



Baynes Sound / Lambert Channel Ecosystem Forum | November 2019

Summary Report

*Prepared by Jessie Hemphill (Alderhill Planning Inc.)
for Islands Trust & World Wildlife Fund Canada*



Table of Contents

Executive Summary	3
Introduction	4
Purpose.....	4
Importance of the Baynes Sound / Lambert Channel Ecosystem.....	4
Summary of Discussion	5
Working Group Reports.....	6
<i>Aquaculture Research Project & Demonstration Site</i>	<i>6</i>
<i>Herring Group.....</i>	<i>7</i>
<i>Governance Group.....</i>	<i>7</i>
Activity: What Do You Need to Support this Ecosystem?.....	7
Activity: What Does the Future of the Forum Look Like?	11
Breakout Groups.....	12
<i>Small Group Discussion 1: Aquaculture Research Project & Demonstration Site</i>	<i>12</i>
<i>Small Group Discussion 2: Governance</i>	<i>13</i>
<i>Small Group Discussion 3: Herring Presentation</i>	<i>14</i>
Next Steps	15
Action Items.....	15
Logistical Next Steps	15
Suggestions for Next Forum	15
Appendix A: List of Participants	16
Appendix B: Agenda	17

Attached under separate cover:

Appendix C: Kim Dunn's Presentation

Appendix C: DFO Presentation Re: Herring

© 2019 Islands Trust & World Wildlife Fund Canada

Executive Summary

On November 15, 2019 a Baynes Sound / Lambert Channel Ecosystem Forum meeting was jointly hosted by Islands Trust and World Wildlife Fund Canada at the Deep Bay Marine Field Station in Bowser, B.C., within the shared territory of K'omoks and Qualicum First Nations. More than twenty participants attended, representing First Nations, federal, provincial, and local governments as well as conservation groups, industry representatives, and others with an interest in the Baynes Sound / Lambert Channel area. A list of participants can be found in Appendix A.

Building on previous events, including the Spring 2019 Baynes Sound / Lambert Channel Ecosystem Forum, objectives for the 2019 Learning Exchange were to: create an opportunity for collaborative dialogue amongst the diverse interests in the Baynes Sound / Lambert Channel ecosystem; share knowledge and experience that can inform solutions, and; identify next steps for ongoing collaborative actions and processes to support the health of the Baynes Sound / Lambert Channel ecosystem. Working groups formed in previous events were also tasked with reporting on their progress.

In the morning representatives from two of the working groups (*alternative practices for shellfish aquaculture* and *governance*) shared updates on their progress, while the *herring* working group had been unable to meet. There was also an ad hoc presentation by Daniel Arbour, Electoral Area A Director and Board Member for the Association of Vancouver Island and Coastal Communities. The rest of the morning built upon questions put forward by the governance working group, reflecting on the needs of Ecosystem Forum participants and how the Forum might best serve those interests. It is clear, from the results, that simply having a place to bring diverse voices together to share knowledge and learn from one another should remain the key function of the forum.

In the afternoon, participants reflected on the results of the morning discussions and considered the question of how the Ecosystem Forum can move forward. After some plenary discussion on this topic and a small group activity, the group broke into the working group topics (*alternative practices for shellfish aquaculture, governance, and herring*) for more in-depth dialogue and learning.

Back in plenary, after each group shared the recommendations ensuing from their discussion, the event concluded with recommendations for next steps, including a set of suggestions for the next ecosystem forum meeting.

Please contact Kim Dunn (kdunn@wwfcanada.org) if you have questions or comments about this report.

Introduction

Purpose

This report is intended to provide background information and a summary of discussion from the Baynes Sound / Lambert Channel (BS/LC) Learning Exchange held on November 15, 2019. Please note that this is a summary of the discussions and that formal consensus was not sought for each point, though there was general agreement within discussions. The objectives for the Forum were to: create an opportunity for collaborative dialogue amongst the diverse interests in the BS/LC ecosystem; share knowledge and experience that can inform solutions, and; identify next steps for ongoing collaborative actions and processes to support the health of the BS/LC ecosystem. Working groups formed in previous events were also tasked with reporting on their progress.

Importance of the Baynes Sound / Lambert Channel Ecosystem

Baynes Sound and Lambert Channel—a thermally stratified inland sea, internationally recognized Important Bird Area and nationally designated Ecologically and Biologically Significant Marine Area—is a highly productive ecosystem, home to a regionally unique combination of diverse marine and coastal habitats.

Baynes Sound / Lambert Channel is the highest ranked cumulative spawning and rearing area for herring in Strait of Georgia ecoregion, producing one-third of all herring in BC's waters—positioning this area as a critical linchpin in terms of the ecosystem health of the Coast. Seabirds, juvenile salmon, mollusks and other forage fish find shelter in the ecologically-distinct elements of BS/LC. The Sound is a summer moulting area for sea ducks, with significant aggregations of waterfowl, shorebird and gull species during herring spawn. Several at-risk bird species use Baynes Sound for feeding or stop-overs.

Baynes Sound / Lambert Channel contains important foraging and haul out sites for Pacific harbour seals and Steller sea lions. The Sound has been consistently used as spawning grounds during herring spawn runs. The estuaries and riparian areas of the Sound provide spawning and rearing habitat for Coho, chum, coastal cutthroat trout and likely some steelhead. Fifteen salmon bearing streams drain into BS/LC. Intertidal eelgrass beds act as nurseries and provide protection and valuable food sources for these salmon. Significant quantities of both wild and cultured shellfish are produced within the waters of the Sound.¹

¹ This section is copied from the 2018 Baynes Sound/ Lambert Channel Ecosystem Forum 2018 Summary Report by Dr. Karen Hurley and Kim Dunn.

Summary of Discussion

Opening

Qualicum Elder Mike Savoie opened the Ecosystem Forum, which was facilitated by Jessie Hemphill of Alderhill Planning Inc. After roundtable introductions (see Appendix A for a full list of participants) and a table-group networking activity, the facilitator reviewed the agenda and objectives for the day:

1. Create an opportunity for collaborative dialogue amongst the diverse interests in the Baynes Sound / Lambert Channel ecosystem
2. Share knowledge and experience that can inform solutions
3. Identify next steps for ongoing collaborative actions and processes to support the health of the Baynes Sound / Lambert Channel ecosystem.

Presentation by Kim Dunn – Review of Activities since 2018

After the opening activities, Kim Dunn briefly reviewed previous activities of the same group of stakeholders represented at this event, followed by group discussion about things that are happening in the BS/LC area that the participants deem unacceptable, thus inspiring their participation in this forum. Some of the harm being observed includes:

- Increased garbage each year – beach clean-ups show this
- Septic systems leaking
- Decline in bird, whale and herring populations
- Increased development on the waterfront
- Deterioration of estuaries
- Virus outbreaks
- Vessels discharging substances into the water
- Beach safety issues

While participants generally agreed that some of the changes happening to this ecosystem are outside of human influence, there was still a general sense that enough of these issues are within human control to be worth sustained effort to address them.

Presentation by Daniel Arbour, Representative for CVRD Electoral Area “A” and Association of Vancouver Islands and Coastal Communities committee (AVICC) Board Member

Though not on the agenda, Mr. Arbour offered to share a brief update from the Comox Valley Regional District (CVRD) and AVICC. He offered the following points, to help inform discussion:

- AVICC is looking at fish health, alternative technology for sustainable fisheries, and area-based management.
- There are possible changes to the federal regulation coming soon (the development of an Aquaculture Act separate from the Fisheries Act) that will have big impacts in this area. Ecosystem Forum members need to work closely with the Department of Fisheries and Oceans (DFO) to stay informed about these changes.
- Sewage planning for CVRD Area A is occurring. Septic treatment plan and septic regulations are being reviewed.

Working Group Reports

Three working groups, formed at the March 2019 Learning Exchange, had committed to providing updates at the November Forum:

Aquaculture Research Project & Demonstration Site

Chaired by Barb Mills, this group formed in March to move forward with a proposal to conduct research into alternative, more sustainable aquaculture practices. The premise of this group is that alternative shellfish practices are needed (particularly for reducing plastic) and that a project of this nature requires a variety of locally informed stakeholders and interests and must present feasible results.

The group has created a draft research proposal, with the following research question: *Can shellfish aquaculture sites function profitably without plastic predator netting?* The working group acknowledged the challenges in answering this question, given the diversity of environmental conditions within the ecosystem and resistance to changing proven methods, and will continue to refine the research approach while seeking funding. The group has compiled a literature review on the topic, which Barb offered to send to interested parties.

Some comments and questions from participants included:

- The working group needs to consider different types of plastics.
- In addition to considering alternative netting materials, the group should consider the impact of no netting at all.

- What is the scale of the impact? Is plastic predator netting enough of an issue to warrant all of this effort? (The response was yes, it is a significant factor to local plastic and microplastic pollution and there is data available to confirm this.).

Herring Group

The herring group, tasked with examining the importance of herring in the BS/LC area with a particular focus on management challenges and subsequent recommendations, was unable to meet after the March forum.

Governance Group

Chaired by Dorrie Woodward, this group considered the following question – what governance structure should be put in place for the Ecosystem Forum itself, to ensure sustainability?

The key task of this working group was to complete an analysis of five BC based multi-stakeholder groups to derive best practices and bring recommendations forward to the Ecosystem Forum participants. The following similarities were found among similar groups:

- A flexible, inclusive roundtable structure with a more highly structured/formal core group (referred to as a Board of Directors or Steering Committee)
- The use of typical governance tools (e.g. Terms of Reference, Guiding Principles, Vision Statement)
- Meetings were open to the public and had high-level goals

Some of the differences, which participants of this Forum should consider, included:

- Sources of revenue
- Staffing level (though all had at least one dedicated staff member)
- Decision-making structure (e.g. majority rule vs. consensus-based)

The working group had many unanswered questions, requiring more conversation before being able to bring forward recommendations. The questions informed the rest of the days' activities.

Activity: What Do You Need to Support this Ecosystem?



As the final activity of the morning, the facilitator asked participants to consider the following questions: 1) What are the ways you would like to support the ecosystem but can't? and 2) What supports do you need to achieve this?

Participants were asked to write their responses to question 2 on sticky notes and arrange them

on a wall, first by stakeholder group, with the following results:

Government of Canada

- Data
- Need increased compliance with current regulations
- More industry innovation
- More data - # predator nets, % usage, % diligent use
- More field officers for environmental inspections
- Government regulation or policy constraints
- Ability to apply innovative solutions or approaches to small spatial scale
- Not able to enforce all regulations
- Not able to respond to violation reports
- More PFO Officers
- More budget for conservation protection. New updated aquaculture - conditions of license with “clout” consequences.
 - Securing equipment
 - Safety
 - Garbage
- Debris
- Intra and Intro governmental jurisdictions to have shared purpose / goals (not siloed)
- Ability to rank/consider tradeoffs between economic and environmental considerations
- Participation from DFO Herring Science Reps
- Participation from Herring Industry Representatives
- Improved understanding of practical considerations for fishing sector and value to coastal communities

Government of BC

- More public industry collaboration (rather than conflicts)
- Better harmonization with other jurisdictions
- Timeless projects: Priorities
- Regulatory tools (beyond contract law)
- Better information on aquaculture best practices
- Social license

Local Government

- Greater project focus / agreement across organization
- Baseline data (what is the state of health?)
- Opportunities for cross-jurisdictional dialogue / collaboration
- Clear long-term strategy with specific intended outcomes
- Expand statutory tools for ecosystem protection i.e.: tree-cutting
- Ability to advocate to senior gov'ts with joint voices / echo each other

- Culture of social and industry innovation
- Shellfish industry to grow
- Transition commitments away from plastic and gas products
- Better coordination amongst fed / prov / local regulators
- Regional food security
- First Nation leadership
- Inclusive participation, including forestry
- Cooperation & info to help engage communities to address social tensions and polarization
- Info about the shellfish aquaculture industry to help us look for realistic ways to request more eco-friendly practices
- Excellent research
- Info & support on how to influence high level policy such as the emerging federal aqua culture act
- Info & relations to help us align our work with the goals, rights, & world view of First Nations
- Shared voices to amplify messages (for advocacy to industry, government, for requests for funding, etc)
- Opportunities for multi-jurisdictional dialogue & cooperation (ongoing & structures, goal oriented)
- Power/authority to regulate & enforce aquaculture practices or ability to convince other agencies to do so
- Ideas to help support Indigenous rights
- Ability to find solutions to problems that don't have a natural fixer / regulator
- Local implementation of UNDRIP
- Money, staff, equipment to do quarterly(?) cleanups of garbage

