

# Norwegian management of grey and harbour seals

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Thank you for inviting me to this interesting webinar. The balance between sustainable utilization and protection of a living resource is difficult. In particular when we are dealing with large mammals such as seals. Seals are charismatic animals and the arguments for their protection are usually strong. Seals are also a valuable resource that can and should be utilized sustainably. There is also an additional argument for active management of seals. They often have a detrimental effect on local fisheries.

All these three arguments were taken into account when we wrote the Management Plans for grey and harbour seals in Norway. The Management Plans were adopted by the Ministry of Fisheries in 2010, and the overall objective for both species is to secure viable populations throughout their natural range. Within these frames the populations can be regulated by hunting to mitigate interactions with fisheries.

The Management Plans defined Target Levels for the total population sizes of grey and harbour seals in Norway. This was the most difficult part in the development of the Management Plans. We wanted a political decision on how large the populations should be, but we never got a signal back from the government. We therefore recommended that the Target Level should be set equal to the population sizes in 2006.

The Management Plans are internationally evaluated by the Scientific Committee of NAMMCO, the North Atlantic Marine Mammal Commission.

The Target Level for harbour seal is a population size large enough so that 7000 hauled out moulting seals can be counted in August. This was the case in 2006. 7000 hauled out moulting seals correspond to a true population size of about 10 000 harbour seals. Hunting quotas are used to stabilize the population at this level. The current quota is 460 harbour seals. In addition, we have anthropogenic mortality as bycatch in fisheries.

We have colonies of harbour seals along the entire mainland coast from the border with Sweden in the south to the border with Russia in the north. Harbour seals have been managed county by county. We are currently finishing a project where we are mapping the genetic structure of Norwegian harbour seals so we can divide the population into biological meaningful Management Units. We will then run viability analysis to see how large a Management Unit must be before we can open up for harvesting. It is therefore expected that the Target Level of harbour seals will change in a forthcoming revision of the Management Plan. Additionally, we have experienced that the population in the Norwegian Skagerrak in 2006 was still in a recovery process after the 2002 PDV epizootic. It is therefore relevant to increase the Target Level at the next revision of the Management Plan. The current population is also larger than the present Target Level, mainly due to the recovery of the population in the Skagerrak.

The grey seal population is monitored by counting white coated pups in the late autumn. The Target Level is set so that 1200 pups can be counted annually. The grey seal population is

managed in three Management Units. These units are based on genetic differences and movement of tagged seals. There is little exchange of seals between the Management Units.

In southern Norway we have one small colony off Stavanger. This colony has been stable over the recent decades with the current production of about 40 pups born annually. This colony is managed as a separate Management Unit, and the quota is 60 seals.

From 62° to the Lofoten Islands there are several breeding colonies, and they are managed as one Management Unit. There used to be 950 pups counted in this Management Unit. The population has been stable or slightly increasing since the 1990 and until 2013. However, in 2014 we started to record a decline in pup production and the quota was immediately set to zero. The population has continued to decline and the counted production this year was only 324 pups. We do not know the reason for this decline but a large-mesh gillnet fishery for monkfish has expanded in this area in recent decades. We know that young grey seals are very vulnerable for bycatch in large mesh gillnets, and we think that bycatch can be an important reason for the population decline in this Management Unit,

The third Management Unit is from the Lofoten Islands and north to the Russian border. This Management Unit consists of several small breeding colonies and the counted production has been stable over the recent decades with about 275 pups annually. The quota of 140 seals has been constant for many years.

The alert listener will have observed that the quotas in the southern and northern Management Units have been very high compared to the pup production. This is because in the southwest of Norway a large proportion of the harvested seals are grey seals from the very much larger British colonies. In the northern Management Unit a large proportion hunted seals is from the large breeding colony just across the Russian border. Setting these comparatively large quotas has over time proven to be adequate to stabilise the Norwegian pup production in these Management Units.

The problem is the Management Unit in Central Norway where the pup production continues the decline despite zero quota. There is now an emerging discussion on the possibility to close or restrict the monkfish fishery to reduce the bycatch level.

Quotas are set annually, and you need a licence to participate in the hunt. You also need to pass an annual shooting test. Harvested seals should be reported immediately.

The products of the Norwegian harvest of harbour and grey seals are used locally. The fur is used for different purposes and the meat is used for human consumption and the remaining carcass is utilised as food for dogs. We are therefore not impacted very much by a trade ban. However, if the harvest increases beyond the local demand for the products, a trade ban would have hampered the sustainable resource use. Trade ban should be related to the conservation status of the harvested species and used to prevent unsustainable exploitation. Trade ban on entire taxonomic groups, independent of their conservation status, has the potential of negatively impact on the sustainable resource use,