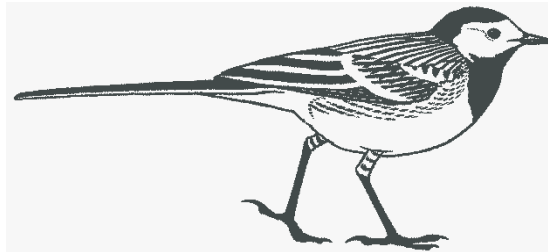


Health Risks of Travel in North West Europe

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Reiseklinikken-Oslo Travel Clinic



Northwest Europe:

- UK
- Netherlands
- Belgium
- Germany
- Ireland
- Iceland
- Norway
- Sweden
- Finland
- Denmark

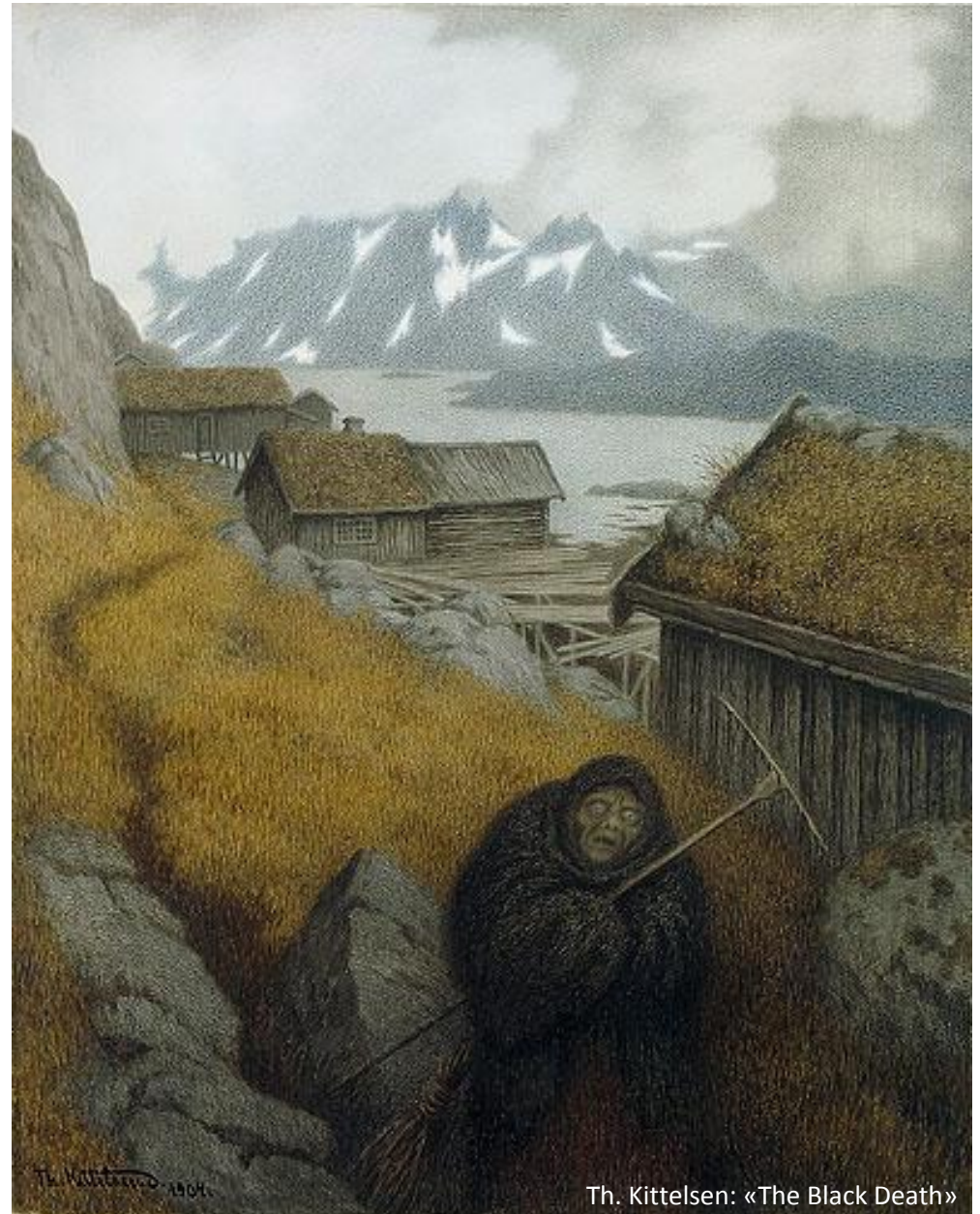


Low risk area

- Infectious diseases
- Criminality
- Accidents
- Natural disasters
- Terrorist attacks

Good health care

No longer any
major threat
from infectious
diseases



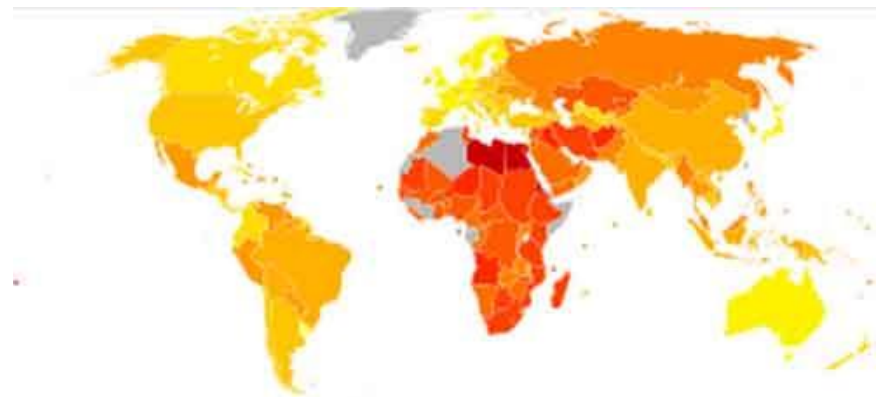
Th. Kittelsen: «The Black Death»

Low number of homicides

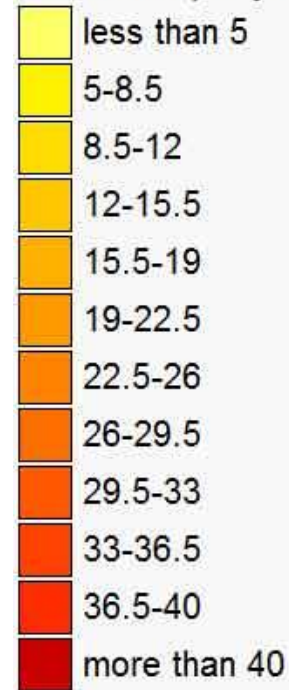
Intentional homicide rates per 100,000 population by region	2004 ^[5]	2010 ^[6]
Southern Africa	37.3	32
Central America	29.3	25
South America	25.9	21
West and Central Africa	21.6	19
East Africa	20.8	23
Africa	20	17.4
Caribbean	18.1	21
Americas	16.2	15.5
East Europe	15.7	7
World	7.6	6.9
North Africa	7.6	6
Central Asia and Transcaucasian countries	6.6	6
North America	6.5	4.7
Europe	5.4	3.5
Near and Middle East/Southwest Asia	4.4	3
Oceania	4	3.5
South Asia	3.4	4
Asia	3.2	3.1
Southeast Europe	3.2	1.5
East and Southeast Asia	2.8	3
West and Central Europe	1.5	1.2

Source: Wikipedia

Low risk of traffic accidents



Road fatalities per capita (fatalities per 100,000 inhabitants per year)



Source: Wikipedia

The great natural disasters tend to occur far away,
and Terrorist attacks are unlikely

Infectious diseases

- Everybody should be vaccinated against measles, mumps, rubella, diphtheria, tetanus, pertussis and polio
- People with heart and lung disease, diabetes patients, and those over 65 years should have vaccines against seasonal influenza and pneumococcal disease
- Meningococcus vaccine should be considered, if incidence is increasing

None of these are «travel vaccines»

TBE: A vaccine-preventable disease

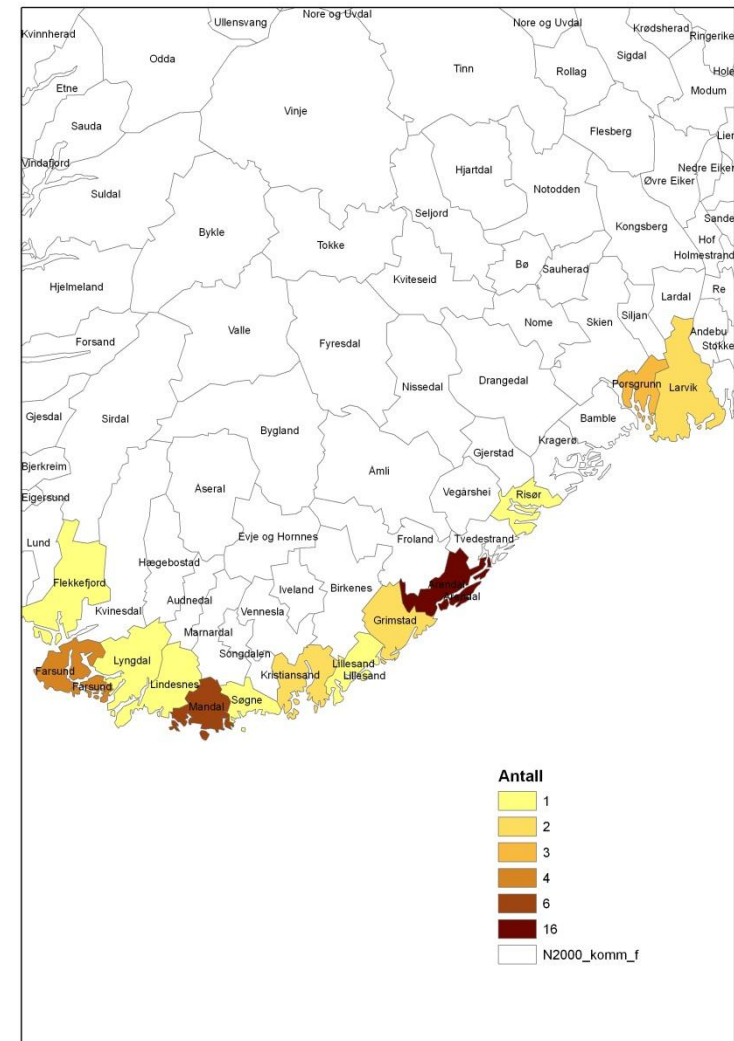


Source: FSME-IMMUN

TBE is hardly a risk for visitors from non-endemic areas

Norway: 5 mill inhabitants

Smittested	98-05	2006	2007	2008	2009	2010	2011
Norge	11	3	13	9	8	10	14
- Vest-Agder	6		4	4	3	2	2
- Aust-Agder	4	3	6	4	3	4	7
- Telemark			1		2	3	3
- Vestfold	1		1			1	1
- Østfold							1
- ukjent fylke			1	1			
Utlandet	3	2		2	1	1	1
- Danmark	2						
- Latvia				1			
- Slovakia				1			
- Tyskland	1						
- Sverige					1	1	
- Ungarn		1					
- Østerrike		1					
- utlandet ina							1
Ukjent smittested					1		
Totalt	14	5	13	11	10	11	15

