

Bill #50

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Submission to the Law Amendments Committee on Bill 50

by Debbie MacKenzie

November 4, 2009

My name is Debbie MacKenzie and I am the Chair of the Grey Seal Conservation Society. I am also a former public health nurse who worked in Shelburne County, and I have followed and commented on fisheries and seal hunting for years. I am here today to object to Bill 50. I will comment only on the clauses proposing that the Minister be allowed to "issue a licence permitting the holder of the licence to carry out a seal hunt authorized by the DFO on Hay Island."

The seal hunt is still viewed as an economically justifiable "save the fishery" initiative. Some think seal hunting can save the fishing industry, not so much through the sale of valuable seal products, but more indirectly, by killing off the natural predators of fish. That idea has been thoroughly discredited by science, but I will not go into that now, although you may question me on that point if you like.

Regarding the proposed law revision, I would first point out that one of the primary objectives of the Wilderness Areas Protection Act is to "protect outstanding, unique, rare and vulnerable natural features and phenomena." Those words aptly describe a grey seal whelping colony in my view, and I know many others would agree with me. I imagine it would be relatively easy to exploit the Hay Island grey seal pups through nature tourism. My point is that the objective of the Act now supports actively protecting the seal pups, and that the "economic" part of the Minister's "balancing" question can be made out to be whatever you can imagine it to be. I can imagine seal hunt licensing by the Province as a costly mistake.

It seems the Minister may be unaware of potential negative environmental effects that might result from a seal hunt on Hay Island. But there are potential adverse effects, and the government should now openly examine these risks, before it finds itself in a liability situation. In particular, I want to discuss the potential impact of the transmission of communicable diseases from grey seals to humans, to terrestrial wildlife and domestic livestock. The seal hunt will amplify any existing risk of this occurring.

When the Province licences an activity, it has obligations that the DFO does not share. Bill 50's passing reference to "authority" from DFO cannot exempt the Province from doing its own job before it authorizes anything.

The DFO's mandate is to protect "fish habitat" and "fish health." The DFO has no mandate to protect human habitat, to protect human health or to protect the health of terrestrial ecosystems or terrestrial food production systems, while the Province does have all those responsibilities. Provincial responsibility for "environmental protection" under the Environment Act specifically acknowledges the link to human health. And the protection of human health from communicable diseases found in grey seals can only

reasonably be accomplished through veterinary oversight and management of this potential health hazard. That public health security gap should be filled now, and it should be filled on the initiative of the Province.

Currently, neither the DFO or the Canadian Food Inspection Agency (CFIA) provides any veterinary oversight to control this potential health hazard to commercial sealers and to consumers of commercial seal products. The DFO obtained an "independent" veterinary opinion that current seal-killing methods are "humane," but the DFO has never obtained a veterinary opinion on whether or not any seals are fit for human consumption, and it has never obtained a veterinary opinion on whether contact with seals poses any particular disease risk to the sealers. That is because that is not part of the DFO's job.

As for the CFIA, that agency has its head firmly in the sand on this issue, also currently not providing veterinary oversight of seal processing, while squirming away from the seal disease question when I raised it. To be more accurate, the CFIA provides no veterinary oversight of seal processing in locations below the arctic, because some veterinary screening of seal carcasses is provided to subsistence hunters in the far north. In Atlantic Canada, however, the CFIA currently avoids veterinary screening of seal carcasses by pretending that seals are fish (which therefore do not require veterinary inspection).

The Province should take this opportunity to educate itself on this matter and take appropriate precautionary measures, considering the public health implications.

Globally, "emerging infectious diseases" are increasing and are actively investigated. Human disease threats emerging from seals are a current focus of global scientific research and have triggered official cautions to the public elsewhere. As examples, consider a "Field Guide to Diseases and Parasites of Eastern Arctic Marine Mammals" that was produced for the benefit of northern hunters, as well as a pamphlet I have included with your notes titled "Working with Marine Mammals and Your Health." The first example is from an area to our north, and the second from an area to our south. Both warn that contact with diseased seals can make people sick.

But strangely, Atlantic Canada seems to be the one geographic area excluded from this type of public health protection initiative. It seems we're completely in the fog. This is despite the fact that seals, including grey seals, have shown higher infection rates when seals have been tested below the arctic. Deliberately ignoring this information I suspect is part of another mis-guided attempt to "support" the fishing industry, in this instance by pleading ignorance and no knowledge of any health hazards associated with seals or seal products. This is embarrassing if you take a look around. The dirty little secret is that we in Atlantic Canada are acting as if we cannot afford to "know" that seals and seal products from this area might carry and transmit "notifiable" communicable diseases.

