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Ⓢ (1535)

[*English*]

**The Chair (Mr. James Bezan (Selkirk—Interlake, CPC)):** We're running a little behind schedule so we'll get this meeting called to order. We're going to continue on with our studies of the Species at Risk Act.

Today we have a number of witnesses here that are bringing their expertise and educational backgrounds to discuss the Species at Risk Act. I'd like to welcome to the table Dr. Scott Findlay, Associate Professor at the University of Ottawa. You didn't have to come that far, but I'm glad you did take time out of your schedule to join us. From the Vancouver Aquarium

Marine Science Centre, we have Lance Barrett-Lennard, who is the Head of the Cetacean Research Program. Welcome. As an individual, we also have Dr. Michael Pearson, Registered Professional Biologist at the Pearson Ecological. From the Scientific Committee on Species at Risk, SCOSAR, we have Dr. Arne Mooers, the Associate Professor of Biological Sciences at the Simon Fraser University.

I want to welcome all four of you for taking time out of your schedules to give us your interpretation of the act and where we need to be going as we go through this review.

With that, Dr. Findlay, if you could kick us off with your opening comments.

**Dr. C. Scott Findlay (Associate Professor, University of Ottawa, As an Individual):** Thank you very much and thank you for the invitation.

As was said in the introduction, my name is Scott Findlay and I'm a Professor of Biology at the University of Ottawa. One of my areas of expertise is conservation biology and for the last few years I've been working with my colleague, Professor Stewart Elgie, in the Faculty of Law, doing an assessment of SARA's performance to date.

Just before we begin with the substance, I'd just like to make a parenthetical comment. The first comment I would have is simply that as a scientist I regard SARA, as with any law, as an experiment and the purpose of the exercise is to evaluate that experiment and then to use that evaluation to suggest ways in which the subsequent experiment can be made improved.

So my comments are in the tenor of trying to look to see what we have done so far and to suggest ways of improving this particular piece of legislation.

If you look to see how we've done so far and if you look in front of you at my brief, you will see figure No. 1 and I think this tells the real story about SARA. If you look at the proportion of species that we have thus far had available for listing for subsequent production of recovery strategies and for critical habitat identification, it's fairly clear we start off with 380 species that could have gone that full route, that process thus far, we're left with six thus far for which we've had complete critical habitat identification. So I think it's fairly clear from these numbers that we have a little ways to go with them in terms of the design of the instrument.

The first problem relates to listing. About 85% of species that have been recommended for listing have indeed been listed. If you look at the ones that have not been listed and you contrast those with the ones that have been listed, there are some patterns that emerge. The first one is the species that have not been listed tend to be those for which the Department of Fisheries and Oceans is the responsible authority. They tend to be species which are harvested either commercially or for subsistence or through bycatch and they tend to be northern species. So these are three general findings which tend to differentiate species that have been listed from those that have not.

With respect to what we call the responsible agency effect, it seems to be fairly clear that with respect to listing, the Department of Fisheries and Oceans, Environment Canada, and Parks

Canada Agency are using different processes for listing and in particular, it would appear they're using socio-economic analysis at the listing stage to support listing decisions in a different manner. So we have this difference between the institutions that are responsible under the act for listing.

The second problem occurs at the recovery planning stage and the bottom line is that one third of the species that ought to have had recovery strategies by now have indeed had recovery strategies and very few of those were completed within the legislated timeframe.

So we have two problems, one being that recovery strategies are not being produced on time, certainly not within the timeframe as mandated under the act and thus far, relatively few of them that ought to have been produced have indeed been produced.

The third problem that we've identified in our analysis is critical habitat identification. As I showed in that first figure, to date, very little critical habitat has been identified. Most critical habitat that has been identified has been identified within existing protected areas. If you compare those species for which we have critical habitat identification in recovery strategies versus those that you don't, it's fairly clear there are some patterns that emerge and those patterns are shown in the third figure in my presentation.

So it looks to be the case that if you're a species that's found in a protected area, you're much more likely to have critical habitat identified. If you're found on lands that are municipally owned or for which urbanization is considered an important threat, you're less likely to have critical habitat identified.

In particular and this is very interesting, that in terms of the schedule of studies, which is a mandated component of recovery strategies under the act, landowner consultation is often an important element in the schedule of studies for those species which have not had critical habitat identified. So it appears that critical habitat identification is being held up because of the need for consultation.

Finally, there is the problem associated with timelines. So under the act we have this possibility of the minister allowing for extended consultation before the recommendation is being forwarded to the Governor in Council. It seems fairly clear that many species are being held up at this stage of the process. So what happens is you have species stuck in what amounts to listing purgatory for years, up to four or five years, before a decision is actually being made.

So based on this analysis of SARA's performance we have a number of specific recommendations:

First, regardless of the responsible authority they should all be following the same process for listing decisions. It shouldn't matter whether you are a bird or a reptile or a fish or a mammal, the process should be the same for all species.

Second, that there are explicit timelines imposed for extended consultations and certainly the way this extended consultation is occurring now. It's not in keeping with the spirit of the act and particularly the section 27 which imposed at least notionally this nine month consultation period.

Third, we suggest that when the GIC proposes not to list a species that this be triggering a well-informed and transparent evaluation process and consultation process.

Fourth, we recommend the recovery planning process adhere closely to statutory-mandated timeframes.

Fifth, we suggest that SARA include a specific timeline for implementation of recovery strategies, that is action plans for which there is no timeline within SARA now.

Sixth, that the predisposition to identify critical habitat, or the recovery stage under SARA which takes as its justification the precautionary principle both in the preamble and section 38, be comprehensively implemented. That has not happened up until now.

Seventh, and finally, that critical habitat identification be based solely on biological criteria. Our analysis suggests that there are other factors working into that decision and we would recommend that critical habitat identification be based solely on biological criteria.

In the final part of my brief Professor Elgie has communicated from Papua, New Guinea where he is now unfortunately. He has provided some specific wording recommendations for amendments to the act that are in keeping with those recommendations.

Thank you.

⊕ (1540)

**The Chair:** Thank you, Dr. Findlay.

Dr. Barrett-Lennard, if you would bring us your comments please.

**Dr. Lance Barrett-Lennard (Head, Cetacean Research Program, Vancouver Aquarium Marine Science Centre):** Yes, thank you very much, and good afternoon.

I'm a research scientist specializing in the ecology and genetics of marine mammals. I head the Vancouver Aquarium's cetacean research program. The aquarium's mission is to affect the conservation of aquatic life through display and interpretation, education, research, and direct action. As such, it has a direct and abiding interest in the successful implementation of the Species At Risk Act. I've been co-chair of the resident killer whale recovery team on the west coast since 2005, and I've worked on recovery strategies for six other marine mammals in Canada, and one in the U.S. I also serve as an adjunct professor of zoology at UBC. Today I'll discuss two ways in which lack of clarity, in my opinion, in the Species At Risk Act has led to confusion and inconsistency in species recovery planning, and I'll present some recommendations for improvement.

As the committee members will know, SARA specifies the plans for recovery must be developed in two discreet stages: formulation of recovery strategy, and formulation of an action plan. The act doesn't make it clear why it specifies this two-stage process, and indeed there's considerable confusion on the part of government managers about why such a system exists. In my opinion, the drafters of SARA were correct in specifying this two-part process, because recovery really does involve two rather different sets of considerations

. The first step, preparation of a recovery strategy, is the strictly objective and scientific process of understanding and describing why a species is at risk, and determining what it would take, what general kinds of things would need to be done, to alleviate that. It contains a description of critical habitat, known threats to the species, general measures that would reduce threats and protect critical habitat, and criteria for determining when recovery has occurred. The important point is, it should be a scientifically defensible document, a point the act fails to mention.

The second step, preparation of an action plan, is the process of compiling a specific set of pragmatic recommendations about what, in fact, should be done to achieve the strategy, and that's given constraints opposed by other laws, treaties, socio-economic factors, the imperative to minimize cost, and so on. This second step isn't strictly scientific, nor should it be. It brings lawyers, economists, stakeholders, and so on, into the mix.

SARA, as I mentioned, doesn't clearly distinguish between the function of these two steps, between the separation of science and policy. Indeed, by requiring that recovery strategies be prepared in cooperation with stakeholders, it fails to recognize a fundamental need for scientific objectivity, and it muddles the distinction between the two, between strategies and action plans.

I'll talk a little bit about scientific advice. SARA specifies that COSEWIC must carry out its functions, the assessment of listing a species, using the best available scientific, community, and aboriginal knowledge. However, once COSEWIC has finished its job, the act is silent about using scientific expertise and recovery strategies or action plans. It does specify the critical habitat must be determined based on the best available information, and in practice this has been interpreted as primarily scientific. However, based on my experience, I can say for the record that acquiring and incorporating scientific and other advice in recovery strategies is inconsistent at best. There are no built-in safeguards or perceived biases in the choice of experts from whom advice is sought.

Let me explain how the process of working this advice works at present. Recovery strategies are usually drafted by recovery teams, including government and non-government members. This membership is determined on an ad hoc basis, but generally includes species experts, representatives of NGOs, aboriginal groups, industry stakeholders, representatives of other provincial governments and federal departments. However, SARA doesn't specify that a recovery team must be used. In the last few years, DFO in particular has moved instead to using working groups of government staff. In some cases, these working groups invite external experts to technical workshops to hear the professional opinions, but they draft the recovery strategies themselves.

Recovery teams have been used in Canada for many years, and also in the U.S. Because they include non-governmental members, their deliberations are transparent or tamper-resistant, if you like. In contrast, these internal working groups may well engage in spirited debate behind closed doors--I'm sure they do--but at the end of the day, the members are bound by internal directives and aren't free to express concerns to the public about the process or its outcome. The use of internal working groups removes transparency from the recovery-planning process, limits the input of non-government scientists, restricts public and scientific scrutiny, and as such is less likely to produce objective recovery strategies than are teams.

