

FINAL

Synthesis Report

NSERC Canadian Fisheries Research Network

3rd Annual General Meeting

Toronto, Ontario

February 13-15, 2013



Canadian Fisheries
Research Network



Réseau canadien de
recherche sur la pêche

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Cover photo by Susan Thompson



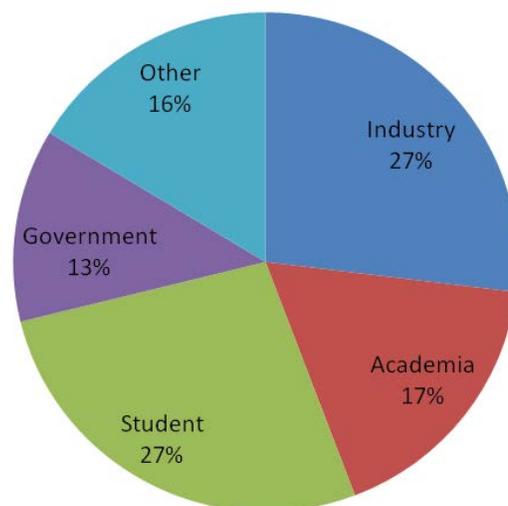
1. Introduction

The third Annual General Meeting (AGM) of the Canadian Fisheries Research Network (CFRN or the “Network”) was held on February 13-15, 2013 in Toronto, Ontario. Highlights of the meeting are summarized in this report. All participant questions, responses and comments have been paraphrased.

The AGM brought together around 100 people, including members of the fishing industry, academic researchers, graduate students and post-doctoral fellows, representatives from federal and provincial governments, and a few others (*e.g.*, Board members, Independent Scientific Advisory Panel members). A list of participants is provided in Appendix A.

The theme of the AGM was “Collaborative Research for Sustainable Fisheries”. The program included formal presentations, panel sessions, plenary discussion, small group discussions, and a poster session. A copy of the agenda is provided in Appendix B.

Our host for this year was the Guelph Node, and we were certainly in good hands. We are grateful for their warm welcome and special contributions to the meeting.



1.1 HQP Forum

The AGM was preceded by a 1-day training workshop on *Collaborative Research and Career Opportunities* for students, post-docs and other emerging researchers (collectively referred to as highly qualified personnel or “HQP”). A cross-section of other representatives from within the Network participated as mentors. The workshop explored collaborative research and

Training beyond academic requirements: How to get people with basic academic skills into non-traditional working environments?

career prospects, training needs, a plan for strategic skill development, and topics for future training and workshops of this nature.

To help emerging researchers prepare for future careers in collaborative fields, workshop participants felt that the

Network could **improve communication** both among the HQP group and between HQP and other Network members. The Network could also **enhance links between natural and social scientists** through a joint workshop to help understand each other’s discipline (and language) and the challenges/opportunities they face.

Some ideas for skills development and cross-training for HQP in the Network 🗨️

- 1) Contract negotiation, proposal writing, meeting facilitation, project management skills, résumé writing and job interviewing
- 2) “Dragon’s Den” style workshop: Hold a competition for contract work or research grants and have industry and government experts evaluate proposals from participants
- 3) Introduction to fisheries policy and management
- 4) Participation in stock assessment meetings
- 5) Internships with government and industry (“learning by doing”)
- 6) Experience on boats (fishing and research) and in labs (government)

Read more about the workshop in a blog post by special guest Martin Pastoors of [GAP2](#) from the Netherlands:

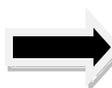
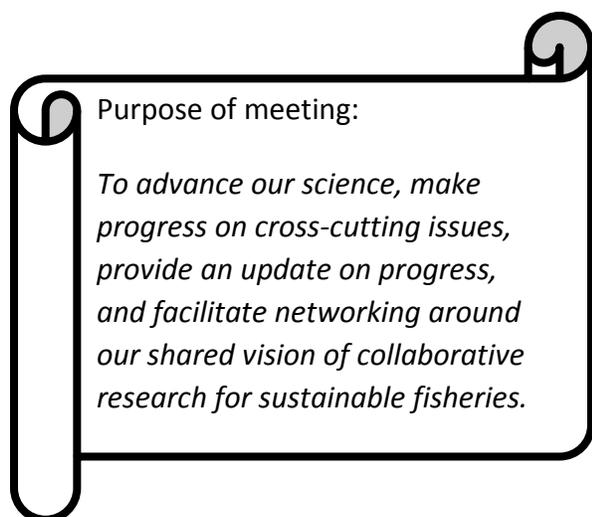
<http://gap2.eu/gap2general/martin-pastoors-blog-canadas-participatory-research-futures/>



HQP Forum: Workshop on *Collaborative Research and Career Opportunities* for students, post-docs and other emerging researchers (photo: Katrine Turgeon)

2. AGM Day 1: Network Perspectives on Sustainability

CFRN Principal Investigator, Rob Stephenson, welcomed participants to the AGM and reviewed the purpose and structure of the meeting.



