

THE COMMUNITY WORKSHOP: HOW WE DID IT, AND WHAT WE LEARNED FROM THE RESULTS

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INTRODUCTION

The Back-to-the-Future (BTF) approach, approach emphasises the importance of community participation and the need to treat different systems of knowledge with respect (Haggan 2000, Haggan *et al.* 1998, Salas *et al.* 1998). This is consistent with the aims of the *Coasts Under Stress* project (CUS: www.coastsunderstress.ca), of which the current Hecate Strait project is a part. To date, the CUS BTF project has involved people from the northern British Columbia region in two stages: the first Hecate Strait BTF project built models of the present ecosystem and that of 100 years earlier, and was based on one workshop with First Nations, fishers, scientists and other local experts (Haggan and Beattie 1999). Community involvement in the current project started with interviews with fishers, First Nations, conservationists, and others with detailed local knowledge of the fisheries ecosystem (see Ainsworth 2004, this volume), primarily conducted in July 2001, and subsequently through a community workshop.

The community workshop, entitled 'Back to the Future in the Hecate Strait: Restoring the Past to Salvage the Future', was held at Prince Rupert's Highliner Inn, December 4-6, 2001 (Pitcher *et al.* 2002). The aims of the workshop included presenting to the community the work that the Back to the Future team had completed (including what had been done with the information shared with the team during the interview process), and explaining what work was yet to be done. Furthermore, the workshop provided an opportunity for the team and community to engage in discussions about the *Coasts Under Stress* project (Pitcher and Haggan 2002).

Power, M.D., Haggan, N. and Pitcher, T.J. (2004) The Community Workshop: how we did it and what we learned from the results. Pages 126–129 in Pitcher, T.J. (ed.) *Back to the Future: Advances in Methodology for Modelling and Evaluating Past Ecosystems as Future Policy Goals*. Fisheries Centre Research Reports 12(1): 158 pp.

THE COMMUNITY WORKSHOP

Preparation

The workshop represented the latest in a series of steps in the Back to the Future process (Pitcher 2004a, 1998). In autumn, 2000, the Back to the Future team conducted science workshops in both British Columbia and Newfoundland¹, during which the input of scientists with species-specific knowledge could be received and further incorporated into the planned *Ecopath* ecosystem models (Pitcher *et al.*, 2002). For the Hecate Strait region, four ecosystem models were constructed, each representing a different time period: 1750, 1900, 1950, and 2000.

In July 2001, six members of the Back to the Future research team travelled to Prince Rupert, British Columbia, and conducted interviews with those who would have, and were willing to share, detailed local environmental knowledge (see Ainsworth, this volume). The information shared during these interviews was added to the historical database constructed by Aftab Erfan (Erfan 2004), and then used to cross-validate and strengthen the existing models.

Ecosim simulations were run based on two fishery fleet structures: the present fleet structure ('Today's Fleet') and today's fleet structure but without dragnets and gillnetters ('Team's Choice'). These two simulations, demonstrating the fishing impacts of each fleet structure on each of the four ecosystems, were used during the workshop as a basis of discussion and exploration (Buchary and Sumaila 2002).

Who was there?

In addition to all those interviewed in July, 2001, other community members and representatives of related organisations were invited to attend the December workshop. All interviewees were sent a letter detailing the time, place, and programme of activities of the workshop. Attendees included the Tsimshian Tribal Council (represented by the President Ms. Deborah Jeffrey), the City of Prince Rupert (represented by Councillor Cyril Stephens), fishers from several First Nations, commercial gillnet fishers, dragnets, trawl and line fishers, representatives of the World Wildlife

¹ As part of the Fisheries Centre's contribution to the *Coasts Under Stress* project, Back to the Future projects are being conducted in both British Columbia and Newfoundland. (See Pitcher, 2004b, this volume.) This paper will be limited to the British Columbia component.

Fund and the Northwest Maritime Institute and a number of local biologists and researchers. (A full list of participants is given in Pitcher *et al.* 2002)

Rather than costly advertising, the Back to the Future team relied mainly on word-of-mouth to spread notice of the workshop throughout the area, and through the organisations mentioned above.

The first day of the workshop suffered a low attendance, in part due to a snowstorm the day before. Indeed, a majority of the Back to the Future team were late arriving due to inclement weather, and the beginning of the workshop was delayed as a result. Subsequent days witnessed markedly increased attendance, for reasons to be detailed below.

