2005 SEAL FORUM
– PROCEEDINGS –

NOVEMBER 2005

PREPARED FOR:

Fisheries and Oceans Canada | Pêches et Océans Canada

PREPARED BY:

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INTRODUCTION

This report presents the record of proceedings of the Seal Forum held at the Delta Hotel in St. John's, Newfoundland & Labrador, on November 7th and 8th, 2005.

Participants in the forum included seal harvesters from the Atlantic provinces and Québec, fishermen's organizations from across the region, representatives of the seal processing and marketing sector and the fur industry, and citizens concerned about conservation and animal rights issues. Also in attendance were members of the independent veterinarian's panel that had worked on recommendations to improve humane conduct in the hunt. The Department of Fisheries and Oceans (DFO) was represented by resource managers and scientists from the different regions involved in seal management.

Mr. Kevin Stringer, DFO Director General of Resource Management, chaired the Forum.

It was facilitated by Dr. Rick Williams and his associates from PRAXIS Research.

The Forum agenda was comprised of four elements:

Introductory presentations on the 2003-2005 Seal Hunt Management Plan and on the current scientific advice on the seal harvest.

Discussions in four breakout groups of 24 specific management issues organized under three broad topics:

- Management Framework and Total Allowable Catch (TAC)
- Eco-system Considerations
- Regulatory and Policy Changes

Presentation to plenary at the beginning of Day 2 of a summary of points of agreement and disagreement on each of the 24 management issues.

Plenary discussion of each of the 24 issues and recording of issues and concerns.

This report focuses on the summary of points of agreement and disagreement coming from the four breakout groups, and on the full plenary discussion of the 24 management issues on Day 2. The appendices to this report include reports from each of the four breakout groups, the Forum agenda, a list of Forum participants, and comments sent to DFO following the Forum.

MANAGEMENT PLAN – PLENARY DISCUSSION

The second day plenary session reviewed outcomes from the four breakout groups on the previous day. The facilitators presented a summary of points of agreement and disagreement on each of the 24 discussion questions, and comments from the floor were invited. A panel of DFO Science and Management officials provided further information and commentary on issues that arose in plenary.

The main points of agreement and disagreement on each management issue are presented below followed by a summary of the discussion in plenary.

1. The Management Framework & TAC

Question 1.1 - Objective-Based Fisheries Management (OBFM)

Do you support continuing with the current OBFM model (with reference points based on the new population assessment of 5.82 million) for the next multi-year harp seal management plan?

YES ☐ NO ☐

If no, which management approach to setting a Total Allowable Catch would you prefer?

1)	Maintaining reference points based on a population of 5.5 million (i.e. 3.85 million at 70 %, 2.75 million at 50%, 1.65 million at 30%)	☐
2)	Sustainable Yield (SY)	☐
3)	Potential Biological Removal	☐
4)	Other, please explain	☐

Summary of outcomes from breakout group discussions:

- There is general support for OBFM as a management approach
- There is interest in developing a more eco-system (or multi-species) based management approach within the OBFM
- Some felt that reference points should remain fixed at 2003 levels
- Some wanted the reference points lowered

Points raised in the plenary discussion:

- A participant expressed concern that an eco-system approach is not part of the DFO's current management approach for grey seals. OBFM is acceptable as long as the objectives are ecosystem-based and inter-species relationships are clearly understood.
- A harvester commented that many fish stocks are depleted and this is not just the fault of seals. The balance of nature has been upset and an ecosystem approach is needed to re-establish balance.

Question 1.2 - Impacts on the harp seal populations from hunts since 1996

Given the impact of the harp seal hunt on the harp seal population since 1996, what are your views on the past management regimes?

1)	The harp seal TAC was set too high	☐
2)	The harp seal TAC was set too low	☐
3)	The TAC was set at an appropriate level	☐

Summary of outcomes from breakout group discussions:

- Many felt that the harp seal TAC was set at an appropriate level in the last plan
- Some felt it was set too low
- Several participants emphasized the need to pay close attention to what the market will bear

Points raised in the plenary discussion:

- A Nova Scotia participant pointed out that some stakeholders feel that the TAC was too high

Question 1.3 - Total Allowable Catch (TAC) Options

1)	**250,000 per year for 5 years (Sustainable Yield)** This option would result in a total catch of 1,250,000 over 5 years and a SY of 250,000 at end of harvest plan. There is a 50% probability that the population will be greater than 5.72 million at the end of the plan or an 80% probability that the population will be greater than 4.42 million. Under this scenario N70 will be reached by 2013.	☐
2)	**275,000 per year for five years** This option would result in a total catch of 1,375,000 over 5 years and a SY of 235,000 at end of harvest plan. There is a 50% probability that the population will be greater than 5.77 million at the end of the plan or an 80% probability that the population will be greater than 4.14 million. Under this scenario N70 will be reached by 2012.	☐
3)	**300,000 per year for five years** This option would result in a total catch of 1,500,000 over 5 years and a SY of 220,000 at end of harvest plan. There is a 50% probability that the population will be greater than 5.65 million at the end of the plan or an 80% probability that the population will be greater than 4.05 million. Under this scenario N70 will be reached by 2011.	☐
4)	**325,000 per year for five years, with a review after three years.** This option would result in a total catch of 1,625,000 over 5 years and a SY of 210,000 at end of harvest plan. There is a 50% probability that the population will be greater than 5.52 million at the end of the plan or an 80% probability that the population will be greater than 3.88 million. Under this scenario N70 will be reached by 2010, the last year of the plan. For this reason, a review will be conducted after three years (looking at all circumstances and landings) and adjustments to the TAC may be made in the last two years.	☐
5)	**350,000 per year for five years** This option would result in a total catch of 1,750,000 over 5 years and a SY of 200,000 at end of harvest plan. There is a 50% probability that the population will be greater than 5.4 million at the end of the plan or an 80% probability that the population will be greater than 3.75 million. Under this scenario N70 will be reached by 2010 the last year of the plan. For this reason, a review will be conducted after three years (looking at all circumstances and landings) and adjustments to the TAC may be made in the last two years.	☐
6)	**1.5 million over five years (variable annual TAC) – See question 1.4)** This scenario allows for a total of 1.5 million animals to be taken over a 5 year period. Harvests are 360,000, 360,000, 300,000, 240,000 and 240,000 animals per year. The SY at the end of the harvest plan would be 220,000. There is a 50% probability that the population will be greater than 5.65 million at the end of the plan or an 80% probability that the population will be greater than 4.05 million. Under this scenario N70 will be reached by 2011.	☐
7)	**Setting a new TAC each year based new information and any revisions to catch estimates and updated population models as they become available. (See question 1.4)**	☐

	Setting an annual TAC allows for more frequent adjustments to changing environmental conditions, and changes in harvest levels in Arctic Canada and Greenland. At the same time, frequent changes in harvest levels complicate planning and investment decisions. For example, a one year harvest of 400,000 would result in a sustainable yield in subsequent years of 236,000 animals.	
8)	**Other, please explain**	☐

Summary of outcomes from breakout group discussions:

- A majority of participants were comfortable with a TAC of 325,000 harp seals per year
- Some wanted a higher TAC
- Some argued for a relatively high TAC in the first year of the plan and adjustments in the remaining years depending on harvest levels
- Most wanted to see a TAC set for 3 rather than 5 years
- Two groups discussed having annual reviews of the TAC and year-to-year adjustments
- There were concerns that a long-term TAC would be associated with a large number of animals to be harvested during the plan period, and this might generate communication problems

Points raised in the plenary discussion:

- A spokesperson for one group clarified that the group wanted TACs set on an annual basis and a reasonable compromise between those wanting 325,000 and those who favour 350,000
- Some participants favoured a 5-year plan but with review after 3 years
- The DFO Director General for Resource Management, made the following comments on the discussion on harvest levels:
    - The general message from the Forum seems to be that in setting the TAC the Minister should pay attention to:
        - What the market will bear
        - Ecosystem objectives
        - Public concerns
    - DFO is moving in the direction of ecosystem-based management. However it is highly complex and is still at an early stage. Other issues need to be taken into account including markets and overall stability of the fishery.
    - With regard to the issue of communication, DFO needs to work out the best approach to managing the seal hunt, make it work, and then deal with the communications side.

- An inshore harvester commented that it is difficult to talk about an ecosystem approach and maintain the same TAC levels. (I.e., there would need to be a much higher TAC on seals to move towards an overall eco-system balance).

- A DFO scientist responded that a 5-year harvest of 325,000 harp seals per year would leave a population of 5.5 million animals, i.e., a slight reduction of the total population.

Question 1.4 - Total Allowable Catch (TAC) Options (from Question 1.3 – number 6)

Under a 5-year variable framework there could be some flexibility to carry-over unused quota from one year to the next as long as the total 5-year TAC is respected: e.g.., if the quota is 5 years at 300,000/year, we could we choose to take 330,000 in one year (10% carry over) and the balance in the remaining years.

In the event that a recommendation is made to have a five-year harp seal TAC, what are your views on the flexibility of carrying over unused TAC from one year to the next as long as the overall 5-year TAC is not exceeded?

1)	In favour of a 10% carry-over for one year	☐
2)	In favour of a 20% carry-over for one year	☐
3)	In favour of a 10% carry-over for two years	☐
4)	In favour of a 20% carry-over for two years	☐
5)	Not in favour of any carry over	☐
6)	Other, please explain	☐

Summary of outcomes from breakout group discussions:

- General agreement on carrying forward uncaught quota to the following year

- Agreement that there should be a limit on the amount carried forward

- Different views on the allowable percentage (10%-20%)

- One group favoured flexibility to move future quotas into the current year

- One group was opposed to moving future quotas into the current year

Points raised in the plenary discussion:

- A harvester representative commented that it would be problematic if the carry-over involved moving TAC from one region to another

Question 1.5 - Total Allowable Catch (TAC) Options

Increasing this one year harvest to 400,000 or 500,000 animals would result in a sustainable yield in subsequent years of 236,000 and 230,000 animals respectively. In both cases, the OBFM metric for the population would not be expected to decline to N70 until 2012.

In the event that a recommendation is made to have a TAC revised every year, what are your views in setting a TAC of 400,000 (or 500,000) for 2006?

1)	In favour of a harp seal TAC of 400,000 for 2006	☐
2)	In favour of a harp seal TAC of 500,000 for 2006	☐
3)	Not in favour of a higher TAC	☐

Summary of outcomes from breakout group discussions:

- There is little support for setting a high one-year TAC for 2006
- Concern about impact on future TACs and markets
- There are concerns among buyers/processors that markets could not absorb a harvest of 500,000 in one year

Points raised in the plenary discussion:

- A DFO scientist commented that the more you take at the start of the plan the less there will be at end. These fluctuations will cause problems for markets

Question 1.6 - Hooded Seal Management Model

In choosing a management model for hooded seals, please keep in mind that under OBFM, hooded seals are considered data poor. This means that even with a recent population estimate placing the hooded seal population above a lower reference point (30% of the historical maximum or 150,000 animals) then harvest levels have to be established using PBR).

Which management approach to setting a Total Allowable Catch for hooded seals would you prefer?

1)	Sustainable Yield	☐
2)	PBR (Potential Biological Removal)	☐
3)	Other (please explain)	☐

Summary of outcomes from breakout group discussions:

- Two groups agreed with management by Potential Biological Removal (PBR)
- One group recommended using Sustainable Yield (SY)
- One group felt it was irrelevant to talk about a hooded seal TAC without a blueback hunt
- General agreement on need to increase data

Points raised in the plenary discussion:

- A Newfoundland harvester representative commented on the difficulty of setting a 3 or 5-year harvest plan without firm data on population size. He asked if there might be flexibility to set the TAC later.
- A DFO official responded that the count will not be available for the new plan. The first year TAC will be 10,000 and there will be flexibility to increase the TAC. The count can be reflected in the second year plan.
- The Newfoundland harvester representative responded that there would be no market for 10,000 adults. When the count is completed there could be a blueback hunt. Will there be flexibility? The concern is bluebacks, not older seals.
- The DFO official commented that the taking of bluebacks is currently prohibited. DFO would need to amend the regulations. This can be done within the plan but it is not a quick process – it might take a year to do this.

Question 1.7 - Grey Seal Management Model

Under the OBFM model, a grey seal harvest would be allowed under PBR as long as the population is greater than 30% of the highest known estimate (which is current population estimates).

Which management approach to setting a Total Allowable Catch for grey seals would you prefer?

2)	Sustainable Yield	☐
3)	PBR (Potential Biological Removal)	☐
4)	Other (please explain)	☐

Summary of outcomes from breakout group discussions:

- Most agreed to management by PBR
- There is a need for more research as a basis for the decision
- There are serious concerns about population levels
- There is interest in an expanded harvest to reduce the population because of impacts on other species

Points raised in the plenary discussion:

- A Nova Scotia harvester commented that grey seals are mostly in the southern part of the Gulf, but are being seen on the northeast coast of Cape Breton and Strait of Belle Isle. Nobody is paying attention. The plan should look at how grey seals are spreading out over a much wider territory.
- A representative of fish processors in Nova Scotia commented that grey seals are spreading geographically into the Bay of Fundy and George's Bank. There is increased infestation of seal worms spreading to the haddock stocks. This infestation may be one reason for the unexplained high natural mortality of groundfish. There is a need for more research and more precaution – let's take herd back to its size in the mid-1980s.
- A DFO official commented that grey seals are an increasing concern among fishers in the northern Gulf of St. Lawrence as well. However there is still little documentation. This may be something DFO needs to focus more on – the status of grey seals in the northern Gulf.
- A Nova Scotia participant commented that there is evidence that the Sable Island grey seal population may be declining. It is not known if it is a spontaneous decline. There is a rising trend for the harbour seal population on Sable Island. She urged another survey on greys in 2006. She also commented that the poor condition of groundfish stocks is widespread and may be less a result of natural predators.
- A harvester from Cape Breton commented that they are seeing a big increase in greys in their region in lots of places they have never seen them before. He asked if there is a market for grey seals comparable to harps because there are lot of greys. There is real need for more research to be done – seals eat more than groundfish.
- A DFO scientist replied that there is no definite plan for a special survey. The last was done in 2004 and they would normally do the next again in 2007. It usually happens every 3 years and it takes a year to organize the logistics. It needs to be done throughout region.

- The representative of fish processors in Nova Scotia commented that the Fishermen and Scientists Research Society in NS is working with fishermen to identify new colonies. In some areas grey seals have destroyed the bait fishery.

- A representative of fishermen in Newfoundland and Labrador stated that they are seeing grey seals all along the coast in places where people never saw colonies before – it's not just Sable Island. Maybe seals on Sable Island maxed themselves out in that area and are moving to other areas. There are no controls and they're growing exponentially.

- A harvester representative from Québec asked if the population count in 2007 is it just Sable Island or the entire Gulf.

- A DFO scientist replied that the count will take in the entire Gulf. There is definitely movement in the stock distribution. They are pupping in January then spreading out through the summer and do go to the Newfoundland coast. However scientists haven't seen any new colonies in Newfoundland.

- A spokesperson for the Fishermen and Scientists Research Society in NS stated that they are doing a grey seal pupping survey this winter. Fishermen saw greys on different islands and saw baby grey seals in the grass, so they are sure that they are pupping in other areas beyond Sable Island. If you don't see them on the beach it doesn't mean they're not there. They are definitely spreading.

- A DFO scientist replied that when they do their surveys they crawl through the forest to find them.

- A Nova Scotia participant commented that the decline in the bait fishery is serious, but pressure from natural predators has decreased. This is very alarming from an ecosystem perspective.