Meeting components:

- 1) Scope and definition of sustainability in our Network
- 2) Network contributions to sustainability
- 3) Barriers and bridges to collaboration for sustainable fisheries
- 4) Priorities for enhanced collaboration: overcoming barriers, building bridges
- 5) Priorities and products going forward

2.1 Project Overviews and Research Presentations

The first day of the AGM showcased the research of the Network through a series of presentations followed by a poster session. These were valuable opportunities to share information about the research of the Network.

The presentations offered a snapshot of the projects and situated them in the context of themes that are common across the Network (collaboration, sustainability). Each project/node presented their take on the definition of sustainability as it relates to the Network, and explained how their research will contribute to the sustainability of fisheries in Canada.

Perspectives of industry, academic and government partners were reflected in the presentations. Then, students presented a 5-minute overview of their research with emphasis on its collaborative nature and sustainability context/contribution. These brief presentations were a good introduction to the poster session, where participants were promised more detailed information and an opportunity to chat directly with the students doing the research. A list of presentations made by students and post-docs is provided in Table 1. Abstracts for all of the presentations and posters are available on the *Products* page of our website at: <http://www.cfrn-rcrp.ca/Public-Products-EN>.

(Note: An “abstract” is a brief overview of the research.)

What does sustainability mean to you?

How is our research contributing to sustainability?

Table 1 Presentations by CFRN students and post-docs

Project / Node	Presenter	Title
1.1	Eric Angel	To fish or not to fish: decision-making in the Skeena River salmon fisheries
1.2 & 1.3 - Lobster Node	Marthe Larsen Haarr	Spatial and temporal variation in larval production of American lobster (<i>Homarus americanus</i>) in Atlantic Canada
	Brady K. Quinn	Modelling potential effects of larval development rates on large-scale drift and spatial connectivity of American lobster
	Gudjon Sigurdsson	Patterns and processes of lobster settlement
	Kristin Dinning	Is muddy seafloor important to settlement and early survival of American lobster?
	Bryan Morse	Activity levels and movements of juvenile American lobsters (<i>Homarus americanus</i>) in a nursery area: an ultrasonic telemetry study
	Laura Benestan	Genomics and management of the American lobster (<i>Homarus americanus</i>) in eastern Canada
	Benoît Bruneau	The effect of sedimentation on the settlement behavior of the American lobster (<i>Homarus americanus</i>)
	Léo Barret	Comportement des postlarves du homard Américain : effet de la température et de la population d'origine
1.4 - Guelph Node	Fan Zhang	Effects of age structure of spawning stock on the stock-recruitment relationship of Lake Erie Yellow Perch (<i>Perca flavescens</i>)
	David Gislason	Temporal variation in rates of phenotypic change in Lake Erie yellow perch (<i>Perca flavescens</i>) 1988-2008
	Allan Debertain	Food-web complexity and the persistence of top-predators in large lake fisheries
	Katrine Turgeon	Lags between fish abundance and harvest in commercial fisheries

Project / Node	Presenter	Title
	Kevin Reid	Bayesian Decision Networks: a framework for the scientific management of fisheries assessment and research resources
2.2 - Benthic Impacts	Charlotte Moritz	Characterising benthic communities and quantifying fishing impacts in the Gulf of St. Lawrence
	Truong Nguyen	Computer simulation and flume tank testing of scale engineering models: how well do these techniques predict full-scale at-sea performance of bottom trawls?
3.1 - Closed Areas	Kate Barley	This area is closed. But what about the fish?
3.2 - Marine Mammals	Sarah Fortune	How much food do seals and sea lions require?
	Rachel Neuenhoff	Enhancement options for Atlantic cod in the southern Gulf of St. Lawrence
3.3 - Management Strategy Evaluation	Danielle N. Edwards	Evaluating impacts of policy on the financial viability of the BC small boat groundfish fleet
	Michael Hawkshaw	Harvest control rules for coping with autocorrelated recruitment variation, conservation of biodiversity, and economic wellbeing
	Ricardo Amoroso and Catarina Wor	Pacific hake and Pacific herring: developing management procedures robust to stock productivity variability
	Rachel Chudnow	In search of effective management: lessons from domestic and international experience

Participants seemed pleased and excited to hear about all of the research in the Network. They were very impressed by the level and calibre of the research in the Network. Feedback from last year's AGM indicated that people would have liked to have heard more about the science, so we created that opportunity at this AGM in response to that feedback.

