Lemming Lamentations

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This story about the expedition “Tundra Northwest 1999” was written down during a later polar expedition as a reaction against the poor understanding of fieldwork displayed by some expedition participants. It is doubtful, however, that the targets for which I aimed understood the point I tried to make. Be that as it may. It is my firm belief that traditional knowledge, as described here, is of utmost value and can help any scientist working in the field to gain valuable knowledge. But you must know how to listen to others not sharing your understanding of the world.
Prologue
Lemmings are enigmatic rodents, not least because of the famed Lemming runs; the propensity of Lemmings to go on the move when their numbers have exceeded the carrying capacity of the area they are living in. Unfortunately, the film about Lemming runs produced by Disney in the early 1960s was a total fake. The film crew had cadged Lemmings that were thrown *en masse* over cliffs or into rivers to demonstrate the putative “collective suicide” taking place during Lemming runs. Collective Lemming suicide has never had any serious support in modern ecological science, but Lemming runs, the sudden presence of large numbers of Lemmings in areas far from the mountains that they normally inhabit, has been described several times. Lemming runs, however, are not all that common and there is a more “normal cyclicity” with years with high numbers of lemmings in the mountains, a cyclicity that in Scandinavian folklore is seven years\(^1\). These, lemming cycles also govern population size cycles of specialized Lemming hunters such as the Arctic Fox, Long-tailed Skua (Long-tailed Jaeger in American), and Snowy Owl. Although it has been very long since any real mass explosion with Lemmings reaching the coast of the Bay of Bothnia, this, in my understanding, has never really put the concept of Lemming runs in doubt among Scandinavian scientists. Indeed, Lemming runs reverberate deeply in Scandinavian folklore; in the first explanations of the Old Testament in ancient Norse, dating from the 13th century, the Locusts that plagued Egypt were replaced with Lemmings. Locusts would not describe anything understandable to a Scandinavian populace, but Lemming runs were a well-known phenomenon. Even the seven-year cycle of good and bad years in the dreams of the Pharaoh could be translated to the putative seven-year cyclicity of the Lemming runs.

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*The Importance of Inuit\(^2\) Intelligence*

Bill was frustrated! The Swedes were probably laughing. Not directly in his face; when he was around they were only mildly ironic. Here he was, a world leading authority on Lemmings who had spent well-nigh 50 summers in the field studying Lemmings, invited to participate in the Swedish expedition “Tundra Northwest 1999” (TNW-99) to the Canadian Arctic to collaborate on various projects concerning the life and ecology of Lemmings, but everything seemed to go astray. Virtually all predictions he had made on where Lemmings would or would not be found had gone astray.

Worst of all, at Ellef Ringnes Island, where the magnetic north pole was situated in 1999, he had ventured to bet that no one would find any Lemmings and promised to pay 500 000 $ to anyone who caught a Lemming. And, of course, here of all places, there were many. One of the ornithologists even had the bad taste of catching a Lemming in the middle

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1 The cyclicity is actually rather complex, in Scandinavia often with “small” maxima every ~3-4 years, while mass expansions where Lemmings reach very far out of their normal distribution area are much rarer.
2 Inuk – one human, Inuuk – two humans, Inuit – many (>2) humans.
of a broad, sandy beach, scooping it up with a wooden ladle! Bill sincerely hoped that no one would try to force him make good his bet; even in Cannuck dollars, 500 000 is a lot of money!

Bill was also surprised that the Swedes had not believed him when he claimed that Lemming runs are only a matter of fiction, a fable out of the depths of folklore that had become accepted as scientific fact. His argument was clear: Lemming runs had never been observed in North America where there was no preconception of their existence, so why would they be real in Scandinavia? An old Emeritus Professor from Uppsala that was on board for parts of the expedition claimed to have experienced Lemming runs in the 1950s and 60s, but Bill just took this as yet another example of how much people are influenced by the memories in a folkloristic past, even scientists that should stand free from all such influence. But at the same time, Bill’s failures during the expedition to foresee where there would be Lemmings or not were a complication not easily ignored in the communications with the Swedes.