To illustrate the strengths of recovery teams over internal working groups, I'll refer to my own experience as co-chair of the resident killer whale recovery team. We had 23 members, of which about one-quarter were federal government employees.

⊕ (1545)

In May 2006 we completed a draft of the strategy and submitted it to DFO for the minister's consideration. The draft contained a description of critical habitat, as required by SARA, and was completed within the specified timeframe.

As Dr. Findlay has mentioned, and Dr. Pearson will reiterate, critical habitat is essential to recovery planning. Without a description of critical habitat, little can be done to conserve a species.

DFO didn't post the document by the legal deadline, but began a process to amend it by removing the critical habitat section. This was done in accordance with a draft policy which the team was not allowed to see, nor were we allowed to see the amendments which were simply described to us.

We expressed concern and requested an explanation, and when that wasn't forthcoming, we resisted the change by requiring that our names be removed from the document.

DFO took no action until the following spring when it restored the critical habitat section but revised another key section in response to a request from the Department of National Defence. That section was also restored after the team objected. Shortly thereafter, DFO made a third amendment without explanation, by removing a section listing threats to critical habitat. This, too, was withdrawn after strong objection by the non-government members.

The strategy was finally posted in March 2008, more than a year and a half after the legal deadline.

The Minister of Fisheries posted a critical habitat protection statement in September 2008, saying in effect that no protection of critical habitat was necessary. This led to the launching of a lawsuit by a large and influential group of NGOs. And the statement was rescinded in February 2009 and replaced, at last, by a critical habitat protection order.

My point in detailing this litany of roadblocks is that without a recovery team with independent members, the killer whale strategy would not contain the essential elements for recovery.

In light of these experiences, I have two simple and clear recommendations for amendments to SARA. First, the revised version should clearly describe the reasons for separating recovery strategies and action plans by noting that the former must be science-based and objective, and the latter subject to social and economic constraints.

And second, SARA should specify that the competent minister must seek the best available scientific advice in the preparation of recovery strategies, should use recovery teams and commit to a transparent process for determining their membership, and should ensure that teams include independent species experts.

Thanks, again, and please feel free to look me up at the Vancouver Aquarium the next time you come to British Columbia.

**The Chair:** Thank you, Dr. Barrett-Lennard.

Dr. Pearson, the floor is yours.

**Dr. Michael Pearson (Registered Professional Biologist, Pearson Ecological, As an Individual):** Good afternoon.

I'm a self-employed biologist. I specialize in species at risk and habitat restoration in British Columbia. My PhD dissertation was done at UBC and focused on the ecology of two species, SARA-endangered species, the salish sucker and the nooksack dace. I am a member of the Recovery Team for the species lead author of both recovery strategies and I've worked on them continuously since 1997, which is to say that I've spent 14 years talking and negotiating with land owners about species at risk and habitat protection.

I would like to speak today about the identification and protection of critical habitat under SARA, drawing upon my experience in dealing with land owners, in producing recovery strategies, and in a lawsuit that resulted from the publication of one of them. Let's start there, the nooksack dace recovery strategy.

SARA requires that recovery strategies identify critical habitat “to the extent possible, based on the best available information”. For the nooksack dace, we were able to produce maps showing the specific areas of stream containing critical habitat. SARA’s definition also explicitly includes “any other areas on which aquatic species depend directly or indirectly”. Since there's a large literature saying that stream-side vegetation or riparian areas are critical to the health of aquatic habitats, we included such stream-side areas.

To define the width of those buffer strips, we adopted methods already in use in British Columbia in the riparian area regulation. We did this because these methods are scientifically

sound and because they had already been agreed to by both the provincial and federal governments for use in areas that are slated for land development.

We submitted the recovery strategy containing these maps in August of 2005. More than a year later, when the draft recovery strategy was posted on the public registry, the maps of critical habitat had been removed, our definition of critical habitat had been removed, and the list of activities likely to result in its destruction was also absent. The Recovery Team had not been consulted on any of these changes, although our names remained on the strategy as its authors.

Subsequent negotiations between the team and DFO resulted in the re-insertion of some of the deleted material, although not the maps, and in the inclusion of a disclaimer in the critical habitat section stating that the habitat portion of the strategy had been altered to conform with government policy.

Soon after its publication in July 2007, a coalition of environmental groups launched a lawsuit claiming that the strategy failed to identify critical habitat in accordance with SARA. I was one of three Recovery Team members to provide them with an affidavit.

Over the next two years, the lawsuit proceeded through a series of legal machinations, including an attempt to strike much our affidavits, the redaction of e-mails describing the government's reasons for removing the critical habitat, and an attempt to get the lawsuit dismissed as moot through the belated inclusion of the critical habitat maps.

Ultimately, the Federal Court found in the environmental groups' favour. In his decision, Justice Douglas Campbell described the government's actions. He said,

This is a story about the creation and application of policy by the minister in clear contravention of the law, a reluctance to be held accountable for failure to follow the law.

To its credit, the government has responded positively and appears since then to have adopted policies in recovery planning aimed at identifying critical habitat to the extent possible, but other problems have emerged. The belated identification or inclusion of the maps for critical habitat triggered a requirement for the Minister to either make an order under SARA to protect the critical habitat, or to release a Habitat Protection Statement explaining how it was already protected.

In December 2008, a protection statement rather than an order was released, and I was quite disappointed in its contents. It claims that most of the threats to critical habitat are already addressed by section 35 of the Fisheries Act and dismisses other threats as not being to habitat but being to individuals.

⊕ (1550)

Now from 14 years of working in these streams, I know this isn't true. Section 35 of the Fisheries Act states:

35. (1) No person shall carry on any work or undertaking that results in the harmful alteration, disruption or



destruction of fish habitat.

But for this section to be applied, some person must be identified and presumably charged as a culprit. But who's the culprit when a hundred wells and 20 irrigation pumps spread over 50 square kilometres collectively suck a stream dry? Who's the culprit when runoff from rooftops and roads combine to produce flash floods that damage habitat? Or when erosion from dozens of properties lacking riparian vegetation combine to clog a spawning bed.

These are cumulative impacts, often from non-point source pollutions. They are what most threaten Nooksack Dace and a variety of other species yet they remain unaddressed and the reason is that the Fisheries Act cannot address them. SARA can.

So consequently the habitation protection statement in my opinion continues a pattern of delay and attempted avoidance of effective action to protect species at risk and is certainly insufficient to protect Nooksack dace critical habitat.

So what to do? I work regularly in about 15 watersheds in the Fraser Valley and I have spoken with scores of landowners about habitat and species at risk over the years. Most have been farmers who perceive that they may have to give up some land or some agricultural practices on land adjacent to waterways if habitat protections are adopted and enforced. Not surprisingly, most are hostile to this notion, but only because they fear that the costs of such protection are going to be borne by them alone. Farmers are not by nature anti-conservation or anti-environment, and most will readily accept a scenario in which society pays for society's benefits from their land. A little money on the table goes a long way.

The circumstances provide a rather instructive example of how this might work. Three of the four Canadian streams containing Nooksack dace flow south across the U.S. border into Whatcom County, Washington. I can stand on 0 Avenue bridge, the border road on the Canadian side, and look at a recently reforested riparian area in Whatcom Country along Bertrand Creek. It is one of the many stretches of previously denuded farmland that the state has leased from farmers for its ecological services, in their case, the preservation of water quality and the protection of endangered salmon stocks. This brings up an important point. These ecological services of critical habitat extend far beyond species at risk. Nooksack dace are always found with salmon, British Columbia's most iconic and economically important native species.

Healthy aquatic and riparian habitats purify water. They store carbon. They function as primary pathways in the landscape through which water and nutrients and organisms move. They're essentially the circulatory system of an ecosystem and it's in our interest to protect them.

Currently, another potential cure is that in B.C. landowners of small rural properties can pay low agricultural taxes if they show a few thousand dollars in gross agricultural income. Now this promotes the clearing and farming of very marginal lands by people who have little knowledge or incentive to practice sound agricultural practices, often on small hobby farms. So if those people were offered tax relief in the form of grants to offset the municipal taxes in the same way that it is done with agricultural taxes, this would be alleviated.

To conclude, I have three specific recommendations. First, the regulations regarding compensation should be developed immediately, as provided for under section 64 of the act to facilitate the protection of critical habitat on private land.

Second, SARA protection orders or conservation agreements should be used to take meaningful steps to protect critical habitat rather than claim without scientific support that the existing laws protect species adequately. If existing laws were working adequately, these species would not be on the endangered list.

Third, to reiterate what my colleagues have said, recovery teams should be given statutory life under SARA and directed to use the best available knowledge in developing recovery strategies to restore species in their habitat.

Thank you for your time and attention.

⊕ (1555)

Thank you for your time and attention.

**The Chair:** Thank you very much.

Our final presentation, Dr. Mooers.

[*Français*]

**M. Arne Mooers (professeur agrégé, Sciences biologiques, Université Simon Fraser, Comité scientifique sur les espèces en péril (CSEP)):** Bon après-midi. Je m'appelle Dr Arne Mooers, de l'Université Simon Fraser. Je suis accompagné de ma collègue, juste derrière moi, Dr Jeannette Whitton, qui est de l'Université de Colombie-Britannique. Je représente le Comité scientifique sur les espèces en péril. Nous sommes une dizaine de professeurs et de scientifiques qui viennent de tous les coins du pays. Nous nous sommes réunis pour la première fois en novembre 2008. Nous avons comme but d'étudier comment la science est utilisée dans la Loi sur les espèces en péril, et comment on pourrait l'utiliser de manière plus efficace.

Nous vous remercions de nous donner l'occasion de vous parler aujourd'hui.

⌚ (1600)

[*English*]

I'll switch to English.

The data you've heard about and the stories you heard just now informed our, the Scientific Committee on Species at Risk's deliberations. The main higher level recommendation we make is that lawmakers, you, ensure a clear separation between scientific information delivery, what we make, and subsequent government action at all stages of the SARA process. Such a

separation would clarify the tough decisions and trade-offs that Canadians, through you, have to make when managing their natural heritage.

We made a couple of figures--I hope you have them in front of you. Does everyone have the figures? I made some extra copies if you don't. Figure 1 is a schematic of how we see SARA is constructed in the law and where science feeds into the law. That science input is in the white boxes in that figure.

The top box, which is labelled A, represents the stage where the Committee on the Status of Endangered Wildlife in Canada, COSEWIC, uses the best available information and internationally agreed upon criteria to decide whether a wildlife species merits legal protection.

Now this white box, you'll notice, is not embedded in any grey policy-plus-science box; it stands alone. The COSEWIC decision is made public and the government, you, subsequently responds publicly to the scientific assessment by accepting it, rejecting it, or referring it back.

We, SCOSAR, are in favour of this clear delineation and support COSEWIC's specific recommendations made to you about a year ago that this separation between independent, publicly available assessments and government decision making be clarified and strengthened. We think this is a strength, perhaps the strength of SARA as it's written now.

Now as we move to the later stages in that flowchart involving the actual listing process, the recovery and declining, the separation between independent science and policy does not exist anymore. Those are the boxes B, C, and D, where the little white ones are sitting inside grey ones. Here science is embedded within a policy framework.

Dr. Findlay's presentation highlights the issue concerning which species get listed and which do not following assessment, and we worry about institutional conflicts of interest, and we worry about perceptions of such conflicts of interest, whether they are there or not. We believe that clear best practices should be followed here, as anywhere else.

So here's our first recommendation, and it includes lots of important modifiers, so I apologize because it's a long sentence. If a species may not be legally listed, if there's a chance, then a more formal, independent, transparent, consistent, and complete process should be followed. That is not the case at the moment, as Dr. Findlay pointed out. The scenarios used in listing analyses should be clear and open to independent scrutiny, and both long-term and short-term considerations, and the costs and the benefits of legal listing should be included. Those costs and benefits should be to all Canadians.

You heard from Dr. Barrett-Lennard's experience how stages following listing--so something gets listed, now we're moving on to what to do--do not always work smoothly either. While it is our view, and I think the law is clear that independent science will be but one of the voices that contribute to the drafting of recovery strategies, in the current course that emerges, the input of independent science is unclear. Recent lawsuits and threats of lawsuits related to the failure to, for example, identify the habitat necessary for survival and recovery, as you've heard, represent one costly negative outcome. Such legal action might have been avoided if independent scientific

oversight were part of the recovery planning process. Those draft strategies, or the ones that were posted, would likely have included at least partial critical habitat.

Consequently, our second formal recommendation is that an independent scientific committee, which we gave a nickname to--we called it COROWIC, so committee on the recovery of endangered wildlife in Canada--be called on to evaluate recovery strategies and action plans. Such a body would offer clear advice as to whether a set of policies on how to achieve the stated aims of the legislation can be met with a particular recovery strategy and a particular action plan.

You have sections 40 and 11 that can be used, and the COROWIC reports would be made public in the same way that COSEWIC reports are, and elected officials speaking on behalf of Canadians everywhere would then respond publicly, just as they do regarding listing. There may even be possible models for such a set-up already in existence at the federal level in Canada.

Given political realities, we do not think that this step would slow draft recovery strategies and action plan production, and in any case, as you know, a strategy or plan that does not meet its stated goals is a waste of tax money.

🕒 (1605)

Overall, we believe that the general approach of separating scientific data collection and analysis from policy decisions outlined above, the separation, could be extended to all phases of the SARA process. And then we outline this in a second figure, which you have before you, that simply moves the science boxes out that feed in. So Canadians can see what goes in and what comes out.

Such a separation of scientific input from government response mitigates against conflict of interest and allows Canadians to see how difficult decisions are made on their behalf. Canadians may well decide that a particular wildlife species is not worth protecting and recovering. However, it is unhelpful to suggest to Canadians that such a wildlife species will be protected and recovered if the data suggests otherwise.

We submitted a formal brief, where we outlined our reasoning further. We also highlighted a few other issues, including some definitions of difficult terms that are not now defined in SARA but that could be.

[*Français*]

Nous sommes prêts à en discuter, si cela vous intéresse. Merci beaucoup.

[*English*]

**The Chair:** Thank you very much.

I appreciate all of your opening comments.

We're going to go to our seven-minute round. I'll ask witnesses to keep their responses as brief as possible when answering questions from our members so that the members can get most of their time.

Mr. McGuinty, you'll kick us off.

**Mr. David McGuinty (Ottawa South, Lib.):** Thank you very much, Mr. Chair.

I want to thank all the panellists, first of all, for their briefs. This is just a terrific and coherent set of briefs that is really helpful. So thank you for the time you took to whittle it down to just a few pages.

In all your presentations the golden thread that seems to be woven through them is that you want to see a much clearer distinction between science and the application of policy decision-making.

I just want to ask a couple of quick questions, if I could. In the Nooksack dace case study.... This took place in 2006. Correct? Was the timeline roughly 2006-2007?

**Dr. Michael Pearson:** The strategy went from the recovery team to DFO in 2005, and then it was posted in 2006 on the SARA registry.

**Mr. David McGuinty:** And this ultimately led to litigation.

**Dr. Michael Pearson:** Yes, it certainly did.

**Mr. David McGuinty:** Who was the minister at the time? Who were the ministers involved at the time?

**Dr. Michael Pearson:** I don't know the names of the ministers.

**Mr. David McGuinty:** July 2007.... Does anyone recall? No? Okay.

In the killer whale case study, it was more explicitly made, I think.... What became very clear here is that .... What you're saying here is that there was interference. Is that too strong a word to use?

**Dr. Lance Barrett-Lennard:** Sorry, in the killer whale case?

**Mr. David McGuinty:** Yes.

**Dr. Lance Barrett-Lennard:** I don't know if it was interference. All we know is that our initial document was amended to remove critical habitat. My understanding--and this is what the team was told at the time--is that it was in adherence with this draft policy that we were unable to see. And that was a policy for the inclusion of critical habitat and recovery strategies.

**Mr. David McGuinty:** And this led to litigation--

**Dr. Lance Barrett-Lennard:** I don't know the origin of that policy.

**Mr. David McGuinty:** Okay. But this ultimately led to litigation, as well.

**Dr. Lance Barrett-Lennard:** No. Really, in the killer whale case, litigation didn't come about until the minister issued a critical habitat protection statement. At that point NGOs litigated, feeling that there was very evidence and that an order, in fact, should have been issued.

**Mr. David McGuinty:** Who was the minister who issued that statement?

**Dr. Lance Barrett-Lennard:** Sorry. Like Dr. Pearson, I don't remember.

**Mr. David McGuinty:** Okay.

In two case studies here we see clearly that this nexus between science and co-called policy decision-making is not working. This overlap, this crossover is not working. And as scientists, you're here to make a plea, I guess, that the essential reform to SARA should be that we have a much clearer distinction between where the beginning, the middle, and the end of science are and where other questions are applied to the overall decision-making--socio-economic, policy, other considerations. Is that right? You want to see a clearer delineation, demarcation in the framework to make sure there is a more robust respect for science.

Dr. Mooers, you actually say in your brief,

Such a separation of scientific input from government response mitigates against conflict of interest....

What do you mean?

🕒 (1610)

**Dr. Arne Mooers:** What does "conflict of interest mean"?

**Mr. David McGuinty:** Yes, what do you mean by "conflict of interest"?

**Dr. Arne Mooers:** In specifics to this situation, obviously, we all know what conflict of interest is, but specifically, if you are sitting in a ministry that has many jobs to do, then there may be a conflict of interest when you're asked to do something related to SARA if it may have an effect on some of your other responsibilities.

**Mr. David McGuinty:** Do any of you know whether there have been other case studies which have pre-dated these, which gave you the same kind of concern about the relationship between scientific evidence and findings and the overlay of--your grey boxes here--policy considerations and decisions. Is this something that's been happening since the act was brought into force?

**Dr. Arne Mooers:** Maybe one of my colleagues might be able to speak to that. You have to remember, the act came in in 2002 and 2003 and there are these timelines, so these are some of the first ones that were coming through. I can be corrected if I'm wrong.

**Mr. David McGuinty:** Could you describe them as natural and normal growing pains then, with a regime that needs to be improved, or just something we're missing here?

**Dr. C. Scott Findlay:** Perhaps I can address that issue.

The issue of the demarkation between science and policy, or science and implementation, is a pervasive issue, and it's not unique, by any stretch of the imagination to the SARA case. You see this, for example, in the context of chemicals assessment in the CEPA context. You have, on the one hand, the more scientific notionally component, which is the risk assessment, and then you have the less notionally component, which is the risk management, and under CEPA, under the chemicals management plan, that is very clearly, in principle, demarkated. I think, in response to your question, is this normal growing pains, yes. As I said in my introductory comments, we're engaged in an experiment here, and we should not expect to get it right at the outset. I think that would be unrealistic and verging on the unreasonable. It's absolutely a work in progress and our task is to improve that work.

**Mr. David McGuinty:** Can I ask you and maybe the whole panel can respond, if you wish, or whoever wants to. How independent should scientific bodies be. For example, I think Dr. Mooers, you said you recommended an independent scientific body to scientifically review SARA recovery strategies and action plans. This would be an improvement over existing oversight, for example, for recovery planning?

**Dr. Arne Mooers:** That is correct. That would be an improvement over existing oversight, yes.

**Mr. David McGuinty:** How independent should independent be?

**Dr. Arne Mooers:** I don't understand; you're either independent or you're not. I'm not sure exactly what you mean by "how independent".

**Mr. David McGuinty:** Well, should it be all third party science expertise; should it be all arms length; should it be all science from the departments, should it not.

**Dr. Arne Mooers:** Oh, I see. I think you could look at COSEWIC as an example. It's not who you work for, it's who you represent, so a lot of the scientists can be DFO scientists or Environment Canada scientists or provincial scientists. It's what they're doing when they're there.

**The Chair:** Thank you.

Mr. Bigras. Sept minutes, s'il vous plaît.

[*Français*]

**M. Bernard Bigras (Rosemont—La Petite-Patrie, BQ):** Merci beaucoup, monsieur le président. Merci à nos témoins pour leurs présentations.

D'abord, la façon dont je qualifierais peut-être vos présentations, c'est par le mot troublant. Troublant parce qu'il me semble que, dans une saine gouvernance environnementale, il faut nous assurer d'avoir le plus d'indépendance scientifique, particulièrement dans la prise de décisions. Si je résumais l'ensemble de vos quatre témoignages, je pense que c'est comme ça que je le résumerais.

Deuxièmement, ce qui m'a beaucoup frappé, particulièrement en ce qui a trait à l'habitat essentiel — peut-être que j'avais vu les chiffres, mais ceux-là m'ont frappé, M. Findlay, en particulier —, vous nous dites que pour ce qui est des espèces sur la liste, il n'y avait que 19 p. 100 des programmes de rétablissement qui désignaient un habitat essentiel, et qu'essentiellement pour les autres, c'était sur des territoires déjà protégés.

Alors, en bout de ligne, force est de constater que cette notion d'habitat essentiel est loin d'être mise en application au terme de la loi, et force est de constater aussi que les considérations économiques semblent primées — et j'aimerais vous entendre là-dessus —; on le savait, mais au début du processus. C'est ça qui est dangereux, à mon avis; c'est qu'on prenne en compte les aspects scientifiques. À la limite, ça peut être considéré, mais ne trouvez-vous pas que dans l'ensemble du processus, et je vous remercie pour le diagramme que vous nous avez donné, qui expose l'évaluation de la situation par le processus d'inscription, les aspects socio-économiques sont trop pris en considération au début du processus?

🕒 (1615)

[*English*]

**Dr. C. Scott Findlay:** Thank you for the question. I think that there are a couple of issues here. I think all of us here would be agreed that when it comes to identifying critical habitat that the identification of critical habitat ought to be based - in keeping with the spirit of SARA - on biological criteria. The analysis that Stewart and I have done over the last several years, which I have presented in my brief, suggests that, thus far, the disinclination to do so relatively small proportion of the species, which in principal at least under the act could have had critical habitat identified and recovery strategies, but have not. Our analysis suggests that there are the socio-economic issues percolating into that decision and I would suggest that that is probably not in the keeping with the spirit of the Act that critical habitat identification, at the very least should be based on biological criteria.

[*Français*]

**M. Bernard Bigras:** D'accord.

Vous nous dites que les aspects scientifiques sont bien pris en considération, mais surtout dans la première étape, c'est-à-dire l'évaluation de la situation. Plus on avance dans le processus, moins l'avis scientifique est pris en considération.



En vertu des sections 41 et 49 de la loi, c'est-à-dire le programme de rétablissement et le plan d'action, croyez-vous qu'il devrait y avoir ce qu'on appelle une espèce de supervision scientifique plus indépendante, non seulement dans l'évaluation, mais aussi à l'occasion des plans de rétablissement? C'est-à-dire que l'avis et la supervision scientifiques ne doivent pas seulement être dans l'évaluation, mais aussi lorsqu'on établit les plans de rétablissement.

Le danger, en bout de ligne, est que, lors de la mise en oeuvre et de la planification du rétablissement, seulement des aspects économiques seront pris en considération. Croyez-vous que cela prend des modifications législatives aux sections 41 et 49 de loi, pour s'assurer d'avoir cette supervision scientifique indépendante?

[English]

**Dr. Arne Mooers:** So I can't speak to those two paragraphs specifically, but I think at the minimum there has to be a separation so I'm not sure what the direct translation of supervision is. I don't think any scientist wants to make a call about what society will do and how much they should pay to do it but there has to be a clear separation and no body pretends that they are doing something that they are not, so maybe I don't quite understand the question but I think that is at a minimum so if that is what you mean by supervision, then I would agree, but if you mean more than that then I think we would have to have a longer discussion. Maybe someone else might want to make a comment.

**Dr. Lance Barrett-Lennard:** Well I think I would take the question at a little bit more face value and I think certainly, particularly as far as section 41 - dealing with recovery strategies is concerned, that it would be very helpful to have somebody with experience on the ground working on recovery strategies to have explicit language in there about scientific input. In fact, that scientific input perhaps this is what you mean by supervision being the primary focus. That section is confusing because it says the minister must prepare this recovery strategy and cooperation with a number of groups including stakeholders, aboriginal groups and so on. It doesn't specifically mention scientific expertise, in actual fact, generally speaking I certainly the that I am familiar with, scientific expertise of scientific experts have been part of the process, have been consulted, but there is considerable confusion really about, particularly about what should be done with stakeholder input at that level. If a stakeholder comes to a recovery strategy deliberation and says the actions, the set of methodologies to protect this, this species are going to hurt their livelihood, we as recovery team members don't have clear instruction about whether or not we should include that in the strategy and I think this group here is saying that it is appropriate to address those sorts of things in the plan but not in the strategy.

🕒 (1620)

[Français]

**M. Bernard Bigras:** Monsieur Pearson, dans votre mémoire, vous suggérez une augmentation des accords de conservation comme moyen pour faire participer les propriétaires fonciers. Sauf que la réalité est qu'il n'y a pas d'accord de conservation qui, jusqu'à maintenant, a été signé. Alors, comment, au fond, peut-on en venir à cet accord de conservation? Quels obstacles ont

mené au fait qu'il n'y a pas d'accord de conservation? Comment pourrions-nous avoir un processus, un partenariat ou un contrat?

Je suppose que cela fait aussi partie de ce que vous proposez, entre autres, quand vous nous parlez des plans de rétablissement. Vous souhaiteriez que cela soit fondé sur la science, je pense. Toutefois, quand vient le temps d'établir un plan d'action, vous pensez à ce qu'un contrat soit établi. Comment pourrions-nous multiplier ces ententes de conservation?

[*English*]

**Dr. Michael Pearson:** Well, much of that question, or the answer to it, is beyond my expertise. It'd be a better question for a lawyer than myself.

As to how it would, I can only point to the need, and, in my experience, apparent openness of landowners to this kind of thing. I don't know what specific barriers there are within the bureaucracy or the legislation to doing it, I just know that it's not being done, and it needs to be done.

**The Chair:** *Merci beaucoup, votre temps est écoulé.*

Ms. Duncan, you're up.

**Ms. Linda Duncan (Edmonton—Strathcona, NDP):** Thank you.

I also wanted to thank all four of you for your incredible briefs. I think that they're the best that I've seen. Because you ground them in your experience on the ground, as scientists, it's really very helpful, and then tied into the court cases.

I have to say that the quote provided—is it in Dr. Pearson's brief?—about Justice Campbell saying this is “a story about the creation and application of policy by the Minister in clear contravention of the law, and a reluctance to be held accountable for failure to follow the law” is a pretty stunning statement on the government.

I mean this is what's so interesting about your testimony: you've been involved in separate instances of preservation of species, and yet you come here and you're presenting across the board very similar recommendations.

My first question to you would be: what further actions do you think are needed to prevent the need for communities or scientists or organizations to be having to resort to the courts? Do you feel that you've seen progress, at least in your species protection, that there is a shift in what's going on?

I would tie that back to your testimony about the fisheries department. We did hear from the Fisheries Council of Canada, who were trying to convince us that, in the matter of protection of fish species, under SARA, that it really can just be handled under the Fisheries Act and there's no need to be handled under SARA, and yet your testimony seems to say completely the opposite.

I'm wondering if you would like to respond to both of those, together or apart.

**Dr. Michael Pearson:** Sure.

With respect to the Fisheries Act, it's very good at what it does, or is a very useful tool for what it was intended for, which are very clear instances where you can point to the pipe spewing something or point to the person who's done something, and say, "This has destroyed habitat".

But in this day and age, certainly the fish that I work on, and I would weight most other species, a lot of the problems are non-point source pollution and they are cumulative or "Death by a thousand cuts". There's no one you can point at, so the Fisheries Act is just not up to the job.

SARA—my understanding of it—certainly can be used in that way, and should be.

🕒 (1625)

**Ms. Linda Duncan:** Okay.

Dr. Mooers or Dr. Finlay? No?

**Dr. Lance Barrett-Lennard:** I'll respond to part of the question, the one you asked about whether there had been any improvement that we could see.

I would say, one, we've now been discussing for some time the considerable apparent reluctance to identify critical habitat and recovery strategies, and whether this is growing pains or whether it's a more consistent policy is one that I could speculate on, but it would only be speculation.

As far as improvement's concerned, I would say that after the Nooksack case judgment, we were seeing the Department of Fisheries, at least, begin to pull up its socks as far as recognizing that describing critical habitat is not optional, it's in the act. The reason that's been used in many cases, insufficient evidence, is not supported by the scientists and not supported, in many cases, by the recovery teams. So we are seeing more progress made in this area and new draft recovery strategies coming out with critical habitat in them.

**Dr. C. Scott Findlay:** Perhaps I could make three quick comments.

The first one with respect to the DFO effect on listing. It's very clear that at least hither to--and this analysis has yet to be updated--but at least up until the fairly recent past there were different processes being followed by DFO and Environment Canada. So DFO on the one hand and Environment Canada and the Parks Canada agency on the other side to support listing decisions. As a scientist I'm not about to pass judgment necessarily on which of those is better. What I can say is that they ought to be the same. That's point no. 1.

The second point relates to the Fisheries Act. If the Fisheries Act did everything that SARA does for marine mammals and marine fish and aquatic fish then you could argue that we don't

need a SARA for anything that lives in the water or the oceans. Clearly SARA and the Fisheries Act have two different purposes. Insofar as the instrument has been designed to try and achieve the stated purpose I would argue that you need both of those. I think the argument we can do everything under the Fisheries Act says that in essence the Fisheries Act is like SARA for marine or aquatic species when it is clearly not.

The third point, and this relates to critical habitat, is that the reason that critical habitat hither to has not been defined very well or has not been identified at the recovery stage is probably because that has been interpreted with maximum ministerial discretion. This problem plagued the early days of the Endangered Species Act in the United States. They had exactly the same problem because the issue was critical habitat designation to the extent possible. That was interpreted as allowing what amounted to tremendous ministerial discretion under the U.S. Endangered Species Act. So what we've seen very recently is because of the court decisions now that particular section of the act is being interpreted differently and my colleagues have summarized it appropriately by saying there does seem to be a movement now in what we would consider to be the correct direction insofar as there's more emphasis being placed on critical habitat identification at the recovery stage. Whether there is still some way to go is of course a different issue.

**Ms. Linda Duncan:** I notice two themes, one you talked a lot about the need to infuse science. I wondered if one of you could just summarize that. By my understanding it sounds like you're recommending that there be a COSEWIC-type committee of scientists also for recovery strategy and critical habitat area. One of you also recommended that it's actually missing from the statute and that they're consulting with everyone except scientists which I thought was a really good thing to point out.

We've heard a lot from people saying we should have socio-economic in that second stage of recovery and then others saying it shouldn't be there. So I'd like to hear your opinion on that.

🕒 (1630)

**Dr. Arne Mooers:** I could speak to the first part of that question. That is in fact our recommendation that a body that might look something like COSEWIC or might look like something else. There is something called the Challenge Advisory Panel that deals with toxins that works in an advisory capacity but is public. Dr. Findlay actually sits on it. He could speak to that as a possible model.

Part of the motivation for this recommendation that there be some sort of oversight panel is the feeling that because recovery teams are not in SARA and they have no legal basis they may disappear. So up to now independent scientists have been invited and that's great but they don't have to be invited. Then what happens?

If you want to learn more about a possible model perhaps Professor Findlay could tell us.

**The Chair:** Thank you. Time has expired.

We will move to our last questioner on the 10-minute round. Mr. Warawa.

**Mr. Mark Warawa (Langley, CPC):** Thank you, Chair.

Thank you, witnesses for being here. It's very nice to see three of our scientists are from British Columbia and one from my own riding of beautiful Langley. Thank you so much for being here and making those efforts.

I have more questions than I have time for. So I'm going to ask that your questions be somewhat short. I wanted to focus on consultation. Is there enough time particularly for aboriginal traditional knowledge? It seems like that's been excluded from your recommendations. You've touched on social economic factors being considered particularly when identifying critical habitat. It sounds to me like you're not in support of that.

I'd like to start with Mr. Pearson. You did work on the sucker and now on . On page 4 of your report, you shared that you've done work on 15 watersheds in the Fraser Valley. That you've spoken to scores of landowners about habitat and species at risk over the years, mostly farmers who perceive that they may have to give up land or some agricultural practices on land adjacent to waterways. They're hostile to the notion because they fear that the cost of such protection will be borne entirely by themselves.

Then you shared a recommendation or something to think about where property tax relief in the form of a grant could be given in return for the land that was dedicated. To this point, we've been looking at a critical habitat that has been primarily not in an urban or suburban areas. That it's been boreal forest federal lands. We haven't really gotten into compensation but you brought that up. So I'm going to ask you to elaborate a little on that.

If a farm has a stream going through it or there's a ditch going around or even local government wanting to maintain their ditching systems. These are all issues that the local government has to deal with in dealing with DFO in British Columbia both provincially and federally. So where would these grants come from to compensate? There's also, how big should the setbacks be? It depends on the topography, the historical water courses.

Again I've got too many questions for a short period of time. But if you could maybe focus on where's the grants going to be coming from and how do you see this worked out. Have you talked to local government too because it sounds like this will be downloaded onto the local government?

**Dr. Michael Pearson:** I'm not sure about the downloading. In my mind the grants would need to be federal grants because it's federal legislation and a federal imperative that's being dropped on them.

I work quite a bit with municipalities on things like drainage and those kinds of issues. Really there's not much of a conflict with the drainage issues that we found. The same things that create problems for fish habitat, create problems for drainage as well. Culverts that block migration and raise water levels behind them at the same time. Grass that plugs drainage ditches that impedes

drainage is exactly the same mechanism that when that grass dies and rots, it robs the oxygen in the water and creates a critical habitat. So there's a lot of room for common ground that we found. I've done a lot of work in Langley, the District of Kent, Chilliwack, all areas that I'm sure you know on those issues.

With respect to the ATK, the aboriginal traditional knowledge, I certainly would not want to be interpreted as wanting to discount that or not use it. I think to the best available knowledge would certainly include that.

🕒 (1635)

**Mr. Mark Warawa:** Okay so setbacks for streams going through farms. That would limit what the farmer, what the landowner could do with that. They can't farm up as close. If it's identified as a critical habitat, what you're suggesting, that would include private lands and there should be compensation for it.

Am I interpreting that correct?

**Dr. Michael Pearson:** That's correct.

**Mr. Mark Warawa:** Okay.

And so the setbacks...because it's federal legislation, there still is only one taxpayer from whom the dollars are actually being taken and providing it. So you're suggesting compensation would be at fair market value. Is that correct?

**Dr. Michael Pearson:** The way that it's done in the example I used is that they lease the land. They assess the land for its agricultural value, because of course all farm land is not equal. There is some excellent farm land and some very marginal. So they classify the land, assess its fair market value, and the lease pays the full fair market value over a period of 15 years. And they've had very good uptake with that from the farmers in Whatcom County.

**Mr. Mark Warawa:** And local farmers you've consulted with, are they receptive to this idea?

**Dr. Michael Pearson:** Sure. As soon as you say, "What if you were paid a grant just to let it go?", then there are lots of questions on the details, but it's curiosity negotiation as opposed to hostility.

**Mr. Mark Warawa:** Okay.

Is there any time left?

**The Chair:** Yes, you've got a minute.

**Mr. Mark Warawa:** Consultation with first nations...it appears to be the common thread through your testimony. Am I misinterpreting that? It seemed you wanted to have the nine months, nine months; that we need to meet the timelines; and consultation should be done in that.

We've heard from first nations that they do want to be consulted in an adequate fashion. They don't want to be repeatedly asked the same questions by the same people. They want it to be genuine consultation.

So could you comment on that?

**Dr. Lance Barrett-Lennard:** I wonder if you could just clarify. Are you speaking at the recovery planning stage, at the listing stage, or the action planning stage, or all of them?

**Mr. Mark Warawa:** After a species has been identified as part of the COSEWIC recommendations, it goes to government and then as part of that process before critical habitat is identified there has to be proper consultation with first nations. They want to be consulted throughout the whole process and participate in the whole process. Yes, you need to have a scientific biological critique, and criteria has to be based on science, but first nations traditional knowledge has to be part of that, too.

**Dr. Lance Barrett-Lennard:** Yes, I certainly agree. I didn't detect a common thread among this group suggesting that we thought anything other than that. And certainly when I refer to species experts and the scientific information that we use to inform recovery strategies, or for that matter COSEWIC listings, that would include traditional aboriginal knowledge. It would also include community knowledge.

I run a program at the Vancouver Aquarium that's sort of a citizens' science program where we acquire information from the public about the sightings of whales, dolphins, and porpoises throughout the province. And we amass this into a huge database and perform scientific analyses of it. We wouldn't have a prayer of doing that without community involvement, including a large component of aboriginal involvement.

So I'm sorry if we've given that impression, and I don't think it's a concern.

**The Chair:** Time has expired.

That ends our seven-minute round.

Before we kick off the five-minute round, for committee members I want to try to save some time at the end of the meeting just so we can go in camera to talk about some conflicts that some members have with next Thursday's meeting--not this Thursday, but next Thursday--just so we can talk about the schedule a bit.

With that, I'll kick off our five-minute round.

Mr. Scarpaleggia.

🕒 (1640)

**Mr. Francis Scarpaleggia (Lac-Saint-Louis, Lib.):** Thank you, Chair.

I was just hoping to clarify a couple of statements that I didn't quite grasp. I think it was you, Dr. Mooers, who said we shouldn't protect wildlife if data suggests otherwise. Did I understand that correctly?

**Dr. Arne Mooers:** We shouldn't protect wildlife that data suggests otherwise? No, I didn't say that.

I did say something that has some of the same words. It is unhelpful to suggest to Canadians that a certain wildlife species will be protected--

**Mr. Francis Scarpaleggia:** Oh, will be protected-- Okay.

**Dr. Arne Mooers:** --and recovered if the data suggests that what's being proposed would not do that.

**Mr. Francis Scarpaleggia:** Oh, I understand. Okay, thank you.

And then someone said that we need to give recovery plans statutory status under SARA. Could you just elaborate on that a bit?

**Dr. Michael Pearson:** At present, recovery teams don't exist in SARA, the legislation. It just says, "repair recovery strategy".

**Mr. Francis Scarpaleggia:** Oh, so it's policy things.

**Dr. Michael Pearson:** Right. It's the way it's done now.

But I believe Dr. Mooers said that there is nothing in the legislation that means recovery teams with independent members has to be the way to go. We think it should be, so the point is that getting it enshrined in the act would ensure that happens.

**Mr. Francis Scarpaleggia:** It's a process as opposed to an actual plan. Is it the process you mean?

**Dr. Michael Pearson:** It's the existence of recovery teams with independent scientists on them.

**Mr. Francis Scarpaleggia:** Someone was talking about wetlands and the importance of wetlands for protecting species. Have you heard of the Canadian Wetland Inventory initiative? Are you familiar with this? It was a process that was begun with Ducks Unlimited and the Canadian Space Agency, Environment Canada and some other groups, and the idea was to map wetlands using satellite technology. The second stage of the initiative never got off the ground.



Is that something useful from the perspective of making SARA effective? Do you already have the information you need?

**Dr. Michael Pearson:** I'm sure it would be very useful for some recovery teams and some species. I don't know if any of us talked specifically about wetlands. I spoke about stream-side and riparian buffer strips, which are a bit different, but certainly any inventory on habitat, particularly broad-based things like that, would be very useful to some groups.

**Mr. Francis Scarpaleggia:** Then you weren't referring to wetlands. I thought you might have been in an indirect way, but you weren't.

**Dr. Michael Pearson:** No.

**Mr. Francis Scarpaleggia:** Okay, I understand.

I think it was Dr. Pearson who was saying it is really very hard to pinpoint the source of pollution when you're applying the Fisheries Act, and that really is a discouraging remark because how can we apply the Fisheries Act if, as you say, you can't point a finger at one particular farmer or at one particular industrial source? Is this an intractable problem?

For example, we've been studying the oil sands and the impact the oil sands may be having on fish habitat and it sounds like what you're saying is "Give up because we're talking about cumulative impacts and you can't find a point source of pollution".

**Dr. Michael Pearson:** The Fisheries Act is very useful in some circumstances, and those circumstances even might include some farms where you have, say, a pipe coming from a dairy with milk waste going into the stream. You can say that pipe, that farmer, that's a problem, but many of the pollution issues that fresh water fish face are non-point. It's too much fertilizer applied over large areas of farm land, large numbers of farms. It's erosion from multiple places and so, yes, the Fisheries Act is near useless for those kinds of problems.

🕒 (1645)

**Mr. Francis Scarpaleggia:** Those are big problems. Some are the most amazing problems we face.

**Dr. Michael Pearson:** They are big problems, so the way to address those is through legislation and policy that rather than trying to find an individual source takes a broader view on how we can limit the amount of nutrients being applied across the Fraser Valley. How can we encourage farmers to--

**Mr. Francis Scarpaleggia:** Then we're getting into provincial jurisdiction.

**The Chair:** Time has expired. Thank you.

Mr. Woodworth, it's your turn.

**Mr. Stephen Woodworth (Kitchener Centre, CPC):** Thank you very much, Mr. Chair and thank you to the witnesses who have come to speak with us today. You've certainly provoked me into some thought on some of the fundamental issues before us. I regret I have only five minutes, so there isn't much time to have a conversation of any subtlety.

But I will, if I may, address some remarks to Dr. Mooers, because I was intrigued by the very clear comments that you made, Dr. Mooers, about the necessity to distinguish science from policy. In fact, I agree with you in theory that we shouldn't use confusing language and tell people we're doing one thing when we're not or when we're doing another thing.

That separation between science and--instead of policy, I'm going to say democratic decision-making--that separation between science and democratic decision-making is sound in theory, but you may have heard the old saw about the fact that in theory there's no difference between theory and practice, but in practice there is.

I'm coming at this from the point of view that pure science, if we could ever achieve it, has nothing to do with democracy. It's observational, it is descriptive and predictive, but it is not prescriptive. That is to say, science doesn't tell people what to do.

The difficulty that I'm having is in matching that to what needs to happen with species at risk. I'll give you two examples, the first is regarding the listing process. In theory, it is quite true to say that listing should be observational only in the sense that we're going to say that a species is threatened or endangered, that has a strictly observational quality. But in practice under the act listing carries with it prescriptive demands which are inevitably going to involve democratic decision-making or what you might refer to as policy.

Dr. Mooers, can you maybe give me your take on that dilemma, because I'm having trouble understanding how we can tell people you can't do this or you can't do that without democratic decision-making being involved at that stage?

**Dr. Arne Mooers:** I'd like to answer quickly and then also let Professor Findlay have a word in.

**Mr. Stephen Woodworth:** Well, with your permission, I'd like to stick with you for the moment, because I have another question for you also. If there's time, we'll go back to Professor Findlay.

**Dr. Arne Mooers:** Sure.

I don't think SCOSAR has suggested that listing be scientific, so I'm not quite sure where you're coming from. The assessment is made by COSEWIC. That is the predictive observational side of it. That's the white box at the top it then goes in.

What we're suggesting is that what's called the regulatory impact assessment statement which the Treasury Board makes the government do every time it makes a regulation like a listing, should be open to peer review and should be transparent. Then, after that peer review, the

government can respond to that peer reviewed document. So the actual listing is still done within the democratic process.

**Mr. Stephen Woodworth:** I guess I would be somewhat confused by the reference to peer review, because I usually think of that as a scientific process, not a policy process as such. Although I agree with you that policy determination should be transparent and there may be more that could be done in that respect.

The point at which this comes into play is at the recovery stage, because I am having difficulty with the concept that even a strategy can be done simply on a scientific level without democratic decision-making being involved, which takes account of what people need to do from a democratic point of view.

So can you help me out with what you envision on the recovery process.

🕒 (1650)

**Dr. Arne Mooers:** I think our brief suggests that recovery strategies have scientific oversight so that the scientific components of that strategy meet the criteria of science. So that would be peer view.

And the recovery team would sign off on that recovery strategy and then the government would have a response section at the bottom where they respond and include those aspects of the democratic process that they think are important for making the decision.

**The Chair:** Thank you, Mr. Woodworth.

Sorry. Time goes by.

[*Français*]

Bienvenue, monsieur Paillé, vous avez cinq minutes.

**M. Pascal-Pierre Paillé (Louis-Hébert, BQ):** Merci beaucoup.

Je veux poser quelques petites questions, mais souvent, lorsqu'on discute, d'autres questions viennent, alors peut-être qu'on aura une plus longue discussion que prévu. J'aimerais peut-être regarder plus, parce que c'est très technique comme dossier, je ne fais pas partie du comité ici. Je voudrais plus regarder par rapport à l'international. Comment le Canada et les normes actuelles au Canada se situent-ils si on se base par rapport au G20, par exemple? Est-ce qu'on a une belle image? Est-ce que nos lois sont dans la moyenne, sont supérieures à la moyenne? Est-ce qu'on est avant-gardiste par rapport à l'international? Est-ce qu'il y a un pays qui serait vraiment l'exemple à suivre en termes de protection? Ce sont des questions sur lesquelles vous pouvez nous éclairer un peu.

[*English*]

**Dr. Arne Mooers:** I can't answer the entire question.

Canada was the first major industrialized country to ratify the convention of biological diversity in 1992. SARA flows directly from that. They're island states, Marshall and Monaco, very small countries, and then we ratified in 1992. So we did take a lead at that time for whatever reason. Ours is a very new law. We think there are on the order of 36 such federal statutes around the world now. We have not done a full evaluation of which ones work better, or are better, or what the differences are. The listing process that we have, where we have an independent scientific committee that assesses and then a government which decides whether to list is better than some other jurisdictions because of that clarity or that separation. After that, I don't know where we stand. I don't know if anyone else here has a comment.

[*Français*]

**M. Pascal-Pierre Paillé:** Cela répond quand même déjà bien à la question. Par rapport aux États-Unis, on sait que certaines espèces sont protégées au Canada mais ne le sont pas aux États-Unis, y a-t-il un travail qui se fait vraiment, des rencontres régulières ou des harmonisations de lois qui sont faites ou de travail par rapport aux États-Unis?

[*English*]

**Dr. Lance Barrett-Lennard:** Yes.

I think it's fair to say on almost all, if not all, Canadian recovery teams, and that's another advantage of having teams, I like the opportunity to hark back on that point, there are U.S. representatives. There's nothing to stop, in fact it's encouraged really, in an operational sense, to invite U.S., they could be government members, they could be species experts from the U.S., to join Canadian recovery teams to help develop recovery strategies. The same sort of cooperation exists the other way. For example, I serve on a U.S. recovery team, an Alaskan sea otter recovery team at this point. Yes, there are some attempts at least being made to harmonize these initiatives between the two countries.

[*Français*]

**M. Pascal-Pierre Paillé:** J'ai une dernière question, vous verrez comment vous pourrez m'y répondre. Dans l'ensemble de votre travail, si vous aviez un changement majeur qui, selon vous, pourrait apporter vraiment une grosse modification — je peux comprendre que la question est peut-être large, plusieurs choses pourraient être changées ou améliorées—, mais si vous aviez à prioriser une chose dans votre domaine, dans votre travail actuellement, quelle serait cette priorité?

🕒 (1655)

[*English*]

**Dr. Arne Mooers:** How many paragraphs do you get to change? It's a work in progress.

I'm going to pass.

**Dr. C. Scott Findlay:** I think there are two things with the view of the scientific community. The first thing is that when you put together this type of an experiment you need to be clear about where particular elements fit in. In my view, and I think this is shared by a number of my colleagues, a bunch of things are being conflated, or brought together, in SARA. So it is difficult to know exactly what is going on. So I think first and foremost we need more clarity about particular steps in the process.

The second thing that is potentially even as important, and maybe even more important, has to do with the question of values. I wanted to return to this because this is hugely important. SARA's purpose is to protect species at risk. We as a society have identified in that purpose that we value species at risk. That's not a scientific decision. That's a social and societal decision. What science and we around this table can do is say if you as a society have decided that you value species at risk we can give it our best shot to tell you what we think you need to do in order to protect them and recover them. That's our job. If in the final analysis you decide that there are other values that are more important than species at risk then that's a social and societal decision. All we would ask a scientist is that it be clear what the decision actually is. So where we get very irritated is when we find that there are issues which have to do with science and the way science is portrayed which tend to get folded into value issues. We would like those two things to be made abundantly clear. That also speaks to the transparency issue.

