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## Standing Committee on Fisheries and Oceans

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## EVIDENCE

Saturday, December 4, 2004

## Chair

Mr. Tom Wappel

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# Standing Committee on Fisheries and Oceans 

Saturday, December 4, 2004

- (0935)
[English]
The Chair (Mr. Tom Wappel (Scarborough Southwest, Lib.)): Good morning. Pursuant to Standing Order 108(2) we are continuing our study on the 2004 Fraser River sockeye salmon harvest.

This morning we have panel 12 . We've titled this the scientific panel.

We have today the following witnesses: Anthony P. Farrell, the chair of sustainable aquaculture and the environment at the University of British Columbia, as an individual; as an individual, Bob Gould; and from the Pacific Fisheries Resource Conservation Council, Blair Holtby, science adviser.

As per our usual practice, gentlemen, we'll give each of you up to ten minutes to make a presentation. You don't have to feel obliged to do so.

Just so members know, we've run into another problem again. One of the presenters wanted to use PowerPoint. That was not budgeted for and would have been too expensive to accommodate, given the budget that was passed by the House of Commons. Secondly, it's in English only so we can't distribute it until it's been translated.

In the meantime, we'll ask Professor Farrell to carry on and do the best he can.

We'll start with you, Professor, for 10 minutes.
Dr. Anthony Farrell (Chair of Sustainable Aquaculture and the Environment, University of British Columbia, As Individual): Thank you very much.

I'd like to state my expertise and what I will be limiting myself to.
I'm a professor at UBC. I've recently moved from Simon Fraser University. I consider myself a research scientist, and for about 30 years I've been working on fish cardiorespiratory systems. I have over 200 research publications in international journals. For 12 years I've been co-editing a book series on fish physiology. I'm an assistant editor with the Journal of Fish Biology. For the past five years, with Scott Hinch, who is the co-presenter of this presentation, we've been working on salmon migration in the Fraser River.

I apologize for the black and white version of the presentation. I hope to lead you through these handouts that the panel members have. I apologize for it not being in our other official language.

I want to speak specifically to temperature influences on salmon. This is where I do a lot of research. I want to talk first about the temperatures encountered by the early Stuart sockeye salmon and
other stocks. I'll talk about lethality and lethal temperatures. Then I'll talk about predisposing factors to lethality that could explain failed migration of salmon, and also make the comment that we don't see dead fish.

- (0940)

The Chair: Sorry, Professor, for a moment.

A point of order, Mr. Murphy.

Hon. Shawn Murphy (Charlottetown, Lib.): Mr. Chairman, thank you very much. I apologize for interrupting, but it should be clarified to the witness that he is referring to a deck we don't have.

The Chair: I'm sorry I didn't make that clear. Because it's not in both official languages, we are not able to distribute it to the committee members. So you're looking at this by yourself. None of the members of Parliament is looking at it. As you give your presentation-and I'll give you more than ten minutes if you think you need it for this purpose-you'll have to imagine that we're not looking at what you're looking at. I guess that's the only way I can explain it.

Dr. Anthony Farrell: You're giving me quite a challenge, aren't you? Thank you.

The Chair: I'm sure you're up to it.
Dr. Anthony Farrell: I will do my best. I apologize for your not being able to see what I'm seeing. I hope that goes on record too.

The temperatures at Hell's Gate for the 2004 migration were exceptionally high. The 60 -year maximum, which is a temperature that's taken as the maximum temperature of any given year, was reached or exceeded for the early Stuart, the early summer, and the summer runs. This is exceptional. It translates that, on average, the early Stuart, during their migration through this system-and this is just the Hell's Gate temperature-averaged 18.2 degrees Celsius; the early summer, 20 degrees Celsius; and the summer, 19.8 degrees Celsius. On the minimums and maximums, for the early Stuart the minimum was 16.4 degrees Celsius and the maximum was 20.2 degrees Celsius. These again are exceptional. These fish would have been exposed to those temperatures for 10 to 20 days, depending upon the run.

The Chair: I'm so sorry to interrupt you again. These mikes are exceptionally sensitive. I would appreciate it if you would back away from the mike, pull your notes closer to you, and then fire away.

Dr. Anthony Farrell: High temperatures were encountered in certain locations upstream for some of the stocks, so please remember 18 degrees Celsius, 16 degrees Celsius, and 20 degrees Celsius, for the remainder of the talk.

In probably the best available and most relevant published data, and the data that were used in all previous inquiries on Fraser River salmon as to what temperatures kill sockeye salmon, 15 degrees Celsius to 21 degrees Celsius was identified by Servizi and Jensen in 1977 as causing no mortality after 15 days, 22 degrees Celsius resulted in $50 \%$ mortality of the fish that were tested after 5 days, and 23 degrees produced $50 \%$ mortality after 2.4 days.

The conclusion of this study was that high temperature decreases the time required for lethality, so the higher the temperature the less time it took to kill the fish. There was no mortality at 21 degrees Celsius, and that certainly appears in the Cummins report.

The problem with these data is that the fish, before this experiment, were treated with an antibiotic and dipped in a fungicide to prevent disease. This means that these data are not directly applicable to wild salmon situations, and certainly the river migration can be longer than 15 days, which was the extent of the experiments.

We have been doing studies and have been intercepting adult sockeye salmon as they come into the Fraser River or the Harrison River over the past couple of years.

On August 27 and 28, 2003, we intercepted more than 80 salmon at Spanish Banks. These fish were transported to Annacis Island where they were held for nine days at an average temperature of 19.6 degrees Celsius. After nine days, $50 \%$ of these fish had died. These fish were then moved to Cultus Lake, where they were held at either 18 degrees Celsius or 12 degrees Celsius. Mortality continued at both 18 degrees Celsius and 12 degrees Celsius.

In contrast to this, fish that were transported directly from the Spanish Banks to the Cultus Lake lab and held at 9 degrees Celsius showed only $10 \%$ mortality after 26 days. This provides convincing data that when you do not treat fish with antibiotics, temperatures less than 21 degrees Celsius cause extensive lethality in at least the migration window.

An additional study was performed in which fish were held for five days at an average temperature of 16 degrees Celsius. These fish were then transferred from Annacis Island to Cultus Lake, where they were again maintained at 18 degrees Celsius and 12 degrees Celsius. The $50 \%$ mortality was after 29 days. So in this particular case, 16 degrees Celsius resulted in mortality after 29 days.

In 2004 we intercepted fish on the Harrison River. This was a laterun stock, and they were transported to Cultus Lake lab, where they were held at either 8 degrees Celsius or 18 degrees Celsius. After 24 days at 8 degrees Celsius, there was a cumulative mortality of just $10 \%$. After only 16 days, the fish at 18 degrees Celsius showed $50 \%$ mortality. After the 24 -day period, these fish were then acoustically tagged - this was a transmitter-and returned to the Fraser River. We asked the question of whether they could reach the spawning
grounds. In both cases, about two-thirds of the fish that were at 8 degrees Celsius reached the spawning ground and one-third of the fish that had been at 18 degrees Celsius reached the spawning ground. So fish can die cumulatively when exposed to temperatures of 18 degrees Celsius, and the survivors can certainly reach the spawning ground.

There's a superb picture that you can't see. It is not in French, but perhaps it can be entered. It's in panel 8. It shows that excessive temperatures promote infections. There's also some information associated with that, and the observation made on the 2004 run in August basically says that scales were damaged, and they were covered with both bacterial infections and fungal infections.

- (0945)

The reason we do not see an agreement between the B.C. data and these more current data is because of these predisposing factors. Disease will increase with increasing temperature, and this is a contributing factor-the effect of temperature alone.

If fish are faced with warm temperatures, these fish will seek cooler temperatures. The fish that were observed on Texas Creek were caught by hand-this was 30 to 50 sockeye in a side tributary. The source is Chris Narver from DFO. These tributaries were six to eight degrees cooler. It's not surprising that there wouldn't be breeding in these streams; they'd be gone further on. They were seeking cooler water. The reason they could be caught by hand is, if you look at the picture, you'll see that the gills are completely damaged, and you need the gills to breathe-if you're a fish, that is.

We released fish into the Harrison system and followed them with tags, and we found that for those that remained in the river, at about an average temperature of 15.9 degrees, there was zero per cent survival. For those fish that sought refuge in Harrison Lake, and presumably sought the cooler, deeper temperatures of about 6.5 degrees, there was a $14 \%$ survival. We followed fish. They were behaviourally trying to find cooler water.

Why do they wish to find cooler water?

In addition to temperature per se, there are many predisposing factors that could contribute to sockeye not surviving a spawning migration. I've already mentioned fungal and bacterial infections. These will reduce swimming speed and also enhance mortality.

High temperature increases daily energy use, and this means the stores of energy that these fish bring in-they don't feed when they migrate - will be depleted faster and they may run out of stores.

Above 15 degrees, the exercise capability of these salmon are reduced. Maximum swimming speed is reduced, metabolic rates are reduced, and cardiac performance is reduced.

This is the research I did work on.

Scott Hinch did a study of telemetered fish at 19 degrees, where he released fish about 30 kilometres south of Hell's Gate. When the temperature was 19 degrees, no fish made it to Hell's Gate. When the water temperature was 15 degrees, two-thirds of the fish made it to Hell's Gate.

Stresses all add to these problems. Stresses reduce reproductive hormone levels and may impact reproductive development. Stress at high temperature leads to higher levels of exhaustion and increased mortality.

The problem with all these studies is none of these studies have been specifically targeted at this, so they become circumstantial evidence. These studies need one degree of resolution to accurately estimate mortalities, because a one degree temperature change is extremely important for a fish.

There is some data presented in slide 11, swimming data, which we collected on healthy fish. It shows that if you move from an optimum temperature of 16.5 degrees for the Seton stock sockeye, you will find that as you increase temperature to about 22 degrees, swim performance decreases by $30 \%$. This means that from 16.5 degrees to 22 degrees there is a $30 \%$ decrease in the swimming performance of fish. This has been shown for other stocks.

The other important fact, which is a caveat, is that different stocks will differ.

In closing, I'll present you with an alternative $50 \%$ mortality. These are the times and the temperatures we derived that are associated with $50 \%$ mortality.

Nine days at 19.6 degrees; these are 2003 data. Sixteen days at 18 degrees; these are 2004 data. Twenty-nine days at 15.9 degrees. These are experimental data that have been derived. It would be greater than 26 days for nine degrees.

My last point is that dead fish are not always visible. If you're looking for dead fish in the Fraser River, it's unlikely you're going to see appreciable numbers. In our telemetry study, we never observed any of the dead fish. The telemeter stays in one location, and it probably is still beeping in the bottom of Harrison Lake, because the fish are long dead.

## - (0950)

Dead sockeye don't necessarily float. Experimentally, at 16 degrees it takes about four days for a dead fish to actually rise to the surface because of bacterial action and gasses that are produced. In fact, they're still at the bottom of Harrison Lake, as I mentioned.

The other mitigating factor in not observing them is that dead fish-or weak fish even, for that matter-become food for other fish. In 1994, Clarke gave to the 1994 Fraser salmon inquiry... 23 dead sturgeon-these were two to four metres in length-died on the Fraser, and when they were opened up, they were found to have several sockeye in their stomachs. In addition, that report notes that when the water levels receded, many fish were buried in rocks.

To conclude, there have been four salmon inquiries in the past 12 years. Each one has involved unusually high temperatures. We cannot ignore temperature and predisposing factors, but in my
opinion, these are not the only causes of the problem we have before us today.

That's the end of my submission.
The Chair: Are you going to tell us what your opinion is of other predisposing factors? You said that temperature is not the only....

Dr. Anthony Farrell: The fish can't swim, they can't breath properly, their hearts don't work, and they're more susceptible to disease. Those are the physiological factors. That is my area of expertise.

The Chair: Thank you very much.
Dr. Anthony Farrell: The last one is that if fish are harassed in any way, the stress associated with that will be worse at higher temperatures.

## The Chair: Thank you, Professor.

We'll now go to Bob Gould, speaking as an individual.
$\bullet(0955)$
Mr. Bob Gould (As Individual): The material that is going to end up on your desk was generated, actually, after the same problem in 1994. The subsequent idea that the sturgeon died was probably part of what I did in 1994.

I have to apologize to everybody. I didn't pursue what I thought to be correct because I was rather disillusioned with government and academics at the time.

I'm now going to present this 1994 material, as I believe it is the same problem today as it was back then.

The Chair: Mr. Gould, before you do that, could you introduce yourself to the panel in terms of your areas of expertise and your education?

Mr. Bob Gould: I'm Bob Gould. I actually was one of the people who began the fishery on the Stikine in 1979. That fishery was mostly set net until we developed a drift net thing in 1986. But it still has a number of set nets. We have records from up to 22 different fishermen, sometimes with two nets each, over a period of 25 years. We have isolated information as to catch per hour of soak time. We have records on quality control for the whole period of time.

I have a graduate degree from Simon Fraser University.
Basically the material I'm presenting is certainly not.... When it was presented in 1994, there was a long lineup of academics who said it wasn't professionally done, that it wasn't academic, and that it wasn't this and it wasn't that. But I believe it is.

You probably have in front of you a chart, and I think we've translated it enough so that it's bilingual. I think I have a large one that you can probably....

The Chair: Are you referring to the paper in English titled: "Figure 3: Set-gill-net harvest as a function of soak time"?

Mr. Bob Gould: The written-in portion is in French, is it not?

## The Chair: Yes.

Mr. Bob Gould: Okay, that's the piece of paper. That's the key material.

What we noticed along about 1991, I believe, was that if the set nets were picked more often, they would catch more fish on a regular basis. So we kept track, from about 1987 to 1994, of soak times per net per location.

I apologize that I don't do this in French. We could have translated it also, without any trouble. It's just that we weren't working....

The Chair: Don't worry about that. Just go on with it.
Mr. Bob Gould: So we have data that goes back 25 years.
If you look at this chart, you will see three different lines. Ultimately those lines are representative of fast-water back eddies, average-water back eddies-which was used for the Fraser Riverrelated material back in 1994-and the very, very quiet, easy-water conditions. You will see that the time along the bottom of the chart is in hours. We have data that run up to 48 hours, because of happenstance rather than on purpose.

If you look at the key piece of paper-and I'm not suggesting this is the only problem of missing fish on the Fraser River, but this is certainly one of them-if you look at the chart in front of you and you visualize a set net sitting hooked to the side of the river in water that is flipping it back and forth, moving it up and down, and you visualize this fish that runs into this thing, it's alive and it stays in there. When it dies, we believe it goes into rigor mortis; it becomes a solid board and it gets shaken out and floats off down the river.

Like Mr. Farrell, we have no real way of proving that, because we have no way of looking along the bottom of the river.

This position was presented in 1994 to the Department of Fisheries and Oceans' scientists. They thought it was less than honourable, but we predicted that they would have problems with sturgeon. We lost 1.6 million fish on the Fraser in 1994, I believedebated at between 400,000 and 2 million, or something.

The proposition I'm suggesting is that in our data-which was not collected over a two-week period or anything like that, but over 25 years. On one occasion there was a set net set at a back eddy for 48 hours, or a little more than 48 hours. There were two of them, actually, side by side, in a dispute about who had control over this fishing site. The Department of Fisheries and Oceans picked those nets at the end of 48 hours and brought the fish to the fish plant that I run, and I insisted that they go through a QMP report, a very careful QMP report, because I didn't want to take charge of these fish and jeopardize Great Glacier Salmon for the responsibility of them all the way to the consumer. There were only four fish that I threw out.

In 48 hours you would think they would have all rotted if they all stayed in the net for that period of time. In fact, if they weren't at one degree, they would have probably rotted in 48 hours. Two-thirds of these fish were in very good condition, and one-third of them were obviously pre-rigor still. That meant to me that something was different. There was no possible way that these fish could have been in that net for that period of time.

We then made a fairly rigorous test of this concept. I'll say how this started and I'll show you what the results were. Of course, the academics can jump up and say we didn't have controls. There are lots of things we didn't do.

If you look at the chart, the first three dots on the top left-hand corner are arranged between something like seven hours and zero hours. In regard to the average pick time for those particular five nets, which were the fastest set net sites on the river-and this is over a long period of time, too; this isn't overnight but something collected over ten years-if the net was picked in three hours or less, you caught, in many cases, actually the same amount of fish as if it was picked in 24 hours.

## $\bullet$ (1000)

That would be true in the middle range and in the slow range of the set net sites, the same chart. If you look at the least-current water, in which obviously the fish get around those nets easier-there are a number of reasons why-you have these numbers, and you'll see that at the end of five hours it's the same as if you picked your net in 25 hours. Why is this?

There's a chart that you don't have, and I'm not sure how to explain it without the overheads that I have presented, but there is a chart also included in here for everybody. It's 25 years of quality control measurements for QMP at Great Glacier Salmon's fish plant. These fish come from every type of set net site on the river, from one end to the other. We have people who have picked-

## - (1005)

The Chair: Sorry, Mr. Gould. It's the second time you've used this, and I will admit that I don't know what it is. What is QMP?

Mr. Bob Gould: It's quality management controlled, which is a federal government-required program.

The Chair: Oh, it's QMP, quality management program.
Mr. Bob Gould: It's prior to what we now know as HACCP, the present-day hazard analysis stuff. It is officially required at fish processing plants and has been for 30 years.

The Chair: Okay, and not to derail your train of thought, but I guess I will, you asked us to visualize a set net. I can't visualize a set net. I've never seen one. Could you describe what the set net is for us? Basically, is it perpendicular to the bank?

Mr. Bob Gould: It's a gillnet that is tied to the shore in a back eddy. So it is out in the current, tied to shore.

The Chair: How far from the shore out?
Mr. Bob Gould: It's tied right tight to the shore.
The Chair: No, how far out does it go into the river?
Mr. Bob Gould: It depends on the size of the eddy and the size of the requirement. On the Stikine River we had a maximum size requirement of 450 feet, or something like that, but most eddies would never use that. They use 200 feet or 100 feet.

The Chair: And what about depth?
Mr. Bob Gould: The maximum was 60 mesh deep, 60 gillnets deep.

The Chair: What's that in feet?

Mr. Bob Gould: If it's a six-inch mesh, which it never is, it's 30 feet deep, hanging probably at 20 feet.

The Chair: Thank you.
Okay. You were on your second chart.
Mr. Bob Gould: Regarding the second chart, the issue of quality control and why were these fish then not rotten-by the way, they should have been rotten-we started keeping track very closely of quality control from these same set nets, no matter whose it was. There were six native set nets and six non-native set nets, and there were six drift nets. Sometimes they were doubled for efficiency purposes. The Department of Fisheries and Oceans doubled the number of nets, so each person used two different set net sites.

But we kept track of quality control and soak time, meaning that if fisherman A delivered fish once every 24 hours, you'd say to him, "How often do you pick your net?" He'd say, "Twice." So then you'd put that in as a 12 -hour quality control and a 24 -hour quality control. In a number of cases, people would set their net and come back three days later and pick it, so we'd keep track of that.

The quality control chart, which is summarizing thousands of deliveries, shows virtually no difference in quality control from up to 40 hours or 35 hours, and that's not possible. It just doesn't make any sense at all, because if a fish sits in a gillnet for 24 hours or 48 hours, it should be rotten. So we believe these fish are dropping out in magnitudes far, far greater than....

Again, I apologize for not doing this in 1994, because it's 1994 data, not present-day data.

The Chair: Sorry, Mr. Gould, I don't understand what you just said. The fish are "dropping out" in far greater numbers. What does that mean?

Mr. Bob Gould: If you look at chart 1 in your hand-
The Chair: No, what do you mean by that phrase?
Mr. Bob Gould: I'll explain it by using the chart.
In the chart you have two hours on the bottom line. The first three dots-which are an exaggeration, I'm sure, because these aren't an average or anything-indicate that after two or three hours these groups of set nets picked between 22 and 30 fish. Somebody went out with a boat, went underneath the net, pulled the fish out, then killed everything in the fish plant, and it was recorded on the quality control side. The same dot on the far right-hand side of the same graph shows that after 24 hours the average of the 24 -hour picks only produced 25 fish.

So if in fact I am correct that fish are dropping out beyond the two hours, how many have dropped out between the first two hours and the 24th hour?

- (1010)

The Chair: Again, I'm really sorry, it must be me, but what do you mean by dropped out?

Mr. Bob Gould: A fish comes in and gets caught around the gills by the gillnet; the fish actually drives it head in through the gills of a gillnet, which catches it at the back of the gills and kills it. And if it's in there a long period of time, by our material, it dies and goes into rigor mortis. At the point of rigor mortis, or thereabouts, it has a
tendency to get shaken out of that net; it falls into the river and off its goes downstream.

The Chair: So you're saying that it drops out of the net.

## All right. Thank you.

Mr. Bob Gould: Chart 3, by the way, indicates how that would work. I'm not quite sure how chart 3 can be explained-and it can't be. When this shows up in print, it will show it.

But the explanation of chart 1 , which you're looking at again, is that between that five hours and the 25 hours, if you assume this net has the capacity to catch the same amount every five hours all the way through, you have lost five times as many fish as you've caught, according to this chart. Now, I don't say that's true, but I'm just saying that's what the data show, because I have no way of proving that.

On average, in a 12 -hour pick-when somebody goes out every 12 hours, twice a day-the data collected by us, applied to the Fraser River in 1994, was within an inch of the missed fish on a 12 -hour average pick. There are a lot of people who have been watching this debate for many years, and a lot of people have a lot of other reasons, which I'm sure are valid to some degree, but I believe this is probably the most prevalent in the issue.

I think set nets and their ability to destroy fish and not catch them is probably the greatest issue in 2004 as well.

The Chair: Okay, so you're saying that if there's a set net and somebody brings in five fish after two hours, you think far more fish are killed, which have gone down the river? Is that the idea?

Mr. Bob Gould: The statistics show that if you do it every two hours, you probably don't lose any at all, because no fish can be killed and go into rigor mortis prior to two hours. But if you pick it every 24 hours, yes.

The Chair: It's five times, did you say?
Mr. Bob Gould: I don't know what it says. I'm not a mathematician, but it says something ghastly like that.

The Chair: So if the set net is not picked for 24 hours, then far more fish are killed than are actually turned into the plant. Is that your evidence?

## Mr. Bob Gould: Far more.

The principle works like this. If any of the net is set in a fastcurrent eddy, the one you're looking at on that chart, and it's not picked every two hours, by the 24th hour it will have lost, theoretically, according to this, five times as many fish as it lands.

The Chair: Okay. Thank you.
Mr. Bob Gould: These data were collected over years and given to a mathematician who generated these charts, so don't ask me what happened between the hard numbers and the chart.

The Chair: Are you finished now?
Mr. Bob Gould: Yes.
The Chair: Great. Thank you. Sorry for the interruptions.
We'll now go to Dr. Dr. Blair Holtby, science advisor to the Pacific Fisheries Resource Conservation Council.

Dr. Blair Holtby (Science Advisor, Pacific Fisheries Resource Conservation Council): Good morning.

My background is that I'm a research scientist with the Department of Fisheries and Oceans in the stock assessment division. I have about 22 years' experience in population biology and population dynamics, which are the major components of assessment of Pacific salmon in this region. Until recently, I was the head of salmon assessment in the region, and in that role I played a central function in the development of the stock assessment program for 2004.

Two weeks ago I was seconded to the Pacific Fisheries Resource Conservation Council as their scientific adviser. My role in the council is to ensure that the advice they generate for ministers has a firm scientific basis.

I'm representing the council here, in general, because the council, as Mr. Fraser indicated in his presentation on Thursday, is increasingly concerned that the federal government is failing to meet its obligations to conserve and scientifically manage the resource. About Fraser sockeye, specifically, the council is concerned and wishes to determine whether the assessment and management program in place for Fraser sockeye is adequate to identify and resolve the issues that are clearly present in Fraser sockeye. The council is certainly prepared to fulfill its role in providing the minister with advice on how to improve the assessment program and management program so as to avoid crises in the future of the sort that have appeared this year in 2004.

I have no further comments.

- (1015)

The Chair: Okay.
May I ask you if you have any comment on either of the presentations, in terms of the conclusions drawn?

Dr. Blair Holtby: I wasn't aware that any conclusions were drawn. There is certainly an indication from Dr. Farrell's summary of excellent work that he and his colleagues have done that temperature conditions in the Fraser this year were not good for migration and probably did cause significant mortality in at least the summer run, and probably all of the run timing groups.

There remain observational data that are somewhat inconsistent with temperature explanation as being the only cause. Everybody is concerned. We know there are four possibilities to explain the discrepancy between the numbers of fish that apparently showed up on the spawning grounds and the number of fish that were reported into the river.

Those four explanations are that there was a mis-estimate at the Mission counting site. I think it is important to emphasize that the Mission acoustic site was never intended to be a highly accurate estimator of fish abundance. Its purposes are largely in fisheries
management to indicate qualitatively the magnitude and timing of the run to assist in the control of the fishery. The difficulties with using those numbers as accurate estimates of in-river escapement are well known. Efforts are being made to improve the accuracy of the counts, the reliability of the counts. However, in reality the site is not particularly well suited to generating highly accurate counts. It is well suited for its purpose, but in an assessment role it is not an optimal site.

A second possibility is the escapement counts were biased low. In some cases we know this to be the case in 2004 because weather conditions at the time enumerations were made were poor. Some of the counts we know are low. In general, the discrepancy between Mission and the escapement counts are so large that it is unlikely that either inaccuracy in Mission or inaccuracies in the escapement counts are sufficient to even come close to explaining the very large discrepancy that was seen this year.

That leaves us with two other factors, both related to in-river losses of fish. As Dr. Farrell has indicated, there is considerable evidence suggesting the high temperatures in 2004 likely played a major role in causing in-river mortalities. The other possibility is that the fish were removed illegally, of course.

Therefore, the council's concern is whether the assessments and management programs are adequate currently to resolve these issues. This is a major problem. Four years from now it is likely that there will be insufficient Fraser sockeye in the river to possibly even support food, social, and ceremonial fisheries. There is certainly a great doubt whether there will be sufficient fish for a surplus for commercial or recreational harvests.

- (1020)

The Chair: What I meant, Doctor, was this. As I understood the professor's evidence, he said that temperature increases will kill salmon over time and will also contribute to disease and infection, and 18 degrees and up look like bad temperatures for salmon. That is what I took from his evidence. That is what I call a conclusion from what he said.

Mr. Gould was saying that if you don't clean your set nets promptly in a 24 -hour period, it looks like you're going to kill five times more fish than you actually pick. That is what I was asking.

Do you have any comment on either of those two things?
Dr. Blair Holtby: I'd say that both of those conclusions, if you will, are valid. The temperature conditions in the river were sufficient to cause mortality in fish, and dropout from gillnets is a well-known problem.

## The Chair: Thank you.

Without taking any time then, and I guess I am taking time from my colleagues, but I want to ask you this, since you're a scientist. The Fraser River panel, in its reporting in July, indicated, at least the way I read it, temperatures between 18 degrees and 20 degrees are not a problem for migrating sockeye. Yet you agree with the professor, as I understood it, that anything from 18 degrees plus is a major problem for sockeye.

Do you know where the Fraser River panel is getting its scientific information?

Dr. Blair Holtby: They're getting it from the same sources that Dr. Farrell is. In fact, Dr. Farrell is generating some of it.

I think you have to be very careful about how you interpret what's being said. An exposure to 18 degrees clearly stresses fish. It is a problem in the fact that fish are stressed. If you add additional stresses to fish migrating at 18 degrees, you can have significant mortality.

The uncertainty is in a real river under actual migration conditions, what levels of mortality can be expected at a temperature of 18 degrees Celsius? The answer to that is not an easy one to determine.

The Chair: What I'm referring to is the July 16 press release of the Fraser River panel, and it says:

Fraser River water temperature (at Qualark Creek) is presently $18.2^{\circ} \mathrm{C}$. Although present conditions
-and that means 18.2 degrees Celsius-
in the Fraser River mainstream are generally satisfactory for sockeye migration, Fraser River water temperature is forecast to increase over the next several days.
From what I take from the evidence, 18 degrees is not generally satisfactory for sockeye migration because of the various things the professor said, with which you agreed. So I'm just asking you if you know where they get that statement. Or am I misinterpreting what they mean?

Dr. Blair Holtby: Well, a temperature of 18.2 degrees is probably not going to be, certainly not immediately, lethal to sockeye. The duration of time fish can withstand 18 degrees, I think Dr. Farrell indicated, was a month or several weeks without undue mortalities. So that temperature alone at that time in the run is not sufficient to cause $95 \%$ mortality, which is about what was observed. But that was early in the run and it applies only to the early portions of the run.

The Chair: His observation was $50 \%$ mortality at 16 days at 18 degrees.

Mr. Blain Holtby: Okay.
The Chair: I'm sorry, colleagues, I'll keep quiet.
We'll go with Mr. Hearn for ten minutes.
Dr. Anthony Farrell: Could you recognize my request to speak?
The Chair: Yes, of course.
Dr. Anthony Farrell: I think it's inappropriate to ask this gentleman to interpret what I've just said when he's heard it no more than a few seconds ago, and he didn't have the privilege of my unilingual notes. I think that's a dangerous precedent to be setting, to create this circle.

## I will reiterate, 18.2 degrees on July...?

## The Chair: July 16.

Dr. Anthony Farrell: On July 16, the 60 -year average maximum from the graph I presented to the panel is about 19 degrees. That's the 60 -year maximum, so it has never in 60 years of measurement exceeded 19 degrees on that particular day. The average temperature on that day is about 16 degrees, so this species over the past 10,000 years, every year, has experienced on average 16 degrees on that particular day, give or take global changes. So this species has
evolved to tolerate those temperatures. I think this is a point that's been lost.

One of the reasons for these discrepancies is that the different stocks face different temperatures. The information that I have not been able to present to you is that stock differences do exist in terms of (a) temperature tolerance, (b) disease susceptibility, I suspect, but (c) certainly in their exercise performance. So the optimum temperature for the Seton sockeye, which is the data I presented here, is 16.5 degrees. If we do the same experiments-and we have done that; I don't show the date here-for the Weaver sockeye, which are late run and would be on the declining temperature, their temperature optimum is about 15 degrees. That's a difference of one or two degrees. That is important to the fish at this level. They are at the limits of where they can be. They've evolved over time for those small differences. So stock differences are certainly important, but the important point is that those early Stuart were experiencing, on average, temperatures that were near the all-time highs.

- (1025)

The Chair: Thank you for that, and thank you for your comments.

I'm not a scientist. I'm trying to interpret what the news release means. The way I read the news release, whoever prepared the news release did not consider 18.2 degrees to be dangerous because they said it is "generally satisfactory". From what I'm hearing from you, it's not generally satisfactory. I'm just asking the question.

Dr. Anthony Farrell: I don't believe it's optimum.
The Chair: All right. Thank you.
Mr. Hearn, ten minutes.
Mr. Loyola Hearn (St. John's South-Mount Pearl, CPC): Thank you very much, Mr. Chair.

Let me thank the panel for being here.
Dr. Farrell, you mentioned that you think the higher temperatures this year certainly aren't optimum. Again, I know there's no definite way, without a thorough study, of really answering this question. But from an observation point of view, when you look at the fact that 1.8 million salmon-question mark-disappeared somewhere along the river, do you think that temperatures at the high degree they were this year would have an effect, and would you be able to give any estimation of percentage of that amount that might be affected?

Dr. Anthony Farrell: In response to that direct question, I will give a direct answer of no. But what I will do with that answer of no is qualify it, and I'll qualify it in the following way.

That direct question has been asked four times in the past 12 years by four panels. There is more data that exists now than in the first panel, and we're still waving hands. The reason is because the specific studies that need to be done to address this question have simply not been done. Nobody has deemed it important to go from an inquiry and perform the studies that are necessary. The controlled studies needed to verify this gentleman's concerns could easily be performed. We haven't done that.

What we can do is make a best guess. The best guess that I can give you so far is that if the temperature is about 18 degrees and the fish are taking about ten days to go through, $50 \%$ of them would have died before they would have spawned. I've provided worst-case scenario data, and that is I've taken a fish out of the Fraser River, put it in a tank, and left it alone.

You could take that, if you wish, and say that $50 \%$ of the fish that entered the river that we could count accurately, which were not removed from the river, may well have died on the way through, based on that simple approximation.

Mr. Loyola Hearn: Do you think that instead of coming out with answers, which of course, as you know, we don't expect to do, if we came out with a set or several sets of hypotheses that we could then direct somebody to pursue and study, we'd be better off in the long term? In 1992-1994, if somebody had decided to follow up on some of the observations, we may not be asking hypothetical questions today. Do you think that would be our best bet to address the possible hypotheses in a more concrete experimental way so that we would at least have reasonably accurate figures at the end?

- (1030)

Dr. Anthony Farrell: I think one of the outcomes you should reach from this inquiry is that we have repeatedly not taken the opportunity to examine this question. I'll bring you back to when I was preparing for this. I think it was in 1958 that the run estimate was something like 12 million salmon. We had a bumpy year last year, I believe it was something like 6 million, so that's about half. We're talking about millions this year.

The point is that we're heading the same way as the Atlantic salmon, and we're heading the same way as the Atlantic cod, but for different reasons. If we don't find the rationale for protecting the salmon, it's multi-factorial. There's no question that it's multifactorial, but until we get a handle on temperatures, we cannot eliminate it. I'm asking that you do not ignore it. That's my main message.

## Mr. Loyola Hearn: Fair ball.

I have one other question. When we talk about salmon living in uncomfortable surroundings, does that make them weaker and perhaps more susceptible to predation?

Dr. Anthony Farrell: There's no question. It's survival of the fittest out there. Are bears taking a significant number? I doubt it. The sturgeons certainly mop up, but the biggest predator out there is homo sapiens. We're the harvesters, so we have to look at ourselves first and take account of that. You have increasing predation perhaps by seals. Studies have been done where DFO have recorded seal marks, but it's very difficult to estimate what the contribution might be.

I think most of all, and a message that is very difficult to nail down, is the whole issue of harassment of a fish. Just as you and I do not like to be harassed, we like a comfortable lifestyle, I think fish would like a comfortable swim up the Fraser River to go spawn and then die and pass on their genes to the next generation.

What we do is create impediments. At higher temperatures, these stresses are potentially more dangerous. It is not so much that the fish die because the temperature is higher. All these other things that
are happening for the fish become that much more paramount in terms of survival. It may be that they just simply become weaker. No person I know can catch a fish by hand, unless that fish has been weakened. This year, fish were seeking cold waters in side tributaries and they were able to catch them by hand. This was well short of where they should have been spawning. Yes, they're weakened; we can take them. They're more susceptible, perhaps, to not being able to avoid gillnets. Certainly, if they encounter entanglement with gillnets, you find that temperature increases mortality; it reduces their subsequent swim speed after they've been entangled, so gillnets play a part. That's what I would class as the largest scheme of harassment for these fish as they make their migration.

Mr. Loyola Hearn: The evidence presented to us over the last few days certainly indicates that human harassment has certainly increased on the swim up the river.

Mr. Gould, you mentioned predation also. We didn't at all, of late, Mr. Chair, talk pretty much about predation in relation to the effect. You mentioned sturgeon. You would know about this perhaps; I wouldn't. We don't have a lot of them off Newfoundland's coast. We did have a lot of Atlantic salmon at one time, which we don't now. But we do have a lot of seals, which are having a tremendous effect on a number of our stocks. With the sturgeon, in particular, I presume, like everything else, that if the salmon is in the weaker condition, then it makes it a lot easier for large predators like that. From your observation in the river, given the state of the sturgeon then and seal population, do you think they might be having an effect? I don't believe this has been factored in at all to the loss from what we heard from any witnesses so far.

## - (1035)

Mr. Bob Gould: There are no sturgeon on the Stikine River. When the issue came up in 1994 about the lost fish on the Fraser River, I presented this raw data to the Department of Fisheries and Oceans scientists, saying you may check and see what happens if you have that many sockeye floating dead on the bottom of the river. Will it in fact affect the sturgeon? That was the question that went to Dr. Chris Wood and Dr. Brian Riddell at the time, both from the Pacific Biological Station. They said it may.

But on the Stikine River we have no sturgeon. It says in the scientific material that we do, but we have never caught one or seen one. So this is just a wild speculation. Dr. Farrell has brought up that subsequently, yes, there were large sturgeon dying. I just think if a fish is this big, what can eat it? There are not very many things that can eat it, and not many things that will pick it up off the bottom of the river. That was purely a wild speculation. It had no basis in science.

Mr. Loyola Hearn: So it probably wouldn't be a significant number involved.

The dropout rate, certainly a problem in education, is interesting. Thinking about the salmon in gillnets, with the force they hit the net quite often they become heavily entangled in the mesh; however, once rigor mortis sets in, suddenly the full weight of the salmon is hanging from a different angle, or maybe it's floating-it depends on the water conditions at the time. We've fished salmon with gillnets and I haven't seen a lot drop out. If it is factual that after a certain amount of time they are susceptible to dropout, and with nets, particularly those that are set illegally and hauled conveniently after dark, there may be long periods without attending your nets, certainly that is a factor.

Do you have any sort of conclusive proof, except of course the study of the condition of the fish makes a good argument...but is it easy for a salmon totally with the net wrapped around the gills-

Mr. Bob Gould: A gillnet is actually used to differentiate between sizes of fish. In our case on the Stikine River we're limited to a maximum size of 5.78 inches. The reason why is because Chinook salmon are large and we don't want to catch them, so gillnets tend to be designed to catch a certain size of fish. So when you talk about fish caught around the dorsal fin and all ragged, those were the five I threw out actually because they obviously had been in there a long period of time.