At the same time, researchers outside Canada recognize the Atlantic Canadian commercial seal hunt as one of the best potential sources of information for their studies, including for the study of the emerging disease risk posed to humans by a new strain of brucellosis found in seals. So, some of those outside researchers collect and study

apparently just doesn't know or completely ignores
American veterinarian recently reported his Canadian data-based findings related to seal
brucellosis at an international professional conference held in Italy...now what else do
you suppose they might say about Canada at a meeting like that?

Evidence of legally "notifiable" communicable diseases has been detected in our grey seal herd. Signs of brucellosis, toxoplasmosis and giardia have been detected. These disease agents, including seal brucellosis, can cause human illness. While that particular bug does not seem to have the potential to cause a human epidemic, is it OK if only a few people get sick? Is it OK if they never know what made them sick? What if seal brucellosis finds its way onto our farms and causes cattle abortions and other problems? That risk doesn't exist in the arctic. The seal hunt on Hay Island may not only result in the transmission of disease to sealers and consumers, but seal offal could result in transmission of brucellosis to deer or other wildlife on Scatarie Island.

If the Minister plans to issue any seal hunting licences, then he has a duty to obtain an appropriate risk assessment in advance. Knowing that emerging communicable diseases are a potential hazard, the Environment Minister should promptly order a focus report from a qualified veterinary source, requesting a full examination of the potential risk of transmission of communicable diseases from seals to terrestrial animals and to humans resulting from the seal hunt.

Further, the Environment Minister, probably in collaboration with the Health Minister, should then provide a management plan, including appropriate public education to Nova Scotians on how to avoid contracting diseases from seals. This education should include general public information, and it should also include hunter safety information, which might be similar to the "field guide" produced for arctic seal hunters. I will just read a bit from the introduction:

"The purpose of the guide is to provide useful information to persons dealing with marine mammals...on the diseases, parasites and abnormalities that may occur in these animals. It also provides instructions on how they may collect and submit samples from animals thought to be diseased or abnormal to laboratories for further examination and testing...The guide attempts to describe the significant abnormalities and disease conditions that are known to occur in the marine mammals commonly hunted and eaten...There is, as well, information on whether or not the condition represents a health hazard to persons handling the carcass or eating parts of it..."

Why on earth would information like this be taboo in Nova Scotia?

If Bill 50 is approved and Section 24 of Chapter 27 is amended by the addition of the proposed subsection (3), then I ask that the wording of subsection (4) be changed as follows: the words "may contain such terms and conditions as the Minister considers necessary to minimize adverse environmental impacts" should be replaced by "shall contain such terms and conditions as the Minister determines are necessary to minimize

adverse environmental effects". I ask for these changes to make it clear that the meaning of "adverse environmental effects" remains the same as that is defined in the Environment Act, and that the Minister remains obliged to make an assessment of relevant facts and to meet the full scope of his responsibility before he decides on any licensing terms and conditions.

In May, 2006, I presented evidence to support my concern about public health risks associated with seals to the standing committee on resources, at a time when that committee was considering a request for funding to support the development and marketing of seal products. In their final analysis, the Resource Committee apparently found a reason to deny the funding request. That was a prudent decision, and a similar line of reasoning should now convince the Province that it should not involve itself in issuing licences for seal hunting, but that it should instead attend to its real responsibilities related to the matter. Thank you.

...FACING A RENEWED THREAT



Once nearly exterminated by hunting, Nova Scotia now has the largest breeding colony of grey seals in the world, numbering over 100,000. But in 2005, following decades with no hunting, Canada resumed a commercial hunt for grey seals.

ECOLOGICALLY UNSOUND: The grey seal hunt was reopened because some people fear that seals might be preventing the recovery of the fish stocks. But no scientific evidence backs this conclusion. In fact, seals foster ocean conditions that allow for better fish survival.

A PRECAUTIONARY APPROACH: Canada is committed to "erring on the side of caution" in managing marine life. A general decline in the health of ocean fish, coupled with a mounting presence of bacteria and other microbes in the sea, threatens the future health of all large sea animals, including seals, whales, dolphins and seabirds. Human health is ultimately threatened too. Recognition of the inherent value of seals and all other large ocean animals in reversing today's negative trends should lead to their immediate protection, because killing more of these animals threatens to worsen current environmental problems.

Photo: James Young



A non-profit organization dedicated to raising public awareness of the need to preserve healthy marine life, with a particular focus on the wider ecological value of protecting all large ocean animals, including seals.