**The Chair:** Thank you very much.

Merci beaucoup.

Mr. Armstrong, you're on.

**Mr. Scott Armstrong (Cumberland—Colchester—Musquodoboit Valley, CPC):** Dr. Findlay, further to that you stated in your opening remarks that the identification of critical habitat should primarily be biological in nature. This is an extension of what you just talked about. You said there were socio-economic decisions creeping in. Could you elaborate on that briefly?

**Dr. C. Scott Findlay:** On failure to identify critical habitat, especially under the two court decisions that have been rendered in both these cases, the finding was that it was not in keeping with the spirit of SARA and that those kinds of considerations were creeping into the ministerial decision and ultimately the ministerial decision not to identify critical habitat at the recovery stage.

It's certainly my position that the identification of critical habitat is a scientific issue. The scientific community has asked, given that we want to recover this species what do we need in terms of critical habitat? That determination is done to the extent that we can do it with the best available knowledge. Then the decision about whether or not you proceed in an action plan to do that gets back to the issue of social values.

I think it's pretty clear that the spirit of SARA is that the identification of critical habitat is a job for science.

**Mr. Scott Armstrong:** At some point socio-economic concerns have to be considered. You've stated that here in your recent statements.

**Dr. C. Scott Findlay:** Absolutely.

**Mr. Scott Armstrong:** If it doesn't happen during the designation of critical habitat what stage in the process of SARA do you think socio-economic considerations should be looked at?

**Dr. C. Scott Findlay:** I think perhaps Professor Mooers can speak to that. But I would say that the fact that for any regulatory decision you have to prepare a regulatory impact statement then it's appropriate to have a socio-economic analysis as part of that statement.

**Mr. Scott Armstrong:** You don't want to put the cart before the horse is basically what you're saying, first establish the critical habitat and then at a later point we have to take a look at the bigger picture?

**Dr. C. Scott Findlay:** I guess I would get back to the point that I made before that the clear demarcation between the scientific question to hand which is the identification of critical habitat and then the less scientific, or non-scientific, value-based decision as to are we going to proceed to protect it.

🕒 (1700)

**Mr. Scott Armstrong:** Thank you.

Dr. Pearson, returning to compensation again. From your experience in this area how many cases--and I'm just trying to get my head around how much this would be--would you encounter where you would suggest compensation be required? As an example, to protect the Nooksack dace? How many of these issues of compensation would you have encountered?

**Dr. Michael Pearson:** How many property? I don't have an exact count of properties.

**Mr. Scott Armstrong:** Just a guess.

**Dr. Michael Pearson:** One hundred is probably generous.

**Mr. Scott Armstrong:** So it would be over 50 for sure, and that's to protect only one species. So to protect all the species at risk we could be, in private areas, looking at an immense amount of properties or cases.

**Dr. Michael Pearson:** Well it's not just one species. If you include all the Nooksack dace, I don't know the percentage, but you would capture one-third to one-half of what was require for salish sucker. Then there's a whole list of other species that SARA listed that use the same

habitats. So there's tremendous overlap, especially in riparian areas: Pacific water shrew, red-legged frogs, they're all in the same places.

**Mr. Scott Armstrong:** Terrific, that clears a lot of that up.

The last question I have is again to Dr. Pearson.

You stated that you can stand on the bridge and look across the river, across the border, and see what the United States has done for compensation. What process do they use to establish compensation? Is it similar where it's the value of the property or the agricultural value of the property? Do you have any knowledge on how they do this?

**Dr. Michael Pearson:** My understanding is that, yes, it's based on exactly that, on the agricultural value of the properties. We have a system, at least in British Columbia, in class 1 farm land and so on, so it would be based on that.

There was a first part to your question too.

**Mr. Scott Armstrong:** Just that you looked across at the United States and you established that.

How do they dole out the grants? Is it done by the federal government of the United States, or states?

**Dr. Michael Pearson:** It's the State of Washington.

**Mr. Scott Armstrong:** So it's done on a state-wide basis.

**Dr. Michael Pearson:** I'm not sure if it's a state-wide basis, but it's--

**Mr. Scott Armstrong:** A state-by-state basis.

**Dr. Michael Pearson:** Yes, a state-by-state basis.

What's been driving it there is their Endangered Species Act. They have listed salmon stocks there. They were sued by a native band at the estuary because there was too many nutrients coming down and fouling the shellfish beds.

**The Chair:** From your knowledge—because I have no knowledge of the process in the United States—has that been an effective way to do that, to have the states administer this?

**Dr. Michael Pearson:** I can only speak to what I've seen in Whatcom County, and there it's been highly effective. They have a very high percentage of dairy farms, which is the primary land use there, that are signed on.

**The Chair:** Your time has expired.

Dr. Pearson, to follow-up on Mr. Armstrong's question, do you think that was part of maybe the federal CRP program? They have the Conservation Range Program that they run down in the U.S. that's done through--

**Dr. Michael Pearson:** The CRAP program?

**The Chair:** It's CRP.

**Dr. Michael Pearson:** Yes it is mentioned.

**The Chair:** So it is a federal program that pays landowners to actually take land out of production.

**Dr. Michael Pearson:** It could be.

**The Chair:** Mr. Trudeau, you have the floor.

**Mr. Justin Trudeau (Papineau, Lib.):** Thank you very much.

Like my colleagues, I want to congratulate you all for the quality of the briefs you brought in. I think you've really managed to highlight some of the challenges we have that have made our hearings on SARA so complex, and you've managed to make it, for me anyway, much simpler and much clearer.

One of the big reasons that SARA hasn't been as effective over the past while as we would like it to be is because the science and the socio-economic democratic policy decisions are interfering with each other a little bit. All four of you made varying degrees of calls to separate the science from the decision-making and highlight as well the need for clarity, transparency, and consistency, which are all hallmarks of successful science, but should also stand as hallmarks of successful policy and decision-making.

I particularly liked, Dr. Findlay, your framing of the entire thing as: yes, we're using science in SARA, but we're using it because there is a political decision to value species at risk and to say that this is something we need to do. Therefore, I'd like very much to try and combine a little of the essence of some of the different recommendations.

I think it was Dr. Barrett-Lennard who brought this forward, and Dr. Pearson certainly supported the idea that we look at the scientific aspects of it only on the recovery plan aspect and then as soon as we get into the action plan we then involve consultations. My concern, which I think was brought up by Mr. Mooers, was that it might be a little late in the process to bring in socio-economic concerns. I think one of the really important things we want to do around SARA is get it right.

I'd like to hear from Dr. Mooers and Dr. Findlay as to where we should be drawing the line between science and politics, or where we should interlace in a clear manner throughout the process.



I'll leave it up to you to respond in the remaining time.

🕒 (1705)

**Dr. Arne Mooers:** Our deliberations were done in a background where we knew that regulatory impact assessment statements were going to be made any time a regulation, like a listing or a regulation under critical habitat identification off a federal land etc., was going to be made and so we didn't feel that we should make any strong statements about how those should be done except that they should be clear. The science in them should be clear, and they should be peer reviewed, etc., so people could see how those decisions were made. We remained agnostic as to what the ideal might be.

When the law was being drafted, some of us who were also involved in reading those drafts and commenting on them in the early 1990s thought that the action plan was the time when those hard decisions would be made, that the recovery strategy would be, in a sense, blind to how actually it was going to be done on the ground, but when we realized, even at the listing stage, that RIASEs was going to be performed and the socio-economics were simply there, we realized that at the very least, could we please have that be as transparent and clear and consistent as possible.

**Dr. C. Scott Findlay:** Thank you for the question.

This is a very problematic issue and there is no easy answer. The problem with leaving all that to the action plan stage is it is fairly late in the process and there is a lot of investment that has gone in, a lot of resources that have been allocated and so on and so forth. Given that there is a RIAS that is required for any kind of regulatory decision, all along, right from, as Dr. Mooers pointed out, the listing stage, it would seem reasonable to have what we're notionally calling a socio-economic analysis as part of that through the entire process. A little redundancy never hurt anybody, but I would echo Dr. Mooers that we need to make sure those analyses are done appropriately and comprehensively because one of the problems we've had collectively is that we've looked at these analyses that have been done early on in the process and kind of thought we were not sure those analyses were done as comprehensively as they perhaps ought to have been. That is the basis for the recommendation that if you decide not to list because of other values, then that should be very carefully scrutinized indeed.

**The Chair:** Thank you.

Time has expired. It goes by fast when you're having fun.

Mr. Watson, you're up.

**Mr. Jeff Watson (Essex, CPC):** Thank you, Mr. Chair.

Thank you to our witnesses.

I would like to echo our colleagues. We have had some quality submissions today, a lot of food for thought for the committee as we consider a review of the Species at Risk Act and whether or not there should be potential changes.

Time is of the essence when it comes to protecting species at risk, obviously and there are a lot of implementation bumps along the way. We're trying to look at how we get faster action on the ground. Of course, that brings, what we've heard at the committee an awful lot, some of the conflicts that come into play.

Mr. Woodworth was heading in a pretty important direction. Science has a role to play. At the end of the day, the government, of course, has a balance of interests beyond that. There are obligations that the Crown has, treaty applications. If you are looking at compensation issues for a farmer, we could be looking at WTO obligations, for example, because presumably that would be a yearly compensation for a farmer. There are constitutional considerations in our relationships with other levels of government. How do we balance the socio-economics and those types of things with getting faster action on the ground? How do we make it more efficient?

One of the other things we are facing is the request from a number of stakeholders for more input, which it seems theoretically would add more time to the process.