But the nature of the gillnet itself means it really doesn't catch the fish very well. It wasn't designed to do that, because it's designed to catch a specific size of fish. In fact, you're right. I have a long list on the lack of science in this material. I know 25 ways where it won't work. I've had a research project to prove it won't work. I've tried them and they will work, but I also have 25 ways that I think it will work, so I can't answer your question really.

The Chair: Mr. Hearn, you're well past the ten minutes.
Could I ask you to take the chair for a couple of minutes, Mr. Hearn?

Mr. Murphy, ten minutes.
Hon. Shawn Murphy: Thank you very much, Mr. Chair. I may not be ten minutes. I want to thank the three witnesses for appearing today. I think your submissions have been very helpful. I just have a general question I want to throw out to each witness.

There's been a lot of talk as to embarking on judicial inquiries, embarking on other inquiries, and this is the reason why this parliamentary committee is here in Vancouver today and the last two days. Basically, the allegation is that approximately 1.8 million or 1.9 million salmon went missing in the Fraser River this season, and of course, as in 1992, 1994, and other years, everyone is blaming everyone else. People are saying it's commercial overfishing. Of course, that wouldn't explain any lost fish above Mission, but they're blaming the water temperatures, they're blaming inaccuracies in the recording station at Mission, and of course perhaps the biggest blame may be directed at illegal harvest along the Fraser River between the Mission counting station and the spawning grounds.

My question is, what advice would you give to this committee, or to anyone else trying to get to the bottom of this, as to how they should proceed? It is a very difficult issue. There is scientific evidence out there, but as we've heard today, it's not totally conclusive. I don't think Dr. Farrell can give an accurate number as
to how many fish died en route to the spawning grounds because of warm temperatures. I think it's conclusive that there was an illegal harvest taking place upriver. There's no question about that; they basically admitted it. How many fish they took, we don't know, and they're not going to tell us.

You people are much more experienced in this industry and have lived in the industry for many years. What advice or recommendations would you throw on the table at this point in time? Perhaps I'll start with Dr. Farrell.

- (1040)

Dr. Anthony Farrell: I think I've given one recommendation. It is that if you want definitive evidence for the role of temperature in the future, allow the studies to be performed.

The second thing is that I'm quite passionate about the conservation of these fish. I think temperature is a real jeopardy to these animals. I think in regard to the in-river adjustment to harvesting, or even in-river harvesting, it should really be considered whether it is an appropriate strategy when it is very obvious from modelling exercises that the river temperature is going to be unusually high.

I think there is enough evidence that exists of harassment and what that does to fish that the fish are perhaps best left alone at some temperature above what's the running average. You can run that as a percentage.

How you would arrive at that will take some serious scientists to go in, look at it, and put a number on it. For example, you may wish to completely advise that there will be no set fishing at very high temperatures.

But what limited data exist indicate that gillnets are less damaging at colder temperatures in terms of mortality thereafter and stress thereafter than at warm temperatures. There may be some threshold where you could say do it this year but not next year. That would be one thing I would add.

## The Acting Chair (Mr. Loyola Hearn): Dr. Gould

Mr. Bob Gould: I have been thinking about that question for 20 years. I would recommend, to start with, that the Department of Fisheries and Oceans enact an abandonment clause in the present Fisheries Act that says you aren't allowed to abandon a gillnet anywhere. This would mean that if you saw one on the Fraser River in any back eddy and there wasn't somebody standing there at the end of the eddy, or sitting there in his boat, it would be picked out of the water.

I believe the dropout rate is incredibly significant. I believe it is provable, but we couldn't possibly afford to do that. We have a number of fishermen, and I say, guys, why don't you leave your net in for 48 hours and then come and pick it? They tend to laugh at me. They would think I'm a fool, because of course they can catch six times as many fish if they pick it every four hours. It is pretty hard to convince people to carry on with my study because it is so detrimental to their income.

I would say someone, some scientist who can defend the data when it is finished, rather than a fisherman who owns a fish plant on the Stikine River.... I will help do a study to prove or disprove this theory, but I would prefer to have some scientist with many initials after his name design it, just because I believe it is a very significant thing for Canada, and probably worldwide, as this is a worldwide problem, I believe.

- (1045)

The Chair: Dr. Holtby.
Dr. Blair Holtby: It's a difficult question to answer. From a science perspective, to me, it's clear there is a significant gap in our information, and that's the abundance of fish in-river at various points along their migration path. A lot of these issues about whether the fish die in-river or are illegally removed are made very difficult because we only have two point estimates of abundance, one of which is very poor, and that's the Mission count, and the others of which are generally very good, namely escapement up to a month later.

Resolution of the issue of what's happening to the fish really requires basic information of the sort that can only be collected with quantitative, probably acoustic, in-river estimates of abundance at various points along the migration pathway so the abundance of fish over time and space can be accurately tracked. Of course, along with the acoustic estimates, there's generally biological sampling, so you would know in space and in time not only the abundance but the condition of the fish. A lot of these issues can only be resolved with that kind of information.

Getting that information has been attempted. The Qualark acoustic site that was operated for several years after the last crisis proved the feasibility of such a site.

These facilities, though, are expensive to operate. There has to be some clear recommendation made that if this is an issue of national significance, then we have to spend the necessary resources to gain the information, resolve the differences between the various explanations, and give some credibility to those explanations.

Hon. Shawn Murphy: I have another question on nets. There's a real problem on the east coast with ghost nets-not set nets, but these would be gillnets that are abandoned; they've lost them. Of course, they continue to catch fish as long as they're on the sea. Is that an issue up here on the Fraser River that you're aware of. Anyone?

Dr. Blair Holtby: I wouldn't think so. Because of the nature of rivers, they flow, so unless the gillnet was extremely well anchored-and it would have to be very well anchored-it's likely to rapidly drift away, get balled up, and go to the bottom of the river. It's unlikely to be a long-term explanation. Of course, perhaps for a very short period of time, several weeks, it could be an issue, but unlikely longer.

## The Chair: Mr. Gould.

Mr. Bob Gould: That issue has been looked at in our fishery a number of times because there are a number of things you'd worry about. Are you creating a black hole in this situation; is that what you're suggesting?

In the case of the gillnets, we see them lost, of course, and hung up on snags and so on every once in a while, but they tend to hang up and lie vertical in the water. We have checked them later in the fall when the water is down; we take them out and see if there are any carcasses of rotten fish or anything in them. At this point there are very seldom any fish in them-much later, at least.

## $\bullet$-(1050)

Hon. Shawn Murphy: I have nothing further, Mr. Chairman.
The Chair: Thank you, Mr. Murphy.

## [Translation]

Mr. Roy, you have five minutes.
Mr. Jean-Yves Roy (Haute-Gaspésie-La Mitis-MataneMatapédia, BQ): If I were to summarize what has been presented to us this morning with regard to the present situation, it is possible that the water temperature is a factor. It is a possibility, because there is in fact no proof of what really occurred. Over a ten-day period, it is indeed possible that the water temperature and stress had an impact on the fish to such an extent that there were considerable losses.

The second element is that the fish that were lost are not necessarily visible. The systems we have do not allow us to verify the quantity of dead fish, because these fish are at the bottom and are therefore not visible. At present, from what you are saying, we do not know the true causes of what occurred in the Fraser River in 2004.

Do my comments fit with what you have said?

## [English]

The Chair: Who are you addressing the question to, Monsieur Roy?

## Mr. Jean-Yves Roy: To Mr. Farrell.

Dr. Anthony Farrell: I think that was an excellent summary of the state of affairs. Nothing can be established conclusively. You've recognized the factors that I think are important.

What I will add is that there's probability. As a scientist, I can never be $100 \%$ certain, but if I'm passionate about something, I will tell you how I feel, and I feel that the probability is that temperature played a major role in this year's problems. There were certainly additive things. I'm not an expert in those, and as you've noticed, I've been very carefully avoiding comment on those. But I will say that temperature was a major one.

I think in the worst-case scenario, $50 \%$ of fish that tried to make it through could have succumbed to high temperatures; in all likelihood it was maybe something less than that. But I don't know what number of fish were actually trying to make it through, and I think you made those points too.

## [Translation]

Mr. Jean-Yves Roy: Thank you, that answers my question.

My second question is for Mr. Gould. In what you have tabled with us as a study, or rather as observations, there is an element that I am having difficulty with, before making any judgment. When we talk of the number of fish that have been lost, I would like to know the proportion of set nets that are used for fishing, because other fishing equipment is used. On the Fraser, would these set nets account for 10 percent of the fishing effort, 20 percent?

Your study cannot explain in total the disappearance of the fish. In fact, if set nets accounted for only 20 percent of catches, they would represent only 20 percent of the lost fish, and no more.

## [English]

Mr. Bob Gould: I have to apologize; I didn't explain myself properly. My position is that the length of time a set net is set anywhere - or any number of them are set anywhere-

## [Translation]

Mr. Jean-Yves Roy: Forgive me for interrupting, Mr. Gould. I think that everyone has understood what you are saying. While the set net is in the water, clearly, it will be catching a certain amount of fish. However, since there are fish that fall back into the water, we are unable to determine the amount of fish caught unless we watch over the nets during a 48 -hour stretch. Let us suppose that that is the answer.

The question I have for you is the following: what share of the entire fishery is represented by set nets used on the Fraser River?

- (1055)


## [English]

Mr. Bob Gould: My study would say that if you had $1 \%$ of the gillnets on the Fraser River set in fast water and picked every 24 hours, you'd lose the number of fish referred to.

## [Translation]

Mr. Jean-Yves Roy: Yes, but you are not answering my question. My question relates to the percentage this type of equipment accounts for in the fishery.

## [English]

The Chair: Does anybody on this panel know the answer to that question, or can anyone make a guess?

Dr. Holtby.
Dr. Blair Holtby: I don't know definitively, but my expectation would be that the vast majority of fishing that occurred would have been through gillnets, so set nets. That's the preferred method of fishing in most of the Fraser River. There are some sites where there's dip netting and there are some sites where there are other methods used, but most of the fishery would be through gillnets-set nets.

The Chair: And not drift nets?
Dr. Blair Holtby: Well, a gillnet can be both a set and a drift net, I would suppose. Gillnets, however-

The Chair: But set nets don't move, right? You're saying that the majority of fishing on the Fraser, you think, is by fixed, set nets?

Dr. Blair Holtby: I couldn't say whether they're fixed or drifting, but they are gillnets nonetheless.

The Chair: Mr. Cummins.

Mr. John Cummins (Delta-Richmond East, CPC): Chairman, I have a point of clarification.

The evidence that was presented was that at times there were as many as 800 set nets functioning above Mission Bridge. Those set nets were in place from Mission to Lillooet. The evidence we heard as well was that there were 10 or 12 drift nets operated by the Cheam Band and they drifted in the area of the Agassiz Bridge. There were some other drift nets operating in that area by other bands, but they were few in number, and the commercial fishery that operated below Mission and fished for 29 hours this year fished with drift nets.

The Chair: Thank you. I think we got from the panel what Monsieur Roy was looking for.

We're going to Mr. Kamp for five minutes.
Mr. Randy Kamp (Pitt Meadows-Maple Ridge-Mission, CPC): Thank you, Mr. Chair. I have a few questions of clarification, mostly for my own benefit. I'll perhaps start backwards.

Perhaps this should be directed to Dr. Holtby. On the escapement, the number that made it to the spawning grounds, did you say that we're not really clear on that number? At this point do we just have an estimate? The numbers have been kicked around- 250,000 , I think I've heard that now. Is that a firm number? Could that be wrong?

Dr. Blair Holtby: The escapement estimates for Fraser sockeye go through a number of stages. The stage we're at right now is the preliminary estimate for the early Stuart, the early summer, and the summer components, so these are estimates where the observations that have been made to the various programs have been entered into a computerized database and calculations have been made. They're subject to change as each individual estimate is scrutinized more closely. The late-run estimates are not at the preliminary stage yet, so in some places there are estimates available but they're not considered preliminary. So they are more uncertain at this point, and there are others where escapement is still being enumerated.

In answer to your question, the majority of the numbers are at a preliminary stage. They are subject to change, but usually those changes are very minor.

- (1100)

Mr. Randy Kamp: On this number of 250,000 , do you expect it to be reasonably accurate?

Dr. Blair Holtby: Yes, I basically said that number is a reasonable estimate at this point.

Mr. Randy Kamp: Okay, so that's not going to solve our problem of where the missing fish went.

Dr. Blair Holtby: I think it's very unlikely.
Mr. Randy Kamp: I would like to back up a step then. Earlier we have this number at the Mission Bridge.

You made some important comments, I think, about the possible need to be more accurate in how we count that, and perhaps you can even take the opportunity to clarify that a little more. A witness yesterday said, I think as you indicated, that we have had better, more accurate ways that were tried in the past, and I'm not quite sure what the reason is on why we don't.

The materials we've seen have come up with a number for fish that have gotten to the Mission Bridge or the Mission counter. The number that I've seen is fairly specific. Now I'm not sure whether it's based on.... We have this run size of almost five million, we take out the ones that we think were caught by the commercial fishermen and the coastal aboriginal fishery and so on, and we know what made it to the mouth of the Fraser. Then we take away the commercial fishery and the aboriginal catch in the lower Fraser and then it gets to Mission.

So that number we're thinking about at Mission, is that the number that's counted, or is that a calculated number based on run size and the allocation that we think the commercial fishery caught and the U. S. caught?

Dr. Blair Holtby: My understanding is that it is a direct estimate obtained through an acoustic device, basically, an echo sonar device, so you're counting blips. So it is a direct estimate of the abundance of fish, but it's a highly uncertain estimate because of numerous problems with the site and with the technology, the magnitude of the run. All sorts of things make it an uncertain estimate for assessment purposes.

Mr. Randy Kamp: If you were the fisheries minister and you wanted good, accurate information in order to make the decisions that need to be made, what sorts of counting mechanisms and at what locations would you want...?

Dr. Blair Holtby: There are multiple purposes that counts can be put to. One purpose is for the in-season management of fisheries. So you need an approximate estimate of abundance and timing upstream of the commercial fisheries. The Mission estimate is quite well-suited for that.

Another purpose is for assessment purposes, to calculate stock recruitment, all the technical processes that go on. The Mission count is very poorly suited to that because it's highly uncertain. It's possibly an accurate count, but it's a highly uncertain count.

The third purpose is unfortunately the one that is used most, which is a comparison between what passed through the commercial fishery, so what arrived at Mission, and the much more accurate and reliable counts of escapement that are used to determine what disappeared or how many fish weren't accounted for. It is extremely poorly suited to that because of the high uncertainties in it.

If I were the fisheries minister-thanks for the promotion-what I would do to satisfy both the second and the third purpose I listed is I would have put in place additional acoustic estimates at various points strategically placed in the Fraser and Thompson Rivers to accomplish quantitative estimates of fish and their stock identity.

We had one after the last crisis at Qualark. It was used, I cannot remember offhand how many years...several years it was developed and it demonstrated very well the feasibility of such sites or the feasibility of obtaining very accurate counts of passing fish.

- (1105)

The Chair: Thank you, Mr. Kamp.
Mr. Cummins, do you have any questions?
Mr. John Cummins: Thank you, Mr. Chairman.
The Chair: I am sorry, Mr. Cummins, before you start, where is Qualark?

## Mr. John Cummins: Just below Yale.

I am going to try to do this in some sort of an orderly way. I must say that I'm frustrated that Dr. Farrell was unable to present us with his documentation so that we could see it.

What I would like to do to try to get a handle on interpreting your documentation and so on when we get it is to look, if we could, Dr. Farrell, at the early Stuart run.

The temperatures at that time, I think you said, were what at the time of the early Stuart going by?

Dr. Anthony Farrell: The graph I have presented has an overlay on the temperature, and it was actually in different colours for different stocks. This is based on an estimate of the 31-run duration. Basically, you have early Stuarts coming in at one time of the year, and then the whole run takes about 31 days to take place for the last salmon into the Fraser River. It seems to happen year after year. The first salmon and the last salmon into the Fraser River face different temperatures.

The second point is that the early Stuarts would take almost 20 days to go from the opening of the Fraser River, the estuary, all the way up. Telemetry results from previous years seem to suggest that once they get in, they proceed at a fairly steady ground speed. They do so many kilometres a day, and it's quite remarkable how they do it.

With that in mind, I highlighted the piece of the temperature data that was taken for Hell's Gate. I've turned my computer off, so I don't even know what colour it is, but it's the wiggly line that runs parallel to the more continuous solid line. If I start at the first entry date, which is approximately June 27, the temperature is about 18 degrees. It stayed between 17 degrees and 18 degrees until early July, and then it dipped because of a rain storm and dropped to about 16.5 degrees. It stayed at 16.5 degrees for a couple of days, and then it shot up 3 degrees over about five days.

It's an amazing thing for fish to tolerate, a sudden, massive increase. That large increase in temperature occurred at around the peak of the run. If you look at the average of the run as they're moving through, that would be when they were going. Toward the end of the early Stuarts, temperatures were approximately 19.5 degrees to 20 degrees.

Mr. John Cummins: Okay. You provided evidence, again, about what's lethal and what isn't. Is there a point where you would say that the temperature was lethal for that run of fish?

Dr. Anthony Farrell: I think it's important to recognize that we don't know what the temperatures in the river are for lethality. We simply cannot do that experiment. The system is too big to do a controlled study.

Studies we've done, and all the studies that are available, are studies where fish are taken out of the river and put into a tank.

Mr. John Cummins: Is that stressful in itself?
Dr. Anthony Farrell: Obviously.
One of the associated stresses is damage to the fish's skin. One of the things that Jim Servizi did, in the study that was published in 1977, was recognize that this was a confounding factor, plus the fact that bugs and fungi grow much faster at those high temperatures. He gave them an antibiotic and a fungicide to prevent those problems. - (1110)

Mr. John Cummins: Could you make an educated guess on what the mortality would be for the early Stuarts, given the temperatures you've recorded? This is strictly at Hell's Gate. I'm not talking about down in the lower reaches of the river or in the approaches to the lake.

Dr. Anthony Farrell: The lower river?
Mr. John Cummins: Yes. I said the temperatures at Hell's Gate. You only have Hell's Gate, and you don't have temperatures for either end of the river.

Dr. Anthony Farrell: I think if you look at the numbers, it's fairly uniform. There's a model that's set up for temperature. We feel fairly comfortable about using Hell's Gate temperature as a reasonable predictor for what's going on. It may be a little warmer or a little less. The numbers I gave you are summarized. I think this is where I would focus.

I've already answered this question directly for the gentleman over here. I think that 16 days at 18 degrees is probably a worst-case scenario. When you've stressed the fish, and you say that's a worstcase scenario, if I add 800 set nets, then there's a stress on the fish.

I don't know how those interact, Mr. Cummins. You have me hand-tied, and I'm giving you the best that I can. A highly stressed fish has 16 days at 18 degrees. That's the best available data I have.

The Acting Chair (Mr. Loyola Hearn): Thank you.
We'll go to Mr. Cummins and that's it.

## [Translation]

Do you have any questions, Mr. Blais? No.
[English]
Does anyone else want to go for a second round? No?
Mr. Cummins, go ahead.
Mr. John Cummins: Dr. Farrell, I believe you spent some time on the river this summer doing your work, did you not?

Dr. Anthony Farrell: I'm a professor.
Mr. John Cummins: Yes, but I mean-
Dr. Anthony Farrell: No, I don't go on the river.
Mr. John Cummins: I mean in your scientific work.

Dr. Anthony Farrell: My scientific fame came in conjunction with Dr. Hinch.

We had a large number of people on the river this year.
Mr. John Cummins: And did you at one point observe that in the area where you were doing your testing, there were over a hundred set nets?

Dr. Anthony Farrell: I didn't make any observation. As I said, I was never on that river.

## Mr. John Cummins: Oh, you weren't.

Dr. Anthony Farrell: I was not on the river. That's why I said I was a professor.

Mr. John Cummins: All right. What I want to do, then, is get back to the set net issue.

If you have these warm temperatures, and if you have a set net in every little back eddy on the way up the river, there's no model that is going to give you a number of the fish that would die due to increased stress. You would consider, though, that if there are 800 sites like that, or even 500 sites like that, the mortality would be rather high.

Dr. Anthony Farrell: I disagree that there are no experimental data. There were experimental data. They were contained in an addendum to my presentation, so they will be available to you. I draw your attention to addendum 2, and if that could be translated into French, I'd certainly assist in that process.

These are data that were generated by DFO researchers Henrik Krieberg and John Blackburn in response to the 1992 crisis, and again, gillnets were raised as an issue there. So the gillnets issue is not going away.

What they did was try to simulate what was termed a mild entanglement in a net. What they did was put a loop through the mouth of the fish and anchor the fish to the net, and they tried that at three different temperatures. At 15 degrees they left the fish anchored to the net for four hours, and then they released the fish and looked at the mortality.

You've heard from the other gentleman that set nets can be left for a long while. That doesn't mean to say that fish necessarily interact with those nets for four hours.

At 15 degrees ten fish were treated in this way and there was a $20 \%$ mortality rate, and mortality was estimated not immediately but over the next seven to fourteen days. So some fish died immediately as a result of the entanglement, and you'll see the different colours on the graph that I've provided.

In the experiments that were done at 17 degrees for four hours, 22 fish were done and there was about $25 \%$ mortality. This is mortality as a result of simply being in contact with a net for that period.

At 21 degrees it was deemed that four hours was too long, so they only did a one-hour contact. In that case, 24 fish were tried, and again the mortality was about $20 \%$.

So when I say mortality is enhanced by stress-and this includes gillnets-what I mean is you get about a $20 \%$ mortality at 15 degrees for four hours of stressing. Four hours of stressing at 17 degrees gives you the same thing. But it only takes about one hour of stressing at the higher temperature. I think this is the message I keep coming back to. The higher the temperature, the lower the margin for error for these animals on all counts.

Mr. John Cummins: How about repeated contacts with nets, Dr. Farrell? A fish entering the Fraser Canyon is going to find a net at virtually every back eddy. Have there been no studies done with repeated encounters with nets?

Dr. Anthony Farrell: No study has done them with repeated encounters, but one of the things I've introduced into my research program is repeat swimming performance. We are actually interested in how well fish recover. What amazed us with these data was that in a healthy fish in cold water, the recovery for salmon is remarkable. This was the basis for the recovery-

## $\bullet$ (1115)

Mr. John Cummins: In cold water.
Dr. Anthony Farrell: In cold water. When you move up to warm water, recovery is impaired, so again you see this additive effect of temperature. We can say we'll go run a hundred-yard dash, and the bottom line is that we can keep up to our best athletes but we'll be $50 \%$ slower. The thing they will do is walk back to the start line and do it again, while you and I will go have a beer. We can't do it, and that has to do with recovery as an important component there. So that will be impaired at higher temperatures.

The Chair: Mr. Cummins, if I may ask the question, does anyone else want to get in on round two? No?

I'll give you another five minutes and then we'll call it quits, Mr. Cummins.

Mr. John Cummins: You can very quickly tell me if you concur or not, but my point is that recovery is quick but it takes time. If you leave the confines of one back eddy and you go to another one and you immediately encounter another net, is not mortality then going to be increased? You're struggling against-

Dr. Anthony Farrell: You can predict that stresses are additive, but I don't know of data that have measured that. I would really be out on a limb answering that question, but that's certainly a study that could be easily done and resolved.

Mr. John Cummins: You could make the proposition that this would be the case, and it probably wouldn't be an unreasonable one. You may expect that this would be the result of your study, that repeated encounters are going to mean an increase in mortality.

Dr. Anthony Farrell: I think you could set up that as a hypothesis that could be very easily tested, yes.

Mr. John Cummins: I believe you also said, then, that allowing the set-netting in the confines of an area like the Fraser Canyonand I'm sure you'll correct me if I'm putting words in your mouthduring these warm water temperatures is not advisable. Is that a fair statement or not?

Dr. Anthony Farrell: I think the general statement is true. The specifics would be stock- and temperature-specific. My opinion is that at extreme warm temperatures, we should give the fish every chance to move up the river unimpeded. If that applies to set nets and other impacts, they need to be evaluated as to the consequence to the fish.
$\bullet(1120)$
Mr. John Cummins: You may or may not be aware of it, but in 1988, when there was a similar run size entering into the Fraser River, the fishery was for all intents and purposes shut down, except that there was a huge increase in the number of set nets. A fairly substantial increase in the number of set nets was in place in 2004. It may follow quite logically that if you have that increase in set nets, then mortality would be going up.

Dr. Anthony Farrell: I'm not aware of the 1988 data, so I can't make that comparison.

Mr. John Cummins: Thank you very much, Dr. Farrell.

Mr. Gould, I appreciate your comments here this morning. Let's just try to clarify, because I think there may be some difficulty at the table with what you've said.

Again, correct me if I'm wrong, but what your data is saying is that in a back eddy, where the water is moving fairly quickly, if you pick the net every couple of hours over a 24 -hour period, you're going to have a higher catch. If you picked at the net after two hours, you'd get $x$ number of fish. If you left that same net in the back eddy for 24 hours, you'd still just get $x$. In other words, there are 22 hours that essentially are non-productive for that particular net. Is that what you found?

Mr. Bob Gould: That is actually correct. It's speculation on my part that they're falling out, and I'm basing that on the idea that the quality control, which we must do, indicated that the fish hadn't deteriorated after 24 hours. We make a wild assumption that the quality-control fish we were grading were caught in the previous two hours rather than the previous 24 .

Mr. John Cummins: As you and I both know, if you leave a net in the water for over two hours, rigor mortis will set in. The fish become stiff as a board. Once you tug on that net, the fish will simply fall out more often than not.

Mr. Bob Gould: That's what my data says, sir, no question about it.

Mr. John Cummins: You've seen that, and I've seen that.
Mr. Bob Gould: The problem with it is that the scientists, when they tore our material apart a number of years back, pointed out that we didn't see the fish fall out.

We didn't control the experiments-there's a whole long list of what we didn't do-but the results are exactly the same. In 2004, in the fishery on the Stikine River, the set-nets in the fast water were picked every two hours. If they were picked every four hours, they got the same number of fish as if they were picked every two hours.

That's what my data shows.
The Chair: Thank you, Mr. Cummins.
Just a couple of things, to close off.
Dr. Holtby, yesterday we heard from Mr. Narcisse that the statistics would be available in January. You mentioned "shortly", I think. Why does it take that long, if it is long, from the summer until now, or until January, to get some statistics put together? He said they'd been fed into the computer already.

Dr. Blair Holtby: Which statistics are these?
The Chair: I don't know; you tell me, if you know. How does it work? I mean, there must be data gathered from all kinds of sources, input somewhere, and then spit out in some manner to provide some information about the 2004 run.

Dr. Blair Holtby: There are four run timing groups: early Stuart, early summer, summer, and fall. The escapement programs have been largely completed for all of the groups. There are a few still running for the lates.

The preliminary estimates, so the second level of preparedness, are available now on a public website for the early Stuart, early summer, and summer runs. I have copies of them here. The falls will be available shortly, I imagine, within the next month or so.

Then there are the calculations and the interpretation of all of the data, through two more steps of finalization. The numbers are not considered final for usually several years, but by and large, there are seldom significant changes from the preliminary estimates, which are largely available now.

- (1125)

The Chair: Thank you very much.
Finally, Mr. Hearn in his questioning was asking if this committee should recommend, among other things, specific studies. Flowing from that, what kinds of studies would this panel recommend that we recommend? The doctor answered that question partially, saying perhaps acoustic studies at various points along the river.

What kinds of studies do you think we should recommend, if you think we should recommend any, and who should do those studies? By that I mean, should it be DFO, independent scientists, a combination? And who should pay for it? Should it be DFO or some other group-your group, for example-or some combination of funding?

Professor Farrell, perhaps you could start. In your opinion, what kinds of studies, if any, should we recommend, who should do them, and who should pay for them?

Dr. Anthony Farrell: That's an awful lot to ask of a scientist.
The Chair: But you don't go out on the river, so you have time to answer it.

Dr. Anthony Farrell: Yes, I know; thanks.

I think you've heard the key science concerns, that we don't know what the impact really is of gill nets in the rivers. I mean, this is amazing data we have here, and it would be very easy to design such a study. Again, it's extrapolation, but those sorts of studies could be done.

The second thing is that we need to get a handle on temperatures before temperatures get a handle on us. Temperatures on the Fraser River are increasing. The 50 -year trend shown to me is that temperatures have increased by an average of one degree. This is average temperatures, with all the variances, over the past 50 years. You may see those data this afternoon from Dave Patterson.

So the temperature issue is not going away. It's going to haunt us more and more. That's probably why there's been four inquiries.

I think these studies can be done by a consortium. I had the absolute pleasure to work on salmon recovery with commercial fishers, with DFO scientists, and with researchers. That's the best solution, that you get a team. Our work on the Fraser River is supported by first nations people. We found bands on the Somass River system, and we worked with first nations there. They assisted us. We found ways to work with them, and to help.

So it can be a consortium. I would recommend that all parties have an interest in this, and they should all be brought to the table.

Who should pay for it? I'll give you $\$ 5$ right now.
The Chair: Dr. Holtby, any comments?
Dr. Blair Holtby: I'm not going to comment on the temperature studies. Those are useful to do, of course. I would just caution that it's a dangerous thing to ask a scientist what should be done, because there's never any shortage of suggestions.

I'd like to re-emphasize the importance of obtaining quantitative estimates in time and space. That information is going to be central to the resolution of these issues. It constitutes actual observations of what happened. Without those observations, the models that Dr. Farrell is talking about will remain hypothetical. You won't be able to conclude whether or not temperature had a role, or what the magnitude of the role was, without observations on how many fish survived to various points in the river, what their condition was, what the temperatures were, and what the migratory conditions were. So all that basic information is essential.

Who pays for it? Obviously, the federal government should be footing the bill for this. It's an essential component of a conservationbased program.

Who should do it? It should be done in combination with all of the stakeholders. The technical expertise is largely going to come from the federal government and the universities. The manpower and interests could certainly come from aboriginal groups, public groups.

So a consortium, by all means.

- (1130)

The Chair: Thank you.
Mr. Gould, did you want to add anything on my question?
Mr. Bob Gould: Do you mean what studies should be done, and who pays for them?

The Chair: Yes.
Mr. Bob Gould: Mine, at this point, have been paid for by fishermen directly. I'm certain that won't continue.

I think my recommended studies should be done. We've lost hundred of millions of dollars over the last ten years. That's why I apologize for not bringing this stuff to the fore in 1994.

The Chair: Okay.
Mr. Cummins.
Mr. John Cummins: Mr. Chairman, I'd like to ask a couple of questions of Dr. Farrell, on a report he co-authored in 1998.

The Chair: You'll recognize that we're over time. If you want to keep them brief, I can let you go for two questions. We have somebody else waiting.

Mr. John Cummins: Thank you.
Dr. Anthony Farrell: Mr. Chair, I just had another thought. If you want to know how to deal with these issues before they happen, you have to have predictive models. One of the things you need to know in advance is what the conditions of the river are likely to be. Without those, you certainly couldn't manage temperature. I forgot to bring that to the forefront.

My apologies for cutting into Mr. Cummins' time.
The Chair: Thank you, Professor.
Mr. Cummins.
Mr. John Cummins: Dr. Farrell, I've mentioned this 1998 study that you participated in, and co-authored. During the period of July 30 to August 2, 1998, some testing was done to determine what happened to fish when there were nets in the water. When there were no nets in the water, you noted that fish passage was concentrated, in all transducer aims, in and at a range of three to six metres from the transducer. But once the nets came into the water, the fish passage was concentrated towards the river bottom, and at an increased range from shore.

When that happens, if the fish move down, and at an increased range from shore, in the Fraser Canyon, are they going to be encountering higher rates of water flow? And if they are already suffering from heat stress, is this going to have a decided negative effect on the fish?

Dr. Anthony Farrell: That's an interesting question. Those measurements were not actually done exactly in the canyon. The exact side where it's done is a little down from there.

The point is that those observations were that the fish tried to avoid the nets. Therefore they are responding to the nets being in the water. I think the general consensus, and the fisheries officers who make these observations can correct me, is that the fish will sense a net and avoid it either by trying to go under or around. This actually
results in delayed migration. Therefore if you actually look at the migration pattern, having many nets in the water will tend to keep the fish back there. That is the main point.

Depending upon the location, avoidance could put you into a region of increased current, so it depends where you're placing a net. If you put it in a back eddy, fish are likely in a back eddy to recover from something they've just done.

If I had had my real powerpoint with all the video clips, you would've seen fish huddled and probably becoming hypoxic during recovery before they go on for their next challenge. To challenge in them in that recovery process is not a good thing.

- (1135)

Mr. John Cummins: I've seen that myself and made videos of it as well-the recovery in these back eddies. It really is quite amazing and certainly impressive.

The Chair: A real quick, short second question, please.
Mr. John Cummins: Thank you, Mr. Chair.
Dr. Farrell, again, the science tells me that as temperature increases, the speed at which the salmon move through the water declines, and it does so rather dramatically, as I recall. I don't have the numbers at my fingertips. They're here somewhere in my stuff.

If you look at the bad impact-the fact that fish are declining dramatically simply because of the water temperature-and then you combine that with these nets as obstacles in all of these back eddies, in actual fact the migration time for a set of fish such as the early Stuart could increase dramatically so that the fish then would be spending much longer in that warm water than they would be if the net obstruction wasn't there or if the water temperatures were higher. Between the two of them, it dramatically would increase mortalities. Is that a reasonable assumption?

Dr. Anthony Farrell: I think you can put the two things together. Again, it has not been tested. I think it's a reasonable hypothesis you could put forward that as you increase temperature, the stress would increase the mortalities and they would not be able to swim as well. So yes, the two effects could be an additive, but again it's a hypothesis.

The Chair: Thank you very much.
Mr. John Cummins: Could I just apologize?
I would just like to apologize to Dr. Holtby. I certainly had some questions for him. Perhaps he would make himself available at some time in the future when we get his documentation. I would like to be able to look to him for some answers.

The Chair: Thank you, Mr. Cummins, for the apology, and thank you, folks, for giving us of your time and knowledge. It is very much appreciated.

We will take a five-minute humanitarian break while we set up our next panel.
$\bullet$ (1138) (Pause)
$\bullet$ (1144)
The Chair: I'm resuming the meeting.

We are now at panel 13, entitled "Enforcement 1—Application 1". We have with us, from the Royal Canadian Mounted Police, Superintendent Reg Reeves, who is the RCMP-DFO liaison officer for Pacific region.

Welcome, Superintendent. As I've indicated to all other presenters, we will give you up to ten minutes to make an opening statement of whatever kind you wish, and then we'll open it up for questions, if that's all right.

Please begin.

- (1145)

Superintendent Reg Reeves (RCMP/DFO Liaison Officer, Pacific Region, Royal Canadian Mounted Police): Thank you, Mr. Chairman, for inviting me to appear before this committee today.

I've been asked to speak to the topic of enforcement of the Fisheries Act from an RCMP perspective.

First of all, the involvement of the RCMP in any enforcement action taken under this statute is subject to conditions as laid out under a memorandum of understanding between the RCMP and the Department of Fisheries and Oceans. This MOU lays out certain responsibilities of both agencies, focusing upon details of protocols to follow during joint field operations, sharing of information, and costing arrangements.

In the fall of 2003 the RCMP and the Department of Fisheries and Oceans in British Columbia signed an MOU to second a member of the RCMP to DFO to perform duties as a liaison officer. Some of the identified objectives of the liaison officer's position are to assist DFO in the implementation of a more flexible enforcement program, the development and utilization of innovative problem-solving approaches to non-compliance issues, the enhancement of communitybased compliance strategies, and the implementation of community justice and restorative justice programs. In the fall of 2003, I personally was transferred into the newly created RCMP and DFO liaison position, and I currently work out of the DFO regional headquarters here in Vancouver.

Secondly, the RCMP is under contract as the provincial police force for the province of British Columbia. I'd like to point out that during any joint enforcement operation with DFO, and there is a possibility of public protest, the primary focus of the RCMP is public peace, safety of all persons and groups present, including protestors, and the protection of property.

Lastly, the role of an enforcement officer has changed dramatically over the past 30 years. Simply put, in the not-too-distant past, the standard enforcement approach has been, first of all, to identify that an offence has occurred, locate the offender, and then obtain enough evidence in order to process the individual through the court system. Today, as most know, enforcement is much more complex, and the focus is now on trying to understand why crimes are committed. Analysis of all contributing factors is necessary in order to determine the appropriate course to follow, which may include participation in alternative measures or community justice programs. These approaches are utilized in an effort to effect real change in the behaviour of offenders in the hope of preventing future breaches.

Mr. Chairman, that concludes my opening statement. I'd be pleased to answer any questions.

The Chair: Thank you very much, Superintendent.
Mr. Cummins, do you want to go ahead for ten minutes?
Mr. John Cummins: You talked about changing the offenders. Let me put to you a couple of instances that have happened, and perhaps you can tell me how it leads to respect for the law in this country.

Not too many years ago, on national television, there was an image of a fisheries officer standing on the beach near Agassiz confronted by members of the Cheam Indian Band dressed in camouflage gear with face masks. At the end of that week, I and Phil Eidsvik from the B.C. Fisheries Survival Coalition and a couple of fishermen were on the public road on the dike under the Agassiz Bridge observing illegal activity in the Fraser River. The road is a dead end, and a vehicle approached us with a woman in it, who was identified to me as June Quipp, the chief of the Cheam Band at that time. Also in that car were three individuals dressed in camouflage gear with face masks. The one in the front seat had a huge knife in a shoulder holster. They demanded to know what we were doing there. After a bit, they left.

