

**First Nations Marine Protected Areas Workshop Proceedings
Partnership: Living Oceans Society & Musgamagwa Tsawataineuk Tribal Council**

February 25th and 26th, 2004, Alert Bay, BC

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Welcoming and Opening

Roy Cranmer: I am a member of the Nimpkish Band Council. Also, I sit on the board of directors for the MTTC. I'd like to welcome you all to the territory of the Namgis. I'd like to call up Peggy for an opening prayer, before we get really serious.

Peggy Svanvik: Heavenly Father, we thank you for this day, we thank you for this group of people who have come. We pray that you will be with us all and that nothing but wisdom will come from whatever we do here today. Heavenly father we ask that you remember the Shukar family in their time of grief and we ask for your blessing on them and that you bless all those who are here.

Julia Gardner: Thank you very much, and thank you for welcoming us to your territory. I am facilitating the meeting today and I think that it will be an easy job as we're not being too ambitious as far as reaching agreements. This is about learning from each other. Let's take a look at the objectives at the top of the agenda. The emphasis is sharing information:

Objectives

- ❑ Share information about the biological and socio-economic rationale for MPAs and the results of MPA studies to get dialogue going
- ❑ Share information about MPA planning co-management and monitoring
- ❑ Share information about the legislation for MPAs and discuss the legal issues around rights and title, treaties
- ❑ Identify the research, speakers and workshops that are needed to address these issues further
- ❑ Provide material for a booklet of proceedings that can be distributed
- ❑ Evaluate workshop and identify concerns and questions
- ❑ This workshop is not about supporting MPAs, it is about learning more about the issues around MPAs: problems, solutions, challenges, tools, collaboration

Putting the Pieces of the MPA Puzzle Together

Jennifer Lash, Living Oceans Society, Executive Director

Thanks. Hi, I'm the Executive Director of Living Oceans Society (LOS). LOS is a non-profit marine conservation group located on Malcolm Island. We are an organization that works towards ensuring healthy oceans and healthy coastal communities that depend on that ocean. We started in 1998 and work on a variety of issues including maintaining the moratorium on offshore oil gas and stopping the negative impacts of open netcage salmon farming, we work on MPAs and sustainable fisheries. All of our work focuses on the need to incorporate the needs of the people who live and work on the coast. We are lucky to be situated in an area of the coast that is so rich in resource based communities and First Nations, that we consider it part our responsibility to the region to ensure that all of those values and needs are incorporated into the conservation work that we advocate for. I've been working on MPAs for 10

years, but haven't actually been involved in setting one up yet, so don't worry, they're not coming too fast. What I did hear from the First Nations that I worked with is that they're concerned about how they relate to rights and title and that there are so many issues that are much more pressing such as social issues, immediate conservation issues and treaty issues that we don't have time to discuss MPAs. It wasn't that they didn't necessarily want them, but that they were scary because you do have to consider rights and title and that they were too busy.

So we began developing the science of how to design a network of MPAs. One of the things that we wanted to do was to build the capacity of First Nations governments to make informed decisions around MPAs and so they can engage more fully in the MPA discussions as they come up. In this workshop, we're not looking for people to support or not support MPAs. What we're hoping is that First Nations bands will have this discussion within their decision-making systems. What we'd also like to explore what we in the conservation community can do to further help. There are some things we can do and some things we can't do. We don't want to be pushing First Nations really hard on things when they're not ready, but we want to know what we can do to increase dialogue around protected areas. Keep this in mind as we go along and let us know what we can do. The other thing that we encourage is recommendations how conservation groups can work with First Nations groups on the MPA issues. For example we have a Memorandum of Understanding with the MTTC that we can do education within their traditional territory on MPAs. This workshop is a partnership with the MTTC and we worked with Carole Perrault, Connie McGivov, and Ethel Speck to organize this workshop.

When LOS started working on MPAs we established guiding principles for working with FN on MPAs:

- First Nations are the stewards of their traditional territories.
- MPAs must be established without prejudice to land claims.
- Subsistence fishing is an integral part of First Nations diet and culture.
- MPA must not infringe on aboriginal rights and title.
- When permitted, incorporate traditional knowledge in MPA analysis
- First Nations must have co-management of all MPAs

What is a MPA?

In general what they do is prohibit oil and gas exploration and extraction, bottom trawling, mining and dredging. In the eyes of the conservation community this is not a lot of protection. Open net cage aquaculture could be added, some fishing in some areas... We look at these pieces of legislation as tools that can be used to designate an area. In 2000, the marine conservation community got together and came to a consensus on a general definition. Important components of a network of MPAs would include:

No Take Zone

- Commercial and recreational fishing prohibited
- Prohibits habitat disruption: Mining, drilling, dumping, dredging, open net cage aquaculture, bottom trawling

Buffer Zone

- Permits fishing except bottom trawling
- Prohibits habitat disruption: Mining, drilling, dumping, dredging, open net cage aquaculture, bottom trawling

What are the government tools available for setting up a MPA?

- Oceans Act MPA
- Fisheries Act
- National Marine Conservation Area
- Wildlife Management Area
- Provincial Park
- Ecological Reserve
- Migratory Bird Sanctuary

We can have a protected area covering a section of ocean – this is just the area that protects the habitat but allows most types of fishing. Then the people that live and work in the area can decide where the no-take areas should go in terms of dealing with the economic needs of the community and the conservation objectives of the region. Then you could have other levels of protection – like a rockfish production area that is closed to rockfish fishing. You can have different levels of zoning within a protected area. The key thing for us in the conservation community is that the government legislation is watering down what a MPA could be, that having no-take components should be at the core of a MPA strategy. It's up to the people who live and work here, who have the local knowledge to set these levels of protection.

There's three components to the work we do:

- 1. Science**
- 2. Traditional Knowledge**
- 3. Marine planning**

Science

Science is the most advanced aspect of this work because fishermen wanted to see the big picture of how a network of MPAs might look coastwide rather than having to deal with one MPA at a time. They fish coast wide and want to understand how MPAs will affect their livelihood. So we worked with scientists from around the world to develop a site identification methodology, a science-based method of identifying areas of high conservation value based on the best available information. This is a map that shows conservation hotspots in the South Central Coast and is based on 92 different data layers. On the web page at www.livingoceans.org is a 120 page document that explains the analysis in detail. We have a short layperson's brochure on the subject as well called "*Investing in a Future for the BC Coast: Designing a Network of MPAs*". The information is processed so that we look at habitat representation, focal species, rare and endangered species, important salmon and eulachon areas and linking land and sea units in conservation. This analysis has been completed coast wide except for the Strait of Georgia and that will be done in the near future now that the data there has been released. The brighter the yellow, the higher the value of the area is for conservation

purposes. So we looked at the areas highest value: Scott Islands, Entrance to Queen Charlotte Strait, Knights Inlet, The Narrows, The Broughton Archipelago.

Traditional and Local Knowledge

So now we want to talk with the people who live in those areas, work in those areas – how can we put a MPA in there that meets the conservation objectives and the needs of the people of the coast. So it doesn't mean that the entire Broughton Archipelago has to be a MPA – it could mean that portions of it are protected – that's where the dialogue needs to happen. This analysis only includes the science and the science is only part of the solution. We have to partner science with local knowledge, traditional knowledge where permitted, ecological knowledge and local economic needs. The next part of our work is local and traditional knowledge.

1. Commercial fishing use analysis: find out where the important fishing areas are. We have interviewed over 30 commercial fishermen with information on 1400 commercial fishing areas. We can compare the fishing hotspots to the conservation hotspots and find the MPA sites that will have least economic impact while achieving conservation objectives
2. Recreation fishing use analysis: ditto
3. Local knowledge from divers
4. Traditional knowledge where permitted. This is something we haven't worked on yet but would like to learn how to bring this into the picture.

Marine Planning

We're working with other conservation groups and Dovetail Consulting to look at ways to set up planning processes that allow us to have this discussion in an open and transparent way.

Questions (Q): The assumption is that you're trying to protect something in an MPA and the structure feels like an emphasis on the benthic environment, but you're speaking about salmon and eulachon as well. So its linked as well to migratory and pelagic species. I'd like to hear more about that....

Jennifer Lash: We're not just focusing on protecting the habitat, the benthic environment. Often the resource extraction that happens is not just the habitat, its taking the fish out. According to the DFO stock status reports most of the commercially harvested species are low or declining or there's not enough information to be able to assess them. The current fisheries management plans are failing to ensure the fisheries are sustainable. We want to set up MPAs that protect the fish stocks. The data is so poor for the fish species and their distribution that we have to use the habitat as a surrogate for marine life. For example we wanted to identify reefs and ensure that a portion of these are protected so that the species that depend on this habitat are protected such as rockfish and other species in different stage in their life cycle. So we did a complexity analysis that showed us where the rocky reefs are and then we could select a portion of them. If we had the species

distribution data we would use that. We have data for rare and endangered species, ancient sponge reefs, focal species like kelp.

In terms of migratory species we know that there's certain areas where salmon and herring hold during their migration. A MPA there wouldn't affect the numbers of salmon caught, but you're protecting the place where they need to go – same with herring, i.e. herring schooling and spawning areas. We'd like to see if eulachon also use certain areas of the ocean on a regular basis. We can easily update this analysis with new information as it becomes available. We are missing information about a lot of pelagic fish species. Local knowledge really helps out here. For example some of the people Patrick met with from the Narrows pointed out that some of the RCAs that are just coming out are in muddy bays with few rockfish.

Q: You presented a nice overview of your organization. You mentioned that there are three pillars to your research: natural science, traditional and local knowledge and the planning process. Why did you do it in that order and is it plausible to do it in a different order. This sort of codes any organization and influences how the process goes in the future:

Jennifer Lash: The science is something we could do on our own in the office. The traditional and local knowledge gathering requires the building of trust, which takes time and we're a relatively new organization (1998). It's taken this long to build the trust to begin those projects. The government hasn't started a marine planning process so we couldn't start there (although we do advocate for this frequently). By doing the science and use analysis we can push the government to create a planning process to create a home for these discussions. If the government started this process earlier we could task a lot of this work out to government technicians, but that just hasn't happened. The commercial fishermen also wanted to get the coastwide picture.

Q: I think it interesting. They way you talk about MPAs it seems too simple. Like if we had fish farms in an area that we wanted to get rid of because there's a spawning area, holding area and there's clam beds. What I'm hearing is that we can get rid of the fish farm but still have fishing there.

Jennifer: I've been working on this for 10 years and I haven't set one up yet, so that illustrates how it's not simple. When it comes down to it it's about competition for resources. If the MTTC wanted a MPA covering the entire Broughtons with fishing but no fish farms, it's not going to happen over night. It's going to require a lot of discussion, negotiation with industry, scientific evidence. The opportunity in taking leadership of what a MPA looks like is there. The government is looking for direction on what levels of protection are needed where.

Comment (C): Look at the problem first – are the fisheries depleted? i.e. With the Scott Islands -are the sea birds declining, is there a high mortality? Without a clear rationale, people become suspicious of hidden agendas. With offshore oil and gas

being a hot issue, the push for MPAs is seen as an effort to head off offshore oil and gas.

Jennifer: LOS is the lead organization of 100 groups opposing the lifting of the moratorium. We don't want to see it on this coast at all. Whether you have offshore oil and gas or not, you need to have MPAs.

In terms of what's the problem, we'll get into that more with the other speakers, but in BC our current fisheries management plans are failing to sustain our fish stocks. Right now they don't even have a handle on the commercial species, never mind the other species that are caught as by-catch etc. That's when MPAs become an insurance plan – setting aside certain areas of the ocean that are not disturbed.

Comment: I would start off by talking about MPAs as an insurance plan. In terms of the layman's approach that makes more sense to me – that we need to set aside some in the bank so that 20 years from now we're not in a situation where there's no more rockfish.

Jennifer Lash: Maps can be a very helpful, but dangerous thing. People look at the Canadian Wildlife Service map of the study area for the proposed Marine Wildlife Area and assume that the huge area is going to be closed to fishing.

Q: Are MPAs part of or different from the LRMP and is it too late to establish them if we want to?

