

Introduction to polar bear safety

Topics in this lesson:

- Facts about polar bears
- Polar bear behavior
- Polar bear challenges in town, on foot, staying in a field camp, in a cabin, from a boat or on snowmobile.
- How to avoid conflicts
- Deterrents and firearms
- How to behave if seeing or meeting a polar bear





Facts:

- Excellent swimmer
- Top of the arctic marine food chain
- Can survive up to 8 months without eating
- Can easily walk over 5 000 km a year
- Has well developed sense of smell
- Moves slowly, walk at an average of 5 km/h
- Moves quickly, reaching a speed of more than 40 km/h over short distances.
- Weight 300 – 600 kg for a male, females 150 – 300 kg
- Cubs follow the mother approximately 2 years

Polar bears are the top predator in the Arctic marine ecosystem. The polar bear's body requires a diet based on large amounts of seal fat, making it the most carnivorous member of the bear family.



World-wide the population of polar bears is estimated to be 20 000 – 25 000. The Barents Sea population (Svalbard and the western Russian Arctic) is estimated to be around 3000 individuals, and on Spitsbergen the population is estimated to be around 250 individuals.

Hunting has been forbidden on Svalbard since 1973. From 1973 - 2022 about 133 polar bears have been killed in self-defense. (World-wide, 800 to 1,000 polar bears are killed by native and trophy hunters each year)

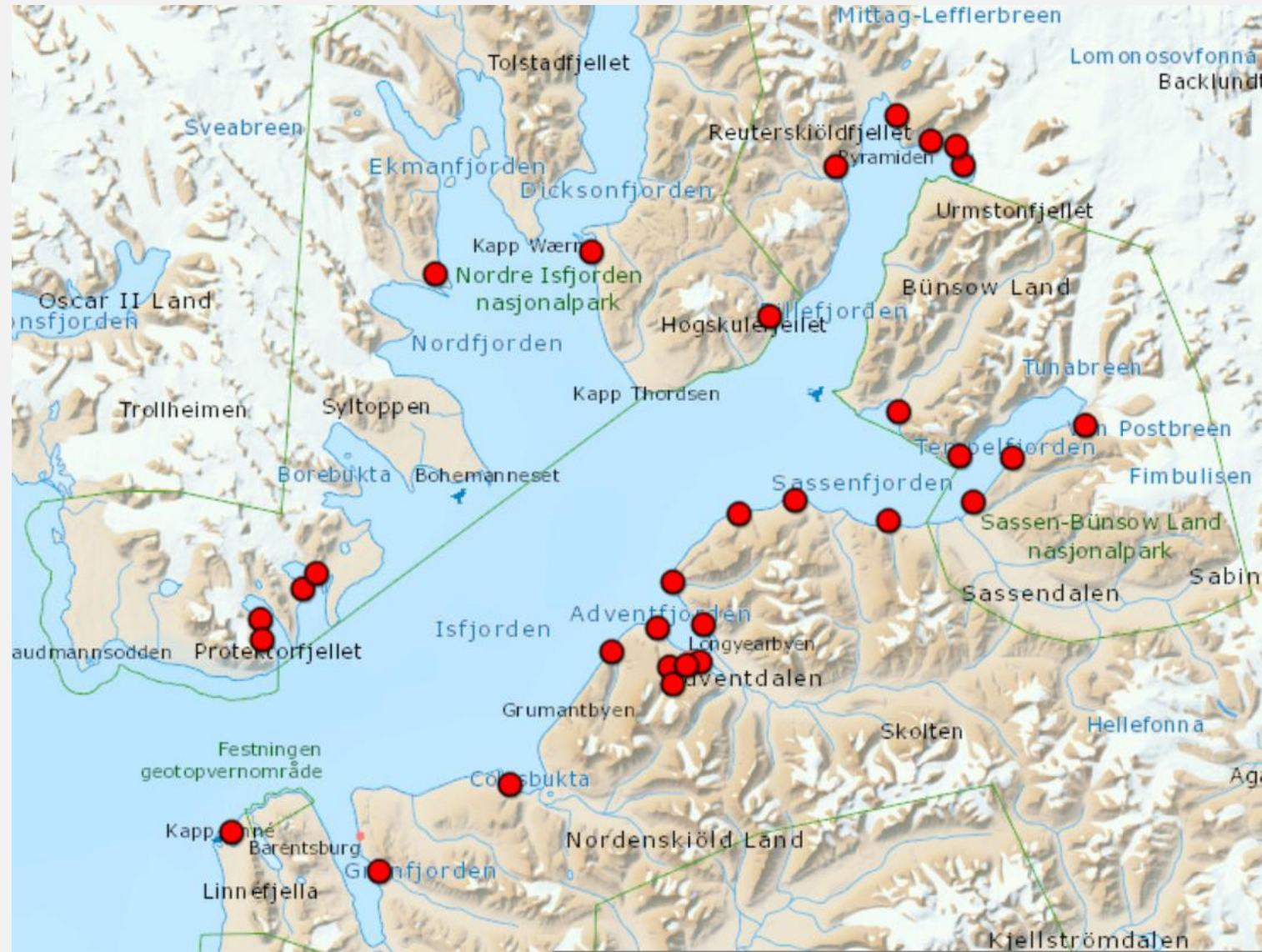


Since 1971, 6 people have been killed by polar bears on Svalbard. The latest fatal incident was in 2020 at the camping site outside Longyearbyen.