The next day we were again at the same spot, and a boat took off from the beach on the Cheam side of the reserve. It came across the river at us, with eight individuals in it, four of them dressed in camouflage gear; it approached the shore and turned, as if to land, but at the last moment turned upriver. Again, they hurled insults at us and suggested that harm would come our way, and then left.

We were also advised by an individual in the area that he had seen, on more than one occasion, weapons and ammunition in the possession of natives in vehicles at the same place where we were, under the Agassiz Bridge. Again, they were dressed in camouflage gear, and so on. At one point, he said, there were two individuals with assault rifles on patrol under the bridge.

After the second occurrence, I went and reported that incident to the Agassiz police. At one point, the officer patted his pistol and said they didn't have the firepower, and he advised us that it wasn't a matter for the Agassiz police, it was a national matter, and there was nothing he could do about it. End of story.

How does it increase, in my view or the view of the public in Canada, confidence that our affairs are being well handled by the RCMP, when you can be approached by masked individuals dressed in military camouflage on a public road in this province, and then simply be told, "It's a national matter, it's not my concern"?

- (1150)

The Chair: Before you answer, Superintendent, I'm going to allow that question with this caveat: we're here to discuss the 2004 salmon fishery and what happened, and we're here as part of that inquiry to discuss the enforcement relationship between the RCMP and DFO, if any. Questions about enforcing the Criminal Code, as distinct from the Fisheries Act, are certainly relevant, but I don't want to have this committee start down the road of examining incidents that occurred four or five years ago, or even more.

As a general question, in terms of the public perception of the law, I'll allow the question this time.

## Superintendent.

Supt Reg Reeves: I'm not familiar exactly with all of the particulars you just mentioned, Mr. Cummins. However, I have known since arriving in my current position and being advised by DFO staff that they have actually been involved in a two-decade conflict between the Cheam Band and the Department of Fisheries and Oceans in regard to fishing and fishing matters in the particular area where this band lives.

I'm also aware that the Agassiz police, which had been mentioned by Mr. Cummins, is the police agency responsible for matters in that particular area. However, I'm not specifically aware of the exact details you've mentioned. The only thing I would suggest is that there perhaps could or should have been follow-up. It would appear to me that the response Mr. Cummins described would not have been an appropriate response by the RCMP.

Mr. John Cummins: Thank you.
I'll take the chairman's guidance on this issue, as I'm compelled to do.

Let's take a look, then, at an instance a year ago, because it certainly mystifies me. That was the incident when three fisheries officers entered the Cheam Reserve to do their job. We heard yesterday from some Cheam Band members that their chief was beaten up. The fact of the matter is, there was a threat to put the fisheries officers' vehicle into the water.

They phoned the RCMP. It took 45 minutes for the RCMP to arrive. Their station in Agassiz is probably less than 10 minutes from the site, but it took 45 minutes for them to arrive. Yet when the RCMP arrived, rather than offering support to their fellow peace officers, they acted as intermediaries, if you will, between the band and the fisheries officers. They actually negotiated the release of the vehicle, only under the condition that it would go from the possession of the band to the RCMP's vehicle lock-up.

Again, how is that offering support to DFO officers who are trying to do their job?

- (1155)

Supt Reg Reeves: I first became the liaison officer in October 2003. One of the parts of my liaison program is communication and cooperation between both agencies, the RCMP and the Department of Fisheries and Oceans. The particular incident you're referring to occurred, I believe, in May of 2003.

Mr. John Cummins: Yes, sir.
Supt Reg Reeves: As I just pointed out, I became involved in my role in October.

One of the things that was clear to me was that there hadn't been what I would refer to as a debriefing between the agencies, the RCMP and the Department of Fisheries and Ocean, regarding some of the issues Mr. Cummins has just brought up. In fact, we did have a very good debriefing in Chilliwack in late October of 2003 between the RCMP and DFO to go over and to discuss some of the issues that have been raised. We concluded that things may not have unfolded the way they certainly could have, but it was determined at the time
that it was the best course of action. In fact, Superintendent Mercer was the officer in charge of that particular situation, and from all accounts he handled it accordingly.

Mr. John Cummins: On the arrangement that was made between the Cheam Band and the department whereby the fisheries officers would provide three hours' notice to the band before they entered into their so-called traditional territory or the area where they generally fish, was the RCMP involved in those negotiations?

Supt Reg Reeves: At what point in time are you referring to, Mr. Cummins?

The Chair: Well, let's say prior to the signing of the agreement. Was the RCMP, to your knowledge, involved in the negotiations leading to the agreement Mr. Cummins just mentioned?

Supt Reg Reeves: Are you referring to the agreement between Cheam and the Department of Fisheries and Oceans, the safety protocol agreement?

Mr. John Cummins: Yes, sir.
Supt Reg Reeves: No. As far as I understand, the RCMP was not involved.

Mr. John Cummins: Well, would the RCMP approve of a safety protocol, as it was referred to, in which peace officers-which in fact is what fisheries officers are-are put in a position by some clerks at a government department wherein they must serve notice before they enforce the law? In other words, they may very well know there is law-breaking going on, but before they can move to stop that lawbreaking, they must serve notice.

I can't imagine the RCMP giving a bank robber three hours' notice before coming to apprehend him, and I wonder if the RCMP would be supportive of an agreement whereby peace officers are required to give three hours' notice before they move into an area to enforce the law when they know there's wrongdoing taking place.

Supt Reg Reeves: I know of no agreement that the RCMP has ever entered into under those particular conditions that I just mentioned. I do know that we have a interaction safety protocol with the B.C. Aboriginal Fisheries Commission that we follow, but it would not have a clause or doesn't have a clause similar to what you just referred to.

Mr. John Cummins: On the issue that flows from the incident in May 2003, the fisheries officers to my knowledge were absolved of any blame by the department. Yet they were suspended from duty from the time of the incident until August of that year, suspended from duty for doing their job. Then they were advised to go through some sort of restorative justice healing circle.

Can you offer me any explanation on why an officer of the crown would be required to go through a restorative justice healing circle for doing his job?

- (1200)

The Chair: Mr. Cummins, are you suggesting that this was something the RCMP insisted on?

Mr. John Cummins: No, but I understand that the superintendent is familiar with this notion I referred to, the healing circle. I am wondering in his wildest imaginings if he can give us a reason why these fisheries officers who were simply doing their job were treated this way.

The Chair: I think of course you'll be able to put to the appropriate officials that very question this afternoon. There should be somebody here who will be able to answer on behalf of DFO that question.

Mr. John Cummins: I understand that, but as I said, my understanding is that the superintendent is very familiar with these issues. I think that any thoughts he may have may be interesting.

The Chair: Superintendent, do you have any thoughts on this?
Supt Reg Reeves: You're quite right. One of the terms of reference in my memorandum of understanding was a request by the Department of Fisheries and Oceans for me to look at their policy, in particular to administrative leave. As to what you're referring to, it is my understanding that it wasn't a suspension but an administrative leave that was taken by the officers at the time.

In that process I have interviewed a number of people over the last several months. I have not finalized any conclusions with regard to the matters you've brought forward, but I intend to provide a report back to the Department of Fisheries and Oceans with regard to any policy gaps or issues and make recommendations for any future changes.

The Chair: Thank you, Superintendent.
That is it, Mr. Cummins. You're well over your ten minutes.
Mr. John Cummins: I understand that, Mr. Chair, but I just want clarification on administrative leave. That was not something that was asked for, but that was something that was imposed on those fisheries officers. Is that not correct?

The Chair: Do you know that, Superintendent?
Supt Reg Reeves: I guess it is a matter of terminology. I have read correspondence from the three officers who requested that leave.

The Chair: Before we go to Mr. Murphy for ten minutes, I have one question.

You mentioned an MOU. I believe you said it was with the B.C. native association, was it?

Supt Reg Reeves: The B.C. Aboriginal Fisheries Commission.
The Chair: Right. Is there anything in that MOU that in your opinion impedes the RCMP in any way from enforcing the Criminal Code?

Supt Reg Reeves: Not at all.
The Chair: All right. Mr. Murphy, ten minutes.
Hon. Shawn Murphy: Thank you, Mr. Chair. I want to thank Superintendent Reeves for being here today.

I have just a couple of questions. Can you perhaps summarize the involvement of the Royal Canadian Mounted Police in any enforcement activities involving the alleged native unauthorized harvest of salmon during the 2004 season?

Supt Reg Reeves: Yes. One of the components of the plan that we engaged in this year was after a review of previous years' interaction between first nations and fisheries officers on the Lower Fraser. There was a component that came out at our debriefing, which I mentioned earlier, with regard to assistance by the RCMP and interaction between the RCMP and Department of Fisheries and Oceans.

As a result of that, with the Agassiz detachment we initiated approximately six joint patrols. RCMP officers were actually on DFO vessels doing patrols in that area.

I went on a patrol one afternoon with fisheries officers in the same area. I know that in the lower Fraser region the Richmond detachment in fact did 14 water patrols and four land-based joint patrols with fisheries and oceans officers this past year, in 2004.

Hon. Shawn Murphy: Were charges laid, sir?
Supt Reg Reeves: Yes. In fact, on the day I was out with fishery officers, there were two individuals who were charged with illegal fishing.

Hon. Shawn Murphy: We heard evidence yesterday that if they go out and catch a person illegally fishing, in the first instance, they give a warning. Is that the policy?

Supt Reg Reeves: That was what we had agreed on, depending on the nature of the offence. Basically, if it was a minor offence, a first offence, there was in fact a policy, an agreement by fishery officers, that they would proceed in that manner.

Hon. Shawn Murphy: There have been allegations made before this committee over the last two days. I know the primary responsibility does not rest with the RCMP, but there has been an allegation made against DFO that they really aren't enforcing the rules and regulations of the Fisheries Act in the Fraser River above Mission. Do you agree with that allegation?

- (1205)

Supt Reg Reeves: No. I've been part of a process, so I'm actually aware of a number of charges that were laid this summer, and ongoing, above the Mission and Agassiz Bridge area.

Hon. Shawn Murphy: Did you see any incidents of violence this summer, where these offenders would be?

Supt Reg Reeves: No. I can comment, Mr. Murphy-and these are observations of mine and others from the Department of Fisheries and Oceans - that some of the work that I and the director of the Department of Fisheries and Oceans conservation and protection group, Mr. Greg Savard, entered into with the Cheam Band, in particular, make reference to that. There were no incidents of conflict as far as any confrontation with any of the fishers who were dealt with on the water or off the water for this particular year.

Hon. Shawn Murphy: Is there anything out there, sir, legislatively for fisheries regulations and resources that in your opinion impedes you in this whole area of fisheries enforcement on the Fraser River?

## Supt Reg Reeves: Me or DFO officers?

Hon. Shawn Murphy: Both.
Supt Reg Reeves: Not that I'm aware of. I'm not intimately knowledgeable of all the workings of the Fisheries Act and the regulations they enforce, but to my knowledge there's nothing that handicaps or prevents fishery officers from going out and performing their duties for this particular year.

Hon. Shawn Murphy: Going back, we've heard about this protocol, which I find intriguing. I know it wasn't a protocol made with the RCMP, but in your capacity, would you be assisting only? Correct me if I'm wrong. Would the primary persons be the DFO officers?

Supt Reg Reeves: In a joint patrol, yes, that's correct.
Hon. Shawn Murphy: Okay. I don't know all the details, but apparently there's a protocol that the DFO officers would give the band and council of the Cheam Band notice of their presence, and also that they would not, in any way, shape, or form, seize any illegal gear that was unattended. I find that very intriguing. Certainly when these fishermen put out a net, they don't notify the fish, so I don't know why an officer would notify any offenders. Are you a party to that or are you aware of it? What do you think of it?

Supt Reg Reeves: Well, I'm aware of it. I've read the particular protocol that you have mentioned, and there are provisions. I can't specifically remember the specifics, but there was a notification to either chief or council, or someone from that particular band, prior to actually going onto the property or land to do enforcement work or there was an announcement process that was agreed to.

Is it the best thing for an enforcement officer? It depends on the situation. If there's a reason an enforcement officer should be there covertly to perform his or her duties, that particular provision could inhibit the ability to do that.

Hon. Shawn Murphy: Would this work for river patrols too? Let's say you're on a vessel on the Fraser River. Would you be prohibited from going into that territory without giving them this socalled notice?

Supt Reg Reeves: There were provisions with regard to watercraft patrols, but I'm not sure if there was a notice required for water or if it was just on land. I'm not sure. I know that, as mentioned earlier, the panel this afternoon may be able to answer that question.

Hon. Shawn Murphy: I have no further questions, Mr. Chairman.

The Chair: Thank you, Mr. Murphy.
I would like to follow up on that. Mr. Murphy did ask about the provisions that no illegal gear would be seized. Do you know about that and do you have any comments about that?

Hon. Shawn Murphy: No illegal gear would be seized at the time if it was unattended.

The Chair: If it was unattended. Okay. So apparently the agreement says there will be no illegal gear seized if it's unattended, even though it is illegal gear. Do you have any comments on that?

Supt Reg Reeves: I believe the intent was to identify the gear and then identify the owner prior to seizing it. I don't think there was any indication that it would not be seized. That's my understanding, but I could be wrong.

The Chair: Is there anything out of that, Mr. Murphy, or are you all right?

Hon. Shawn Murphy: I'm all right.
The Chair: Thank you.
Now we go to Monsieur Blais.

- (1210)
[Translation]
Mr. Raynald Blais (Gaspésie-Îles-de-la-Madeleine, BQ): Thank you, Mr. Chairman.

Mr. Reeves, I would first of all like to understand the situation you find yourself in with regard to your mandate, both as an RCMP liaison officer, and therefore a representative of a constabulary force, and, on the other hand, as someone working for the Department.

At one point, you mentioned that there was a new formula: understanding why a crime occurred, etc. Given all that we are hearing, we are left with the impression... I would like you to tell me more about your mandate.

How must this mandate be understood? Could one say that your mandate involves various elements? If so, what are they, given the specifics of this particular situation?

## [English]

Supt Reg Reeves: If I understand the question correctly, Mr. Blais, it's my mandate and my role in regard to the liaison officer position. Probably the best thing to do is just go over the key points of my MOU and some of the things I'm trying to accomplish. Perhaps if I do that this may answer your question.

First of all, there were seven areas that were identified, and they were operations, community-based policing, joint problem solving, community justice programs, training programs, policy gaps, and communications.

The joint problem solving is the area that I think has brought forth some of the questions here today in regard to some of the things that were suggested by myself and others on a change of direction regarding the enforcement program with some bands on the river. The primary goal in my particular role was to look at relationships if there were issues in particular with one group that was identified in my MOU and to improve relationships between the Department of Fisheries and Oceans and that particular group and others, and also to improve relationships between the RCMP and the Department of Fisheries and Oceans.

In order to do that, there were a whole series of events that were laid out, and they were actually performed in a systematic manner prior to this year's fishing season. We've gone through that process and we have arrived where we are today.

I'm not so sure I understand exactly what your question is there.

## [Translation]

Mr. Raynald Blais: Mr. Reeves, you have quite well understood the question and I have quite well understood the answer. My impression is that you are telling us that your mandate is more in the area of keeping the peace than in enforcing the law.

## [English]

Supt Reg Reeves: No, not at all. The mandate of the RCMP, is that what you'd like me to refer to, or my particular mandate as a liaison officer?

Enforcing the law, of course, is certainly our mandate in the RCMP, without question. There are a number of laws and statutes that we enforce with the RCMP, and we not only do the things I mentioned, but we also enforce laws and we take enforcement action ourselves. That's correct.

## [Translation]

Mr. Raynald Blais: In any event, that is not my impression, based upon the answers that you have given us thus far. It seems to me that the three-hour lag time, the memorandum of understanding, the new formula, understanding why crimes are being committed, are all things that limit the enforcement of the law. This might provide some flexibility, which in turn gives you tools for keeping the peace, but with regard to law enforcement, my impression is that these things become limitations.

## [English]

Supt Reg Reeves: The provisions that were mentioned earlier are not the provisions the RCMP works under in regard to our mandate of enforcement. That was a description of an event between the Department of Fisheries and Oceans and the Cheam Band, not the RCMP.

- (1215)
[Translation]
Mr. Raynald Blais: Thank you.
[English]
The Chair: We'll go to Mr. Kamp, for five minutes, then to Mr. Murphy for a short question.

Mr. Kamp.
Mr. Randy Kamp: Thank you, Mr. Chair.
In a letter written by one of the elders of the Cheam Band he said, "The summer just past, DFO officers, often accompanied by local RCMP officers from Agassiz detachment, patrolled our fishery on a regular basis." Is that an accurate comment, as far as you know?

Supt Reg Reeves: Yes, I would say on a regular basis. That could include land patrols as well, because I know we have three first nation members who work out of Agazzi detachment who actually look after the Cheam Band.

Mr. Randy Kamp: Were they regularly accompanied by RCMP officers as well?

Supt Reg Reeves: The DFO officers?
Mr. Randy Kamp: Yes.
Supt Reg Reeves: Regularly, yes. The issue was that when we began our efforts in regard to contact with fishers in that particular area, we started out with joint patrols, but then after a while DFO officers actually were there by themselves performing patrols. When necessary or appropriate or the situation arose, we would have joint patrols, so there was a combination of those different efforts.

Mr. Randy Kamp: We heard about some charges that were laid-I think 10 or 11 charges, or something like that. Do you know if these were charges under the Fisheries Act or Criminal Code charges?

Supt Reg Reeves: The Fisheries Act, I think.
Mr. Randy Kamp: Every case?

Supt Reg Reeves: As far as I'm aware, yes.
Mr. Randy Kamp: There was also a bit of confusion-and you may not know this and I think we will have the definitive answer this afternoon-on the number of DFO enforcement officers who would have been active in the Cheam area. One witness said there were 13 and others said there were lots and lots. Do you know the number?

Supt Reg Reeves: No, I don't have that information. I have an approximate number, that's all.

Mr. Randy Kamp: You don't even know an approximate number?

Supt Reg Reeves: I met with them on a regular basis. You're talking about the Chilliwack and the Mission DFO officers. I would say there are probably eight to a dozen officers who work out of those facilities as far as uniformed conservation and protection forces are concerned.

Mr. Randy Kamp: Out of both, combined Mission and Chilliwack...?

Supt Reg Reeves: That's correct. About a dozen at the most.
Mr. Randy Kamp: Thank you very much.
The Chair: Thank you.
Mr. Murphy.
Hon. Shawn Murphy: I have an issue over the timing of enforcement, Superintendent. There has been an allegation made that no enforcement activities take place after five o'clock in the afternoon. Is that correct?

Supt Reg Reeves: I'm not aware of that stipulation. In fact, I know there's been enforcement after those hours.

Hon. Shawn Murphy: Do you ever do any night enforcement yourself?

Supt Reg Reeves: Not myself, personally, no.
Hon. Shawn Murphy: Are you aware of any being done in the summer?

Supt Reg Reeves: In the evening after five o'clock, yes.
The Chair: Thank you, Mr. Murphy.
Mr. Hearn.
Mr. Loyola Hearn: Thank you very much, Mr. Chair, and thank you, Superintendent Reeves, for being here.

From the evidence we've heard during the last couple of days, it's quite obvious that the rights of the aboriginal groups in particular are viewed differently by several other groups in society, but more surprisingly, maybe among the various groups themselves.

In a forum like this, how can you decide who has what rights when it comes to seemingly breaking the law, particularly in relation to catching salmon on the river by use of illegal gear, or out of season, or during times, of course, when there's a moratorium on all fishing, or catching an exorbitant amount? How can you determine what is right or wrong when so many have different views of exactly that? Is it a difficult situation to put you in?

- (1220)

Supt Reg Reeves: No, from my understanding and from what I have observed in regard to the operation of the Department and Fisheries and Oceans as it would pertain to first nations' fishing agreements.

There is, of course, as you know, a duty to consult and accommodate in regard to first nations rights issues. The department in fact does carry out those obligations to consult and accommodate, and there are a number of negotiations and consultations that take place with the first nations groups prior to a licence being approved by the department. The licences that are approved set out the particulars of the fishery, the time and the methods of fishing, that type of thing.

So as far as enforcement of that is concerned, once the licence is issued, it's fairly clear as to when one would break or not abide by those laws or by that licence that's issued.

Mr. Loyola Hearn: That, on the surface, seems to be reasonable and right and proper, but again, from our discussions, the interpretation of some as to what that licence or permit states, compared to others...they are two entirely different cases, and because of that, we're led to believe, at least, that many charges are not laid because of interpretation of the law.

Supt Reg Reeves: I'm not aware of the specifics you're mentioning. I don't know of that being a major issue. I do know DFO has a charge approval process, and I do know there are a number of charges now before the court system - in fact, hundreds of them that I'm aware of, because I've been involved in a process to try to resolve some of those issues from previous years.

So I do know that a number of charges have been processed through the system, a significant number that are there in regard to aboriginal first nations persons being charged. I'm not aware of any issue with regard to not being able to actually go through the court system when you're talking about offences by aboriginal persons.

Mr. Loyola Hearn: Do you believe everyone is equal and should be treated equally under the law?

Supt Reg Reeves: Yes, as determined by the Supreme Court of Canada and the Charter of Rights and Freedoms.

Mr. Loyola Hearn: Why, then, do we get so many people questioning why some are treated differently from others?

I guess what I'm driving at is are there times when perhaps, for the overall good of society, we have to vary our interpretation of the law and what we should do in any one given situation?

Supt Reg Reeves: I think it goes back to communication and understanding the perceptions and the rights of individuals and groups. It has been my observation over the last 15 months, when I've gotten to know and actually put together some training sessions for Department of Fisheries and Oceans staff in regard to aboriginal perceptions training, that when one goes through and listens to the issues that have been before that particular group of people, one probably has a better understanding as to what their issues are and some of the behaviours and the rationale of why they take the stand they do in some situations, in particular in the fishing issues, and that in fact they have some difficulties with departments at times.

Mr. Loyola Hearn: Is overall education-I don't mean the level of education but education in the sense of complete understandinga factor when we deal with different groups and agencies? Is it perhaps that over the years the education level has been very slow in evolving, and that's what's causing a lot of the problems in society?

Supt Reg Reeves: I can speak about the native or first nations groups I've dealt with over the last several years in British Columbia in particular. There are some pockets in that particular community that are undereducated and have issues with regard to attempting to function. Whether it be in meetings with regard to governance issues, there's some dysfunction in some of the communities. Social issues in particular are one of the areas in which I and others in DFO are going to try to assist some of the groups, individuals, and bands we deal with in those particular areas you're mentioning. So we are aware of some of those issues they have as a community.

- (1225)

Mr. Loyola Hearn: I can appreciate that, but on the other hand, when you have a number of groups in society trying to make a living-and a meagre living these days because of what has been happening in our resources generally-and when you see within these groupings certain people seemingly getting the benefit of the law by people turning their backs or not enforcing rules and regulations that we understand generally, can you see why some people are frustrated, particularly in light of the salmon fishery on the Fraser River, where, again, we have a number of players but some think others are looked upon differently by the law?

Supt Reg Reeves: Yes, there are certainly some very volatile situations and there are a lot of sensitivities in regard to the issues you've mentioned, without question. I believe that's one of the reasons I'm in the position I'm in and they've created a liaison position here in this particular region. The RCMP has identified that, along with management at the Department of Fisheries and Oceans, to try to address some of those issues, to try to bring parties and groups together for better understanding of each other's positions.

That's another matter of enforcement in terms of trying to be preventive and proactive in regard to what the issues are, bring them out and discuss them in a reasonable way, to try to prevent any breaches of the peace or any assaults or confrontations. That's exactly what we attempt to do in any situation where we know there might be potential for conflict.

The Chair: Okay, that's it, Mr. Hearn. Sorry.
I have four questions, and then I'm going to go to Mr. Cummins for five minutes. I don't have anyone else on the list. If anyone else wants to ask a question, please inform the clerk.

As to my first question, we've heard evidence, Superintendent, that the unofficial policy, or perhaps it's even an official policy, of DFO is to observe and record, but then that enforcement and charges are not nearly commensurate with the number of observations and recordings of illegal activities. Yesterday we had people read into the record four and five minutes' worth of personal observations of what they considered to be illegal activities. Do you know whether there's a policy of observe, record, and forget?

Supt Reg Reeves: I'm aware of the 1-800 or 1-888 number that in fact the Department of Fisheries and Oceans has, which they refer to as the "observe, record, and report" line that they use and advertise as a means of reporting incidents to that department for breaches of similar things that you just mentioned. That's certainly in place.

The Chair: Do you have any observations about the number of charges under the Fisheries Act that are laid as a result of that policy? Do you know anything about it? Do you have statistics or anything like that?

Supt Reg Reeves: No, I don't have any statistics that say what's being done.

The Chair: So you wouldn't know how many incidents are reported compared to how many charges are laid.

Supt Reg Reeves: That's correct. I don't know.
The Chair: Thank you.
Secondly, on the issue of what's the law, I presume that you're reasonably familiar with the Fisheries Act, since you're the liaison, and if you are, we were told that drift-net fishing is illegal from Mission on up the river. Is that correct?

Supt Reg Reeves: My understanding of it is that's not correct.
The Chair: What is correct?
Supt Reg Reeves: I'm aware of legal advice that was sought by the director of conservation and protection on that particular matter, and it was the view of the Department of Justice that it was not an illegal act to perform. That was a part of the licence that was issued to Cheam in regard to drift-net fishing this year.

The Chair: Superintendent, the Cheam aren't from Mission to the headwaters. They only have a two-kilometre stretch of river, so let's not talk about the Cheam. I'm talking about, as a matter of legal policy or a matter of law, whether drift-net fishing-let's forget the Cheam and any agreement they have-is illegal under the Fisheries Act from Mission upriver.

Supt Reg Reeves: Not that I'm aware of.

## The Chair: Okay.

Do you have any personal knowledge of alleged efforts by senior DFO officials to try to convince Department of Justice officials not to proceed with Fisheries Act charges laid or contemplated to be laid?

Supt Reg Reeves: I'm not aware of that.
The Chair: And you mentioned a duty to consult and accommodate. Where do we find this duty?

- (1230)

Supt Reg Reeves: The duty to consult and accommodate?
The Chair: Yes. Is this in the law?
Supt Reg Reeves: From a direction of the Supreme Court, it's a responsibility of the provincial and federal governments with regard to first nations issues when there are rights issues that are brought up. That's my understanding.

The Chair: And that's from a Supreme Court decision?
Supt Reg Reeves: Correct.
The Chair: And what decision is that?

Supt Reg Reeves: I don't have that in front of me. I can't tell you that.

The Chair: All right, thank you.
Mr. Cummins.
Mr. John Cummins: Mr. Chair-
The Chair: By the way, if you find out, would you let us knowlet me know?
Mr. John Cummins: Which decision did you want to know about?

The Chair: About the decision that "imposes a duty to consult and accommodate", which was the direct wording of the superintendent.

We'll just leave it at that.
Go with your question, Mr. Cummins.
Mr. John Cummins: Superintendent, this follows along with the chairman's questions. You mentioned before that you've been to discussions with these folks about what their issues are. The fact of the matter is that the Supreme Court of Canada was very clear in the Van der Peet decision, which dealt with a Stó:lõ woman, and it denied that the Stó:lõ had an aboriginal right to a separate commercial fishery. The Supreme Court has spoken very clearly on that. The Cheam are part of the Stó:lõ group, and yet they were in here yesterday and they told us, yes, we sell. And the fellow said that if I paid enough, he'd sell to me too. The fact of the matter is the law is not being enforced. You're the liaison between the RCMP and the DFO - are you going to make it part of your duty to ensure that the law is enforced?

Supt Reg Reeves: The enforcement of the Fisheries Act is the primary responsibility of the Department of Fisheries and Oceans and their policies will take place. If there are any discussions about anything illegal or improper going on that would impact my work, I'll certainly have discussions with them about that, but I don't feel it my place to determine the DFO policy in regard to what is it they'd like to do or not do.

Mr. John Cummins: Can the RCMP lay charges under the Fisheries Act?

Supt Reg Reeves: I don't know that answer.

## Mr. John Cummins: Okay.

Let me read to you from a memo from John Dyck, who is the area chief conservation and protection officer, lower Fraser region. This memo came out in early July 2003 and it has to do with our friends at Cheam. It says:

At present no enforcement is to take place with Cheam band members prior to intelligence being carried out ... and the area has been cleared to ensure no participation of militant individuals who officers would normally not deal with.

## It goes on to say that:

Enforcement operations, including intelligence gathering at present, are not to take place on the Cheam reserve land and that being north and south reserves of the Agassiz Bridge. Once it has been satisfied there's no militant involvement, word will come down from the director's level to proceed with enforcement on Cheam band members, which will include specific directions on how this is to take place.

Mr. Dyck went on and advised officers to continue to monitor illegal fishing activity by the Cheam, but said there would be no enforcement until a threat level is determined in a joint intelligence gathering operation involving the fisheries department and the RCMP.

We also know that earlier this year fisheries officers refused to undertake patrols in the area of the Cheam Band because they were considered unsafe. You've suggested that the RCMP who were there made patrols at that time with the fisheries officers, so I have a couple of questions. One, just what is your involvement when it comes to enforcing the law and in intelligence-gathering related to the Cheam? And two, this past spring, when you were referring to the RCMP officers on patrol with the fisheries officers in that area, were they there to ensure the safety of the fisheries officers?

Supt Reg Reeves: First of all, you touched on the report by Mr. Dyck. Did you have a question?

Mr. John Cummins: Yes. There is a relationship here on intelligence gathering and the concern about militants. Having experienced that-I made reference to that earlier in my questionsjust what sort of intelligence gathering is ongoing, and what is your relationship with the DFO on that issue?

## $\bullet$ (1235)

The Chair: If there is intelligence gathering, you don't seriously want him to put it on the record, do you? The second part of your question would be acceptable, but I can't see-and this is assuming for the moment for argument's sake that there is intelligence gathering-you would want it made public.

Mr. John Cummins: My problem, Mr. Chairman, is that, as I said at the outset and in this round of questioning, the Supreme Court has been very clear on what can be done and what can't be done. They've made it very clear-

The Chair: Sorry, Mr. Cummins, are you referring to 97 nations or the Stó:lõ?

Mr. John Cummins: I'm referencing, actually, the Van der Peet decision, which dealt with a Stó:lõ woman.

The Chair: It's clear with respect to that band.
Mr. John Cummins: Yes, absolutely. There's no question that there is no right to commercial sale. There have been many instances of militant activity involving fisheries officers and confrontations with fisheries officers, and in my case with the general public, with people who have adapted a very militant approach and military garb.

It's all fine and good to say, well, we're talking and we're trying to make some arrangements here and some accommodations, but it seems to me that there are very clear violations of the law. What I'd really like to know is, when are we going to get on with it and enforce the law?

The Chair: All right. We'll let the superintendent answer that general question.

Supt Reg Reeves: With the matter regarding the militant groups -their garb and weapons-we haven't experienced any of those things whatsoever this year that I'm aware of in that particular area. There was no action taken because there was nothing observed.

You asked me about my role as it relates to enforcement, and there were some other issues that were brought up about the RCMP ability
to charge under the Fisheries Act. The national MOU between the RCMP and DFO clearly lays out the issues that when the RCMP is on patrol and identifies a Fisheries Act offence, then there is an ability for us to take action. It lays out the steps we would take, whether we lay the charge or recommend, or have the Department of Fisheries and Oceans do that on our behalf. But we don't ignore that fact. We would actually take action, and there's a process to follow.

My role in enforcement in these particular matters is I'm more of a liaison person, so I liaise. That's my primary role. I don't go out myself and perform any enforcement duties or whatever. I think it was Mr. Blais-he's not here now-who asked the question before in regard to the RCMP as to whether we may have taken action to charge anybody or arrest anybody this year in particular to a fisheries-related offence. The answer is no, but with DFO we have been on the water. We have arrested persons in vessels who may have been fishing with regard to breaches or other offences, whether the Liquor Control Act, weapons, firearms, those types of things. Yes, we have laid charges. In those situations we have taken action, when offences have been identified. So, yes, we have in fact been doing it, but not myself personally.

The Chair: Thank you very much.
Thank you, Mr. Cummins.
Mr. John Cummins: With regard to the question I had asked, were they there to protect the fisheries officers?

The Chair: Could you just ask it again? That will be your last question.

Mr. John Cummins: I had noted that the fisheries officers had indicated they didn't want to patrol earlier this year because they felt unsafe. At one point the RCMP were accompanying fisheries officers on patrol. Were you there to provide so-called protection?

Supt Reg Reeves: No. We were there to create relationships between both parties and groups. That was our primary role.

The Chair: Thank you, Mr. Cummins.
Superintendent, you certainly don't have an easy job. It's clear from the testimony we have heard that there's a segment of society in British Columbia that does not believe the law is being enforced. That may be a fact, or it may be a perception problem. But if people honestly believe the law is not being enforced, that in itself that can lead to further breaches of the peace.

Somebody has to be aware of that at the RCMP level. Clearly, I'm not telling you anything new, but it's very important that people have confidence in law enforcement-from whatever side-and that we leave the convicting to the courts. If there's an apparent violation, then people should have the feeling, it seems to me, that the laws are being enforced and that they're being enforced for all in a fair and reasonable manner.

I don't envy your job as a liaison officer, but I certainly do appreciate the succinctness with which you answered our questions. I'm just going to ask you-we can, of course, get it from the ministry-do you happen to have a copy of the MOU you referenced readily available?

- (1240)

Supt Reg Reeves: Yes.
The Chair: Could you make a copy available to us?
Supt Reg Reeves: I will.
The Chair: Thank you very much.
I very much appreciate your testimony.
We will now adjourn until 1:30, at which time we will hear from enforcement panel 2, the Department of Fisheries and Oceans.

- (1241)
(Pause)
- (1333)

The Chair: We're reconvened.
This afternoon we're starting with panel 13A, enforcement 2 . We have with us today, as an individual, Scotty Roxborough; and from the Department of Fisheries and Oceans, Herb Redekopp, area chief, conservation and protection, lower Fraser area.

Welcome, gentlemen. You'll each have an opportunity to give a statement for up to ten minutes-it doesn't have to be ten minutes, but up to-and then we'll go into questioning by the committee members.

I think I'll start in the reverse order that I introduced people, and I'll ask Mr. Roxborough to start first.

Mr. Scotty Roxborough (As Individual): Thank you, honourable chairman and honourable panel members.

My name is Scotty Roxborough. I'm a retired fishery officer with 25 years' service with Fisheries and Oceans Canada. The majority of my enforcement career was spent on the lower mainland monitoring fish processing plants, fish stores, restaurants, international border crossings, and air cargo terminals on the Fraser River from the Strait of Georgia upstream to Boston Bar.

The Chair: Mr. Roxborough, just so that everybody knows that I'm the dolt, I said I would call on people in reverse order, and then I called on them in the order I introduced them. Sorry.

Please proceed.
Mr. Scotty Roxborough: Thank you.
From the spring of 1996 until the fall of 1998 I was the officer in charge of the Chilliwack field unit, and prior to that I was an undercover officer conducting surveillance from Lytton to the mouth of the Fraser River.

I'd like to break down my presentation on the alleged missing two million sockeye salmon from the enforcement point of view into the following parts: warm water; first nations; commercial fishers, sport fishers; what is known; and the conclusion.

The issue of the disappearance of sockeye salmon due to warm water is plausible, but the question that has to be answered is, where are the carcasses?

As enforcement officers, we do numerous boat and road patrols along the Fraser River, and when the field units have money we do helicopter flights. One would assume that if the sockeye salmon are being stressed out by the warm water one would see weak salmon
attempting to combat the river currents and the feeble carcasses floating downriver, with no energy to migrate further upstream.

In 1997 I flew the Fraser River, drove up and down it numerous times, as well as did boat patrols during the extreme high water that was coming down the Fraser River through Hell's Gate. I observed the sockeye salmon holding in back eddies as they waited for an opportunity to swim into the next back eddy upstream. As the sockeye salmon became weaker and weaker, I would observe the weak fish swimming out into the main current only to be swept downstream, flitting their tails in a futile effort to combat the swift current they were trying to swim against.

When we patrolled by boat, it was not unusual for our engine props to chop up the floating carcasses as they floated downstream. This was a typical situation where salmon with no energy, stressed out by the strong high-water levels, basically perished on the upward migration.

In discussions with fishery officers I was informed that they did not see anything of this nature in 2004.

It is necessary to put into perspective some of the figures provided by DFO.

Looking at the November 23, 2004, memorandum from Eamon Miyagi, fisheries technician, which I downloaded from the fisheries web page, the first nations groups from Mission Bridge to Sawmill Creek caught 372,333 sockeye salmon from July 4 to August 29. The amount of effort recorded for that area was 2,890 gillnets.

This works out to be an average of 129 sockeye caught per net fished. Based on that average catch per net, there would have to be 15,625 nets in the river to catch the two million missing sockeye salmon-an average of 171 gillnets per day over the period July 1 to September 26. Even if one were to make an assumption that the reported data was out by $100 \%$, that would still mean there would have to have been 85 nets fishing in the river each day.

Let us look at the missing two million sockeye-

- (1335)

The Chair: Sorry, do you mean 8,500 nets?

Mr. Scotty Roxborough: Eighty-five nets.
The Chair: Eighty-five?
Mr. Scotty Roxborough: Eighty-five nets fishing in the river each day.