It is a real treat to see results coming from the questions that have been posed in this Network. The presentations were fabulous – short, high level, poignant and really accessible. These students are going to be a real force in broader fisheries related sciences and management of the future. *Dave Gillis, DFO*

People are overwhelmingly pleased with the research and work of the students. The breadth of work presented was impressive. The fact that the participation rate is so high for industry at this AGM suggests that the work is really valued by industry. *Maria Recchia, Fundy North Fishermen's Association*

The quality of the presentations and science by the Network is excellent. All of the presenters seemed to have a good sense of what we are working toward in terms of sustainability. *John Annala, Gulf of Maine Research Institute*

Most people seemed to like the format and brevity of the presentations. A couple of people said they would have liked for the students to have more time to present, and to be able to ask questions after each presentation (instead of waiting until the end of the project/node session). Having all of the research presentations in one day did make for a long day of presentations and was a lot of information to process. Options to spread them out and vary the format of the AGM more will be explored for next year.

Several people commented that the language used in the presentations was much improved over last year. Presenters were sensitive to the mixed audience of industry, academic and government participants and made a conscious effort to use language that was common to all (rather than relying on jargon and technical terminology). This point is critical and will continue to be emphasized for all meetings and communications of the Network.

It was interesting to hear the different perspectives on sustainability in the Network; most feel sustainability is important but hard to define. One perspective in particular seemed to resonate with the audience – that of Fan Zhang, PhD candidate at the University of Guelph (see Figure 1).

“Sustainability is like a beautiful, distant planet that we are all trying to get to! To get there we have a rocket ship, representing fisheries management, which fires on four cylinders to take off: social, economic, political and ecological. These four components must not only be included in fisheries management, but also should be combined in an effective and efficient way.”

