

Marine Mammals - a Multifaceted Resource

NAMMCO



NAMMCO examines the potential of marine mammals as a food resource in a "Blue Economy" - and climate and environmental change from an environmental, dietary and societal perspective. Some marine mammals are abundant, and hunting them locally leaves a very small ecological footprint. It is relevant to ask why these resources are ignored in the context of food security when sustainably managed. Below is a summary of document with the same title - available on nammno.no

Marine mammals represent, now as in the past, an obvious and logical food resource in the Arctic. Many pinnipeds - seals and walrus - are actually seeing a population increase because of the conservation measures in place within NAMMCO as demonstrated by the West Greenland stock of walrus.

When harvests do not exceed the reproductive capacity of stocks, local whaling and sealing provide an environmentally friendly contribution to the planet's food supply.

Locally hunting marine mammals is one of the environmentally-sound ways of securing food for human consumption today: the environment remains unaffected, energy use is low in relation to yield, and there is no pollution from fertilisers, pesticides or other chemicals.

Although whaling and sealing contribute little to food production in global terms, they do contribute to reducing pollution of the land and seas that result from modern agricultural and fishery practices that leave a chemically intensive and high carbon footprint.

The use of local food resources limits transport and fits well with the existing limited infrastructure in the Arctic.

Blue and sustainable

Whaling and sealing under NAMMCO's umbrella meet many of the relevant criteria defining the Blue Economy according to the guidelines of the World Wildlife Foundation, the WWF.

However, the ban on seal products and fur in the EU is de facto also affecting Inuit sealing although officially an exception within the EU. Today, very few skins are sold and tanned. Great Greenland, a fur company and one of the biggest employers in Greenland, had to close its last sewing workshop in January 2016.

The livelihoods of the Greenlanders have been decreased due to market failure but the seals are still hunted since their main service is to provide food for humans.

The price of the skins has dramatically decreased, resulting in some hunters not being able to afford to hunt anymore.

The ban on sealskin products does not make sense since it just reduces resource efficiency. It makes hunters' livelihoods less sustainable, thus decreasing human well-being and social equity, while not reducing any environmental risks or ecological scarcities but increasing discard. In many cases, seal skin fabrics are more environmentally friendly than any other fabrics.



New threats

Marine mammals face multiple threats from humans - and we do not know how these threats interact. Virtually nothing is known about their cumulative impacts. Hunting and killing is just one of several threats. The animals' normal behaviour is disturbed, the places where they live and mate and their prey change. Environmental change is not restricted to global warming. It is exacerbated by the build-up of pollution. Both could potentially affect northern, and eventually worldwide marine ecosystems (which also include humans) just as severely as global warming. Hunting is the most controlled human impact and the easiest to act upon through quotas and inspections.

The impacts of climate change on marine mammals will vary according to the specific ecology of the different species, from likely severe negative impacts on ice-dependent species to likely positive impacts on seasonally migrating sub-arctic species.

Climate change

Overall, the impacts and consequences of climate change are very difficult to predict. Marine mammals, like any other elements of the Arctic ecosystem, will most likely be strongly affected by climate change.

The loss of Arctic sea ice is one of the most directly visible aspects of climate change.

The impact of rising temperature will be both direct through habitat loss and indirect through changes in how their prey is distributed and in which quantities. We shall also see changes in food chain dynamics which will affect the top predators, particularly marine mammals and birds.

And more changes can be expected, such as modifications in ocean circulation and pH balance in the form of rising acidity.

Changes in the quality of the ice cover already affect ice-breeding seals negatively. Unpredictable weather effects and increased human activities and associated disturbances will bring monumental changes to the Arctic. Whether, how and how much animals can adapt is difficult to assess. The serious impacts of climate change on marine mammals can already be seen in the decreasing blubber thickness of harp seals and minke whales in the Barents Sea and the changes in geographical distribution of minke and fin whales observed in the Northern Atlantic.



The soft killers: contaminants and microplastics

Harbour porpoise, killer whale and bottlenose dolphin populations are among the marine mammals showing reproductive failures correlated to their PCBs burdens in European seas.

Despite regulations and mitigation measures to reduce PCB pollution, their biomagnification and persistence in marine food webs continue to cause severe impacts among cetacean top predators.

They transfer over long distances from industrialized to non-industrialized regions of the Arctic, where they concentrate as they make their way up the food chain. The Arctic region has long been portrayed as pristine and clean from the impact of pollution. But remoteness and the absence of indigenous pollution sources no longer guarantee the well-being of northern communities and wildlife populations. The Arctic is the recipient of contaminants whose sources are thousands of miles away. The problem is compounded by the fact that many such chemicals are fat-soluble and the Arctic has a relatively high-fat food web.

Marine organic pollution undermines food quality, sometimes leading to levels in seafoods above accepted standards for human consumption. Microplastics are now turning up in all the world's major oceans including the Arctic and Antarctic, and are likely the most numerically abundant items of plastic debris in the ocean today.