The Chair: Okay. Sorry.

Mr. Scotty Roxborough: Let us look at the missing two million sockeye salmon from another perspective. Two million sockeye salmon represent, give or take, 12 million pounds of salmon. Based on the fact that an average semi-trailer can carry 30,000 pounds, 12 million pounds of salmon would represent 400 semi-trailers. This would mean that over the 91-day period, July 1 to September 30, four and a half semi-trailer loads of salmon would be moved out of the area from Mission to Sawmill Creek per day. These four and a half semi-trailer loads of sockeye salmon would have to be processed, stored in processing plants in cold-storage facilities, and/or trucked, shipped, or flown out of the country. Each container of salmon would require false paperwork to allow for the processing, storing, sale, and/or export of the salmon.

If one believes that the first nation members caught and disposed of all these salmon, one should take a further look at the data. Twelve million pounds of salmon has to be transported from the netting site to a central location for further transportation. It has been my experience that first nation members transport their salmon either in plastic tubs, in the trunk of their cars, or, with large quantities of salmon, in insulated totes in the back of a pickup. On occasion, two insulated totes may be used. Assuming that all the salmon was transported in insulated totes, 6,000 to 12,000 pickup trucks would be needed to transport the salmon from the fishing sites to the central location. Each tote carries roughly a thousand pounds. Again, during the timeframe of July 1 to September 30, 66 to 132 pickup trucks per day would be moving salmon from the river to the central location.

The above scenario also assumes that the two million sockeye salmon were migrating upriver in a uniform manner on a daily basis. As we know, this is not the case. The number of pickup trucks moving the salmon would diminish some days and increase on other days.

I've used the Mission to Sawmill Creek area as an example, and the same analysis can be used for the mouth of the Fraser River to Mission. I would also like to point out that we could apply the same scenario to the commercial fishery.

Based on overflights of the Fraser River from Sawmill Creek to Mission, I estimated that the highest number of anglers fishing during a 24 -hour period would be approximately 6,000 anglers a day. These were flights I did back in 1996 to 1998. This was based on the number of anglers counted during the flight and multiplied by three to reflect the anglers who fished in the morning, the anglers who fished around midday, and the anglers who fished in the evening. It is my understanding that the numbers may have increased since 1998, but the closure of LandstromBar may help to keep these figures level.

For the sports fishery to have removed two million sockeye salmon, every sports fisher would have had to catch and retain 3.6 sockeye salmon during the timeframe of July 1 to September 30. As the final opening for sockeye salmon for sports fishers in 2004 on the Fraser River closed on August 19, the sports fishers would have had to catch almost seven sockeye salmon each.

It's certainly known that there is a certain amount of fishing conducted by individuals outside the government-authorized fishing times and possession limits. This is supported by the fact that the Chilliwack and Mission fishery officers seized close to 200 nets
during 2004, and I would assume that the Fraser Valley West and Steveston field officers would have seized some illegal fishing gear as well.

Some commercial fishers have developed private markets for selling their salmon in order to obtain better prices than they would receive at processing plants. One would ask, are all of these salmon being reported in their catch data? Some recreational fishers are reported to double-dip, catching their quota in the morning, coming back again later in the day, and/or fishing at another fishing bar.

If someone moves 12 million pounds of salmon, then fishery officers, the public, U.S. customs officers, fish processors, storage plants, and air cargo employees must see that something is not right. So where is the evidence of two million pieces of salmon being moved around the countryside?

- (1340)

In conclusion, I do not believe we can point the finger at any one particular fishing group. Yes, there is illegal fishing going on, and combined, each of the user groups along with warm water conditions may have contributed to the demise of two million sockeye salmon.

There is a very significant movement by the public to blame fish management for the poor estimates of returns and thus poor calculations of the total allowable catch and a poor ability to estimate escapement targets. If salmon were like cattle and pigs, all neatly contained in a field or in sties, we would not have that difficulty in guesstimating our returns.

There is a need to do a better job of collecting catch data and to have more of an enforcement presence that will deter illegal fishing. We can do a better job of collecting catch data.

Canadians will very shortly be forced into accounting for where the fish were caught. The European Union traceability requirements, the U.S. country-of-origin labelling-COOL-and the U.S. biotourism regulations will require us to trace all commercial fish products that are exported out of Canada back to their origin. In order for us to do this, all fish products caught, processed, and stored in processing plants, cold storage facilities, etc. will have to have bar codes attached to them for ease of tracking and identifying the product and tracing its origin.

Credibility and faith in the management and enforcement of Pacific fisheries may be restored in the eyes of industry and the public by combining the requirements of the traceability program with mandatory landing of all seafood products at mandatory landing ports.

Further, some of the recommendations by Donald McRae and Peter Pearse in their report Treaties and Transition: Towards a Sustainable Fishery on Canada's Pacific Coast should be implemented.

Further, adequate manpower and dollars to conduct effective enforcement patrols for illegal fishing, combined with the ability to conduct forensic audits of processing plants and cold storage facilities along with the monitoring of imports and exports of all seafood products, will force all user groups to be more accountable in their fisheries.

Thank you.

- (1345)

The Chair: Thank you, sir.
Mr. Redekopp.
Mr. Herb Redekopp (Area Chief, Conservation and Protection, Lower Fraser Area, Department of Fisheries and Oceans): I'd like to thank the standing committee for inviting me here today.

I would ask for your patience in hearing what I have to say. I'm battling a flu and I'm thankful I have some voice today; yesterday I didn't have any.

As area chief of conservation and protection for the lower Fraser area, I have the privilege of leading a dedicated a group of fishery officers who are passionate about protecting our valuable fisheries resource in a manner that is professional and respectful of the user groups we interact with in our communities on a daily basis.

At the start of the year we developed business plans in each detachment within the lower Fraser area that specified how we would direct our enforcement efforts in a strategic manner to achieve compliance in licensed fisheries and to deter illegal activity during fisheries closures. Our enforcement plans were designed to achieve four primary objectives: first, to conserve and protect weak fishery stocks, such as abalone, ling cod, frogfish, and Thompson coho stocks, to name a few; second, to ensure public safety by deterring the illegal harvest and sale of bivalves from contaminated areas; some examples would be clams, goeyduks, and oysters; third, to protect fish habitat through public education through the development of best management practices and through monitoring of development sites and, if required, by conducting investigations and apprehending individuals or charging corporations found violating provisions of the Fisheries Act; and finally, to ensure effective fisheries management of all fisheries. Some of the fisheries we have here in the lower Fraser include the prawn fishery, shrimp, crab, halibut, herring, and of course salmon, but there are three primary groups: native, commercial, and recreational fisheries.

This was achieved through high-profile and covert patrols during licensed fisheries and also during closed times. Resources were managed to provide day and night patrols during weekdays and weekends to respond to the highest priorities identified for each month of the year...a number of salmon enforcement patrols directed at the commercial and first nation fisheries, similar to previous years. We did, however, increase our effort during closed times-the unlicensed fisheries-and as a result there has been a significant increase in the number of charges for unlicensed fishing activity in 2004.

Our success, however, is not measured solely by the number of charges we processed in each fishery. Fishery officers constantly sought opportunities to develop strong relationships in first nation
communities and with recreational and commercial sectoral groups and were successful in improving compliance through this process.

In conclusion, I can say our enforcement efforts are integral to proper fisheries management, and the men and women who are proud to wear this uniform will continue to do their best to protect the fisheries resource we all value so much.

I'd be pleased to answer any questions you have.
The Chair: Thank you, gentlemen.
Mr. Cummins.
Mr. John Cummins: Mr. Redekopp, you are now the officer in charge of the lower Fraser Valley. Could you, for the committee, describe the boundaries of that area?

## Mr. Herb Redekopp: Yes, Mr. Cummins.

I am the area chief of the lower Fraser area for conservation protection. The area I administer encompasses Boston Bar up in the Fraser Valley down through Hope, Chilliwack, Mission, Langley, Surrey, Richmond, Vancouver, the Gulf of Georgia, and north through Vancouver, Squamish, Whistler, and Pemberton. It includes the tidal portion of the Gulf of Georgia, the Fraser River, Burrard Inlet, Indian Arm, and Howe Sound.

Mr. John Cummins: How many officers do you have?
Mr. Herb Redekopp: I have 29 officers working for me.
Mr. John Cummins: How does that number, 29 officers, compare with the personnel in 1994?
$\bullet$ (1350)
Mr. Herb Redekopp: I believe in 1994 we had approximately 33 full-time fishery officers and approximately eight seasonal officers.
Mr. John Cummins: After 1994 there was an increase as a result of Mr. Fraser's report, was there not?

Mr. Herb Redekopp: I believe it was in 1998, although I'm not positive, that our seasonal staff were made into full-time indeterminate staff.

Mr. John Cummins: Was that as a result of the Fraser report?
Mr. Herb Redekopp: It was post-1997.
Mr. John Cummins: Do you have any idea what the numbers rose to? What was the maximum number of officers available between 1994 and 2004? What did it rise to?

Mr. Herb Redekopp: To the best of my knowledge, it was around 41 or 42 officers.

Mr. John Cummins: So it went as high as 41 or 42.
Are you aware of the safety agreement that was signed between the Cheam Band and Fisheries and Oceans Canada in June, 2003?

Mr. Herb Redekopp: Yes, I am.
Mr. John Cummins: Could I ask you some questions relating to that, please?

Mr. Herb Redekopp: All right.
Mr. John Cummins: Provision number four says:
"Any water-based enforcement operations will be carried out by one boat with no more than three or four DFO officers on board. Any other DFO watercraft will remain at least 50 metres away from the boat involved in this enforcement operation. Any changes to this arrangement will be brought to the salmon table first for discussion and mutual agreement."

The salmon table was a meeting that would take place between DFO and the band itself-is that correct?

Mr. Herb Redekopp: Maybe I should answer the question first and foremost by saying that the department cancelled that agreement this year. We were not working under that agreement this year. A new safety agreement was developed. A new memorandum of understanding and a new fisheries agreement were drafted with the Cheam Band in 2004.

Mr. John Cummins: Did that new agreement contain a provision that limited the number of fisheries patrol boats that could attend an incident?

Mr. Herb Redekopp: No. That was something we were not comfortable with, and it was removed.

Mr. John Cummins: On the issue of land-based enforcement, the old agreement said that all land-based enforcement operations would be carried out with no more than two fisheries officers per vehicle to a maximum of two vehicles, and any changes in this arrangement would be brought to the salmon table first for discussion and mutual agreement. Was that in the 2004 agreement?

Mr. Herb Redekopp: No, I think care was taken this year to ensure that our authority as fisheries officers wasn't limited or fettered in any way.

Mr. John Cummins: With regard to patrols this year, in a normal year, in years prior to 2004, helicopter patrols and operations would take place in the Fraser Canyon. Do you have any idea of roughly how many hours were flown? My information is it was usually over 300 hours of helicopter patrols taking place in the area of the Fraser Canyon. Is that your understanding as well?

Mr. Herb Redekopp: I can't give you the exact number of helicopter hours. I know our patrol effort in salmon enforcementrelated activities in the Fraser has remained fairly consistent over the last three or four years. Each year there have been over 6,000 hours of patrols, so a significant amount of time has been devoted to enforcing our salmon resource.

Mr. John Cummins: But my understanding is that on average the usual number of helicopter patrol hours in the lower Fraser Canyon, say from Mission to Sawmill Creek, or just up to Lillooet-in that area of the canyon-was roughly 300 hours a year in the past. Is that your understanding?

- (1355)

Mr. Herb Redekopp: I can't.... I just-
Mr. John Cummins: Mr. Roxborough, could you help?
Mr. Scotty Roxborough: In the years I was there, from 1996 to 1998, we had roughly $\$ 60,000$ worth of helicopter time.

Mr. John Cummins: And that would translate into how many hours?

Mr. Scotty Roxborough: It costs about \$2,000 per hour.
Mr. John Cummins: Okay.

Is it true, Mr. Redekopp, that this year there were zero helicopter patrols in the Fraser Canyon?

Mr. Herb Redekopp: This year, Mr. Cummins, our efforts revolved around conducting patrols by way of vessel and vehicle primarily. We did not focus on conducting helicopter patrols.

Mr. John Cummins: So basically what went on in the Fraser Canyon went on in the Fraser Canyon without any observation. You know as well as I do you don't go too far up the Fraser Canyon in a boat. I've had that experience and I know you have.

Mr. Herb Redekopp: I've been up to Hell's Gate hundreds and hundreds of times, and you cover a lot of territory by vessel very effectively. You have the ability using a vessel to remove any illegal nets quite efficiently. You have the ability to speak with a sport fisherman or first nations individuals along the banks and develop a relationship with them, or if they're encountered during a closed time, you then have the opportunity to apprehend and charge the individual.

Mr. John Cummins: But your officers are down from a peak of 42 to 29 officers, which is an even lower number than you had in 1994; you've removed the effectiveness of a helicopter patrol to identify problems; and are you telling me you're making more vessel patrols now than you did in the past, then, to compensate?

Mr. Herb Redekopp: Yes, we are-vessel and vehicle patrols. Our focus this year strategically has been to conduct more patrols during the closed time. I believe we encountered over $50 \%$ more violations by using this strategy.

Mr. John Cummins: And did you have a budget increase, then, to allow you to devote more hours to these vessel patrols? With the staff of 29 , what did you not do, then, that you would have done in previous years? Your staffing didn't increase to allow for increased patrols in the canyon.

Mr. Herb Redekopp: No, that's correct. The budget I utilized this year to administer our programs was slightly less than last year's.

How did we direct our patrols? We spent a lot more time at the beginning of the year trying to develop a strategy for how we could most effectively utilize the resources the Government of Canada was giving to us to conduct our enforcement programs.

Our efforts from the Gulf of Georgia up through the Fraser Canyon were very strategic in nature. There's no such thing as a general patrol any more in our world. Every patrol we take on is done with a distinct objective in mind. We're quite focused now in how we spend our time and how long our patrols are.

The Chair: Thank you, Mr. Cummins.

Mr. Murphy, you have ten minutes.
Hon. Shawn Murphy: I'd like to come back to you, Mr. Redekopp.

What's your feeling on the whole issue of self-enforcement? We have a situation where the Minister of Fisheries and Oceans sent out a management plan and the whole system doesn't work if the management plan is not adhered to. He has certain tools at his disposal-whether it's quota, whether it's gear type, whether it's effort-and all the tools are used. There are always problems in every fishery and you're always going to get a minority, but in my experience there's a certain amount of self-enforcement. Let's say on the east coast, if the regulation is 300 lobster traps and a fisherman is out there fishing 400, it becomes pretty common knowledge quickly and a certain amount of self-enforcement is done. He'd probably get a warning by other fishermen, and there might be some other things, and eventually his boat may be sunk or something like that and that would be the end of it. But these things work.

We had the bands with us yesterday. I don't detect that they're.... There is a management plan, and we had representatives from the Cheam Band and they're supposed to live within that management plan. They openly admitted there were a number of offenders, and you've charged a number of offenders, so there are obviously people who have no respect for that management plan. But my question to you is, is there any kind of self-regulating mechanism within band and council to try to bring order to the members of that band so that they adhere to the management plan?

- (1400)

Mr. Herb Redekopp: A good question.
I know for us in enforcement, our primary objective is to try to achieve compliance. We do that through a variety of different means. Certainly, we meet with our stakeholders-whether they be commercial, recreational or first nations-though you're asking specifically about first nations members.

Hon. Shawn Murphy: I'm asking specifically about first nations.
Mr. Herb Redekopp: We spend a considerable amount of time with them, consulting with them, talking to them about what it is we would like to achieve with the particular species of stocks that move through the river.

We recognize that after conservation they have first right to the species, and they recognize that, so we develop some mutual understanding around the resource. We seek to develop fisheries agreements that give us a measured approach through which we can manage fish throughout the area, the territory of any particular first nation. And we ask that the council and chief provide some education or provide some influence over their fishing members, because in a communal licence the fishermen are to fish for the band-with Cheam, it would be the fishermen fishing for the Cheam Band-so the council should have the ability to exert some influence on those fishermen.

We seek to develop a partnership with them to do that, to be in compliance with any agreements we reach and to be in compliance with the Fisheries Act and regulations.

In our role as fishery officers with that first nation...it's been a very interesting year, in that last year we were faced with hostile conflict on the water. As a department, we agreed that we needed to make changes. We couldn't risk having a fishery officer or a first nations member getting seriously injured or, possibly, dying over a few fish. So we thought about ways in which we could reduce the tension,
reduce that conflict on the water, and we realized it wasn't going to happen overnight. It would have to be a measured transition.

It took until, I guess, mid-August to develop a fisheries agreement - and that's the first - with the Cheam First Nation. The chief and council signed on to a fisheries agreement that specified specific days of fishing under which we would authorize them to fish. We signed a memorandum of understanding in terms of-

Hon. Shawn Murphy: I realize that, but does the chief enforce it? The people who violate it...does he use any of his powers to ensure that the members of his band adhere to the agreement that he, as chief, signed?

Mr. Herb Redekopp: It is our hope, certainly, in every first nation that this occurs.

Hon. Shawn Murphy: But there were a number of violations, you agree with that.

Mr. Herb Redekopp: Yes. We have to expect that there are occasions where there are rogue members of the band who don't comply with that direction. But those are individual cases. After the middle of August we had an opportunity to step up our enforcement, and we ended up charging a considerable number of Cheam First Nation members.

Hon. Shawn Murphy: How many were charged?

- (1405)

Mr. Scotty Roxborough: I don't have the figures in front of me. I can tell you that-

Hon. Shawn Murphy: Perhaps you can get them to us.

I want to move on to Mr. Roxborough now.

Mr. Roxborough, I wanted to ask you a question about the whole issue of traceability. I'm no expert in this, and I don't pretend to be, but it seems to me at the end of the day this is probably going to be the answer to the problem at some point in time. I know it's used in other fisheries. Does the technology exist now to bar-code or to somehow stamp a fish so that if a commercial fisher is given a certain quota...I know this leads to other problems, such as pieces versus pounds and so on, but does the technology exist?

Mr. Scotty Roxborough: I should say, first of all, that I've been working as a private consultant at Archipelago on a contract in connection with traceability and looking at the enforcement end of it. The issue of whether we can turn around and bar-code each fish I don't think is going to be practical. The issue will likely be batch loads. For example, if a commercial boat comes in and offloads, the fish will go into a tote and the tote will be bar-coded. That will then be traced through the processing plant to be processed, whether it be canned, whether it be filleted, whether it be frozen and boxed, and each fisherman will have a global identification number. That will go along with the bar-coding right through to the place of sale, whether it be here in Canada, whether it be in the United States or-

Hon. Shawn Murphy: We heard evidence the day before yesterday of all kinds of stands right around British Columbia all summer selling illegally harvested fish. Is there any mechanism that the Government of British Columbia or the Government of Canada can implement so that if you're caught possessing fish that do not have proper traceability, i.e. was not legally caught, then not only the fisher is ultimately responsible but you, the possessor, are in possession of illegally harvested fish and could maybe come under some kind of sanction?

Mr. Scotty Roxborough: We're doing it with halibut at the moment. Every halibut that's landed is tagged. Many years ago we tried to introduce that all chinook salmon for recreational fishers be tagged. That kind of fell by the wayside.

Yes, you can turn around and put a tag through the gill and through the mouth or head of the fish. However, once that fish is processed you've got to turn around and.... Whether it be smoked, whether it be filleted, or whether the head is taken off and is sent to restaurants with the head off, you have a problem. Somewhere along the line, that traceability gets removed.

We have certainly been looking at it with Archipelago. We have considered it. Actually, Iceland did a test on a whole bunch of groundfish and how they could trace all the groundfish that came off various vessels they were processing and exporting, and the system seems to work quite well.

I'm hugely in favour of bar-coding and that all totes.... For example, there's a mechanism to put an electronic tag, which is like a bar code, into all insulated totes. Once a packer comes in or a commercial fisher comes in and offloads that tag, it goes through an electronic mechanism that records all the data and it's all electronically put in and kept. That fish is then literally traced right through the processing plant to the packaging to the point of sale.

Hon. Shawn Murphy: This is feasible, you think?
Mr. Scotty Roxborough: It's feasible.
The Chair: Thank you, Mr. Murphy.
Mr. Roy.

## [Translation]

## Mr. Jean-Yves Roy: Thank you, Mr. Chairman.

Welcome, Mr. Roxborough. You have given us a demonstration, that I would qualify as exceptional, of the physical impossibility of the disappearance of the fish at the processing level. I would however like to come back to what Mr. Murphy was saying, because among the three questions I had, there was one on traceability.

You talk of traceability, and it is something that, in the fallout from the mad cow crisis, farmers will most probably have to use. Traceability allows one to follow the animal from the farm to the plate. The only problem, as always, is one of cost. When you talk of traceability, of tagging each and every fish, to my mind, that will bring about quite an increase in the price of fish for the consumer.

Am I right in stating that this will increase prices?

- (1410)


## [English]

Mr. Scotty Roxborough: This is something we've been dealing with using Archipelago. We've sat down and gone through a whole bunch of stuff to determine what it is going to be to the processing industry.

I think one has to turn around, sit down, and go back to the fundamentals of fisheries management. At the present time, we do not have real-time data coming in to fish managers, so how can fish managers effectively manage fisheries?

We have modern technology, through computers, through satellite, telephones, and through cellphones. By utilizing those tools, we can put data in; and by utilizing magnetic codes and totes, and so on and so forth, the amount of time the staff or fishermen or processors have to utilize can be reduced by using these mechanisms.

I don't think we would significantly increase the cost to the consumer, but I do think the management and traceability and the ability of enforcement to do forensic auditing on product that is being introduced illegally will be of great, great benefit.

## [Translation]

Mr. Jean-Yves Roy: Yes. That is precisely the problem. If you significantly increase the cost to the consumer, you are necessarily going to encourage poaching.

## [English]

Mr. Scotty Roxborough: Yes, but my statement to you is this: I don't think it will greatly increase the price. For example, if a gillnetter has a hand-held computer available to him when he's pulling his catch in, and he has on there a touch screen, for example, he can record the amount of fish he catches from every set. If you have a GPS system built into the computer, the computer automatically puts down where the fish are caught. The computer knows who the fisherman is and which vessel it is, and it knows the date. All that information comes in. That is downloaded by satellite and given to the processor where he offloads the fish. The processor utilizes the magnetic coding already in the totes for identification.

The paper trail created is diminished dramatically.
You put a tote into a cooler. As soon as it comes out, it is registered as coming out. Today, the processors are recording on pieces of paper what those fish are going to be utilized for, how they're going to be dealt with, whether they're going to be boxed for export, whether they're going to be filleted or canned, or whatever.

In retrospect, the manpower time in paperwork is reduced.

## [Translation]

Mr. Jean-Yves Roy: Since I only have five minutes, I would like to ask you another question, this one relating to compulsory catch reporting. You gave the example of Iceland, where the system is absolutely perfect in that regard. But here, I thought that catch reporting was compulsory, the way it is on the East Cost for most fisheries. I thought that it was absolutely compulsory to report all salmon catches in the Fraser River.

## [English]

Mr. Scotty Roxborough: There's an obligation, but is every fish being recorded by commercials and aboriginals? I suspect not.

Not every fish goes through a processing plant from the commercial fleet. Some of the commercial fishermen who do not fish that often have a small amount of fish. If they sell to the processing plants, they get the processing plant price, but if they have a restaurant or they have friends, they get a higher price and benefit from selling off the dock, to use better terminology.

- (1415)


## [Translation]

Mr. Jean-Yves Roy: Then how can we resolve the problem?

## [English]

Mr. Scotty Roxborough: If you look at Dr. Pearse's report, he's requiring that all fish have to be landed and recorded. We're talking about downsizing of the fleet-not that I wish to put anybody out of work, but that may be a reality in the state of affairs we have with the salmon fishery today.

You make it mandatory that all boats have to report in for the fishery, and you make it mandatory that all boats have to report out, and they have to report their catch. If they don't report their catch, then you book them; you give them a piece of paper and tell them to appear in court.

So we have to do a better job of recording who is out fishing. In the old days we used to do that; we used to have fisheries officers on the ground who went around and recorded the number of vessels out there fishing. And we went around and got tail figures. We don't do that today. But we need to be able to record every single vessel that's out there. We need to be able to ensure that every single vessel reports in and has their catch counted before they go and dispose of it at a processing plant, or off the dock.

The Chair: Thank you. Merci.
Mr. Hearn.
Mr. Loyola Hearn: Thank you very much, Mr. Chair, and I thank the witnesses for being here.

Mr. Roxborough, you did a pretty thorough analysis of the different possibilities for disappearance. When one looks at it that way, it would seem that it would be very difficult. For instance, there was no massive display of carcasses in the river, from what we've been told by basically everyone who's been here. To transport that amount of fish illegally would be complicated, to say the least, and it goes on and on.

Where do you think the fish went? Were they there in the beginning, I guess, is the first question? Secondly, from your own observations, where did they go-or was it spread out, from the effects of water temperature to illegal fishing, to miscalculation, to predation, you name it?

If you had to answer the question, where did the fish go, what's your best guess?

Mr. Scotty Roxborough: It's a little bit of everything. I'm not naive enough to think we didn't miss a semi-trailer here and a semitrailer there. When I was still working in the field we used to get
reports of staging areas that product was being taken to. One time I had information that fish totes were being stored in a gravel pit east of Manning Park. It was interesting, because there was the distinct colour to those totes, which belonged to a certain individual. Those totes were seen down in the United States, and they were also on TV, after being filmed by TV crews at a particular individual's facility. The rumours at that time were that the product was being taken through Osoyoos, where there was an unmanned customs station.

We were never able to follow that up. Last year we had reports of a particular farm that was receiving truckloads of fish on a regular basis, and a semi-trailer was going out. But it wasn't a continuous thing, because if it had been a continuous thing the fishery officers would have caught up with it. By the time the information came to them, the operation had finished, for whatever reason.

So there are little bits here and little bits there, but I cannot say where all the fish went, and I wish I could. It would make things a little easier for the enforcement boys and the fish managers.

- (1420)

Mr. Loyola Hearn: There was something that intrigued me when you were speaking earlier. You mentioned that some years ago the enforcement boats were on the river, and you need to know where everybody is and what everybody catches.

In reality, isn't that a sad reflection on the people who fish the resource, who are really the ones who depend on the resource and have the most to lose? Aren't we really saying we can't trust them on their own?

Mr. Scotty Roxborough: I think things have changed so dramatically since I first started as a fishery officer back in 1978. Fishery officers in those days were fish managers as well as enforcement people. We had a personal rapport with all fishermen; it didn't matter whether they were aboriginal, commercial, or recreational. We listened to industry and the aboriginals when they gave us information about how the fisheries were going.

One of the sad parts about it was that we had people giving us information who were fishing, hands on, day in and day out, and a lot of that information was never heeded by some of the managers. It was not heeded because they didn't believe it to be scientific. Well, sometimes you have to turn around and say, you cannot prove everything, but when people are fishing and holding fish day in and day out, they see changes. If they see changes because they're dealing with it, armchair scientists cannot turn around and ignore that information. We lost the grassroots.

We've also lost the ability to communicate with people, because now when we turn up with the bad guys we're going to kick butt, basically; we're the enforcement guys. We need to get back into community policing, and one of the ways is to be able to do some of the fish management work we used to do.

The Chair: Thank you.
Mr. Kamp.

Mr. Randy Kamp: Thank you, Mr. Chair, and thank you, gentlemen, for appearing and for the very interesting comments.

Let me just return to a couple of matters that are confusing me still a little. Perhaps, Mr. Redekopp, you can answer these for me.

Are drift nets legal or illegal beyond Mission?
Mr. Herb Redekopp: Well, if licences were issued to the Cheam Band to drift legally-there are communal licences issued. They're the first band upstream of Mission. This is the first year that has occurred.

Mr. Randy Kamp: Until now, would they have been considered illegal?

Mr. Herb Redekopp: Yes. The only drift fishing that was illegal up to this year was for the commercial and first nations fisheries downstream of Mission.

Mr. Randy Kamp: Right. Were they illegal because of the Fisheries Act?

Mr. Herb Redekopp: No, sir. When the department licenses a particular group to fish, in that licence it lays out the place, the individuals who can be involved in that, and the type of fishery. In this case, the length of the net, sometimes restrictions on the mesh size, the geography of the area of the Fraser River where that drift fishing can occur, and all the participants who can fish under that communal licence, are laid out in the communal licence.

Mr. Randy Kamp: Right. Did the department have to get some sort of opinion or memorandum from either the Minister of Fisheries or the Minister of Justice, or do they just have the power to do something they've never done before?

Mr. Herb Redekopp: I think this was discussed in quite a bit of detail, certainly within the region. I would speculate that Ottawa was aware of this change in direction that we were taking.

- (1425)

Mr. Randy Kamp: That's very interesting. Maybe some day we will see what that discussion was all about.

Some have said it's odd that in a year when the outcome of the run wasn't all that certain, you would sort of go in this direction, not really knowing how it would affect the viability of the resource, and so on.

I'm also a little confused about the sale of fish caught by people under the food, social, ceremonial.... Is that legal or illegal?

Mr. Herb Redekopp: It is illegal, sir. However, this year the department did enter into economic opportunities, economic fisheries, for specific first nations in the lower Fraser. That didn't happen every week, but opportunities were provided to select groups, including Musqueam, Tsawwassen, and some Stó:lõ first nations.

Mr. Randy Kamp: Was the Cheam Band part of that?
Mr. Herb Redekopp: They had one opportunity this year that I'm aware of.

Mr. Randy Kamp: So those are specific time, short-lived agreements?

Mr. Herb Redekopp: They're contained within the fisheries agreement. The communal licence is drafted in a manner that would authorize sale in that fishery.

Mr. Randy Kamp: On sales outside of those windows, even though they are brief, are they followed up by enforcement officers, or are those the kinds of things that result in charges?

Mr. Herb Redekopp: We did proceed with one case from Cheam, where an attempted sale was being made by a Cheam First Nation member in Cloverdale. The individual was apprehended and the fish were seized.

It's difficult work, in that a chain of continuity must be maintained. The officer must observe the fish being harvested and then transported to a destination where it is usually processed. Then it is held, usually in another area, in cold storage. That could take weeks or months. The chain of continuity must be maintained for us to be successful in a court of law. So it's very time-consuming work.

Certainly we responded in the Fraser Valley east detachment to over 440 occurrence reports, dealing with all kinds of salmon violations. We responded to approximately half of those reports, with the resources we could put toward that. We responded to over 200 reports that came into our office in Fraser Valley east, which includes the Mission and Chilliwack offices.

Mr. Randy Kamp: Was that through the 800 number that's been referred to?

Mr. Herb Redekopp: The "observe, record, and report" line. We encourage the public, the commercial members, the recreational members, and first nations members to assist us in our enforcement task. They are eyes and ears, to be quite honest, when we're not there.

Mr. Randy Kamp: How do you decide which of those 400 to follow up?

Mr. Herb Redekopp: There are a number of factors. First of all, is the offence being committed right now? In other words, if the information is a day or a week old, chances are we wouldn't be able to be successful in apprehending anyone. How grave is the offence? In other words, is it one crab or is it 200 salmon that are being harvested? So we analyze how good the information is, and if we have the resources to respond, we do so.

The Chair: Thank you, Mr. Kamp.
On this issue of drift nets, just so I understand it, is it therefore the case that absolutely no one can use a drift net on the Fraser River without the permission of DFO?

Mr. Herb Redekopp: That is correct.
The Chair: How long has that been the case?
Mr. Herb Redekopp: It has always been the case. The Department of Fisheries and Oceans has the authority and mandate to license fisheries in the commercial fishery. Each commercial fisherman gets a licence and knows the conditions of that licence. In the recreational fishery, there is a sport fishing guide that lays out what you can and can't do, and certainly they can only fish by angling.

In the first nations fisheries, fisheries agreements are sometimes entered into and signed off, but there are some first nations that don't sign off on fisheries agreements. Under the agreements, communal licences are issued and care is taken to abide by the principles of Sparrow as laid out by Supreme Court of Canada. We don't infringe on their rights unnecessarily, and we try to provide them with fishing by the means they prefer, if at all possible and if it doesn't impact on the conservation of stocks.

- (1430)

The Chair: Let me stop you there.
We were told that drift net fishing is illegal from Mission upriver. What you've told us is that drift net fishing is not permitted by anyone anywhere unless DFO permits it. Is that correct?

Mr. Herb Redekopp: That's correct, sir.
The Chair: Other than the Cheam Band in 2004, was anyone else, any band, or any commercial person, permitted to use drift nets?

Mr. Herb Redekopp: Yes, the Katzie, Musqueam, and Tsawwassen bands were using drift nets in different areas of the river, but upstream of Mission.

The Chair: Are any commercial people permitted to use drift nets?

Mr. Herb Redekopp: Yes, pretty well all the commercial gillnet fisheries are drift fisheries.

The Chair: In the river?
Mr. Herb Redekopp: In the river and out in the gulf.
The Chair: What about upriver of Mission?
Mr. Herb Redekopp: No, there are no commercial gillnet or drift fisheries for commercial fishermen, area E gillnet fishermen, upstream of Mission.

The Chair: We were also told you only have 13 enforcement officers. You said you had 29. Are those 29 full-time?

Mr. Herb Redekopp: Yes, they are, and that encompasses the area from Squamish to Boston Bar.

The Chair: Do you have any statistics on your "observe, record, and report" program? In other words, do you keep any stats on how many calls you get and how many charges you lay?

Mr. Herb Redekopp: Yes, we do. In the Fraser Valley east area, which is Mission and Chilliwack, as I mentioned, we received about 440 so far this year, and I think we responded to 210 of those. In terms of violations, we processed 88 violations in the aboriginal salmon fisheries, 58 in the commercial salmon fishery, 76 in the recreational salmon fishery, and 120 for unlicensed fishing. In the lower Fraser, the total number of charges we've processed is 342 .

The Chair: And did you say you do night patrols as well?
Mr. Herb Redekopp: That's correct.
The Chair: The reason I'm asking, sir, is that we were told point blank that basically it's nine to five, Monday to Friday. Do you dispute that?

Mr. Herb Redekopp: I can point blank tell you that's not the case.
The Chair: Why are people telling us this if it's not the case?
Mr. Herb Redekopp: I would imagine to stir the pot. I don't know.

The Chair: Let me ask you this. Do you have any knowledge of alleged efforts by senior DFO officials, here or in Ottawa, to try to convince the Department of Justice officials not to proceed with Fisheries Act charges laid or contemplated to be laid? Do you have any personal knowledge of that?

Mr. John Cummins: No, I don't.

The Chair: Monsieur Blais, do you have any questions? No?

Mr. Cummins, for five minutes, and then we have to go to our next panel.

## Mr. John Cummins: Thank you, Mr. Chair.

Mr. Redekopp, providing 7-days-a-week, 24-hour coverage in an area as large as the area we're talking about with 29 officers is just about impossible, isn't it? That is a huge area. Phone the Steveston office any time after 5 o'clock and you're lucky to get anybody there.

Mr. Herb Redekopp: It is not possible for us to provide 24/7 coverage.

## Mr. John Cummins: Thank you.

On the call-in line, we've had reports-and people have told me this-that these are some of the responses people get when they phone the call-in line. You may like to comment on why one of your officers would tell someone calling to report illegal fishing that you don't have anyone to respond. Why would your officers tell someone, when they phone the call-in line, "Why don't you come down and fill out an application? We need more enforcement officers?" Why would someone who has phoned the call-in line to report an incident be told, "If you want to do something, call John Cummins' office and tell him you need more money for enforcement." Why those responses if things are as good as you seem to be implying today?

- (1435)

Mr. Herb Redekopp: If the public is calling the call-in line, the individuals who take those calls are there to direct the calls to fisheries officers. They really shouldn't be providing comment and their personal opinions.

Mr. John Cummins: Well, they do. In fact, the problem and the evidence that we heard is that when people are phoning in, there is no response. In fact, Mr. Redekopp, I have phoned in myself to report an incident and have been told, "Well, we may show up", and nobody showed up.

I just want to comment briefly, Chair-and Mr. Redekopp may want to comment on this, or Mr. Roxborough. In his testimony at the beginning, Mr. Roxborough seemed to suggest that in dealing with the volumes of fish that could be attributable to poaching out of the two million fish that went missing this summer, certainly there's a percentage-some have suggested maybe as high as $20 \%$ or $30 \%$ that died because of heat exhaustion and related causes, and so on. There may be miscounting errors, so we're not really dealing with two million fish that went missing, but we could very well be dealing with more than a million.

The suggestion was, or seemed to be implied, that it would be impossible to deal with that. The fact of the matter is that in 1992, in the Pearse-Larkin report, Peter Larkin himself noted that the aboriginal fishery caught and sold illegally some 890,000 sockeye in 1990-and I'll quote him:

Some argue that hundreds of thousands of fish in excess of the reported number could not have been handled and disposed of without attracting attention. The evidence leaves little room for concern on this point, however. In 1990, when only half as much gear was used, the reported catch on the lower river was almost double the estimated catch in 1992. Most of it is believed to have been sold.

He's very clear that regardless of what's reported-because in 1992 much less was reported than in 1990-it was possible for them to dispose of 890,000 sockeye caught in 1990 , most of which were sold, he suggests.

The questions are quite simple. Fishing effort has increased since 1990. That's a demonstrable fact. I think it's also clear that aboriginal access to plants for processing has increased since 1990, and the ability to move these fish around has increased. That's the case, isn't it, Mr. Redekopp?