– Fan Zhang, University of Guelph

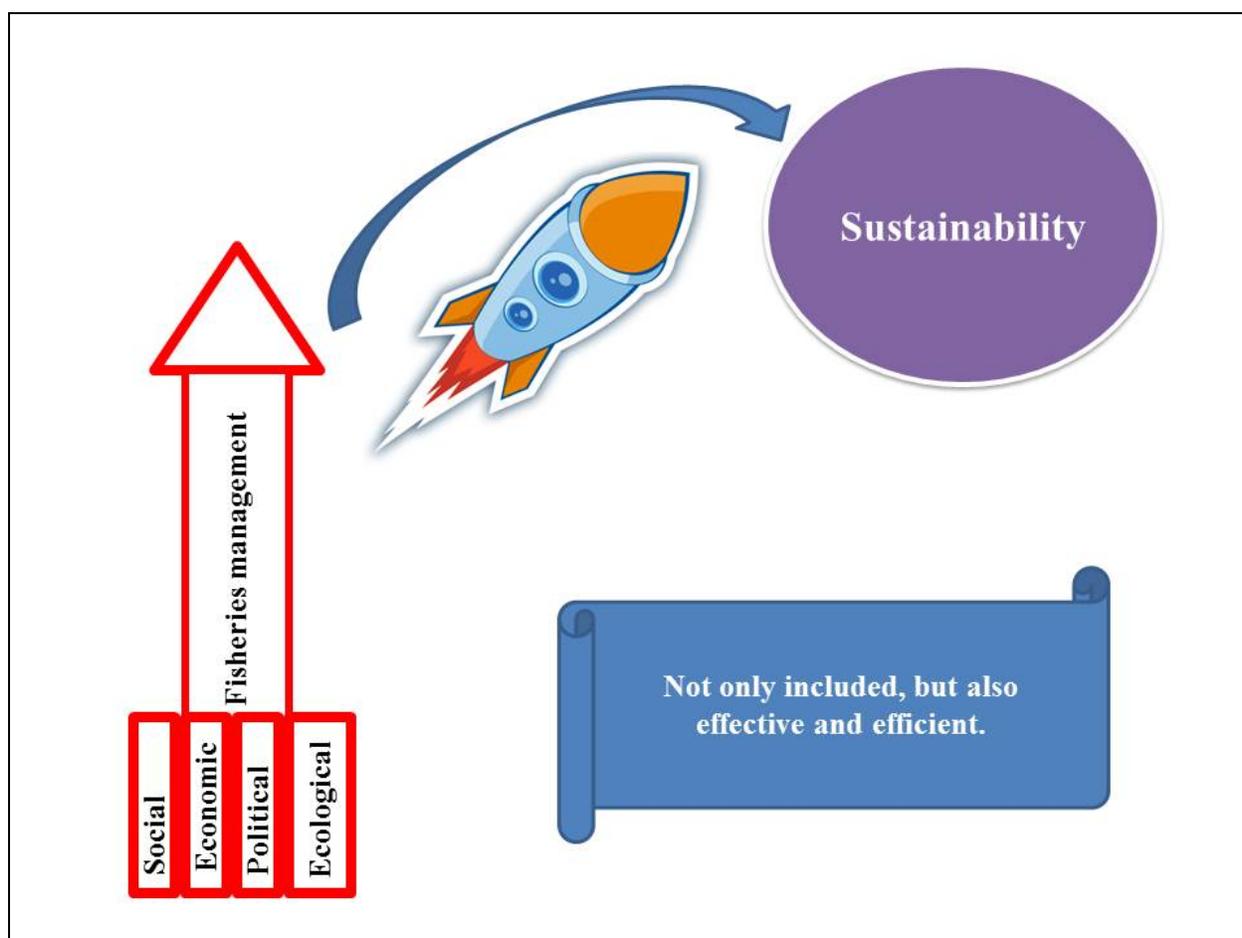


Figure 1 A perspective on sustainability (Fan Zhang, 2013)

2.2 Poster Session

A poster session was held at the end of the day in what is becoming an annual AGM event and highlight, following on the heels of last year’s success. The poster session was a significant opportunity to share detailed information about the projects and research of the Network with participants. Posters included project overviews and updates, student/post-doc research, and partner profiles and displays. The posters remained on display throughout the entire AGM. We thank the Ontario Commercial Fisheries Association for sponsoring the food at the poster session reception, which featured local fish products courtesy of Guelph Node industry collaborators in southern Ontario.



Fish Station at Poster Session Reception (photo: Courtenay Parlee)

Posters by CFRN students on their research in the Network were evaluated by a committee of representatives from industry, academia and government, with a prize for the best student poster as judged by the committee. In addition, a “people’s choice” award was determined by public ballot. The winner of the Best Student Poster as judged by the committee was Kristin Dinning, and the People’s Choice award went to Marthe Larsen Haarr. Both Kristin and Marthe are students of the Lobster Node working with Dr. Rémy Rochette at the University of New Brunswick (Saint John). The winning posters are provided in Appendix C.

The Poster Evaluation Committee thanked all of the students for their impressive efforts. People were impressed by the research and appreciated the opportunity to speak directly with students about their research. The Committee felt that the quality of the posters was improved over last year. The Committee provided individual evaluations to students in writing following the AGM, and requested feedback from the students on their experience with the process.

3. AGM Day 2: Reaction and Deliberation

3.1 Panel discussion: Reflections on presentations and poster session

The second day began with a panel response to the presentations and poster session of Day 1. The panellists were Dave Gillis (DFO), John Annala (Gulf of Maine Research Institute), Martin Pastoors (GAP2), Brian Locke (Ontario Ministry of Natural Resources) and Maria Recchia (Fundy North Fishermen's Association). They were asked to reflect on the evolving story of the Network and what are we achieving as a collective. The panellists also took the opportunity to comment on issues and priorities for the Network going forward. This was followed by an open discussion. Table 2 summarizes the highlights of this session.

The work of the Guelph Node over the past 10 years was praised. Their story was seen as very encouraging. It is one of a collaboration born out of crisis, and eventually academics and industry were working so well together that government rejoined the process.

Martin Pastoors gave an overview of "GAP2" which is an EU funded research project exploring how fishers, scientists and policy makers can best work together to manage fisheries sustainably (their vision is "Connecting Science, Society and Policy"). Spread over 11 countries in Europe, the project has established 13 partnerships between scientists and fishing industry stakeholders. The lessons learned through these partnerships are now being taken to policy makers. Martin referred to the challenge and complexities of engaging policy as the "elephant in the room". This "elephant" is common to GAP2, CFRN and other initiatives.

Given the similarities between the two initiatives, a reciprocal exchange between the CFRN and GAP2 has been planned to share experiences, lessons learned, and best practices for collaborative participatory research. For more information on the CFRN-GAP2 Exchange, visit: <http://gap2.eu/the-gap2-exchange/the-gap2-exchange-blogs/the-gap2-exchange-canadian-exchange>