First Nations

- Become self-governed in order to further monitoring efforts and enforce laws / regulations

Citizen / Science / Volunteer Groups

- Need for an independent cumulative impact assessment of BS & LC serve as a baseline for decision making
- Need for consistent and focused monitoring of the impact of anthropogenic / actions in health of Baynes Sound
- Need for an independent contractor to clean up aquacultures debris on Denman Island that is funded by DFO
- Need for funding to support research, advocacy and environmental work

Fishing & Aquaculture Industry

- Educational assistance to change attitudes
- How much plastic netting is in Baynes Sound?
- Research \$ and expertise for informed decision making & innovative change

- Science around plastics: degradation & contents
- Resources to fix known problems
- Facilitation to focus groups like this for a joint focus effort

Researchers

- Catalog of physical and biological data
- Detailed habitat mapping

ENGO's

- Continued good will for collaboration
- Ecosystem based management plan for roe herring fishery
- Funded plan for cleaning up debris from shellfish industry (independent contractor)
- Enforcement of conditions of license and compliance
- State of the art liquid waste management plan for CVRD
- Ecosystem based management plan for BS/LC - ecologically & biologically significant area
- Updated conditions of license for shellfish growers that address loss of equipment more effectively
- A common base of scientific fact we can agree on
- Efficient dissemination of data to better inform actions (where to conserve/protect, adapt & increasing resilience)
- Increase collaboration (including transboundary) + with decision makers to decrease known threats & eliminate them
- Long term support from local gov't towards goals (eg: restoration and monitoring)
- People willing to lead
- Pathway to increase credibility / validation progress
- Social, environmental, financial all working together
- More \$\$ for restoration projects
- Increased collaboration on Baynes Sound / Lambert Channel research and restoration
- Change in regulation to mitigate hard armoring of foreshore and to promote "soft shore"
- Funding for admin overhead to conduct projects

Over lunch, results were then reorganized to identify themes and priorities. The following ranked list emerged, reframed as collective needs:

- 1) I need to collaborate across organizations and hear diverse voices to plan and work together, and have big conversations on tricky issues.
- 2 I need data to support decision making and action.
- 3) I need better / new regulatory and enforcement tools

- 4) I need to work with industry and help innovate
- 5) I need funding
- 6a) I need people/ human resources
- 6b) I need to acknowledge and work with First Nations

There was then plenary discussion about how this list may inform the governance structure and activities of the Ecosystem Forum moving forward. It is clear, from the results, that simply having a place to bring diverse voices together to share knowledge and learn from one another should remain the key function of the forum. Secondly, data collection and dispersion would be a good way to direct the efforts of participants. Thirdly, advocacy and lobbying for better resourcing and regulation could be justified as a goal of the forum. From this and other discussions at the forum, it is also clear that an acknowledgement of First Nations rights and title must be embedded in this work.

Activity: What Does the Future of the Forum Look Like?

In order to move the governance discussion forward, participants were asked to break into small groups and spend some time considering the following questions:

- What should the Ecosystem Forum's leadership structure be, and how should it be formed?
- What resources do we think are needed (funding and people) in order to do the work required?
- How should decisions be made by the forum, and by whom?



After the small groups considered these questions, plenary discussion was held which determined the following guidelines for Forum governance:

- The Ecosystem Forum should be less formal (e.g. incorporation under the BC Societies Act isn't necessary). There should be a Terms of Reference that includes objectives and membership guidelines, developed by the core leadership group.
- This core leadership group should always have seats for First Nations representatives, even if those seats aren't always filled.
- The Forum should continue to function like it has so far, with frequent committee meetings (monthly?) and semiannual Ecosystem Forums.
- The core leadership group or a secretariat or a staff person should provide administrative support (reporting and organizing).
- The Forum should not seek to become a non-profit society (for now), as this may prevent government participation.
- The Roundtable format is good if it's facilitated, focused, and has a good scope.
- Decisions should be consensus-based, allowing abstentions and ex officio participation. Actions should only come out of unanimous agreement.

- There may be a need to partner with groups that could receive funds, for some projects.