- Fish harvesters from Nova Scotia commented that grey seals are having a lot of impacts – destroying birds nests on the shore, driving some fish into deeper water where they don't spawn, attacking lobster in and around traps.

- The Nova Scotia participant agreed with these points but felt that an ecosystem approach was needed rather than trying to eliminate one group of predators.

- A DFO scientist commented that the Sable Island population is growing but at lower rate over the past 40 years. The rate is still substantial. Seals spread widely in non-breeding season. The population is much larger than 10 years ago. All the data were collected on Sable Island and show no change in these seals over 20 years. The increase in distribution is related to the increase in total population size.

- A Nova Scotia fisherman said that he had been coming to the Seal Forum for years to express concern about grey seals. He was glad to have the chance to discuss this and would like to have more information to report back to his members.

Question 1.8 - Duration of Harp Seal Management Plan

How often should a new harp seal management plan be developed?

1)	Every FIVE years	☐
2)	Every FOUR years	☐
3)	Every THREE years	☐
4)	Other (specify _____)	☐

Summary of outcomes from breakout group discussions:

- Most agreed on a 3-year plan
- Some also wanted annual reviews of the TAC
- One group proposed a 5-year plan with annual setting of the TAC
- There was no discussion on this issue in the plenary discussion.

Question 1.9 - Duration of Hooded Seal Management Plan

How often should a new hooded seal management plan be developed?

1)	Every FIVE years	☐
2)	Every FOUR years	☐
3)	Every THREE years	☐
4)	Other (specify _____)	☐

Summary of outcomes from breakout group discussions:

- Two groups agreed on a 3-year plan
- Some also wanted annual reviews of the TAC
- One group proposed a 5-year plan with annual setting of the TAC
- One group proposed a plan of less than 3 years

There was no discussion on this issue in the plenary discussion.

Question 1.10 - Duration of Grey Seal Management Plan

How often should a new grey seal management plan be developed?

1)	Every FIVE years	☐
2)	Every FOUR years	☐
3)	Every THREE years	☐
4)	Other (specify _____)	☐

Summary of outcomes from breakout group discussions:

- One group agreed on a 3-year plan
- One group proposed a 5-year plan with annual setting of the TAC
- Two groups proposed a plan every year

There was no discussion on this issue in the plenary discussion.

Question 1.11 - Frequency of Consultations

As a regular means to manage the seal hunt, the Department of Fisheries and Oceans regularly consults with the sealing industry. However, in order to broaden the input on wide-ranging issues surrounding the seal hunt, the Department of Fisheries and Oceans organized the first Seal Forum in 1994. The Seal Forum was held again in 1995, 1999 and 2002.

How often do you think the Department should hold consultations?

1)	Every FIVE years	☐
2)	Every FOUR years	☐
3)	Every THREE years	☐
4)	Other (specify _____)	☐

Summary of outcomes from breakout group discussions:

- There was general agreement on consultations consistent with the length of the management plan
- Some felt that consultations should be aligned with availability of new population assessments

Points raised in the plenary discussion:

- An inshore harvester from Newfoundland stated that the problem with this type of consultation is that very few sealers come. It was only an accident that he was able to attend. DFO should invite more people from different areas, expand the horizon.
- A DFO official replied that many issues of concern to harvesters will be discussed in the upcoming access & allocation workshops.

Question 1.12 - Extent and Nature of Future Consultations

a) The current policy with respect to consultations on the Atlantic hunt is to seek the views of Canadian organizations representing the sealing and fishing industries, governments, aboriginal groups, academia, conservation and animal rights' groups. Because this is a domestic management issue, international participation has been excluded from earlier consultations.

If you have any suggestions to improve our consultations, please note them below.

b) Given the increased interest in the 2005 seal hunt, several international organizations have asked to participate in consultations on the seal hunt.

Who do you think should be invited to future consultations on the seal hunt? (i.e., include international organizations)

Summary of outcomes from breakout group discussions:

- There was general agreement on maintaining the status quo
- There was some openness to developing new forums for international groups to be able to contribute
- There was some concern about inviting animal rights groups
- Some felt DFO should improve on ways for individuals to provide input

Points raised in the plenary discussion:

- A Nova Scotia participant commented that in future consultations an ecosystem expert should be in attendance as a resource person. There is a need for a more formal process for selecting participants. Industry representatives get invited but conservationists don't have the same opportunities. She was pleased to see the veterinarian group present.
- A harvester representative from Québec asked if groups are not included if they are not directly involved in the industry or are not in official fishermen's organizations.
- The DFO Director General for Resource Management replied that DFO gets criticized if they invite wider participation and if they don't. However it is very useful to hear a full range of views and this is a good forum for that purpose. This forum brings together sealers, fish harvester representatives, industry organizations, processors, scientists, animal rights groups, etc. – a pretty broad group – once every 3 years to discuss the "big picture". The animal rights groups chose not to come this time. We need to find ways to make people feel more welcome. We also need an advisory process every year and input from the local and regional levels, week-to-week, month to month. DFO is open to ideas on how to improve input. We appeared before the Senate Committee on Fisheries to discuss how to get input from the full range of stakeholders.
- A seal harvester representative commented that these consultations are very important. Canada is not the only country in the world that harvests seals but the media singles us out. We should bring people from Europe, Russia and other countries that harvest seals. He attended an international meeting and it was a real eye opener. The world doesn't know how clean our hunt really is. We have much more effective management than other countries. He would like to see the consultation process extended in the next forum to other countries that hunt seals.
- A Nova Scotia participant suggested that to broaden participation there should be an environmentalist research society (parallel to the Fishermen and Scientists Research Society) set up with support from government.

Question 1.13 - Funding for Additional Management and Science

The Department of Fisheries and Oceans manages the seal hunt according to existing resources for management and science and competing demands for those resources.

Would you favour an approach where industry and concerned interest groups would provide funding for joint management and science projects to improve our scientific knowledge of seals and seal hunt management?

YES ☐ NO ☐

If yes, what are your suggestions?

Summary of outcomes from breakout group discussions:

- There was a range of views on this question.
- There was resistance to putting added cost on industry
- There was some willingness to discuss co-management
- There was wider interest in increasing industry's influence in science field

Points raised in the plenary discussion:

- A harvester representative from Québec commented that they would first like to see how funding is spent by DFO Science in the last 3 years and for what. Can we evaluate the use of funds – maybe we can be more efficient.
- A representative of Newfoundland harvesters stated that it doesn't take a genius to see the impact of the higher Canadian dollar on the fishing industry. In the crab industry it has taken $80 million out of the pockets of fishermen in 2 years. There are increased costs for harvesters – inspections, radio operator, etc. Downloading of the cost of science onto the fishing industry is not possible -- we need a break. Increased cost is a serious worry – these are difficult times for rural communities that depend on the fishery.

2. Ecosystem Considerations

Question 2.1 - Seal Predation (Harp/Hooded/Grey Seals)

What do you think the Department of Fisheries and Oceans should do to address the issue of seal predation? I.e., conduct more studies, establish Seal Exclusion Zones, do nothing.

Summary of outcomes from breakout group discussions:

- Two groups were opposed to culls
- Any reduction should be market-driven
- One group advocated a substantial reduction of the grey seal population
- There was general agreement on the need for more research on ecosystem models, diet issues, parasites and impacts on other species

Points raised in the plenary discussion:

- A representative of inshore fishermen in Newfoundland and Labrador asked if the division of DFO managing seals is communicating with other divisions in DFO that are responsible for rebuilding cod stocks. They should be working together. There is no mention in the DFO workbook about the damage the seal herd is doing on the whole northeast coast of the province – damage to cod stocks. Scientific data, stock assessment data, suggests that on an annual basis harp seals consume or destroy 35,000 MT of cod. If that's not enough information for the scientific community we'll never re-build cod stocks. Cod is now an endangered species. No human can go near it without special consideration but seals can continue to consume it. He is not advocating a cull but if markets are good over the next 3 to 5 years why not increase the quota on seals. You'll be helping many cod fishers who want to earn a dollar. People on many parts of the coastline consider seals to be a nuisance, but sealers are getting 2 to 3 times more for their pelt than they were a few years ago. [The key issue is] you can't rebuild cod stocks as long as harp seals are consuming 35,000 MT/year.

- A DFO official replied that they want to have lots of discussions to show that they are managing the fishery in a responsible way. Once cod disappears, it takes a long time to come back. The discussion has to focus on what cod stocks you want to rebuild, how long to recovery, and what steps will achieve the objection bearing in mind that cod is only 2-3% of seal diet. Do we want to destroy one industry to help another one that is not recovering for 30 years anyway?

- A Nova Scotia participant commented that plankton and krill counts are down by an alarming degree and this is surely a factor limiting recovery of cod. She did not agree with the 35,000 mt figure for consumption of cod by seals. The adult natural mortality rate is limiting recovery and that doesn't translate into what's eaten by seals.

- The representative of fish processors in Nova Scotia commented that there used to be processors on the eastern shore of the province but the cod there is almost gone. In the Species at Risk study there are specific recommendations related to the impacts of grey seals on rebuilding of groundfish stocks. In 4T4VN there is a serious parasite issue. Iceland scientists strongly believe that grey seal parasite impacts are the biggest threat to their cod stocks. There are impacts on salmon and on groundfish coming to spawn. How can we have successful spawning when we have that level of seals?

- A harvester commented that they have been complaining about impacts of grey seals for 40 years – when are we going to get answers on the impacts of seals on the ecosystem?

- A DFO scientist replied that they do have some answers, but not all. In the mid-1990s DFO Science published a report on the impact of greys on cod stocks. It looked at how many seals, and at what they ate. Our finding was that the biggest impact on cod stocks was fishing mortality, followed by other sorts of mortality including grey seal mortality. Ten years after the moratorium there was another study that showed that grey seals account for a small fraction of groundfish mortality. There are other things out there killing groundfish. Ecosystem models are available, but are still a work in progress. But scientists do have a reasonable understanding of the relative role of seals as predators. Fish are the most important predators of other fish.

- A harvester commented that this section of the DFO workbook is quite inadequate, because there is no mention of harbour seals.

- A DFO scientist replied that they don't know populations for harbour seals. The best estimate is 20-40,000 in eastern Canada. These seals may have big impacts in local areas, but overall are a very small factor. For example, they may they do serious damage to salmon in particular rivers.

- A spokesperson for the Canadian Centre for Fisheries Innovation described their work on market issues and developing products for seals. They did work also on links between seals and other fish and the extent to which seals contributed to the demise of cod. They could not determine what role but are fairly confident that seals were contributing to the failure of cod stocks to recover. They thought this research could be helpful for DFO but it didn't happen. A lot of the data was incomplete, but there was another reason – the industry turned away from cod to exploit the recovery of crab, and also the improved markets for seals. This all led to where we are today. We still have to determine what the relationship is between seals and cod and then decide what to do about it. There is no predetermined understanding – what will happen if the analysis is done and it proves a significant relationship? Does that by itself lead to a cull?

- A DFO scientist commented that he was at the meeting in 1997 and helped write the report. They did not conclude that seals were preventing recovery of cod.

- A Cape Breton fish harvester commented that there is not enough good data. If cod is only 2-3% of seal diet, what is the other 98% made up of? And it is not only that seals eat codfish – the parasite from seals is affecting markets for cod. It won't be worth anything if it does come back. Fishermen got only 35¢/lb for cod this year.

- The DFO Director General for Resource Management responded to the discussion as follows:
    - The science indicates that cod makes up 2-3% of seal diet and seal predation is a small fraction of cod mortality. It would take an enormous cull to make any difference. It is clear that seal predation is a factor, but we can't say it's a crucial factor.
    - There are three cod-action teams in three regions and they will all speak to a broad range of issues. Cod recovery will require a number of interventions, one of which is understanding more about seals as well as the broader ecosystem approach.
    - The cod action teams are comprised of representatives of the federal and provincial governments and of other stakeholder groups.
- A representative of fishermen in Newfoundland and Labrador stated that his views have changed on the issue of cod-seals interaction after listening to fishermen over the past five years. Seals have become very important in the communities as part of a multi-species industry. The reality is that the seal harvest is now helping to achieve an economic balance. We now need to manage the seal harvest on a sustainable basis. The ecosystem is changing. There are more fisheries on abundant stocks – e.g., capelin on the Labrador coast, mackerel, herring along the northeast coast – that are in better shape. But we are not

achieving the same balance with greys that has been achieved with harp, where we did good job. Greys are becoming a serious problem in Newfoundland and have to be managed.

- A representative of fish processors in Nova Scotia commented that in Iceland it was found that seals eat 210,000 mt of cod, and are 20% of the seal diet. If seals eat 2-3% of a small population of cod, and concentrate on juveniles, it could be a very important factor in predation. Add to that the impact of seal worm, scattering of spawning fish, and you have a serious problem.

- A Newfoundland harvester asked how much a harp seal eats in a year.

- A DFO scientist replied that harps each eat one tonne of food per year. They spend half the year in the Arctic, half the year in the south, so they eat 500 mt per year in southern Labrador south to the Gulf. This information is all published in the literature.

Question 2.2 - Other Eco-System Considerations

Are there any other eco-systems considerations with relation to the Atlantic seal populations that you would like to see addressed in future management plans, such as increased mortality due to climate change; fishing practices (bycatch of seals) or reduction in prey species?

Summary of outcomes from breakout group discussions:

- Participants expressed concern about the implications of climate change

Points raised in the plenary discussion:

- A Nova Scotia participant commented that DFO should look at ecosystem impacts of other removal of other predators.

3. Regulatory and Policy Changes

Question 3.1 - Veterinarians' Recommendation #1

The Independent Veterinarians' Working Group recommends that the three steps in the humane killing process - stunning, checking that the skull is crushed (to ensure irreversible loss of consciousness or death), and bleeding - should be carried out in sequence as rapidly as possible.

Do you believe that the above recommendation should be adopted? YES ☐ NO ☐

Summary of outcomes from breakout group discussions:

- In general, participants support the approach in principle
- There are concerns about enforcement, training and worker safety
- There is a need to adapt to different conditions
- Need to check skull only for kills by hakapik and club, not for gunshot

Points raised in the plenary discussion:

- A member of the Veterinarian Panel commented that it is correct to put more emphasis on the 3-step process when killing is by hakapik or by club. With a gunshot it is fairly obvious: if there is an entry wound on one side of skull and exit on other, the skull has been fractured.
- A veterinarian commented that with a bigger gun the head is destroyed. On the other hand, with a smaller gun there may still be a need to do palpation to ensure death. However it is simple and easy to do and is a useful habit to get into.

Question 3.2 - Veterinarians' Recommendation #2

The Independent Veterinarians' Working Group's second recommendation is that confirmation of irreversible loss of consciousness or death should be done by checking by palpation that the skull is crushed, rather than checking the absence of corneal (blink) reflex.

Do you believe that the above recommendation should be adopted?

YES ☐ NO ☐

Summary of outcomes from breakout group discussions:

- Support for this recommendation with the limitations described in 3.1

No points were raised in the plenary discussion.

Question 3.3 - Veterinarians' Recommendation #3

The veterinarians believe that seals should not be shot in the water, or in any circumstance when it is possible the carcass cannot be recovered.

Do you believe that the above recommendation should be adopted for the Atlantic commercial and personal use seal hunts? YES ☐ NO ☐

Summary of outcomes from breakout group discussions:

- The original proposal not supported
- There was some support for a revised text as follows:

  "Seals should not be shot in any circumstance where it is likely that the carcass cannot be recovered"

Points raised in the plenary discussion:

- A veterinarian commented that there are only two vets present at the Forum from a panel of eight. They will take comments from the groups seriously and will bring them back to the panel. They are convinced that under some circumstances seals shot in the water seal will sink. However the proposed new wording is acceptable. The vets' report was in response to animal welfare issues – it is unacceptable if 50% of animals shot are not retrieved. DFO will decide whether to implement the recommendation.
- An inshore fisherman replied that he had been sealing for 20 years and 90% of his seals were in the water when killed. With regard to seals sinking the reality is that it is only the odd young one and the old ones that sink. In 20 years he has seen less than 5% of seals that sink – that's true of all of Newfoundland. There is a misconception there that needs to be taken out of the veterinarians' recommendations.
- A veterinarian replied that their information came from Greenland where there is a 50% loss rate on adult animals killed in the water.
- A representative for inshore fishermen replied that if DFO puts that regulation in (i.e., that seals cannot be shot in water) they would eliminate hundreds of sealers all along the north coast. People who hunt seals wait for beaters to come along coast. Thousands of small boats will be taken out of the harvest altogether. On the Front it is a different matter. He hoped the compromise wording would be accepted.
- A representative for seal harvesters stated that this recommendation would have serious implications for the sealing industry in Newfoundland. Normally seals only sink when they are moulting but there is no market for seals that are moulting so they aren't harvested. If they are shot in the water the skull is completely gone. The most humane way to kill seals is in the water with a high-powered rifle. We need to reconsider this recommendation but we need to use the right rifle and the right ammunition to kill seals instantly. We need to do it right and proper so we can have an industry for the long term.
- A fish harvester commented that 99% of beaters killed in salt water in the spring of the year will float. In fresh water in rivers they will sink. DFO's 50% figure is wrong. He didn't think the struck and lost rate is even 5%.
- A DFO scientist replied that they use the estimates of 5% for beaters and 50% for adults.

- A representative for seal harvesters commented that he had real problems with struck and lost – we don't have same problem here as in other countries. There's no way we have a 50% struck and lost rate. Longliners have professional gunners who are very accurate. We have got to get facts right – make sure we're presenting facts not emotion. 50% does not happen today in the Canadian seal hunt.

- A DFO scientist replied that they have done studies and found that beaters losses are low (1 to 5%). In the population models DFO uses this 95% saving. We also looked at older animals, and during the moulting period there are 10-15% losses, occasionally up to 50%. The figure of 50% comes from old data and from the Greenland loss rate of 30-65% depending on time of year and species. Beaters make up the bulk of the Canadian hunt and the rate is low for them. You can use any figure and it doesn't change models or the impact on mortality rates.

- A representative for inshore fishermen in Newfoundland commented that this information cannot be right and it is falling into the hands of animal rights groups. He also expressed concerns about personal use licenses and the dangers of using guns over water.

- A veterinarian replied that they are not completely certain of the timeline on regulations regarding ammunition, type of rifle and specifications on hakapiks and clubs.

- An inshore harvester commented that the recommendations are not what fishermen wanted but what other groups wanted (e.g., the veterinarians). Fishermen are not barbarians, they are survivors, and this issue needs to be looked at seriously. Half of the seals killed by the inshore fleet are older seals taken in January to March. The only reason fishermen don't kill more older seals now is that there is no market. If the market comes back for older seals the 50% estimate will penalize us. The 50% level is not an accurate figure.

- A representative of sealers stated that this issue is very important to large vessels on the north east coast of Newfoundland-Labrador. All fishermen must use the approved rifles with the right calibre and muzzle velocity. This seal hunt is one of most important fisheries now and any aspect of cruelty has to be done away with. We can't afford to wound any animal – we have to do it right, we have to use rifles that kill animals in the most humane way.

- A representative of the sealing industry commented that the 50% struck and lost estimate has to do more with Greenland and has been widely discussed. It doesn't pertain as much to Newfoundland. We need more information on the hunt in the Arctic.

- A harvester representative from Québec congratulated the veterinarian panel on their good work, and asked why in Norway the government attitude is completely different. They defend the hunt much more aggressively than we do in Canada.

- A veterinarian from the panel commented that this is their first report after first meeting last May. They did their best and not everything is perfect, they didn't expect it to be. They will take this feedback back to the other panel members. The work is not done. They hope they can do more observations during the 2006 hunt and will need the cooperation of sealers in both the Gulf and the Front.

- A representative of small boat sealers commented that they lost 30 days off the hunt last year, and only got 5 days. The large boats are too greedy because now the price is too high. He came to this conference only by fluke. He is offended by big boat sealers talking about rifles (i.e., criticizing small boat sealers). The offshore is taking away the inshore hunt.

Question 3.4 - Veterinarians' Recommendation #4

Bleeding to achieve or ensure death, following stunning, is an important element in the three-step humane killing process. The *Marine Mammal Regulations* should be amended to replace the requirement for death to occur before pelting, with a requirement for unconsciousness before bleeding.

Do you believe that the above recommendation should be adopted? YES ☐ NO ☐

Summary of outcomes from breakout group discussions:

- Agreed

No points were raised in the plenary discussion.

Question 3.5 - Number of Sealing Licences

The number of commercial seal licences has increased over the past nine years – from 10,383 in 1995 to 13,777 in 2004. While the Department of Fisheries and Oceans keeps track of the licences issued, there is no mechanism in place to monitor how many sealing licences are actually being used.

To improve the management of the hunt, the Department would like to limit or possibly reduce the number of inactive licences and is thus considering limiting the number of sealing licences. A limit or reduction in sealing licences will not result in a reduction in the TAC.

Do you support limiting or reducing the number of licences? YES ☐ NO ☐

Summary of outcomes from breakout group discussions:

- Should be discussed in the Advisory Committee meeting with industry

No points were raised in the plenary discussion.

Questions 3.6 & 3.7 - Collector Vessel Licences

Do you believe that collector vessels greater than 65' in length would ever be needed in the hunt? YES ☐ NO ☐

Should collector vessels be prohibited entirely? YES ☐ NO ☐

Summary of outcomes from breakout group discussions:

- Different points of view
- Some opposition
- Collector vessels may provide opportunities for more complete utilization of carcasses
- Some felt the issue should be discussed at the Advisory Committee meeting

No points were raised in the plenary discussion.

Question 3.8 - Seal Fishery Observation Licences

Seal Fishery Observation Licences have been required since 1977. These licences are designed to ensure an orderly seal harvest and arose as a result of disruptive confrontations between sealers and protesters. Conditions on the licences and the grounds for issuing them have been modified to reflect legal advice and still ensure that sealers can concentrate on killing seals in a humane manner.

Should the current regime for observer licences be changed?

YES ☐ NO ☐ If so, how?

Summary of outcomes from breakout group discussions:

- There is broad support for more effective management of observers
- Safety concerns
- Increase distance
- Limiting number of observers
- Requirement for training
- There should be stricter controls and stronger penalties on harassment and interference

Points raised in the plenary discussion:

- An inshore harvester commented that he has a problem with the word "observer" and what it actually means. He has a large family – they have to stay ashore. He would like to take family members as observers to teach young people how to hunt. Now he has to pay for each one to have an observer's license. It is too expensive for a small boat hunter.
- A DFO official responded that this is not a new provision – it has been there since 1970. Family members could have observer permits – they are available to everyone who pays $25 for a license. If they are 16 they can get a seal license. They always needed to have licenses to be on the hunt.
- A Québec representative asked if there is any limit on the number of observer licenses.
- A DFO official responded that the courts have given citizens the right to observe the hunt. DFO can restrict the number for safety reasons. People who apply for permits are checked out to see if they have had infractions. The majority of these people are from Europe. They don't normally know one month ahead of time that they are approved to come.
- A sealer representative commented that he is concerned about animal rights organizations that harass sealers. A 22-calibre rifle is dangerous within one mile. People are observing you, and you are using rifles. Bullets do go astray. If anyone gets shot, will the sealer be charged with murder? The sealer has to make a living with a rifle so the observers should be at least one mile away.
- A DFO official responded that observers have a license with conditions so they have to behave reasonably. There have been some investigations but very few sealers lodge complaints of interference. The majority of observers are out there and respecting rules. When there are conflicts DFO is not responsible for enforcing the criminal code.

Question 3.9 - Changing the Regulations on Bluebacks

It has been proposed to revoke the current prohibition under the *Marine Mammal Regulations* (Section 27) on the sale, trade or barter of blueback seals and protect younger hooded seals by closing this harvest until the animals have been weaned.

Do you agree or disagree with this proposal? What is the basis for your views?

YES ☐ NO ☐

Summary of outcomes from breakout group discussions:

- Strong support for development of a blueback hunt
- Some concerns about possible market backlash

Points raised in the plenary discussion:

- A sealer representative commented that they would like to eliminate the word "blueback". There should be a different name for young hoods – maybe "beaterhood" – when they are weaned and away from the whelping patch. There is no difference between a harp and a hood, like beater harps. It would be better for public relations purposes.

Question 4 - Other

Are there any other recommendations you would like to make on improving the management of the seal hunt?

Summary of outcomes from breakout group discussions:

- There is interest in a government-funded expanded and pro-active communications campaign
- Resource sharing will be addressed at the Advisory Committee meeting

Points raised in the plenary discussion:

- A harvester representative from Québec commented that they have made efforts for 30 years to find mechanisms for reacting to bad press. There was recently a meeting organized by the Canadian Fur Institute. He asked if there are other places for giving out more information to defend the hunt.
- A representative of the fur marketing industry stated that it is important to do more on the communication side to tell the public about the good management of the hunt. Sealers need to have their side of the story told. They are unfairly subjected to attack in the international press. There are three billion chickens slaughtered, and how many deer are hunted? It is an amazing propaganda barrage. We owe it to our citizens to communicate how well organized the hunt is. It is absurd to spend so much money on management and not get the story out. We need a recommendation that government does have responsibility to support stronger communication.
- An industry representative from Québec commented that an enlarged and extended communication effort is very important. There is a coalition of 57 organizations from 22 countries that support the sealing industry. 6 to 7 million kangaroos are culled in Australia every year but people still criticize the Canadian seal hunt. The campaign should go outside the Canadian border.
- A representative of inshore fish harvesters in Newfoundland and Labrador commented that the seal hunt is now a major economic activity and a very important source of income for

fishermen. This is a fishery, not a fox hunt. The word “hunt” should be taken out, it should be called a fishery.

- A Newfoundland participant commented that there is a great opportunity to liaise with the education system. Children will be visionaries of what this seal industry is all about. It is shameful for us not to grab onto that, not to bridge with children coming up behind us who may be tomorrow’s protesters.

- Another Newfoundland participant said that he has spoken in schools all over Newfoundland. Our own kids in Newfoundland, Ontario and Québec have very little idea what sealing is other than what they see in the mainstream press. If I get up and protest, the media by nature are forced to cover me. Then the media knows nothing other than what I tell them. This slander of a segment of society is a national issue but the government of Canada refuses to support the people. The Canadian embassies and consulates in other countries never defend us.

Closing Remarks

The DFO Director General for Resource Management closed the plenary session, and the Forum, with the following comments:

- Communications is clearly very important and perhaps we should devote a good portion of the next Forum to communications issues. Maybe we should drop the word “hunt” – we’ll think about it. We heard a lot here to help us go further on these matters.

- DFO and industry have gotten better on this issue, but we still have a long way to go. We have a number of products including “Myths and Realities” and FAQs documents that speak to issues and misinformation. There were letters to editors that were done beforehand. DFO did some polling and did a technical briefing for the media before the seal season this year. Dr. Garry Stenson did a road show in Europe talking about the reality of the seal hunt. We also have the Minister’s correspondence unit and a website. We’re getting better at dealing with information issues, but it is not DFO’s role to promote the hunt. We ask people to make decisions based on informed views. It is not just for DFO to speak up – our word is not always taken for truth. The views and information coming from industry and the communities are what will make a difference.

The Director General thanked everyone for his or her input and stated his view that the Forum had been a real success. These are difficult, contentious, sometimes troubling issues. There is not consensus on everything but we found more agreement than we thought we would. We now can move forward together to build a hunt that is sustainable, humane, well managed, well regulated, effectively enforced, science based, and contributes significantly to the economies of coastal communities.

APPENDIX A – WORKING GROUP REPORTS

Notes from Group 1 facilitated by Euclide Chiasson

Question 1.1 Objectives Based Fisheries Management (OBFM)

Question 1.2 Impacts of Hunts on Harp Seal Populations Since 1996

Question 1.3 Total Allowable Catch (TAC) Options

- Look at managing seals in relation to other species, cod in particular
- OBFM should be ecosystem based
- Independent opinion review for OBFM – ecosystem
- Agreement with OBFM approach. How could we improve the seal population estimates? More surveys?
- Worry that with OBFM, every time the seal population increases, the reference also increases relative to the total population
    - The reference points should be stable instead of a percentage. If the population increases, the reference point should not change.
- The real objective should be a sustainable yield
- In the past, the quota was too low
- TAC was set at a sustainable level for the resource and for the market needs. Market could now absorb more seals.
- Long term TAC (5 years) can be negatively perceived by environmental groups because it will be the total TAC that will strike their imaginations and not the yearly one.
- Taking into consideration the precision of the model, the existing TAC is correct to maintain the seal population. We need to invest in increasing the precision of the model.
- Single species data cannot be used to set a quota that is sustainable from the point of one of "social conservation principles". Ecosystem context is the sound conservation principle today.

Question 1.4 Carry-Over Options

- If there is an annual review of the TAC, the carry over becomes implicit.
    - No carry over because fish predators are in low numbers
    - 350,000/year for 3 years with review after 3rd year

Question 1.5 2006 Total Allowable Catch (TAC) Options

- We have a communications problem with a long term plan. Preferable to have an annual TAC to communicate.
- It is not necessary to have a higher TAC to stabilize the population.
- A 5 year TAC is a bit long term because of all the uncertainties. We could work on a 5 year perspective without announcing the 5 year plan
- The TAC should be constant or stable so as not to destabilize markets. We should work at stabilizing the seal population.
- 325,000 per year
- Set the lowest possible TAC
- Should reduce the herd a bit
- Sealers Association position is 325,000 for 3 years with possible turnover for another 2 years.

- 350,000 for 2006, then review if 325,000 year 2006
- Plan should not be longer than 3 years…reviewing each year
- No less than 350,000/year for 3 years
- Sound science is important
- Market could accept an increase of up to 400,000 but not recommended

Question 1.6 Hooded Seal Management Model

- If assessment is done in full ecosystem way we will find a need for predators to establish equilibrium in ecosystem. The Gulf is depleted in oxygen.
- Sealers Association
    - Supports for sustainable yield
    - No market for "hooded seals" but market for bluebacks. Even with a TAC, it will never be taken because of market situation.

Question 1.7 Grey Seal Management Model

- There should be other approaches for a TAC on grey seals.
    - Large predators have declined. Dr. Frank from Halifax should be consulted before final decision
- Sealers' Association
    - Stomachs full of crab/lobster. They might have great impact on other resources.
- Iles de la Madeline harvesters said:
    - Control increase of grey seal population because of impacts on commercial fisheries
    - Ecosystem is in trouble. A lot of non-commercial species are also in depletion. For example, barnacles, seaweeds such as Irish Moss, etc.
    - Grey seals are more abundant. Reduce the herd. Impacts on flounder, cod. More young grey seals seen lately.
    - Observing increase in grey seal population in Anticosti and also a drop in lobster population
    - Grey seals are eating cod. Concentration of grey seals during herring/mackerel season and presence of parasites in groundfish

Question 1.8 Duration of Harp Seal Management Plan

Question 1.9 Duration of Hooded Seal Management Plan

Question 1.10 Duration of Grey Seal Management Plan

- Majority agreed on a 3 year plan with annual reviews
- For the hooded seal, more frequently. Should have annual count
    - Annual plan within 5 year perspective

Question 1.11 Frequency of Consultations

- Consultations should be limited to the management advisory committee
- Forum every 5 years is important because it brings wider points of views. The hunter, the management advisory committee is more important
- Annual consultation and a forum every 5 years
- Advisory committee every year with key stakeholders and forum every 3 years
- Forum held when new information/science is available. Both should be in sync

- Forums are necessary to hear groups not directly involved in seal industry

Question 1.12 Extent and Nature of Future Consultations

- We should let international organizations participate
- Why should we invite the USA. For example, they don't consult when they want to go to war in Iraq!
- The issues are complex
- We could have presentations from international rep…from Europe who could inform us on markets, etc. Good opportunity.
- We should invite a very small group
- We could learn from them but we don't want confrontation. Intelligent discussions are OK.

Question 1.13 Funding for Additional Management and Science

- We should be prudent
- Be careful in increasing price of license
- If you give DFO an inch, they will take a foot
- Small organizations can't bear more costs. The cost of coming to such an event is already a lot to bear.
- Cost are already high
- Industry should not bear all costs
    - Caution: investment in science to maintain knowledge in order to face international organizations – DFO responsibility
- Sealers can't defend themselves when attacked by multi-national organization
- DFO has rep to provide science/advice to ensure proper management sustainability of resource. Not responsibility of industry
- If too confrontational, maybe a separate meeting between scientists and those that oppose the hunt.
- A co-management approach with DFO. DFO should not reduce its involvement and thus contribute to increasing incertitudes
- Prudent approach. No total confidence in DFO

Question 2.1 Seal Predation (Harp/Hooded/Grey Seals)

- Need to distinguish between predation and eating dead fish (scavenging).
- Ecosystem impact of seals should be looked at. More study.
- Exclusion zones (No!)
- Never approved hunt, seals to save cod. Both are part of ecosystem
- Growth of cod is caused by shortage of food not seal predation

Question 3.1 Veterinarians' Recommendation #1: 3-Step Killing Process

Question 3.2 Veterinarians' Recommendation #2: Confirmation of Death

Question 3.3 Veterinarians' Recommendation #3: Shooting Seals in the Water

Question 3.4 Veterinarians' Recommendation #4: Amendment to Regulation

- Sealers' safety paramount
- Important to bleed for quality of pelts
- Simple process to depress skull to verify consciousness

- Difficult to apply in a competitive environment
- Problems of perception by observers. Verifying skull will help perception.
- If seal has filled its lungs with air, you have time to recuperate carcass
- Seals killed by rifle float (beaters/pups) and are always dead (high powered rifle used)
- A regulation to prohibit shooting seal in water would be very damaging to industry (season delay, movement and disappearance of ice)
- Do not support this recommendation
- Activists groups have provoked this situation. Regulations (hunting beaters rather than "blanchon") has hunters to hunt when the seal returns to water.
    - We don't hear any protest on the millions of deers killed in the USA by rifle every year.
- Bleeding: disagrees because of image of blood on the ice

Question 3.8 Seal Fishery Observation Licences

- Can we eliminate them?
- Answer: no, the Supreme Court has ruled. We can set regulations and we have
- Neutral observers to verify proper rules are observed (some are already provided)
- Cost would be a factor here for small boats
- No difference between beaters and bluebacks. Trying to open blueback hunt for years. Would like to see it open.
- Might not be consistent with precautionary approach.
- Harvesters Iles de la Madeleine
    - Agree with changes in regulations
- The government of Canada should do more to support the hunters/industry to show a true picture of hunt. This would contribute to balance points of view.

Notes from Group 2 facilitated by Rick Williams

Question 1.1 Objectives Based Fisheries Management (OBFM)

- Need to take account of predation
    - 70% of 5.8 million is wrong. This is too high a reference point
- Fully support OBFM
    - Need to harmonize with recovery plan for cod
    - Need to manage on ecosystem basis (OBFM model based on single species)
- No support on cull
- Should take only as many young seals as the market will stand
- The goal should be to bring down total population of seals through optimal market based harvest of young seals
- Objectives
    1. Reduce overall population
    2. Do it gradually
    3. Market led

4. Adjust to new info re cod recovery

Question 1.2 Impacts of Hunts on Harp Seal Populations Since 1996

- OK

Question 1.4 Carry-Over Options

- Status quo

Question 1.6 Hooded Seal Management Model

- PBR

Question 1.7 Grey Seal Management Model

- Go with PBR
- Need more research for ecosystem purposes

Question 1.8 Duration of Harp Seal Management Plan

- Preference for 3 years

Question 1.9 Duration of Hooded Seal Management Plan

- 3 years

Question 1.10 Duration of Grey Seal Management Plan

- Annually until there is sufficient data

Question 1.11 Frequency of Consultations

- 3 years
- Harmonize with management plans

Question 1.12 Extent and Nature of Future Consultations

- Status quo

Question 1.13 Funding for Additional Management and Science

- Mix of views

Question 2.1 Seal Predation (Harp/Hooded/Grey Seals)

- Support ecosystem based management
- Not in favour of cull
- Ongoing adjustment of management plans based on new workplan

Question 2.2 Other Eco-System Considerations

- May need to adjust management plan re global warming
- Seal worms
- Need more research

Question 3.1 Veterinarians' Recommendation #1: 3-Step Killing Process

- OK within appropriate safety concerns
- Support in principle
    - Need clarification of enforcement issues
- Related to reducing competition on the ice

Question 3.2 Veterinarians' Recommendation #2: Confirmation of Death

- OK

Question 3.3 Veterinarians' Recommendation #3: Shooting Seals in the Water

- Issue is struck and lost
- DFO will review
- Industry not supportive in general be aware of impact on certain sectors

Question 3.4 Veterinarians' Recommendation #4: Amendment to Regulation

- OK

Question 3.5 Number of Sealing Licences & Questions 3.6 Collector Vessel Licences

- Resistance to use of large vessels
- Will increase competitiveness on the ice
- Will rapidly spread
- Will contribute to processing carcasses
- Could improve management, etc.

Question 3.8 Seal Fishery Observation Licences

- Increase distance

Question 3.9 Changing the Regulations on Bluebacks

- Bluebacks
- Potential problems outweigh benefits
- Divergent views

Notes from Group 3 facilitated by Lesley Griffiths

General Comments/Questions at Beginning of Session

- What role do market studies play in managing the seal hunt?
- As well as carrying out stock assessments, DFO should be doing socio-economic analysis: markets, employment, effects on communities etc.
- Currently seal pelt markets are very healthy but high prices are starting to affect demand. If seal prices climb much further won't be able to compete with mink.
- There is some demand for seal oil but the markets need development.
- The supply of seals coming into the market from Norway and Russia will increase significantly over the next few years.
- In PEI reports of negative feedback from eco-tourists regarding high seal populations (e.g. not being able to access beaches, encountering carcasses of dead seals in the water).
- Do ecosystem considerations (especially impacts on other commercial species) play a part in determining a sustainable population target for grey seals?
- Must consider effect of hunt on other species.
- Independent observations of grey seal populations differ from DFO assessments.
- DFO needs to gather input from the fishing industry before setting reference levels.

Question 1.1 Objectives Based Fisheries Management (OBFM)

- OBFM acceptable but concerned about the data used to establish levels, the process behind OBFM, and the issues taken into consideration.
- Specialists with expertise on other species should be involved in process.

- Roll in other information — ecosystem, socio-economic and markets.
- Concern about trying to aim for a "straight-line target" (consistent sustainable population) in light of significant fluctuations in the natural environment.
- Agree with OBFM but reference levels shouldn't necessarily go up if population increases.
- Moratoriums (proposed control measure at NLim) should be avoided if at all possible because they result in a loss of data.
- OBFM should be required for other commercial species as well.
- General agreement with precautionary principle approach.
- Must do ecosystem analysis first.
- But do we have the tools, data and resources to accomplish this now? Multi-species analysis is very complex, and introduces greater uncertainty. Atlantic Seal Research Project is helping to diversify knowledge and issues taken into consideration.
- Industry can help to provide the broader ecosystem information. Surveys should be carried out in collaboration with industry.
- Must analyze the parasite effect of grey seals.
- Historical harp population levels used to be around 4 million. Now N70 is set at 4 million. This seems high?
- Confidence that N70 is a safe level. When the seal population went down to 2 million it did recover effectively.
- The sustainable population target should be somewhere between 2-4 million. 5.8 million is too high.
- Reducing seal predation is a legitimate objective to build into planning the seal harvest.
- When quotas were first sought on the early 70's the goal, from a market perspective, was to sustain a population of 3.5 million. That was adequate. Do mot need over 5 million.
- Have to keep in mind the political reasons behind target levels (maintaining a high seal population may placate some negative public opinion.)
- Other countries manage their seal populations with other fisheries objectives in mind.

Question 1.2 Impacts of Hunts on Harp Seal Populations Since 1996

- TACs in the last plan were too low (sealer perspective)
- TACs were appropriate (from a market perspective)
- Canadian Sealers Association takes position that the TAC should be linked to market demand but there should also be some flexibility year to year.
- Bear in mind that some groups opposed to the hunt will never be satisfied, no matter how low the TAC is set.

Question 1.3 Total Allowable Catch (TAC) Options

- Length of plan: 5 years is based on the stock assessment interval but 3 years would allow for a swifter response to changing circumstances.
- Need to avoid negative communications impacts. Total number of seals to be taken over 5 years sounds too massive.
- So, set longer targets but announce TAC annually.
- Or have multiple year TACs but present them differently.
- Suggest a 5 year plan but with review and revisions if necessary at 3 years.
- General agreement around a TAC of 350,000 annually with yearly adjustments.

- Taking 400,000 next year (for one year) would reduce pelt prices and help the market.
- The TAC should be managed with an objective of reducing the seal population.
- A higher TAC could make room for a better share system (e.g. regional shares) which could then be managed to reduce competitiveness in the hunt, and improve safety and quality.
- Manage the season to get the best pelt prices.
- NE Atlantic (Norway, Russia) seal stocks are about half the size of Canadian stocks.

Question 1.4 Carry-Over Options

- General agreement that 10% is reasonable.
- But a lower catch one year could be the result of a depressed market, so a much larger catch the following year could be a problem.
- Big boats get their quota fast. Smaller boats take longer. If the season is closed early the small boat sector is penalized.

Question 1.5 2006 Total Allowable Catch (TAC) Options

- 400,000 for one year would be acceptable; 500,000 too high.
- But there are questions about the impact of such an increase.
- 350,000 a year has not harmed the population so far.
- Can the market deal with swings of this order? (Answer, yes).
- Market is at more risk from prices going to high.
- Keep TAC in the 300-400,000 range and avoid big jumps.

Question 1.6 Hooded Seal Management Model

- DFO should drop the curt case and manage hooded seals in the same way as harp and grey.
- Fishers have observed a large population increase, around 75%.
- If species is really data poor, it should be managed on an iterative basis (reference to FAO report).
- Open the hunt in 2006. DFO doesn't need a new count in order to set a modest TAC of 10,000.

Question 1.7 Grey Seal Management Model

- Parasites carried by grey seal causing mortality in juvenile cod.
- Growing grey seal predation on many other species.
- Grey seal are crowding out harbour seal on Sable and elsewhere.
- Start a commercial harvest and discuss what the target level for a sustained population should be.
- Grey seal are having big impacts in the southern Gulf as well. For example, damaging the bait fishery, smashing lobster traps and eating part of the lobster, ruining nets in the herring fishery, affecting smelt and silverside fishery.
- On the Northern Peninsula, grey seal are feeding much closer inshore than they used to.
- Starting to see the spread of grey seals to the Bay of Fundy with associated impacts on fish.
- Grey seal target liver and gonads, discard the rest of the fish.
- They are starting to pup n other islands, not just Sable. the Fishermen Scientists Research Society is doing a survey of pupping locations. Often have to land on the islands to find the pups in the grass, can't be seen just steaming by.

- The target population level for greys should be 50% of the highest known population. Achieve this over 5 years.
- There is a market for young grey seal pelts.

Question 1.8 Duration of Harp Seal Management Plan

Question 1.9 Duration of Hooded Seal Management Plan

Question 1.10 Duration of Grey Seal Management Plan

- Not discussed in depth. General agreement that 5 years with an annual TAC was acceptable in each case.

Question 1.11 Frequency of Consultations

- Advisory Committee should be formed for grey seals and should meet annually.
- A Seal Forum held every three years could act as a mid-way review for a five year plan. Or plans could be set for 3 years.
- Five year plan with a forum at 3 years to promote seamless transition.

Question 1.12 Extent and Nature of Future Consultations

- More opportunities for individual sealers to participate. Get the small boat sector involved. Needs more publicity.
- Involve industry in planning consultations. Should be similar to consultations in other fisheries.
- Industry needs an opportunity to meet alone first before involving external interests.
- More money should be spent on promoting benefits of industry (economic, ecological, social).
- Movement from dealing with seal harvest as “hunt” to “fishery” tends to exclude sealers who are not represented by fishing organizations.
- Arguments about the ecosystem impacts of a large seal population and the social benefits of the hunt are not getting out.
- Buyers, processors are already operating on an international level.
- Presence of international protest movement will not help constructive discussions.
- Organizational capacity of industry organizations in the fisheries are already being stressed.

Question 1.13 Funding for Additional Management and Science

- How much is already invested today? Need information on cost effectiveness. Depending on results could consider suitable participation in research process.
- Cancel the Gun Registry. Redirect the funds to DFO Science.
- What joint projects will come out of the $6.2 million allocated for DFO research? Government money could leverage industry money in some cases.
- For example, lobster fishers in SW Nova Scotia are donating boat time and labour for lobster research.
- Need a structure to determine what resources would be used for.
- Cost of a population survey is around $1to 1.1 million. More frequent surveys might help industry by permitting a higher TAC.
- Are there more cost effective ways to obtain population data? For example, logbooks?
- DFO needs to secure more government money for Science.

Question 2.1 Seal Predation (Harp/Hooded/Grey Seals)

- The cod rebuilding strategy for 4T calls for a Science-monitored grey seal cull.
- A paper prepared for 4VW and 4VN (Halliday, Lock) addresses the impact of grey seal worm.
- Their territory is expanding in Western Nova Scotia. The goal should be to halt this spread and then roll it back.
- On the Quebec North Shore the grey seal population has doubled.
- Research on parasite effects needs to be done by independent scientists because DFO research will not have international credibility.
- Need good research on the extent of predation, how many fish are taken and in what age groups.
- Stomach content studies that focus on bones may underestimate impacts. Seals target high protein fish parts (liver, gonads) which are then quickly absorbed.
- Need an inventory of all relevant studies carried out so far.
- Should also collect anecdotal information from industry.
- Study the effects of large numbers of grey seal swimming on fish spawning grounds. Must reduce spawning success.

Question 2.2 Other Eco-System Considerations

- Climate change. May increase the effects of seal predation.
- If OBFM used a comprehensive ecosystem approach, these issues would be covered.

Question 3.1 Veterinarians' Recommendation #1: 3-Step Killing Process

- Participants didn't think 3-step was relevant to the majority of the hunt carried out by rifle.
- The 3 steps would tend to slow the hunt and decrease hunter safety.
- Need to be consistency between requirements for the commercial and for nuisance permits.
- Training is very important.

Question 3.2 Veterinarians' Recommendation #2: Confirmation of Death

- Not discussed

Question 3.3 Veterinarians' Recommendation #3: Shooting Seals in the Water

- Veterinarian recommendation not accepted.
- Small boat hunt almost entirely in the water. Also northern Aboriginal hunt.
- Young animals don't sink.
- Recommendation should read "shouldn't shoot in circumstances when it is possible the carcass cannot be retrieved".