More than 10 people have been injured in the same period.



Common for all fatalities; not adequately armed or did not know how to use the rifle.



Interaction between UNIS field parties and polar bears the last 10 years

Some important laws and regulations

The Svalbard Environmental Protection Act sets the rules for how you can behave when encountering a polar bear. According to paragraph 30 in the act it is prohibited to lure, pursue or otherwise seek out polar bears in such a way as to disturb them or expose either bears or humans to danger. In short: Stay far away and do not disturb the animals!

When traveling or staying outside the settlement all persons shall be equipped with appropriate means of frightening and chasing off polar bears. (Svalbard Environmental Protection Act § 30 a.)

All travelers have a duty to familiarize themselves with safety measures in respect of polar bears. Necessary measures shall be taken to avoid the danger of polar bear attacks and to ward off an attack without injuring or killing the animal (Svalbard Environmental Protection Act § 30 a.).

Polar bear behaviour

Polar bears are extremely curious and unpredictable. All polar bears need to be regarded as a potential deadly threat



Curious and careful, probably easy to scare off.



Protecting prey or cubs, will not leave.

Polar bear behaviour

Polar bears are extremely curious and unpredictable. All polar bears need to be regarded as a potential deadly threat



Hungry or full; could affect behaviour



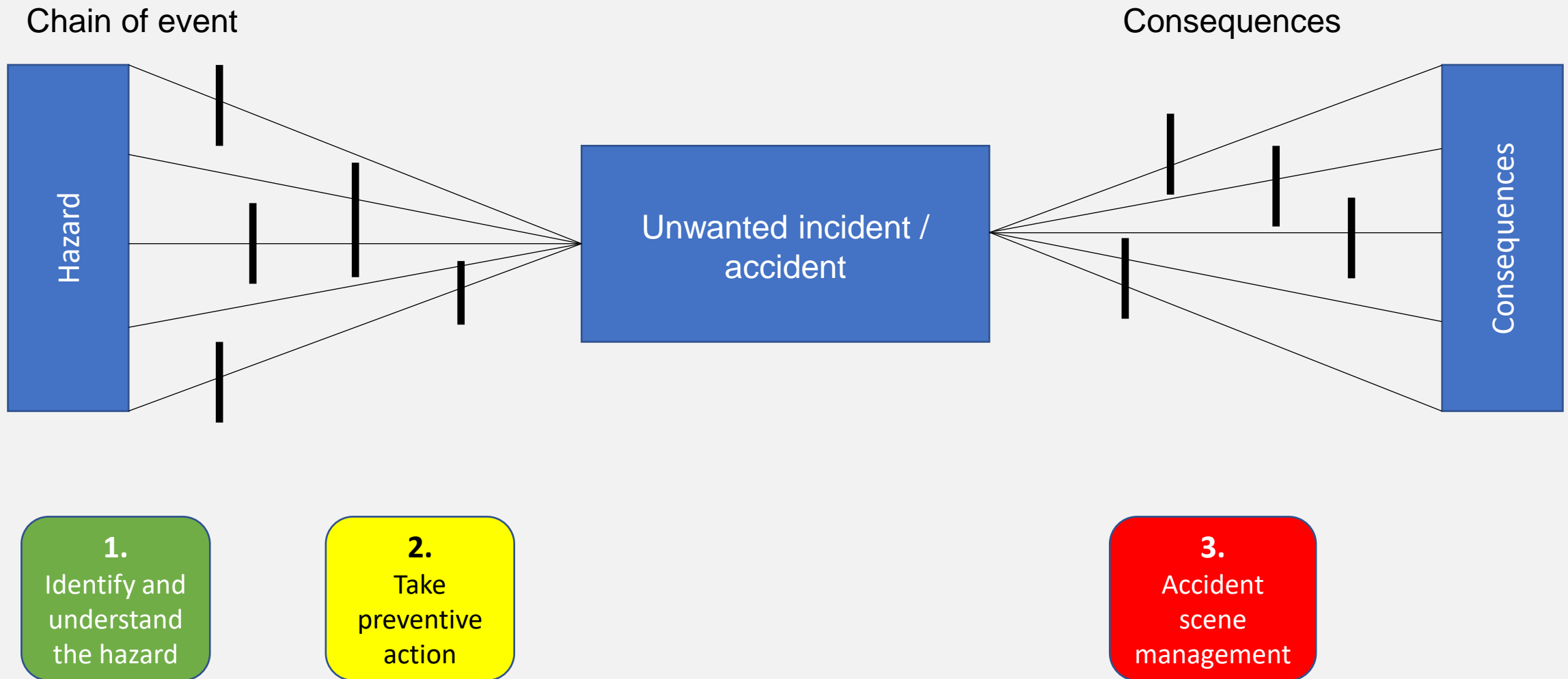
Determined and/or aggressive; might not be possible to scare off.

Polar bear behaviour – sum up

Polar bear behaviour is very difficult to predict – even for experienced personnel. All polar bears need to be regarded as a potential deadly threat.



How to avoid conflicts



Polar bear challenges in town

- