

**From:** Garver, Kyle <Kyle.Garver@dfo-mpo.gc.ca>  
**Sent:** Friday, October 23, 2009 9:06 AM  
**To:** Thomson, Andrew <Andrew.Thomson@dfo-mpo.gc.ca>; Saunders, Mark <Mark.Saunders@dfo-mpo.gc.ca>; Farlinger, Susan <Susan.Farlinger@dfo-mpo.gc.ca>; D'Amours, Denis <Denis.DAmours@dfo-mpo.gc.ca>; Richards, Laura <Laura.Richards@dfo-mpo.gc.ca>  
**Subject:** RE: Dear Mr. Sprout

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Andy,  
Yes ISA is a reportable disease. The World Organisation for Animal Health (OIE) would have to be immediately notified if ISA was ever detected in BC.

Kyle

-----Original Message-----

**From:** Thomson, Andrew  
**Sent:** October 23, 2009 8:54 AM  
**To:** Saunders, Mark; Farlinger, Susan; D'Amours, Denis; Richards, Laura  
**Cc:** Garver, Kyle  
**Subject:** Re: Dear Mr. Sprout

Another ?

Is ISA an OIE report able disease? The same mandatory reporting requirements may be the answer to her question on ISA.

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Andrew Thomson  
Director - Aquaculture Management Division  
Sent from my Wireless Device

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**From:** Saunders, Mark  
**To:** Farlinger, Susan; D'Amours, Denis; Richards, Laura  
**Cc:** Garver, Kyle; Thomson, Andrew  
**Sent:** Fri Oct 23 11:37:35 2009  
**Subject:** Fw: Dear Mr. Sprout

Hi Sue/Denis,  
The hypothesis has merit and the facts are correct. Kyle's response however looks quite definitive. Let me know how you would like to proceed. Kyle, stupid question but could an outbreak occur and go undetected?  
Mark  
SaundersM  
Sent from my BlackBerry Wireless Handheld

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**From:** Garver, Kyle  
**To:** Saunders, Mark; Johnson, Stewart  
**Cc:** Hargreaves, Brent; Jones, Simon  
**Sent:** Thu Oct 22 21:25:23 2009  
**Subject:** RE: Dear Mr. Sprout

Hi Mark,  
Ms. Morton is correct in stating that the Provincial government has data regarding disease history of fish farms, however you can be assured that if an OIE reportable disease, such as IHNV, is detected in the waters of British Columbia that DFO would indeed be informed. All reportable and notifiable diseases must be communicated to

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c - Fisheries Management - RD - 2009\

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the OIE in the event of their detection, thus I can say with certainty that in 2007 IHNV was NOT detected in any farmed fish species in British Columbia.

Overall the occurrence of IHNV in farmed Atlantic Salmon has been quite rare. Over the history of Atlantic salmon farming in BC (~30 years) there has only been three introductions of IHNV in farmed fish. Two of the epidemics of IHNV did occur in Atlantic Salmon net pens in the Discovery Islands area from 1992-1996 and 2001-2003 (with the latter outbreak being referred to by Ms Morton). Whether these outbreaks subjected northbound sockeye smolts to unprecedented high levels of IHNV, as Ms Morton suggests, is unknown. If IHNV infected Atlantic salmon were a source of virus to migrating smolts then one needs to ask why sockeye number weren't effected from the IHNV outbreaks that occurred in 1992-1996 and 2001-2002? Moreover to suggest that levels of virus are at unprecedented high levels requires one to know what is a natural virus level. However at this time, we don't have any data regarding what a natural level of IHNV is in the ocean. Additionally we do not know how much virus is produced from Atlantic salmon during a virus outbreak. We are currently trying to address this question through an ACRDP project investigating how much virus is shed from IHNV infected Atlantic salmon and how the virus is dispersed in the event of an outbreak in the Discovery Islands area.

Regards,  
Kyle

-----Original Message-----

**From:** Saunders, Mark  
**Sent:** October 22, 2009 1:16 PM  
**To:** Johnson, Stewart  
**Cc:** Hargreaves, Brent; Jones, Simon; Garver, Kyle  
**Subject:** FW: Dear Mr. Sprout

Hi Stewart,  
Need your thoughts on this.

Mark

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**From:** Richards, Laura  
**Sent:** October 22, 2009 1:09 PM  
**To:** Saunders, Mark  
**Cc:** D'Amours, Denis  
**Subject:** FW: Dear Mr. Sprout

Mark - see the latest. The issues suggested were not ones that we had considered but are reasonable questions. Will we have any data? Can you help Sue with a response, perhaps in consultation with Higgins. thanks. LR

Dr. Laura Richards  
Regional Director Science | Directrice régionale des sciences  
Fisheries and Oceans Canada | Pêches et Océans Canada  
Pacific Biological Station | Station biologique du Pacifique  
3190 Hammond Bay Rd, Nanaimo, BC, Canada V9T 6N7

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Government of Canada | Gouvernement du Canada

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**From:** Farlinger, Susan

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c - Fisheries Management - RD - 2009\

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**Sent:** October 22, 2009 1:00 PM  
**To:** Sprout, Paul; Thomson, Andrew  
**Cc:** Richards, Laura  
**Subject:** RE: Dear Mr. Sprout

Julie

I expect we will need some support from Science on this response, perhaps even the first draft? - Laura?

Sue

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**From:** Poirier, Julie **On Behalf Of** Sprout, Paul  
**Sent:** 22 octobre 2009 12:58  
**To:** Farlinger, Susan; Thomson, Andrew  
**Subject:** FW: Dear Mr. Sprout

Hi Sue,  
We will require response for RDG to review and forward.  
Thank you  
Julie