Question 3.4 Veterinarians' Recommendation #4: Amendment to Regulation

- General agreement with recommendation

Question 3.5 Number of Sealing Licences

- Problems with part time license holders not otherwise employed in the fishing industry,
- Sealing has been part of the way of life in communities for generations and now sealers can't take family members out to act as helpers or observers unless they have a license. How can they pass on an understanding of the hunt?
- Inactive licenses are not a problem, they aren't harming the stocks. Some holders are forced to be inactive for various reasons. Shouldn't take their licenses away from them.

- A recent consultation in the Magdalen Islands found agreement with concept of a freeze, but still needs to be some way to provide access for young people.
- Give each region a share of the TAC and let them manage licenses locally.
- Licenses should be linked to the fishing industry.
- Freeze should not apply to helpers. Hard to get crew for small boats.
- "Place" is important. Sealing important role in sustaining communities. Licensing system does not reflect this.
- In some instances, with downturn in other fisheries, sealing provides 50% of family income.
- Canadian Sealing Association agrees with temporary freeze. Revisit in 2-3 years. Apply to all sectors.
- Should not be a freeze applying to the grey seal hunt.
- In Labrador many boats finding it hard to get crews for boats because level of participation in sealing had dropped over the years (problems getting seals to market?)
- Every region has its particular issues/needs. The system needs to allow for this.
- Currently no requirement to register boats under 35'. Large boat fleet gets their share and then switches t smaller boats. This needs to be fixed.

Questions 3.6 & 3.7 Collector Vessel Licences

- Not fully discussed. Agreement that it would be worked out through Advisory process.
- Discussion about difference between using larger vessels for reefing or for transportation to ports.
- Labrador may need them to transport pelts down the coast.

Question 3.8 Seal Fishery Observation Licences

- Needed to control observers but not sure they would hold up in courting all respects.
- Should there be some orientation/training for observers?
- Stricter penalties.
- Forbid cameras.
- Restrict numbers, increase distance requirements.
- Require observers to be accompanied by a licensed sealer (but question about the Charter of Rights).
- Grey seal hunt would use high powered rifles in a rocky environment. Concerns about ricochet danger for both hunters and observers.

Question 3.9 Changing the Regulations on Bluebacks

- Change regulation and integrate into management plan.

Question 4 Other

- Regional share to reduce competitiveness, improve quality and safety.
- Initiate formal process with Greenland to address management of stocks.
- Adjust regional opening dates.

Notes from Group 4 facilitated by Sue Calhoun

Question 1.1 Objectives Based Fisheries Management (OBFM)

Our group saw this as being two questions in one. In principle, people supported the OBFM model for managing the harp fishery. They didn't necessarily agree with basing reference points on a population of 5.8 million. Some thought there needed to be more discussion regarding what level of sustainable harvest we would like to see. What are our goals when targeting sustainable harvest (re population size)?

Question 1.2 Impacts of Hunts on Harp Seal Populations Since 1996

A couple fishers said it was set too low. Some processors said it was appropriate. Discussion re what the market could bear, it was important to keep that in mind. A few people were new to the game and didn't really know how to respond to this question. Couple processors asked about the feasibility of adjusting the TAC on a yearly basis in terms of what the market looks like.

Question 1.3 Total Allowable Catch (TAC) Options

325.000 per year based on a three-year plan. Again, some discussion re the size of the population. The group made this decision based on an understanding that at this level, over three years, the population size would diminish slightly to 5.5. Some discussion that reducing the population more than this might be perceived negatively by media/general public.

Question 1.4 Carry-Over Options

Lot of discussion about this one. The general feeling of the group was that they didn't want people to go over the quota in year one but if it wasn't caught, they wanted the flexibility to catch it in year 2 or 3, although with limits. For example, between 10-20% of total TAC. i.e., they didn't want to see 150,000 taken in year 1, and people thinking that meant they could take 325,000 plus175,000 in year 2. They also didn't want to see 350 (or more) taken in years 1 and 2, with only 275 left for year 3. That would have detrimental impact on the stock but also on markets. So our group spoke more in terms of "catch-up" rather than carry-over, in this sense.

Question 1.5 2006 Total Allowable Catch (TAC) Options

No.

Question 1.6 Hooded Seal Management Model

Agreed with PBR. General agreement with the "data poor" status, need for more research.

Question 1.7 Grey Seal Management Model

Big discussion on bluebacks. (We came back to that later under section 3). Agreement that it's data poor but would like to see it data rich. Fishers spoke about abundance, impact on lobster fishery, the need to do something.

Question 1.8 Duration of Harp Seal Management Plan

Three years.

Question 1.9 Duration of Hooded Seal Management Plan

Three years.

Question 1.10 Duration of Grey Seal Management Plan

Three years.

Question 1.11 Frequency of Consultations

Every three years, although it would also be important to be consistent with length of management plan.

Question 1.12 Extent and Nature of Future Consultations

Discussion was more around the second question here, who should be invited. There is a benefit of not having the animal welfare groups present (i.e., reasonable discussion) although from a pr point of view, they should be invited. They should be allowed to express their opinions although

not put in a situation where people have to argue/debate with them. That is relatively useless. General feeling that international groups should be invited only if they have a Canadian presence.

Question 1.13 Funding for Additional Management and Science

Adamant NO. Discussion re various ways to do this (i.e., add $5 to license) but people don't want industry or the fishers to have to pay. Only one person used an example of a herring fund there, as a way it could be done and he was in favour.

Question 2.1 Seal Predation (Harp/Hooded/Grey Seals)

Question 2.2 Other Eco-System Considerations

Didn't get into for time reasons. Asked that people with strong opinions send them in.

Question 3.1 Veterinarians' Recommendation #1: 3-Step Killing Process

There was a lot of strong discussion on this one, defensiveness on the part of the sealers who are professional and "know what they're doing." In general, people not opposed although raised issues such as how would it be enforced; who would train people to do this?' worker safety; "a good sealer will do this anyway."

Question 3.2 Veterinarians' Recommendation #2: Confirmation of Death

Same discussion, support.

Question 3.3 Veterinarians' Recommendation #3: Shooting Seals in the Water

A veterinarian adviser was in the group and agreed to change the wording to drop "in the water", so it would read "…believe that seals should not be shot in any circumstance when it is likely the carcass cannot be recovered." Dunn admitted that this recommendation focused really on club/hakapik hunt and that the vets group didn't know much about the rifle hunt.

Question 3.4 Veterinarians' Recommendation #4: Amendment to Regulation

Yes

Question 3.5 Number of Sealing Licences

This was too vague to have any opinions about. How would this be done? What would the mechanism be?

Question 3.6 Collector Vessel Licences

NO…no need to have a middleman collecting seals, he would expect to be paid too. Vessel may not be close enough to where you want/need it to be.

Question 3.7 Collector Vessel Licences

YES.

Question 3.8 Seal Fishery Observation Licences

YES…not allowed except for when they're there to collect valid scientific data. Regardless of what Supreme Court said, people want it closed and observers forbidden. Right for sealers to conduct their livelihood without harassment/interference. Possibility of someone being seriously hurt some time.

Question 3.9 Changing the Regulations on Bluebacks

YES. Support for a blueback hunt with a set closure i.e., after they're weaned.

Question 4 Other

None.

APPENDIX B – FORUM AGENDA

AGENDA
NOVEMBER 7 AND 8, 2005
DELTA ST. JOHN'S HOTEL AND CONFERENCE CENTRE, ST. JOHN'S, NL

OBJECTIVE *- The purpose of the Seal Forum is to consult with stakeholders and interest groups on the development of a new multi-year seal management plan.*

MONDAY, NOVEMBER 7, 2005

07:30 – 08:30	Registration for participants and observers
08:30 – 08:45	Opening Remarks and Introduction of Forum Facilitators Kevin Stringer, Director General, Resource Management Fisheries and Oceans, Ottawa
08:45 – 09:00	Overview of the 2003-2005 Seal Hunt Management Plan Ken Jones, Senior Fisheries Management Officer Fisheries and Oceans, Ottawa
09:00 – 09:30	Science Presentation Drs. Mike Hammill / Garry Stenson, Science Fisheries and Oceans
09:30 – 10:00	Presentation by the Independent Veterinarians' Working Group on the Canadian Harp Seal Hunt Dr. J. Lawrence Dunn, VMD
10:00 – 10:20	Coffee break
10:20 – 10:30	Introduction to Workshops
10:30 – 17:00	Break-out Workshops

TUESDAY, NOVEMBER 8, 2005

08:30 – 10:00	Overview Report on Workshops
10:00 – 10:20	Coffee break
10:20 – 12:00	Plenary Session and Q&A with Resource Panel
12:00 – 13:00	Lunch
13:00 – 15:00	Plenary Session and Q&A with Resource Panel (cont.)
15:00 – 15:15	Closing Remarks

APPENDIX C – LIST OF PARTICIPANTS

Seal Forum Attendee List - November 7-8, 2005

Paul Boudreau	Madelipêche
Jérémie Cyr	Association des pêcheurs propriétaires des Iles-de-la-Madeleine
Robert Lebouthillier	New Brunswick fisher/sealer
Ken Budden	Fogo Island Fishermen's Cooperative Society
John Kearley	Carino Company Ltd.
Monty Gould	Newfoundland sealer
Everett Roberts	Newfoundland sealer
Marc Rumbolt	Newfoundland Department of Fisheries & Aquaculture
Ben Foley	Newfoundland sealer
Alan Herscovici	Fur Council of Canada
Alexis Lalo	Atshiuk Inc.
Deborah MacKenzie	Grey Seal Conservation Society
Alastair O'Reilley	Canadian Center for Fisheries and Innovation
Gord Rice	Newfoundland sealer
Mark Small	Northeast Coast Sealers Cooperative Society Ltd.
Keith Watts	Torngat Fish Producers Co-operative Society Ltd.
Ronnie Heighton	Northumberland Fishermen's Association
Rick Bouzan	Outdoor Rights Conservation Association
Frank Chopin	Innovative Fishery Products
David Decker	Fish, Food and Allied Workers
Denis Eloquin	Regroupement des pêcheurs professionnels des Îles-de-la-Madeleine
Bernard Guimond	Les Produits du Loup Marin Ta Ma Su Inc.
Marc Allard	Société Makivik
Edgar Coffey	Quinlan Brothers
Robert Courtney	North of Smokey Sealers Co-op
Martin Duchesne	Atlantic Marine Products
Franz Kesick	Native Council of Nova Scotia
Marty King	World Wildlife Fund Canada
Patrick McGuinness	Fisheries Council of Canada
James Morgan	Rural Rights & Boat Owners Association Newfoundland & Labrador
Frank Hennessey	Prince Edward Island Groundfishers Association
Robert MacInnis	Gulf Fisheries Groundfish Association
Glenn Best	Fogo Island Fishermen's Cooperative Society
Jean-Richard Joncas	Association des pêcheurs côtiers polyvalents
Eugene Lapointe	IWMC World Conservation Trust
Leah Lewis	Innovative Fishery Products
Shannon Lewis	Northeast Coast Sealers Co-op
Wayne Lynch	Government of Nunavut
Albert Newhook	Canadian Sealers' Association
Stanley Oliver	Labrador Inuit Association
Keith Smith	Canadian Sealers' Association
Jim Winter	Fur Institute of Canada
George Walsh	Sea Water Products
Roger Sark	Abeqweit First Nation
Dr. Pierre-Yves Daoust	Atlantic Veterinary College U.P.E.I. / Independent Veterinarians' Working Group on the Canadian Harp Seal Hunt
Dr. Lawrence Dunn	Mystic Aquarium (Mystic, CT) / Independent Veterinarians' Working Group on the Canadian Harp Seal Hunt
Andrew Fequet	Lower North Shore Community Seafood Co-op
Rob Cahill	Fur Institute of Canada
Roch Beaudin	Conseil de Bande des Montagnais de Unamen Shipu
Glenn Clarke	Minister Efford's office
Claude Pottle	Atlantic Marine Products
Deon Dakens	Barry Group Inc.
Carl Hedderson	Fish, Food and Allied Workers
Amalie Jessen	Department of Fisheries and Hunting, Government of Greenland

Senator Lorna Milne	Senate of Canada
Henri-Fred Poirier	Regroupement des pêcheurs professionnels des Îles-de-la-Madeleine
Kevin Richard	La Romaine First Nation
Don Steele	Natural History Society of Newfoundland
Dwight Spence	Newfoudland sealer
Robert Thériault	Regroupement des pêcheurs professionnels des Îles-de-la-Madeleine
Ray Wimbleton	Newfoudland sealer
Patrick Polchies	Kingsclear First Nation
Clary Reardon	Nova Scotia Department of Agriculture & Fisheries
David Wells	Seafood Processing Consultants
Raymond Newman	Canadian Sealers' Association
Wade Barney	Wade Barney Inc.
Wilfred Bartlett	Newfoundland fisher/sealer
Bert Dean	Nunavut Tungaavik Inc.
Frank Flynn	Labrador Fishermen's Union Shrimp Co. Ltd.
Ed Frenette	Prince Edward Island Fishermen's Association
Paul Glavine	Newfoundland Department of Fisheries & Aquaculture
Gabe Gregory	Fisheries Resource Conservation Council
Pierre Bédard	Ministère de l'Agriculture, des Pêcheries, et de l'Alimentation du Québec
Donald Arseneau	Ministère de l'Agriculture, des Pêcheries, et de l'Alimentation du Québec
Barry LaBillois	New Brunswick Aboriginal Peoples Council
Paul Lamoureux	Seal working group, Îles-de-la-Madeleine
John Levy	Grey Seal Research and Development Society
Denny Morrow	Nova Scotia Fish Packers Association
Paul Nadeau	Association des pêcheurs de la Basse Côte-Nord
Knut Nygaard	Carino Company Ltd.
Frank Pinhorn	Canadian Sealers' Association
Dean Russell	Seacrest Limited
Claude Rumbolt	Labrador Métis Nation
Fereidon Shahidi	Memorial University of Newfoundland
Karl Sullivan	Barry Group Inc.
Chris Milley	Mi'kMaq Confederacy of Prince Edward Island
Rita Anderson	Natural History Society of Newfoundland
Bill Barry	Barry Group Inc.
Colin Waterman	Canadian Sealers' Association
Derrick Butler	Association of Seafood Processors
Tina Fagan	Canadian Omega-3 Manufacturers Association
Calvin Francis	Federation of Newfoundland Indians
Kenneth MacLeod	Prince Edward Island Fishermen's Association
André Rail	
Tony Mansbridge	

<u>Fisheries and Oceans</u>

Ken Jones	Garry Stenson
Kevin Stringer	Sylvette LeBlanc
Grace Mellano	Patrice Simon
Brianne Rossi	Judy Guest
Larry Yetman	Michel Plamondon
Jerry Conway	Andrea Asbil
Frank Ring	Michel Thérien
Roger Simon	Kim Penney
Patrick Vincent	Don Bowen
Mike Hammill	Paul Cahill

APPENDIX D - COMMENTS RECEIVED AFTER THE FORUM

The following organizations provided additional comments after the Seal Forum:

- Canadian Sealers' Association
- Grey Seal Research and Development Society
- Innovative Fisheries Products Inc.
- Labrador Inuit Association
- Newfoundland and Labrador Wildlife Federation
- World Wildlife Fund Canada
- Grey Seal Conservation Society

Canadian Sealers Association

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November 24,2005

Mr. Larry Yetman
Staff Officer
Marine Mammals
Department of Fisheries and Oceans
St. John's, NL

Dear Mr. Yetman

As you are aware over the past couple of months, I have conducted consultation meetings with our members at about twenty selected communities around the province including two in Labrador. The following generally summarizes our position on the new management framework being considered by your Department.