Mr. Mooers, I'm going to ask you a question because you were talking about COREWIC where there would be scientific panel or input with respect to the draft recovery strategies and action plans. Is there a concern? Can you talk me through how that would lead to faster action on the ground if that is possible, or is there a concern that could add time to a process that already seems slow? Is there any concern there? Should we have some concern on that?

🕒 (1710)

**Dr. Arne Mooers:** Could I call on my colleague, Dr. Whitton, to answer that?

**Mr. Jeff Watson:** Yes, that would be fine.

**Dr. Arne Mooers:** Thanks.

She has some experience on COSEWIC .

**Dr. Jeannette Whitton (Associate Professor, Botany, University of British Columbia, Scientific Committee on Species at Risk (SCOSAR)):** I am a member of COSEWIC and I think COSEWIC works pretty efficiently. What we envisioned when we nicknamed "COREWIC" and when we came up with this concept is a fairly parallel organization, although of course it doesn't have to be exactly parallel. What an independent oversight body has the ability to do is to draw on the broad scientific expertise that exists within the country, not just from academic scientists, but from government scientists. As we said, the independent part is the independence that they have when they're at the table to make things happen; to develop policies and procedures to streamline the process; to help develop norms; to help support recovery teams

in getting their documents through; to help in reviewing them; to help provide independent advice on how to get those documents polished up and to put them out there for public scrutiny and for peer review. So that's sort of the process we envisioned.

**Mr. Jeff Watson:** So you're not concerned you're adding another step in process? Are you suggesting that this would simplify process and speed it up? I'm trying to get a sense, because everybody is asking how we do this quicker and I want to be sure, when I'm looking at your proposal, are we simply adding another step in the process that would add more time or are you arguing here that this would actually make it quicker?

**Dr. Jeannette Whitton:** Obviously we are suggesting that there be another body created and that's a little scary because it tends to suggest that things could slow down.

**Mr. Jeff Watson:** We had representatives of our first peoples here who are looking for addition input at every step of the way, which is, again, another process, more steps in the process. What I'm concern with is how do we get more efficient or how do we get to a place where...?

**Dr. Arne Mooers:** In my brief and in my notes, we did make the point that it's not efficiency, it's getting it right, that's the most important, and that a lot of these things are slowed down probably not because of people having to do more work, but because people are sitting on them for other reasons.

**Mr. Jeff Watson:** I appreciate that, and the goal is to get it right. I'm hearing that from the science community. We're not hearing that from other stakeholders, particularly. They're concerned about the time it's taking, that as time is sort of moving on or dragging on, they're concerned about the survival of species. So efficiency does become a consideration and whether or not we make any potential improvements to get the time moving.

I think my time is up.

Thank you.

I don't know if that was efficient time.

**The Chair:** Your time is up. Thank you, Mr. Watson.

Batting cleanup, Mr. Calkins.

**Mr. Blaine Calkins (Wetaskiwin, CPC):** Thank you, Mr. Chair.

I just wanted to get a point of clarification. I think there might be some confusion at the table between the definition of the “agricultural value of land” and the “commercial saleable value of land”.

I want to be very clear, I want the record to be very clear, are you talking about the “agricultural value of land” or the “commercial saleable value of land”? Because those, I would suggest to you, are widely different numbers.

🕒 (1715)

**Dr. Michael Pearson:** My understand is that it's the agricultural value.

**Mr. Blaine Calkins:** Okay.

And I agree with your statement, Dr. Pearson, that farmers, for the most part, do want to do their part. They are sound stewards of the land. But it's not about a species issue or it's not about a wildlife issue, I think it's just a genuine distrust that most people in rural Canada have when somebody from the government comes knocking on the door.

That aside, I do want to ask a couple of questions.

I like certain parts of the act. Certain parts of it frustrate me, as I'm sure they do you.

Just to give you my background, I have a zoology degree. I've worked a number of years as a technician for various organizations. I'm not going to profess to be a professional biologist, by any stretch of the imagination, but, for me, the definition of “species” is a bit different than what I was used to, from a biological sense, as far as the legal sense in the act. I have some of those kinds of concerns.

In 1991, I was commissioned by the City of Edmonton Parks and Recreation to do a biophysical inventory of the Whitemud and Blackmud Ravine in the City of Edmonton. In that work, I hired Dr. George Scotter, who was a botanist, to identify plants—because I'm a zoologist, I can't identify plants all that well—and he identified 88 species of plants that existed in the City of Edmonton river valley outside the known geographical range of those particular species of plants.

Section 4 of SARA says, “The Act also applies to sedentary living organisms on or under the continental shelf of Canada outside the exclusive economic zone”. When it defines a “fish”, it talks about “fish, as defined in section 2 of the Fisheries Act”, which is strictly within the exclusive economic zone, and the laws that govern the boundaries of Canada's waters. So we're protecting fish within a zone, we're protecting sedentary species in a broader zone. In the little bit of experience I've had, we've identified “species” in the City of Edmonton outside their own geographic range. I would suggest to you that we don't even know what we have in Canada.

So I'm asking you—it's a general question—how often is it that new species is defined? How often is it that a new species is found? How often is it that a new species is found extending its range into Canada? How often are these things happened, because I think these are critical things to know when deciding legislation, that specifically mandates? Whether it's extirpation, whether it's the geographic range and the definition of species that exist in Canada, how often are we

finding new species? How much do we know about the current biophysical inventory of species in Canada?

**Dr. Jeannette Whitton:** Well, there are new species being found in Canada. At exactly what rate, I don't know. It varies a lot by taxonomic group. I don't think we're going to find a whole lot of new mammals, but we find new lichens, new plants, new insects. So it varies by group, it varies by region, and it varies according to the density of taxonomic expertise in particular groups of organisms, as well.

**Mr. Blaine Calkins:** We used to taxonomically or phylogenically classify based on phylogeny. Now we're into an area of genomics, and I think this is adding a whole new dimension to the definition of what a "species" actually is. The old definition that I grew up with or that I went to school with was a "species" was, basically, "two organisms that could produce fertile offsprings".

Is that still the scientific definition of a "species", because that's not what the definition is in the act?

**Dr. Jeannette Whitton:** No, that's right.

There are a variety, something like 30-some species concepts that are out there to address a variety of different priorities, but the biological species concept that you referred to, the ability interbreed, is still one that's quite important in the scientific community. But the act refers to "wildlife species" and it has a very specific definition of "species", which is as defined in the act. It can include what we would call "biological species", but it can also refer to specific sets of differentiated populations or units within a species, subspecies or groups of populations that are in a particular region.

And these are decisions that are made...well, I don't want to say they're made at the COSEWIC table, but they're decisions that are discussed intensely in the assessment of species, and that's where those judgments are made on the basis of the best available scientific information.

🕒 (1720)

**The Chair:** You're time's up, Wayne.

Mr. Mooers, you can respond.

**Dr. Arne Mooers:** Could I just make the point that, under the Convention on Biological Diversity, that we signed in 1992, we do have to "protect species and populations in situ". That's the wording in that convention. That's just appealing to higher authority, but it's there.

**The Chair:** Thank you. That ends our second round.

I just have a couple of quick questions. I do want to adjourn so we save some time to talk about our agenda for next week.

Dr. Mooers, in your brief you talked about in your last flowchart separating out what's government action and what is independent science. You're suggesting here that the socio-economic analysis be done by science.

**Dr. Arne Mooers:** The socio-economic analysis is done by social scientists, yes.

**The Chair:** Social scientists, but you're not suggesting biological scientists.

**Dr. Arne Mooers:** God forbid, no.

**The Chair:** Okay. I just wanted to make sure. Good.

Dr. Pearson, I am a landowner myself, and am involved in agriculture, so I do appreciate your comments. I have always believed that we're a bit further ahead to use a carrot than a stick in getting participation by landowners in the whole conservation movement. As you said, farmers have always been proud to be stewards of the land. They take great pride in making sure that they protect the species that they get to enjoy every day on their farms.

I would suggest that the program they have running down in the States, the CRP, isn't quite the exact model we want to adapt here in Canada because I do believe there needs to be more of a joint management of those lands, where what they're doing the States essentially becomes hands-off. The day it becomes hands-off, from a biologist's standpoint...I hear from scientists in Minnesota and North Dakota, where there are a lot of CRPs, essentially those lands become biological deserts and actually become at risk because they're not utilized in any way, shape, or form. They're left to go just completely wild, without any utilization of the graft species.

In riparian zones that can become a problem in itself. Because there is no competition on those graft species, undesirable species start to exist, which could essentially cause more soil erosion, have more waste products. Nutrient values that are harvested and removed from the site get into the waterways and add nutrients, which cause us greater difficulty with species recovery. There needs to be a balance, and I think, as you said, some compensation needs to be identified. I know a number of farm organizations have been talking for quite some time about how we go about that. So any ideas that you have, that you see working on the Canadian side versus the United States side would be worthwhile.

**Dr. Michael Pearson:** What I've seen on the United States side isn't quite like that either, in that they have forged partnerships with Walkham County Conservation District, and with non-profit NGOs. In fact, those lands that are taken out of production are promptly reforested and planted. Some of them have been up to 10 years now, and they are far from biological deserts. They are thriving with native species and doing a good job protecting the habitat next to them.

I would certainly agree with you that it be a broad approach involving other people and groups that bring other things to the table, like NGOs, producers' associations, whatever. I'm sure it's not an exact model we want to follow, but I'm also fairly convinced that there are some things we can learn from it.

**The Chair:** I want to thank all of our witnesses today for bringing your scientific and practical experiences to the committee, and suggesting changes to the Species at Risk Act. We're going to of course take that into careful consideration as we start our deliberations on our study and finalize a report over the next few weeks.

With that, I'm going to ask for a motion to suspend, and ask that all witnesses and anyone in the room who's not tied to a member of Parliament to please vacate as quickly as possible so that we can just have a quick in camera discussion. We're suspending.

*[Proceedings continue in camera]*