ( 2004 RFP proposal)  
Develop in 2004-2005; NPRB maintains system thereafter (or consider contracting out)

- f. Schedule and Performance Indicators

**10. Education and Outreach and Community Involvement (Pautzke)**

Community Involvement should include community research priorities, partnerships, ACCOS project – needs to be a dialogue, community involvement is a two way street.

- a. Describe and update as necessary:
  - i. Current practices for informing public of program findings and incorporating public input
  - ii. Current requirements in RFP for education and outreach
- b. Develop education and outreach informational materials using contractor approved in 2004 RFP process; continue annual contract for education and outreach materials
- c. Work with Advisory Panel to establish education and outreach program
  - i. Semiannual newsletter beginning in 2005
  - ii. Educational packets starting in 2005 for rural communities about ecosystems research being conducted around them
  - iii. Two-three pilot science projects for rural schools in Bering Sea communities
- d. Develop policy in 2004 for supporting conferences and scientific gatherings
- e. Sponsor science symposia and synthesis meetings
- f. Establish schedule for site visits for field research and to gather input from rural communities on research priorities
- g. Develop biennial reports on status of ecosystems/oceans and of various components
- h. Schedule and Performance Indicators

**11. Scientific Quality and Integrity (Pautzke)**

- a. Describe and update as necessary, current proposal review process, including:
  - i. Roles of Science Panel and Board
  - ii. Recusal procedures
  - iii. Scoring of proposals
  - iv. Respond to NRC recommendation on using Proposal Selection Committee
  - v. Use of outside experts on Science Panel
  - vi. Develop recommendation on Secretarial review of Board decisions
- b. Compare and contrast with NSF procedures
- c. Amend SOPP as necessary and appropriate

**12. Summary of Schedules and Performance Indicators (Pautzke)**

(Included in individual sections and summarized here)

- a. Implementation Schedules
- b. Performance Indicators
- c. Distribution of funds
- d. Periodic outside reviews of NPRB science program (2010, 2015, etc)

**13. Other Policy Issues (Pautzke)**

(Pattern after NSF)

- a. Specimen archives
  - i. *(Universal protocols)*
- b. Patent policies
- c. Protection of intellectual property rights



- d. Equipment pools and sharing

**14. Literature Citations**

**15. Appendices**

- a. Plan drafters and participants and other people consulted
- b. Abbreviations and Acronyms
- c. NPRB Enabling Legislation
- d. NRC Findings
- e. List and description of NPRB-funded projects 2002-2004
- f. Other relevant program descriptions