Bill was one of many international scientists on TNW-99, though most had more success in their actual fieldwork, at least as far as I could observe. The expedition was particularly interesting as it opened opportunities to get ashore in areas along the Northwest Passage and other parts of the Arctic Archipelago that otherwise are very difficult to reach. One of my absolutely most fabulous nature experiences ever was on Ellef Ringnes Island when I, against all safety regulations, accidentally came to sit alone on a knoll listening to – absolute silence. Not a bird! Not an insect! The only thing that could be heard was the wind. I sat there for over an hour when a strange throbbing suddenly disturbed the peace; the rotor blades cleaving the air when helicopter was firing up the engine on the ship more than 25 km away.

The year of the expedition, 1999, was also momentous to the local Inuit as this was the year when Nunavut gained status as Territory within Canada, and the visit of the Swedish expedition to the new capital Iqaluit (formerly Frobisher Bay) lent an international flavour to the ceremonies. The expedition also made use of local Inuit hunters as guides and Polar Bear guards.

In spite of engaging local guides, the communications with the communities were not always successful. Particularly when passing Fury and Hecla Strait north of Igloolik, one of the oldest settlements in Arctic Canada, we broke through the ice at the same time as the hunters were over on the Baffin Island side of the strait for the spring hunt. A great many hunters were left stranded with no way of getting their snowmobiles back home. There were some negotiations on board the Canadian icebreaker CCGS Louis S. St. Laurent to solve the problems. Intercultural communication is never easy and versions differ, but, according to the Igloolik hunters that I was later to meet, the negotiations essentially led nowhere. The hunters perceived the captain as cool and arrogant, simply stating that he was the master of a Canadian state vessel and would take it wherever and whenever he liked in Canadian waters, not asking any local’s permission.
Two years later, I was asked by the Swedish Polar Research Secretariat to be part of the delegation that reported about the activities and results from the expedition back to the communities. My work on pollutants in the food chain was considered particularly interesting to the Hunter’s and Fisher’s Associations in the respective communities. This was a rare and welcome treat as it would take me to the Canadian High Arctic during a time of year when few “qallunaaqq” – southerners – have opportunity to go there. It would make it possible to visit communities that are only possible to reach with very expensive air tickets. Consequently, in late April 2001 a delegation consisting of high representatives from Swedish and Canadian polar research organisations, me, and a hitchhiker from the Danish Polar Institute, set out in a small chartered jet.

This trip contained some of the most amazing flight experiences I have ever experienced. Particularly the magnificent scenery during the approach to Pond Inlet between the high slopes of a snowy natural ravine, and a mind boggling, adrenalin-kicking landing at Cambridge Bay in the gusts of an approaching storm. Two young boys from the village, 13 and 15 years old, were to perish in that same blizzard. They were trying to get back from their families hunting lodge some the 800 metres outside the village to their home and were later found, dead from hypothermia, 15 km out on the sea ice. It was a moving experience to see how the community reacted and everybody was expected to contribute to the search.

Because of the events when we broke through Fury and Hecla Strait, we anticipated the meeting in Igloolik with some awe. All meetings with local hunters have to take place with an interpreter as few of those who live off the land have ever learned English. English is spoken by the younger generation, but these, too, honour the knowledge of the elders. All communication via interpreter must be handled with caution. The situation was not bettered by the fact that those organising the tour had forgotten to let the local Hunters ‘and Fishers’ Associations know that we were coming! It was a rather severe blunder to just turn up and request that the elders gather to meet with qallunaaqq guests. The translator whispered to me that to the elders this was only confirmation of the attitudes they so frequently experienced with qallunaaqq authorities.