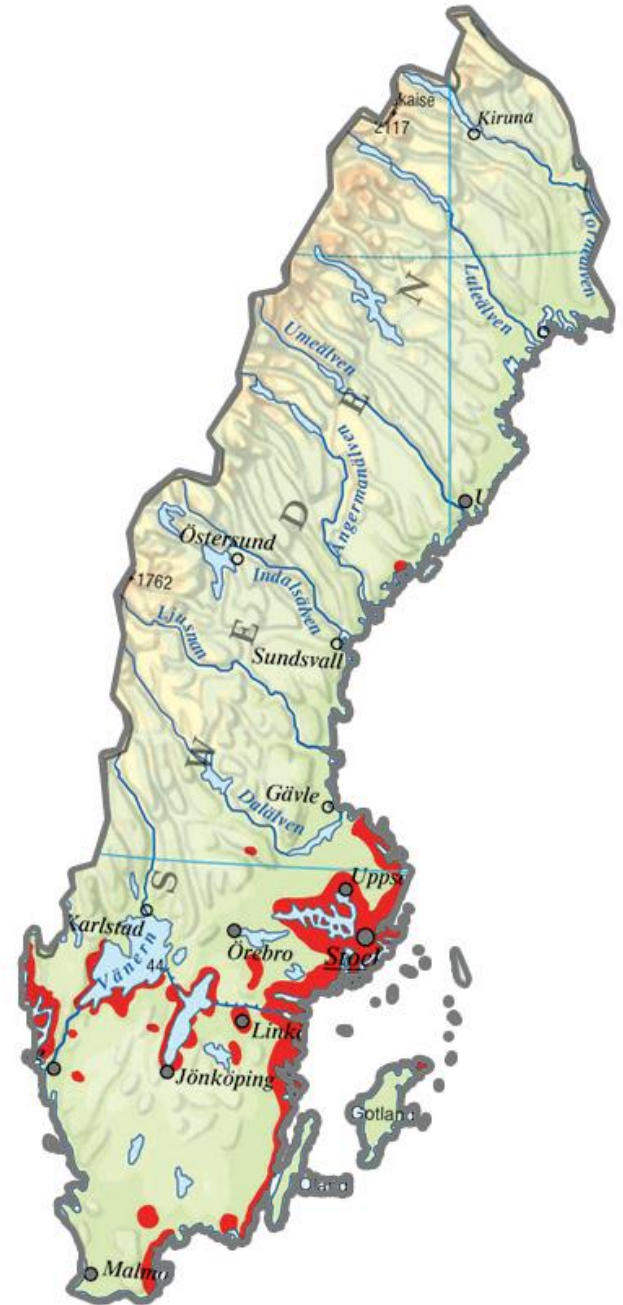


Germany, 82 mill inhabitants:

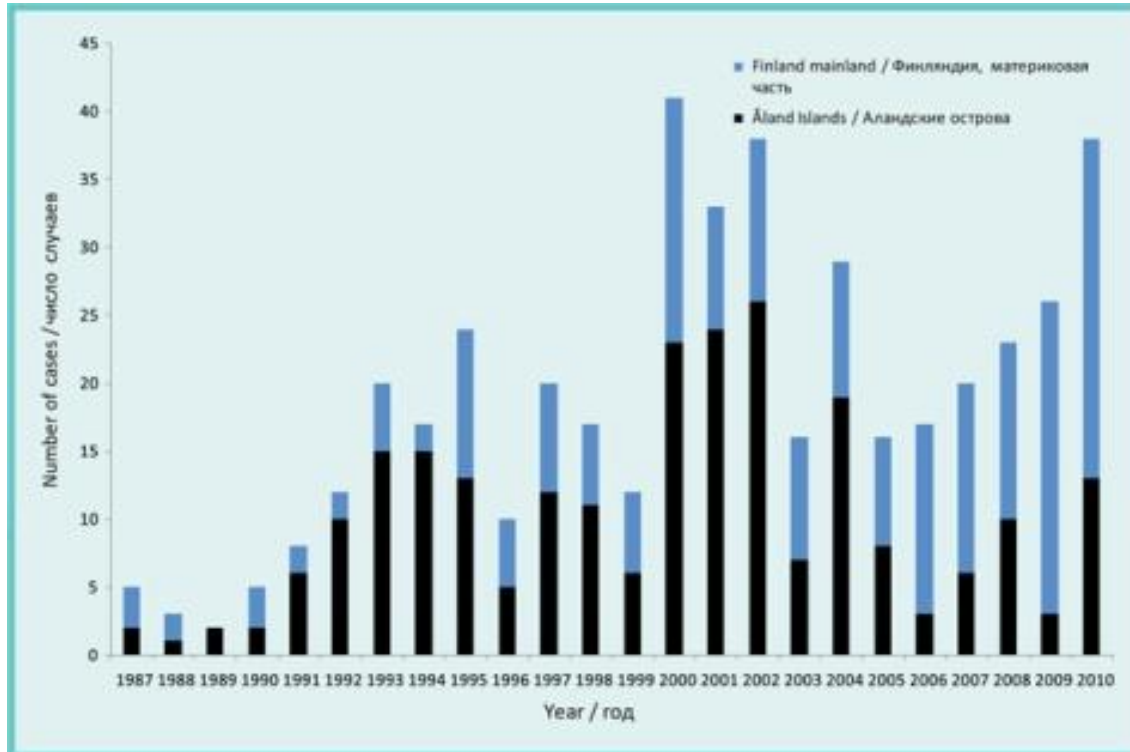
- 200-400 TBE-cases per year
- *What is the risk during a five-days stay?*

Sweden: 9 mill. inhabitants

- In average 177 cases of TBE per year



Finland 5,3 mill inhabitants



Source: A. Jääskeläinen, T. Korhonen, M. Kuusi, O. Vapalahti

TBE-vaccination recommendation

- People who experience a high risk of getting tick-bites, who will stay several weeks in a high-risk area
- Residents
- Owners of holiday-homes

Norway is a typical West-European country



But the nature is wilder than in the rest of Europe!

*This attracts people who seek
wilderness adventures*

A large proportion of those who die in Norwegian nature are foreigners

Trollveggen, «The Troll Wall», is >1000 meter high

BASE jumping

- Building
- Antenna
- Span (bridges, etc.)
- Earth (i.e., mountains)



Flying machine, invented by Leonardo da Vinci

Deaths from BASE-jumping in Trollveggen (Illegal since 1986) All are males!

	Age	Country	Year	Location
	43	USA	1984	Stabben
	19	Sverige	1985	Bruraskaret
	32	Finland	1985	Bruraskaret
	-	Australia	1986	Trollspiret
	22	Australia	1999	Trollspiret
	29	Sverige	2003	Stabbeskaret
	30	Australia	2006	Stabbeskaret
	34	Norge	2008	Stabbeskaret

Source: Wikipedia

Illegal jumps seems much more risky than legal jumps

What is the risk of BASE-jumping?

Kjerag, Rogaland
Also about 1000 m

2000 jumps per year

Death rate:

1 per 2300 jumps,

= 0,04%

Søreide K, Ellingsen CL, Knutson V. How dangerous is BASE-jumping? An analysis of adverse events in 20,850 jumps from the Kjerag massif, Norway. J Trauma 2007; 62: 1113 - 7.

Rafting

- 15 persons dead from rafting in Sjoa 1989-2010
- The river Sjoa is the only river in Norway that kills
- Fatal accidents: Only those who raft «on their own». The local rafting companies know the limits for safe rafting
- Foreigners: May want cheap rafting, and have no time to wait for better conditions
- One kayaker died in Sjoa 2006

Drowning: 50-100 deaths per year in Norway

- The numbers are decreasing
- Small boats (fall, capsizing)
 - High speed
 - Overload
 - Alcohol
- Fall from piers (alcohol)
- Males 15-60 years

Never swim alone

Swim along the shore, don't try to cross over to an island that seems near

You lose power to swim when you are hypothermic

Use life vest in small boats

Do not urinate from a small boat. If you need to urinate, do it in, e.g., a bucket