Jennifer: The central coast LRMP was the first one to have a marine component to it. However, it was a poorly structured process for dealing with the marine issues. For example they had one seat for the entire commercial fleet – there's 56 species harvested in BC and over 100 organizations representing commercial fishermen. The marine component has not been completed. A process that's designed better so that all the players are around one table together talking about it – that's how we believe they should be designated.

Q: So you guys weren't part of the Rockfish Conservation Area closures?

Jennifer: We submitted a critique of the rockfish conservation areas that were identified because there was little scientific basis evident for their process. We asked them to reveal their methodology or develop one for identifying RCAs based on sound science and that it be externally reviewed – and they're ignoring us.

C: A couple of our guys went to those meetings that they had here and they weren't too happy with what they heard. That guy from DFO that's doing the presentations already made up his mind that these areas are going to be closed whether you like it or not. We had the cod fishermen there trying to tell them what it was all about. The thing with the commercial guys, they were going to shut down the commercial fishing there. Another thing is that we had this coast wide tagging

program and they were catching them in a fishery up by Prince Rupert and unless Michael Berry was working closely with the fishery at that time we wouldn't have known that. With this Cape Scott business we were lucky enough to shut down that fishery on the west coast on the top end of the island because they were impacting on our sockeye for the Nimpkish. Once that fishery was shut down the sockeye did start coming back. The reason I mention that is that there's other things happening like that out there, once we start shutting down areas for protected areas...there's something to think about. If we hadn't started to make noises about the by-catch of eulachons just within this area fisheries wouldn't have done anything about it. Now they've started looking at the west coast and how that's affecting it.

Jennifer: Yes. And in terms of the Rockfish Conservation Areas, its fair to say that most of them were proposed by one user group - the sport fishing advisory group. One of the principles of marine planning is that everyone should be involved: government to government table with First Nations at the stakeholder table everyone is there. It can't be behind closed doors like the rockfish conservation area process.

Steve Langdon, Director for National Marine Conservation Areas Establishment, West Coast, Parks Canada: Co-management in National Parks and National Marine Conservation Areas

Thank you for having me to your traditional territory today. I've worked for Parks Canada for 26 years and now I am the director for the establishment of National Marine Conservation Areas for the west coast. My last job was director of aboriginal affairs for Parks Canada, and before that I was superintendent for Gwaii Hanaas. I spent three years working on the Archipelago Management Board. I'm pinch-hitting for Ernie Gladstone the current superintendent who couldn't make it today. I've had experience in Gwaii Hanaas and other areas helping set up co-management agreements with First Nations.

25 years ago Parks Canada worked very little with First Nations in terms of rights or interests so we built from that point in northern Canada and claims started to happen in the north we started to develop a more cooperative relationship with First Nations. So we're going back now and building co-management into the older parks and with the new parks that are being established for example under the Nunavut Land Claim, for example have cooperative management agreements built right into them

- 15 of 40 National Parks have formalized cooperative management boards and we have informal agreements as well.
- All northern parks have cooperative management
- Some National Historic Sites e.g. Batoche National Historic Site
- Southern Parks with cooperative management e.g. Gwaii Haanas: most advanced co-management agreement
- Each board is different depending on the situation
- composition/issues discussed/frequency
- Common elements include Govt. and Aboriginal Reps: balanced two people from government, two from First Nations

- management plan signed by both parties
advisory in nature
Cultural matters

- Can include

Other partners: for example other local people as well as First Nations on board provide local knowledge i.e. Wapusk National Park near Churchill
human resources/employment, formal training agreements for First Nations to take advantage of the kind of employment opportunities that come with a National Park
research: oral history and traditional knowledge traditional activities governed by

board through consensus

Gwaii Haanas National Park Reserve and Haida Heritage Site



- All actions respect the environment, Haida culture and the maintenance of a benchmark for science and understanding
- Allows for traditional harvesting activities
- Creation of the Archipelago Management Board (AMB)

On the agreement's front page there are two columns representing the Haida's view and the governments view. Here's an excerpt (see full agreement, appendix):

The parties maintain viewpoints regarding the Archipelago that converge with respect to objectives concerning the care, protection and enjoyment of the Archipelago...and diverge with respect to sovereignty, title or ownership as follows: (excerpt)

“The Haida Nation sees the Archipelago as Haida Lands, subject to the collective and individual rights of the Haida citizens, the sovereignty of the Hereditary Chiefs, and jurisdiction of the council of the Haida Nation. The Haida Nation owns these lands and waters by virtue of heredity, subject to the laws of the Constitution of the Haida Nation and the legislative jurisdiction of the Haida House of Assembly.

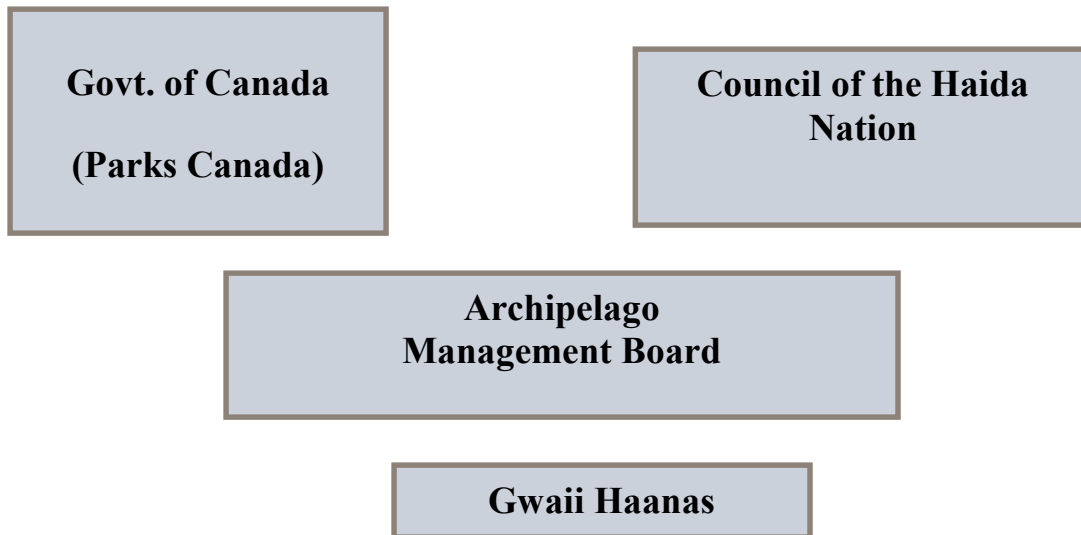
The Haida have designated and managed the Achipelago as the “Gwaii Haanas Heritage Site”, and thereby will maintain the area in its natural state while continuing their traditional way of life as they have for countless generations. In this way the Haida Nation will sustain the continuity of their culture while allowing for the enjoyment of visitors.”

The Government of Canada views the Archipelago as Crown land subject to certain private rights or interests, and subject to the sovereignty of her Majesty the Queen and the legislative jurisdiction of the Parliament of Canada and Legislature of the province of British Columbia.

...The Government of Canada intends to establish the park reserves pending the disposition of any Haida claim to any right, title or interest in or to the lands comprised therein....

Both parties agree that long term protective measures are essential to safeguard the Archipelago as one of the world's greatest natural and cultural treasures, and that the highest standards of protection and preservation should be applied.

Gwaii Haanas Management Structure



Archipelago Management Board

- 2 Co-chairs
- total of four members
- meets regularly
- consensus based
- Parks funds the board
- Secretarial support provided by Parks
- mechanism related to disagreement never been used, encourages consensus and resolution at local level. Some issues set aside and resolved at a later date as time allows for greater range of solutions
- all matters affecting the Park go through the board
- Ten years of history
- Works well now, challenging to get set up
- Often studied cooperative management model

Strategic Management Plan

- Sets out guiding principles for the AMB's decision making process
- Management goals include respecting cultural heritage, sustaining the continuity of Haida culture, presenting natural and cultural heritage

National Marine Conservation Areas

- NMCAs are not national parks on water
- Ecological integrity the priority in National Parks; ecologically sustainable use the priority in NMCAs, fishing could continue
- Parks Canada manages NPs
- Other departments involved in NMCAs: DFO, Transport Canada

- A type of marine protected area
- To protect and conserve representative areas of the oceans & Great Lakes
- Encourage understanding, appreciation and enjoyment of marine heritage.
- Balance protection and sustainable use
- Non-renewable resource extraction not allowed: oil and gas licenses relinquished within the Gwaii Haanas area
- Commercial, traditional and recreational fishing allowed
- Protection through zoning: a whole range of options available
- Management Plan required•Feasibility Study – Southern Strait of Georgia
- Gwaii Haanas surrounding waters: framework in place for NMCA
- *Canada National Marine Conservation Areas Act* passed in June 2002.
- Provides a legal framework to create and manage NMCAs.
- Ecosystem management a prime consideration rather than single species management: looking at the big picture and how species relate to each other (new concept in oceans management that hasn't been applied yet)

- Consultation with First Nations, coastal communities and stakeholders is mandatory.
- Participation in management advisory structure(s)
- Traditional (and local) ecological knowledge considered
- Other agreements possible
- No NMCA's established under the Act yet
- Commitment to involvement of aboriginal people in the study and establishment of NMCA's
- Management bodies will evolve depending on local circumstances. For example with the Southern Gulf Islands initiative, there are at least 14 First Nations that have an interest in that area so it is a more complex process

Fishermen are concerned that NMCAs will lock them out, but that isn't the case. It may be a different kind of fishing and the different zones with different management prescriptions, no-take areas can be beneficial to fisheries, replenishing the stocks. MPAs can be seen in a positive light. Locally managed fisheries would be the ideal situation, where boats that are tied up in Haida Gwaii fish locally, contributing to the local economy and creating more buy to sustainable fishing measures.

The Haida Watchmen program runs during the summer months with people from the communities including elders providing an interpretative and cultural perspective.

Steve: Every project that comes along with a scientific basis has an element of TEK. Its all blended together. There's little in the way of examining TEK from a western science perspective.

Q: I'm interested in how you're interacting with First Nations in the Southern Gulf Islands process. That's a problematic area because you have the Oceans Act MPA process, the Islands Trust and the provincially organized MPAs, so how are you proceeding?

Steve: There's two elements in the Gulf Islands: there's the terrestrial park which has been established and we're just in the process of creating an advisory body. In our discussions with the First Nations, we're asking them how they want to be involved. In Sidney we have two people responsible for First Nations liaison and they're trying to find an opportunity for First Nations to participate in the advisory structure. We don't want to prescribe anything, we want this to come from the community. It's taking some time for people to figure out how they're going to work together and how they're going to fit into the advisory structure.

Q: What relation is there to the Treaty Negotiation process as that's ongoing in that area?

Steve: As an example we just signed an agreement with the H. There's an element there specifically about how they will be involved in the park so we're trying to incorporate that into the treaty discussions. With the marine element, we're just at the beginning of that process and we have a lot of communication to do before we get to the consultation part. Just in terms of letting people know what we're doing and what do they think and information gathering.

Q: I'm very interested in the ecosystem based approach that you want to use up in Gwaii Haanas, and your use of the term living laboratory and the fact that First Nations, DFO and yourselves are going to work together. I'm thinking about how creative we can be about the spatial management of fisheries. We're still really stuck in those models, like single species fisheries management. I'm curious about your relationship with DFO up there and if you think there's an opportunity to do some experimental management of fisheries. People get scared with MPAs because once you close an area its closed and fishermen are terrified that it will never be opened, and what we might think about doing more is a rotational thing.

Steve: Zoning could be temporal changing from year to year or based on new information from monitoring etc. There seems to be recognition from DFO that NMCAs are different and there's an opportunity to learn here. One of my challenges is to work with DFO and move something along here that could serve as a model for other areas. We have another example where the water around the Broken Group in Pacific

Rim National Park falls under the Parks Act. We've discussed with DFO there's an opportunity to do something different.

Q: When you mention ecosystem based management and local fisheries, on the central coast, there's an agreement in terms of the principles of management that includes ecological and human well being. Is that what you refer to when you mention ecosystem-based management? For example, when you look at terrestrial resources on the central coast, many of the benefits are accruing to Vancouver and not as much to people who live locally.