"...the continuing survival of (grey seals) in Canadian waters will depend...on... independent conservation organizations such as may take up the battle on behalf of the grey seal." - Farley Mowat, GSCS director



Photo: Ted d'Eon

GSCS is asking the Canadian government to end commercial seal hunting.

Grey Seal Conservation Society (GSCS)

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A HEALTHY OCEAN IS EVERYONE'S CONCERN

www.greyseal.net

14B Grey Seal



CONSERVATION SOCIETY (GSCS)

An "ecosystem approach" to the stewardship of marine life.

Protect Ocean Predators, Preserve Ocean Health



GREY SEALS...

The marine mammals most easily seen by visitors to the shores of Nova Scotia



Photo: James Younge

HISTORY AND ECOLOGY: 25 million years ago seals evolved, a sleek new strand in the living web of sea life. Seals and fish long thrived together, each invigorating the other.

Seals eat fish, but they do not harm the populations of the fish that they eat.

Natural predators like seals improve the health of fish by killing and eating the weakest fish, and allowing the strongest to survive and to become better fed.

In the warm bellies of seals, the weakest fish are soon transformed into seal excretions that quicken the growth of plankton in the sunlight surface water, thereby speeding the production of food for other fish.



Photo: Ted d'Eon

Grey Seal (*Halichoerus Gryphus*)
Lifespan: about 35 years
Weight: males 700 lbs
females 400 lbs

By removing weak, dead or dying fish, seals also perform a crucial hygiene role in the ocean environment, to the extent that they prevent fish from decomposing after death. Rapid consumption of dead fish by seals and other predators/scavengers works to suppress the uncontrolled growth of bacteria that can otherwise expand dangerously.

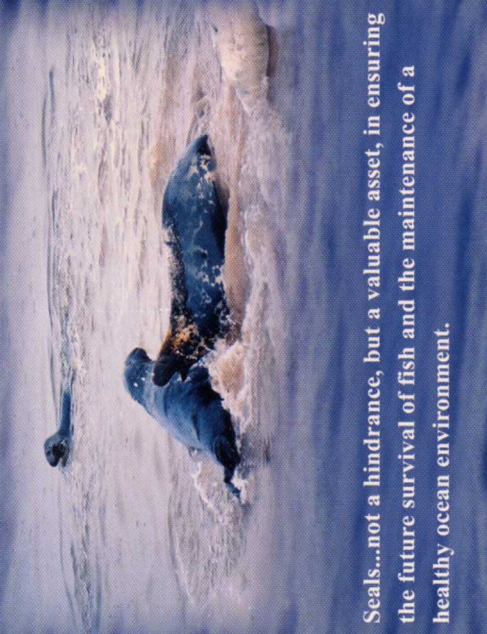
...FOR MILLIONS OF YEARS, PLAYING AN IMPORTANT ROLE...

Intense growth of bacteria severely drains oxygen from the bottom water, which can suffocate fish and cause massive fish kills. This deadly domino effect of "rot" occurs in ocean "dead zones," which are now a rising global threat.

A NATURAL OCEAN "ANTI-SEPTIC": Seals and all other air-breathing ocean predators work especially well to counteract growing "dead zones." Because they breathe air, seals can pluck dead fish from low-oxygen waters that would suffocate large predatory fish that might otherwise perform this role. Seals therefore have an irreplaceable value in today's fragile ocean ecosystem.



OCEAN LIFE IS IN TROUBLE TODAY: Fish stocks are failing to recover largely because of a shortage of food, the oxygen content of seawater is falling, bacterial counts are rising, and large predatory fish have been virtually eliminated. Under these conditions, the protection of seals should become an urgent "precautionary" priority.



Seals...not a hindrance, but a valuable asset, in ensuring the future survival of fish and the maintenance of a healthy ocean environment.

...IN PRESERVING OCEAN HEALTH



Grey seal pups are born in winter, with white fur, unable to swim, and weighing about 25 lbs. Mother seals nurse their young for 2 to 3 weeks, after which time pups weigh about 100 lbs. The fattened pups are then abandoned to learn to fend for themselves.

HEALTH AND SAFETY BROCHURE



Photo by Jonna Hlazar

Safety measures to prevent injury and infections:

- Obtain the recommended training, and follow all of your institution's safety procedures for safe animal handling
 - ◆ Wear gloves and other protective gear when handling animals and specimens
 - ◆ Avoid contact with animals if you are ill
 - Use additional safety equipment when risks of acquiring an infection are high
 - ◆ Use necropsy, husbandry and laboratory procedures that minimize the risk of cuts and injuries
 - ◆ Consult your physician before working with marine mammals if you are pregnant or have other health concerns
 - ◆ Wash hands thoroughly after animal and specimen contact
- Knowledge and careful work practices are your best defense!**

What you can do:

Care must be taken to **avoid all possible routes of exposure to marine mammal infections**. Although bites and contact with existing wounds are the most common routes, infections can occur through your mouth, eyes, respiratory system and skin.