Who was not there?

The workshop was well attended by First Nations and commercial gillnet and trawl fishers. Salmon seine fishers, trawlers and sport fishers were conspicuously absent, leading to the ready choice of scenarios that excluded these fisheries. Other absentees included the Department of Fisheries and Oceans and agencies of the BC government. This was a significant problem because the BTF philosophy is based on including all interests in the ecosystem, including the general public.

What happened?

Day one of the workshop opened with a series of presentations from the Fisheries Centre's Back to the Future team. These presentations included an overview of the approach and methodology of Back to the Future, as well as more detailed presentations on the four *Ecopath* models and the *Ecosim* simulations (of 'Today's Fleet' and 'Team's Choice' fleet structures for each ecosystem) and planned workshop activities.

Throughout the workshop, posters highlighting the team's work lined the perimeter of the meeting room. Miniature (letter-sized) versions of these posters were also distributed to workshop participants. In addition to the formal, structured discussions of the workshop, informal conversations over coffee and shared meals provided opportunities for team members to hear and respond to thoughts and concerns of workshop participants, and contributed to the growing sense of trust between the UBC group and the community members.

Formal small-group discussions occurred mainly on day two of the workshop, when participants

were divided into five (self-selected) working groups. Each working group included at least one, and usually two, BTF team members. Four of the five groups were asked to discuss the four potential ecosystems and to develop group a consensus as to which ecosystem was preferred for a rebuilt ecosystem. Furthermore, the four working groups were asked to decide what fishing fleet structure would be desirable in the rebuilt ecosystem; the four scenarios to come out of the working groups would then be simulated by the Back to the Future team and presented before the conclusion of the workshop. By coincidence, each group selected a different ecosystem goal, such that all four modelled ecosystems were represented, and the fleet structures recommended by each group were unique (Power 2002a). The fifth group was tasked with an examination of the four basic *Ecopath* models.

Once each of the four working groups identified their preferences, day two of the workshop closed, and the Back to the Future team set about simulating those preferences using *Ecosim*. Day three of the workshop featured the presentation of the results of those simulations¹, and wrap-up discussion.

In addition to structured workshop activities, members of the Back to the Future team also conducted additional interviews to complement those done during the July visit.

The 'Team's Choice' Controversy

As noted above, day one attendance was somewhat disappointing, but increased markedly on days two and three. The increase may primarily be attributed to what has come to be known as "the Team's Choice controversy" (Power 2002b). One of the two fishing fleet structures modelled in *Ecosim* was based on the actual present fishing fleet, but with a blanket exclusion of all draggers and gillnetters. In labelling this scenario as "Team's Choice", the Back to the Future team inadvertently gave the impression that a decision to exclude them from all possible future fisheries had already been reached. The team explained that this was not the case, but the damage had already been done.

As a result of this miscommunication, on day two, the meeting room was flooded with angry gillnetters and draggers. Clearly, word quickly

¹ A survey, designed to gauge community preferences regarding the rebuilt ecosystem and the structure of the fishery fleet to operate in that rebuilt ecosystem, was also conducted (and the interim results presented) during the workshop. For more information, see Power (2002).

spread throughout Prince Rupert that this group from the UBC Fisheries Centre was recommending the closure of the dragger and gillnet sectors! The second day of the workshop thus began with the irate, suspicious fishers venting their frustration at the Back to the Future team. Eventually we managed to explain that we were harmless academics who had made an honest mistake, not secret agents of government sent to shut them down. Following abject apologies for the inappropriate word selection, the fishers granted our request for a fool's pardon. Many stayed on for the rest of the workshop.

Attendance thus increased quite significantly, and this potentially disastrous mistake on the part of the team had one positive side-effect – a broader representation amongst workshop participants.

However, this incident illustrated the importance of giving full and complete consideration to all aspects of the planning of this sort of activity. The label, "Team's Choice", was unfortunate in that it gave the false and unintended impression that the Fisheries Centre team had already reached a decision. Furthermore, it seemed that community members were genuinely apprehensive that somehow Fisheries and Oceans Canada would act upon such recommendations.

WHAT WE LEARNED

The Prince Rupert meeting was the first time that ecosystem modelling had been used to run scenarios suggested by participants. Recognising the inherent value of community input, particularly as a basic tenet of BTF, it is hoped to be followed by similar workshops in this and other Back to the Future projects, and as such, important lessons were to be learnt.

The most important lesson learnt was the value of planning. Countless hours were spent preparing for the workshop, not only in preparing the models and supporting materials and in extending invitations, but also in determining the overall structure of the workshop and assigning section responsibilities to team members. Clearly, the extensive planning was crucial to the successful functioning of the workshop (notwithstanding Mother Nature's best attempts at preventing the arrival of the team!). However such comprehensive planning is extremely time-consuming, and as a result we were unable to spend enough time on some items.

This was the case with the survey conducted at

the workshop; being that the survey was dependent upon the time-hungry models, insufficient time remained for testing the survey materials and as a result the survey itself was unsuccessful (see Power 2002a for discussion).

Furthermore, despite all the detailed planning by the whole team, we failed to foresee the problems raised by the 'Team's Choice' label for one of the two fleet structures modeled. The cost was finding ourselves in a roomful of angry fishers. While the miscommunication had the positive yet unintended consequence of provoking significantly improved workshop attendance, this occurred at the expense of trust and good-will, at least initially. We were fortunate that good-will was restored.

Finally, again relating to workshop attendance, we learnt that word-of-mouth is not necessarily sufficient. Unfortunately, due to budgetary constraints, wide-spread paid advertising was not an option for this workshop. The reliance on word-of-mouth meant that some groups were very well represented and others not at all. Paid advertising – and, if possible, coverage in the local media – might have led to broader representation and should be budgeted in future community workshops of this type.

The Prince Rupert Community workshop provided opportunities, including the informal opportunities nestled within the formal structure, for increased interaction between the community and the researchers. The cultivation of such trust and understanding will help future collaboration between 'town and gown' for the benefit of the fishery, and for those who depend on it in various ways.

Overall, the workshop was judged a success. The Fisheries Centre's BTF team was given the opportunity to present back to the community an analysis of the information they had previously supplied. The BTF team showed that it is possible to present the restoration of past ecosystems as a practical policy goal, and showed that this approach can aid discussion of the shape of the fishery – and fishery ecosystem – of the future.

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For discussion after the oral presentation of this paper, see page 145.

scenario. This is self-management and this is where their ideas come from. The legend might be mythological, but a lot of the underlying themes make perfect sense, like taking care of the environment and the salmon. I am reinterpreting the legends but I do not want to be the speaker for them.

Nigel Haggan

Ecosystems are really useful as an integrative metaphor. Listening to my First Nations friends talk about the ecosystem as a whole including human, spiritual, biological and other elements which all have value and weighting, I am struck by the thought that this viewpoint is not dissimilar to the ecosystem justice that Rosemary Ommer talked about yesterday. What we are trying to do with this process is to develop a collective concept of the ecosystem. In this the First Nations have a great deal to teach us. What we are doing is mapping some of those connections the aboriginal people have understood on an intuitive level and which are difficult for the rest of us. The intention is there. We are trying to put the pieces back together to get a unified context.

Bill Simeone

To affect policy, you have to turn this into something that will be listened to. Policy makers will nicely listen to Ahnat elders and maybe change policy accordingly, but what gets to them is numbers to back it up. They have to be fair. The Ahnat elders have a cosmology that is valuable, but the sports fishers have a cosmology too. The policy makers need something that they can later comfortably justify.

Tony Pitcher

In terms of Back to the Future, if you can recapture what it was like in the 1860s, then you will have a policy objective. The much-hyped Copper River has actually lost species. It is important to look at that past with the local custodians of the river. You may then have a policy objective in quantitative terms, put forward with the consent of the peoples. I hope this project will open that dialogue. That is the objective.

**The Community Workshop:
How we did it, and what we learnt.
Melanie Power**

Cyril Stephens

I think the phrase 'team's choice' was a problem because the community consists mostly of gill-netters. When that fishery was left off the poster,

the people of the community heard about it, so they figured Nigel was going to close down the community. That is why they nearly took his head off.

Melanie Power

I should point out that in the photos I presented, the boats shown were all gill-netters. With the word 'choice', it sounded like we were coming in with preconceived notions of what fishery should exist in the community.

Karin Mathias

The word 'choice' perpetuated the distrust that the locals have of the scientific community in general, even with universities. They step back and do not want to talk; and the choice of words just aggravated them.