SCUBA-diving

- Self-
- Contained
- Underwater
- Breathing
- Aparatus

In Norway:

- 4-5000 new leisure-divers per year
- Ca 300 000 dives per year
- 8-10 deaths per year (1/30000 dives)
- 40-50 cases of decompression sickness among leisure divers (1/10000 dives)
- Rarely any known predisposing factor
- Age 15-25 years
- Most of the deaths are among inexperienced divers
- Most often they are found drowned, with enough air in the tanks, and not at very deep water

Everybody knows:

- That too fast ascent may lead to:
 - Barotrauma: alveolar rupture, pneumothorax, air embolus
 - Decompression sickness

This is what they remember in an emergency, but they forget that an emergency ascent in most cases will save their lives

Or, would have saved their lives!

Skiing in the mountains

18 people died in the Easter 1967

The nine rules of safe winter hiking:

1. Don't make long trips without training
2. Tell where you go
3. Respect the weather, and the weather forecasts
4. Be equipped for bad weather and low temperatures, even on short trips. Always wear a backpack with the equipment the mountain requires
5. Listen to experienced mountain hikers
6. Use map and compass (now: GPS)
7. Don't walk alone
8. Turn in time. It is no shame to turn
9. Save your forces, dig a provisoric shelter in the snow, if necessary

Avalanches

- 3-5 people in Norway die every year from avalanches

Risk factors:

- Slopes of 30-60°
- Lee side
- After heavy snowfall
- Layers of frozen and granular snow
- Sites of previous avalanches

There are a lot of devices to improve the chance of surviving an avalanche

- Lavine thread
- Air-bag
- Avalanche transceiver/beacon

It is much better to avoid places where an avalanche may take place:

10 % will die immediately. After 45 minutes half of the initial survivors are dead.

Norwegian mountains may also be dangerous in the summer

- A snowstorm can occur any time of the year
- Without proper navigation you may get lost, and get into dangerous terrain

Mountaineering

- From 2003-2012:
 - 500 accidents
 - 12 deaths in Norway

Close-watching of waves in Western Norway

- 1995: Three students were washed into the sea by a huge wave. All died.
- 2000: A 22 year old woman disappeared after being taken by a wave
- 2004: Four students were washed into the sea from a molo. One of them did not manage to climb back. Four others tried to rescue him, but were also taken by a wave. These four survived, after fighting for their lives in the water.

Venomous animals

- Wasp stings: 1-2 deaths per year
- Viper bites: The last fatality was in 1979

Domestic animals

- 2-4 people are killed in Norway by domestic animals every year
 - Cattle (butting, squeezing)
 - Horse (kicking and falling from the horse-back)
 - Dogs. Rarely fatal, but there are 12-13 treatments for dog-bites every day in Norway.
 - Goats, sheep (rarely fatal)

Wild animals

- Moose: 10-15 attacks per year in Norway, rarely fatal
- Brown bear: Two Swedes and one Finlander are killed during the last 10 years
- Lynx, wolf and wolverene are shy animals, not likely to kill people

Muskox

- May attack people who go too near
- Only one fatal accident in Norway since the reintroduction in 1932
- Safety distance: 200 meters
- Also, one fatal accident with a domestic muskox

Polar bear *Ursus maritimus*

«...isbjørnen ...trekvart tonn muskler, knogler og tænder. En ekstrem, livsfarlig eksplosjonsevne. Et rovdyr der kun har eksisteret i 20 000 år, og i den tid kun kendt to kategorier av pattedyr. Sin egen art, og byttet, føden.»

Fra Peter Høeg: «Frøken Smillas fornæmmelse for sne», 1992

« ...polar bear ...three quarters of a ton of muscles, bones and teeth. An extreme, dangerous ability of explosion. A carnivore which has existed for 20 000 years, and during this time it has only known two categories of mammals. Its own species, and the prey, the food.»

