



WAISC Workshop  
Applied Fisheries Research Priorities  
Tuesday April 7 2009  
Nome, Alaska

**Western Alaska Interdisciplinary Science Conference Workshop  
“Applied Fisheries Research Priorities” Workshop Whitepaper**

**April 7, 2009  
Nome Alaska**

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## WORKSHOP AGENDA

### Goal:

*The goal of this workshop is to increase nearshore fisheries research in the Bering Strait region through identification of research priorities and improved interagency collaboration.*

### Our process is intended to be:

- Inclusive: everyone will have an equal chance to listen and to be heard
- Educational: we will be considering issues outside of your personal interests
- Interactive: we will standing up and moving around
- Collaborative: we will all be working with people from outside of our organization
- Consensus building: we will identify priorities together for a regional voice

### Meeting outcomes:

- Contact list of those working in fisheries and marine science across the region.
- A written list of regional research priorities, which I will prepare and distribute before the fall “rfp season”.

**Process:** Roundtable introduction and selection of topic areas. This group selected 6 topics across fisheries and marine sciences for which the people in this room can list priority research questions, including:

- Marine Habitats and Oceanography
- Freshwater Habitats and Watersheds
- Crab
- Salmon
- Groundfish and Flatfish
- Herring



ACTIVITY #1: What are our common research priorities?

- PLEASE DO share actual research questions that include specific species, locations, seasons, interactions, etc.
- PLEASE DO NOT list general needs such as “ecology”; “life-history”; “genetics”; “forecasting”, “stock assessment”, “climate change”, “ETK”)

BREAK

SUMMARIZE ACTIVITY #1

ACTIVITY #2: How might we work collaboratively on these priorities?

- Have a first discussion as if you were partnering on this project.  
Brainstorming topics:
  - Resources (what time, contacts, funding, equipment people do I have that would be helpful?)
  - Needs (what time, contacts, funding, equipment people would we still need?)
  - Outcomes of the project (what would we get for doing the research?)
- Groups have 3 minutes to summarize their discussion

SUMMARIZE ACTIVITY #2

Evaluations



## WORKSHOP RESULTS

These results represent a list of brainstormed nearshore research topics for the Bering Strait region. Each of the workshop's 21 participants was allowed 3 votes under each fisheries subject area. The results of that voting process are represented numerically in the tables below. No more information was specified at the meeting than is presented here. The topics listed were intended to broadly gauge the subject interests of fisheries professionals working for the Bering Strait region and to advise researchers as to the interests of others working in and for the Bering Strait region. The few research ideas which received zero votes have been deleted.

### Marine Habitats and Oceanography

BASIS Surveys to collect nearshore baseline data (physical and trophic structure) in the NE Bering and Chuckchi Seas, especially pre-oil and gas development	20
Effects of loss of sea ice	15
Nearshore habitats and change through time	7
Dynamics and migration implications of the cold pool	5
Eastern Bering Sea longshore current	2
How will vessel traffic affect marine habitats? How do we monitor this?	2
Are old military debris/chemicals/contaminants affecting the quality of habitats and marine waters?	2
More tidal and weather data collection buoys	1
Salinity changes	1
Beach erosion/lagoons	1

### Freshwater Habitats and Watersheds

Mining and stream productivity	11
How to best protect habitat while allowing multiple uses	9
Sockeye smoltification in Glacial, Salmon Lakes	8
Effects of permafrost thaw on spawning habitat	7
Nutrients and stream productivity	4
Temperature and stream productivity	4
Beaver dams and stream productivity	4
Stream quality and stream productivity	1
River length and stream productivity	1
Vegetation change and stream productivity	1
Roads and stream productivity	1
Jet boats and stream productivity	1
4WD crossings and stream productivity	1



**Crab**

Tagging Eastern Norton Sound red king crab: migration, mixing, stock structure	10
Effects of salinity changes (in Norton Sound)	7
Blue king crabs - one stock or multiple stocks around Bering Sea Islands?	6
Use of habitat by snow crab, red king crab, blue king crab as juveniles and as adults	6
Snow crab ( <i>Chionoecetes opilio</i> ) are small crabs reproductively mature?	5
Expanding species and ranges – i.e. spiny king crabs caught at Diomede, ect.	5
How will expanding ship traffic, pollution (oil spills, trash, noise) affect crabs, etc.	5
Location of juvenile red king crab in Norton Sound	5
Larvae/sea ice relationship	5
Have subsistence policy changes affected abundance?	3