Mr. Herb Redekopp: Yes, I believe that certainly individuals are looking to maximize their profit in the marketplace. As Scotty mentioned, they're very astute in terms of the commercial fishery. There are people who are selling fish through private sales. In the native fishery there is probably a considerable amount of fish that's moving into processing plants and that's being custom processed and stored for future use.

Mr. John Cummins: In other words, it's possible to move well over a million sockeye, and you simply don't have the ability to police it with 29 guys.

Mr. Herb Redekopp: We do the best job we can with the resources we have.

Mr. John Cummins: I don't doubt that, but you can't stop it, can you?

The Chair: Mr. Cummins, excuse me, but Mr. Roxborough specifically addressed this point. I'd like him to answer it. If I understand the evidence correctly, he said he didn't think it could be done to move two million fish.

## Could it be a million fish?

Mr. Scotty Roxborough: My point was that to move two million fish, there had to be some kind of evidence to show this was going on. In talking to my fellow officers who are still working in the field, they did not receive any indications of large quantities of fish being moved this year.
$\bullet(1440)$
The Chair: Is it possible to move a million fish?

Mr. Scotty Roxborough: It's possible, yes.
The Chair: Given the fact that a decade has gone by-
Mr. Scotty Roxborough: I believe what Mr. Cummins was saying about 1992 and 1994 is correct, because I was equally frustrated in those days over what was going on. I was working on the border crossings, and I had an incredible amount of information, in regard to inward manifests to the United States, of product that was going down to Seattle, to Bellingham, and to the Columbia Indian Reservation. Unfortunately, I was never allowed to pursue that investigation.

The Chair: Just so I'm clear on it, your evidence is that any explanation for however many missing fish there are this year is more than likely a combination of temperature, illegal fishing, and poor counting?

Mr. Scotty Roxborough: Looking from the outside in and listening to the conversations of different people, I do not see that we had the same type of situation we had in 1992 and 1994.

The Chair: Thank you very much for your evidence.
We'll ask the next panel to come to the front. We'll take a fiveminute humanitarian adjournment.

- (1441)

- (1447)

The Chair: I am reconvening the meeting.
We are now at panel 14A, fisheries management 1 , and we have the Pacific Salmon Commission as a witness. Representing them is Murray Chatwin, Canadian member, Fraser River panel. He's all by himself up there.

Welcome, sir.
As usual, we have allotted you up to ten minutes to make your opening remarks and then we'll go to questions. Please begin.

Mr. Murray Chatwin (Canadian Member, Fraser River Panel, Pacific Salmon Commission): Thank you.

By way of background, I am a Fraser River panel member; I have been on the Canadian section of the Fraser River panel for 11 seasons. I'm also an industry person who worked for a fishing company for 35 years. I think I can shed a little light on some of the things I heard previously.

I haven't followed your hearings here, but judging by the questions I think I know what you've heard. You've made your focus on missing fish and specifically the illegal native fishery.

The Chair: Just so you're clear, we're trying to find out how many fish we're missing and why they went missing. We're not focusing on any particular thing; we're just listening to everybody's evidence.

Mr. Murray Chatwin: I think I know what you've heard. You've heard the one extreme saying this is not an issue, it didn't happen, there's no way we can get rid of that much fish, and that basically this is a racist issue. You've heard the other extreme, which is that it's the whole problem. I think your previous witness said the problem is probably a little bit of all of it. He's probably the closest to the truth.

The specific comments I want to make have to do with the question about the possible magnitude of this illegal catch. Obviously nobody has to tell you what a sensitive issue this is, and this is about to go into our fourth review in 12 years. These are all the same questions, all the same issues, and that particular issue is one that never gets on the table and therefore never gets solved.

The native people see the statement that it is a problem as being an attack on them and therefore it's racist. I'd like to suggest that we have to get past this, that the result we saw this year is just the warning sign that we have to get some of this stuff under control.

This issue of illegal catch is only a part of it. I think of it in terms of unauthorized catch and unreported catch, and it's a combination of all of that stuff that creates real headaches for fisheries managers. The removals you don't know about are the ones that cause the most problems.

So I'd like to characterize this issue as one of several fisheries management issues, and we have to start thinking about it in that light.

These issues include environmental factors, test fishing in season, Mission echo sounding, escapement enumeration, catch account-ing-that's what I'm talking about here, catch accounting for all of the fish-and in order to deal with the issue, we have to think about it in those terms.

In terms of this specific question you're asking about the magnitude of this fishery, and is it real, and does it have the potential to be a million fish, as you discussed earlier, I can't answer the question about how big the number is, but I can tell you from my long experience that it is significant. It differs year to year, depending on the availability of fish and market conditions, but it's there and it's one of the unknowns that we never seem to get to, and therefore these reviews we do are inconclusive.

There is a lot at stake in this illegal fishery. To put it in context, I think what we're talking about here is unreported catch. Some of that is illegal catch-poaching - and that is not even a racial issue, I don't believe. It happens. I don't know the magnitude of it, but I know it happens specifically in the Fraser River. Some of it is just sloppy catch reporting in season. You heard a reference to it just now, and I think if anybody told you that the commercial fisheries were perfect, they would be lying. They are better reported than the FSC fisheries, I can tell you that, but they're not perfect either, and they're part of this catch accounting management issue we have to deal with.

- (1450)

Fraser River salmon management is fundamentally a numbers game. You start off before the season developing fishing plans based on an expected run, and as the season approaches you modify those fisheries as you see the in-season information, so you get test fishing information in the other reaches and some catch information. Then it
links up with test fishing in the river and through Mission, and finally escapement numbers.

In order to have timely fisheries you need to get your best estimate of all that stuff in season and modify as you go, and be conservative, and hopefully reasonably accurate, and deliver the escapement first, and put through enough fish for the priority first nations fisheries. It's not easy, because you have commercial fisheries and other fisheries happening seaward of those, so you have to have pretty good information. That's basically why this issue of catch accounting is so important. I believe it is probably our biggest single problem.

As I said, the numbers are all estimates. We're always using estimates, and the best information you can get in season the better your ability to manage, and then as you go through the season into the post-season.... What they're doing now is tightening up all that information. You're going to hear a lot of different numbers, a lot of different estimates, on how many fish are missing. I'm convinced there is a significant number that are not accounted for above Mission, which is what the missing fish thing is, what was estimated at Mission less what escaped, less the catch that is known. The only real elements to the missing thing are what was removed that we don't know about and how many died. As a panel member and watching the information we had this year, I don't doubt that there was a significant element of both.

To get back to my original point I wanted to make here, it's this question. I'm sure you must have sat the last couple of days and listened to all this stuff, on the one hand people saying, it simply doesn't happen and other people saying it's the whole issue. And again, you've heard people saying, how could it possibly happen, this magnitude they're talking about? It can happen. The elements of it are illegal fishing, which is, as I said, an enforcement issue-I have no idea of the magnitude of it-and unaccounted for catch in any fishery, sloppy reporting, or whatever, and in the FSC fishery specifically, which I would put to you is not monitored the way it was originally intended to be and therefore is a big problem.

With any fishery fishing to a number, to a quota, to an allowable catch, there's an incentive not to report. We have to deal with that; each individual group has to deal with that. And for other commercial fisheries outside of salmon, we've dealt with that to a large degree. I applaud the department for that. The groundfish, halibut-you heard about halibut today-those fisheries are quite well accounted for. The salmon one is not as good.

How does it work specifically in terms of the in-river fishing, what's called the illegal catch? First of all, I'm going to talk about it all the way from where the fish make landfall, i.e. Johnstone Strait, through the gulf into the river, keeping in mind that your missing fish is only the part that's above Mission. In order to understand the possible magnitude of it you have to consider all those taken together.

- (1455)

Now, many of these fish are not illegally caught. They are caught under FSC permits and so on. Where it goes wrong is that...the illegal sales are not enforced. The process is in place to do that, but it just doesn't happen. I can tell you that firsthand.

The monitoring of the plants is hit and miss, and in some cases it happens. I should mention that it's not illegal to put this fish in a commercial facility, nor should it be. What's lacking is the documentation. There's almost no tracking of the fish once they're in there. If there are commercial fish in that plant, there's no problem mixing them in and selling them, if you so desire.
$\bullet(1500)$
The Chair: Mr. Chatwin, I'm sorry, but the ten minutes is up. I know it went by quickly, but I have to give our members an opportunity to ask questions. If they wish to cede any of their time to permit you to carry on, it's up to them. If not, we'll have to go with their questions, but thanks very much for your presentation so far.

Mr. Cummins, ten minutes-or is it Mr. Kamp today?
Mr. Randy Kamp: I'd be happy for Mr. Chatwin to carry on with my ten minutes.

The Chair: Mr. Cummins, who's going first between the two of you?

Mr. John Cummins: I think Mr. Kamp has suggested that Mr. Chatwin-

The Chair: Is that fine with you, Mr. Kamp?
Mr. Randy Kamp: Yes.
The Chair: Then you have another ten minutes, Mr. Chatwin.
Mr. Murray Chatwin: I'll try not to use all of it. I feel like I'm rambling a little bit here.

The bottom line is that it's very easy to move FSC fish through commercial facilities and then into the marketplace. The only risk, really, is if somebody has a sting operation on you. I think you've taken from the previous testimony here that this is highly unlikely. Again, I have firsthand knowledge of this. I know it. We do some of this in our plant.

I'll also tell you that there are a lot of marginal operators in the processing industry - probably everywhere, but certainly here-who thrive on this kind of thing. There are a lot of facilities that aren't really in the salmon business, so they probably couldn't tell you if the fish was landed illegally or not. It can be done.

One of the main thrusts of the testimony here is of course how do we get this issue out on the table without the politics of racism all around it. That's why people are asking for a judicial review. If it has to be, so be it. I worry that this is just another confrontational mechanism that maybe won't solve our problems.

More and more in my travels, both within the industry, where there's a large native component, and outside it, in the Fraser panel and other forums, I'm hearing high-profile native leaders sayingnot publicly, but at least they're saying it out at meetings-"This is an issue, and we have to deal with it. We have to get past this denial stage because it's a big problem." There are politics around saying this in public. I doubt very much that you've heard anybody say it in your hearings, but I can tell you that it's one that has to be dealt with.

My preference would be to deal with this in the context of a fisheries management issue. The leaders in the commercial industry and DFO, particularly at the political level, should loosen up a little bit on the pressure not to have conflict out here. First nations
leaders-my challenge is that we have to get together and solve this thing. If there has to be a judicial inquiry to get this thing out on the table, so be it.

I think we need some leadership. You'll hear from department officials next, but I think the DFO locally has been put in an impossible situation. Lack of enforcement and the subtle instructions not to have conflict have created really a difficult position. It's up to us, in the commercial industry...we all use this resource.

Your biggest nightmare is having to shut down first nations food, social, and ceremonial fisheries. Well, we're there for 2008. We have to deal with next year and 2009. In the context of all the environmental stuff we see in the habitat area, we need proper catch accounting, period.

The Chair: Thank you.
Mr. Kamp, you have six and a half minutes.
Mr. Randy Kamp: Thank you, and I might not even require that.
You referred to being in denial and that we need to solve this thing. "This thing" is what exactly?

Mr. Murray Chatwin: Well, as I defined it, unauthorized, unaccounted catch. The issue that's always before us-and I think it's real, it's big - is the lack of monitoring of the FSC fishery, and I'm talking about Johnstone Strait with seine boats.

How this fish can be moved is through the old style that everybody on Vancouver Island and the Fraser Valley knows about, which is private sales. You've heard about that. Sales in pubs and all that-everybody has seen that stuff. But this is bigger than that.

Another element of it is fish caught by commercial vessels under the FSC permits and delivered into the commercial fishery the next day. That's a serious part of it in Johnstone Strait. If you use your seine boats, you can catch some fish. So if you don't think it can be a big number, it can.

Then, finally, this ability to put FSC fish through commercial facilities, legally, is not properly accounted for.

- (1505)

Mr. Randy Kamp: What is the solution?
Mr. Murray Chatwin: Well, my naive solution is that we have to get the issue out on the table, not as a confrontational issue or a racist issue, but as a fisheries management problem that we all have to solve.

As a panel member, I can tell you our job is to deliver escapements first. We take that seriously, even though we're industry members, and some are first nations non-industry members. After that, there are priorities according to the treaty with the U.S. Then there is the priority of the first nations food fish; we have to deliver that. Then it's all the various allocations. If we cannot trust the catch figures, this problem will go on forever.

Mr. Randy Kamp: That's all. Thank you.
The Chair: Thank you.
Mr. Murphy.

Hon. Shawn Murphy: Thank you, Mr. Chairman, and thank you, Mr. Chatwin.

I think you kind of hit the nail on the head-I agree with youwhen you made the statement that the local DFO management are put in an impossible position here. I'm just not sure what the answer is.

I have one point I do want to make, Mr. Chatwin, and get your comment on it. I do thank you for your excellent presentation. We have heard the extremes, both ends of the equation. When we're dealing with the enforcement-and I will go back to the aboriginal issue above Mission-right now as I see it, the bands are not even on the same page. We heard from them yesterday. I'll give you an example.

We heard from the representatives of the Cheam Band. To summarize their evidence - and this is why I don't know what the answer is-they testified that they have the right to fish, and under the social aspect of the food, social, and ceremonial purposes, they have the right to sell their fish. They testified that some of their members openly poach. They testified that they're entitled to fish with their own preferred method, and in the case of the Cheam Band the preferred method is drift nets.

They testified that the band's chief and council really do not get involved in regulation, which I find troublesome. It may not have been in existence this year, but apparently there had been a protocol that if a fisheries officer wanted to come on to their lands, notice had to be given. More disturbingly, if fisheries officers found illegal gear, they couldn't seize it, if it was unattended.

I guess I've put in context where they're coming from. And DFO, the management plan...it's not where DFO is in the songbook here. What is the answer?

Mr. Murray Chatwin: Well, I can't comment on how first nations interpret their rights. I think the commercial industry, to a person, agrees that they have a section 35 priority right.

Hon. Shawn Murphy: Everyone agrees with that.
Mr. Murray Chatwin: I believe so, yes. Obviously, every group has its dinosaurs, but people who know the industry agree that it is a legitimate right. The issue is accounting for it, the responsibility that comes with that right.

## $\bullet(1510)$

Hon. Shawn Murphy: The comment I'd make is that there's such a difference of opinion here as to what these management plans mean and what these rights mean and what these obligations mean. There's no question, if you listen to the evidence we've heard over the last two and a half days, that there is a fairly significant unauthorized catch issue, probably right up the Fraser River, from the mouth right to the top.

Also, I'd point out that it will probably only get worse, because if one band sees another band getting wealthy by virtue of its activities, band members driving around in $\$ 60,000$ SUVs and everything else that goes with it-and I've seen this on the east coast-greed and jealousy, being what they are, will set in, and you're going to see the next band downriver taking the same action. What you've seen this year may be ten times worse next year.

Mr. Murray Chatwin: I agree. It's getting worse all the time. Not only that, there's a spillover effect into the non-native fishery. There's a bit of despair out there.

As for the earlier part of your question, I can't comment on the law, except that there is a law. You heard the enforcement people say that section 35 fish can't be sold legally. It's a big part of it. Some of this is enforcement.

Some of it has to be somehow getting to the people. They're as disturbed in the native community about this as I am. That's real now because you have things happening in Johnstone Strait that affect the river, things happening in the lower river that affect people's legitimate food fish rights in the headwaters. Those people are openly talking about this now, and we have to deal with it.

Within the commercial industry we're asking for more ability to monitor our own fisheries and for strong sanctions. That's what it really boils down to. People have to be accountable for their catch. They have certain rights that come with their licences and with section 35 and so on, and they have to be accountable. We have to raise the stakes for not being accountable, and we have to let the participants in the fishery have more say in how to police it.

But first of all, we have to admit that it's an issue.
Hon. Shawn Murphy: It appears to be. I honestly don't know how you can do it without some kind of a traceability like that used for other species.

But you raised another interesting point. I asked this question to two or three other witnesses, and they're kind of in denial. Perhaps if more resources were given to the aboriginal access program here, which has worked better on the east coast, although there are an awful lot of problems with fisheries on the east coast-I don't set the east coast as an example, but the native issue has worked better there.

From my experience on the east coast, once you have a native poaching problem, if you scratch an inch below the surface you find there's a non-native element to it too. The whole distribution network is generally not controlled by the natives. When I've seen situations in the Bay of Fundy and in other areas of eastern Canada, it's basically the non-natives who are using a certain small segment of the native population to perpetuate their own illegal harvest, mainly processors, distributors, retailers. You've kind of identified it.

Now, this was totally denied before. When I asked the industry people, they just denied it and said that it doesn't exist at all. But you're right in the industry, and I take it you see this on a daily basis, do you not?

Mr. Murray Chatwin: I see evidence of it on a daily basis, and I understand that it's quite possible. As I said, we take fish into our own plant, and there are varying levels of monitoring on it going in and none going out, so it's open for it.

There are people in our industry, like anywhere else, who are completely above board and honest and want the rules to be evenly applied, and there are people on the fringe who openly take part in this. Yes, they're largely non-native. Some of the people working on these commercial vessels that fish food fish and so on are non-native too. No doubt some of the illegal catch in various places is nonnative.

## - (1515)

Hon. Shawn Murphy: Is there a type of industry sanction that can be brought to bear to try to stem that tide a little?

Mr. Murray Chatwin: Yes. I think we do use it in a lot of our fisheries. The other fisheries aren't as political. We have a herring fishery that is pretty well monitored for catch. Groundfish trawl fishery has on-board observers on every vessel and port monitoring. This is something that industry supports and pays for.

There's a way, believe me, but the various sectors can't fight it. That's why we have to get the politics out of this thing.

Hon. Shawn Murphy: I take it from what you've said that you're not confident that a lengthy, expensive judicial inquiry may add a whole lot to the debate?

Mr. Murray Chatwin: I don't want to judge that. I think there are a lot of people out there who, if required to come as witnesses, would tell you a lot more than you're hearing. There are a lot of frustrated people in DFO and a lot of frustrated people on the ground.

This is difficult for me. I deal with native people, and this can be misinterpreted. I think that's what people are getting at, and it's what we haven't had. My preference would be to find a way to deal with it in another way, but I think that may be a little naive.

Hon. Shawn Murphy: Mr. Chatwin, we have nine people from DFO following you. Don't you think they're going to give us an accurate assessment of the situation, as it exists in 2004?

Mr. Murray Chatwin: I know those people. They're good people and a lot of them are my friends. Again, I think they're in an impossible situation. I don't think they're necessarily getting the information that I'm giving you. I think their hands are tied in terms of their ability to enforce and manage, and budget cuts haven't helped.

Then there's this whole thing about keeping peace on the water. I'd suggest that in the short term, keeping the peace on the water doesn't solve it in the long term.

The Chair: Thank you.

## Monsieur Blais, cinq minutes.

## [Translation]

Mr. Raynald Blais: Welcome, Mr. Chatwin. The first question I would like to ask you, Mr. Chatwin, is the following: what percentage would you attribute to the various factors causing the problem? In your introductory statement, you mentioned the word "problem" several times. So how would these percentages break down? For example, what percentage of the problem would have been caused by high temperatures, in your view? How about legal but unaccounted for catch, and so on?

## [English]

Mr. Murray Chatwin: I could only guess at that answer. The review post-season is going to look at the best estimate on the number of fish past Mission. There was an in-season number based on what we knew by late August. That number inevitably will change. They will have catch estimates of reported catch above there, and they will have an escapement estimate. Escapement estimates are generally pretty good, although there are underfunding pressures now.

Mission is a technical issue. They will narrow it down as best they can and come up with a number. You will subtract Mission from known catch above Mission and escapements, and there will be a number. All I can tell you is I believe that, particularly in the summer-run portion, a significant part of that was natural mortality from water conditions. I believe, as I said earlier, a significant part of that is also unreported catch.

Where it may be a little more problematic is the early Stuarts run, which happens very early. It's a fishery that has no commercial fishing. There is a significant loss there. At this point, I think it's as much as 140,000 fish; only nine arrived and there was no evidence of fish in poor condition. You would expect that. For the early summer, surprisingly enough, a lot of the evidence we're seeing is that most of those fish are showing up in good condition.

My point is that I can't tell you how to split that number. Two things happened here: one is unreported catch and one is natural mortality. They'll do some work to try to tease those out, but it will still be an estimate.

I should also point out that as a panel we planned for some mortality. Several hundred thousand extra fish were put out to make up for fish that, from our previous experience, we knew would die. It's not something you can do with unknown removal. You can't plan for that. That's another reason why it's so important.

- (1520)


## [Translation]

Mr. Raynald Blais: According to what you have been saying up to now, there seems to be-and I will use the English expression-a free-for- all.

## [English]

Mr. Murray Chatwin: I'm sorry, what's a free-for-all?

## [Translation]

Mr. Raynald Blais: It means anything goes, everything is allowed, there is no control over what is happening, etc. Anything could happen without any control.

## [English]

Mr. Murray Chatwin: I suppose anything can happen without control. Fisheries management is controlling the things you can control, the best you can, and then being cautious with the things you can't control. So there's no excuse for not having good catch figures in fisheries; there is none. It has to be the responsibility of the person who has the right to harvest fish in any part of the system. It has to be their responsibility to report. So that's one thing we should be doing better.

## [Translation]

Mr. Raynald Blais: Therefore, if there was a way to account for the authorized catch, wherever it comes from, for it to be somehow supervised or controlled, maybe we could eliminate the problem at its source?

## [English]

Mr. Murray Chatwin: Yes, and again, it's up to the people doing that to see that this happens. I'm a big proponent of industry being responsible for their catches, and I think it's something that most people agree has to happen.

## [Translation]

The Chair: Thank you, Mr. Blais.
[English]
Mr. Cummins.
Mr. John Cummins: Thank you, Mr. Chairman.
I want to thank you for your candour today, Mr. Chatwin. It's appreciated. I realize this is not easy stuff to talk about, but I certainly appreciate you doing it.

You mentioned in your talk that natives have said to you privately that we have to get beyond the state of denial and start looking at what happens within our communities and try to deal with it if we're going to fix this problem.

There was a meeting, a panel meeting, a couple of weeks ago, and the discussion revolved around what happened to these missing fish. I'm told that one of the native panel members erupted at that meeting and was quite angry. He was angry at the way the department dealt with the Cheam Band, and he suggested that the department had been making some headway there and then they kind of gave up; they backed off. He said, now you have a huge problem because other bands are starting to do the same thing and push in the same way that the Cheam has, and he said there is going to be more trouble because of it.

We heard testimony from the same individual yesterday, and nothing like that was said. That kind of bothers me, because I get reports from one place of an opinion and then an entirely different one is stated at a public forum. To me, that's part of the problem we face in a forum like this: getting to the facts.

I guess, in a sense, I'm like you. I really don't want to go to the trouble of a judicial inquiry. But after over 30 years of being involved in the industry, and certainly the last 11 years involved in the political scene, I'm getting tired of it too, and I sense you are, just from your voice. I guess that's why I'm saying that perhaps it's time now to fix this thing once and for all with a judicial inquiry.

That's a bit of a long ramble. I don't know whether you want to respond to that or not.
$\bullet$ (1525)
Mr. Murray Chatwin: No, I think I've already responded.
As to your earlier comment, I was a witness to the statements that you reported fairly accurately. I don't want to say any more than that, other than that part of the problem is the racist element to this thing. We have to get through that, the politics of that.

Some of this is real. The feeling of being attacked is real. It's also that there's a lot of interest in that community to protect the status quo, and there's some serious money involved here. Without judging how many fish we're talking about, I'd just suggest that 100,000 sockeye are worth $\$ 1$ million to the harvesters, and probably at least another $\$ 1$ million to the guy who buys them. This isn't small stuff.

A lot of this rhetoric comes from that very fact. There are people who don't want this problem solved.

Mr. John Cummins: You mentioned that at times there are FSC fish that come into your plant. Let's say there's a seine boat harvesting FSC fish in the Strait of Georgia and it comes in and makes a delivery to your plant. Would it be necessary that there be a DFO witness there to count?

Mr. Murray Chatwin: There hasn't been, and in this case I don't think so. The monitors, to the best of my knowledge, come from the band; therefore, a lot of how well it's monitored depends on what the band has in place.

In our example, there has never been any suggestion of anything illegal. They're very professional people we deal with, but I'm telling you, it can happen.

Mr. John Cummins: It's the potential that's there.
Mr. Murray Chatwin: The potential is there. There is no dockside monitoring and there is no monitoring out the back door.

Mr. John Cummins: And you're not required to report numbers that come through, are you?

Mr. Murray Chatwin: We report our numbers to the band-
Mr. John Cummins: To the band, but not to DFO.
Mr. Murray Chatwin: - just as you would report a number to the fishermen who landed fish, although you do have to report commercial landings.

Mr. John Cummins: So that-
The Chair: Mr. Cummins, I'm sorry, I just find it interesting that Mr. Chatwin is suggesting that we have to talk about the fish and we have to get it out in the open. You've made this point yourself, and yet both of you were witness to a conversation, apparently, when somebody said one thing in private and won't say it in public, and you're both reticent to bring it out in the open as to who that individual was. How do we solve the problem if we don't start calling a spade a spade?
Mr. Murray Chatwin: Well, if somebody asked me under oath, I would answer that question, I suppose.

The Chair: So would the person who made the statement.
Mr. Murray Chatwin: I hope so.
The other thing is, if a police officer asked me, I would tell him.
The Chair: I'm only throwing it out for consideration.
Mr. John Cummins: Yes, and may I respond, Chair?
The Chair: Yes, go ahead.
Mr. John Cummins: I think part of the reason, or the reason, really, that would prevent me from doing that and identifying that individual is fear for that individual's personal safety. It's as simple as that, Mr. Chair.

The Chair: I kind of figured that, but then how do we get beyond that if we're trying to put this on the table?

Mr. John Cummins: That's why I think a judicial inquiry is necessary, because it means that people are going to be compelled to tell the truth, but I think when people do that in a judicial inquiry, they will also expect that their personal safety will be guaranteed by the forum they're participating in. We can't offer that sort of guarantee to individuals who appear here. As much as we might like to think we can and would want to, it's just really not possible, and I think that's part of the problem, Mr. Chairman.

- (1530)

The Chair: I honestly don't think a judicial inquiry could, in and of itself, offer personal safety to people who give evidence.

Mr. John Cummins: I agree, in a sense, but I think there is a feeling that there are going to be people called who know things, who can tell things, and that's going to require or demand that other people who may have participated in certain operations are going to be compelled to appear too.

I think the airing out that would occur there is going to make it easier for these sorts of things and this information to get out.

The Chair: Okay. My apology for getting into a dialogue with you. We have lots of time to talk about this in camera.

## [Translation]

Mr. Roy, do you have any questions?

## [English]

No? Okay. I have some questions.
We can go back to Mr. Cummins for another five minutes, if you have anything further.

I'm intrigued about this water temperature because my gut feeling is that DFO is going to blame temperature. I am confused about temperature.

You sit on the panel. According to the list I have here of panel members, you sit with, among others, Chief Ken Malloway, who was here yesterday. You're both Canadian members of this panel. He said, point blank that 18 degrees is lethal for salmon. End of story. He's on the panel.

Today we had scientists, Professor Farrell, clearly indicating, to my way of hearing it, that temperatures of 18 degrees Celsius and above are lethal over time and will contribute to disease, will contribute to fungus, whatever.

Yet I'm looking at a press release issued by the panel, of which you're a member, dated July 16, 2004. I've raised this numerous times because I don't understand it. This is the panel, I presume, that is set up to give the best advice it can to DFO and to decide whether or not there should be a fishery. In this press release it says, and this is the middle of July, "Fraser River water temperature (at Qualark Creek) is presently $18.2^{\circ} \mathrm{C}$." According to Chief Malloway's evidence, that's lethal for fish. According to Professor Farrell, it's pretty lethal; high mortality, let's put it that way. According to the panel:

Although present conditions in the Fraser River mainstem are generally satisfactory for sockeye migration, Fraser River water temperature is forecast to increase....

The way I read that is that the panel considers 18 degrees to be generally satisfactory for sockeye migration. And then for a variety of reasons, all commercial fishing is banned at that point; there's no commercial fishery, as we know, north of Mission.
If there is evidence that 18 degrees is very harmful for fish, and if one of your own council members is of the clear opinion that 18 degrees is lethal, why did the Fraser River panel say it was okay?

Mr. Murray Chatwin: With all due respect to Mr. Malloway, he hasn't been on the panel very long. These answers are never easy.

What you heard from the technical person here today, or whenever it was, was that exposure to certain temperatures over time will kill these fish. There are models we've developed that are fairly accurate predictors. I think we got outside that range this year, if I'm not mistaken, but they're fairly good predictors. Therefore, we can make some estimates of how many fish are going to die.

What you are referring to is a spot temperature in the mainstem Fraser at one point. For that date, what they're saying is the fish are still doing okay but are predicting it's going to get worse. It's based on snow melt, predicted rainfall ten days out, those kinds of things. You also have to consider, with each individual run, how far they're going, the condition of the fish, those kinds of things.

So there's no conflict there. What you have to understand is that the mortality is based on extended exposure to lethal temperatures. - (1535)

The Chair: Do you have an opinion on the level of enforcement on the river in general and on the river from Mission up?

Mr. Murray Chatwin: I know that river reasonably well. I've flown it as part of my job. You get up above that river and you quickly realize that enforcement is not the only answer. It's the same on the whole coast. You couldn't possibly put an enforcement coverage in place. You need an enforcement ethic.

The other thing I want to say is that these enforcement people need the world to know that they are going to do their jobs and they are going to be supported in doing their jobs. That's just as big a factor.

The Chair: Supported by whom?
Mr. Murray Chatwin: By their bosses.
The Chair: I'm sure the public supports them.
Mr. Murray Chatwin: I have to know that somebody is paying attention as to whether I'm playing the game fairly or not. That's a big part of it. They couldn't possibly have enough enforcement to do everything they have to do. But no, I don't believe there is enough, and I think funding cuts are a big part of it. These guys are worn out.

The Chair: My time is up.
Mr. Cummins, do you have anything further?
Mr. John Cummins: The area of responsibility for the panel, is that up to Mission Bridge?

Mr. Murray Chatwin: Our responsibility is to deliver the fish, but we have not had any jurisdiction over any first nations fisheries.

Mr. John Cummins: Your responsibility is to deliver the fish, and by delivering the fish, you mean getting them to the counter at Mission.

Mr. Murray Chatwin: Yes, I guess so. Well, there are first nations fisheries all the way in from Johnstone Strait through. We don't have responsibility for those, but we're supposed to be taking into account expected catches.

Mr. John Cummins: You take into account expected catches but you're to deliver the fish, essentially, to Mission because there's no commercial fishery beyond Mission. Is that correct?

Mr. Murray Chatwin: That's right. The Government of Canada has maintained the authority to unilaterally deal with the first nation fishery. The U.S. doesn't have any authority either.

Mr. John Cummins: Okay. I'm going to show you some numbers that we took. These numbers were taken from Pacific Salmon Commission records. They compare the fishing effort by the commercial fleet in 1988 and 2004.

The Chair: Do any of us have these numbers?
Mr. John Cummins: No, you don't, Mr. Chairman. They were actually given to the committee. Whether they were translated or not, I'm not aware.

They show that in 2004 the run size was 4.4 million fish, which was $15 \%$ higher than in 1988. We then compared the commercial fishing effort in those bullets at the bottom of the page.

The bullets are at the top of your page, but what they show-our reading of these is an accurate interpretation of the figures-is in July and August of 1988, gilnetters' effort was $93 \%$ less in 2004 than it was in 1988. In 1988 they fished 13,989 net days and only 992 net days in 2004. The trollers fished 24,515 boat days in 1988 and only 1,944 in 2004, a decrease in effort of $92 \%$. The seine fleet fished 3,550 days in 1988 and only 125 days in 2004, for a reduction of 96\%.

It's obvious the allowable catch for the commercial fleet diminished greatly in 2004 over 1988, to the point at which you'd have to say, I think, that the commercial fleet certainly posed no threat to the fishery, because the returns in 1988 were sufficient.

My point is that this is the trend, isn't it, reduced fishing effort?
Mr. Murray Chatwin: Yes, that's the trend, and the trend is toward a more controlled fishing effort and fishing toward specific numbers. All rolled up in some of these issues, of course, is the laterun mortality problems we've had.

What people don't understand is that the minister's orders on Cultus sockeye this year were a maximum harvest rate of $12 \%$. The United States gets $2 \%$ of that $12 \%$ through the treaty. First nations food, social, and ceremonial fisheries get whatever they're estimated to need to catch, and pre-season that was $8 \%$. So the commercial fishery this year had a total of $2 \%$ harvest of Cultus in order to have their fishery. So those all play into it. The $8 \%$ versus $2 \%$ has to do with their priorities, so there's a big multiplier effect there.

## $\bullet$ (1540)

Mr. John Cummins: Yet at the same time when you see the next two bullets there's a huge increase in aboriginal effort below the Mission Bridge, an $840 \%$ increase in effort in 2004 over 1988, and
above the Mission Bridge, reported anyway, is a $78 \%$ increase in effort, and that's just a reported effort. My suspicion is that the effort is much greater than that.

Mr. Murray Chatwin: Yes, again there's a bit behind that as well. The late-run issue has compacted all fisheries, so in order for first nations to get what's considered to be a fair opportunity, they've been squeezed into a smaller period of time, so they've had to fish more intensely. Again, it goes back to priority. There are a lot of multiplier effects in there that really hurt the commercial fishery.

The Chair: Thank you; the time is up.
Mr. Cummins, I'm looking at a document entitled 2004 Fraser River Sockeye Escapement Crisis, prepared by John Cummins, MP, and the B.C. Fisheries Survival Coalition. Is that the document you've been referring to?

Mr. John Cummins: Yes, sir.
The Chair: What's the date of that document? I don't see a date on it.

Mr. John Cummins: It was prepared in October of this year.
The Chair: October of this year?
Mr. John Cummins: Yes. It was finished in October.
The Chair: Can you tell me when it was distributed to committee members?

Mr. John Cummins: About two weeks ago.
The Chair: About two weeks ago, through the clerk?
Mr. John Cummins: Yes.
The Chair: All right, then I'd like to see some evidence of that on Tuesday, please.

Okay, thank you very much.
Thank you very much, Mr. Chatwin. It was very much appreciated.

We'll have a short recess to bring down the host behind you, Mr. Chatwin, so they can set up in a comfortable fashion.

- (1544)
- (1555)

The Chair: I'm ready to resume the meeting. I call the meeting to order.

Before we get to our witnesses, before I formally welcome them, there are just a few things. We are now at panel 14, which is our last panel, which is the people from the Department of Fisheries and Oceans.

I want to let you folks know of a concern. I'm not saying there was lots of notice of this meeting, but there was some notice of this meeting.

The Department of Fisheries and Oceans is, as we all know, a division of the Government of Canada. We operate in both official languages. I can understand people who are not from the Department of Fisheries and Oceans or who are not from some other government department coming here with presentations only in the English language or perhaps in to another place only in the French language. What I as the chair cannot understand, on behalf of our committee members, is a department coming here with a presentation in only one official language.

This is totally unacceptable. It is totally contrary to the procedure I'm familiar with and the members of this committee are familiar with. I know there's nothing we can do about it, because we're here, but what that means is that a number of people presumably have gone to the effort of preparing their opening remarks, and I am prohibited by the rules of this committee from distributing those remarks to any of my committee members so that they could follow along with what you're saying, make some side notes, or whatever, because we have to have these documents in both official languages.

It is well known that this is the case, because when we ask the people to come as witnesses, we tell them, "Please give us your opening statement, if you have one, in advance so that we can get it translated". For a department of the federal government, we don't have to say that is my position; that is a given for a department of the federal government. I'm just aghast, on behalf of my committee members, that we have received documentation that I am unable to provide to them. I'm going to leave it at that, but I'm going to let the deputy minister know that we encountered this problem.

If you're reading the statement, please read it slowly, because it has to be interpreted. Please, unlike me, remain back from the microphones and make your comments or your statements.

I'd like to introduce the panellists now and then just make some comments on how I see this set going. I'm going to introduce people in no particular order, except in the order on the piece of paper that I've been handed. If I miss anyone, please put up your hand. I'll have a comment for Mr. Sprout in a minute.

I'm identifying as I have the names on the list: Neil Schubert, area chief, stock assessment; Paul Sprout, associate regional director general; Jim Wild, area director; Paul Ryall, lead, salmon team; Timber Whitehouse, program head, sockeye salmon stock assessment, Kamloops, B.C. interior area and science branch; David Patterson, habitat research biologist, science, Pacific region; Don Radford, acting regional director, fisheries management, Pacific region; and Laura Richards, regional director, science branch.

Have I missed anyone? I don't see any hands. That's good. Welcome to you all.

This segment has no end. I'm not really speaking to the panellists; I'm speaking to the members. That means this meeting ends when you end it.

- (1600)

I'm going to give everybody a first round of ten minutes, and that includes me. We'll see how that goes. This will be after the opening statements, and then we'll carry on. Anyone who needs an amenity break of any kind, members and panellists, please don't hesitate to
get up, unless you happen to be answering a question at the time. We'll just move right through and finish when we finish.

If you don't want to do this it's all right, but I thought we might divide the presentations in two, with one part on science, and one part in general. I thought perhaps Laura Richards might want to lead off. She's the regional director of the science branch. But if you're not prepared to do so, that's fine.