Report any animal bite, scratch, or other significant exposure to marine animal blood, saliva, or other excretions to the appropriate supervisor.

If you develop an illness or other condition that could be caused by exposure, be sure to **tell your physician that you work with marine mammals**.

Resources for more information:

1. Full report available from the UC Davis Wildlife Health Center at www.wildlifehealthcenter.org
2. "Public Health" by Cowan et al. in L.A. Dierauf and F.M.D. Gulland, *CRC Handbook of marine mammal medicine 2nd ed.* 2001, Boca Raton, FL: CRC Press
3. The Centers for Disease Control and Prevention www.cdc.gov
4. National Institute of Environmental Health Science: Biological Safety <http://www.niehs.nih.gov/od/hsb/home.htm>

Working with Marine Mammals and Your Health



Photo by Deborah Gabris

A guide for marine mammal workers and rehabilitation volunteers

Important information to keep you aware, safe, and healthy

Provided by:

U.S. Marine Mammal Commission
National Marine Fisheries Service
Wildlife Health Center, UC Davis

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Important information about marine mammals

Like most animals, marine mammals can carry microbes (bacteria, viruses, fungi) that can cause illness in humans. Many marine mammals that appear healthy and normal can carry organisms that are dangerous to humans.

Marine mammals have been shown to carry many of the pathogens we associate with food poisoning, such as *E. coli*, *Salmonella*, and *Listeria*. Like other wildlife, seals and sea lions can shed the protozoan, *Giardia* in their feces. *Giardia* can cause diarrhea and other symptoms in humans. In rare cases, marine mammals may be infected with very dangerous pathogens, like the rabies virus and the organism that causes tuberculosis.

Pathogens known to be transmitted from marine mammals to people

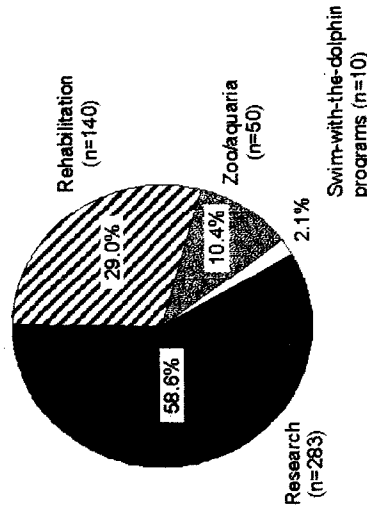
Mycoplasma found in seals can cause "seal finger" in humans. This painful and potentially serious disease can result from a seal bite or the infection of a pre-existing wound. Diligent hand washing is the best defense with infections often responding to tetracycline treatment.

Seal pox is a disease of stranded seals and can be encountered in rehabilitation centers. It can cause pox sores in humans that may persist for up to a year. There is no known effective treatment.

Leptospirosis contracted from seals and sea lions can cause serious disease in humans.

Reported injuries and illnesses in people who work with marine mammals

A total of 483 marine mammal workers responded to a recent survey about their health. The majority of respondents identified research as their primary type of marine mammal contact.



The survey showed that injuries and work-related illnesses are common.

In fact, **over half (54%) of workers reported having at least one injury or illness** that they believed directly resulted from contact with marine mammals. Most were cuts, scrapes, bites, and rashes. About 1 in 10 (11%) marine mammal workers reported developing **seal finger**.

Injury occurred in over half (52%) of workers while handling marine mammals or tissues. Of those injuries, over a third (36%) were severe (e.g. deep wound or fractured bone).

Several dangerous infections were reported by marine mammal workers, including **tuberculosis, leptospirosis, and brucellosis**.

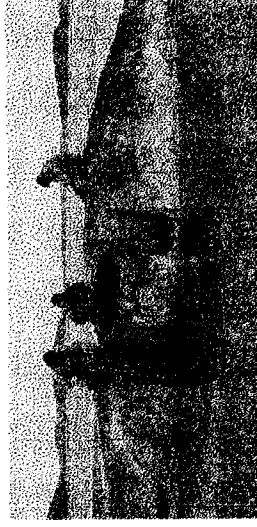


Photo by Erica Dold

Regardless of experience and training, marine mammal workers are at risk of injury and infection.

Exposure to marine mammals can mean exposure to the infections they carry.