However, after finally managing to get a sufficient number of the elders gathered we had a fairly well functioning meeting, although the elders were clearly somewhat reciprocally condescending to these qallunaaqq who thought they had some new knowledge to convey that would be of any consequence what so ever for those living off the land. When they heard that there had been Lemming research onboard, one of the elders decided to sandbag us and asked why there some years were so many Lemmings at the ice edge during the spring hunt. The expected answer, according to the elders, was that the Lemmings fell out of the sky.

It is a cause of unending embarrassment and shame to me that my travel companions, who, because of their status in governmental organisations had to be regarded as my superiors, laughed out loud. By doing so, I believe they missed the point entirely.

Why do we have science? In my view, science is just a way to organize observations - facts if you will - in a way that make these observations usable to build a functioning society. Science, to me, is also about accepting the fact that I am always wrong, or at least can never
gain full knowledge, about the world. Somewhere along the line, someone will come along
and point at my mistakes and misunderstandings. All I can ever hope for is to help produce an
interpretation of present-day observations that can better the living conditions of my fellow
humans. With this view of science, the explanation of the elder that the Lemmings fell from
the sky was in no way any worse than any explanation “modern science” could have come up
with. If, in fact, my fellow travellers had bothered to listen to the elders there were many
interesting observations that they provided that could have been used in the best of modern
day science. *The elders, as far as I could make out, actually described Lemming runs!*

The observations they described had a similar cyclicity as the Lemming years of
Scandinavia. They describe essentially all aspects of Lemming rich years that also triggered
increases in carnivores depending on Lemmings. The descriptions had fascinating similarities
with what has been written on this issue in Scandinavia. The only difference was that these
Canadian Lemming runs took place in early spring under the snow, whereas the traditional
Scandinavian Lemming peaks are mostly in late summer through autumn. Perhaps, if Bill or
some other qallunaaq researcher had bothered to go up to the Arctic in early spring they
would have discovered “scientifically” that there actually are Lemming runs in Canada, too,
“discovering” a phenomenon already well-known to the local elders.

Further, this traditional knowledge of the phenomenon had been collected using a
properly scientific method, equal to the methods any qallunaaq researcher would have used;
numerous observations in the field over a long time span – in fact, the observations of several
generations had been compiled.

However, the elders did not need an explanation that was “scientific” in the qallunaaq
understanding of the term. They needed to describe the phenomenon in a way that makes
sense for those living off the land, in a conceptual framework useful to the everyday hunter.
The explanation that the Lemmings fell from the sky was probability sufficient for those
living off the land Inuit style. The Lemmings at the ice edge might indicate a cycle in the
environment that could indicate to the hunter when other types of useful game could be
sought; precisely the same function, I my view, as science has in our own society. Giving the
explanation a guise that was easily understood by all who had experience of living off the
land would in this context be more to the point than any advanced modelling of population
curves as presented by qallunaaq science. Put in other words, the observation of Lemmings at
the ice edge would have been of no use what so ever to Inuit society unless it had been given
a guise sufficiently popular for the everyday hunter to understand.

How does this reflect on how we popularize our science? What level of popularisation can we
actually accomplish in our complex modern society? After all, few of us go out on the land to
fetch our own food with the knowledge provided to us from our elders. All we need do is go
to the grocers.

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3 Again, this is far from the whole truth, and the time of year for Scandinavian Lemming runs may be much more
arbitrary.
I am neither trying to glorify traditional Inuit life nor the knowledge of their elders; we could in no way all of us start living off the land again. But I do think that it is good for every scientist to once in a while ponder a little over our own role in society to understand what we are actually doing. One way of doing that is in the reflection of other traditions. And when it comes to observations of phenomena in the Arctic environment I would gladly trade in the observational skills of any high-shot qallunaaq professor for the observational skills of an Inuk elder. The interest of the qallunaaq is scarcely more than to publish a few more papers out of the observations, while the life of the Inuk elder, his family, and the whole community depends on well performed observation over many generations to draw a livelihood out of a very harsh environment.

Besides, what qallunaaq scientist would ever consider going to the Arctic to study Lemmings in early spring? The Lemmings hide under the snow and it is too cold for fieldwork anyway!