Melanie Power

In July, we talked to someone who was skittish about talking with us. We assured them that we were just academics from the university and not with the Department of Fisheries and Oceans, but they said "You may not be from the Department of Fisheries and Oceans now, but you will be someday." It is important to remember that the things that are theoretical to us are real to the fishers. These things make up their lives. It is important to keep grounded and consider how the things we are doing in front of our computers are going to impact them, especially if this project is intending to have policy influence.

Cyril Stephens

That is their livelihood. For about a decade, the community of Prince Rupert has had mismanagement from the Department of Fisheries and Oceans on the fishing cycle, where a fisher has a season of 10 days. Then along come Nigel Haggan and his team, and the fishers wonder when this is going to stop, because of the way they have been treated. I strongly believe that this is a good project. The only obstacles to it getting off the ground are budget and its new ideas. When a project is new, you have to continuously sell it to people. When people see that it is a good project and once you have sold it, it will really get off the ground. This is the second workshop I have attended and I feel comfortable with this project because we do need it given the way fisheries have been managed until now.

Nigel Haggan

Even though our livelihoods aren't on the line, a lot of us 'academics' here have a lifetime commitment to fisheries and care deeply about what is happening to oceans. That is what pushed some of us into science to try and understand

what is happening.

Stephanie Henri

You only referred to what is happening from the north of Haida Gwaii to the north of Vancouver Island. Is the central coast built into your model? You have to concentrate on localization, especially where there are species at risk like the sockeye.

Nigel Haggan

I have been trying to get a central coast project for 4 or 5 years. I have invited many people from the central coast to this workshop, but you are the only ones who made it. I know the Department of Fisheries and Oceans has resources in the central coast, but our project only just touches on the central coast. We need a focused central coast project.

The Community Interviews: How we did them and what we learned from the LEK results.

Cameron Ainsworth

James Wilson

With your interviews, how did you weigh the ones regarding information from the 1950s? I have problems remembering what I did two years ago. How did you deal with that?

Cameron Ainsworth

That is a problem. An additional problem is that the further back you get, the less people are available to ask. There were maybe 30 people out of the 38 we interviewed fishing in 1970, and only 2 of them were fishing before 1950. As for them misremembering, we have to take their word on whatever they tell us. It is either our guess or their guess, and I was not even born in 1950. This is especially important for non-commercial species which the Department of Fisheries and Oceans does not keep records of.

Kara Rogers

In my own studies, I found that half the fishermen I interviewed could not even remember their children's birth dates. They do not remember by year, but they seem to remember what happened and what they caught when they associate it with the boat they were using at the time. It might help you if you try to ask them about the species they remember by boat. You might not get year-by-year information, but you could get information by 5-6 year intervals.

Sheila Heymans

If we could redo the interviews, we should ask what year they changed boats and what it was like

during that time. That will likely work better.

Cyril Stephens

In comparing the graphs for 1950 to the ones for the present day, you have to remember that in the 1950s, they only had 10-14 foot boats with 20-foot gill netters that used linen nets. In the present day they have bow pickers that can cover an area from Prince Rupert to Port Hardy in 4 hours and catch a tide. Through modern technology, they can find a big run and go get it. How will your graphs correlate that? Take, for example, a community like the Heiltsuk Nation. If they owned a 10-14 foot boat in the 1950s, they hung around a certain area that is their catchment area. Nowadays, people can cover a lot of miles getting to fish. How will that affect the graph when you put it together?

Cameron Ainsworth

We did not ask for information by year, but rather by period. The question we asked of the fishers was whether the species increased or decreased during their career. If everyone said that one species increased, chances are it did. If half says it increased and half says it decreased, then maybe it stayed around the same level.

William Cheung

To address the issue of how to deal with people's memories of non-recent periods, you can ask fishermen about the big events in their lives. For example, you can ask them about the largest fish they saw in their lifetime and when it was, which reminds them of the time period when they caught the fish. Then you can ask about the situation in that time period, rather than just asking about the situation in the 1950s. There were also discrepancies in the correlation between interviews and government statistics. In your interviews, did you ask why they think there is an increasing or decreasing trend? That might give you a clue as to the reasons behind the discrepancy.

Cameron Ainsworth

We did not ask specifically for reasons. Sometimes the fishermen offer reasons, but the graphs just offer values of 1, 0, or -1. If everyone agrees that the abundance of a species went down, we can assume it went down.