Breakout Groups

After the governance activity, participants were given the opportunity to break out into small groups on topics of their choosing. The three topics put forward included:

- Shellfish Aquaculture Research Project
- Governance
- Herring Presentation

Small Group Discussion 1: Aquaculture Research Project & Demonstration Site



The group had an active discussion about the possible variables to include in the experimental design and factors that could influence the outcome of the experiment.

Alex Munro informed the group that current clam netting used by the industry is made out of either polyethylene or a blended polyolefin. Nets are generally 15 x 50 ft or 15 x 75 ft and left on the beach year-round. His opinion is that predator protection is needed 12 months of the year. Alex also mentioned that industry out-plants seed on the beaches as small as 4 mm and as large as 12 mm in shell length. For the purposes of the

experiment, we would need to try and get seed as small as 4 mm as this smaller size would likely experience the highest rates of predation.

Alex stated that clam spawning typically occurs between July and August and we would want to avoid starting the experiment during this time as it may be difficult to distinguish small experimental seed from naturally-set individuals (although there should be a size class difference between experimental and natural-set seed, which could probably be used to distinguish the two populations).

A variety of potential alternative materials were discussed, including hemp and jute, but Alex informed the group that he has already trialed materials like these and noted that they break down within a few weeks and would be unsuitable for predator protection. The group will need to think about other possible alternative materials. This sort of trial may be better carried out as a side project (not part of the larger experimental design) where a variety of small samples of materials are tested to examine their durability over time.

The group agreed that testing the removal of predator netting when the seed reaches various sizes would be a good idea.

The group discussed the issue of fish getting trapped under the clam netting when it rises above the sea bed. Alex pointed out this is more of an issue for growers who are protecting oysters with mesh netting draped over rigid plastic fences. Clam netting still needs to be anchored securely along the length of the perimeter and experimental research should examine various anchoring designs.

There was some discussion about the extreme variability (weather, oceanographic variables, beach attributes, predators) among beaches and how the results from one beach may not be transferrable to others. This speaks to the need for a large number of replicate beaches, with perhaps fewer treatments or replicates per beach.

Chris Pearce is to work on the next draft of the experimental design for review by Barb Mills and the rest of the Alternative Practices for Shellfish Aquaculture committee.

Small Group Discussion 2: Governance

This group discussed the outcome of the plenary activities, in particular the balance between informality and structure.

- What is/are the most useful tangible activities to support next steps
- Discussion/reflection on the previous plenary discussion re the governance not being “too formal”
 - Feelings that forming a non-profit society would be too restrictive and too administratively burdensome
 - Feelings that we really need to continue to be able to facilitate dialogue and conversation, and that too formal a structure might inhibit that aim; similarly, feelings that formalizing may create tiers where not all participants feel they have a voice/are included
- It sounds like groups like what’s happening now with the Forum. How do we design the governance in such a way that they have a more robust version of what they have now?
 - Facilitation is important
 - “Core body” needed to keep focus and move action-oriented items, to keep things moving forward
 - Core body could be responsible for playing a bridging role between the working groups and the larger Forum (e.g. receiving and disseminating information from the working groups)
 - Core body doesn’t need to worry about being able to make decisions about money, if the Forum isn’t a group that could receive funding, i.e. funds will flow through participating groups or other partner organizations

- Activities/function of the Forum must be driven locally (by issues relevant to the region)
- Must convene something that speaks to participants' needs
- What does the group need and who might provide it?
 - Needs: website, document sharing mechanism, human resource capacity for meeting logistics and record-keeping/reporting (e.g. agenda, minutes)
 - Islands Trust may be able to play a role; maybe also the Fraser Basin Council, whose mandate is to support roundtable type initiatives province-wide (may not yet be doing any work on Vancouver Island)
 - Re staff/coordinator role: would not be enough work for a full-time person, and the Forum won't be able to "hire" someone, so really what we need is a percentage of time of a staff member in one of the participant organizations (this is essentially what we have had via WWF-Canada and Islands Trust so far)
 - One of the next steps will be for the Forum (or the governance working group) to investigate support options with participant organizations
- Other ideas:
 - Could making the Forum open to the public be a force for pulling people together?
 - What about a symposium/conference style of gathering? Could help to further the dialogue

Small Group Discussion 3: Herring Presentation

This group, hosted by Brenda Spence from DFO shared a slideshow presentation about herring. The slides were distributed to participants and can also be found at Appendix D.