Steve: Yes, the socio-economic aspects of ecosystem management are important. I took a quick look at the fisheries around Gwaii Haanas and there's not too many boats that tie up in Masset that fish in the waters around Haida Gwaii. The boats that fish in the area are from Sooke, Victoria and Prince Rupert. We have to look at how the benefits from an MPA can accrue to the local economy, but it's a complex system and it will be a challenge. There's a lot of concern about declining fish stocks around Gwaii Hanaas and if we don't do something soon, there will be more species brought to the point of non-recovery.

Greg Bargmann, Washington Department of Fish and Wildlife: MPAs in Washington State (see appendix map of MPAs, page 55)

There's about 18 MPAs in Washington now and I've been involved in about 12 of those over the last 15 years, going to public meetings and writing regulations. I'd like to thank Peggy and Roy for their hospitality in having us here. I enjoy the atmosphere here, we're not talking about drawing lines, about specifics but rather about achieving common goals. I'm going to be talking mostly about the Puget Sound area which is about half the size of the Strait of Georgia, a very urbanized area, that has an active tribal involvement in fisheries and they have fought for over 100 years to get recognition to have the authority to regulate their fisheries. They view MPAs with suspicion because of this bad history. In the late 90's our agency was going full bore on creating MPAs and creating a MPA plan, but that plan has been shelved. MPAs are a tool to be used towards a larger goal. People were concerned that MPAs were taking on a life of their own, with quotas for so many in the Seattle area etc and many people didn't connect with that goal. So now we have resource management plans of which MPAs are an important part of that plan. So we looked at what are the benefits of MPAs to fisheries in the open areas, to biodiversity, to education and recreation.

What we hear from FN and fishermen is that they think it's a fad and that they have to be based on sound science and that they're afraid it will be set in stone forever. We're saying that there should be a sunset clause that will force us to review them and monitor them and make changes to improve them. However, I would really look carefully at the idea of rotating MPAs for many of our species. For species like rockfish and lingcod, for an MPA to be effective, you're talking about many, many years. You're not going to create an MPA and in three years have a wonderful functioning ecosystem. I would be really hesitant to say we're going to look at an MPA

after a few years and then open it if you see no change. You're talking about a commitment of an area for at least a decade before you're going to see much difference in this part of the world if you creating an MPA for resource protection.

Does an MPA benefit fishing? We need to spend time demonstrating how MPAs benefit fisheries in the areas that are open to fishing. If you can't regulate fisheries meaningfully now, MPAs aren't going to solve your problem. You're still going to have harvest problems in the areas that are open to fishing. You still have to pay attention to size, gear etc. If you want to use MPAs as you sole management tool, theoretically about 80% of an area needs to be locked up in a no fishing zone. MPAs are one tool among many tools to manage resources. Another thing is people want to know the big picture, rather than deal with one MPA here and there year after year. Otherwise they get suspicious about motives and fear that this is an undercover way to put them out of business.

WDFW is Revising its Groundfish Management Strategies for Puget Sound

We believe we need to:

- Build responsible science-based harvest policies,
- Safeguard sensitive species and habitats,
- Effectively monitor our resources and fisheries, and
- Rebuild confidence in our management approach among all users
- We don't even know how many fish are caught, never mind how many there are!
- Groundfish abundance has declined greatly in the past 20 years.
- Decline accelerated in the last 10 years.
- Harvests now at lowest levels since the 1930s.
- 30 million pounds of groundfish harvested annually at its peak around 1983's and now is down to about 2 million pounds, the lowest in over 80 years

Q: What caused that sudden increase in harvest in the 70's and early 80's after decades of apparently sustainable harvest?

The 1974 Boldt decision gave FN right to half of the salmon, steelhead and herring in Washington State which caused social turmoil because we had to cut back the non-treaty fishers allocation of salmon. Our agency then actively pushed people to fish for bottom fish. This was an economic social safety valve. People were cutting back the fishing opportunities for salmon by half and there was just a huge social thing. Our agency said we will use bottom fish as a relief valve. I went out as a young man, before I had grey hair, and actively encouraged people to fish for bottom fish, without any concern for the future. We were looking for short-term economics. We actively went and we encouraged people to fish for bottom fish. The bottom trawl we talked about earlier went from twenty vessels to about one hundred and twelve that were licensed to fish in Puget Sound. So a big increase, and that's largely what caused this problem And

then, it took about five or ten years because the biology is delayed. Part of the problem in fisheries management is that you get immediate economic and social benefit by overfishing. The biological cost comes later

C: That's the same time that a lot of people left the Puget Sound fishery and went to Alaska. We're seeing the same kind of pattern in the Alaskan fishery. They left Washington State and moved into that other fishery and that's when the major harvest in Alaska started. That started to go right through the roof.

Greg Bargmann: Yes, I know lots of people who moved up to Alaska about that time. This big boom and this big decline is due to our agency coming to its senses and putting some reasonable restrictions on fisheries. It's also due to reduced abundance of fish. Anybody who fishes in Puget Sound knows that most of the traditional species of bottom fish are down to very low abundance. There was a small population of hake that was about forty million pounds down to about a million pounds in size now. The walleye Pollock fishery used to be great, recreational fisherman used to catch four hundred thousand fish a year, and I think before it was closed they caught eighty. We mentioned cod earlier, there was a fishery on the spawning grounds, a huge amount of fish.

Greg Bargmann presentation continues....

So here are some of the species that you might have here. We have lingcod, which are a rocky reef fish. They appear to be pretty site specific. There's some areas up there where we dive, we see the same lingcod some back to the same little, individual rock every winter and with the lingcod they spawn in the winter time and then they lay egg masses and the male will guard the egg mass for a period of months until they hatch. There's three or four lingcod we know. One of them was called One-Eyed Jack because he's blind in one eye. There's another one who's Max who has a broken maxillary. They not only come back to the same reef, they come back to the same rock every winter. They're very site specific. They have rockfish, rock cod. This copper rockfish will live to be fifty to seventy years of age. The yellow eye, the red snapper, will live to be over one hundred years of age. On our Pacific Coast, the yelloweye has been fished way down and the Pacific Fisheries Management Council have developed a management plan to rebuild these species that is up to two hundred years in length. It will take two hundred years to rebuild this population up to an acceptable level. These are fish that live to be 75-125 years of age, that don't become sexually mature until they're in their 20s. These are kind of like people.

Black cod, these are really mobile fish, they move all over, probably not a very good species if you want to increase their populations using MPA's because they are so mobile. The flat fish, the sole, are very common on a soft, muddy bottom and they seem to move around pretty well. We are finding in the urban areas, that a lot of these fish are heavily contaminated with PCB's and have tumours,. Some of the rockfish that we have up in the Seattle area are, the male rockfish now have female hormones. It is probably not a very good idea to build a marine protected area in an urban area because the fish will be very contaminated and may not have good reproductive success.

To give a stock status, what we have in Puget Sound a number of stocks we looked at are in critical condition, about twenty percent of the stocks are in critical condition, depressed or below average. About thirty five percent are below average. So of all the fish, half or more are in below average condition. This is based on traditional fisheries management, and something we're looking for an alternative to.

What are the causes of the decline? One is over fishing. I think it's really clear that many of the fish resources in Puget Sound have been overfished. Some people will disagree but I'll show you in a few minutes what I think is telling evidence of over fishing.

Environmental Changes: That we go through warming periods, El Nino, that kind of thing. This should be a temporary thing, and if the water cools down again, the fish populations will rebuild.

Interaction with marine predators: harbour seals and sea lions. These populations have greatly increased in the Puget Sound area. Take California sea lions, 1974, the population in Puget Sound greatly increased after the early 1970's and a lot of the fishing public would say it's those darn harbour seals causing the decline, which may or may not be true.

Habitat Modification: Something we have down in Puget Sound, which includes lots of bulkheads, dredging, all kinds of changes.

So I want to talk about rockfish again. What we're seeing in rockfish, this is a copper rockfish, the abundance and catch per trip, and the black line is an area in the San Juans. The red line is more the Seattle area. Their abundance is declining throughout all of Puget Sound, but with that is that they are also declining in size. And here you can see the red line, this is copper rockfish again. So the average size in the 1970s was about 40cm and now it's down around 8-10 cm. They're getting much smaller. We have fewer fish, and those fish that are there are much smaller. And with fish, the big females are really important reproductively. The larger the female, the more eggs she produces. So if you look at the potential egg production by copper rockfish, the red line is in the north part of the San Juans, if you look at say the 1980s where one hundred percent of the eggs were produced by fewer, smaller fish, you see we're getting down around 20 percent of the egg production of twenty years ago. This is really concerning as far as being able to rebuild the population. We need to have more eggs produced out there to rebuild the population. So what we're seeing with rockfish is that the population size has decreased, and the average size has decreased, and the egg production is much less every year. We know from their life history that they are long lived, slow maturing, and they seem to pick up a certain rock pile and spend most of their life there. They have periodic recruitment, once every ten or fifteen years we seem to get strong survival of the young.

We also have problems with mortality of released rockfish. If you catch one and bring it to the surface, there is a high mortality rate. That's because their gas bladder is not

connected with their mouth. If you bring them to the surface, the gas expands in the bladder, pushing their stomach out of their mouth. You often see their eyes getting crystallized—they sort of get the bends in their eyes—and they have very high mortality. And I see, in the back of the room there's a study that someone has funded on mortality, we think, and there's pretty ample evidence that fish brought to the surface and released have extremely high mortality. The idea that you can selectively fish and perhaps release a chinook at a certain time of the year - you can do that and have high success. It's probably not the case with rockfish. If it's caught from depths greater than about sixty feet or so, the mortality is pretty near one hundred percent. The by-catch of these fish is very high for people fishing for salmon, halibut, or trawling, fishing for flounder.

Rockfish are an ideal group of fish for management, which includes MPAs. Traditional management of rockfish without the use of MPAs would be very expensive because we would have to research age structures, maturity rates, etc. and traditional management has not worked well for rockfish. The scientific findings are often in contrast with fishermen's perception of resource abundance. Fishermen say we can show you big schools of rockfish out there and there is no conservation problem. We agree there are a few areas remaining with good rockfish populations, but these need to be protected. If you consider the rockfish population in an area, 95-98% of those are needed just to maintain the stock because their productivity is so low. Thus you have a situation where only a few percent of the population can be harvested annually. It's not like salmon where you can catch 50-70% of the population and still be OK.

Why do we need a new management strategy?

- The old strategy isn't working
- Stocks are in decline
- Information base is limited
- Habitat is being lost
- To create science-based harvest rules that incorporate a precautionary approach: is there enough information to allow a fishery rather than asking is there enough information to restrict a fishery. By the time that happens it's too late, the problem is really, really far advanced.
- To reverse these trends, we need joint co-manager participation in the process
- Where do MPAs enter the conservation plan?
- WDFW believes MPAs offer a tool for protection and preservation of critical marine fish habitat
- WDFW believes MPAs may increase fish populations in unprotected habitats. However, this is still an unproven conclusion

MPAs can help:

- Protect critical habitat
- Re-establish ecosystem diversity
- Restore sustainable fishing opportunities
- Maintain high densities of rocky reef fish

- Establish size and age diversity in rocky reef fish. There's evidence that younger fish are not as successful as older fish that have more and larger eggs.
- Export fishes to adjacent unprotected habitats

Other Considerations - you still need to:

- Consider ecosystem consequences. Increasing rockfish populations may decrease shrimp populations, so there are trade offs.
- Effective monitoring and evaluation of resources and fisheries.
- Promote a program of habitat protection.
- Manage for sustainable levels of natural production outside the MPAs

What do we know about MPAs in Puget Sound?

- A series of MPAs established over last 30 years without an overall conservation plan.
- Location and size of each MPA has been opportunistic.
- WDFW has been studying the potential of MPAs as a management tool for several years.
- At Edmonds Underwater Park: higher fish densities than in adjacent open areas
- Larger fish within EUP than in adjacent open areas
- Much Higher Reproductive Potential Greater at EUP
- MPAs for:
 1. Research and education: 5 long term study sites
 2. Recreational dive sites
 3. Biodiversity MPAs protecting a variety of habitats
 4. Fish production: for increasing fish numbers in open areas
- Copper rockfish in Edmonds Underwater Park MPA 20x more abundant than area open to fishing nearby
- Lingcod density much higher (about 3X) in MPA
- Fish are much larger in MPA so total egg production is much greater: 14X higher for copper rockfish
- There are unanswered questions about how larval and juvenile fish disperse to surrounding areas. Where do the benefits from larval export accrue? Where do the currents take them and where do they settle?
- There are some no-take areas and some areas are open to shrimping and crabbing
- The size of the MPAs varies from a few acres to 100 acres or so

Some other factors to include when establishing MPAs:

- Explicit definition of MPA objectives
- Science-based site selection criteria
- Co-manager siting agreements
- Benefit to targeted fish populations
- Sensitivity to usual and accustomed fishing grounds.