From Peter Hoeg: “Miss Smilla's Feeling for Snow”, 1992

Svalbard-Spitsbergen 5th March 2011

- A group of 17 British youths were attacked by a polar bear.
- A 17 year old boy was killed, four were seriously injured
- The other members of the group managed to kill the bear.

Only five people have been killed by polar bears in Norwegian territory since 1971

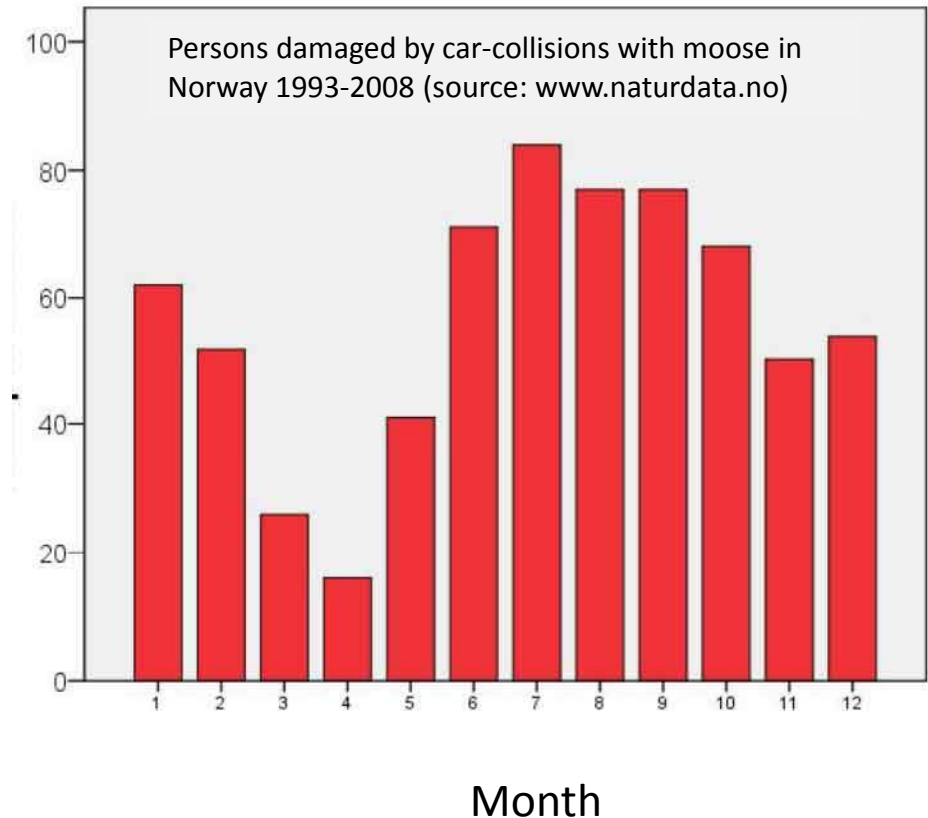
- A sufficiently powerful firearm is mandatory when staying in places where polar bears may attack
- Humans and polar bears have different habitats

Higher risk of collisions with moose in winter than in the summer

- The moose is nocturnal, but in the winter the night starts in the afternoon, when also people are active
- The moose cross larger roads
- The darkness make it difficult to see them
- Icy roads

But:

- Higher speed in summer nights. Therefore more risk of dying from a collision with a moose



A moose can weigh up to 600 kg!

Risks from collision with moose in Norway 1994-2003

Source: <http://www.bt.no>

- 593 accidents
- 17 killed
- 62 seriously injured
- 720 light injuries
- Almost 2000 mooses are killed by cars every year
- Encounters with moose are not rare on Norwegian roads

In Sweden: about 6, in Finland about 5 deaths per year

Take home message

- Drive slowly, and watch out for moose in Norway, Sweden and Finland
- Pay attention when you see a «Moose» sign
- Dont' steal it as a souvenir

