The fallacy of culling seals to enhance fish stocks

Birds I View

Bill Montevecchi



Harbour seal - not yet the target of any culling proposals. (photo: Bill Montevecchi)

There is a proposal on the desk of the Minister of Fisheries and Oceans Canada to kill (cull) 220,000 grey seals on Sable Island on the coastal shelf of Nova Scotia. The proposal would also involve the administration of contraceptive treatment to another 80,000 seals. Considering that the grey seal population numbers just over 300,000 animals, the proposed intervention might be considered a final solution to the grey seal problem. The rationale for the kill is to enhance cod stocks in the Gulf of St. Lawrence.

A case against culling

Before exploring the nitty gritty details of the kill, let's examine the evidence that culling predators enhances prey stocks. The issue is well studied by marine ecologists. The evidence is less than equivocal. Owing to the complexity rather than the assumed linearity of marine food webs and interactions among predators and prey, culling predators is extremely unlikely to enhance prey stocks. Indeed, culling can even have the opposite effect and decrease prey abundance.

Rather than assessing the scientific evidence, let's consider the evidence in our immediate experience here in Newfoundland and Labrador. How has the overfishing of cod influenced their primary prey – capelin? Through the overfishing efforts of Canadian and foreign trawler fleets, the northern cod stocks that once dominated the Grand Bank and Labrador shelf have been decimated to about 1-3 percent of their initial biomasses.

It is likely impossible to drive a species any closer to extinction than this. Yet we continue to work on it. In terms of removing predators from an ecosystem, it would also be extremely unlikely if any predator removal could be more successful than the overfishing of cod. So what is the evidence that this predator removal of cod had on their primary prey – capelin?

Cod consumed massive tonnages of capelin. In previous decades, the consumption estimates were of the order of 1,000.000 to 3,000,000 tonnes per year. Just think about those numbers. These estimates were well above the amount of capelin consumed by seals and whales combined and may be twice as great or more.

So now, with the cod – the primary predator of capelin – essentially removed from the ecosystem, what has happened? Ask yourself how have capelin fared through the 1990s and through the first decade of 21st century? Did they rush to beaches in tremendous abundances? Did they arrive at their usual times? Were they in better condition?

The answer to all of these questions is no. And that is the most compelling and first-hand experience that one could have about the ineffectiveness of removing predators to enhance prey stocks. There have been increases in shrimp and crab that cod also eat, but what can one infer about the response of the capelin population to the removal of its main predator? If we were to draw any simple conclusion, the evidence might be taken to suggest that the removal of cod decreased capelin stocks. But the circumstances are complex and not simple.

Support for seal culls

It seems that most fishermen, though not all, support a seal cull. Certainly the local blame choir with strong solo performances by the head of the FFAW and Greenpeace loathers among others, is as usual in full chorus for a cull. Outrage is expressed that the DFO Minister might allow a cull in Nova Scotia but not in Newfoundland and Labrador. Claims of discrimination are yelled from the bowels of dissention.

The Nova Scotia kill proposal

So what is being proposed for execution in Nova Scotia. The pristine beaches and expansive grasslands of Sable Island afford a magnificent isolated protected area where seals bear their young, wild ponies roam, and seabirds and Ipswich sparrows nest. Of an estimated population just more than 300,000 grey seals, 220,000 would be killed, and 80,000 would be administered contraceptive treatments.

But what would be done with all the bodies and bloodied tonnages of carnage? The proposed final solution is to build an incinerator and burn them to ashes – a sort of Dante's Inferno on the marine protected area of Sable Island.

You don't have to be a radical member of PETA, to find this approach to ecosystem management disturbing and sickening. We have to ask clearly, what in God's name is being considered here? While God might forgive them for they know not what they propose, I disagree. Proposed crimes against nature are another kettle of fish altogether.

Constructive action to enhance fish stocks

Why we must ask are cod stocks in the deleterious circumstances that they are in? It is because of one primary predator – us. So what might be done to preserve the privilege and necessity of a wild capture fishery as a viable, sustainable and renewable livelihood in Newfoundland and Labrador and throughout eastern Canada. The answer lies with fishing.

When scientists from COSEWIC [Committee on the Status of Endangered Wildlife in Canada] bring forward proposals for recovery plans and target benchmarks for the enhancement of cod populations, the head of the FFAW is the first off the mark yelling scandalous and rude straight-from-the hip-diatribes. Shoot first, forget about thinking constructively.

There is no way to solve any problem without accepting responsibility for one's own actions and challenging one's own intentions and behavior. In lieu of this, it is simpler to blame seals and foreigners. Through this entire sullied process what is really been culled is ecological integrity.

Opposition members question CNLOPB activity

It is encouraging to hear the poignant questions that are being raised in House of Assembly about the regulatory failures of the CNLOPB (Canadian Newfoundland and Labrador Offshore Petroleum Board). Yvonne Jones and Lorraine Michael have been right on the money, notwithstanding the condescending and often rude and comments from the Minister of Natural Resources and Deputy Premier of our province.

Godspeed Jon Lien

On 16 May, the Lien Family hosted a wonderful and inspiring celebration of Jon's Lien's life at the Marine Institute. Neighbors, friends, family, colleagues, students came together to pay tribute to Jon. Jack Harris offered a moving insightful tribute about how as a student he and others were motivated by Jon to see and engage life in different ways that signaled new and emerging changes.

Jon's son, Elling referred to his Father's legacy as a call to action. Daughter Maren spoke about how proud she was that her Father would fearlessly stand up for things that he felt were just and right. The graciousness, fortitude and endearing efforts of Jon's wife Judy and son OJ were deeply moving.

When it all comes down to dust, as must for each of us, when all the tributes and awards are laid on the hearth, what better tribute can there be than such a caring, considerate and courageous family. A dream never dies. Godspeed, my friend.

A scholarship has been set up in Jon's name at Memorial University. Anyone wishing to contribute to this living legacy can contact the Office of Alumni Affairs and Development (737-4354), make a donation on line (https://www3.mun.ca/alumni/viking.gv120.p001) or by

contacting Ted Rowe or me. your consideration.	Someone including you will be better for it. Thank you so much for