Table 2 Reflections on achievements of the Network and priorities going forward

Looking back: What we are achieving as a Network	Looking ahead: Issues and priorities for the Network going forward		
	Communication	Collaboration	Results Impact / Future initiatives
<ul style="list-style-type: none"> • Research is diverse and very relevant to the questions of today and tomorrow (including for fisheries policy and management). • Strong contribution from the Network to the forward-looking science agenda. • Extensive collaboration among partners. • Beginning to link natural and social science fisheries research. • Training the next generation of fisheries researchers. 	<ul style="list-style-type: none"> • More work is needed on gearing presentations and tools toward general public not just scientists, and on finding ways to communicate results back to harvesters (<i>e.g.</i>, students could write articles for fishing association newsletters). • Need for a common language (between partners and between natural and social scientists). • Need for communication throughout all stages of research. • Some things can be modelled whereas others cannot; above all, there is a need to be transparent. 	<ul style="list-style-type: none"> • Explore how best to work together given the different timelines in academia vs. fishing industry needs (research takes time, and things change quickly on the water). • There is also a time-phase shift between research and policy needs. Initiate a dialogue between DFO management and industry. • Deepen the collaboration between natural and social scientists; have multidisciplinary teams within projects. • Engage economists – more discussion of economics in fisheries would enhance the research. • Engage managers and policy makers. Guelph Node embodies bringing together all the elements to get what we want and need. 	<ul style="list-style-type: none"> • Get the results into the hands of the people who need them (harvesters, managers/policy makers). • Determine how best to transfer the results to management such that people can understand the results well and reflect the new knowledge in future decision-making. • Discussion of how to most effectively deliver the results to the management and policy systems must be kept front and centre. Make it part of the process. • Start talking about what will happen after the Network is over. • NSERC to reflect on training that has occurred because of the Network, including for industry.

3.2 Workshop: Bridges and barriers to collaboration for sustainable fisheries

The Guelph Node organized a workshop to identify bridges and barriers to collaborative research and decision-making in Canadian fisheries from the perspective of industry, government and academic partners. Participants of the workshop were divided into six groups and were asked to identify and write, on colored “post-it” notes, potential or identified bridges and barriers to collaboration. Each group was assigned a poster board-sized matrix (13 x 13), containing cells with established barriers and bridges among partners, and asked to stick their “post-it” notes on the matrix (see report cover photo).

In total, 336 “post-it” notes were collected. Comments from industry comprised 32% of the comments, 15% from government and 52% from academics. Comments were well distributed among bridges (148 comments) and barriers (188 barriers). A brief report back of the exercise with a focus on bridges was made by Robert McLaughlin of the Guelph Node the following day. There was not enough time to report back on barriers or do a full analysis of the exercise. Therefore, key findings of the exercise will be presented at the 4th AGM in 2014 – namely broad similarities and differences among academia, industry and government with respect to perceived bridges and barriers to collaboration.

Feedback on this exercise was very positive. People appreciated the opportunity to work in small, mixed groups comprised of industry, academic and government participants. They were keen to hear more about the results of the exercise, and understood that there was insufficient time to do the full analysis and report back at the time.

3.3 Keynote: Participatory structured decision-making systems to overcome barriers, build bridges

Following the workshop on identifying bridges and barriers to collaboration, the AGM explored the notion of overcoming barriers and building bridges as a means to enhance collaboration. Invited speaker Dr. Mike Jones of Michigan State University made a presentation titled, “Managing Great Lakes Fisheries in the Face of Great Uncertainty”. In his presentation, Dr. Jones used the Lake Erie Walleye fishery as an example of a success story in overcoming barriers and building bridges among partners, despite great uncertainty in the science and management of that fishery. This was accomplished through engaging stakeholders (by forming the Lake Erie Percid Management Advisory Group), and using a decision-analysis method called “structured decision-making”. Structured decision-making is an organized approach to identifying and evaluating options and making choices in complex decision situations (*e.g.*, see <http://www.structureddecisionmaking.org/>). According to Dr. Jones, *engaged science* represents the marriage of analysis and deliberation. The intersection of these two elements allows us to develop a greater degree of transparency and trust.

Lake Erie Percid Management Advisory Group – A recipe for success!

- 1) **Vision statement:** Emphasis on transparency, sound science, partnerships, broad and equitable benefits.
- 2) **Rules of engagement:** To determine how we were going to interact as a group in this process.
- 3) **Technical Review Panel:** An external panel, members of which were nominated by the group, which serves to validate the process for the group.
- 4) **Decision-analysis method:** Use of a tool for decision-making that allows different management strategies to be tested, and trade-offs to be identified and discussed.