Marks of a successful MPA

- Location, location location! Avoid polluted areas.
- Think habitat! And consider where the larval fish will end up too.
- Think network! Consider currents and larval dispersal distances.
- Think boundaries! Enforceable, definable, biologically sensible.
- Think public acceptance! Using traditional and local knowledge to site MPAs can help create buy in. We ask where are areas that used to have good fishing that don't have good fishing any more?

Lunch Break

Grace

Peggy: Heavenly Father we thank you for this morning and all that we heard. We ask your blessing on the hands that made this food and bless the food to our bodies need, in Jesus' name. Amen.

Comment: The Heiltsuk are looking at MPAs as an opportunity to protect their herring fishery. First Nations, environmentally oriented people and local communities have an opportunity to think creatively about how to work together creatively as allies. I don't think that science should guide us by a ring in the nose. That's one of the important aspects (I am a biologist by the way).

C: If you picture a pie, I see science as one slice. If you're in a situation where you're talking about local knowledge, someone will say you need science or vice versa. Getting all of the information will happen at different speeds, at different times for different groups, but we can't make a decision until its all there. Science can't override the other types of knowledge.

C: Who is the 'we' that makes the decision? Often it's the scientists that make the decisions. Community based management has a different structure and fits well with aboriginal rights and title. On Namgis traditional territory, we want to make the decisions and we want to be informed by local and traditional knowledge as well as the best available science. We are concerned that the MPA process will be top down whether it's from DFO or another top down structure. We want our fishermen to be the 'we' in the decision making.

C: First Nation knowledge is valuable but hasn't really been used. How do you get the government to do testing before it's too late? How do species at risk relate to an MPA?

Greg Bargmann: It's difficult for the government to look at an issue unless it's a crisis. We need ongoing monitoring whether or not there's a known concern. We need to get a general idea of changes over time. In our country (US) we use mostly single species management. The Chinook salmon in Puget Sound are endangered and the MPAs on their migration route would increase predation on their migration routes.

C: We had a meeting in Vancouver about MPAs province wide. They said that First Nations have veto control of over MPAs. Not so –never has been and never will be. It

was a verbal agreement with the minister. There's questions of treaties, rights and title that need to be looked at. The Chief and Council of Guilford Island should be here, the Archipelago is their territory. You should pay people for local knowledge. The answers can't be found by looking in a computer, they're found by going out to the ocean and studying it. The Haida Gwaii people had 30 million dollars to control management. That's why they're successful. After the Delgamuuk decision the process has to happen in two stages: first the First Nations have to be consulted and then the general public. How do the interests in MPAs reflect on fishermen? Why are there no fishermen here? Why are the guardians of the KTFC not sitting here? That's their job, to sit here and watch what's happening. How will you guard these places? With what people? By who? As you walk this road, you become friends. I always respect Jennifer because she's one of the leaders in fighting the obstacles that we face.

Q: I was thinking about traditional clam bed management and practices that First Nations had that promoted biodiversity, much as the burning and management of the camas beds on land promoted biodiversity. How does the concept of no-take areas fit in with the traditional ecological knowledge? Are you discussing these issues with First Nations?

Greg Bargmann: Most of our discussions with First Nations are around issues of food production and not biodiversity.

C: From my experience with First Nations, exploring the concept of no-take is difficult and confusing. There's that traditional right to resources and we need to talk about that and about the concept of no-take and what it means and how FN might have managed areas such as clam gardens. A limited definition of no-take has the potential to skew things and we need to explore it.

Greg Bargmann: We need to look at a range of MPAs including no-take but also others that have fewer restrictions.

Jennifer Lash: LOS decided early that we were not going to advocate for specific boundaries for an area without working with the people that live and work on the coast although we do talk to government leaders to encourage a good planning process. We don't advocate for specific MPAs, that's something that should come from the people of the coast. This workshop is one way we're exploring how to do that. No take zones may prohibit commercial and recreational fishing, but its up to the individual FN governments to make decisions on their cultural fishing needs. If they decided they wanted to continue fishing, we would respect that. If they decided to stop fishing in an area, we would respect that. That's their right.

Patrick Christie, University of Washington: Socio-economic Considerations in MPAs (see appendix graph, page 54)

Thanks for the invitation to come here. I do most of my work in the Philippines and Indonesia and some work in Puget Sound. The way people respond to MPAs is similar no matter where they're from. I come to the work on MPAs both as a researcher and a practitioner. I worked and lived in the Philippines with the local fishers to establish a MPA. I went there as an ecologist thinking that marine conservation should be based on biological principles. However, I learned from the local people that marine conservation in this context is a social process. It's about social tradeoffs, who wins, who loses, it's about power. Biology plays an important part, because we don't want to create MPAs that are biologically ignorant. Then I studied conservation biology to study this issue further, which should have explored the social dimensions as well as the ecological dimensions. However it was really based on applied ecology. So I did my PhD in environmental sociology, looking at community based marine conservation, looking at looking at different ways of generating knowledge that could complement 'Science', particularly looking at participatory research, which is an important way of empowering people in the third world.

Different worldviews affect where we head with marine conservation. No one is right or wrong, but we need to make explicit these interests and biases. The timing is also important, whether its science or collaboration and discussion. It implies priorities, in my mind. Some types of knowledge privilege certain people such as biologists or academics. In the Philippines, there is extreme overfishing, cyanide fishing, habitat damage and international markets exploiting the area. Colonial powers imposed top down management. They couldn't tolerate indigenous management because it stood in the way of big business exploitation. The Philippines are much more advanced than western countries in practicing community based management. They've been doing it for over 30 years. The elders told stories of what it used to be like so people could know the bounty the sea was capable of producing. You can't expect people to give up fishing rights unless you find alternatives. These can be contentious and often fail in the third world. At the core of planning, is community organizing done by the people fought against the Marcos dictatorship, so these are highly politicized and talented people who know how to bring people together in an empowerment process. Some people would take community based management to the extreme and leave government out of it. They're too corrupt. But then you get someone coming from another area who wants to fish in your MPA and they claim you can't legally stop them.

So what we need then is co-management. The concern I have about co-management is that it very rarely talks about power from the beginning. The assumption is that all the stakeholders will get together with all their different worldviews and interests and somehow get together in an equal power sharing arrangement. I think its good to start off with the community-based approach and work towards evolving a co-management arrangement with government.

I worked in a small community in the Philippines to establish a 125 ha. no-take area with coral reef and sea grass in 1989. With the rest of the reserve area, we'll allow

fishing, but we won't allow cyanide fishing or blast fishing etc. With coral reefs, export of fish and larval fish from no-take MPAs is well proven. It is important to keep in mind that resource management is a social process directed toward maintaining biological resources. The old saying is that you don't manage the resources, you manage the people is fundamental. How do people relate to these resources and management plans? The more complex, and sometimes troubling, nature of the social dimensions of MPAs is generally under-represented in the MPA literature and frequently during planning processes. It's difficult to get funding to do this kind of research. Bill Causey, the superintendent of the Florida Keys National Marine Sanctuary, maintains that the most important mistake they made during the planning process was the lack of consideration of social dimension, a mistake that set back the process years.

Key social questions for MPAs

Mandate responsive: Identifying the characteristics and behaviors of involved groups of people. What do people want? What do people know? What are the impacts of MPAs?

Mandate independent:

What is an MPA, what is it for? (Or what does it mean?)

Do MPAs lead to social injustice?

Knowledge generation has an important role to play in all of this...

And, there are distinct ways of generating knowledge...

The Scientific Method has Four Steps

1. Observation and description of a phenomenon or group of phenomena.
2. Formulation of an hypothesis to explain the phenomena. In physics, the hypothesis often takes the form of a causal mechanism or a mathematical relation.
3. Use of the hypothesis to predict the existence of other phenomena, or to predict quantitatively the results of new observations.
4. Performance of experimental tests of the predictions by several independent experimenters and properly performed experiments.

(http://teacher.nsrj.rochester.edu/phy_labs/AppendixE/AppendixE.html)

Some Concerns about the Use of the Scientific Method When Employed to Generate Information to Solve Societal Problems

- Tends to inappropriately reduce complex social relationships
- Doesn't capture the how humans 'socially construct' their reality
- Not as objective as it might seem (Kuhn)
- Exploitative, or has been used as such
- Taking and exploiting knowledge

Getting started with understanding the mysterious social dimensions....

- Make a real commitment to it.

- Choose a team with various methodological and theoretical orientations
- Form collaborative relations between researchers and subjects
- Informed consent, negotiate uses of data, discuss confidentiality

Match your social research method with your research objectives

Survey research

- Uses set interview guide
- Uses the guide consistently
- Usually data analyzed statistically
- Perceived as most “scientific”

Strength: comparative data, broad understanding

Potential weakness: too broad, doesn’t explain observed patterns (“no meat on the bones”)

Strength: Develops rich, detail descriptions and explanations (complementary to survey research)

Weakness: perceived (by some) as “soft”, time consuming, though using programs like Atlas TI you can take a series of interviews and ask what motivates people to be involved in MPAs. Then you can go back and search to find out, for example, how certain age groups respond to that question. So you can use these interviews in a robust scientific way.

Participatory Action-Research

- Questions power and authority
- Research method for and by dis-empowered
- Integrates research and action taking
- Multi-method

Strength: Engages people, results in action

Weaknesses: Perceived (by some) as soft, and certainly too radical for many

First Level of Research:

Nicaragua Research Activities

- Problem identification
- Fishery monitoring *
- Pine savanna monitoring
- Water monitoring
- Traditional ecological knowledge assessment
- Communal land demarcation with GPS

Main goal: development of a coastal management plan and its implementation
Median CPUE for Wet Season Assemblage in Southern Pearl Lagoon (n=522)

This community-led research and planning process led to:

- Improved sanitation
- Fire control
- A community natural resources management plan
- Community youth deciding to study forestry and conservation
- Integrative, Multidisciplinary Research
- Multi-disciplinary team all focused on particular question (or suite of questions)
- Multi-method, complementary
- Complex data development and analysis

Strength: Uses complementary methods, balanced description

Weakness: Generally expensive

Closing the Loop: Grounding Findings in Theory

For example, Eleanor Ostrom (1992)

- Clearly defined boundaries
- Rules for resource allocation clear
- Collective choice arrangements are foundation
- Local people involved in monitoring and enforcement
- Have graduated sanctions based on frequency and severity of infraction
- Conflict resolution mechanisms in place involving community leaders and local government officials
- Right to organize has been recognized by national and local government
- This regime is nested within larger system of enforcement, conflict resolution, monitoring

What's at Stake: Taking Serious Social Dimensions

“A group of guys from Bunaken Island basically renounced the park and declared all the rules null. They broke all the signs and threatened some tourists and basically ran *amok*...breaking coral, killing turtles and displaying them speared in the community, killing napoleon wrasse... Sounds like pretty classic resistance...”

Balicasag Island: An Example of the Consequences of Ignoring Social Issues

What happens when local people are marginalized in a community-based process?

- 1) disengagement
- 2) non-compliance/poaching
- 3) eventual environmental decline

What happens when local people and officials work together equitably and with mutual respect...

- Dynamic, mutually controlled planning process
- Improved design (frequently in both biological and social sense)
- Sense of ownership and pride
- Fair sharing of benefits

- Conflicts are dealt with fairly
- Better rates of compliance
- Higher chance of biological success

Q: How did the cyanide fishermen become engaged in the MPA?