1. License Freeze: There is general agreement on a license freeze over the short term but it should be applied to all user groups. There may be a need to revisit this issue sometime in the future.

2. Number of Participants: Sealers agree there are too many licenses and over time through attrition the number will decline.

3. Seasonal Permits: There is agreement on seasonal permits however most agree on no more than two per vessel so that proper training could take place.

4. Sealing Enterprises: There is a lot if uncertainty about this concept and more information and detail is required to evaluate its merits.

5. Vessel Registration: This needs to be implemented as soon as possible for all vessels

6. Training for Sealers: Not much support for this but it may have some benefit for new sealers.

7. Transport of Seals: Only for vessels less than 65 feet from port to port and properly documented by DFO officials.

8. Allocation Options: Should be based on historic catch levels with traditional sharing arrangement between Gulf and Front. Sealers are concerned about the problems between the Northern and Southern Gulf and the need to control the over runs in the Gulf. It is simply not acceptable to let these problems continue and for other regional seal quotas to be inadvertently taken to cover these over runs.

9. Individual Quotas: There is no support for this concept

10. Mobility: Most sealers support the status quo on this issue

11. Opening Dates: There is agreement on opening dates however the early opening date in the Gulf causes quality problems for the sealers in the Northern Gulf. This is especially true for sealers in Cape Bauld – Boat Harbour area.

12. Aboriginal and Special Projects Quotas: There is no support for such allocation

Others:

Hoods: Sealers want a harvest of beater hoods similar to the harvest for beater harps

Insurability of Seal Earnings: There is increasing demand by sealers to have income generated from sealing to be insurable.

Observer Coverage: Should apply equally to both Front and Gulf and selected vessels should be properly notified so that they can prepare for the observer on board their vessels.

Sealing south of Cape Bonavista: Normally seals come into this area in the period May-June and the closing date should reflect this.

The foregoing generally provides comments received at the regional meetings. If you have any questions or would like to discuss, please let me know.

Sincerely

FPinhorn
Managing Director
CSA

From: Denny Morrow [fishpackers@klis.com]
Sent: Friday, November 25, 2005 10:45 AM
To: rossib@dfo-mpo.gc.ca
Cc: StringerK@DFO-MPO.gc.ca
Subject: Grey seal mangement vs harp seal management

To: Brianne Rossi and Kevin Stringer
From Denny Morrow (Secretary/Treasurer - Grey Seal Research and Development Society)

I was pleased to see so much discussion around grey seal ecosystem impact issues during the recent Seal Forum in St. John's. I would like to submit a summary of my thoughts for additional consideration. I hope that it is not too late.

(1) Ecosystem Impact Knowledge (especially in regard to certain species of groundfish). The recent "Recovery Strategy Reports" for **4TVn, 4VsW** and 4Vn cod have highlighted certain grey seal impacts that may be preventing any recovery. DFO science seems to minimize the impact by concentrating on some research data that suggests that cod only accounts for about 2 - 3% of a grey seal's diet. In Iceland, where cod stocks are abundant and healthy, the estimate is that cod comprise more than 20% of grey seal diet. The low percentage in our waters is a reflection by the low biomass of cod. It seems silly to suggest that a 2 -3% diet amount when stocks are in such poor state is having little impact on efforts to rebuild these stocks.

There are other possible impact issues that are being ignored.
(1) Seal worm infestations have increased in cod and other species to where **4T, 4vn, 4vw** and eastern **4x** cod (and other species) is "slinky", undersized and almost impossible to process economically. Gary **MacLelland** (DFO **Science/Moncton)** concluded in the late 90's that the infestation in American Plaice on Sable Island Bank had reached the level in juvenile fish that natural mortality was likely occuring. He suggested that loss of nutrition in a harsh environment and sluggishness resulting from the anesthetizing effect of waste ketones released by the worms in the blood was likely limiting the fish's ability to capture prey or to avoid predators were factors contributing to the unexplained high natural mortality level with this fish. Icelandic scientist, Erlingur Hauksson, suggested the same conclusion to me when I was in Iceland to discuss grey seal impacts and mangement issues three years ago. Cod are likely suffering the same impact as American Plaice on Sable Island Bank as discussed in Gary **MacLelland's** research papers.

The seal worm infestation is spreading as the herd increases in numbers and extends its territory westward. We still have a groundfish industry in western Nova Scotia, but it is increasingly difficult to find "clean" groundfish and the **"slink"/"undersize"** condition is moving westward in **4x** for some groundfish species.

The 4T cod recovery report doesn't even mention the impact of the seal worm infestation. One SW Nova processor reported to me this summer that cod from 4T and 4Vn purchased this summer for processing was infested to the point that the fillets were "walking across the work tables". These fish was generally "slinky" with poor yield. How can we expect fish in such a condition to rebuild? The **4vw** and 4vn cod recovery report does emphasize the possible impact issue presented by the seal worm infestation.

(2) Cod behavior change in relation to the high incidence of predators - You will remember Captain Bartlett at the Seal Forum talking about how he was forced to fish for cod at depths at which harp seals can not dive after harp seals would arrive on the fishing grounds in large numbers. Cod like most species react to the presence of natural predators by fleeing to safety. It may very well be that cod and haddock avoid grey seals by fleeing to colder, deeper water where the natural food supply is absent or much less present and this is a contributing factor to poor condition. It may also be that cod are not able to aggregate for spawning on the shallow banks where spawning has historically taken place due to the presence of large numbers of grey seals. This may be an important contributing factor to the low recruitment of cod and the small **size/poor** condition of haddock in the area covered in these reports since the late 80's.

Grey Seals, unlike harp seals, are present on our fishing grounds the year round.

(3) Grey Seals, unlike harp seals that migrate north during the spring and summer, are present year round and

thus are more destructive to fishing gear and commercial fising. The current historically high grey seal population has destroyed the herringlmackerel bait fisheries in many areas of Cape Breton and Eastern Nova Scotia. Gill net fishermen on Nova Scotia's South Shore report the same kind of destruction as the population spreads westward. Lobster fishermen from Cape Breton to the South Shore report grey seals feeding on undersized lobsters that must be returned to the water by fishermen. Halibut fishermen constantly report hooks being stripped and halibut being torn apart by grey seals as they are pulled in. The current high population level of grey seals is affecting the livelihoods of fishermen and plant workers all along our coast line to a level that has previously never been seen.

(4) The sustainable population level for grey seals on the Scotian Shelf and in the Gulf should not be at the present highest historical levels. A reduction to 50% of the present level would still be high by historical accounts and would allow scientists and the fishing industry to monitor the ecosystem effects resulting from such a reduction without endangering the herd. DFO has to stop avoiding the fact that the grey seal herd growth is having an impact on commercial species like cod and on the livelihoods of fishermen and plant workers. The impact of grey seals is likely greater than that of harps for the reasons suggested above.

(5) The recent cod recovery reports suggest action to reduce the grey seal impact in order to monitor the impact on rebuilding these stocks. I would add that if the "malaise" affecting this stock (and others) on the eastern Scotian shelf and in the Gulf continues to spread westward, then a similar paper will soon have to be written for **4x.**

(6) DFO and the industry should adopt harvest management policies and regulations that fit grey seals, and not try to apply harp seal regulations and policies to this new fishery. Greys have different habits than harps and the commercial products will have some differences. The harvest of greys will mostly occur along coastal and island shorelines, possibly over a more extended time period. Instead of a competitive "derby" type harvest, the allocation to the Grey Seal Society will allow the Society to manage the harvest and the sealers in a way that is not possible with harps in the Gulf or on the Front. We will also encounter problems that will be unique to greys and to our harvest locations.

At this time, market interest in grey seal juvenile pelts is high. We also are seeing some interest in buying meat for export to Asian markets. Fishermen are contacting the Society to inquire about training that the Society is organizing.

Finally, I would suggest that an industrylscience workshop on grey seal ecosystem impacts and research issues should be considered before adopting the target population level suggested in the Seal Forum Grey Seal Report (maintain at current high historical level on the Scotian Shelf and in the Gulf). The recent cod recovery reports point to the urgency of the population target issue.

Respectfully submitted.

INNOVATIVE FISHERY PRODUCTS INC.

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November 18,2005

Ken Jones
Senior Fisheries Resource Management Officer
Fisheries and Oceans Canada
RESOURCE MANAGEMENT BRANCH - ATLANTIC
200 Kent Street
Ottawa, K1A OE6

Seal Forum Workshops - Grey *Seals*

Dear Ken:

Thank you for the opportunity to participate in the Seal Forum and Seal advisory working group meetings. It was indeed a good opportunity to bring all persons involved in various Canadian seal fisheries together.

From our perspective, we learned a lot about what is happening in the harp seal fishery and were able to communicate our views on developing the grey seal fishery with a broad spectrum of stakeholders. However, bringing together these two, quite distinct fisheries under the same banner created some confusion. Each fishery is in a different stage of evolution, involves separate fishing fleets and require different management philosophies. This problem was compounded when many of the questions in the workbook lacked precise objectives (*"what specific problem are we trying to resolve?"*) and clear rationale in the summary responses. I raise this issue because should the grey seal fishery fall prey to the effort control measures proposed for the harp seal fishery, the grey seal fishery would be unfairly and inappropriately restricted.

Our grey seal industry representatives brought these differences to the attention of the various moderators and tried to ensure that responses for grey seals were not confused with the harp seal responses. However, in the wrap up sessions such differences were not conveyed to the workshop participants.

I am sure you and the other DFO managers were aware of this disconnect. And since the majority of the participants and the problems were associated with the harp seal fishery, it was only just that this fishery was the focus of the summary presentation.

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Nevertheless, in order prevent this confusion from negatively impacting the development of our grey seal fishery, we have clarified our grey seal industry position on specific effort control issues. We trust that these comments will be reflected in any published reports.

For your records, we have attached our written response to specific issues raised in the workbooks. These are;

1. The need to increase capacity (number of licenses and vessels) in the grey seal fishery
2. The need to increase effort and flexibility in a developing grey seal fishery
3. The need to increase access to the grey seal resource
4. The need for a collector vessel to enable sealers to harvest a low density widely dispersed number of seals in the gulf and Scotian shelf
5. The need for harvesting / collecting technologies that enable the full utilization of both small (< 50kg) and large (> 200kg) grey seals.

While there are a great number of other topics that we could raise with respect to our position on the grey seal fishery, the above issues reflect our most serious concerns. If we need to sit down and discuss our issues in more detail we are happy to oblige.

Sincerely,

Frank Chopin
Project Manager
Innovative Fishery Products

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Comments made during the Seal Forum and advisory meetings by IFP Grey Seal Industry representatives

General comment on the approach by DFO to combine questions on harp and grey seal

Combining questions on harp and grey seal fisheries in the workbook made it very confusing for group members. Since the majority of the stakeholders were associated with the harp seal fishery, their comments reflected their concerns, frustrations and proposed actions for this fishery. Harp seal stakeholder responses did not reflect their position on the developing grey seal fishery. Indeed, many of the harp seal stakeholders expressed that the grey seal fishery needed freedom and flexibility to develop.

Grey seal stakeholders were in the minority during the workshop. Noting that the majority of the issues pertain to the harp seal fishery, it is neither surprising nor unrealistic that many of the statements related to the grey seal fishery were often omitted in the summary presentation. In some cases, where the views for the grey seal fishery were contrary to statements made about harp seals (e.g. collector vessels, license freeze, effort control, and access) they appeared incorrectly designated as a dissenting opinion of the harp seal fishery stakeholders.

It is important that managers and scientists involved with the grey seal fishery recognize that responses made to the harp seal fishery do not become de facto industry opinions regarding the grey seal fishery.

General comment on a lack of objectives in the workbook questions and lack of rationale in the group responses

We felt that many of the questions raised in the workbooks lacked a specific objective. For example, if the question was specifically addressed to the harp seal fishery specifically pertaining to sharing, IQ, mobility, collector vessels this should have captured in how the question was phrased). If there was a specific objective that was being addressed in a question (to reduce fishing effort in the harp seal fishery, to remove redundant licenses in the harp seal fishery, to improve pelt quality) this should have been stated in the question. Because neither the objectives nor the species were specified, the responses to the questions were confusing. The responses certainly did not reflect what was stated about the grey seal fishery.

General comment on the main differences between the harp and grey seal fisheries

The harp seal fishery is fully mature with concerns being expressed by industry and government regarding;

- Reducing overcapacity and the degree of competitiveness in the fishery
- Limiting access to the resource
- Controlling license transferability to prevent an increase in value of licenses and as a mechanism to reduce effort
- Controlling effort by restricting the mobility of vessels and crews between distinct sealing areas
- The prohibition of collector vessels (< or > 65ft) to reduce the rush to fish and control fishing effort
- The impact of the opening date on seal quality and competition

On the other hand, the grey seal fishery is nascent (in the early stages of development) and the nature of issues are quite different. Accordingly, the views expressed by the grey seal industry representatives were;

- There is a need to increase capacity in the grey seal fishery and there are no problems associated with competition between fleets.
- There is a need to increase access to the resource and to encourage the growth of this fishery
- There is a need to increase the number of licenses in the grey seal fishery and to ensure that as the fishery grows sealers from different sub regions are able to enter the fishery
- There is presently no need to put in place measures that curtail effort in the grey seal fishery. On the contrary, there is a need to put in place mechanisms that encourage / increase effort in the fishery.
- The conditions relating to control of collector vessels in the harp seal fishery definitely do not apply in the grey seal fishery. The harp seal fishery is based around a very intense hunt by a large number of vessels operating in close proximity. As the grey seal fishery develops it is likely to develop around harvesting more dispersed animals found over a much larger geographical area. Moreover, opportunities exist to develop the grey seal fishery both on the harvest ofjuveniles and adults. In both cases it will be important to retain and utilize the whole animal. Therefore, a larger vessel to collect and perform initial processing of the seals on board will be required in the grey seal fishery. Given the nature of the Nova Scotia fishery (Gulf and Scotian Shelf) we believe that a vessel greater than 65ft will be required.

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November 16, 2005

Ms. Brianne Rossi
Department of Fisheries & Oceans
200 Kent Street, Ottawa, ON
K1A OE6

Dear Ms. Rossi:

The Government of Nunatsiavut (Labrador Inuit Association) wishes to express its appreciation for the consultation process that took place last week on seals and sealing. We believe that the format worked quite well and would suggest more of the same on issues such as sealing.

In connection with the workshops and plenary sessions, we would like to offer the following comments as they apply to specific areas of interest. The Nunsatiavut Government is supportive of the following issues with of course further consultation before those issues or topics become regulatory form. Some of these issues are as follows:

1. We support a three (03) year Management Plan with provision for disruption should any one particular warrant such adjustment to an existing plan.

2. We believe that the TAC of 325,000 harp seals is acceptable.

3. We believe in support for a seal population that is sustainable for the TAC outlined above.

4. We believe in a carry-over of any uncaught portion of the TAC from one (01) year to the next.

5. We accept the established Hood TAC given the current level of information: LIA does however support the inclusion of Bluebacks as part of the 10,000 hood seal TAC based on closed times to determine the correct age at which to harvest.

6. The Hood seal MP should also be for a three (03) year period.

7. Seal DFO/Industry consultations should be every three years or sooner if a situation warrants

8. LIA supports the notion that seals science funding should rest with DFO.

….2/

9. We support the Veterinarians involvement into the harvest but we do not support their recommendation that seals should not be killed in the water.

10. We do not support the use of collector vessels at present but we do support the regulation requiring that any collector vessel that might be used greater than 65' be licenced by DFO.

Issues from the workshops on access and allocations and our comments are as follows:

1. We support a licence freeze that does not include Aboriginals who are adjacent and have a history in the harvest of seals.

