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(Recommendations to the Government of the Faroe Islands concerning the pilot whale, English translation released 1 December, 2008)

To the Prime Minister, the Minister of Health, and the Minister of Trade and Industry.

# Recommendation of discontinuation of the use of pilot whale for human consumption.

The Faroese have for centuries killed pilot whales, and the pilot whale has in many ways been an important part of Faroese life – in regard to both food and culture.

There are many accounts of the importance of the pilot whale for us in this country. If some years went by without any whales, it was reflected in the household, and the joy was great, when this gift from God again appeared from the sea. There is no doubt that this food source in many ways has contributed to good health and has remedied imminent hunger in many homes.

As late as in the 1970s, school doctors would write on the note for the parents that they should make sure that blubber was included with the breakfast.

But in 1977 the first examinations was carried out to document the contamination of the meat, blubber, liver and kidneys of pilot whales. These studies were initiated to ascertain if the mercury content in the pilot whale was elevated, since this whale is high in the marine food chains, and since other studies had shown that the amount of mercury is increased in marine species via food chains, where the toothed whales belong to the highest level. And the results of these analyses were shocking. They showed that the mercury concentration in the meat itself was high, and that it was further increased by about 100-fold in the liver and kidneys, as compared to the whale meat.

For this reason, the health authorities at the Faroe Islands decided to recommend to consume whale meat and blubber only once per week, and to abstain completely from eating liver and kidneys.

These recommendations have since then been tightened as a result of new knowledge on adverse health effects in humans, and the latest recommendation, from 1998, is as follows:

#### Blubber 'Blubber

High PCB contents in blubber lead us to recommend that adults, at the maximum, eat pilot whale blubber once to twice a month. However, the best way to protect fetuses against the potential harmful effects of PCBs is if girls and women do not eat blubber until they have given birth to their children.

## Whale meat

The mercury content of pilot whale meat is high and is one of our main mercury sources. Therefore, we recommend that adults eat no more than one to two meals a month. Women who plan to become pregnant within 3 months, pregnant women, and nursing women should abstain from eating pilot whale meat.



### Organ meat

Pilot whale liver and kidneys should not be eaten at all."

It was added that, if new information emerged which led to a change in our current knowledge, then it would be considered to which extent these recommendations should be adjusted.

During the last 10 years, results of scientific studies have revealed an even gloomier picture of the adverse health effects that are caused by contaminants in pilot whale meat and blubber.

The results have so far shown that:

- 1. Mercury from pilot whale meat adversely affects the fetal development of the nervous system
- 2. The mercury effect is still detectable during adolescence
- 3. The mercury from the maternal diet affects the blood pressure of the children
- 4. The contaminants of the blubber adversely affect the immune system so that the children react more poorly to immunizations

The newest studies show that

- 1. Contaminants in pilot whales appear to increase the risk of developing Parkinson's disease in those who often eat pilot whale
- 2. The risk of hypertension and arteriosclerosis of the carotid arteries is increased in adults who have an increased exposure to mercury

Currently, studies are underway to examine the fertility of the population, since suspicion has been raised that reproductive functions may be decreased because of contaminants in pilot whale meat and blubber.

These observations should be considered in a global perspective. Mercury in the oceans has been augmented, and, e.g. polar bears now have a hair-mercury concentration that is about 10-fold greater than during earlier times. Polychlorinated biphenyls (PCBs) have been added as an environmental toxicant in the second part of the 1900s, but after bans about 1980 the concentrations in pilot whale have not yet decreased much. The pesticide metabolite DDE is also a new environmental chemical, and the parent compound DDT is still in use in other regions of the world. In addition, new compounds such as the organic fluorine compounds that are used for textile impregnation and other purposes, are now found in increased concentrations in the blood in children, who eat pilot whale.

The latest analyses show that the mercury concentration of pilot whale remains high with an average of about 2 micrograms per gram. In the EU, the highest limit value of 1 microgram per gram is only applicable to the most contaminated species of fish. This limit is exceeded by most pilot whales. If we rely on the U.S. Environmental Protection Agency's limit for total dietary intake at 0.1 microgram mercury per kilogram body weight (which is based upon the research carried out in the Faroes), an adult person weighing 70 kg can consume only 3.5 gram of pilot whale meat per day to reach the limit value.

Blubber still contains high levels of several persistent organic compounds, such as PCBs and DDE (which is a breakdown product of the insecticide DDT). The average concentrations of both PCB and DDE are higher than 10 microgram per gram of blubber. In regard to PCB, there are several limit



values, which have been determined with a view to preventing any increased degree of contamination. Most of these limit values are below 1 microgram per gram.

It can therefore be concluded that pilot whales today contain contaminants to a degree that neither meat nor blubber would comply with current limits for acceptable concentrations of toxic contaminants.

The Faroese body burden of pollutants is also high seen in an international perspective. However, the most recent studies have shown that pregnant women eat much less pilot whale meat and blubber than before. This change has resulted in a decrease in the mercury concentration in the blood from pregnant women, but the content of PCB is unchanged, most likely because PCB is only slowly degradable.

The growing scientific documentation has, during recent years, given rise to the anticipation that the time was approaching when it would be appropriate to recommend against any human consumption of pilot whale meat and blubber.

From the latest research results, the undersigned consider that the conclusion from a human health perspective must now be as follows:

# It is recommended that pilot whale is no longer used for human consumption.

It is with great sadness that this recommendation is provided. The pilot whale has served the Faroese well for many hundreds of years and has likely kept many Faroese alive through the centuries. But the times and the environment are changing, and we therefore believe that this recommendation is necessary from a human health point of view. We in the Faroe Islands are without responsibility in regard to the marine pollution, which has been inflicted upon us from outside. That research in the Faroes has contributed to the current focus on this contamination is a bitter irony. But these results have already led to tightened restrictions on pollution worldwide. We must therefore also ourselves acknowledge the consequences.

We are of course at your disposal with supplementary information and relevant research articles.

Yours sincerely,

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