Mr. Sprout, when you lead off, I would appreciate it if you would begin your remarks by giving us a breakdown, from the top to three or four levels, of who runs the show here, their exact titles, and how long each person has been in their position.

## Mr. Sprout.

Mr. Paul Sprout (Associate Regional Director General, Department of Fisheries and Oceans): I'm going to provide an overview. I want to set some context, and I'll speak to that in a moment. Then I would like to ask Mr. Radford to talk about some specifics in 2004. Following that, I anticipate there will be questions on science. Dr. Richard will be in a position to respond, if that's agreeable to the members.

## The Chair: All right.

Mr. Paul Sprout: First of all, I'd like to start with myself. I am the director general for the Pacific region. I've taken over from Mr . MacGillivray, who I believe met with this committee about a month ago.

Just to explain that, I was asked by the deputy minister to come back to the region from Ottawa in 2003. I did that in the summer of 2003, and then I left again at the end of that year to take training. I returned about one week ago, so this is my sixth day on the job as the director general of the Pacific region.

Before I read my opening statement, I would like to clarify the hierarchy, because we have brought a number of people here today. You've been introduced to Laura Richards. Laura is the regional director of the science branch for the Pacific region. Don Radford is the acting regional director of the fisheries resource branch, principally responsible for fisheries management for the Pacific region. They are the two principal senior executives who are accompanying me today. We have also brought biologists and specialists, who have already been introduced. Later in my remarks I can speak to other directors, at your request.

I'd like to begin with my opening statement.
First of all, we are very appreciative of the opportunity to be invited here today. We think your hearings on the 2004 Fraser River sockeye situation are important, and we very much appreciate the opportunity to be part of these deliberations.

I'm going to confine my remarks to providing some context for the 2004 Fraser River sockeye fishery. I want to outline the environment that influences salmon fisheries in B.C. I want to discuss the challenges and our actions to date, and I want to conclude with some of our goals for the future. Mr. Radford will then follow, as I indicated, and provide some specifics on the 2004 Fraser fishery and the proposed review recently announced by the minister.

Over the last few days your committee has heard from a wide range of interest groups and individuals. I trust that the discussions were interesting and informative for the committee. However, I suspect that you may be developing some initial impressions that could include the following points: first, that there's a deep and abiding concern and an interest in Pacific salmon; second, that there's a wide range of views on what the problems and solutions are to address salmon concerns; and third, that the status quo is not acceptable, and DFO needs to do more.

Clearly these are important observations, not the least of which is the role and responsibility of DFO in salmon management in this region, and our actions to date to support salmon management. Pacific salmon management is a high priority for this department. In fact, the region spends about $50 \%$ of its budget-not including coast guard-or nearly $\$ 80$ million on assessing, evaluating, enhancing, protecting, and managing salmon in the Pacific region.

The single largest contribution of this amount is directed at the Fraser River. No other activity in the region and no other fishery receives a similar level of effort and resources. In fact, our region spends far fewer resources on managing the remaining fisheries in this region, even though these fisheries, depending on how you categorize them, far outnumber the salmon fisheries. These include fisheries like herring, groundfish, crab, clam, halibut, black cod, and many others.

Interestingly, for many of these fisheries the relation between the department and the fishing interests is strong. The fishery earnings are robust, and the resource is relatively healthy. Often the various fisheries contribute toward science, management, and enforcement costs. These success stories are frequently not featured in the current events, but they need to be mentioned to provide some perspective as we focus on one fishery, the 2004 Fraser River sockeye fishery.

The real question then is why the salmon fishery, and particularly the Fraser River fishery, is often the source of discontent. The answer lies in three areas: first, the extraordinary biological complexity of this animal; second, the diverse interest and frequently irreconcilable positions and objectives; and third, conservation threats aggravated by adverse environmental conditions.

This is not the time to offer a primer on salmon biology and management, but imagine for a moment one salmon population-the early Stuart sockeye, which spawns in the upper reaches of the Fraser River. After spawning, the young sockeye spend a year in fresh water, travel more than 500 kilometres to the mouth of the Fraser, then swim north to the Gulf of Alaska, returning two years later to their initial spawning location.

## - (1605)

During this extraordinary passage they must be protected and managed through a range of fisheries that could start in Alaska and continue until the moment the sockeye arrive on their spawning grounds. Imagine this picture with some variations with hundreds of salmon populations; add in adverse environmental conditions such as warm river water; factor in important considerations such as first nations fishery negotiations and the Species at Risk Act; and perhaps you are able to appreciate why the management of Pacific salmon remains our greatest challenge. Arguably, Pacific salmon manage-
ment is one of the most complex and difficult natural resource management situations in the world.

Over the last five years the department has responded to the challenges through a series of actions. For example, these include in 1999 negotiating new treaty arrangements with the United States that provided the basis for conserving threatened salmon populations caught by either country; beginning in 2000 to develop and implement integrated salmon harvest managing plans that better coordinate the whole range of activities that support salmon management; developing new policies to help address the allocation disputes within the commercial group and between the commercial and recreational sectors; designing and implementing new consultative arrangements that are more open, more inclusive, and more transparent; reducing fishing pressures on threatened salmon populations; and realigning enhancement operations to support depressed salmon populations. In short, we've initiated a series of changes in the last five years to respond to the pressures that face salmon.

Clearly, challenges remain and our work is not over. Our minister has recently indicated that the department will release its wild salmon policy, a policy that admittedly has taken some time in its preparation but that will describe the objectives, highlight principles, and define strategies to conserve and manage Pacific salmon.

But we have more work to do. Our department is committed to modernizing our habitat management program, focusing better on higher-priority areas, and introducing more effective ways of responding to salmon habitat issues. After introducing and adopting the Oceans Act, we intend moving forward to improve governance of oceans and fisheries that affect salmon. We will promote ocean sciences and technologies. We intend to modernize our coast guard fleets to better support our management priorities. We want to renew fisheries management with a focus on stabilizing access and allocation and encouraging shared stewardship of the resource.

This is an ambitious agenda. We recognize that we have steps to take but we believe we have taken steps so far.

What I'd like to do is to ask Mr. Radford now to turn to the specifics of 2004 and the next steps, and then we would be very pleased to respond to questions to the best of our abilities.

- (1610)

The Chair: Thank you, Mr. Sprout.

## Mr. Radford.

## Mr. Don Radford (Acting Regional Director, Fisheries Management, Pacific Region, Department of Fisheries and Oceans): Thanks, Mr. Chairman. Thanks, Paul.

I just want to take a few moments to try to explain the very complicated management system Paul referred to in his opening remarks.

We begin with pre-season plans that are developed after extensive consultation with all of the parties involved. Salmon management plans are developed based on a number of sources of information, including scientific information provided through the Pacific Science Advice Review Committee process and extensive consultations with first nations and representatives of recreational and commercial fishing groups as well as other interests. As a result of these consultations, an integrated fisheries management plan is constructed so all parties have a clear understanding of what management actions will occur as a result of changes to in-season indicators of abundance, timing, and environmental conditions, etc.

In 2004 we followed this regular pre-season planning process. The factors that are considered in developing the pre-season fishing plans include overarching objectives such as conservation requirements; first nations food, social, and ceremonial needs; Pacific Salmon Treaty obligations; domestic allocation among first nations and to commercial and recreational users of the fisheries resource; and finally to provide harvesting opportunities for fisheries within the constraints of the conservation objectives and other obligations.

The Chair: Could you just repeat those again, please?

## Mr. Don Radford: Sorry.

Conservation requirements; first nation food, social, and ceremonial needs; Pacific Salmon Treaty obligations; domestic allocation plans-to make sure the people in the various sectors get their share of the resource; and finally to provide harvesting opportunities for fisheries within the constraints of the conservation objectives and the other obligations I outlined.

The specific conservation objectives we addressed for 2004 in the development of the fishing plan were the need to protect Sakinaw Lake and Cultus Lake sockeye, late-run Fraser River sockeye, interior Fraser River or Thompson River coho, and west coast Vancouver Island chinook stocks.

Many management decisions regarding harvest and fishing controls, including enforcement, must be made during the course of the salmon season. Such decisions are based on a wide range of information, including run size estimates, status of the conservation objectives, in-river migration information, previous harvest openings, and expected effort.

The Pacific Salmon Commission conducts test fisheries and biological sampling, collates catch information, reports on the progress of escapement into the Fraser River based on Mission hydro-acoustic data, and makes recommendations to the Fraser River panel regarding adoption of run size timing and diversion rates by stock group as well as providing total allowable catch figures on a weekly basis.

The Fraser River panel is a bilateral Canada-U.S. body composed of first nations and commercial, recreational, and processing interests from both sides of the border. It is charged with developing preseason harvest plans consistent with each country's domestic policies and also with the provision of harvest advice for the management of each country's commercial fisheries. We in DFO then set the harvest openings for the commercial fishers based on the panel's advice.

This summer was particularly challenging because of the conservation constraints. While fishing plants took into account
anticipated en route mortality due to environmental conditions, the impact of adverse migration conditions on returning sockeye appears to have been much higher than anticipated, especially for early summer and summer run fish. All of the information is not in yet, and while the situation is less dramatic than was reported by others in September, it is nevertheless still cause for concern.

It is expected that the impact of environmental conditions and the department's reaction will be covered during the post-season review the minister recently announced. At the time fisheries were conducted, the information that was available was that our escapement goals were being met.

DFO is committed to acting in the public interest to address any unauthorized fishing that may occur.

## - (1615)

The Chair: Mr. Radford, excuse me. Just slow down slightly. Take a drink and just take your time.

## Mr. Don Radford: Sorry. Yes, sir.

Depending on the time of the year, enforcement priorities vary. Resources are distributed throughout the areas but at times are redirected at priority activities during peak seasons.

I understand that the committee heard earlier today some of the details of our enforcement efforts this summer. Enforcement effort directed at the commercial and first nation fisheries was similar to that of previous years. Enforcement effort directed at the close time and area fisheries-the unlicensed fisheries-patrolling was increased. For the past three years the total number of patrol hours directed at the salmon fishery in the Fraser has been consistently more than 6,000 hours. In the B.C. interior patrol hours have been approximately 2,800 , and in the lower Fraser area there have been approximately 3,300 patrol hours.

## As Herb Redekopp mentioned earlier-

The Chair: Sorry, Mr. Radford; just a second. What is your definition of the lower river?

Mr. Don Radford: It's the river below Sawmill Creek in the Fraser Canyon.

The Chair: Thank you, and a little slower please.
Mr. Don Radford: Yes, sir.

## [Translation]

Mr. Jean-Yves Roy: Mr. Chairman...
The Chair: Yes, Mr. Roy.
Mr. Jean-Yves Roy: Excuse me, but this is the last time. Do you understand? At some point in time, there is a limit. First, your documents are not translated and then, due to the speed at which you read, we are unable to follow what you say. That is enough. Do we understand each other?

## [English]

Mr. Don Radford: I apologize.
The Chair: This is the third day, and we're getting to the end, so be mindful.

Mr. Don Radford: On October 20 the minister announced that a post-season review of southern B.C. salmon fisheries will be conducted. The review will be led by Bryan Williams, an independent chairperson, and conducted with a newly formed integrated salmon harvest planning committee.

It was not our intention that the review would be conducted by the entire Integrated Salmon Harvest Planning Committee. The details of how the review will be conducted are to be worked out between Mr. Williams and the IHPC itself during their first meeting, which will occur on December 7. The post-season review will address the impacts of this summer's environmental conditions, concerns about the impact of unauthorized harvest, and the accuracy of the salmon abundance estimates, and it is expected to inform the development of fishing plans for 2005 and beyond.

That concludes my remarks.
I apologize for going too fast.
I'd be happy to answer any questions.
The Chair: It's absolutely a natural tendency when reading to go a little faster than you actually think you're going; that's just the way it is.

I'm sorry, but could you just repeat what you said: Mr. Williams will decide how many people...? What did you say?

Mr. Don Radford: It was never our intention to use the entire Integrated Salmon Harvest Planning Committee for the whole review, but it was our intention that Mr. Williams work with that committee. He's expressed an interest in working with them to select a much smaller group of people that he will work with on a regular basis, and report back through the committee less frequently.

- (1620)

The Chair: Thank you.
We'll start for ten minutes with Mr. Kamp.
Because I'm giving everybody ten minutes, I'm going to be very strict on the ten minutes; they include short answers, please.

Mr. Randy Kamp: Thank you, Mr. Chair, and who knows, but I might even be shorter.

The Chair: Everybody says that, and every time the beep goes off.

Mr. Randy Kamp: I usually am.
Thank you, witnesses, for appearing. We appreciate your taking the time to do so.

Mr. Sprout, your comments sounded a bit like a throne speech on all the things you're going to do. We're actually here to talk primarily about what was done. In fact, I was a bit surprised that in Mr. Radford's comments I didn't hear any guesses about what really happened in 2004; that is why we're here. I don't know if you just don't have any idea, or you didn't want to share those with us-or maybe Dr. Richards has some idea.

I think what we're heard so far from the department, or at least all I've really heard, when we talked to the minister about this in Ottawa, is that warm water was probably the primary cause. I'd be interested in knowing if that's still your opinion.

We did speak to one biologist, though, who has said-particularly with the early Stuart run, which appears to show the biggest problem in terms of numbers actually arriving on the spawning grounds-that the spawners that did arrive were in particularly good shape. Now, if it's warm water, one would expect that at least some of the spawners that made it there should have just barely made it there. But that doesn't seem to be the case, at least from what we've been told. As well, $12 \%$ of those that did arrive, according to your website, had net marks on them.

I don't know exactly what all of that means. Anyway, what's your response to that?

## Mr. Paul Sprout: Maybe I could start, Mr. Chairman.

As Mr. Radford indicated, there will be a 2004 review by Mr. Williams, which will investigate all of the circumstances around the fishery and provide some details. We don't want to pre-empt that, but having said that, we do have thoughts and comments that we can make regarding your question on temperature and the implications for the early Stuart and so forth.

I'm going to ask one of our specialists, Dave Patterson, to provide some thoughts about that, and at a later point maybe we could talk about some of the other contributors that might explain what happened in 2004 as well.

The Chair: Before Mr. Patterson starts, this is the 2004 review panel of the fisheries and oceans committee of the Parliament of Canada, and we reserve the right to pre-empt anybody we want, and we expect you to answer our questions to the best of your ability.

## Mr. Patterson.

Mr. David Patterson (Habitat Research Biologist, Science, Pacific Region, Department of Fisheries and Oceans): That's actually a pretty reasonable question about why the fish were in particulary good condition when one looked at them. Typically, the easiest way of assessing it is to look at the amount of egg retention that occurs on the spawning grounds and in successive spawns. I think that's what you're referring to there, to the fact that it was actually high. If they had gone through those high temperatures you'd actually expect, as you say, that at least the smallest, and maybe just the stragglers, would be on the spawning grounds in that condition.

In the science community we do argue about that quite a bit, about why we do see it some years and we don't see it in other years. When we look at historical data, the correlation between warm temperatures in the lower river and the degree of success of spawn on the spawning grounds isn't that strong. It is strong for the warm temperatures on the spawning grounds and a high degree of corresponding success. But for most stocks, we don't get a good correlation between lower river warm temperatures and success of spawn on the spawning grounds.

My speculation is that prior to reaching the early Stuart spawning grounds, there are some big, deep, cold lakes the fish can seek refuge in. I don't know.

I have the same questions, to be honest with you...but more and more of a general sense in terms of population biology.
$\bullet$ (1625)
Mr. Randy Kamp: If a fish biologist doesn't know, then I don't feel so bad that I don't know.

Let me go in a different direction here-and I'm sure my colleagues will follow this up in more detail.

With some of the witnesses, we've talked about the process. What was the decision-making process in allowing the drift nets for the Cheam Band? We've been told-and I believe it to be true-that drift nets weren't allowed above Mission for a long time, maybe for a hundred years or more. For this season, though, they were in the agreement that was reached with the Cheam Band. I'm wondering what the decision-making process was for that.

Mr. Paul Sprout: Perhaps I could start, and then if Don could add, I would appreciate it.

We work with first nation groups to determine what type of fishing approach or method they would like to use. We will consider alternative methods based on their advice. Our challenge is to make sure that if we do use alternative methods, we have a good monitoring system in place to track the catch. Further, it's to consult with others as we introduce these new methods.

## I'll ask Don to deal specifically with the Cheam.

Mr. Don Radford: With the Cheam this year, as has been mentioned earlier, we undertook to embark on a new relationship. The relationship that we have had with Cheam over the years has been adversarial and not sustainable. We undertook to negotiate a new fishing arrangement with them, and part of that arrangement was a request from the Cheam to use drift nets as opposed to set nets in their territory adjacent to the village.

We had some concerns about that, because we think drift nets are more efficient than set nets. Part of the negotiation process was therefore to negotiate some specific times and durations for the fishery that were less frequent and less aggressive than they would have been had they continued with the normal set net fishery. Based on the information we had, they were reduced by an amount that we thought would not compromise our conservation objectives and would allow us to continue to manage the fishery.

We required very close monitoring. At one particular experimental fishery, we had a monitor on the boat who was calling into the office and reporting the catch on a set-by-set, drift-by-drift basis.

Mr. Randy Kamp: So you're reasonably confident that they abided by the terms of that agreement.

Mr. Don Radford: When they were fishing within the terms of the fishing plan, yes.

Mr. Randy Kamp: We've been told by numerous-
The Chair: Mr. Kamp, sorry.
"When they were fishing within the terms of the fishing plan", did you say?

Mr. Don Radford: Yes.
The Chair: When they were doing that? Does that imply that they weren't doing it all the time?

Mr. Don Radford: There was some suggestion, and I think there were members of the Cheam Band who didn't accept the fishing plan that was negotiated and who chose to fish regularly. I think Mr. Redekopp mentioned this morning that charges have been laid against one of those individuals.

## The Chair: Sorry, Mr. Kamp.

Mr. Randy Kamp: That's fine. That was actually my follow-up to that.

We've also been told that there's a resource problem within the department, and I guess you guys would know. In fact, one employee told me that the people in the department know what the problems are and how to fix them, but they can't because they don't have the resources and there's no political will to get them. I'm wondering if you could comment on that.

The Chair: That's your last question of this round.
Mr. Don Radford: We do the best job we can with the resources that we have. We set priorities and try to manage around the shifting priorities as best we can by reallocating resources from lowerpriority areas to higher-priority areas. In this particular instance, we felt it was a high enough priority for the enforcement in the river in the closed times and areas that Herb mentioned earlier this morning, and web assigned additional resources to support it.

Simply put, we need to look at new ways of approaching these things. There are old-style approaches to these things that haven't worked for many years, and I think we need to look at ways to improve the catch monitoring, similar to what Mr. Chatwin identified earlier. People need to be accountable for their catch monitoring. These are the types of things we hope will come out of both the postseason review and the work we're pursuing in addition to that.

- (1630)

The Chair: Thanks very much.
Mr. Murphy.
Hon. Shawn Murphy: Thank you very much, Mr. Chairman.
Thanks to the witnesses.
I'm going to throw out a few questions here. First of all, we've been here three days, and this is a very serious issue. None of us are experts. In fact, we probably have more east coast fishing experience than west coast, the exception being Mr. Cummins. We've heard a lot of evidence on mortality due to water temperature and a lot of evidence of unauthorized harvest. My own sense is that we'll never know the exact numbers, and I don't think anyone else will ever know. Of course, there's another issue of the integrity of the numbers, but, again, we're dealing with fish in the water, so you expect a bit of that. I don't expect the Williams commission or the judicial inquiry will be much wiser at the end of the day.

My biggest concern is that these commissions or committees will be used as a reason for delaying any action. Under the present management plan that I see in existence, I'm almost convinced the same thing will happen next year. In fact, I'd bet money on it. It's not as serious as some people have said, I don' think, but there certainly is a lot of unauthorized harvesting taking place above the Mission station. I would suggest that there's a fair degree of evidence of unauthorized harvest taking place below the Mission station, too.

This is where I see where this thing just seems to be off the rails. We had the representatives of the Cheam First Nation here yesterday. They basically said they have the inherent constitutional right to fish, and that under the social, ceremonial, and food provision, that right includes the right to sell the fish. They don't talk about any agreements with DFO, but say they have the right to use the methods of their preference when they're fishing. In this case, the method they prefer is drift nets, and that's what they're going to use. They don't need any agreement from DFO to use them, they're just going to use them. They testified that there are a number of band members who do not acknowledge the agreement, and they're going to do it whenever they want to, under any circumstance that they want to do it.

There's a protocol-I don't know if it was in existence this year or not-that DFO will not go in without notice and they will not seize unattended illegal gear. Most disturbing and most troubling is that, after signing an agreement, there's no effort by the chief and council to self-regulate the agreements that they've put their signature to.

That is one band of 450 people on the upper Fraser. Again, I don't know if this evidence is true, but there are 96 bands up there. Once the other 95 bands see this taking place, as the previous witness stated, we're talking about an awful lot of money. I believe he equated 100,000 salmon to a million dollars to the people who prosecute the illegal harvest, and another million dollars for the distributors. In the other 95 bands, perhaps some are engaging in an illegal harvest and some aren't. I suggest that the ones that aren't are looking at this and are seeing other people getting wealthy, other people benefiting from a resource that these other bands, quite rightly, consider as much theirs as it is that of the people who are taking the illegal harvest.

I just sense that if this evidence is true, then you people may have been dealing with a situation where you were having difficulty with as many three, four, five, or six bands this year because of what they were allowed to do and what they were allowed to get away with, but you could be dealing with a situation with 95 bands next year. You can say the resources aren't there, but no number of resources would be there to try to curtail that kind of activity once it starts.

I just see these commissions and inquiries going on as being smokescreens, really. And never mind saying that Williams or whoever is going to give us the answers.

## - (1635)

I guess to you, Mr. Sprout, do you have a very concrete, definitive plan to deal with this issue next year? I think that is the issue.

Mr. Paul Sprout: I'd like to come back to several points you made, about where we go from here, and your apprehension about what's going to happen in the future. I'd like to start off by saying that we have these deliberations this week. We'll be interested to hear from this committee, at some point, on your views and thoughts on approaches in the future.

As well, we'll have the review by Mr. Williams. That will be happening shortly, over the remainder of the fall and winter, and spring of next year. At the end of that, Mr. Williams and his group will be providing some recommendations, which the department will in turn respond to.

I recognize that these things are going to come, and I don't want to pre-empt what in fact might happen. But I can say that there are challenges, there are problems, in the salmon fishery today. I acknowledged that in my opening statement. It may have sounded like a Speech from the Throne remark, but in fact I wanted to paint the context that we agree; there are issues we need to take on, and we will take those on.

Today, though, in the brief time I've participated in this group, I've heard a couple of things that I thought were very interesting in terms of what we could potentially take on in the longer run, without preempting what you may say later, or what Mr. Williams may say later. One of the previous witnesses talked about the need to have a good catch monitoring program in place. To this witness' credit, he pointed out that catch monitoring is not just an issue in aboriginal fisheries but it's an issue throughout British Columbia, and in all fisheries. I think that's a reasonable comment.

The fact is that we do have an aboriginal fishery, but we have many other salmon fisheries in British Columbia. What's interesting is that it's one of the few fisheries that doesn't have a precise catch monitoring program in place, dockside monitoring and so forth. It's one of the few fisheries in B.C. that doesn't contribute enforcement costs, research costs. This is a problem. We do need to tackle this. So I think that was an interesting suggestion.

The other point, made by the same witness, is that ultimately we have to sit down and talk collectively. We think this is the right approach. We need to talk about an integrated, transparent approach, where first nations, recreational fishermen, commercial fishermen, and environmentalists sit down at the same table. You as a committee member have heard over the last few days that there are divergent interests. The department finds itself frequently in the middle of these interests. We feel a bit like a ping-pong ball bouncing back and forth between the interests. They all point the finger at the other group.

We're here today, on a Saturday, because we care about this resource. We want to make changes. We want to do better. But we also need to recognize that this is complex, that there are interests out there that do not see solutions in a common way. And as I pointed out in my opening remarks, we have an uncertain environment, which we think is contributing to some of the instability and some of the problems you see in the fishery.

I would conclude, though, by saying that I remain optimistic that we can continue to make changes in this fishery. If you go back several years, you can track changes. I would argue that more changes can be taken in the future. I'm optimistic that the advice you may provide to the department, and the advice that Mr. Williams may provide to the department, will further move us down the road of getting at some of the issues you've heard about over the last several days.
$\bullet$ (1640)
Hon. Shawn Murphy: Mr. Sprout, you made an interesting comment, that you're waiting for the report from this committee. I can't speak for this committee, since I'm only one member on it, but my own suspicion is that the recommendations in the report of this committee won't be a whole lot different from the recommendations we made in June of 2003, when we dealt with the very same issue.

I hope you don't take my comments wrong. I think you have one of the toughest jobs in Canada. You people are getting different sides blaming you. They blame each other, but they all blame DFO. I can see that these are very difficult circumstances you're in. You have limited resources with which to try to do a very difficult job.

Before I turn the floor over to somebody else, I'll ask two questions. I really think you're making a mistake by waiting for commissions and inquiries to make...because I really think it won't be that many days until the salmon are in the river again. I think you're talking about 200 days when those salmon are there, and your plans should be very well developed by now.

## As well-

The Chair: I'm sorry; that's it. You said you'd turn it over to somebody else, and the ten minutes are up.

Hon. Shawn Murphy: Okay, my apologies for that.
The Chair: Iit's now Monsieur Roy.

## [Translation]

## Mr. Jean-Yves Roy: Thank you, Mr. Chairman.

Following up on Mr. Murphy's line of questioning, I would like to ask you a question, Mr. Sprout. Since when has the Department of Fisheries and Oceans been responsible for managing the salmon resource in the Fraser River?

## [English]

Mr. Paul Sprout: We've done it since there has been a Fisheries Act in Canada, so it's over a hundred years.

## [Translation]

Mr. Jean-Yves Roy: So it has been more than a 100 years. Could you explain to me why, 100 years later, there are still questions about the role of the Department of Fisheries and Oceans?

In answer to Mr. Murphy, you said something that does not make sense to my mind. You said that the Department needs to find a midroad between divergent interests. But the role of the Department is to protect the resource, to safeguard the resource. The Department's role is not to seek compromise but to protect the resource.

So here is my question. What do you do to protect the resource? I will even go so far as to ask you what you have been doing over the last 100 years to protect the resource?

Your biologist here is not able to provide even minimal indications as to what happened. If you have been managing the resource for 100 years, explain to me how come we still do not know it. Explain to me why we are unable to anticipate events such as happened in the summer of 2004. Explain to me why, despite the 1994 experience, we are still in the same spot today. I have difficulty understanding why a department whose responsibility it is to protect the resource finds itself, one century later and ten years after a first catastrophe, in the same spot.

I have to tell you that I do not understand. Either the Department has no memory of the past, has a memory lapse or does not remember beyond one year, or it does not invest enough into knowledge of the resource. I do not understand.

Mr. Paul Sprout: It is not the same issue.

## [English]

First I'd like to start with an explanation of the department's objectives.

Yes, you're correct that conservation is our first objective, but it is not our only objective. We have an objective to distribute the benefits of the fishery across the interests that participate in the fishery, so we have social and economic objectives as well. We have an objective for a self-reliant fishery, an economically viable fishery. That has to be based on conservation, but it is not just about conservation. If our objective were strictly about conservation, if all we were worried about is conservation and we wanted to take the most conservative approach, then there would be no need to have fisheries anywhere in Canada, never mind British Columbia, because that is the most conservative approach.

So our objective is not just conservation, although admittedly that is our primary objective. It's also about how we distribute the wealth across many communities in British Columbia and across Canada.

I also would like to note that we are not at the same point we were when we started managing fisheries when the Fisheries Act was adopted. I pointed out in my opening remarks that we have made changes even within the last five years that have moved this issue ahead.

Five years ago, if we had conducted a meeting like this, we would have been consumed by the dispute between Canada and the United States over the conservation of Pacific salmon being harvested without consideration of the conservation issues that were present at that time. So if this group had been here five years ago, we would have debated and discussed the Pacific Salmon Treaty. That is not an issue right now, because we have a treaty in place and we have moved forward.

My final point is the point several members have acknowledged already. We do have arguably one of the most difficult jobs in natural resource management, which is the management of Pacific salmon. When I speak to my colleagues in Alaska, in Washington, or in Oregon who also have responsibility for managing Pacific salmon, I hear exactly the same stories, the same issues. This is a complex business, complicated by the fact that there are not agreed views on objectives among the interests, and we have a changing environment -either in the ocean or in the fresh water, neither of which we can control-and we must react to it.

- (1645)
[Translation]
Mr. Jean-Yves Roy: You say it is extremely difficult but we too, on the East Coast, have had very difficult problems with other resources. We experienced more or less the same situation. I am not saying the Department of Fisheries and Oceans managed any better in that case. Far from me the intent of making such a statement.

I have a very specific question for you. I would like to know if the Department takes into account, when it allocates resources, in other words when it allocates quotas from one year to the next, illegal catches and sales. Does it make an assessment of the illegal catches and sales, of accidental catches or rather accidental destruction of habitat before allocating these quotas?

What I mean is this: does the Department, which does not really invest enough in protecting the resource, say it needs to reduce the quotas every spring, to assess what is not reported and deduct it from the allowable catch before allocating quotas?

## [English]

Mr. Paul Sprout: In the case of the Pacific salmon fishery, we factor in our assessment of the reliability of the information we receive that we use as a basis to manage the resource. We factor in environmental variables ahead of time and then in-season try to make adjustments if we receive new information that suggests what we had anticipated needs to be changed because new information is available. So we do try to move along the lines you have suggested.

I would respond in a little bit different way if we were talking about other fisheries, for example groundfish fisheries, where our management approaches would be somewhat different because those fisheries are less dynamic than the salmon fishery. I won't go into that detail at this point.

## [Translation]

Mr. Jean-Yves Roy: I do not want to get into groundfish fisheries. We are discussing salmon here. My question is this and you gave a partial answer. Let us say I catch 1000 salmon and I have a quota for 500 . Based on this quota of 500 , no matter what happens, I allocate only 350 the next time because I know that there will be some poaching and all sorts of other things happening. Therefore, I do not need to worry anymore about poaching, I do not need to invest in protection because I subtract all of these factors before allocating new quotas.

## [English]

Mr. Paul Sprout: I'm going to ask Don Radford to respond to this. I would make one point, though. The question you've reasonably referred to is a question we frequently ask when we talk about groundfish management; however, we don't really apply that same approach when we manage Pacific salmon, because of the biological difference between Pacific salmon and groundfish.

With that as a backgrounder, I'm going to ask Mr. Radford to respond.
$\bullet(1650)$
Mr. Don Radford: Just picking up on Paul's point, we don't set an annual quota or an annual total allowable catch for salmon fisheries. As Paul mentioned earlier, salmon is a much more dynamic resource that we manage, in the case of Fraser River sockeye, on a weekly basis throughout the summer. We don't set an annual TAC. What we do is define our conservation objectives, assess the number of fish that are returning in the course of a year, and then determine what we require to meet our conservation objectives, subtract that, and subtract what we need to apply for-

## [Translation]

Mr. Jean-Yves Roy: Yes. In practise, it turns out just the same. If one looks at it, you subtract at any rate your assessment of the amount of poaching as you go but it ends up the same way as for ground fish. You subtract it anyway.

## [English]

Mr. Don Radford: It's hard to assess the volume of unauthorized fish, but when we make our decisions, we err on the side of
conservation in order to account for some of that kind of stuff. In some years we don't catch it all; I think that's your point.
[Translation]
The Chair: Thank you, Mr. Roy.
[English]
If you're subtracting, you must be subtracting from something.
Mr. Don Radford: That would be the estimate of the total stock in any given week.

The Chair: Every prudent business has a contingency in its budget line for unforeseen circumstances, so you must have some contingency for unauthorized catch.

Mr. Don Radford: That why I say we err on the side of conservation. It's difficult to factor in unauthorized catch, but we do factor some of that in.

The Chair: Let me ask it another way. Does the department acknowledge that there is unauthorized catch?

Mr. Don Radford: Yes.
The Chair: Thank you.
Mr. Hearn, ten minutes.
Mr. Loyola Hearn: Thank you very much, Mr. Chair. Let me also thank the witnesses for being here.

I have a number of questions.
First of all, when we've talked about managing, during the last couple of years we've been hearing a lot of evidence in relation to the Fraser. We've talked about concerns expressed because the run was greater than expected and people didn't get the share they should have. We've talked about a lower run. As all of these things operate on four-year cycles, shouldn't we really be planning now for 2008 ? Shouldn't we have some idea of what we're going to work with right in the very beginning and start making plans and accommodation for that fishery?

Do you do four-year advance planning?
Mr. Paul Sprout: Maybe I could start off.
Don, if I get anything wrong, correct me.
The fact is, we do that. For example, when we finish the spawning surveys of 2004-they have not been finalized so far, but they will be shortly, sometime early in the new year-then we'll start with the preliminary forecast for 2008. That's a preliminary forecast, just based on spawners.

Then later, in the subsequent years, we'll refine that as we get additional information. As the eggs hatch, as the young sockeye mature, as they leave the freshwater lakes where they rear, we're going to get further estimates of their numbers. That will help us then predict how many adults will come back, and we'll further refine the estimate that we're going to make next year. We'll continue that refinement process right up until the fish return in 2008. Then in 2008, in the season, we'll make further refinements.

Pacific fisheries management is a very fluid process. There's a series of adjustments made throughout the period of time that the fish spawn and return to spawn.

There's a difference with groundfish. In groundfish, typically what we do, as you know very well, is establish a quota that can be fixed for a year, or in some cases for two or three years. Our objective is to try to manage to the quota. Once the quota is taken, the fishery is closed.

We do not manage Pacific salmon like that, because they do not behave like groundfish. They have completely different biological characteristics. We adjust our fisheries to reflect the biology of Pacific salmon.

So you're absolutely correct. We will start to use the 2004 information beginning in 2005 to predict 2008. We'll refine that over the course of the next few years, and further, beginning in 2008 we'll make further in-season adjustment as that season unrolls.

- (1655)

Mr. Loyola Hearn: In relation to that, from past information, looking at your 2000 spawners, you should have had a pretty good idea at the beginning of this past year whether or not you were on par-pardon the pun-for a regular season, or whether they're up or down.

What do you usually find four years later? Were you surprised this year at the number of salmon that returned to the mouth of the river?

Mr. Paul Sprout: Actually, again, my understanding-and any of the experts here can correct me-is that we predicted very closely, with one exception, which was the summer population of Fraser sockeye. I believe we predicted somewhere in the order of four million total return, mostly made up of summer sockeye. Up until sometime in August we thought we were on track for that number. Then it suddenly changed and went up, because the summer sockeye population improved. Then it suddenly decreased. In the end, what we have in the spawning grounds and what we can account for in catch is lower than what we anticipated.

Mr. Loyola Hearn: At the spawning grounds. But to the mouth of the river, you're very much on record?

Mr. Paul Sprout: Yes, with the comment that I made that-
Mr. Loyola Hearn: Yes, some variation.
Mr. Paul Sprout: -there is some variation due to the summer population, which went up and then down.

Mr. Loyola Hearn: Generally, then, we know we have a problem, and the problem was created, basically, somewhere on the river?

Mr. Paul Sprout: We know there's a discrepancy. That discrepancy occurs from the river, in Mission, to the spawning grounds. There are three possible sources to explain that discrepancy. The first is that between Mission, where the fish are estimatedwhich is not very far from here-and the spawning grounds, fish went missing because they were caught and unreported. That's a possibility. Another possibility is that the Mission estimate is wrong, that not as many fish moved past Mission, and therefore the number is incorrect. The third possibility is that because of environmental conditions in the river, a high proportion of those fish that swam above the Mission counting system died.

The issue is how to tease out which of those three factors is the most important, or whether all three factors are relevant to explain the discrepancy.

Mr. Loyola Hearn: From the evidence we have had over the last three days, almost everybody stated that there's no great evidence of a lot of dead salmon in the river. We have also heard that those that made it to the spawning ground were in relatively good shape. So that leaves some doubt, at least, on the point that environmental conditions had a major effect on the stock.

Have you had problems in the past with the counting system at Mission?

Mr. Paul Sprout: I will have to ask an expert to respond to that, Mr. Hearn, and I'll take advice from my colleagues on who would be the logical person to do that.

The Chair: While you're doing that, I'm going to have to interrupt on a technical matter.

Again, particularly when we use the letter "p" in the English language, it creates a popping sound. The closer you are to the microphone, the more likely it is that the microphone for the interpreters cuts out. They then have to go back in, and they've missed some of the words.

So I'd ask you to please just keep back of the mike.
Have you figured out who's going to answer that question, Mr. Sprout?
$\bullet$ (1700)
Mr. Paul Sprout: Mr. Ryall will.
The Chair: Thank you.
Mr. Ryall.
Mr. Paul Ryall (Lead, Salmon Team, Department of Fisheries and Oceans): Thank you.

I'm not necessarily an expert in the Mission hydro-acoustic estimation, which is upstream of here, but I can answer the direct question.

There have been problems observed at Mission in the past. We are making changes to Mission. There were two different tracking systems operational this year to estimate fish as they migrated upstream. We're doing a post-season evaluation of that system. We noticed there were some problems this year. They were corrected in season.

But in the normal course of events, we do conduct post-season analyses each year, and the Pacific Salmon Commission staff are doing that currently. I expect we'll get that report from the salmon commission early in the new year-I understand sometime in January.

The Chair: Thank you, Mr. Hearn.
Maintenant, monsieur Blais, s'il vous plaît, pour dix minutes.