**Salmon**

Baseline genetics for Norton Sound Chinook (each river)	15
Better abundance estimates and escapement ASL priority rivers = Unalakleet, Koyuk, Shaktoolik, Inglutalik	12
Coho escapement for Fish River and Nome River, based on habitat considerations	9
Estuarine rearing of sockeye	4
Pink colonization north and range expansion for other salmonids	4
Is subsistence use of salmon offshore of St. Lawrence and Diomede Islands changing?	3
Investigation of market possibilities for pink salmon	2
Marine mammal use vs commercial fish needs/wants	1
Examine pink/Chinook interactions among juveniles	1
Weir effects	1

**Groundfish and Flatfish**

Need baseline info on species composition and distribution. Priority on extending “BASIS” type surveys for the NE Bering Sea shelf and Chuckchi Sea	16
Identify critical flatfish habitat areas needing protection (in the Arctic?) before any commercial fishing	14
Competition between commercial and subsistence fisheries	8
What affects interannual variability in stocks? Temperature? Food?	7
Pelagic versus demersal responses to environmental change	4
Study of gear types and selectivity (i.e. minimizing bycatch)	4
Competition with other fish species with extending ranges	1

**Herring**

Alternate harvesting possibilities from sac roe	N/A
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**EVALUATION RESULTS**

**Thank-you for participating in the Applied Fisheries Research Priorities Workshop at WAISC! Here are the results of the workshop evaluation based on the 16 evaluations returned.**

1) This workshop was designed to bring together the many researchers, managers and resource users of the Bering Strait region to identify applied fisheries research priorities.

Organizations represented at this meeting and number of representatives:

This organization had contact with (%) of the workshop participants (as identified by the other participants):

3	ADF&G	88%	ADF&G
1	Kawerak, Inc	38%	Kawerak, Inc
4	NSEDC	81%	NSEDC
1	NOAA/NMFS	56%	NOAA/NMFS
1	NPRB	31%	NPRB
3	UAF	63%	UAF
2	Other universities	2	Other universities
1	BLM	25%	BLM
1	K-12 educators	6%	K-12 educators
1	subsistence resource harvesters	13%	subsistence resource harvesters
1	commercial resource harvesters	6%	commercial resource harvesters



Figure 1 Figure 1: Participants in the WAISC Applied Fisheries Research Priorities for the Bering Strait region. Workshop held in Nome, Alaska on April 7, 2009.

2) I anticipate consulting or collaborating with someone from a different user group in the next year to answer a question or work on a project (choose the best answer).

38% Yes, but not because of this conference  
 69% Yes, because of this conference  
 19% No

3a) Please rate the following elements of the Applied Fisheries Research Workshop (mark one rating for each item):

Length of workshop was: 0% too long 25% too short 75% just right

3b) I think this topic would be best addressed with a workshop that was 3 hours (average);

2 -8 hours (range)

4) Please comment on the format of this workshop (circle one rating for each item):

Question	Excellent	Good	Acceptable	Poor	N/A
My opportunity to speak was:	38%	38%	19%	0%	0%
My opportunity to listen was:	50%	44%	0%	0%	0%
The priorities identified were:	44%	50%	0%	0%	0%

5a) I would appreciate more opportunities for conversation with this group of stakeholders:

75% Yes  
 13% No

5b) Suggestions for future conversation topics with this group of stakeholders:

- 1) What people want from NMFS
- 2) Problems/conflicts with NMFS
- 3) Discuss data from projects spawned by this group
- 4) Climate change
- 5) Norton Sound fish



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- 6) Hard to do, but increase input from academics in places like this, and increase input from state agencies, etc. in NSF/NRC science plans
- 7) Methods of analysis for research questions
- 8) Focus on implementable projects with action items

Please use this space for further comments.

- 1) It's a great process but I think it would be nice to have longer for some of the steps, as well as time to discuss the results.
- 2) Great conference, great workshop, thanks!
- 3) Very helpful and interesting! Wish I could attend the entire conference.
- 4) Great icebreaker for interagency cooperation! Very well run and organized workshop. No one organization dominated the thinking, speaking or production of ideas. Great Job!
- 5) Nice first effort
- 6) I would have liked to pitch my pet ideas more.
- 7) Very nicely coordinated - kept folks active and on track - great organization
- 8) I had little local knowledge to be a meaningful participant



## PARTICIPANT CONTACT LIST

Western Alaska Interdisciplinary Science Conference Workshop  
Applied Fisheries Research Priorities Workshop for the Bering Strait Region  
Nome, Alaska April 7, 2009

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