PatrickC: They understood the reasons for the MPA because they had a very deep understanding of the reef ecosystem. They did feel threatened by the MPA. The islanders allowed them to take aquarium fish outside the no-take area but in the reserve, using barrier nets instead of cyanide. And there was a training program to teach them how to use barrier nets. People gave up using the nets because it was more difficult and the companies that owned their boats demanded that they use cyanide. So the community banned the collection of aquarium fish regardless of the method of collection. This has escalated the conflict and now threatens the integrity of that MPA. You need to have a rigorous conflict resolution method.

C: I'm Canadian, but I'm Namgis first. I have all the rights every Canadian has, but beyond that I have First Nations rights. We never had boundaries. It wasn't until the white men came here that there we were told we had to have boundaries. Everyone just knew conservation. My people were conservationists. We only took enough to eat. It's not like the dominant society that comes into your territory and tries to take as much money as possible and get the heck out of there. So what you're doing and what Jennifer is doing is good, but we need to know more. We need to be sitting on those boards....My elders always told me what ever you do, think about what your grandfather would think of it, what would your people would think of it. I don't need to run to the computer to find answers, I've done fishing for 40 years. I think this thing is a good thing. I can't speak for all the Namgis people, but I am the speaker for my family. I think we need to go some place where we have common interpreters. Some of my people still don't really understand English and would have a hard time understanding it as you put it.

Patrick Christie: Sorry if I did not make myself clear and understood. I was unaware of the broad audience that I would be speaking to. MPAs declare that lines on a map are important. So if that kind of management doesn't resonate with people, if people are reminded of lines on a map when they hear MPA, and that's something they don't like, that doesn't make any sense to their people, then that needs to be taken very seriously and needs to be discussed. It helps to have people with one foot in each culture. When I went to the Philippines I learned the local language. Its important to show that you're willing to meet people half way.

Q: Why should we single out a single management tool, like creating lines on a map, when really you might get more of a reaction from people by talking about salmon quotas or bottom trawling?

PC: I don't have answers to that as I don't know this area well enough. But its not about coming with a certain management model in hand and saying what do you think

about it. You sit down over a cup of coffee and you have many discussions about what problems exist currently. It's about developing research methods jointly and creating models jointly. Otherwise they feel like the deck is already stacked, that they're in a position that they have to respond to. On San Salvador Island, people felt that they could not separate conservation issues from health issues and education issues. They saw it all as related, they didn't compartmentalize. We did not even mention MPAs there for first year and a half. The way we introduced to the subject was by taking 8 of them to the Philippines so that fishers could talk among themselves about what worked and didn't work about the MPAs there.

Q: I really appreciate your presentation. I do see a lot of similarities and I appreciate you pointing out that it's a social issue and a social process. In our area social diversity is our biggest strength. If we ever get a plan it will be a well-rounded plan. It is also our biggest weakness because we're so diverse we can't get into the same room to talk about a plan. I really found it helpful that if we're going to work towards a plan, who is it for.

Patrick Christie: One of most important factors determining MPA success was the perception of whether the benefits from them were shared equitably. If the rich resort owner from a far away city is getting much of the benefit it doesn't matter as much that they are seeing improved catches and that they like the MPA. It has to do with perceptions, historic relationships, class relationships, which are very tricky, very complicated to deal with.

C: A presentation like yours at the beginning of a planning process would be illuminate a lot of issues. The natural science way is often seen as a more efficient method that will get the job done quickly, but there's not the opportunity to discuss the other issues that you've brought up. An effective plan is more about benefits for future generations.

Sandra Bicego, Dovetail Consulting: Cooperative Management Arrangements in the Great Barrier Reef Marine Park and World Heritage Area (see appendix map, page 56)

Involvement of Aboriginal and Torres Strait Islander peoples

SB: I've been with Dovetail for six years now and I've also been a student. I just graduated last fall from the school of planning at UBC and it's been a challenge to be both a student and working in this great field. I've had a great passion for MPA's, planning and assessment, and we were very lucky to encounter Jennifer who was interested in some of the work that I had done and also did some more research for Living Oceans and World Wildlife Fund Canada, which was great because it enabled me to use some research that I didn't get to use in my thesis. I wish I knew of ATLAS IT because I was overwhelmed from all the data that I got from studying the Tortugas Island process in the Florida Keys and Race Rocks in British Columbia, the Channel Islands process as part of the National Marine Sanctuaries Program in California. So what I have today is a piece of a huge project that I handed over to LOS to read, so I'm

still very much learning with what's happening in the Great Barrier Reef. I studied law in Australia and my passion for MPA's arose from what I saw happening on the coast. I was lucky to visit the Great Barrier Reef, but boy I saw a little piece of this huge complex puzzle.

So what I'm going to talk about today is a new development, new arrangements that are happening in the Great Barrier Reef. They're also calling them Cooperative Arrangements there and I'll just give you an overview. In terms of the institutional arrangement, I'll give a little background on the Great Barrier Reef Marine Park and the involvement of indigenous folks in Australia. I'll also talk a little bit about the legal and policy issues of concern to the indigenous people and some of the ways that the Great Barrier Reef marine park authority has tried to deal with this, given that this MPA does exist there.

The Great Barrier Reef is in the far northwest corner of Australia in the State of Queensland. In 1975 a specific act was created to manage the park. A statutory authority called the Great Barrier Reef Marine Park Authority was created to take care of the overall planning and management of the park. It's an interesting structure in that it reports to the commonwealth Minister of the Environment in Australia and I can tell you a bit of background. It's a marine park, but in 1981 it became part of the World Heritage Designation. That's another layer of MPA designation. It raised the status of this marine park, which is 2,000km long, from a national level to global status. That gave more responsibility to the government and people of Australia to take care of it for the world.

Although it's a very complex coral reef tropical environment, it's not that dissimilar from here in that the issues are the same. It has multiple use issues; it's very complex biologically at various ecosystem levels; in the last ten years, tourism and fishing has increased there, raising some interesting issues for management. These are just some of the pictures I pulled off the web and these pictures are courtesy of the Great Barrier Reef Marine Park Authority. The goal of the marine park is to provide for the protection of wise use and understanding and enjoyment of the park for the people in perpetuity. These are the things that they have to think about when taking care of the park. Now with this context in mind, the goal of wise use is overlaid with the concept of taking care of the environment as well. Some of the features of the park are that it has a single independent agency that has overriding powers when it comes to planning and management issues that affect the park. One thing I should say is that the fact that it is now a World Heritage Area expands the boundaries of the park to not just the low water mark, but includes the islands and keys within the reef itself. Again, that shows you the kind of power this act has compared to some of the ones that exist in Canada. Another feature is the very strong relationship between the state and commonwealth governments. In fact, while the Great Barrier Reef Marine Park Authority takes care of overall policy, planning and management, the actual day to day management activities are spread throughout the state. Basically what they're saying is that they do integrated management and part of their strategic zoning is site level management plans.

The whole program of cooperative management sits in this larger program of rezoning the whole park. What happened a few years ago was a great realization that the whole park had five different zones. The first map shows five different regions, each with their own zoning plan, their own regulations using different language. The other aspect was that with increase development activities, people realized there were affects on the species. So they looked at what was protected and found that only five percent was protected in what they call green zones, which are '*look but don't take*'. We call them no-take zones.

I'll call them green zones to make it simple. So only five percent of the park was protected in these green zones. A bunch of people at the Authority came together and decided that it was time to amalgamate things. That was a very top down approach. They created a representative areas program with 70 bioregions and thought, "we want to protect 20 percent of each habitat type in a bioregion." Scientifically they did that. They also took the representative areas program to the people and that lead to a zoning plan. In 2002, they did a four month public process where they took the plan to the public and they were able to increase the percentage of green zones from five percent to 33. They were hoping to get 20. So they made one complete zoning system so that essentially they were able to make the planning more consistent, more understandable, and this was again leaving out the traditional users.

What happened was that the local folks (in Australia the indigenous people are called aboriginals or Toras Strait Islanders depending on where they live) for years they've been saying they would love to be more formally acknowledged in the park. The park came around in 1975, but it wasn't even until 1992 that the aboriginals and islanders were recognized as people who existed in Australia. I'm not sure if you are familiar with the Mabo decision that came out in 1992. I won't go into the legal decisions, but it was recognized that indigenous people had 60,000 years of maritime culture and living in the Great Barrier Reef. In this area in particular they had fifty traditional owner groups. Traditional owner groups are aboriginal or Toras Strait islanders who are recognized as having cultural or spiritual affiliation with the area and as having entitlements recognized under their traditions and customs. They're traditional owners because that's who the people say they are. It's not something the government has decided.

So with that in mind, the Great Barrier Reef Authority starting realizing that they have a very urban and rural life and yet they are very much still in touch with their traditions and cultures in the Great Barrier Reef. The Authority started realizing that they had vast amounts of knowledge concerning the animals, the lifestyles of the animals, and just the environments and habitats generally. In 1992 when the Mabo decision came out, many conflicts arose. One of them was that in the Great Barrier Reef we have an established marine park, and these have regulations. One of them is that you need a permit to hunt and fish and this at the time applied to aboriginal and non-aboriginal people. When the Native Title Act was designated just after the Mabo decision, this negated that. It said traditional owners do not have to get a permit and as you can imagine this caused some conflict.

Traditional owners got together in two different regions of the park and created their own hunting and gathering permitting system. I should just say the two areas of interest to them are basically what affect the representative zoning areas would have on their rights and interests to the park and also the affect it would have on native title. As well, they are very concerned about maintaining access to continue traditional uses of the area, which range from hunting and gathering to collecting medicinal plants. They also want to access different islands for sacred sites and ceremonial services that take place. Australians are very well known for their dreaming stories and there is amazing art there as well.

The Authority started looking at this activity and slowly started formally recognizing native title in the Great Barrier Reef. They actually explicitly state in the new zoning plan that any work or any planning that is done does not infringe on native title. That's whole separate issue. The people at the GBR started realizing there was great involvement of the aboriginal and islanders at various levels of management in the park. They created four areas to begin with. There are cultural connections; there is learning about the lifestyles and economy; and there's natural and cultural resource management issues to consider.

In the early 1990s they hired at least one or two people to formally become liaison officers. Eventually, around 1995, they created the Indigenous Policy and Liaison Unit (IPLU). This group takes care to bring the interests of indigenous peoples to the awareness of the general public, to the Authority, and also to really advocate for their legal issues and support them. They're there to engage them. So since the traditional owners were doing their own system of hunting and management, they started realizing that they better start working with them and the IPLU now has about six men and women that work in the unit. They've been trying to help the owners with cooperative management. When I did an interview recently with someone in the IPLU, he said they just see it as a new way of doing business. It's only just become part of the zoning plan this last fall of 2003. It's basically a management agreement for traditional use. They focus on traditional use, but I saw that it very much included the protection of cultural and heritage values as well. So this is really the background of how it all started. Scientists and elders started speaking to people in the Great Barrier Reef Authority telling them that the green turtles and the dugongs were in trouble. As you can see, they took action, created their own permit system, and then around 1999, when the Authority started looking at their mixed-up zoning system and seeing that only five percent of the park was protected, they started supporting the liaison unit to go and speak to the traditional owners. In the background was the idea to create a legislative basis for the framework.

What has come of that is a talk in 2002 calling these agreements Traditional Use of Marine Resource Agreements. They call them TUMRAs. They are voluntary, but they are quite formal, and they have a legislative basis. Traditional owners work with the liaison unit and native title representative bodies. Although it's a cooperative management arrangement, it's interesting in that the evidence that's used to create these

agreements is the same evidence that would be used for native title claims. Specifically the folks at the IPLU wanted this to streamline native title claims. There's five sea claims since 1993 and nothing has happened. They have been sitting on government shelves collecting dust, so what they're hoping is that this process will help speed that along. The traditional owners are very interested in this process because they can see this as a quick way to get things resolved, to figure out a way to continue using areas that they have rights to, and also to create clarity for other people such as the tourism industries in the area. You can probably imagine some of the issues that are recognized in the agreement. In the report I gave to Jen, there is a copy of what the contents of the agreement would be. Essentially it's up to the traditional owners what they want to see in the agreement. It would revolve around what to do about traditional fishing and hunting, particularly in those green zones. It's those green zones that say no one is allowed to take anything, but that is adjusted according to these traditional use agreements. It will talk about how to protect cultural heritage values, which may include allowing tourism. The agreements will also talk about the administrative process for hunting, using the traditional owners process that they created years ago.