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**From:** Alexandra Morton [mailto:wildorca@island.net]  
**Sent:** October 22, 2009 11:30 AM  
**To:** Sprout, Paul; XNCR, Min  
**Cc:** Ablonczy.D@parl.gc.ca; Aglukkaq.L@parl.gc.ca; Albrecht.H@parl.gc.ca; Allen.M@parl.gc.ca; Allen.Ma@parl.gc.ca; Allison.D@parl.gc.ca; Ambrose.R@parl.gc.ca; Anders.R@parl.gc.ca; Anderson.Da@parl.gc.ca; Andre.G@parl.gc.ca; Andrews.S@parl.gc.ca; Angus.C@parl.gc.ca; Arthur.A@parl.gc.ca; Ashfield.K@parl.gc.ca; Ashton.N@parl.gc.ca; Asselin.G@parl.gc.ca; Atamanenko.A@parl.gc.ca; BachaC@parl.gc.ca; Bagnell.L@parl.gc.ca; Bains.N@parl.gc.ca; Baird.J@parl.gc.ca; BelanM@parl.gc.ca; Bellavance.A@parl.gc.ca; Bennett.C@parl.gc.ca; Benoit.L@parl.gc.ca; BerniM@parl.gc.ca; Bevilacqua.M@parl.gc.ca; Bevington.D@parl.gc.ca; Bezan.J@parl.gc.ca; Bigras.B@parl.gc.ca; Black.D@parl.gc.ca; Blackburn.J@parl.gc.ca; Blais.R@parl.gc.ca; Blaney.S@parl.gc.ca; Block.K@parl.gc.ca; Bonsant.F@parl.gc.ca; Bouchard.R@parl.gc.ca; Boucher.S@parl.gc.ca; Boughen.R@parl.gc.ca; Bourgeois.D@parl.gc.ca; Braid.P@parl.gc.ca; Breitreuz.G@parl.gc.ca; Brison.S@parl.gc.ca; Brown.G@parl.gc.ca; Brown.L@parl.gc.ca; BrownPa@parl.gc.ca; Bruinooge.R@parl.gc.ca; BruneP@parl.gc.ca; Byrne.G@parl.gc.ca; Cadman.D@parl.gc.ca; Calandra.P@parl.gc.ca; Calkins.B@parl.gc.ca; Cannan.R@parl.gc.ca; Cannis.J@parl.gc.ca; Cannon.L@parl.gc.ca; Cardin.S@parl.gc.ca; Carrie.C@parl.gc.ca; Carrier.R@parl.gc.ca; Casey.B@parl.gc.ca; Casson.R@parl.gc.ca; Charlton.C@parl.gc.ca; Chong.M@parl.gc.ca; Chowo@parl.gc.ca; Christopherson.D@parl.gc.ca; Clement.T@parl.gc.ca; Coady.S@parl.gc.ca; Coderre.D@parl.gc.ca; comartin.j@parl.gc.ca; cotler.i@parl.gc.ca; Crete.P@parl.gc.ca; Crombie.B@parl.gc.ca; CrowdJ@parl.gc.ca; Cullen.N@parl.gc.ca; Cummins.J@parl.gc.ca; Cuzner.R@parl.gc.ca; Damours.J@parl.gc.ca; Davidson.P@parl.gc.ca; Davies.D@parl.gc.ca; Davies.L@parl.gc.ca; Day.S@parl.gc.ca; DeBellefeuille.C@parl.gc.ca; Dechert.B@parl.gc.ca; DelMastro.D@parl.gc.ca; Demers.N@parl.gc.ca; Deschamps.J@parl.gc.ca; Desnoyers.L@parl.gc.ca; Devolin.B@parl.gc.ca; Dewar.P@parl.gc.ca; Dhaliwal.S@parl.gc.ca; DhallR@parl.gc.ca; DionS@parl.gc.ca; Dorion.J@parl.gc.ca; Dosanjh.U@parl.gc.ca; Dreeschen.E@parl.gc.ca; Dryden.K@parl.gc.ca; Duceppe.G@parl.gc.ca; Dufour.N@parl.gc.ca; Duncan.J@parl.gc.ca; Duncan.K@parl.gc.ca; Duncan.L@parl.gc.ca; Dykstra.R@parl.gc.ca; Easter.W@parl.gc.ca; Eyking.M@parl.gc.ca; Faille.M@parl.gc.ca; Fast.E@parl.gc.ca; Finley.D@parl.gc.ca; Flaherty.J@parl.gc.ca; Fletcher.S@parl.gc.ca; Folco.R@parl.gc.ca; Foote.J@parl.gc.ca; Freeman.C@parl.gc.ca; Fry.H@parl.gc.ca; Gagnon.C@parl.gc.ca; Galipeau.R@parl.gc.ca; Gallant.C@parl.gc.ca; Garneau.M@parl.gc.ca; Gaudet.Ro@parl.gc.ca; Glover.S@parl.gc.ca; Godin.Y@parl.gc.ca; Goldring.P@parl.gc.ca; Goodale.R@parl.gc.ca; Goodyear.G@parl.gc.ca; Gourde.J@parl.gc.ca; Gravelle.C@parl.gc.ca; Grewal.N@parl.gc.ca; Guarnieri.A@parl.gc.ca; Guay.M@parl.gc.ca; Guergis.H@parl.gc.ca; Guimond.C@parl.gc.ca; Guimond.M@parl.gc.ca;

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Zarac.L@parl.gc.ca

**Subject:** Dear Mr. Sprout

October 22, 2009

Paul Sprout  
Regional Director General – Pacific DFO  
Vancouver, BC

Dear Paul Sprout:

I agree with your statement in the Vancouver Sun (October 21), that the collapse of the 2009 Fraser River sockeye occurred in the ocean. Furthermore, I think the nature of the collapse makes it possible to identify the problem.

Here is what we know.