2. We would like to further explore the issues of establishing sealing enterprises as any other Atlantic based fishery.

3. We believe that vessels taking part in the commercial hunt be registered as a means of identification.

4. We support fully training for all sealers.

5. Transport of seal depending on the individual situation may be necessary.

6. We believe in seal allocations based on established sealing areas regardless of the composition of the sealers.

7. We believe that sealers be permitted to harvest seals in any area with a charge back to the area of residency.

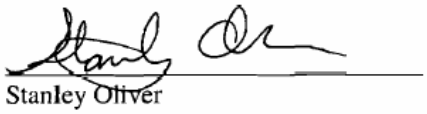
8. We support opening dates to take the animals when they are of the most value.

9. On the issue of establishing a specific Aboriginal quota, we do not support this proposal at the present time as any new quota would have to provide LIA sealers with additional capacity over and above the quota they already seal from.

10. There is currently no specific Aboriginal quota and we are unsure of the intent of establishing one, so until we are further consulted on these issues we do not support.

The Government of Nunatsiavut wishes to ensure that prior to implementation of any changes that could impact their current sealing operations, that consultations be scheduled by contacting the undersigned.

Yours truly,
LABRADOR INUIT ASSOCIATION



Stanley Oliver
Renewable Resources Director

c.c. Zippie Nochasak, Labrador Inuit Association
Wayne King, Department of Fisheries and Oceans

DELTA HOTELS / HÔTELS

1

Comments on the Forum

Rick Bourne
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St. John's NL
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Science = states 5.8 million seals

?? based on what?
What scientific field data yields this number?

The population is probably closer to 7/8 million therefore the N70 number is set arbitrarily high

DELTA HOTELS / HÔTELS

2

One has to ? if this was done deliberately to address the animal welfare groups.

Statements made in 2005 Seal Forum Workbook Annex 5- Seal Predation pag 87-88

state "seals might help cod recovery by eating predators etc to"

To state that ASEP researchers must take this type of fictitious type of interaction shows that there is no serious intention by DFO to address seal predation

or cod and salmon.

DELTA
HOTELS
HOTELS

3

statement pag 88 "if seals are considered to be important source of mortality to recovering cod stock" again does DFO's true intent

Pag 87 (87) "How much do seals eat of cod" — DFO says only stomach contents can tell us

What about the several documented filmed and observed seal predation on cod in bays (Nfld) when seals tore out cod stomachs

witness.

Again this shows DFO's intent to do Nothing.

DELTA
HOTELS
HOTELS

4

(1) We don't need more research
We need more culling.

After attending several of these DFO sponsored meetings on Seals it appears that science is only guess work and that seals are more like coyotes and we really know very little about them in terms of reproduction.

Atlantic salmon and sea run trout population are down - What is the seal predation effect of this?

The regulation and restriction

imposed on the public is clear evidence that DFO's goal is to conserve seals.

This will maintain their "goody" image in the world stage reduce critism from animal welfare groups and contribute their "hidden agenda" to ignore the cod decline.

Nothing has been done since 1992 on cod recovery and this seal fiasco.

(2) You cannot manage the Seals without considering

their effect on other fisheries around NFld/Labs

We have upset the Ecosystem by fishing other species to very low levels and thus allowed a top predator "Seals" to explode in population.

Why is this not on the agenda for this meeting??

As I stated the N.L.W.F. is convinced that the seal population size is based on

DELTA 7
HOTELS
HÔTELS

international pressure and not facts on scene.

Politics. Public image on the world stage should not be how population size is determined.

The N.C.W.F. presented a paper in the early "1980" and made a presentation to the "Senate Standing Committee on Seals and Sealing in Canada".

DELTA 8
HOTELS
HOTELS

25 years later - we appear to no further ahead.

Why is that??

DELTA HOTELS HÔTELS

9

Page 81 #4 is again evidence that people have no understanding of the seal hunt.

The veterinary group that all small inshore boat sealers, and personal use sealers, only shoot seals on ice pans and can be concluded that to want personal sealers to leave their boat and jump onto ice pans. This is irresponsible and will lead to loss of human life.

DELTA HOTELS HÔTELS

10

As a trained Cardiovascular physiologist - it appears that IVWG - want a detailed cumbersome program - course - in order to follow what they advocate to participate in a seal hunt.

This is unnecessary and not warranted.

Again - by bring them present it is clear that DFO wants to end the hunt.

IUWG suggests that DFO officers be from other communities so as not to let friends and neighbors off easy.

Is IUWG suggesting that the law??

to palpate the seal skull = to inflict personal injury to the seal - loss of hand etc

In the early 1990's DFO had a forum

"Senate STanding Committee on Seals and Sealing in Canada"

Nothing has changed since then.

nothing has been done.

DELTA
HOTELS
HÔTELS

13

Use of Rifle vs shotgun is a safety issue.

Rifle bullets Ricochet:

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WWF-Canada's Responses to questions posed at the 2005 Seal Forum Workshop

January 13, 2006

Question 1.1

Do you support continuing with the current OBFM model (with reference points based on the new population assessment of 5.82 million) for the next multi-year harp seal management plan?

YES **X** NO ☐

COMMENTS:

We support the use of the OBFM model because, if adhered to, it will ensure the harp seal population is never overexploited and harvests are sustainable over the long term. We would like to see all commercially harvested marine resources managed using a similar approach – based on reference levels that trigger management responses.

Question 1.2

Given the impact of the harp seal hunt on the harp seal population since 1996, what are your views on the past management regimes?

1) The harp seal TAC was set too high ☐
2) The harp seal TAC was set too low ☐
3) The TAC was set at an appropriate level ☐

COMMENTS:

It is difficult to determine if the TACs since 1996 were too high or too low because the pups taken between 1996-present (the largest harvest levels in recent history) are just now reaching the age of sexual maturity and entering the breeding population. The effects on the overall population size will become more evident over the next few years.

Question 1.3

Keeping in mind that at the current harp seal population of 5.82 million the Sustainable Yield results into a TAC of 250,000 seals a year, which of the following TAC options for the next five years (2006-2010) would you prefer?

COMMENTS:

Our main concerns are the long-term health of the harp seal population and the sustainability of the hunt. The precautionary approach should be considered when setting TACs to hedge against the uncertainty associated with the population assessment and the predictive capabilities of the models.

Question 1.4

In the event that a recommendation is made to have a five-year harp seal TAC, what are your views on the flexibility of carrying over unused TAC from one year to the next as long as the overall 5-year TAC is not exceeded?

COMMENTS:

Carry over of unused quota into the subsequent year(s), if at a low percentage rate, should not drastically impact the harp seal population. However, natural mortality must be closely monitored to determine if it is within the natural range before allowing significant carry over from previous years. For instance, an unexpected event such as a disease that leads to high mortality must be considered in the decision to carry over unused TAC. A biologically meaningful upper limit should be set for removals in any one-year.

Question 1.5

In the event that a recommendation is made to have a TAC revised every year, what are your views in setting a TAC of 400,000 (or 500,000) for 2006?

1)	In favour of a harp seal TAC of 400,000 for 2006	☐
2)	In favour of a harp seal TAC of 500,000 for 2006	☐
3)	Not in favour of a higher TAC	**X**

COMMENTS:

Given the uncertainty with the data used in the models and environmental conditions, a higher TAC would not be consistent with a precautionary approach to management (which DFO has committed to).

One participant at the Forum who works in the sales and marketing side of the industry suggested that the markets would not support a higher TAC than was set during the previous management plan. TACs should not exceed what market demands.

Question 1.6

Which management approach to setting a Total Allowable Catch for hooded seals would you prefer? (See Annex 1 for a description of the various harvest regimes).

1)	Sustainable Yield	☐
2)	PBR (Potential Biological Removal)	**X**
3)	Other (please explain)	☐

COMMENTS:

None

Question 1.7

Which management approach to setting a Total Allowable Catch for grey seals would you prefer?

2)	Sustainable Yield	☐
3)	PBR (Potential Biological Removal)	**X**
4)	Other (please explain)	☐

COMMENTS:

None

Question 1.8

How often should a new harp seal management plan be developed?

1)	Every FIVE years	☐
2)	Every FOUR years	☐
3)	Every THREE years	**X**
4)	Other (specify _____)	☐

COMMENTS:

More frequent management plans would make it easier to make changes to management measures that might be necessary to adapt to unforeseen events (e.g., increased natural mortality due to disease, changes in ice condition patterns, etc.). Ideally, the pup count and population assessment should be conducted in advance of each new management plan to ensure the most up to date information is used. Further, effective monitoring and assessment methods are needed on a year-to-year basis between pup count years to gauge the impacts of the harvest and other sources of mortality.

Question 1.9

How often should a new hooded seal management plan be developed?

1)	Every FIVE years	☐
2)	Every FOUR years	☐
3)	Every THREE years	**X**
4)	Other (specify _____)	☐

COMMENTS:

A more accurate population assessment should be conducted before a larger hunt is considered.

Question 1.10

How often should a new grey seal management plan be developed?

1)	Every FIVE years	☐
2)	Every FOUR years	☐
3)	Every THREE years	**X**
4)	Other (specify _____)	☐

COMMENTS:

A more comprehensive management plan should be developed before a larger hunt is established for this species.

Question 1.11

How often do you think the Department should hold consultations?

1)	Every FIVE years	☐
2)	Every FOUR years	☐
3)	Every THREE years	**X**
4)	Other (specify _____)	☐

COMMENTS:

Consultations should be held prior to the development of every new management plan.

Question 1.12

If you have any suggestions to improve our consultations, please note them below.

COMMENTS:

None

Given the increased interest in the 2005 seal hunt, several international organizations have asked to participate in consultations on the seal hunt.

Who do you think should be invited to future consultations on the seal hunt? (i.e., include international organizations)

COMMENTS:

Input from international organizations should be considered when it is directly relevant and will improve the management of the hunt.

Question 1.13

Would you favour an approach where industry and concerned interest groups would provide funding for joint management and science projects to improve our scientific knowledge of seals and seal hunt management?

YES **X** NO ☐

COMMENTS:

DFO must make all final management decisions but it should also work with industry and interested groups on research projects that fill important information gaps and improve seal hunt management.

Question 2.1

What do you think the Department of Fisheries and Oceans should do to address the issue of seal predation? I.e., conduct more studies, establish Seal Exclusion Zones, do nothing.

COMMENTS:

More research is needed to clearly define the relationship between seal populations and fish stocks such as cod. There is no evidence that a harp seal cull would lead to the recovery of cod. DFO should compile and synthesize all available information on the relationship between seals and commercially valuable fish species and make it available to industry and other interest groups.

Question 2.2

Are there any other eco-systems considerations with relation to the Atlantic seal populations that you would like to see addressed in future management plans, such as increased mortality due to climate change; fishing practices (bycatch of seals) or reduction in prey species?

Please explain:

We would like to see all commercially harvested marine resources managed within an ecosystem context because past single-species approaches have clearly been unsuccessful. The following ecosystem considerations should be addressed in future seal management plans:

- ***Changes in environmental conditions (due to climate change or other reasons)***
  - ***E.g., Changes in sea ice conditions can result in higher than normal levels of natural mortality.***
- ***Prey availability***
  - ***The status of important prey species (e.g., capelin, sand lance, and others) should be monitored and considered.***
- ***Predation on harp seals***
  - ***Is predation (e.g., from polar bears or killer whales) a significant source of natural mortality for harp seals? If so, it should be considered.***
- ***Disease***
  - ***How susceptible is the population to disease?***
  - ***What are the effects of 'seal worm' on seals (Grey and other species) and commercial fish species?***
- ***The role seals play in the ecosystem***
  - ***We need a better understanding of the role seal species play in the system – i.e., how they interact with other species.***

The management plan needs to be adaptive to account for uncertainty introduced by these and other factors. Is there sufficient monitoring in place that would be able to detect these types of changes? For instance, are programs in place to monitor prey availability, sea ice conditions, etc. and are these elements being considered in the management plan? To what extent are such factors monitored and understood?

Seal bycatch in other fisheries should also be closely monitored. How reliable are the seal bycatch data? Are observers required on lumpfish vessels? If so, what type of coverage is there?

Question 3.1

The Independent Veterinarians' Working Group recommends that the three steps in the humane killing process - stunning, checking that the skull is crushed (to ensure irreversible loss of consciousness or death), and bleeding - should be carried out in sequence as rapidly as possible.

Do you believe that the above recommendation should be adopted?

YES **X** NO ☐

COMMENTS:

We are a conservation organization so we do not have expertise on animal welfare issues. For this reason, we generally support the recommendations of the IVWG (i.e., the experts). With that said, we would like to see the hunt carried out in the most humane manner possible.

Question 3.2

The Independent Veterinarians' Working Group's second recommendation is that confirmation of irreversible loss of consciousness or death should be done by checking by palpation that the skull is crushed, rather than checking the absence of corneal (blink) reflex.

Do you believe that the above recommendation should be adopted?

YES **X** NO ☐

COMMENTS:

None

Question 3.3

The veterinarians believe that seals should not be shot in the water, or in any circumstance when it is possible the carcass cannot be recovered.

Do you believe that the above recommendation should be adopted for the Atlantic commercial and personal use seal hunts?

YES **X** NO ☐

COMMENTS:

We support this recommendation if it will reduce the amount of seals that are 'struck and lost'.

Question 3.4

Bleeding to achieve or ensure death, following stunning, is an important element in the three-step humane killing process. The *Marine Mammal Regulations* should be amended to replace the requirement for death to occur before pelting, with a requirement for unconsciousness before bleeding.

Do you believe that the above recommendation should be adopted?

YES ☐ NO ☐

COMMENTS:

We have no expertise in this area so we defer to the recommendations put forth by the IVWG.

Question 3.5

Do you support limiting or reducing the number of licences?

YES **X** NO ☐

COMMENTS:

Managers should have a good understanding of how many licenses are active on a year-to-year basis. Licenses that have been inactive for several years should be retired. Understanding how many sealers are participating in the hunt and reducing the number of licenses should increase the efficiency and effectiveness of the management system.

Question 3.6

Do you believe that collector vessels greater than 65' in length would ever be needed in the hunt?

YES ☐ NO ☐

COMMENTS:

None

Question 3.7

Should collector vessels be prohibited entirely?

YES ☐ NO ☐

COMMENTS:

None

Question 3.8

Should the current regime for observer licences be changed? If so, how?

YES ☐ NO ☐

COMMENTS:

None

Question 3.9

It has been proposed to revoke the current prohibition under the *Marine Mammal Regulations* (Section 27) on the sale, trade or barter of blueback seals and protect younger hooded seals by closing this harvest until the animals have been weaned.

Do you agree or disagree with this proposal? What is the basis for your views?

YES ☐ NO ☐

COMMENTS:

None

Question 4

Are there any other recommendations you would like to make on improving the management of the seal hunt?

COMMENTS:

Seal hunt management can be improved by addressing the uncertainty in the population assessments, improving the year-to-year monitoring and adapting to changes and issues that affect the population and the hunt (e.g., changes in environmental conditions such as those arising from climate change).

It is not clearly understood what impact these high harvest levels will have on the harp seal population or if it will result in any life history or behavioural changes/responses.