In summary, the new zoning plan that just came out last fall has rezoned the entire reef; it has created seventy units of different representative areas with 33% in green zones. In addition to that there's a traditional component. So in zones that allow fishing and collecting, traditional fishing is allowed as a right. There's no need to get authority. In the green zones, any extractive uses will follow what the authority is hoping will be managed under these cooperative management arrangements. The key feature here is that it is driven from the bottom up. The IPLU, although it's part of the authority, it's also very much been created because they needed to respond to the indigenous peoples' need to be recognized and the authority is saying that rights needed to be clarified. The agreements will be initiated and prepared by traditional owners. Funding and all other administrative support is provided by the IPLU backed by the Authority. This is all new and it won't be implemented until this coming year. They'll describe cooperative management agreements, the roles and responsibilities of the people who will manage and they will be the traditional owners, the activities that are covered. There is still a strong focus of protecting turtles and dugongs so there is an issue to be addressed and the traditional owners agree that this is something they are willing to work on.

I have three slides here talking about some of the successes and challenges and how it relates to B.C. The process of involving the indigenous peoples in the Great Barrier Reef, in the program for rezoning, has been very driven by the traditional people themselves. The government was learning as well. When I spoke to the man at the IPLU he said that someone from B.C. came out and I never found out who he was. He was a first nations person.

So again, the government was very supportive of the process and we will see what happens now. They see it as a win-win approach. They see in some of their documents that they want it to be community based and they see it as a way for people to identify with their community, for the traditional owners to have self-determination. They see that traditional use is part of the multiple use of the marine park. It's not incidental to it.

(reads) “It’s the first time that there has been greater involvement, greater visibility, and greater representation in planning and management by the traditional owners.” There are people living in Australia who didn’t know what was going on with aboriginal issues there so this will help change that. A key feature is that traditional use agreements will hopefully facilitate native title and get people excited to promote that using these TUMRAs.

Also, some basic community outreach tools were used. The communities in the Great Barrier Reef are urban and rural but some of them are so remote that about ten years ago they were using just your basic newsletter. I looked at the ones that were printed in 1994-95 and compared them with the ones now and just the discussion was so much more rich. They were written by the IPLU and before that, by the Authority. It was to disseminate information about the reef but it slowly switched to, “Hey, these are the issues of our people and this is what’s happening in the reef.” It was amazing to see the wealth of information and knowledge shared through this basic newsletter.

A very last point is that the traditional owners were more likely to share their traditional knowledge because they saw that it would be meaningfully used. The science itself was not just based on the 70 bioregions created in the park, but overlaid by fisher knowledge, to all sorts of industry uses. I have a list of the various sources of information that was used and it was very much a sharing, two-way process. The one challenge I saw was that traditional owners are still going to oppose some activities happening in their region. Some of the examples I heard were constructing a building on one of the islands that’s in a sacred site. What Chika told me was that he was hoping these TUMRA’s will start identifying issues, maybe doing some cultural mapping, maybe just make people aware of these sacred sites that shouldn’t be affected by constructing a building. At this point we don’t know, but they’re hoping these TUMRAs will be a way to resolve those kinds of issues. That’s probably the biggest one.

The main lesson for B.C. is to realize that indigenous cultures are part of the land and sea environment. Australia did it backwards and are really trying to make amends now. Like I said, they didn’t recognize indigenous rights until 1992, but they are now trying to bring indigenous people in to all levels of planning and management. They really see that building a relationship is important because planning a site is one thing, but it has to be managed. The IPLU doesn’t have money to do that so they need to know that the people support it. They see it at a basic level of increasing representation.

Also extensive community outreach: that public process that took place for the zoning plan had not just a focus on community participation, but they actually spent money and 50 meetings’ worth of funding to meet with 70 clan groups and talk to them about the reef and what they think of the TUMRAs. That was very expensive because they went up and down the coast and really spent a lot of time in human and financial resources, time, training in negotiations and planning, etc.

Lessons for BC:

Increase representation of indigenous peoples at all levels
Extensive community outreach
Information
Human and financial support/resources
Negotiation training

I think that sums up my points. Any questions?

Q: Are there any indigenous people in the IPLU?

SB: Yes, they are all indigenous.

Q: I just had this question about facilitating native title process. It could potentially work both ways. If you only go for those agreements, depending on who is in charge. I'm more reassured now that you tell me that.

SB: I should elaborate just a little. It's more complex than I portrayed it. There are what's called Native Title Representative Bodies up and down the coast and there's a process just to establish these bodies. Their authority and the liaison unit is working with them to make sure the traditional owners they're working with are legitimate. So there's a whole process in place to make sure that they are working with the traditional representatives of the communities, not just anybody.

Q: It almost seems too good to be true. It seems perfect that these aboriginals can make such strides in 12 years. We haven't been able to do in 30, 40 and counting. Maybe it's a way to see for me.

SB: It would be neat to speak—I would gladly give you the names of people to speak with because they will tell you so much more that I couldn't get in my research. But yes, it does sound very ideal at this stage.

Q: Do you know about the current status of the actual reef itself? I thought I read a week ago that it looks like despite all this work and effort that there is still degradation happening because of global warming or whatever.

C: It has more to do with us driving SUVs than stopping fishing. It has to do with global change that is quite difficult to deal with. The prospect of coral reef conservation in Southeast Asia and Australia is quite depressing, because there's a lot of really exciting work going on, a lot of infighting, but there are some really serious problems right now. There was a paper recently published that said its possible that in the next fifteen years, coral reefs will disappear from the world, because of all of these issues.

Q: Any other questions to Sandra?

Q: Will these presentations be available to us? I'm really interested in the aboriginal aspects of their traditional use.

C: Yes, I just need to edit that document a little. It's something I would really like to work towards.

Jen: Before the aboriginal issues are addressed, so this is strictly dealing with the non-aboriginal community, I did an internship at the Great Barrier Reef Marine Park Authority. It came about because they wanted to drill for oil and gas there and the people of Australia were so appalled that they would ever expose that coast to offshore oil and gas that they started phoning the government and asking if they could protect it. It's a huge area with multiple use and the only things that are actually prohibited in there are oil and gas extraction and non-native species.

C: A note of caution. I did my masters research years ago about indigenous involvement in national parks. I looked at Kluane in the Yukon, Kakadu in Australia. I discovered the picture was rosier the further away you are, from my experience and the people I spoke to face to face. This looks great right now but just a little cautionary note perhaps.

Q: We had a presentation from Steven Langdon from Gwaii Haanas and it feels like a necessary question to compare the experience in Gwaii Hannas with what's going on in the Great Barrier Reef, in terms of recognition of aboriginal rights and involvement.

SB: I would agree with you. That's really where we need to go. It's really insightful to look at what's happening abroad, but it doesn't mean anything until you bring it home. And like I say, a research project like mine probably only skims the surface. It would be great to speak with the people involved because that unit has been there the last seven years and they must have so much knowledge of the pain and troubles they've gone through to be where they are today.

C: I know Pacific Rim also has a First Nations liaison officer full time.

C: I wanted to make a comment about what Pat was saying earlier about how bad a shape things are in. I'm not sure if you are familiar how the fisheries are managed here in B.C. We used to have a thriving fishery here. Some of those points you made earlier about how similar things are between your research and here. When a person has to make a living but can only fish for one day, that's how bad it's getting here. When the runs we used to have are no longer there, just strictly from the management of DFO, we're in bad shape. It's too bad the people from the barrier reef couldn't come over here. That's what we've been up against. When you talk about co-management, fisheries have been talking about that for forty years. Their idea of management or co-management is "we'll talk to you but we'll do it our way." I wasn't kidding about sending some of those guys over here. It's too bad we don't all live one hundred miles offshore (Haida Gwaii), we wouldn't have any of these problems. They do have a lot of authority and power at Haida Gwaii because of where they are.

C: I wanted to respond because I really do believe it's important to have people from around the world meeting and talking about these things. There's something very powerful about people coming together. It's a little depressing sometimes talking about what's going on, but at the same time it can be inspirational. People learning successes and challenges of this work. One resource that you do have is a woman named Marivic Pahallo. She's a doctoral student at UBC. She's a community organizer by training. She was involved in the community-based management in the Philippines.

C: Why is that the Haida have more power because of where they're situated. Why can't the MTTTC have the same level of decision-making power? How does geography play into that?

C: Do you see any fish farms there?

C: No and that's a problem. But they had to deal with large logging corporations up there and they were able to overcome their problems. You're right there's hurdles, but I think they can be overcome.

C: Up there you're dealing with one First Nations, down here you're dealing with quite a number and there's more user groups here as well. They have a smaller land base, where as here they could log all the way to Winnipeg. So we have different problems.

C: It would be interesting to compare their issues and problems to here.

C: North of 60 the First Nations have a different relationship with government and they get a lot more – sometimes they're really the sole manager. Hanson Island is going to be one place the First Nations manage using unique leasing arrangements.

C: The Haida protested the logging and that received national media coverage and helped promote policy change. We don't have a fishing economy anymore – we have about 6 fish boats left. We have a threatened relationship with our historic resources. That's important culturally and socially. We want a sustained relationship with the resource – part of that is an economic relationship. Part of the difficulty is moving from a nationally accepted park area into conflict with power groups (logging, aquaculture, fishing, potentially oil and gas). The tool that is available to us is the recognition in Canadian courts of aboriginal rights and title. That's very powerful. The joker in the pack is that when the Supreme Court recognized aboriginal rights and title, they also said that there are legitimate ways these can be infringed on and the list is like an encyclopedia: any purpose of development or non-aboriginal development for example. We need to focus on two things, protection and rehabilitation of our resources. At the core of what we want is to restore our cultural relationship with the resources including the eating, sale, etc. This is not just about looking at resources, but about doing something with them.

Q: Was the distinction between food fishing and commercial fishing imposed on First Nations?

C: Connected to that is the capacity to fish for food has come from involvement in the commercial fisheries. The upkeep of the boats etc. was the financial basis. During the 60's – 80's, the conservation measures through licensing restricted the ability of households to sell fish and the smaller boats disappeared. Now there is a few seine boats that provide most of the food fish. So these few conservation measures really changed the nature of community and the fishery.

C: On the south island, under the Douglas Treaty they have the right to carry on their fishery as formerly. They have no licenses and they sell fish and DFO won't charge them. There's no such thing as a food fish, every fish they take is one they're entitled to.

C: The other side of that is if human well being means two cars, a boat, a summer camp, we can't all have that. We can't all be fishermen unless we're using skiffs. That employed more people, not necessarily at \$100,000 per year. There are limits. For a lot of people they don't recognize that until they catch the last fish.

C: We're also signatories to the Douglas Treaty and we tried to exercise that right about 6 years ago, but we had a lousy lawyer or signed the wrong treaty because we were found guilty.

C: I really enjoyed Patrick Christie's presentation. I find this social process so important, because I already find myself shutting down to other ideas, even though we're not even in a process to establish an MPA. The more I know the worse its getting for me.

C: What's behind that?

C: A sense of ownership. That First Nations have to take the initiative, rather than from the top down.

C: Do you feel like that's a valid option now or is the MPA agenda so far advanced that you're in a position where you have to respond? Is it possible for you to feel possessive about an MPA?

C: If we're part of creating it. The governments who will give MPAs their legal entity, they listen, but they go ahead and do what they've always done. The process has to begin again from the ground up.

C: One thing that First Nations could do to help is to survey their band members about areas that were good fishing but aren't now, developing a knowledge base, and then say this area should be closed for abalone etc and work concurrently with environmental groups and government. If its worthwhile we should do it, if it was easy, we would have done it already.

C: In the southern Strait of Georgia the conservation community has been trying to engage governments at different levels on both sides of the border, as well as communities, resource users, etc. to talk about the Orca Pass Initiative. For me the cart and horse issue is a bit of a red herring because many of the FN in the south island area lack the capacity to initiate these conversations. The ones that have the capacity are pursuing resource planning in their own fashion, but to this point hasn't included outreach and engagement with us (environmental community). We've been making available material that will start the conversation without insisting certain areas be protected or what the planning process should look like. FN and the rest of government has to agree to convene the proper for a to engage in the planning. But we're priming the pump by making available useful and accurate information about the issues and the processes by which MPAs become successful. We might meet here today and continue to walk together or we might converge a year down the road, but we're on the same path.