- 1 – The Harrison sockeye within the Fraser River returned at 3-4 times the DFO forecast;
- 2 – The other Fraser River sockeye runs collectively failed at 90% or more;

- 3 – Some runs were completely wiped out with zero returns;
- 4 – Other nearby sockeye runs to the south and west did well (Columbia River, Somass River);
- 5 – Just north of Campbell River the Heydon Creek sockeye did very well;

The Harrison sockeye have an unusual life cycle. They leave the river earlier than the other sockeye, spend extended periods of time in the Strait of Georgia (which should be a stroke against them) and, according to an unpublished paper by DFO, have been found to migrate to sea via the Strait of Juan de Fuca. If they were the only good south coast return, the pattern would be less definitive.

However, the nearby Somass, Columbia and Heydon Creek sockeye also did well, forming a tight circle of high sockeye production all around the Fraser. Heydon Creek enters Loughborough Inlet north of Campbell River. One hypothesis is this data gives us the boundary defining the geographic zone of greatest impact.

Pursuing this line of inquiry further. What variables exist only between the Fraser River and Loughborough Inlet, and not on the migration routes of the Columbia, Harrison, Heydon and Somass sockeye? One that fits this description is:

- 18 Marine harvest fish farm sites
- 3 Mainstream fish farm sites
- 1 Grieg fish farm site
- 1 Yellow Island fish farm site

Some people think all fish farms have the same potential for impact. This would suggest that since the Heydon Creek sockeye did pass some salmon farms north of Campbell River, fish farms are not the problem. However, my research has shown an empty farm is different than a full one and a farm with new smolts has different impact than one with fully-grown fish. The Marine Harvest Canada website reports losses in the order of a 100,000 fish or more month to month. How many of these were due to disease? One fully stocked farm experiencing a viral or bacterial epidemic in the narrow passages of the Discovery Islands in June-July 2007 could have killed millions of Fraser sockeye smolts.

Please note, I said, "could have," because I don't know the disease history of the fish farms. To complete this line of reasoning we need to know the state of health, maturity and stocking of the BC salmon farms in spring 2007.

There is no point to guessing as the Provincial Minister of Agriculture of Lands should have this data, as well as the fish farmers themselves and you have the power to request it. There can be no confidence in statements by government or NGO's on the cause of the catastrophic collapse of one of Canada's most significant fish stocks, unless this information becomes public.

Another fact must be considered. In 2005, the Fraser sockeye return exhibited the same pattern – failure of most runs, high production by the Harrison. In that case, we know northbound sockeye smolts passed through unprecedented high levels of IHN viral effluent from fish farms off Campbell River and elsewhere (Saksida 2006).

Was there a bacterial or viral outbreak again in 2007? Is that why the pattern is the same but more severe? BC Supreme Court Justice Hinkson ruled that the ocean inside and outside the farms is the same. It is public. Fish inside the farms are a fishery. As a result, Norwegian fish farmers have no legal right to say disease data and statistics are 'proprietary'.

If these companies are harming a Canadian fishery resource, it is DFO's responsibility to correct this. Before he became Premier, Stephen Harper called for a judicial inquiry into what happened to the 2005 Fraser sockeye. The ruling party said "no." Was the truth inconvenient? Is it still inconvenient? Would we have abundant sockeye this year if a 2005 Inquiry had occurred? If Canada had done a Judicial Inquiry into the declining North Atlantic cod stocks we would still have those fish. We would have learned that crucial findings by government scientists such as Dr. Ransom Myers had been suppressed by DFO.

Given the above, you cannot avoid examination of the production and husbandry records of all salmon farms on the Fraser River migration route. Furthermore, you could test every farm in production right now, as well as their hatcheries, for disease, including the ISA fish virus (an exotic virus rapidly appearing everywhere Marine Harvest, Mainstream and Grieg farm salmon.) The Minister's policy to continue Atlantic egg imports is reckless.

Mr. Sprout, these are critical issues that need addressing. I am formally requesting a meeting with you to discuss further information at your earliest convenience.

Alexandra Morton R.P.Bio.