Disturbances

Human activities, such as oil and gas exploration, shipping, fisheries and tourism generate disturbance to marine mammal populations in various ways. These disturbances impact marine mammals not only at the individual level (welfare issue), but also at the population level. These activities will have secondary risks such as chemical and noise pollution, too. The effect of these anthropogenic activities and disturbances needs to be assessed and predicted, so their impact can be included in population dynamic models and management. NAMMCO finds it essential to increase the scientific cooperation between all organisations dealing with marine mammal conservation.

Health and well-being

A substantial number of health benefits are linked to the intake of seafood and marine mammal products.

The beneficial properties of marine mammal products could be connected to their unique fatty acid composition and their high levels of omega-3 fatty acids, but may also be related to antioxidants and other substances found in the oils.

In the Arctic, food insecurity is particularly exacerbated by the changes incurred by climate change. The increased dependence in these regions on flown-in food of low nutritional quality contributes to health problems such as obesity, heart disease and diabetes in the Inuit populations of Canada and Greenland.

Climate change directly alters both animal migration routes and hunters' access possibilities, making hunting harder. Climate change also causes delayed food shipments and a global rise in food prices. Noteworthy and worryingly, recent studies show that the younger children more frequently experience food insecurity, while they were previously found to be in general protected compared to older teenage children.

New information indicates that small communities and settlements in west northern and east Greenland experience food insecurity as a growing problem, partly due to restrictions in hunting rights.

In Greenland, low-income families cannot afford the high costs of hunting equipment—boats, snowmobiles, rifles, sleds, camping gear—and transportation (oil and fuel), causing a decline in the number of families who hunt for their meals.

"Our foods do more than nourish our bodies, they feed our souls. When I eat Inuit foods, I know who I am. I feel the connection to our ocean and to our land, to our people, to our way of life"

(Egede in Cone 2005).

Many of the marine mammal stocks that were depleted by overexploitation from commercial whaling and sealing are presently recovering and some have recovered and are at or above pre-exploitation level. Small scale whaling and sealing, and the associated ecological risks, are very different from the moving-from-one- resource-to- the next industrial type hunting. And the benefits from eating the marine mammal meat include more than just nutrient advantages but also socio-cultural cohesion, self-sufficiency and self-determination.

"Although whaling has now receded, there is, sadly, a sizable list of threats to cetacean populations, almost all of them human-caused. Some of these impacts are well documented, while the effects of others are less tangible."
(Clapham 2016)

It is now possible to sustainably manage marine mammal hunting activities, especially as the small non-industrial coastal type practiced in NAMMCO countries makes inspection and enforcement from the catch to the market feasible.

Save the whale - or not

Many people believe that whales are endangered, as if there was a unique ubiquitous whale: "Save the whale". They appear surprised to hear that some species are in danger, while others are thriving. Marine mammals fascinate. They are seen as special and dignified animals that should not be hunted. The protection and hunting of marine mammals seems to illustrate a clash of cultures between urban and more traditional life styles. The wider public believes, or is made to believe, that marine mammals are cute, cuddly and innocent, whereas sharks are cruel. Many shark species face serious conservation issues, but few people care.

In the name of ethics and morality, coastal communities are required by outsiders not affected by the consequences to abandon local food resources, resources with societal, cultural and spiritual value, that are abundant, not threatened and have high nutritional quality, for the benefit of imported foods that are flown in and in general of low quality.

The NAMMCO priorities

The people's right to utilise natural resources lies at the very core of NAMMCO countries which consider the use of wild fauna and marine mammals to be ethically defensible if it is sustainable and responsible (minimising suffering and resource waste).

Present whaling and sealing by NAMMCO countries are local, controlled and managed stressors, with impacts limited to the individual level and not impairing stock survival.

The uncontrolled removals of a higher number of marine mammals through by-catch and entanglements in fishing gear continues with limited monitoring, assessments of the effects or mitigation and is in essence more detrimental to marine mammal conservation. Global warming, which is affecting the Arctic at a rate of almost twice the global average, will have severe effects on living conditions both for people and wildlife. And global stressors have impacts thousands of kilometres away from their origins.

Many of the marine mammal stocks in the NAMMCO area can unquestionably support controlled removals. The ethical dilemma in consuming marine mammals should be viewed in a holistic, ecosystem-based perspective. NAMMCO parties believe that it is most ethical to give responsibility to the coastal communities to decide whether they want to use robust marine mammal stocks as food resources. The efforts and money spent in stopping seal hunting and small coastal whaling would be better spent on pressing issues more universal in character and consequences such as by-catch, climate change mitigation and marine pollution.

Scientific cooperation between organisations dealing with marine mammal conservation should be strengthened for the benefits of seals and whales and focus and acts should be directed towards conservation issues of importance to the global environment.

The document Marine Mammals - a Multifaceted Resource can be found on nammco.no as a pdf file