Table 3 Q&A with Mike Jones about the Lake Erie Percid Management Advisory Group (LEPMAG)

You asked	Mike answered
What was it that set the scene for you to be able to make the move to this kind of system?	An intersection of a belief in the analytical process and a frustration with the inability to reach consensus with the way the business was being done in the past.
Now that you have the trust of the people at the table, has there been any effort to draw on knowledge at the table to address uncertainties? For example, any attempts to build a stakeholder-engaged science program out of this?	This is happening but informally.
Re LEPMAG: How are the representatives chosen, how long does it take them to feel comfortable with the process, and how much turn-over is there?	Generally we rely on associations / agencies to nominate their own representatives. It's always a challenge to identify who are the stakeholders. People start to feel comfortable around the third meeting. There is very little turn-over. It's also important to have the right person leading / facilitating the team in order to build trust. We spend far too little time on teaching our students how to be good facilitators.
Who funds the process?	We've managed to do this with pretty modest resources, partly because of the enthusiasm of the stakeholders. We've received some funding from the Great Lakes Fishery Commission, management agencies, and the National Fish and Wildlife Foundation. Also critical has been industry's willingness to tax itself to pay for the research: \$0.01/lb of landed perch and

You asked	Mike answered
	walleye is used to pay for grants in aid of research to enable us to push this agenda. This has allowed industry to participate in a way that it wouldn't have otherwise.
What stops stakeholders from going political if they don't like the decisions being made?	There is no "big stick". The group has some pretty high expectations of each other, and they don't want to ruin this process. Stakeholders feel this is much better than the alternative.



What lessons have I learned?

"Nature bats last – in other words, Mother Nature is going to decide the outcome in the end. Ignoring uncertainty ignores risk. It's all about people, and trust. So let's all muddle along together."

–Mike Jones, Michigan State University

3.4 Day 2 Wrap-up

Individual project planning and development meetings were held in the afternoon. Several students made presentations on their research progress during these meetings.

Martin Pastoors of [GAP2](http://gap2.eu) captured his perspective on the first two days of the AGM in a blog post cleverly titled *CFRN's Cliffhangers, Elephants and Science*. It's worth a read!

<http://gap2.eu/gap2general/martin-pastoors-blog-cfrns-cliffhangers-elephants-science/>

4. AGM Day 3

4.1 Keynote: Interdisciplinary collaboration to overcome barriers, build bridges

The final day began with a presentation by Dr. Rosemary Ommers of the University of Victoria in which she reflected on the history and evolution of Canadian collaborative interdisciplinary research in support of sustainable fisheries. Dr. Ommers gave a chronological overview of a series of such research initiatives starting in the early 1990s with Eco-Research, Just Fish, Coasts Under Stress, Coastal CURA (Community-University Research Alliances), CURRA (Community - University Research for Recovery Alliance), and finally the CFRN ("the new kid on the block").

Drawing on her experience with Coasts Under Stress, Dr. Ommer shared some helpful tips about working together and self-organizing. For example, she described a common problem-solving goal, or **shared vision**, as being critical and what keeps us together. Also, it **takes time to get it right** – the relationships and the links in the research – and it is worth taking that time for a more seamless whole in the end.

We learned that working as a team required patience, willingness to let go of ego, and intellectual curiosity about other team members' disciplines. *Rosemary Ommer on Coasts Under Stress*

Dr. Ommer stressed that Canada needs a social-cultural-economic-ecological approach to fisheries research, both in general and in terms of the issues that are evolving quickly (*e.g.*, climate change and ocean acidification). Further, she suggested two underlying principles that are fundamental to our research: 1) Fisheries policies have to be ecologically sound and geared to conservation and sustainable community development, and 2) Coastal communities (or coastal regions comprising several adjacent communities) should have a real say in the development of the fisheries policies that affect their viability and the livelihoods of their citizens.

Table 4 Q&A with Rosemary Ommer about collaborative interdisciplinary research

You asked	Rosemary answered
<p>There is a fundamental divide between natural and social science (in terms of cultures, orthodoxies, methodologies). Success strongly depends on the qualities of the individuals who come together and can find a way to work together (this is rare). Advice?</p>	<p>You grow interdisciplinarity. But you need a shared vision. Have that conversation as a team. Then ask, what is the bit that you bring to that vision? Students often drive it.</p>
<p>With First Nations and communities, everything starts in the centre, and connects out. DFO is the opposite. We are challenged in communicating to the centre and in having DFO understand what is needed in our communities. How to overcome the nested structure, improve our relationship, and engage management? We need something to come after the Network. Message needs to be brought back to DFO and into its centre.</p>	<p>The centre/DFO needs to go out, but the edges/coasts also need to come in. Mutual comprehension and respect will lend itself to starting to work on that shift. Work on the Network vision, and it will carry over to the next proposal for funding.</p>