November 17, 2005

To: Brianne Rossi
200 Kent St. Ottawa ON
K1A 0E6

Comments on DFO 2005 Seal Forum from the Grey Seal Conservation Society (GSCS)

Dear Ms. Rossi,

The Grey Seal Conservation Society (GSCS) appreciates your providing us with the opportunity to participate in the 2005 Seal Forum. DFO made us feel very welcome at this event – thank you. The following are our comments on the matters discussed at the seal forum:

1. GSCS opposes the seal hunt plan because marine predators overall are severely depleted, and the ecosystem-stabilizing effect of large predators is thereby being lost.
2. Ecosystem Considerations
3. The "seal-predation puzzle": What is the full impact of the presence of seals in the sea?
4. Setting conservation limit reference points, in an ecosystem context.
5. Future Consultation

1. GSCS opposes the seal hunt plan because marine predators overall are severely depleted, and the ecosystem-stabilizing effect of large predators is thereby being lost.

The Grey Seal Conservation Society (GSCS) opposes the proposed commercial seal hunt plan (for harp seals, grey seals and hooded seals) in Atlantic Canada, in favour of the inclusion of all seal species in a moratorium on the commercial take of large marine fish predators. This position is based on concern arising from the recent virtual disappearance of all large predatory ocean fish, and DFO's obligation to use an "ecosystem based approach" to managing living resources (1,2).

In suggesting TACs for the seal hunt, and in forecasting the hunt's "sustainability" at the seal forum, DFO has unfortunately relied only on a single species modeling approach, like that considered in the Report of the Eminent Panel on Seal Management (2001). This approach is currently inadequate, however, because it does not constitute "ecosystem based management," which DFO is now obliged to use under the Oceans Act.

Along with the seal biologists, marine ecologists should have been consulted on the matter of seal hunting, with a view to understanding the context in which seals are living today, how seals relate to the current state of the ecosystem, recent changes, and the importance of maintaining the natural structure of the food web. Dramatic unexpected shifts have recently been observed in the ecological base that supports seals (fish, invertebrates, plankton), yet DFO has inappropriately continued to offer an optimistic, simplistic assumption that seal populations can be projected to thrive and multiply into the future as they did in years past, when seals were supported by a vastly different and more productive food web. Unfortunately, this is the same tunnel-vision management approach that preceded the "unexpected" cod collapse.

The transition from the old style fisheries management to ecosystem-based management is clearly not easy for scientists (3), yet DFO is committed and obliged to figure out how this can be done in practice. Ecologists can help fisheries managers adapt to the new realities and to incorporate new scientific insights in their work, and indeed, DFO ecologists have recently clarified what a modern "ecosystem approach" to fisheries management should look like. DFO's move toward an "ecosystem-based" management approach involves the identification of measurable, precautionary "ecosystem objectives" (4,5), and then it involves the consideration of these objectives when making fisheries management decisions. It is becoming very clear what must be done, and DFO would do well to make the leap to genuine "ecosystem-based management" of the seal hunt at this time, in part because this hunt is such an anomaly (a hunt on a top predator) in an era when fisheries targets overall are sliding ever lower in the food web (now mainly crustaceans).

A top priority of ecosystem-based management is the maintenance of all "components" and all "functions" that occur naturally in the ecosystem, and it is acknowledged that a considerable overlap of different species can be involved in maintaining a given functional role in the ecosystem. Such species are described as sharing a "trophic level" or a feeding position in the food web.

An objective related to the goal of "maintaining trophic structure" has been identified by DFO as "preserve traditional role of top predators." (6) Seals function as top predators, but seals are now in the unprecedented situation of being the last remaining major players involved in functioning at their trophic level, in contrast to past circumstances when seals shared the top predator functional role with a great number of large predatory fish of various species. (7, 8)

An extremely worrisome, near-total disappearance of all large predatory fish has occurred in Atlantic Canada, and this has been linked to fishing. To make matters worse, spontaneous rebuilding of these predators is not occurring as expected. Seals are unique in being the only top marine predators that have demonstrated any degree of population resilience in recent years. Despite increases in some Atlantic seal populations, however, the strength of the top predator functional role overall has declined markedly. (7, 8)

Significantly, DFO scientists have recently concluded that the loss of the natural ecological function of large-bodied predators has already triggered an unexpected cascading effect

that has induced a “catastrophic” alteration in the food web. (9) The changes induced by massive predator removal are viewed as “catastrophic” because they include a decline in plankton and the generalized starvation of bottom-dwelling fish (9, 10). This new insight gives an urgent reason to ban the take of any more large-bodied predators. DFO’s commitment to “preserve top predators” does not therefore arise only from an aesthetic, sentimental or moral belief of Canadians that we should permit large ocean animals to survive into the future, but it also arises from a scientific recognition that it is dangerous to the health of many other marine species (including prey fish) for the numbers of fish predators in the system to be drastically reduced. Unexpected, counter-intuitive perhaps, but this is where the weight of evidence points nevertheless.

DFO ecologists understand what management measures will be needed to conserve a “trophic level”:

“Regarding trophic structure…it may be necessary to set overall catch limits for aggregates of species based on their trophic level. Once the overall catch is met, all fisheries for species in that aggregate would be halted.” (O’Boyle et al, 2004)

It is widely acknowledged that the “aggregate” of top ocean predators has been reduced to a level below 10% of its historic abundance, (11, 12, 13) and it seems this reduction has already had a significant negative impact on the ecosystem (7, 9, 11). The precautionary approach, “erring on the side of caution” in this situation, should therefore dictate that predator removal now be halted due to the risk of causing further ecosystem-destabilizing effects. Therefore, commercial seal hunting should be stopped at this time. No more top predators should be removed. This is the basis on which the Grey Seal Conservation Society (GSCS) opposes all commercial seal hunting that DFO has suggested be included in the new Atlantic Seal Management Plan.

2. Ecosystem Considerations

In the 2005 Seal Forum Workbook, DFO correctly identified “ecosystem considerations” as an “aspect of the seal hunt needing improvement.” But despite this, and Kevin Stringer’s closing remark to the forum that “There is no question that DFO is moving toward an ecosystem approach”, DFO failed to clearly communicate the meaning of “ecosystem approach” to the forum participants. This point of ongoing misunderstanding seems likely to be related to DFO’s failure to include ecologists or “ecosystem” scientists in consultation on the seal hunt plan and the seal forum.

It became clear during the forum that confusion existed regarding the practical meaning of the phrase “ecosystem-based management.” This was the argument advanced by GSCS, as described above, as the reason not to approve any more commercial catches of seals, yet the exact same phrase was used by members of the fishing industry as an argument in favour of culling seals in a “cod recovery” strategy. The reason for the fishermen’s mistakenly equating “ecosystem based management” with “predator control” can be easily seen: because “seal predation” was the one major topic suggested by DFO under “ecosystem considerations” in the forum workbook (Section 2).

By now, DFO should have explained more of the truth about recent ocean ecosystem changes to the fishermen. Fishermen who participated in recent consultation with DFO scientists regarding "cod recovery" reported that they had not been told that a significant, sustained decline in zooplankton abundance on the Newfoundland shelf has been observed, and that this bodes poorly for the future growth of fish. Nor has it been explained to the fishermen, apparently, that the recently observed trend of poor condition in mature groundfish is something that has long been associated by scientists with an unusually LOW level of predation, rather than with an unusually HIGH level of predation (whether from fishing or from natural predators).

DFO has not done enough to dispel the myth that natural predators are "damaging" fish stocks. While scientists have stated this is not their conclusion, they have done a poor job of convincing the fishing industry on this point, or of reducing the fishermen's mistrust of seals. In fact, DFO scientists still seem to act to perpetuate the myth of the "danger" presented by seals as they have intensified their efforts to quantify the consumption of fish by seals. The underlying assumption of DFO's seal research program seems to be a belief that the consumption of fish by seals is inherently harmful to fish stocks.

"Even if the Department was to contemplate a cull to reduce seal predation, the number of seals that would have to be taken to have a significant effect on fish populations would be enormous and would undermine the current seal harvest. For example, under one Eminent Panel scenario based on their bio-economic analysis, there would have to be an additional harvest of either 750,000 seals in a single year, 150,000 additional young seals per year for five years, or a cull of 150,000 adult females to provide about 1,500t of commercially usable fish (not just cod)." (2005 Seal Forum Workbook)

The assumption that removing seals will work to the benefit of their prey fish cannot be justified today in the face of recent evidence that significant predator removal can cause broad-scale ecosystem damage. DFO needs to communicate this fact to the fishermen. Senior DFO scientist, Jake Rice, has cautioned against planning predator culls as "ecosystem objectives":

"The consequences of management manipulations of trophic systems are highly unpredictable. Therefore, only under conditions of exceptionally good understanding would there be a scientific basis for forming Ecosystem Objectives which might lead to planned major reductions of predators with the intent of producing specific benefits to populations lower in the food web." (5)

Ecologists now have a good understanding that while predator removal may or may not result in a brief increase in prey abundance, the practice eventually causes ecosystem deterioration that can ultimately inhibit the production of prey. Ample evidence exists that the massive level of marine predator removal already accomplished by the fishing industry in Atlantic Canada has not worked to the ultimate benefit of the prey fish. The "predator removal" experiment by fishermen has in fact already been carried on for centuries with the broad-scale removal of all large fish, and at this time the fishing industry's predator

removal strategy can be seen to have achieved near-total success. However, natural predator removal plainly does not work to improve fish production – as unexpectedly, it seems to have had the opposite effect.

DFO might help fishermen understand the folly of their proposed final predator-removal strategy to rebuild cod stocks if fishermen were reminded that cod were traditionally the main predators of capelin in Newfoundland, but that the elimination of cod apparently has not worked to the benefit of capelin, because rather than growing larger the capelin stock has unexpectedly become smaller in the absence of its major predator. It is not remotely possible that the current seal population is eating more capelin than cod and other now-absent large fish once consumed on the Newfoundland banks. Much does not add up under the traditionally accepted view of how the ocean works. Hence, as noted in the seal forum workbook, "complexities abound in the seal-predation puzzle"…

3. The "seal-predation puzzle": What is the full impact of the presence of seals in the sea? Predators? Scavengers? Nutrient-cyclers?…What is the full expected impact of their removal?

The "complexities" in the "seal-predation puzzle" should be urgently addressed by science. In its recent seal research program, DFO has approached the issue only by trying to obtain more accurate estimates of numbers of seals and the amount of fish they eat. To this end, DFO's seal diet studies have become quite sophisticated. However, researchers have failed to account for a serious shortcoming in this line of study. This is the false assumption that fish flesh eaten by seals always represents otherwise viable fish, fish that might have survived to support a human fishery. It is important to note that in estimating the "impact" of seals, scientists have made no distinction between the roles of "predator" and "scavenger," although seals perform both these roles when they eat fish. While confusion remains about the desirability of "predator" removal, "scavenger removal" is clearly undesirable because this presents an environmental risk, as dying/dead fish that are not eaten promptly by scavengers may undergo bacterial decomposition (rot) on bottom instead, a process that can degrade water quality.

The ecological demand for scavengers to consume spent adult fish is likely to have increased in Atlantic Canadian waters recently, as the natural life expectancy for virtually all fish species has fallen. This change has been imposed on fish by a limited availability of food in their environment (9), and this is a major determinant of when adult fish become due for recycling by scavengers. The fishing industry can do nothing to replace the important scavenging piece-work service that natural predators perform in the ocean as they selectively consume spent fish.

In the Gulf of St. Lawrence, the exceptionally deep-diving hooded seals may be the only predators/scavengers that can still function effectively today in the Laurentian Trough. The oxygen content of the bottom water in much of this area has recently fallen to levels too low for other consumers, such as predatory fish, to survive. Therefore, it may realistically be that the only air-breathing fish-eaters capable of diving to the bottom in this area, the hooded seals, represent the single natural ecosystem element that can still work to slow the

spread of this “dead zone” by eating fish that die there. This illustrates one subtle dynamic by which seals help maintain the health of the ocean environment.

It has often been observed by scientists and fishermen that adult seals may consume tons of fish for each seal pup they produce, but this process has too-simplistically been imagined only as a “loss” inflicted on the fish stocks. Questioning more deeply, it should become of interest to scientists to follow the trail of where the bulk of the fish eaten by seals actually goes. Seal excretions are tightly linked to natural processes involving marine invertebrates, which ultimately lead to a more rapid cycling of fish-derived nutrients into plankton-stimulation than would occur in the absence of seals. This is another subtle, positive impact of seals on ocean health.

In its seal-ecosystem research, DFO should now shift the focus toward taking a comprehensive look at the intertwined ecology of seals, fish and other ocean elements, toward understanding the full “complexities” in the “puzzle.” Before another seal hunt is approved, those who would promote the seal hunt should be required to meet the “burden of proof” that top ocean predators can still be commercially hunted today without risking further detrimental effects to the ecosystem. This is very unlikely to be proven, which provides the reason why a “precautionary” moratorium should be placed on the commercial harvest of seals or any other top ocean predators in the interim.

4. Setting conservation limit reference points, in an ecosystem context.

A logical objective scaling process, similar to DFO’s recent “Objectives Based Fisheries Management” (OBFM) approach to seal hunting, could be used to assess the appropriateness of the seal hunt in an ecosystem context. The major difference would be that the conservation limit reference points would be determined on the basis of conservation requirements for the trophic level, or “aggregate of species,” of which seals make up one part. Either overall abundance estimates of animals occupying the seals’ trophic level, or biomass estimates of all animals in this category, might be used as measurable reference points to trigger conservation actions for the trophic level as a whole. Such an approach would constitute logical, practical “ecosystem-based fisheries management,” and this very approach has recently been suggested by DFO ecologists and others.

If the seal populations were assessed under this “ecosystem” method, then a current “conservation” issue involving these animals (i.e. their trophic level) would immediately become clear, despite relatively high current numbers of seals. The marine top predator trophic level in Atlantic Canada is currently well below 10% of its historic biomass, or its historic abundance, whichever measurement you prefer. If DFO were to set conservation limit reference points on an ecosystem basis, then an “all removals stopped” management strategy would now be implemented for seals.

DFO must make the leap to “ecosystem-based fisheries management,” and the seal hunt may be the best place to start. Incontrovertible evidence supports the conclusion that the seals’ trophic level is currently severely depleted – therefore the decision to conserve seals

on “ecosystem” grounds can be made and justified by scientists with no uncertainty at all, whereas the situation might be stickier in other instances.

The rationale given here for halting the harvest of seals in Canada can also be found in various other scientific sources:

“In an ecosystem-based fishery management plan (EBFMP), the impact of a management action would be assessed with respect to the ecosystem as well as individual species. It is entirely possible that a fishery could be considered overfished within the ecosystem plan (ecosystem overfishing) when it is not overfished in a single-species context. This can occur when a forage species that serves as a prey resource for marine predators is also the target of a fishery or when overfishing of large predators causes food web shifts.” (Pikitch et al., 2004)

5. Future Consultation

DFO has gone to considerable lengths to convince the public that the seal hunt in Canada is conducted humanely. Most recently in this regard, we received at the seal forum the report of the “Independent Veterinarian’s Working Group on the Canadian Harp Seal Hunt.” Similar attention now needs to be paid by DFO to proving to the public that the seal hunt is truly “sustainable” and that the management of the seal hunt is “ecosystem-based” and is following the principle of “erring on the side of caution.”

GSCS recommends that DFO act now to convene a panel of impartial experts in marine predator ecology and ecosystem-based fishery management for the purpose of eliciting their advice on how ecosystem considerations should be incorporated into planning the Canadian seal hunt. It is advised that DFO partner with external conservation organizations in organizing this panel. “Erring on the side of caution” in this matter will mean withholding approval for any new seal management plan until the report of the recommended panel is completed.

Finally, DFO should implement a regular, formal mechanism to allow stakeholders outside the fishing industry to become involved in providing advice to scientists on the management of natural resources. Along the same vein, it would be useful at this time if DFO were to initiate the organization of an “Environmentalists and Scientists Research Society” patterned after the “Fishermen and Scientists Research Society” that has existed for the past decade.

Sincerely,

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