Next Steps

Action Items

After each small group finished their discussions, recommendations were shared in plenary. The rest of the participants had the option to recommend amendments to the recommendations, and the participants were asked if anyone objected to the inclusion of each recommendation. The final list of amended recommendations is as follows (not in order of priority):

From Group 1: Aquaculture Research Project & Demonstration Site

- Chris Pearce is to work on the next draft of the experimental design for review by Barb Mills and the rest of the Alternative Practices for Shellfish Aquaculture committee

From Group 3: Future Framework for this Group of Stakeholders

- Draft a Terms of Reference to bring forward at the Spring 2020 Ecosystem Forum
- Approach organizations about potential support and funding

Logistical Next Steps

- Organize the next Ecosystem Forum for late May 2020
- Send a follow-up email to participants including the deck of slides from the DFO Herring Presentation
- Provide final summary report to participants when available

Suggestions for Next Forum

The following suggestions were made for the next Forum:

- Review Terms of Reference from Governance Working Group, with the goal of agreeing on a governance structure and filling the roles therein
- Receive an update about SSEC
- Allow time for participants to share more about their organizations in 10-15 minute presentations
- Allow at least one hour for open space groups

Appendix A: List of Participants

First Name	Last Name	Organization
Daniel	Arbour	Comox Valley Regional District
Dan	Bowen	Project Watershed
Laura	Busheikin	Trustee, Islands Trust
Carl	Butterworth	Deep Bay Marine Field Station
Maria	Catanzaro	Sea Change/Pacific Salmon Foundation
Ian	Cox	Islands Trust
David	Critchley	Trustee, Islands Trust
Kim	Dunn	WWF-Canada
Wiley	Evans	Haikai Institute
Cory	Frank	K'ómoks First Nation
Clare	Frater	Islands Trust
Cath	Gray	Conservancy Hornby Island
Bill	Heath	Project Watershed
Jessie	Hemphill	Alderhill Planning
Liz	Johnston	Association of Denman Island Marine Stewards
Christopher	Marrie	Fisheries and Oceans Canada
Art	Martell	K'omoks IBA Caretaker
Jim	Meldrum	Fisheries and Oceans Canada
Barb	Mills	Association of Denman Island Marine Stewards
Alex	Munro	Taylor Shellfish/Fanny Bay Oysters
Chris	Pearce	Fisheries and Oceans Canada
Chief Mike	Recalma	Qualicum First Nation
Mike	Savoie	K'ómoks First Nation
Grant	Scott	Conservancy Hornby Island
Brenda	Spence	Fisheries and Oceans Canada
Lesley	Valour	Islands Trust
Jordan	Wagner	Ministry of Forests, Lands, Natural Resource Operations, and Rural Development
Dorrie	Woodward	Association of Denman Island Marine Stewards
Doug	Wright	Shellfish Grower

Appendix B: Agenda

AGENDA

Baynes Sound / Lambert Channel Ecosystem Forum
Deep Bay Marine Field Station, Bowser
November 15, 2019

Objectives:

- Create an opportunity for collaborative dialogue amongst the diverse interests in the Baynes Sound / Lambert Channel (BS/LC) ecosystem
- Share knowledge and experience that can inform solutions
- Identify next steps for collaboration to support the health of the BS/LC ecosystem

8:00 – 8:30 am	Registration and breakfast (provided)
8:30 – 9:30 am	Opening and introductions
9:30 – 10:00 am	Background and updates: 2018-2019 Ecosystem Forum
10:00 – 10:15 am	<i>Break</i>
10:15 – 11:00 am	Report back from working groups <ul style="list-style-type: none">• Alternative practices for shellfish aquaculture• Herring• Governance
11:00-12:00 am	Discussion re: future of the Ecosystem Forum
12:00 – 1:00 pm	<i>Lunch (provided)</i>
1:00 – 1:45 pm	Continue discussion re: future of the Ecosystem Forum
1:45 – 2:30 pm	Presentation
2:45 – 3:00 pm	<i>Break</i>
3:00 – 3:45 pm	Breakout Groups – “What do we need to do to move this work forward?”
3:45 – 4:15 pm	Discuss next steps
4:15 – 4:30 pm	Closing comments

Please contact Kim Dunn with any questions and concerns: kdunn@wwfcanada.org