Peter Johnson

Fishing in the 70s is different than fishing now. In the 70s, fishers could pull fish into their boat. This year, we have to dip net the fish into a holding box, sort them, and keep certain species alive. The procedure has changed so much.

Kim Wright

In terms of correlation between your data and data from the Department of Fisheries and Oceans, your interviews probably took place at a smaller scale, which might contribute to discrepancies. The Department of Fisheries and Oceans take data on a coastal level, whereas your interviews were at a local level. How do you correlate that?

Cameron Ainsworth

The more people we talk to, the better idea we get. We are just looking for relative abundance, not absolute abundance. We are not looking at hot spots.

Kim Wright

When you have a conference and invite people to come, the people who attend may be people who are worried about the stocks, so their tendency may be to report a decline. That would bias your interview data. You will get less bias if you go to a community.

**What are the recreational catches from Northern BC?
Robyn Forrest**

Tony Pitcher

I did not realise the anomaly between the two estimation methods [mailout/phone survey and creel census] was that big. They are done by two different DFO labs it seems.

Nigel Haggan

Is the catch really 14,000 tonnes of salmon? That is an awful lot of fish to catch by angling.

Tony Pitcher

That is about a quarter of the total catch. It is not insignificant, at any rate.

Robyn Forrest

That figure is based on my estimate of the average weight of fish. It might be less if I change the conversion factor.

Cameron Ainsworth

Did you find any information on discards? People in Prince Rupert were saying that the sports fishers may catch 20 fish for 1 that they keep.

Robyn Forrest

The catch and release figures were 43%.

Cameron Ainsworth

The sport fishery discards have nothing to do with catch and release - they get one fish, and if they find a bigger fish they throw the first one out.

People were saying that it was significant enough.

Cyril Stephens

I am not quite sure if the numbers are right because in commercial fishing, they have counters that keep records of what is coming in. In sports fishing, there are no records at all. If I go down to Wesbrook, I do not see the Department of Fisheries and Oceans come in at 9:30 pm when sports fishers are returning to dock because the people from the Department of Fisheries and Oceans are done for the day. They only take in the information that comes in during the day. I do not think doing a survey like this will show numbers as they really are. The thing with sports fishing is that the cost to run it is so low compared to commercial fishing. The money is changing the rules for commercial fishing to favour sports fishing. There are no statistics or quota for sports fishing. We do not know the number of fish that die and are thrown away.

Robyn Forrest

Yes, it really is a very political issue. All I can say at the moment is that with the resources we have, we have to use the best available estimates, which are better than what we had before. It seems that the Department of Fisheries and Ocean are putting in more effort now into keeping track of recreational catches. They have realised that sports fishing is a big issue. I am hoping that we will have improved estimates in the future.

Karin Mathias

In your estimates, you adjusted the number of pieces of salmon two times. Do you have results from the mail-out surveys?

Robyn Forrest

The mail-out surveys report 2.4 million fish caught, 1.4 million kept.

Karin Mathias

Sports fishing is a hot topic now and the allocation issue between the sport and commercial sectors is really controversial. As it has been pointed out, there are a number of serious problems associated with it; for example, they cannot have observers on every boat.

Tony Pitcher

One would like to think a mail-out survey with 8000 respondents would get around the problem of fish coming late at night after the people from the Department of Fisheries and Oceans have gone to bed. However, in terms of anglers' memories after the event, there is a classic case from British Columbia lakes where they stock the lake with trout every year. One year they forgot to

Friday 22nd Feb: Day 3

Issues in Modelling the Past and Forecasting the Future – Continued

- 9.00-9.20 Modelling policy using individual gear types in Northern BC – Cameron Ainsworth and Sheila Heymans.
9.20-9.40 How to model the impacts of aquaculture – Pablo Trujillo
9.40-10.00 Problems in modelling changes in habitat and MPAs – Eny Buchary
- 10.00-10.20 **Coffee**

Issues in valuing restored ecosystems

- 10.20-10.40 Aboriginal Values – Arnie Narcisse
10.40-11.00 How do we take aboriginal values into account? – Rashid Sumaila
11.00-11.20 A Great Leap Backward?? – Nigel Haggan

11.20-12.00 Final Discussion

12.00 Lunch and adjourn



**The Back to the Future Research Team in mid-2003
(former members in smaller type)**