## [Translation]

Mr. Raynald Blais: Thank you, Mr. Chairman. I would like to refer to a document from November 2003, the government's response to the sixth report of the Standing Committee on Fisheries and Oceans on the 2001 Fraser River salmon fishery.

It seems that in these responses from the government-and you will tell me how you see the situation today and going forwardthere is a common thread underlying all the responses of the government, especially to the first recommendation about returning to a single commercial fishery for all Canadians in which all participants would be subject to the same rules and regulations.

In the government's response, it says: "The Department is committed to providing continued opportunities to First nations". In other words, this sentence which recurs further down seems to be the common thread and the first criterion to be applied in analyzing any problem. Is this so?

## [English]

Mr. Paul Sprout: I may have to ask one of my colleagues to add to whatever I could say. I was not here at the time that report was tabled. I was doing different work.

As I indicated in my opening remarks, and as Mr. Radford expanded upon in his remarks, when we manage Pacific salmon fisheries-and not just Pacific salmon fisheries-we make allowances initially for conservation. We try to determine how many fish are coming back, what the spawning requirement is, and then we determine what the first nations food, social, and ceremonial requirements are. After that we have the rest of the fisheries that take place-commercial and recreational. That is an approach that we follow throughout our salmon fishery and is one that we apply particularly to Pacific salmon.

That is because first nations have a right to harvest fish for food, social, and ceremonial purposes. Therefore, we have an obligation as a federal department to respect that right. As a consequence of that, we design fishing plans of which the objective is to ask if conservation objectives are determined to allow for the food, social, and ceremonial use. That is an approach that we do up and down the coast.

To respond to your specific question, I don't believe that in itself is the problem. I believe the problem gets into our ability to track catches across all fisheries to know what's been caught, to know how many fish are coming back in season so that we can manage with precision, and then finally to enforce and ensure that the measures we put into place are respected.

I'll ask Mr. Radford if he could add to that.
$\bullet$ (1705)
Mr. Don Radford: I'm not entirely sure I understood the question. Correct me if I'm wrong, please, but I think it had to do with a single fishing plan for all of the participants in the fishery. Is that correct? Is that the point you're focused on?

## [Translation]

Mr. Raynald Blais: I will ask my question which may shed some light on my first one. My second question is along the same lines.

Here is another response of the government, which reads:
The government supports the objective of stable access to the resource for commercial and recreational fisheries, subject to meeting conservation requirements and providing access to First nations for food, social and ceremonial purposes and any rights that may be defined by treaty.

This is the government's response to our recommendation to provide more stable access to the resource for the commercial and recreational fisheries. In other words, anytime we need to determine a right of access to this resource for other commercial and recreational fisheries, it will always be subordinate to the first principle, the access of First nations, this access being the primary common denominator.

In order to achieve this, the government is ready to change rules, to allow drift nets which were previously illegal, to do things which mean that we no longer know what is happening in authorized fisheries. We get the impression that we no longer care about other decisions that have been made. This fundamental principle means that the answer to the problem will always be subordinated to aboriginal access to the resource, no matter what impacts there may be elsewhere. This is what I understand from those responses which are quite clear. In view of the present situation, I get the feeling that every time there is a problem, we go back to this principle as if we were tied to it by a rubber band. And even if the rubber band has snapped at various times, we go back to it at every opportunity.

## [English]

Mr. Don Radford: Thank you for that clarification.

Yes, the courts have indicated to us on the government policy that first nations have a section 35 right under the Constitution to priority access, and our interpretation of that is priority access for food, social, and ceremonial purposes.

We don't provide first nations priority access for commercial purposes. We provide priority access for food, social, and ceremonial purposes, and that's my understanding of the policy of the Government of Canada, the Constitution, and the direction from the courts.

## [Translation]

Mr. Raynald Blais: But when the issue is to define what ceremonial fishery means, there could be a wide-ranging interpretation such as what we heard yesterday: this fishery needs to be of high economic value, and if that is so, anything is possible, the sky is the limit.

## [English]

Mr. Don Radford: It is a very complicated business, I agree. The only place where we have court decisions that provide for constitutionally protected access to fish for commercial purposes in a first nation is very specific-it's with the Heiltsuk First Nation in the central coast area on herring spawn on kelp.

I appreciate that first nations have a different interpretation from what the government does in view of disposition of fish that are harvested under the terms of a food, social, and ceremonial licence. As Mr. Redekopp identified this morning, that fish is not eligible for sale, and we do our best to address that when it's happening.

- (1710)


## [Translation]

Mr. Raynald Blais: I have one last question: how far are you willing to go in terms of conservation? The salmon resource in the Fraser in endangered. It is the conservation principle that is at play but, if I understand correctly, it has been set aside and made subordinate to the first principle I talked about earlier. Normally, conservation should come first, but that is not the case.

## [English]

Mr. Don Radford: I think that it is the case. I think that conservation does take priority, and we work with the first nations to try to make sure that this priority is achieved. We work with them to make sure that the compliance is as high as it can possibly be, and we're not $100 \%$ successful. We need to keep working on it. It has already been identified many times. It's an incredibly complex and difficult task. It involves many different interests. Even among the first nations there are many different interests. We need to work together with them to try to address it. The conservation issue impacts first nations as much as it impacts anybody else. If we don't meet our conservation goals this year, then in 2008 first nation fisheries will be impacted as well. We need to work with them to help them understand that and to work on the solutions together.

The Chair: Merci, Monsieur Blais.
Just for the information of panellists, Monsieur Blais was referring to the number one unanimous recommendation of this committee in its 2003 report dealing with the 2001 Fraser River salmon fishery. That was to call on DFO to return to a single commercial fishery for all Canadians-period, full stop. The answer was, "The government does not agree with this recommendation." There were four full paragraphs explaining that answer. Section 35 is not mentioned, and food, social, and ceremonial is not mentioned. What is mentioned is to reduce conflict with illegal sales from first nations communities. In fact, it says the pilot sales program has also "reduced conflict with First Nations' communities over illegal sales of fish taken in food, social and ceremonial fisheries." So I'm wrong, it does mention the phrase, but illegal sales is what they were trying to address.

Secondly, the words "food, social, and ceremonial" do not appear in section 35. These are words that have been interpreted by the courts, and I stress the word "interpret".

Mr. Cummins, ten minutes.
Mr. John Cummins: Thank you, Mr. Chairman.
Mr. Sprout, just from the get-go, I was somewhat dismayed with your opening remarks. Fisheries management may be difficult, and there's no doubt about it, it's extremely difficult. In fact, it may even be rocket science if you want to put it in those terms. But it has been done well in this country for well over a hundred years, with some exceptions-1992 and 1994 come to mind. It wasn't well done in 2004, and in fact it was a disaster. The returns in 2004, I'm told, are worse than they were after Hell's Gate.

We've had officials from Ottawa before this committee and we've heard you and your opening remarks here. Never have we heard the department say, well, we made a mistake, we're sorry. So I assume then that the problem was beyond your control. What is it-did you
make a mistake, or were the problems, in your view, beyond your control?
$\bullet$ (1715)
Mr. Paul Sprout: First of all, I'd like to clarify a couple of things.
The first point is that the Fraser River sockeye salmon fishery is one fishery in British Columbia. It's not the only salmon fishery in British Columbia-

Mr. John Cummins: I'm aware of that. I'm talking about-
Mr. Paul Sprout: I'm not sure that the other members are aware of that.

The Chair: Mr. Cummins, let him answer the question.
Mr. John Cummins: You made that point very clearly.
The Chair: Mr. Cummins, would you please let him answer the question? We have all the time in the world. Let him answer.

Mr. Paul Sprout: There are a number of other fisheries in British Columbia that took place in 2004. Those fisheries largely went off very well. We had good relationships with the commercial fishermen, positive relationships with the sports fishermen, and positive relationships with the first nations. We met our conservation objectives. We've had pink salmon return to the Broughton Islands from very poor returns a couple of years ago to record levels in 2004. We've had probably one of the strongest returns of chinook salmon to the Fraser River that we've ever seen in the last number of years.

The question is, what is it about the Fraser River sockeye fishery that causes so much discontent? This isn't the first time that you have discussed the Fraser River sockeye fishery. It's not the first time that I had to consider this issue. I think if we don't get down and talk about the real issues that are underlying the Fraser River sockeye fishery, we may risk exactly the kind of concern that was raised by one of the honourable members earlier this evening. There are issues around divergent opinions. There are environmental problems on the Fraser River. This is a complex system. Those are the variables we're dealing with.

The issue for me, as the director general, is to try to find out what the possible solutions are to move this thing ahead, whether it's catch monitoring or an integrated approach that brings all the parties to the table.

Mr. John Cummins: The question was quite simple. Was it a management problem or was it something beyond your control? I'm going to assume from your answer-

The Chair: Mr. Cummins.
Mr. Sprout, was it a management problem, was it something beyond your control, or is there another answer?

Mr. Paul Sprout: My response, Mr. Chairman, is that there are three issues that are at risk that are problematic on the Fraser River.

One I would describe as a management problem, which I have already referred to. It is the issue around the fact that this is a very complex fishery. There are a number on stocks, and our ability to be precise is limited. That's an issue around complexity.

The second issue is the fact that there are divergent opinions on how we should manage the resource and share the resource among the interests. Commercial fishermen have a view, recreational fishermen have a view, first nations have a view, and they're all different.

The third problem is the environment. It's a fact that the river temperatures on the Fraser River in 2004 were extraordinarily warm and that contributed to mortality. What the level is, at this point, we do not know. How much it played into the role of the three factors I talked about is not clear, but it is clearly a factor.

Mr. John Cummins: I take it that was your time, Mr. Chairman. Thank you.

Mr. Sprout, you also mentioned that Mr. Williams was going to conduct an investigation. The documentation that announced the investigation suggested that the 30 -member committee was going to be participating. We now hear from you that is not the case.

Be that as it may, I look at a number of issues surrounding that. I look at the panel that John Fraser was working with in 1994. It was reason to offer some encouragement, but when I look at the disparate groups sitting on the panel, I'm concerned, and I'm concerned for a number of reasons. One is that each of the groups brings an agenda to the table, as they admitted to this committee in the last three days. Two is that many of the groups have said that they do not see Mr. Williams as an unbiased chair. I think there are a variety of reasons for that, which I won't reiterate at this time, but I'm sure you're aware of them. I'll only say the most significant one is that Mr. Williams is an honorary adviser and a major donor to an aboriginal organization that has sued DFO in an effort to stop commercial and recreational fishing of Fraser salmon. I'd like to know why you think he is an appropriate chair for that committee.

- (1720)

Mr. Paul Sprout: The reason why is because I believe it's what one of your witnesses has already recommended and what I have referred to in previous comments. We are not going to get at the problems in the Fraser River sockeye fishery unless all the parties that participate in the fishery sit down at the same table to talk about the problems. If we continue to try to deal with this fishery in separate groups, we will continue to confront the same problems. We must find a way of bringing the parties together to talk about common values and common interests.

We have set up a process with Mr. Williams where, as noted, Mr. Williams is going to work with a disparate group, a group comprised of first nations, commercial fishermen, recreational fishermen, and environmentalists to talk about the 2004 fishery. We believe it's the right type of group to deal with problems that cut across all the interests.

My final point is on Mr. Williams himself. Mr. Williams is very well informed. He's had extensive experience as a negotiator, arbitrator, and facilitator. He's a very quick study and a very bright man. I think he is in a very good position to look at a complex problem like the Fraser River sockeye and Pacific salmon, in general - which we've talked about many times this afternoon-to bring together interests that will likely be divergent to start off with and to see whether we can't in fact try to move to a consensus, not only on the problems, but on the solutions.

Mr. John Cummins: All of that is very nice, Mr. Sprout, but the problem is and the issue you're avoiding is, number one, that Mr . Williams does not have the confidence of many members of that group, and I certainly understand why. The second issue that's significant here is that bringing the various interests together to talk out their problems is a different job from investigating what went on this year. Those are two separate issues.

I want to move on to another issue now, and that is the issue of food fish. Mr. Radford, you talked to the issue of food fish, social and ceremonial, as did you, Mr. Sprout. The court has said, quite clearly, that contrary to commercial uses, which is unending, there's an insatiable appetite for fish for commercial purposes, but there is a natural limit to fish for food. You can only eat so much.

You don't seem to have imposed much in the way of limits on food, social, and ceremonial fisheries, as the court suggested.

Mr. Paul Sprout: Actually I think we have. We do try to work with the first nations communities on what their food, social, and ceremonial needs are. So we would approach a band or a community and discuss with them what their needs are. If we believe that the numbers they suggest are unreasonable, out of proportion with historical catches, out of proportion with their population numbers, and so forth, then we will have to work with that community to try to find an estimate or a number we can both live with.

During the season we often get requests from first nations communities to increase their food fish catch. We consider these requests on a case-by-case basis, and in a number of instances we will not approve the increase they're seeking.

Mr. John Cummins: Well, Mr. Sprout, we're not going to agree on that one either. In 2003, as an example, the Tsawwassen Band was allocated over 1,000 pounds a person, and that's for every man, woman, and child on the reserve. I think that's far in excess of need. And I'll say to you, Mr. Sprout, that you know what's happening to that fish: it's being sold into the marketplace. And you, Mr. Sprout, are complicit in an illegal activity when you allow it to go on.

- (1725)

The Chair: Order. Unless you have some evidence of that, I'd like you to withdraw that comment.

Mr. John Cummins: I'll withdraw the comment and I will make it a collective comment. The department is complicit in an illegal activity.

I would like to go to another issue that you raised, Mr. Radford, and you talked-

The Chair: Thirty-two seconds.
Mr. John Cummins: I will do that.
You talked about the drift-net fishery for the Cheam Band and suggested that there was close monitoring. In fact, at one point you said that there was an observer on board who actually counted the fish.

Well, Mr. Radford, we have heard evidence and I've taken the calls myself over the summer, many instances.... In fact, I myself have reported transgressions, violations of the law to the department, where there was illegal fishing ongoing in that area, and it went on and nothing was done.

What were you using as a basis for suggesting that there was close monitoring of this fishery?

Mr. Don Radford: I was referring to one specific fishery. It was a chinook fishery, late in the year, and it was very closely monitored. When we were fishing under the terms of the agreement there was monitoring in place.

I'm aware that fishing is occurring there that is not under the terms of the agreement. Through our enforcement efforts we make our best efforts to try to control that and to deal with it, but as I've already acknowledged, it goes on.

We need to work with the community-
Mr. John Cummins: I'm certainly glad you clarified that, because I would hate for the record to show that you were suggesting that there was wide-scale monitoring of that fishery. You wouldn't want that to be out there, an error like that. So I'm certainly glad I asked that question-as I'm sure you are, Mr. Chairman.

The Chair: Thank you, Mr. Cummins.
All right, my turn. Start the clock.
I'd like to begin by following up on Mr. Cummins and Mr. Blais.
I am a lawyer by profession, not a fish manager. I deal in definitions. I deal in attempts at certainty.

You said that your first priority was conservation, and I believe you defined "conservation". If I remember your evidence, it is to ensure that there are sufficient fish to get where they need to go in order to spawn so that another generation is produced. Am I right on that? Or is there another definition of "conservation" in this instance I'm talking about, the Fraser River sockeye salmon?

Mr. Don Radford: That's one definition. I think the numbers are important. There's a lot of debate about exactly what is required for conservation, about what's required to perpetuate the runs, and about what the objectives for rebuilding or increasing the run size are. So it's not a clear-cut issue.

The Chair: Yes, but you're planning on a yearly basis. What is your definition of "conservation"?

Mr. Paul Sprout: Could I respond, Mr. Chair?
The Chair: Certainly.
Mr. Paul Sprout: First of all, at the highest level-because there are levels of conservation-I'd like to explain that we see conservation as wise use that protects genetic diversity over the long period. That's at the highest level.

We then translate that into operational conservation objectives that make sense for the various locations and fisheries that we manage. So the operational objectives will change from site to site. On the Fraser River, for example, with some sockeye populations we have a rebuilding objective. In other words, we would like the population to increase. We're not where we would like to be right now. We'd like to go to a higher level and we're going to phase it in over a period of time.

In other locations we have an objective we want to reach immediately, in the next year, in the next cycle. We take into consideration in establishing these operational conservation objec-
tives the advice that we receive from various constituencies like our fishermen-sports fishermen, recreational fishermen, and first nations-in establishing these conservation objectives.

The Chair: I'll accept that.
Number two, after conservation, is food, social, and ceremonial. What is your definition of "food, social, and ceremonial"?
$\bullet$ (1730)
Mr. Don Radford: Food, social, and ceremonial fish are fish that are harvested for those purposes. We negotiate numbers with the first nations on an annual basis through fisheries agreements to provide for those needs. In not all cases do we have fisheries agreements. There are a number of first nations on the Fraser River that don't participate in the aboriginal fisheries program. We don't have a negotiated process for defining those numbers, so we assign a number to it.

What we're calling "food, social, and ceremonial fish" are fish that are harvested under the authority of a licence that's issued for the purposes of food, social, and ceremonial. I don't have a definition for what constitutes a social use of fish. It varies from first nation to first nation. It could be used for a funeral or some kind of a ceremony, and it's something that requires additional negotiation on a case-bycase basis.

The Chair: Now, I won't accept that answer.
What is your definition of "food"?
Mr. Don Radford: Food fish is fish for consumption by families, by extended families, provided to elders.

The Chair: What does that mean? Do you have a number that the department uses for estimating the food requirements of the first nations?

Mr. Don Radford: We have a number that we use to estimate the food requirements for the collective first nations on the Fraser, and the numbers of -

The Chair: And then that has to be played with, depending on the numbers. What is that number?

Mr. Paul Ryall: I believe it's 900,000 for the entire Fraser River, but I stand to be corrected.

The Chair: Just for food?
Mr. Paul Ryall: In 2004 there were agreements for marine-water first nations, and it was about 250,000 identified for food, social, and ceremonial. Within the Fraser River watershed, it was about 740,000 total in 2004.

The Chair: Perhaps I'm not making myself clear. I'm not talking about social and ceremonial; I'm talking about food. What's the number for food?

You're trying to manage. You can't manage if you don't have some idea of how many fish you need to meet your objective: first, conservation, as defined; secondly, how many fish do you estimate that the first nations need on a yearly basis for food purposes? How many do you estimate?

Never mind what deals you have, because in the absence of deals, it's your job to estimate. What's your estimate of the needs on a yearly basis of the Fraser River bands for food-stop-and then the same question for ceremonial?

Please don't tell me you've negotiated this and you've negotiated that, because we know you haven't negotiated. I'm not suggesting you're not trying. We know you haven't negotiated with all bands. So in order to manage, you have to plan and you have to identify some numbers.

I believe we've heard now that it's 700,000 for all three. So let's break it down. Out of the 700,000 , more or less, how much is for food?

Mr. Don Radford: I don't have that information.
The Chair: Why?
Mr. Don Radford: We don't break it down that way. We manage it as a collective.

The Chair: All right, that's an answer.
We heard yesterday that some bands equate "social" with selling. What is your position, "your" being the department's position?

Mr. Paul Sprout: Mr. Chairman, I'd like to respond to that question.

Our response is this. Although some of the first nations claim that they have a right to sell fish, we dispute that claim. We do not agree. Unless that has been determined in court, we do not accept their view that they have the right to sell Pacific salmon.

It is our view, as determined by Supreme Court decisions, that they have a right to catch fish for food, social, and ceremonial purposes. We attempt to negotiate with each individual community and determine their catch for food, social, and ceremonial purposes. We do not break it down by each of those categories, and we do not accept the view of some communities, as expressed here the other day by the Cheam Band, that they have a right to sell. We realize that some groups believe they have that right, but it is not a view that is accepted by the Department of Fisheries and Oceans.

So, after negotiating, we establish a food, social, and ceremonial catch number, which is deducted from the total allowable catch after first making allowances for the operational conservational objective I spoke about earlier.

## - (1735)

The Chair: Mr. Sprout, I will say to you that I think that answer is a tiny, tiny step forward in what Mr. Fraser identified as the problem ten years ago - that is, lack of leadership.

Somebody has to lead. The department doesn't recognize the claim, period, and we will manage it with no recognition of the claim until we are told by the highest court in the land that we must do otherwise - that's leadership; it's a showing of a direction.

I think that's what people are looking for. That's what Mr. Fraser identified as the giant problem-no leadership, too much palsywalsy, let's try to solve this. Well, that's great, but if you can't solve it, somebody has to cut bait. What's the old fishing expression, "Fish or cut bait"?

End of story. My time is over-my first round, that is.
We'll go to Mr. Kamp.
Mr. Randy Kamp: I'll pass for now.
The Chair: Okay, good.
Mr. Murphy. No? Okay.
Monsieur Roy.

## [Translation]

Mr. Jean-Yves Roy: Thank you, gentlemen.
It is my impression-and you will correct me if I am wrong-that no one really wants to solve the problem. Indeed, on the one hand, the Indian bands know that at any rate, in view of how these things work, they will end up with the biggest piece of the pie. On the other hand, there is a whole industry, that I might call parallel and very developed, which makes a fortune out of illegal fishing. I should not say "illegal". It is allowed, but borderline...

An honourable member: It is tolerated.
Mr. Jean-Yves Roy: I should say it is tolerated. Consequently, none of these people has a real interest in getting the problem solved.

What you are being asked to do, you the managers at the Department of Fisheries and Oceans, is to play being politicians. You are told to play politics with the resource in order to solve the issues of First nations. You are being told to play politics with the resource. This is how I see it after the three days of hearings we have just had.

Many people come here saying they want to solve the problem, but if you get right down to it, you have to wonder if they really want a solution. I do not think they do, because everyone benefits, very openly and for all to see, except those who respect the rules. All the others have no interest in finding a solution. We are talking about millions of dollars here.

On the other side, the Department pushes you toward the political aspect of the issue by telling you to manage aboriginal access to the fishery. This is my impression. I am not sure it will be my conclusion, but I am getting very close based on what I heard.

The Chair: Is there a question in there?
Mr. Jean-Yves Roy: No. I would like a comment.
Does the Department of Fisheries and Oceans ask you, the officials, to play a political role? Are you being asked to use the resource to solve a political problem, the issue of access to the fishery by aboriginal people?

Do you seriously believe that First nations will stop where you tell them to stop? My answer is no: they want total control of the resource.

- (1740)

Mr. Paul Sprout: The challenge is enormous, as you well know.

## [English]

But if we create the right circumstances for the interests to come together-and I would agree with the comments of the chair-and show leadership, we believe that is the right way to try to tackle some of the problems that exist in this fishery today, to have the frank discussions among interests that are diverse, to seek common ground to move this issue forward.

I remain optimistic that it's possible to do. I recognize that it's remarkably challenging, but I think solutions lie in bringing people together in an integrated forum, in a coordinated way, accepting responsibility as a department to indicate direction and constraints about what the solutions might be. I remain optimistic that this is a viable approach and one that we do need to pursue.

## [Translation]

Mr. Jean-Yves Roy: Yes. This is what I said yesterday. Elsewhere, when we talk about a food fishery for first nationsMr. Blais referred to this-we mean a fishery that allows people to feed their family, in other words to make enough money to support the family. We talk about average annual income according to Statistics Canada's definition. This is the end goal when we talk about food fishery.

If you go to court, the First nations will win because it is true that in the past, 1000 years ago, fishing as it was then practised allowed them to provide a decent living for their families. So this is their objective, they are not concealing it, they tell us. This means that you will lose in court.

If I were aboriginal, I would behave exactly the same way because I would be sure to reach my goal. At the present time, the Department does not really enforce the rules, therefore I will reach my objective. This is their end goal. If I were aboriginal, I would do exactly the same thing. I am not blaming them, I am just asking you, stating a fact.

Mr. Paul Sprout: Yes, I understand.
[English]
We understand that some first nations groups believe they have a right to sell fish. The department, unless that has been determined through a court case or has been negotiated as part of a treaty claim, operates with the view that any fish harvested by first nations has to be used for food, social, and ceremonial purposes.

That then means we have to indicate that direction clearly. That then means we have to do the best job we can to try to enforce that. And I take the comments of Mr. Cummins and others who have argued that there are areas where we have more work to do. We accept that. We know that. That remains a challenge. But we understand, in the end, that in order to move this forward, we have to bring all the interests to the table. We can't continue to have this fragmentation and this approach that doesn't bring people together to talk about these common interests.

I understand that some first nations will make the arguments that you have made, but that does not necessarily mean we accept those arguments, because in the end, we have to do what is right for the conservation of the resource and we must respect the existing laws and regulations that are in place.

## [Translation]

Mr. Jean-Yves Roy: You say you do not necessarily accept their arguments, but you have already started doing so since one band has a right to sell.

If I were in the shoes of the 96 other bands, do you think I would ask you? You already allowed one group. So, why should I not do the same thing? I would do exactly the same.

- (1745)
[English]
Mr. Paul Sprout: I don't think so. I don't believe we have accepted that.

It's true that we do try to find agreements with first nations. We do negotiate with first nations, certainly on food, social, and ceremonial. It's also true that many times we cannot come to an agreement with first nations and we impose catches, and in situations where we obtain information or where we undertake programs where we believe first nations or others are not respecting regulations or fishery measures, we'll take action.

Are we able to stay on top of everything that happens in all fisheries, whether that's first nations or non-natives? No, reasonably no. But do we try to use the resources we have to focus in the areas where the greatest priority is? I think the answer is yes.

## [Translation]

Mr. Jean-Yves Roy: It is a political decision. The committee that was set up, headed by Mr. Williams, says it will cost some 30 million dollars.

An honourable member: It is not 30 million dollars.
Mr. Jean-Yves Roy: No? There are 30 members. Sorry.
The Chair: Mr. Roy, the witnesses said this is not exactly true, because it is up to Mr. Williams to decide the number of people.

Mr. Jean-Yves Roy: Yes, but it is still a huge committee of 30 members. Are you talking about a committee where interested parties, First nations included, would meet to decide what to do in the future?

## [English]

Mr. Paul Sprout: The approach right now is that Mr. Williams will work with the integrated salmon harvesting group. We expect Mr. Williams will initially want to reduce the size of that group to work with a subcommittee-we're not sure how many members, but I suspect it will be fewer than ten. We anticipate Mr. Williams will probably work with that subgroup, then inform the bigger group of their findings and potentially seek advice from the bigger group, as he considers his terms of reference over the next several months.

## [Translation]

Mr. Jean-Yves Roy: Thank you, Mr. Chairman.
The Chair: Thank you, Mr. Roy.

## [English]

Mr. Hearn.

Mr. Loyola Hearn: Let me just follow up on the Williams committee for a moment. Mr. Sprout said earlier they will make recommendations the department will respond to. You believe in Santa Claus, I know that, because of course the Fraser report was quite good, and our recommendations were very pointed, exactly dealing with a lot of the same stuff we're dealing with here. I think we can say generally our recommendations have been completely ignored, so what makes you so certain, in the case of the Williams committee, that it might solve all your problems and that the department will pay attention to that committee?

Mr. Paul Sprout: Mr. Hearn, I'm crushed to learn about Santa Claus.

Mr. Loyola Hearn: Oh, I believe too, as I know you do.
Mr. Paul Sprout: My comment is that Mr. Williams will carry out a review. I believe that working with a diverse group is the right approach. In the end, I remain optimistic that he'll provide a set of implementable recommendations. But here is where I make a comment. It may well be that the recommendations will not be implementable; I don't know. I'm not predicting that: I don't know. But I believe the process we have in place has a higher likelihood of producing an outcome that could potentially be implemented.

As you know very well, in the end the minister will consider the advice of Mr. Williams and make a decision, whether he adopts, modifies, accepts, or whatever else he may decide. Obviously, until the minister makes that decision, I cannot predict what the outcome will be, but I believe the process we have in place under Mr. Williams' leadership provides a solid basis to produce outcomes or recommendations that will be seriously considered, if not implemented.

- (1750)

Mr. Loyola Hearn: That's fair ball. The only thing is, having listened to the various groups we have had before us over the last three days, I'm not sure whether I would like them around the table. I don't know how much progress we could make. All of them say they're willing to work with the others, and if that's factual, and it's the bottom line that's looked at.... We can always hope.

You also said first nations do not have a right to sell Pacific salmon. We know we had the pilot sales project, which has been cancelled. But we hear the phrase "economic opportunity" kicked around. Can you explain to us what an "economic opportunity" is and how it opens the door for first nations people to sell salmon?

Mr. Paul Sprout: Once again, I'll respond initially and I'll ask my colleagues to amplify or correct.

The "economic opportunity" is a policy decision by the Department of Fisheries and Oceans to negotiate with first nations and provide for sales under a policy tool, not under a legislative or regulatory tool. This does not imply that we are saying first nations have a right to sell. It is simply a vehicle we use as a policy basis to arrive at an agreement between ourselves and first nations in a limited number of cases.

Mr. Loyola Hearn: Doesn't it open the door? It's almost like drift netting. If one band is allowed to drift net and it's beneficial-as you've said yourself, it probably catches more fish than any other method-doesn't it open the door to others to push for the same thing? If economic opportunities work and we can sell some salmon
and make some money, doesn't it give others the impetus then to say: "If they can do it, we can do it. We all need this economic opportunity, and consequently we want the portion of the catch allocated to economic opportunities for our group"?

Mr. Paul Sprout: The reality is, that interest on first nations' parts or in first nations communities already exists. There's a treaty process led by INAC that is responsible for negotiating with first nations, and at the same time they're looking at the possibility of allowing first nations to have access to Pacific salmon in this negotiation process I referred to.

That is already under way. We think the economic opportunities we have provided in the lower Fraser allow us to work with first nations, provide for measures whereby we can carefully monitor their catches, bring them into the fisheries process in a more dynamic way, and we hope set the stage for working more effectively with the other interests, such as recreational fishermen and commercial fishermen.

Admittedly it may be a dream, but the argument we make is that we need to work with all the parties to achieve the end, which is the proper management and conservation of this resource.

Mr. Loyola Hearn: You're allowed to have a dream, Mr. Sprout. We all have them; we wouldn't be in politics if we didn't.

When we say really they do not have the right to sell Pacific salmon, it doesn't mean they can't. They might have the ability through some right. I presume here you're talking about the "right" under treaties, or whatever. However, provisions can be made for them to sell, and of course this doesn't apply to commercial fishermen, because any first nations commercial fisherman has the same rights as any other fisherman to sell his product.

Mr. Paul Sprout: That is correct.
Mr. Loyola Hearn: I'll pass, Mr. Chair. Thank you very much.
The Chair: Thank you, Mr. Hearn.
Monsieur Blais.

## [Translation]

## Mr. Raynald Blais: Thank you, Mr. Chairman.

To follow up on the same subject, if selling is not allowed, how about those who buy? I say "those" because I would like to understand how you view those who buy the product at issue.

It seems to me there could be several groups of buyers. It could be someone in the First nations community, but it could also be someone who just happens to drive by. It could also be an organized ring. How do you view the purchasing side of the equation?
$\bullet$ (1755)
[English]
Mr. Don Radford: If I understand correctly, you're asking about purchase of fish sold illegally under food, social, and ceremonial purposes. In fact the fisheries regulations are such that it is illegal to buy that fish, too. In cases where we can prove people have purchased illegally caught fish-fish not caught under the authority of a licence that permits sale-charges can be laid and prosecutions pursued in court, and we have done that.

It requires very complex investigations, because you need to be able to trace the fish and the money to make sure the fish trades hands. As I recall, an earlier witness, Mr. Chatwin, was referring to fish that would go into cold storage and stay there for a while and then come out, and then maybe some other time there might be an electronic transfer of cash. That's very difficult to prosecute; it requires a lot of investigation. We do some of that as well, but it's very difficult and very expensive.

If you see somebody buying and selling fish and there's an exchange of money and it's illegally caught, then charges can be laid.

## [Translation]

Mr. Raynald Blais: The bottom line is that it is impossible to prevent this illegal activity. It happens openly, for everyone to see. However, it is complex, even impossible I might say, to trace the guilty parties and to prosecute them. So we are faced with a problem that is real but that we cannot solve. Am I right?

## [English]

Mr. Paul Sprout: It is difficult, as you've pointed out, but it is not impossible. For example, we will carry out enforcement patrols, enforcement activities, and if we determine in our enforcement activities that people are selling fish illegally, then we will take action that would include seizing the fish and charging the individuals who have fished and sold the fish illegally. However, it is a challenge, because we have to pass the criteria Mr. Radford referred to. We have to confirm that those fish have been caught illegally. We have to confirm that a sale has taken place and there's been a transaction between a buyer and a seller.

## [Translation]

Mr. Raynald Blais: Are these transactions happening on a large scale or only on a small scale? Is it organized?

Mr. Paul Sprout: It depends.

## [English]

In some areas in the past we've had instances of large sales that were not authorized by the Department of Fisheries and Oceans and we would gather information in evidence in those cases to confirm and to carry forward with prosecutions. In other cases, the sales might be at a very low level, involving very low numbers of fish. So there is no uniform or consistent response on this.

Perhaps as we work through the treaty negotiation process I referred to earlier, led by INAC, it may well be that in the longer run there are different arrangements that will be legally agreed to between government and first nations to deal with this. But at this point in time, unless determined by the courts or possibly a policy tool, as I referred to earlier, there is no right for first nations to sell. What we will do is undertake enforcement activities to try to determine if a sale is occurring. Where we do get information that says a sale is occurring, then we will take action to seize fish and prosecute, subject to the information we have that justifies us taking this action.

## - (1800)

[Translation]
Mr. Raynald Blais: To your knowledge, is some of that fish sold outside of Canada?

## [English]

Mr. Paul Sprout: In the past where we've had evidence of fish being sold, not infrequently the fish is exported south of the border and sometimes in other instances it may leave B.C. and quantities may be consumed or bought in B.C. itself.

Again, the range, the extent, and so forth are something where I'm not able to indicate there is any kind of trend, but I can indicate-as I've said before, in a couple of instances-that where we have evidence of a sale and where we can establish a sale in situations where there is no authorization, we will take action, as appropriate, in that instance.

## [Translation]

Mr. Raynald Blais: To prevent illegal sales, we need to make sure buyers cannot buy the product. It is the same as with cigarettes. There have been illegal sales of cigarettes and we did not target the buyers very much. What actions are you planning in cooperation with the RCMP in this regard? Do you have any action plan in this regard?

## [English]

Mr. Paul Sprout: Yes, there's no question it's a challenge when groups, whether they're first nations or others, choose to disrespect the law. That's very difficult. It represents, especially for our department, a significant challenge, first of all to track those instances of illegal sale, to prove that there was a transaction, and then to take the action to prosecute and seize fish, or whatever.

Yes, there's no question that it's a difficult and perplexing problem. However, I've come back to the point that was raised by the chair, which is that the department has to be clear about what the regulations are, and to remove any ambiguity that may exist, and then to take action consistent with the resources we have and with our ability to establish a linkage between individuals who sell who do not have the right to sell in those transactions, so that we can actually make a prosecution and be successful in court.

## [Translation]

Mr. Raynald Blais: Thank you.

## [English]

The Chair: Merci, monsieur Blais.

## Mr. Cummins.

## Mr. John Cummins: Thank you, Mr. Chairman.

In fact, if the department wanted to deal with the issue that Mr. Blais was just addressing about the illegal sales, it could have, but in fact the department took at least two measures to make it easier for food fish to enter into the market. In 1986 they revoked regulations requiring that food fish be marked. Then in the 1990s, and I forget the exact date, the regulations prohibiting non-native possession of food fish were revoked. So the fact of the matter is the department, rather than putting in place regulations that would require stringent tracking of these fish when they enter into processing facilities and cold storage facilities, moved in the opposite direction, didn't it? It made it easier to move food fish without any fear of retribution if you sold them.

Mr. Paul Sprout: It is harder to trace fish like that, which are not physically different from other fish. I believe that in 1986 and again the other date, was it in....

Mr. John Cummins: I think it was in the nineties, and I forget the exact date, but the possession of food fish up to that point had been illegal, and that was changed; those regulations were revoked.
$\bullet$ (1805)
Mr. Paul Sprout: I believe we were taking advice on that, informed advice from decisions at court levels and from our own Department of Justice lawyers and so on, who provided counsel during that time period, and that this was reflected in the changes you've noted.

Mr. John Cummins: Wouldn't those same folks, if you were interested in prosecuting people who were dealing in food fish, also then have given you advice that you should require processors to accurately track the movement of that food fish through their facilities and require that freezing companies, cold storage facilities, label and keep track of fish that's brought in there as food fish? Wouldn't that be reasonable?

Mr. Paul Sprout: I think this is a good point. I think traceability is an issue. And setting aside the 1986 decision, I think we do have to consider or look at techniques that will allow us to do our job as best we can, but we'll have to do that, as you can appreciate, Mr. Cummins, in a way that respects the law, the regulations, and the interests of first nations.

Mr. John Cummins: In fact, it's a long time coming. There have been a lot of folks who have been very upset with this for a long time. This isn't a 2004 problem, but this is a problem that goes back to the late nineties and it's been getting worse every year.

I talked earlier about the 1,000 pounds of salmon for individuals in Tsawwassen. Do you believe that Tsawwassen Band members are eating more than 1,000 pounds of fish per man, woman, and child for a year?

Mr. Paul Sprout: Me personally?
Mr. John Cummins: Yes. Do you believe that?
Mr. Paul Sprout: I don't know what they consume per year.
Mr. John Cummins: Do you think that they, or anyone, could eat more than 1,000 pounds? That's for every man, woman, and child on the reserve.