You asked	Rosemary answered
<p>There is also work to be done in the fishing areas. Local people are saying academics are working in a bubble. How to bring three cultures together for co-construction and shared ownership of the work? It takes a lot of time, energy and leadership. How to co-produce, so that results are shared and people can defend them at the table?</p>	<p>It's about empowering the people where it matters and who live it. To instill courage in people and enable them to be able to speak for themselves is powerful. Part of the answer is the way in which the discussion occurs and the information is shared – for example, art and use of diagrams are effective.</p>
<p>Another part of the history is that of fishermen's organizations – that's what got us to this room right now. We need socio-economic research, and natural science research. It's difficult to work together but absolutely essential that we do because otherwise our communities will die. Someone needs to write about the evolution of fishermen's organizations – the change in the discourse, where the leaders of fishermen's organizations see the future of their fishery as inseparable from their community.</p>	<p>The grassroots model works from coast to coast to coast and internationally.</p>
<p>The Network is weak in getting answers to questions back out to industry members, and getting management to the table. How to get the information and tools in the hands of the people where it matters?</p>	<p>Here is my challenge to the Network. Organizations are coming together and building a new divide. Propose to assemble a committee to look at dissemination in a community-based language. Use art and photographs, the language of the people. Also look at dissemination in an appropriate language to managers/Ottawa.</p>
<p>Those of us in communities who are doing this work have separated ourselves from our communities because the rest of the community doesn't understand what we are doing. Others in the community have also lost the sense of importance of the fishery in their community. We need to reach out and re-connect with our communities, understand the implications of policies to our members, and ensure that the research we are doing does influence our policies.</p>	

4.2 Small group discussions: Priorities for enhanced collaboration and improved decision-making

Following the presentation, participants gathered in small groups (with a mixture of industry, academia and government representatives) to discuss what are the priority means and tools for

enhanced collaboration and decision-making. They were given an hour for discussion, following which a designate from each group reported back on the main points and issues identified (see group summaries in Appendix D). Figure 2 is a graphic overview of the key outcomes of the discussions.