C: Race Rocks is an example of a process that came to a grinding halt because of inadequate First Nations involvement and the process did have to start over. And it's a lot of work for us to have our groups understand and agree and be ready for the next steps. We're talking of at least three years in the community about what they want to do about it and we've been at it for two years already. On the east coast the treaty gives a right to a moderate income – say \$30,000 a year. Since then (five years) 30% of commercial licenses are held by FN. White fishermen wanted out and sold their licenses and boats to Indian Affairs.

C: I would encourage the exploration of the idea of co-generation of knowledge. In Puget Sound citizen groups study water quality. What is the relationship of the youth to the resources compared to the elders in their youth and their perceived problems and how do each perceive the state of the fish stocks? Coming to a sense of remorse in what's been lost can be powerful force in moving forward. Participatory action research is an enriching way people can become engaged on the same side of an issue.

C: Another empowering exercise is a visioning exercise. Imagine Alert Bay 50 years from now, what's going on? Sustainable fishery? Do we have the resources to achieve that vision? If not how do we get them? That's something that can be done cross culturally and across age groups to broaden perspectives.

C: We don't have people with the technical background in the Race Rocks discussion. You have to be the owner of the knowledge, traditional as well as natural science. Putting 'soft' knowledge in a scientifically agreeable format can be done using population ecology modeling to capture local traditional, ecological and environmental knowledge. So you can deal with 'hard' scientists on equal footing.

February 26

Peggy: Heavenly Father, we thank you for this day you have given us and for the people who have come here to give us information. And Heavenly Father we ask that

you give the courage to use what we heard, and we ask you to remember the Shukar family in their time of grief. We ask you to bless these people as they travel back home. In Jesus' name, Amen.

**Russel Barsh, Center for the Study of Coast Salish Environments,
Washington: Traditional Resource Management and its modern application in
the context of MPAs**

I used to work for the Mikmaq Grand Council in Atlantic Canada, where of course, there aren't many fish anymore. We watched all of that happen, and one of the problems was that no one was listening to local people. I now work for a little tribally sponsored research center – the Center for the Study of Coastal Salish Environments, established by the Samish Nation. We examine how First Nations people transformed the landscape, how people took care of things. Our main mandate is science in the service of stewardship of the Samish traditional territory. Part of that is combining traditional knowledge with conventional Western science. We work a lot on salmon, rockfish, native oysters and recruiting and training young native scientists into our Samish Stewards program. I work with them to figure out what kind of research to do and we go out together and do it. We don't have a bunch of people sitting in offices; we have young tribal members doing field research and bringing in university experts and their graduate students along to help figure out how to do it best. The Samish leadership has come to the conclusion that there's not much of a future in fishing, but rather in becoming scientists, engineers, teachers, becoming fishers of technology and scientists of fish. We like fish, we eat our science, we only work on species we like to eat. We feel that the people who will have the greatest power and wealth in the San Juan Islands are those who know about fish, make decisions about fish, and who know how to make fish thrive, rather than just those who catch fish. We're seen as having an economic development focus, even though what we do is not development at all. We train scientists.

We're involved right now in three Marine Protected Area projects. The most interesting is the establishment of a "marine stewardship area" for all of San Juan County, which is the entire San Juan archipelago. This project was announced last month by the San Juan Board of County Commissioners. We had our tribal council in the commissioners' chamber with them and it was a joint declaration of the Samish Nation and San Juan County. They passed a resolution declaring the marine stewardship area, and we passed a resolution endorsing it and saying, "we'll work with you and make it a partnership". This is just an idea so far, a framework. There are no rules and regulations at this point. It's a commitment to see that living resources in San Juan County are given the best protection possible so that they will always be there. It's the first step in establishing co-management over a very large habitat area. We worked on the research to support this effort by looking at which habitats and species were at risk in the San Juan Islands, but more importantly, working with non-native communities in the San Juan Islands to get them to see the connection between their concerns and our concerns, organizing a base of mutual interest in building a kind of Marine Protected Area that both native and non-native communities wanted. This is

different than having some area declared a park, and asking First Nations later if they agree. Or sometimes it goes the other way around: tribes take action on fishing regulations and quotas under their treaty rights and then wait to see if everyone else will agree. That usually ends up with everyone going to court and fish not being protected.

The Cypress Island Aquatic Reserve is an extremely special place to the Samish people both as a fishing ground (especially halibut, which has been a source of wealth for a very long time), and as a sacred place. The mountains of the island are power places and very, very important spiritually, including places where the Thunderbirds nest. The Thunderbirds control the weather, so these places have huge power, and have to be treated with enormous respect. The State of Washington thought this would make a great park, but we intervened and insisted that they look at it our way and examine what is there to protect, and work with us. We decided to be proactive. Instead of waiting for a proposal from the government about how to set up the aquatic reserve, we designed it and went to them. We presented management regulations, critical areas, cultural landscapes, surveys, fish and wildlife inventories, and the state adopted it. It's a unique arrangement: there's recreational use, but no commercial use; there's subsistence and cultural use; there are places the public can't go because they are spiritual places.

There is a proposal for a network of marine state parks in the San Juans (state owned park lands with a proposed extension to the marine environment). We chose to work with the state parks department because they have a cultural and interpretive mandate, and we could say we also want to protect these marine areas so people can understand the value of the sea to the Samish. It's not just about fish, it's about how Samish people take care of fish, and raising awareness about how Samish people have always been part of the ecosystem, managing and protecting it. Instead of saying "take the people out to protect the fish," we turn that around and say "people are good for fish if they know what they're doing." We can take the pressure off the fish and teach people how to take care of things.

This is another way we are trying to assert ownership over areas of concern in the Samish traditional territory. This is a way of giving Samish people more presence, more influence, more enjoyment of the resources of the area by taking the initiative, rather than being reactive when things are being done-- saying "WAIT a minute that's a VIOLATION of treaty rights!", and wasting our resources fighting about it afterwards. Instead we have the state government saying "That's a great idea and we have some money for research. We would like you to make some maps, establish a ranger program," and so on. That way of thinking goes back to Samish ideas of wealth and power from the past, and to traditional values of stewardship. MPAs are actually old ideas. Instead of talking just about no-take zones we're talking about traditional notions of family ownership of fishing areas. There was always someone responsible for any place that had value. There were areas that were so precious that they really were no-take areas.

The three concepts that have a lot of meaning to us within the Samish community are wealth, cleanliness, and power. Before you go to a ceremony, or seek power, you bathe yourself. You can draw upon the powers of the spirit world to give you a hand, but the spirits don't like the smell of meanness or anxiousness or conflict, emotional dirt, and you seek them in a place that is clean because it's not polluted by human anger and silliness. That's why that mountain on Cypress Island has very high biodiversity. People pass through that area very gently and only for special reasons for centuries, trying to keep it clean so that the spirits like the Thunderbird will stay there. Power is our connection with all that has been and ever will be. You find it in clean places and when you're clean yourself. When you find that power, it brings wealth to you. The maintenance of refuges where you don't hunt or fish, build camps or fires, to keep areas clean is important for this reason. Each family looked after family estates that were good oyster and clam beds, fishing areas and camas areas. Why not insist on doing it the old way? Which family used to take care of this place? Was this a 'clean' place that was kept specially and why shouldn't it continue that way? This is a way of putting the map of responsibilities back on the landscape.

We're trying to get our non-native neighbours to think the same way and it's working. It's working because of the small nature of the communities that live in the islands, and because non-native people also hunt and fish and have done so for a long time and they care about the environment. They have responded well to the idea of local responsibility and local stewardship. Each community should decide if there's enough there to share with people from outside. Stewardship creates wealth and wealth belongs to those who take care of the things that create wealth. The Northwest Straits Commission is a citizens' initiative that was set up as an alternative to the federal government's top-down approach to creating protected areas. The commission is made up of county level committees and each of these has tribal representatives, commercial and recreational fishermen, water dependent businesses, scientists. The committees elect the regional commission that allocates funding to the committees. The two MPAs that have been created using this process are widely supported. What made it possible, was the traditional idea of the connection between stewardship and wealth, stewardship and rights. Once the San Juan County marine stewardship area has been set up it will be up to each community in the islands to make and enforce local regulations and determine allocation of resources. Local control of resources is still quite controversial and the state and federal governments have not yet agreed to it, but we are all working together in the San Juan Islands to make this change.

Q: Were you part of the Boldt decision?

Russel Barsh: No. The government said we [the Samish] were extinct, that our tribe did not exist and that we couldn't fish. The courts ruled that the government had no basis for that decision, and that it was error and prejudice that led to that position. Now we're back in the courts to assert our fishing rights, because over the past 25 years the pie had all been divided up. However, we're probably generating more income in the community through science, conservation and restoration projects than the fishermen in other tribes are making from fishing. The governments now come to the Samish people

looking for data and advice. This is the real power, the old way: Spiritual strength, knowledge, looking after things, creating plenty –and when there’s wealth there’s power.

Q: Can you comment more on what you mean by wealth – i.e. from my experience First Nation don’t differentiate between subsistence fishing and commercial fishing?

Russel Barsh: That cuts to the heart of the issue, because the government measures wealth in terms of pounds of fish or dollars paid at the dock, not in terms meaningful to the people I work with, who see wealth in terms of how well respected you are. You know you are wealthy because everyone comes to your feast, because everyone knows your name, they expect you to produce a lot of food. To have a very good name, you have to be generous, kind, share a lot of food, and look after your ancestors by being part of the ceremonies and looking after the places where they’re buried. That’s very different than dollar value. In our area there’s a notion that there’s a certain kind of guardian spirit, a certain kind of power, that’s very important in a sailing and fishing community. It’s under- the- water power. Its gift is that your nets are always full of fish. You show you have this power by giving away a lot of fish. You have power by taking care of a place. These traditional fishing areas were very rich, until they were hammered by large-scale commercial fishing. Wealth means the same thing as sustainability. It’s having enough to share.

C: I’m envious of your situation. This is a resource frontier, and considered an economic development engine: aquaculture, oil and gas, mismanagement in fisheries and forests. Our county equivalent is the regional district and when I look at how that government is stacked and where our neighbours sit, I scratch my head and say HELP.

Russel: We’re lucky in that we’re located in a post-industrial area, which had its economic boom in fish canneries and logging 50-75 years ago. There’s been a demographic shift to pensioners and small-scale farmers and fishermen. The people feel they have enough money, and love the islands. In Puget Sound, fishing and logging industries have already collapsed. There’s just enough subsidy money being poured in to keep the dying patient alive but in a coma a little bit longer. One point of connection is that it’s possible to wake our neighbours to this reality and show them the way to the future. We share an opportunity to create a new kind of economy. Maybe that will get their attention.

Q: How did you document traditional knowledge? We have fish farms here that we don’t want here so that complicates the issue here?

Russel: We hang out with old timers and talk about these issues, and ask their advice and help in framing research questions. For example, the Fraser River sockeye runs usually go through the San Juans. We asked whether the sockeye were doing anything in the San Juans. My science colleagues all told me “they don’t feed there.” Talking to the old timers who did the reef net fishing, they said “they’re coming in to eat certain things in special places.” We followed this up with research and discovered

that there are critical feeding grounds for sockeye in the San Juans that have not been protected. Our science says the same thing that they know. We don't like fixing knowledge in a medium that can easily be reproduced because of intellectual property rights considerations. Most of this is family knowledge, so we just enlist the assistance of people who are knowledgeable, and it's on a professional basis, making them members of research teams. We might publish the scientific research, but we leave the traditional knowledge in the hands of the families and individuals.

We are assessing one set of fish farms at Cypress Island, and after talking to the old timers, we're looking at the effects of the fish farms in producing nutrient rich water that increases the encrusting brown algae that grows on eel grass that kills the eel grass. You find this around agricultural areas and clear cuts too.

C: I think its time we counter act the governments and do our own proposal as to who we are and what we are and what our food habitat has been over the years. Our traditional knowledge is stronger than any paper put out by anyone. It's the most powerful tool we have, but we haven't used it to the fullest. Your presentation really opened my as to what I have to do and that's I will do. I'm going to sit down with my family and put a proposal together and tell them what our natural way of life is and the government is not going to tell us what to do.