Mr. Paul Sprout: As I said, I don't know what the Tsawwassen members can eat on an individual basis.

We negotiate with first nations communities, as Mr. Radford referred to earlier, to arrive at numbers of fish for food, social, and ceremonial purposes. As Mr. Radford also said, the aspects of the food, social, and ceremonial contain ceremonial and social. Frequently the Tsawwassen group holds large ceremonies where they will exchange fish and they will invite in other first nation members to participate in these ceremonies. Fish is traditionally consumed; it's of symbolic importance. And from what they advise us, it's their principal diet, their principal form of exchange among themselves.

Mr. John Cummins: Over 1,000 pounds for every man, woman, and child on a reserve is about three pounds a day. That's a dozen quarter-pounders a day. And you're not prepared to tell me that you
think this is an excessive amount of fish for every man, woman, and child on that reserve to be allocated for food, social, and ceremonial purposes, and yet at the same time you're telling us that somehow or other you negotiate these numbers. What is your basis for negotiation if this is okay?

Mr. Paul Sprout: It is a negotiation. We do try to take into consideration historical trends, population size, their particular views, the number of ceremonies they might be considering, and so forth, to arrive at an estimate and finally a number, which then we use as a basis for developing our fishing plans.

Mr. John Cummins: Let's understand-and Mr. Chairman, this is important - that this allocation for food is the sockeye allocation for food, but it doesn't include other seafood. So we can go out there for crabs, and we're going to have an allocation in addition to that for crabs. We're going to have an allocation maybe for groundfish. What's enough?

Mr. Paul Sprout: But the fact is that Pacific salmon are the principal diet source for first nations. They tell us that again and again and again. There are no first nations here to explain how their community works or functions. I can only tell you from my experiences with the first nations communities that Pacific salmon is a crucial form of their diet. And in all coastal groups where Pacific salmon run by their communities, it is the principal diet.

- (1810)

Mr. John Cummins: I don't deny that, Mr. Sprout, I don't deny that at all. But there is a limit to what the human body can absorb when it comes to food, believe it or not.

There was a comment made earlier with regard to early Stuart fish. Someone suggested that in the management of this fishery they were fished throughout the coast and that there were some concerns. They aren't fished throughout the coast. There is no fishery, commercial or sport, allowed on early Stuart fish as they return to the river.

Mr. Paul Sprout: Could I clarify that remark?

## Mr. John Cummins: Pardon?

## Mr. Paul Sprout: May I clarify that remark?

## Mr. John Cummins: Absolutely.

Mr. Paul Sprout: What was said was that early Stuart fish migrate 500 kilometres to the mouth of the Fraser River then they swim north to the Gulf of Alaska, where they spend two years, then they swim back through Alaska into Canada and back up to the river to spawn. In that process they pass through potential fisheries in Alaska and in Canada. All those fisheries have to be managed. You're correct, we do the best job we can not to fish the early Stuart stocks in the waters in Canada until they actually arrive in the river. But they have to be managed through the whole chain.

Mr. John Cummins: If you have evidence that those early Stuart fish are caught in Alaska, I'd like to see it. As far as being caught in Canada, there are no fisheries directed at that, and I think the incidental catch of that would be just about zip.

Mr. Paul Sprout: That's not what my statement said. I did not say that they were caught in Canada. I said they had to be managed and conserved through all fisheries that could potentially take place, either in Alaska or in Canada.

Mr. John Cummins: And I said I don't think they're caught in Alaska and there are no fisheries in Canada that impact them. But let's just move on from that. We'll agree to disagree on that one, I guess, unless you can provide me evidence contrary to what I believe.

In 1988 the early Stuart run was 195,000 sockeye, which is statistically identical to the 2004 run of 191,000 fish. Nevertheless, in 1988, with the exception of one day, DFO closed the early Stuart fishery and any fishery in the Fraser River from July 6 through to July 29 to protect the early Stuart run. The fishery was closed on the Fraser River.

But in 2004 it was a different story. In 2004, to avoid a protest, you allowed fishing just about every day during that period. You talk about a change in management in the last five years and that we're doing things better. How is it doing things better when in 1988 you closed the fishery to protect the stock, and in 2004 you opened it every day?

Mr. Paul Sprout: I don't have the details of 1988 in front of me-
Mr. John Cummins: Well, I just gave them to you.
Mr. Paul Sprout: -so I can't respond to the specifics of 1988. But if we are talking about 2004, what I can say is that in 2004 we had environmental conditions that we didn't have in 1988.

Mr. John Cummins: That's precisely my point, Mr. Sprout, but in 1988 you shut the fishery when the conditions weren't as bad, and this year you opened it. Let's talk some rocket science here.

Mr. Paul Sprout: Perhaps we could review the 2004 fishery.
Mr. John Cummins: I'd just like a simple answer. Why, in 1988, did you shut it, and why did you open it in 2004?

Mr. Paul Sprout: Maybe someone here could talk to the 1988 question. I can't, but we can talk about 2004. We have people here who are able to do that, so I'll just ask if a colleague can respond to the 1988 question.

The Chair: Can anyone in the audience help us on 1988, and can anyone help us on 2004?

## Mr. Ryall.

Mr. Paul Ryall: I can help on 2004. As Mr. Cummins has outlined, the run size in 2004 was very similar to that of 1988. There was a limited fishery in Canada on early Stuart in 2004. The harvest was about 45,000 , to my recollection, so there was some fishing of early Stuart in 2004.

We were meeting at that time what we thought were the escapement targets. We also had some buffers around the escapement targets because we were concerned about environmental conditions that were on top of meeting the spawning ground targets. The plan we had in place in 2004 was to meet the escapement targets. We also had a risk-averse management plan that provided an extra buffer on top of the escapement targets, and some fishing did occur. We became aware there were some problems, and fisheries were curtailed.

- (1815)

The Chair: That's it, Mr. Cummins. Sorry. We will come back. You'll have another ten minutes if you want it, no problem.

It's my turn now.
In Ottawa we heard from Mr. Bevan, and he made a very interesting presentation about the difficulties the department has with the current Fisheries Act. Does the current Fisheries Act hamper your ability to manage the Fraser River?

Mr. Paul Sprout: I can't speak to the details of that. Mr. Bevan is in a much better position to respond to that. The committee knows well that the Fisheries Act was fundamentally written a hundred years ago, with some admittedly modest changes over the last number of years. It definitely needs to be refreshed. It needs to be modernized. It needs to be put into the context of today, because today we are trying to move to shared stewardship and relationships that are very different from what the act envisioned when it was written over a hundred years ago. The act needs to be reconsidered in that light.

Mr. Bevan probably also spoke of flexibilities for fishery officers, which we also think would be useful. So at a general level we believe it would be useful to make changes to the Fisheries Act to bring it into the 21st century, and to position it in the context of the changes that have already taken place in the recent past, and what might be envisioned for the future.

That is my general response, Mr. Chair. I would invite others who are a bit more informed to respond in detail to your comments.

The Chair: All I'm getting at is that, for example, when you're sitting around trying to manage the fishery-I don't know if you do this on a daily basis, with weekly meetings, or whatever-does anybody say that we should really be doing this, but section 47 doesn't allow it, or the way the courts have interpreted regulation 52 doesn't allow it? I'm talking strictly about the Fraser River now, because that's what we're concerned about. If in a think session like that you do come up with those kinds of comments, do you provide that information to your superiors?

Mr. Paul Sprout: We do. I'm more familiar with that question in the context of other species, where clearly we think the current Fisheries Act prevents us from doing things that we know the fishing organizations want us to do, but the act makes it very difficult to actually do those things. I think the short answer to your question is yes, we do consider those things, and yes, we do bring them to the attention of others.

## The Chair: Thank you.

In your opening remarks, Mr. Sprout, you said there are not agreed views among the various interests. I think that's almost a direct quote. I think we could all agree that everybody at least pays lip service to conservation. So there is something that everybody at least says they agree to, and that is conservation of the resource.

I've tried to get your definition of conservation of the resource, and tried to hopefully suggest that if everybody else doesn't agree with it, you go with yours. There is some hope, because at least it seems everybody agrees that the fish have to be conserved. That should be a statement of the obvious, but apparently it isn't sometimes.

I just want to offer an editorial, if I may, by asking a question. This flows directly from Monsieur Roy and Mr. Hearn. As managers, when you make a decision I presume you try to anticipate what the reaction to that decision is going to be. What message does it send to everyone else when you permit one band to use drift nets in an area where no one has used drift nets for over a century?

Do you listen to those people who say their perception of the action is that you're buying short-term peace at any price-basically, peace in our time, à la Neville Chamberlain? Do you hear that when people say that to you, and do you even acknowledge the possibility that a decision like the one you've taken might be perceived in that manner?

- (1820)

Mr. Paul Sprout: We do reflect on the implications of our decisions all the time. I explained earlier that we have an extensive consultation process that we've recently revised to make it more transparent and more open. The reason we have a consultation process is that we want to get a sense of people's reactions to the fishing plans and rules that are in place. Clearly that is something we consider as we develop advice, ultimately for the Minister of Fisheries and Oceans.

The Chair: Yes, but did you consult with the various stakeholders, for example, who came to us over the last three days, prior to negotiating permission for the Cheam to use drift nets upriver of Mission, or did you simply announce it and expect everybody to like it?

Mr. Paul Sprout: We negotiated with the Cheam group.
The Chair: Yes, but did you talk to people in other interest groups before making the decision?

Mr. Paul Sprout: The answer is no.
The Chair: That was a bad management decision.
Mr. Paul Sprout: I dispute that.
The Chair: All right, then we have a problem that our committee can perhaps look at.

I'll move on.
Mr. Paul Sprout: I would like to elaborate.
The Chair: Please do.
Mr. Paul Sprout: We are compelled to respect the laws of this land-the Supreme Court decisions-and there have been many on first nations. Those laws have said that we must negotiate with first nations to arrive at plans, in order to address their interests. Again and again, the courts have urged us to negotiate. They have also given us guidance that we need to take into consideration their interests about how they want to fish the resource, and that we cannot arbitrarily ignore how they want to fish.

In the case of the Cheam, imagine the circumstances. We have a community up the Fraser River, but still in the lower Fraser River, that wants to use drift nets that are up to 50 fathoms long. Downstream we have a commercial fishery that's entitled to use drift nets that are 220 fathoms long. How do we make the argument to the first nations community that they cannot use drift nets, but others immediately downstream of them can? I dispute the view you have
espoused that we did not think about the implications of this, because we did.

The Chair: I didn't suggest that you didn't think about the implications. I asked you if you consulted with other stakeholders before making the decision, and you said no. I said that was a bad management decision, in my opinion, not as the chair of this committee but as an ordinary MP.

Mr. Paul Sprout: Okay. Thank you.

- (1825)

The Chair: That's all. I guess my answer would be that if you've never fished drift nets before you're not going to fish them now. But that's only me.

I did want to make another comment. You had said, Mr. Sprout, and I agree in a way, you need to work with all the parties. I would say you need to openly and sincerely invite all the parties to work together. Then it's up to the parties to openly and sincerely accept your invitation. Those who refuse to accept your invitation are then excluded from the process by their own actions. If you keep waiting until everybody is ready to make a deal, you'll never make a deal. Now, that's a statement.

## Mr. Paul Sprout: May I respond?

The Chair: Sure. Go ahead.
Mr. Paul Sprout: Yes, but we do need to bring the interests to the table, and we do need to show leadership, as you have, I think, correctly pointed out. And we are prepared to do that. We do need to take actions when we don't have a consensus, and we are prepared to take those actions. In fact, I have already spoken of a number of actions that we've taken, which people continue to dispute. So it is a type of leadership, even in the absence of consensus. I do agree that we want to bring people to the table. But the absence of consensus is not a reason not to make decisions. On this, we agree.

The Chair: Thank you very much.
Now, I want to ask a few questions about the Fraser River panel. I know that you're not the Fraser River panel, but I also know that you give advice to the Fraser River panel about the sockeye fishery. These are questions.... I'm not a manager. I'm not making any suggestions. I'm simply asking some questions.

As far as I can read, the problem of temperature was identified relatively early on. Maybe I'm wrong. Scientifically, maybe it was a little later or in the middle, but certainly by the middle of July....

Am I out of time? All right. I'll come back to it.
Mr. Hearn.
Mr. Loyola Hearn: Very briefly, on shared stewardship, I don't dispute that. I think it's very important that we all accept ownership. But the only way that's going to work is if everybody approaches the table with complete honesty. I guess the other term is perhaps in the spirit of fairness. Is it possible in the fishery?

Mr. Paul Sprout: That's a good question.

I believe the answer is yes, but I believe it will be a great challenge. I think people in the commercial industry, the recreational industry, and first nations are starting to step up and talk openly and honestly. That's not happening everywhere, but people are recognizing that the status quo is unacceptable. That's across the board. That's not only commercial fishermen being frustrated; it's also first nations. I think the will is there to create that sort of conversation.

I'm not naive. I know you probably asked this question because of your experiences on the east coast, where shared stewardship is identified as a crucial principle and one that people generally support.

It is incredibly challenging. It does require a form of honesty and integrity, an ability to listen to other parties, an ability to compromise. In the end, I think that's how we have to find a solution. Increasingly, I'm seeing signs that people are prepared to make those adjustments, to make those changes. The challenge for us as a department is to try to facilitate those conversations, because I don't pretend that we always have the solutions. In fact, I often think the solutions need to come from the industries themselves. Our role should be to facilitate those conversations, and where we can act on their advice and recommendations, we should.

So I remain optimistic. Perhaps I'm naive. I said I dream a little bit, and perhaps that's what I'm doing right now. But I believe it's possible to do that.

Mr. Loyola Hearn: I guess it is.
On the east coast, some of our best-managed fisheries are ones where there is a degree of participation by the stakeholders. But let me say it's a lot less complicated in Newfoundland than it is here. Mainly, the arguments will be among people fishing the same resource with the same method except you have small boats, midsize, and bigger boats, that type of thing, and even then you don't always get agreement.

We did have around the table the last three days a number of groups who have expressed the interest of working cooperatively, but then we have others who have basically said they're going to do whatever they want to do and that they have the right to do it. That's disheartening.

One final question. In relation to the food fishery, we say we estimate the number of people and requirements, etc. Certainly, within all communities, including first nations, we have people of varying wealth. When we talk about the provision of food to individuals, are we also factoring in people who are doing extremely well? Do they still expect to benefit from a resource that perhaps should be going to help others who are less fortunate? We had one person here yesterday evening, I believe, who said that by the time the salmon got to his group, one of the furthest upriver, they averaged one per person. That's pretty serious stuff. If it takes 1,000 pounds to feed somebody downriver and you get one salmon upriver, that's quite a difference.

## $\bullet$ (1830)

Mr. Paul Sprout: Yes. Therein lies the complexity we talked about earlier, Mr. Hearn.

The Chair: I'm sorry to interrupt, but if I hear the officials correctly, food isn't just food, in their eyes. Food is all three, food, social and ceremonial. I meant to jump in there with Mr. Cummins-

## Mr. Paul Sprout: That's correct.

The Chair: When they're looking at it, they're not looking at 1,000 pounds that everybody eats. They're looking at 1,000 pounds that everybody eats, socializes, and ceremonializes with.

Mr. Loyola Hearn: I'd like to make one little point on that so the answer can be more complete, because you got two-thirds of the way there earlier when you asked for definitions of food and ceremonial. We were also told that social-or certainly off the record I remember being told-to some meant it was there to look after their social needs. So if I'm lacking economically I can sell the fish, because that is the interpretation of helping my social needs.

The Chair: That was on the record.
Mr. Paul Sprout: Yes, some communities and bands do have that view. It's not a view that's shared by this department.

Again, to respond to your earlier point, Mr. Hearn, we do negotiate with the communities, and then it's up to the communities to distribute the food, social, and ceremonial fish among their community members. It's their job to determine how that is actually distributed and what the best need is and who is the neediest.

The Chair: Are you all done, Mr. Hearn?

## Mr. Cummins.

Mr. John Cummins: Well, to respond to you, Chair, the food, social, and ceremonial fish-

The Chair: Sorry, Mr. Cummins.

## Monsieur Blais.

## [Translation]

Mr. Raynald Blais: I just have a comment to make because I have to leave in a few minutes. It is not that you are not interesting witnesses but because there comes a time when physically you cannot take it any more.

I would like to take this opportunity to thank you.
Following up on what Mr. Hearn said earlier, I have sensed over the last three days an openness on the part of First nations bands and all interested parties. Having gone through similar situations in my community, I know this can leave room for naivety or dreaming. You say you still dream, and I encourage you to act on your dreams. It is with dreams that one can carry out big and beautiful projects. In this sense, it is the basis on which we must build over the coming weeks and months. I sense a will on the part of all players.

I may have an opportunity to contribute in my own way. I intend to return to the region and take up the invitation that some people extended to me yesterday to come have a look with my own eyes at what is happening.

So I encourage you to keep working. I know very well that the challenge is immense and complex. Unfortunately, I must also tell you that, in view of past actions of the Department-I am not blaming you directly-and in view of the solutions people have already proposed, it takes a lot of dreaming and naivety to be confident of success. However, I hope we will find a solution somehow and that in the end we will be able to talk more about sharing and development.

Thank you.
$\bullet$ (1835)
Mr. Paul Sprout: Thank you very much. I will follow my dream.
The Chair: Go ahead, Mr. Roy.
Mr. Jean-Yves Roy: Thank you, Mr. Chairman.
I agree with Mr. Blais.
Mr. Chairman, I have a comment. I must mention something very important. There comes a point in time, as Mr. Blais said, when you reach the limit of the physical capacity of individuals and I hope you will take it into account in this case. I would not have liked to stand in Mr. Sprout's shoes since the beginning.

Thank you.

## [English]

The Chair: Well, we won't be back here for a long time.

## Mr. Cummins.

Mr. John Cummins: Mr. Chairman, if there's anybody whose shoes I wouldn't want to be in, it's the commercial fishermen who have suffered by seeing access to their resource cut away, especially over the past seven years, without compensation and without adequate consideration or any consideration from the department and the political leadership. That's the big problem.

I was talking before about early Stuart sockeye. I want to go back to that issue, Mr. Chairman, because I think it's important. I talked and compared 1988 to 2004. I only want to point out, Mr. Chairman, that the same thing occurred in 1987 in the Indian food fishery of the Fraser River. In the summary of a DFO publication it says that in early July, the in-season early Stuart sockeye run size estimate was reduced to 175,000 from the pre-season forecast of 201,000 . Since the food fishery was to be managed to achieve a fixed escapement goal of 150,000 fish, the TAC was reduced to 25,000 from the 51,000 sockeye anticipated in the pre-season plan. The pre-season plan was therefore amended, and a three-week closure throughout the watershed, except for the Stuart River system, was scheduled to reduce the catch.

Back in 1987, Mr. Chairman, they were able to respond very quickly to a decreasing number of returning fish, yet in 2004 they weren't able to. That's the issue here.

The Chair: And what's the question?
Mr. John Cummins: Why was the department able to respond in 1987? Why was it able to respond to this sort of stuff in 1988 ? Where's the corporate history here? Why weren't we able to learn from what we did correctly in the past and follow those procedures in 2004, and shut the fishery down?

Mr. Paul Sprout: I have a response, and then I have a suggestion. The response is that I think we did take actions. Mr. Ryall described the actions we took in 2004. As we saw, the environmental indicators indicate that there were potential problems with Fraser River sockeye. The Department of Fisheries made adjustments to the fisheries.

Mr. John Cummins: What did you do?
Mr. Paul Sprout: As Mr. Ryall indicated.... Well, I'll ask Mr. Ryall to elaborate again, in a moment.

The Chair: Please.
Mr. Paul Sprout: Perhaps on this question, Mr. Chair, our answer has not satisfied. I wouldn't mind the opportunity, after this meeting, to reflect on this question. Is it possible to write back to the committee and indicate a more thorough response, if this is not satisfactory at this point in time?

The Chair: Of course that's satisfactory. If you want to reflect on the answer and give us a more fulsome answer, that's fine, but we would expect it to be relatively quick. I think the committee wants to get its fingers into the report as quickly as possible.

## Mr. Paul Sprout: Fine.

The Chair: That's perfectly all right.
Mr. Paul Sprout: May I ask Mr. Ryall to reply once more, please?

The Chair: Yes.
Mr. Paul Ryall: Thank you.
Mr. John Cummins: I presume you're going to say something different from what you said before, Mr. Ryall.

The Chair: You were talking in general, and I think last time he answered on the early Stuarts.

Mr. John Cummins: That's what I'm talking about this time.
The Chair: Still. But he gave you an answer. I thought you were asking a different question.

Mr. John Cummins: It was a non-answer, in my view, Mr. Chairman. That's why I was making the point that a change in conditions or a change in run size is nothing uncommon. This happens all the time. The department has to respond to it. There obviously was a temperature problem this year, and the department didn't respond. It kept the fishery open every day, whereas in 1987 they shut it down for three weeks. In 1988 they shut it down from early July right through to the end of July, to protect early Stuart. In 2004 they did nothing. They left it open.

If you can't answer that tonight, which you haven't to this point, give us a written answer.

That answer, Mr. Chairman, should be on one's lips. That shouldn't be very difficult to answer, and answer completely. It's only months ago that this happened.

- (1840)

The Chair: Mr. Ryall, try it again.
Mr. Paul Ryall: Thank you.

The pre-season forecast on early Stuart for 2004 was 216,000 . That run size did vary over the course of the run. It ranged from a low of 137,000 to approximately 200,000 . That's our in-season range of run size estimates.

Each year we develop an escapement plan, which is consulted upon.

Mr. John Cummins: I know that.
The Chair: Let him finish, Mr. Cummins.
Mr. John Cummins: But we know all that, Mr. Chairman.
The Chair: Yes, but you asked him to give an answer. Maybe the rest of us don't know it. Hold on.

Go ahead, Mr. Ryall.
Mr. Paul Ryall: Within that escapement plan for 2004, there's a range there, depending on the returning run size, of what that escapement target is going to be. There's a minimum number where all fisheries will close. We can provide further details on that when we provide a written answer. At the 200,000 run size, our escapement goal was 90,000 .

We also were expecting that there would be some environmental problems in 2004. This was in the pre-season as well.

As we monitored the situation, we had, as I said earlier, the buffer of 29,000 to increase the probability of achieving our escapement goal of 90,000 that we placed on top. That leaves a difference between the run size and the escapement goal of about 80,000 . We expected there would be some limited fishing on early Stuart in 2004. As the run returned, we made adjustments to fisheries. The numbers I have in front of me show that about 45,000 early Stuart were harvested over the course of 2004. Those fisheries were first nation fisheries.

I missed one other factor. We also did test fisheries, because that would come off the top. I don't have those numbers in front of me, but it would be a small number as well.

Mr. John Cummins: Test fisheries where?
$\bullet$ (1845)
Mr. Paul Ryall: Test fisheries in Canada.
Mr. John Cummins: Where?
Mr. Paul Ryall: Johnstone Strait, within the Fraser River.
As I mentioned, it's a small number. I don't have it right in front of me.

Mr. John Cummins: Below Mission.
Mr. Paul Ryall: We can have all that information put together in our reply, as well as what fisheries unfolded, and why they unfolded, within the parameters we faced in 2004.

One of the fisheries we had, for example, was a dry-rack fishery for sockeye within the Fraser Canyon. This is a very important cultural fishery for first nations that takes place each year. It was 24 hours a day, from June 30 to July 26.

There were some other fisheries as well that I could provide more details on. That's just a thumbnail sketch of some of the things we were dealing with in 2004.

The Chair: Thank you, sir.
Mr. Cummins.
Mr. John Cummins: Mr. Chairman, this is the problem. He talks about test fishing. Well, the fishing went on above Mission. The test fishing was, as he said, in Johnstone Strait, and the drift-net fishing testing is below Mission. There is no testing-

The Chair: It was also a minimal number of fish, so what's the big deal?

Mr. John Cummins: The point is, Mr. Chairman, that the testing had nothing to do with estimating what's gone past Mission. That's my point.

The Chair: All right.
Mr. John Cummins: The point is, Mr. Chairman-I have the documentation, we don't need it-that there was fishing every day in July.

The Chair: Which was the evidence.
Mr. John Cummins: And that's the problem. There were very important cultural fisheries in 1987 and 1988. Nothing has changed. But to protect the resource-as the Supreme Court of Canada said in Sparrow, first is conservation, and second is native food, social, and ceremonial - they shut the fishery in 1987. They shut it in 1988. And you folks didn't do it in 2004.

That's the issue, isn't it, Mr. Sprout?
Mr. Paul Sprout: Again, I thought the discussion today was on the 2004 fishery. I appreciate that an honourable member has raised a fishery that occurred 14 years ago. We will do our best to provide further information to elaborate on the response we've made so far.

The Chair: Thank you.

## Mr. Cummins-

Mr. John Cummins: Mr. Chairman, I just have to make one more comment.

The Chair: Yes, and you will.
I think the purpose of Mr. Cummins' question is not to confuse you with ancient history but to ask why different management decisions were taken, on what he perceives to be more or less the same problem, from those taken in 1988. Maybe you could focus your answer on that.

## Mr. Cummins.

Mr. John Cummins: Again, Mr. Chairman, the problem here is the lack of corporate history. In any organization, especially an organization that is managing a resource as fickle and as difficult to manage as the Fraser River fishery, the folks who are in charge should know what went on in the past so that they can do the job in the present. That's my point here, that somehow there's a disconnect that shouldn't be.

Again, you talked about trust, and you talked about how we have to all get along-all those nice fuzzy terms. I mean, I love to get along with folks. Everybody does, don't they? We don't come to this world mean and nasty to begin with, but sometimes circumstances make us just a little testy.

The Chair: This is your last question, in case you want to get testy, so make it good.

Mr. John Cummins: I'm not testy, Mr. Chairman.
The issue that concerns the folks who don't think Mr. Williams is the guy to be chair is the whole notion that the chair has to be neutral. There are some on that panel who wouldn't appreciate it if my friend Mr. Eidsvik was named chair, although I'm positive he's capable of being neutral and open, and listening to everyone. For the same reason, there are folks on that panel who think that, because of his past associations, Mr. Williams can't be impartial.

The Chair: Mr. Cummins, I've allowed a lot of leeway, but surely this has nothing to do with the issue we're here for.

Mr. John Cummins: I didn't raise Mr. Williams today, it came from down there.

The issue I want to talk about, Mr. Chairman, is respect for the law, and Van der Peet. In Van der Peet, the court said that the Stó:lõ did not have a right to fish for food, social, and ceremonial purposes. The department chose, the government chose, to reallocate fish anyway, without compensation. And I say "without compensation" advisedly, Mr. Chairman.
I referenced yesterday, I believe, a memo that was prepared for the minister just this last spring. This document would come through from DFO. It said:

In 1993, as part of the AFS, 75 commercial salmon licences, which harvested the equivalent of 317,189 sockeye, were retired to provide additional fishing opportunities to first nations in B.C.

That's an equivalent average of 4,229 sockeye per licence. I don't know a gillnetter who's caught 4,229 sockeye in I don't remember how long. Somebody said the other day, well, that included the odd seine boat, and the number is really 2,500 . But I don't know anybody who's caught 2,500 .

That's part of the problem, that the department puts out these fudgy, fuzzy figures, and they expect the fishing community to just sit back and say that's okay, I can trust these folks, they're acting in my best interest. But why should they, Mr. Sprout, given that you're preparing these kinds of notes, or the department is, for the minister?

The Chair: That was the final question for Mr. Cummins.
Mr. John Cummins: I'm prepared to stay for a long time, if you'd like, Mr. Chairman.

The Chair: I'm sure you are, but I doubt very much there would be quorum, even for the hearing of witnesses.

I'm going to be pushing it by asking my questions. I wanted to give each individual member of Parliament at least 30 solid minutes, if they wanted it, to ask questions or make comments. Every one of us has had that 30 solid minutes except for me. I'll take my last ten and that will be it.

Do you have a response, Mr. Sprout, to the last question by Mr. Cummins?

Mr. Paul Sprout: I just need to clarify a few things.
Mr. Cummins, are you referring to the decision by the department to purchase commercial licences when we'd worked out an economic opportunity with the Stó:lõ?

Mr. John Cummins: I presume so; it's 1993. What I'm quoting from now is this document, which was prepared for the minister this past spring, in February 2004.

- (1850)

Mr. Paul Sprout: My recollection of those events was that the department did develop an economic opportunity with the Stó:lõ and that the department attempted to purchase commercial licences at the same time, with the view that we would try to essentially compensate the commercial community that might be affected by the economic opportunity provided to the Stó:lõ Nation. We would reduce the number of commercial fishermen by removing commercial licences, and the catch that would remain for them would be distributed among a smaller number of people.

Mr. John Cummins: But essentially I think those vessels that were purchased for the most part were not actively fishing. They were essentially derelict, and they didn't have anywhere near the average catch. That was part of the problem as well. That really upset the industry, and rightfully so.

The Chair: How did you sneak that in?
Mr. John Cummins: It's my job, Mr. Chairman.
The Chair: Well, it's my job to turn off your mike now, so that I can go ahead.

Speaking of corporate memory, I think it is a good point. Could I ask, Mr. Sprout, who your predecessor was?

Mr. Paul Sprout: My predecessor?
The Chair: Yes, in the position that you currently hold.
Mr. Paul Sprout: There have been a few of us.
The Chair: That's what I'm getting at.
Mr. Paul Sprout: My immediate predecessor is someone you met. About a month ago, he appeared in front of your committee in Ottawa, and his name is Paul Macgillivray.

The Chair: Was that acting?
Mr. Paul Sprout: That was acting.
The Chair: Who was the last non-acting person?
Mr. Paul Sprout: The last non-acting regional director general of the Pacific region was Donna Petrachenko.

The Chair: Is that the person from Alberta?
Mr. Paul Sprout: Actually, I'm not sure.
The Chair: When did that take place?
Mr. Paul Sprout: Maybe my colleagues could help me. I believe she was RDG up until three years ago. I'm getting heads nodding, so I think I've guessed that correctly.

The Chair: I think there is something to be said for working toward a corporate memory in a giant, monolithic, bureaucratic department in which there seems to be a new minister every year, a new deputy minister every year, a new associate deputy minister every year. How can you keep a vision when the Hydra's heads keep getting chopped off and new heads grow? That is part of management. And if I may editorialize, part of the management decision should be to ensure that whoever comes later knows what the thinking was and why the decisions were made.

Now, I do want to ask some questions-

Mr. Paul Sprout: I believe, Mr. Chairman, that you'll find little dispute in terms of your philosophy on this point. I believe the deputy is very anxious to try to stabilize the RDG position in the Pacific, and I take your point on the importance of history.

The Chair: Incidentally, I have nothing but the best to say about the current deputy and the current assistant deputy, and indeed for the current minister. But who knows how long they'll be in their positions. That's up to the Prime Minister.

Here is where I may be coming at things from a different perspective, but maybe from the same direction as Mr. Cummins. In July, the Fraser River panel identified that temperature problems that were going to cause real difficulties for the fish were coming. That was on July 16, and their news release said "Canadian Fraser River Panel: Area waters remain closed to fishing." That meant commercial fishing, but the aboriginal fishery continued.

A week later, there was a further reminder that temperatures were high, that they were getting near-record-level highs, and that we had to watch out because this was going to put a real strain on the fish. The commercial catch remained frozen, but the non-commercial catch went up by 121,500 pieces in one week.

The next week, a news release came out again stressing that the temperatures were a real problem, that they were going to cause real problems for the fish, and that we hadn't seen temperatures like them since the 1930s. They were record-breaking temperatures, so watch out. And yes, the commercial fishery was frozen, but the aboriginal fishery went up in one week by 134,900 .

In view of the alarm sounded about temperature, why is it that everybody caught more or less the same as they caught in 2003? That's why I've been asking the question for three days. If there was this potential temperature problem, why weren't fewer fish authorized to be caught?

## - (1855)

## Mr. Paul Sprout: Thank you, Mr. Chair.

I'm going to ask Mr. Ryall to respond to that.
The Chair: Thank you.
Mr. Ryall.
Mr. Paul Ryall: Thank you.
As you mentioned, as we went through the season in 2004, we were identifying problems in the environment, and we made adjustments to the escapement goals to increase our chances of achieving those targets. For example, I mentioned early Stuart, where we had an adjustment of an additional 29,000 fish we added on top of the 90,000 escapement target. The reason for putting more fish upriver is to increase the chance of getting the fish to the spawning grounds. That was not successful with the early Stuarts. You probably heard in earlier testimony that our current estimate is for 9,000 that reached the spawning grounds,.

I'll move into some of the other ones. On early summers we also made adjustments. For example, on early summers we made an EMA adjustment-we call it an environmental management adjustment-of 330,000 additional to the spawning ground target. That's once again similar to the early Stuarts, the same idea.

Similarly, on the summers, when that was identified, we made a change to add an additional 570,000 . We made those adjustments because of the environmental conditions.

You asked why some fisheries were open and some closed. It goes back to the priority. We thought we still had room to provide our priority after conservation; we made those adjustments to the environmental. We thought we still had some catch that could be harvested safely to meet the priority for food, social, and ceremonial; that's why those fisheries still continued. I believe the last commercial fishery in 2004 was on August 11. First nations fisheries did continue after that, and they were harvesting FSC amounts, is my recollection.

The Chair: Yes, but let me just probe you there for a minute.
Never, in anybody's lifetime, I gather, has the temperature been as high as it was. It went up to over 20 degrees. Everybody agrees that at over 20 degrees it's lethal. Why did you allow the same catch as there was last year in the face of unbelievably high water temperatures, known to be lethal? Whether we argue it's 15,16 , 18 , or 20 degrees is neither here nor there, but it was identified as going up to 20 degrees plus, so why the same number of fish as in 2003 in the face of record-breaking temperatures, which everybody agrees is a contributing factor to the loss of fish? What's the management thinking there?

Mr. Paul Ryall: Well, we made the adjustments I identified with the environmental model we had at the time. Mr. Sprout earlier identified some of the things we need to examine of what unfolded this year: Mission hydro-acoustic estimates, for example, and other estimates we use in season to manage the fisheries, whether it's run size or fish counted past Mission. I think we need to examine those. There are catch estimates and the environmental models we use as well as spawning ground escapements. All these things need to be examined for us to understand what you're asking for.

The Chair: Fair enough. I'm not a fisherman and I'm not a scientist, but if I'm reading a report that says we're having temperatures that have never been seen in the last 60 to 80 years, when they're temperatures that are fatal to fish and the first goal is conservation, I can't understand why there wasn't a cutback in the number of fish that were authorized.

You've told me the thinking, but to me that's a huge unanswered question. I don't understand how the commercial fishery was allowed to catch the same as it did in 2003 and how first nations were allowed to catch the same for food, social, and ceremonial as in 2003 unless you greatly overanticipated the runs you thought were going to come. Otherwise, you knew you were facing an environmental disaster with the temperature, and you should have done something about it.

I don't for a moment mean you personally, Mr. Ryall. I'm talking about the department in general.

It was a huge red flag, and it doesn't seem to have been acknowledged.

Any comments, Mr. Sprout?

- (1900)

Mr. Paul Sprout: Again, I would appreciate it if I could have Mr. Ryall respond, and at the risk of confusing everybody, I might respond afterward.

The Chair: Mr. Ryall.
Mr. Paul Ryall: I did identify that we made adjustments of approximately 900,000 to increase the chances of achieving our goals. As we went through the season, we were monitoring the temperatures, as you've identified.

The typical fashion is that the temperatures increase in July and into August and then start to drop off. That's the typical pattern. This year we did see something unusual, where the temperatures into August continued to rise in their second increase. That is not typical-or it's not typical in my experience. And Dave Patterson can expand upon this too, if he has something on the models.

So that is something that is a little bit unusual that occurred in 2004. We made those adjustments, and the fisheries were closed by the time the peak occurred-or the majority of the fisheries were closed by the time the worst environmental conditions occurred in 2004, which was around August 20, I believe.

The Chair: The press release of August 6 says:
Fraser River water temperatures (measured at Qualark Creek) have averaged approximately $20^{\circ} \mathrm{C}$ for the past fifteen days and it is presently $19.9^{\circ} \mathrm{C}$. Fraser sockeye exposed to river temperatures in this range for sustained periods will likely experience substantial in-river mortality. Fraser River water temperatures are forecast to range from $19.4^{\circ} \mathrm{C}$ to $20.1^{\circ} \mathrm{C}$ over the next week.

In the face of that, we have another 121,500 food, social, and ceremonial fish taken in week one, when according to the forecast it
was for sure going to be 20 degrees Celcius-as good as forecasting can be-and then a week after that there were another 135,000 fish taken when the panel knew or ought to have known from its own words that well into mid-August the temperatures were going to be at 20 degrees, which is lethal. So where's the management?

That's it, folks.
Thank you so much for your appearance. This is not an easy question; none of these things are easy. Managing these things is not easy. I understand it, but I don't know what the solution is. The committee will grapple with it.

All I know is that whenever we come up with a report, we get the feeling the department spends more effort trying to figure out why our report is wrong than in trying to figure out how they can implement it. Anyway, we soldier on as best we can.

Thank you very much for coming today. Thank you for your answers. We very much appreciate it. Good luck.

Mr. Sprout, I hope you're around for a while, and I hope your dreams turn into reality.

With that, this is just to let you know, committee members, that on Tuesday we will be hearing from the ministers of fisheries from the provinces of P.E.I. and New Brunswick. On Thursday we will begin to instruct our drafters with respect to this report.

Thank you again.
The meeting is adjourned.

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