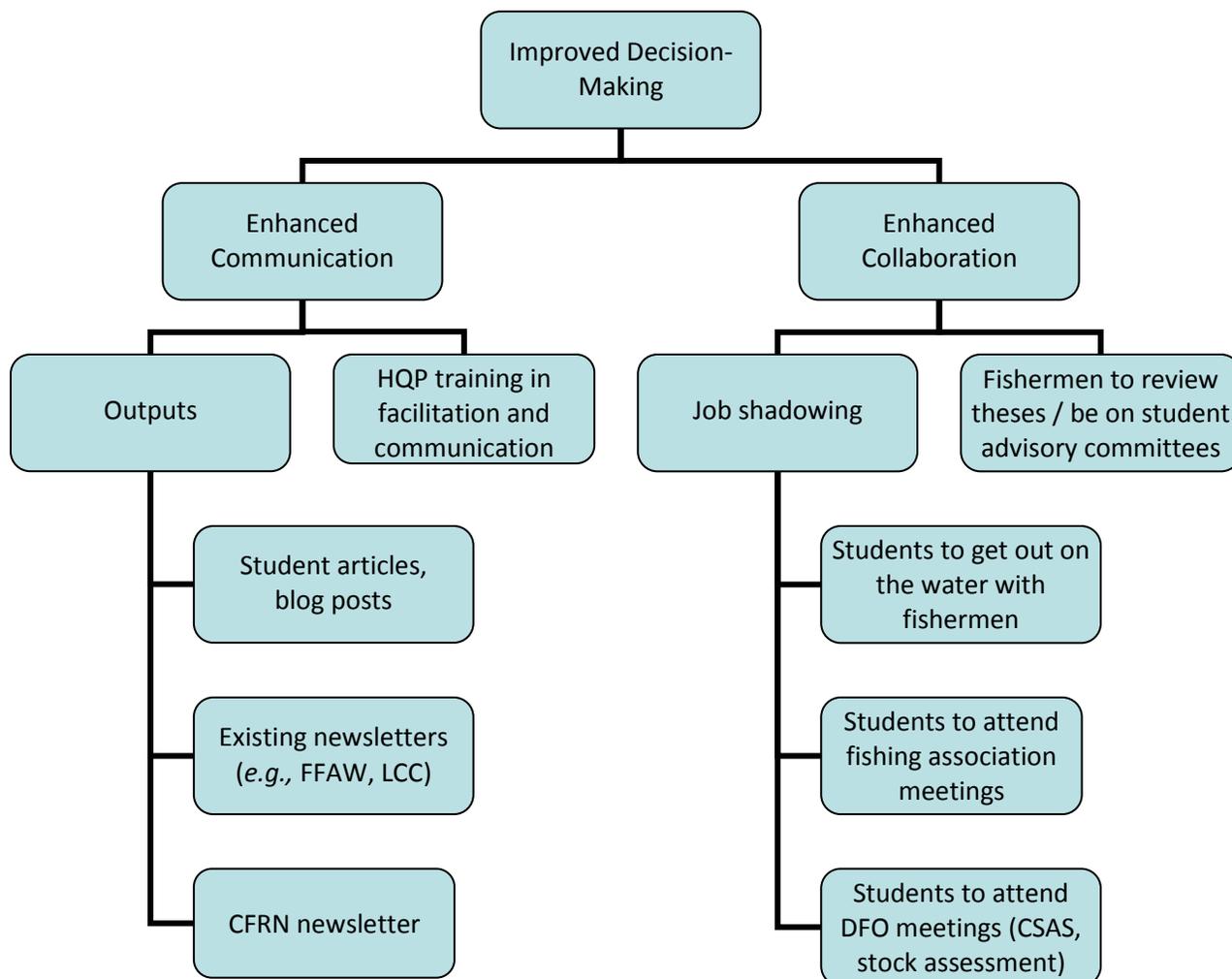


Figure 2 Priorities for enhanced collaboration and improved decision-making

Following the reports from each group, the floor was opened to comments. Many of the points and suggestions covered during the panel discussion and break-out group discussion were re-emphasized. There was a suggestion to hold a workshop on how to communicate scientific results to industry (*e.g.*, explanation of how models are created and how they work, interpretation and communication of results and graphs).

4.3 Plenary Wrap-up and Closing Remarks

Dr. Gavin Christie of DFO made closing remarks, reflecting on what was seen and heard over the past three days. He observed that discussions and issues that arose largely related to the themes of structure, process and time. He emphasized the need to embrace uncertainty, and at the same time acknowledged how difficult that is when making decisions that affect people's livelihoods (a feeling of "playing with live ammo"). Setting up strong, broad collaborations is a way of overcoming fear and dealing with risk. How do we work together, and who are we when we work together? What do we bring to the table?

Dr. Christie reflected on the **different time scales** inherent in our work:

- Fishing issues (immediate)
- Science research (takes longer)
- Collaborations (take time)
- Management (takes time / different time scale)
- Politics
- Societal evolution
- Nature



He proposed that two key insights have emerged from the AGM:

- 1) The importance of bringing clarity, transparency and commitment to the process.
- 2) The success of the Network comes from having structure, thinking about what that structure is, and using it to inform our processes.

We want to sustain fisheries, but not the status quo. We want to move forward to a new place that gives us a new and common advantage. We don't know a lot about the future. We have to embrace and engage uncertainty. *Gavin Christie, DFO*

Dr. Mike Sinclair also made some closing remarks on behalf of the Independent Scientific Advisory Panel, commenting on the fascinating results presented this year. He suggested four priorities for the Network going forward:

- 1) Map project components to DFO priorities in a systematic way. How to move from where we are now to influencing DFO policy on issues?
- 2) Do a gap analysis of actions defined in the 2004 Atlantic Fisheries Policy Review.
- 3) Fishing industry to do a review and report card in a structured way at this mid-point in the Network (*How are we doing?*).
- 4) Engage DFO managers.

4.4 Mini-Workshop: Participatory/Collaborative Structured Decision-Making

After the plenary wrap-up, a mini-workshop was held on participatory/collaborative structured decision-making. The workshop was organized by Dr. Murdoch McAllister of the University of British Columbia. The intent of the workshop was to give all AGM participants a sense of how structured decision-making works, and its usefulness.

Of the many different techniques that fall under the structured decision-making umbrella, students in the West Coast Node are using one called “Bayesian Decision Networks” in their research. This Bayesian Decision Networks technique was used to illustrate the concepts of the workshop.

After an introduction and overview, participants divided into small groups for a practical session to learn about the use of Bayesian Decision Networks as a decision support technique. Many of the practical sessions were led by students. Groups then came back together in plenary to review what they learned and how it could be applied. A case study was presented by PhD student Danielle Edwards on the application of Bayesian Decision Networks to the BC small boats groundfish fishery.

Why use Structured Decision-Making?

- *To help integrate expertise and research from different disciplines*
- *To foster participatory structures for co-management and policy development*

The workshop was very well received by some participants, and less so by others. The language used in the session was isolating for some. The Bayesian Decision Networks technique is complex and technical by nature, making it difficult to explain in general terms and difficult to grasp for those who are unfamiliar with it. This challenge is representative of the issues we face in understanding each other's language in the broader Network.

Some participants who were initially skeptical stuck with the session and by the end had a better understanding of the technique and how it could be useful. There was a request from some fishermen in the Lobster Node to set up a call to walk through an example of how it might be applied to the lobster fishery.

We are grateful to Dr. McAllister and students of the West Coast Node and Guelph Node for their efforts and contributions to the workshop.