C: Russel what you passed on to us is power. It's time to take back that power from government. They don't know how to manage us – we know how to manage us. Our people live off the land but our resources are all gone. We're so poor, our last fight with DFO was over chum salmon, the last salmon, the lowest grade. My grandson is five years old and he prefers dried clams to popcorn. I want to really commend you, I agree with everything you said. We need to take control over our own lives, our own resources, we have to work with what little that's left and make it happen for ourselves because there's no one that's going to do it. Thank you for the opportunity to speak.

Q: Where do you obtain funds for the research center and are environmental groups represented on the committees?

Russel: Most of the money comes from restoration (3/4). Government is giving us contracts to clean up different parts of the environment. Some money comes from national science research grants. We work closest with land trusts, from national ones like The Nature Conservancy down to the local land trusts. Also citizen based environmental groups like People for Puget Sound and Friends of the San Juans. We share funding and do joint projects and share science, do politics together. We've been very lucky to work with them. Our historical ecological perspective and their contemporary science are a good marriage. They live locally as well.

Q: The Samish Nation was able to endorse the principles of the Orca Pass Stewardship area. This was also an opportunity to work with the northern straits people who have been separated from some of their fishing grounds by the border. So there is an opportunity to share resources, power and remove some of the artificial barriers.

Margot Venton, Sierra Legal Defense Fund: Legal Mechanisms for Creating MPAs

Canada has a long history of creating legal mechanisms, laws and agreements that allow most levels of government to create MPAs, but an equally long history of not establishing MPAs. Historically a number of federal provisions have been available including the National Parks Act, Canadian Wildlife Act, Fisheries Act and the Oceans Act to set aside areas or protect specific features. The recent Oceans Act allows for MPAs that are to be a part a comprehensive way of managing oceans that involves communities, levels of government, partners of government, First Nations representatives. We don't have Oceans Management strategies yet, and there's only one small area that's been protected under the Oceans Act – the Endeavour Thermal Vents MPA. These MPAs allow for zoning with varying levels of protection that haven't been determined yet – that would all be determined in the regulations for each MPA. A basic law is that dumping pollutants into MPAs without permit will be illegal. Each MPA would have a unique management plan. These areas could be very large, but might only have small areas with very high levels of protection. Then there's the National Marine Conservation Areas through Parks Canada. There's been a real change from talking about parks in all of these pieces of legislation, which on land in BC has often meant excluding economic activities, which concerns coastal communities. There's a real opportunity for communities to say we think the regulation should look like this, we think this MPA should be managed this way. From a conservation perspective, the law is flexible enough that the law might allow anything. There needs to be a wholesome discussion on what those levels of protection might be so that a proper balance is struck between conservation and the other activities that might be deemed to be allowed in these areas.

Q: One of the concerns is that even though parks are supposed to be without prejudice to treaty negotiations, the first thing the government does is take back the parks, so the sense was that parks were with prejudice. There was a real concern about entering into an agreement with parks for this reason. Are there any provisions in the Oceans Act or National Marine Conservation Area legislation that specifically address that issue.

Margot: Yes. When we create a federal MPA in an area where there are unresolved land claims, it's legislated as a reserve which is different than permanent parkland or protected area. What they've done in recent amendments to the MPA and NMCA legislation, is to specifically say that any decision with regards to this land that is in a protected area that is made that returns this land to First Nations control is automatically deleted from the park (unless the First Nations don't want that to happen). There are provisions in both acts for co-management as well and there's the opportunity to create your own set of rules about how you want a co-management agreement structured. All of the designated areas that the government is looking at now are being designated as reserves as far as I know, so there's no permanent change in the status of the land. All that it says is that the normal process of allocating rights is not going to happen. An interesting possible strategy in opposing fish farms, is that in creating a reserve, say a NMCA, you're taking a precautionary step. If the NMCA is in

an area where fish farms were being considered and that area was also on the table for land claim negotiations, a NMCA would be a way of keeping other interests from becoming established there, while creating the potential for future longer lasting protection.

Q: What if you're not in a treaty process?

Margot: It doesn't say you have to be in the treaty process. If there's an encumbrance to the land involving unseated aboriginal rights, it strikes me that it would have the same legal effect. I'll check the act to make sure.

C: One major issue is that Parks Canada and DFO need some mechanism to work together more closely. They're both looking at creating MPAs in the south island area and this creates a lot of work for First Nation to sort out, which is unfair. It would make it a lot easier for us if they were lined up on the other side of the table.

Margot: This legislation requires Parks Canada and DFO to work together which is a real change and it will take some lag time for them to figure this out together.

C: There's a complex mix of federal and provincial jurisdiction: the province has jurisdiction over the foreshore and seabed and the federal government has jurisdiction over the water column. It's important to understand the complex maze of jurisdictions.

Margot: There's a report by the Sierra Club in 2000 by David Boyd an environmental lawyer and Scott Wallace who did his Phd on MPAs, called Out of Sight, Out of Mind and Almost Out of Time. Towards an effective network of MPAs in BC. Available on website at <http://bc.sierraclub.ca/programs/marine/publications.shtml>. There's a specific section of First Nations and MPAs and some of the court decisions around fishing rights.

Jennifer Lash: This workshop has generated some great dialogue. It's the first one I've been at where people want to stay inside longer than scheduled. There's been great openness and frankness and people willing to talk about new ideas. Thank you all for coming.

First Nations Workshop on Marine Protected Areas: Alert Bay, February 2004
Partnership of Living Oceans Society and Musgamagwa Tsawataineuk Tribal Council
Suggestions from Participants on Dealing with MPAs

DRAFT: Not to be distributed beyond participant list
These are not necessarily points of agreement, but rather ideas that were suggested

1. Make it clear that MPAs are a form of insurance against fisheries mismanagement and the unknown or unpredictable factors that lead to a fisheries collapse and not a panacea for ocean problems. Ecosystem based

- fisheries management and habitat protection measures outside the MPAs are still important.
2. Explore the question of whether there's a problem with fish stocks and fisheries management and use that as a basis for talking about the need for MPAs.
 3. Right and title and treaty issues must be discussed early in the process. What do these mean in the context of MPAs?
 4. Ecosystem Based Management includes ecological and human well being
 5. Look at how First Nations managed and protected biodiversity, and where permitted, use traditional knowledge to take care of resources properly
 6. Families work together to use the power of the traditional knowledge, culture and spiritual strength to proactively participate in coastal planning
 7. Environmentalists and First Nations can work together to combine natural and social science with traditional ecological knowledge and work together on projects to research these issues.
 8. Use a community based planning and management approach rather than replace existing top down approaches with new top down approaches. Marine Protected Areas must come from the people of the coast.
 9. Communities contribute to population ecology and harness the power of "legitimate" science to help achieve objectives
 10. Be creative in the spatial management of MPAs using ecosystem-based management. Explore the concept of no-take areas in the context of existing partial fisheries closures – what are the advantages, disadvantages and rationales of each and how do they fit together. Also explore temporal fisheries closures as a tool that integrates with the MPA concept, keeping in mind that certain species that have extended sedentary life stages, take up to 20 years to mature, may have few successful recruitment/breeding events and produce many more offspring as they age.
 11. Local fisheries should have preference in National Marine Conservation Areas
 12. Recognize mistakes, apologize, and correct the mistakes or begin again with a fresh slate
 13. Compare Gwaii Haanas experience to South Central Coast area: can we do what they did with co-management
 14. Compare Gwaii Haanas to Great Barrier Reef experience: what can we learn from the best of each?
 15. What are the concern of First Nations, especially fishermen – why were there few at the meeting? Why do First Nations not want to talk about MPAs?
 16. Continue sharing information.

Additional Ideas drawn from the tapes of the workshop:

17. The Puget Sound ecosystem and many of the fish stocks are in bad shape. What is the state of the fish stocks in your areas? What do local people say who have been fishing in your area for 60 years? Are the fish smaller or has the ratio of species changed? How does that compare to the DFO stock status reports? An opportunity for finding common problems and working towards common solutions.

18. Explore what the conservation community can do to further help and to increase dialogue around protected areas.
19. Explore how can traditional ecological knowledge be used to inform the MPA process where permitted.
20. Work towards developing and encouraging government to develop an open, transparent, fair and effective marine planning process and that will give a home to these discussions.
21. More species distribution data would help the scientific analysis and planning process.
22. Consider MPAs as a tool to prevent fish farm establishment or to exclude fish farms from areas.
23. The opportunity in taking leadership of what a MPA looks like is there. The government is looking for direction on what levels of protection are needed where.
24. It would be helpful to have a model of ecosystem based fisheries management that uses some alternative approaches that benefit local fisheries first.
25. We have to look at how the benefits from an MPA can accrue to the local economy, but it's a complex system and it will be a challenge.
26. You need a commitment of an area for at least a decade before you're going to see much difference in this part of the world if you creating an MPA for resource protection for species like rockfish and lingcod.
27. We need to spend time demonstrating how MPAs benefit fisheries in the areas that are open to fishing. i.e. larval and juvenile fish export to fishing grounds.
28. Consider ecosystem consequences of creating MPAs. Increasing rockfish populations may decrease shrimp populations, so there are trade offs.
29. Its good to start off with the community-based approach and work towards evolving a co-management arrangement with government.
30. Match your social research method with your objectives i.e. Participatory Action-Research, Survey Research
31. Look at which habitats and species are at risk
32. Work with non-First Nations communities to get them to see the connection between their concerns and our concerns, building a base of mutual interest in building a kind of Marine Protected Area that both communities want
33. Be proactive instead of waiting for MPA proposals from the government
34. There's a real opportunity for communities to say we think the MPA regulations should look like this, we think this MPA should be managed in this way. There needs to be a wholesome discussion on what those levels of protection might be so that a proper balance is struck between conservation and the other activities that might be deemed to be allowed in these areas.
35. Report by the Sierra Club in 2000 by David Boyd an environmental lawyer and Scott Wallace who did his Phd on MPAs, called **Out of Sight, Out of Mind and Almost Out of Time**. Towards an Effective network of MPAs in BC. Available on website at <http://bc.sierraclub.ca/programs/marine/publications.shtml>

BC Aboriginal Fisheries Commission (BCAFC) Recommendations on MPA Strategy Discussion Paper ¹

1. A First Nations' task group should be established to lead discussions on the MPA strategy with the federal and provincial governments.
2. First Nation representation should be sought at a senior planning level that includes the senior management Steering Committee, federal-provincial government Working Group and a proposed inter-governmental coordinating body.
3. Financial resources should be made available to First Nations to meaningfully participate in negotiation, planning and implementation of MPAs.
4. It should be stipulated that if a First Nations requests the designation of a proposed MPA as a reserve (an area subject to treaty negotiations) that it be done.
5. Parks Canada should be requested to provide information and consult with First Nations on Bill C-48, the proposed Marine Conservation Areas Act.
6. First Nations should be given the option of negotiating interim agreements to protect their interests in advance of concluding treaties.
7. Proactive co-management policies should be put in place to provide incentives for First Nations to participate in MPA planning and management
8. A two level process should be established for regional MPA planning (and possibly integrated coastal zone planning). An upper level consisting of First Nations and federal and provincial government would be a forum to discuss First Nation interests and negotiate interim agreements. If there is interest in proceeding this group could determine the regional planning boundaries and develop appropriate planning processes. A second level would involve First Nations, the federal and provincial governments and marine stakeholders in developing detailed plans.
9. A linkage between the MPA Strategy and integrated coastal zone management (ICZM) needs to be established in areas where coastal planning processes are not underway.
10. BCAFC should develop a legal strategy to assist First Nations whose aboriginal rights may be infringed by protected area initiatives.
11. MPA pilot projects should not proceed without the consent of affected First Nations.
12. MPA objectives should consider First Nations' social and economic, as well as cultural interests.

¹ Accepted by the BCAFC Annual General Assembly in March 1999.

13. Recreation and tourism impacts and potential benefits should be assessed early in the process to allow informed decision-making.
14. Large, multi-use MPAs should be considered that provide First Nations an opportunity to actively participate in local fisheries management.
15. First Nations should be provided the first opportunity to participate in MPA management, monitoring and enforcement.

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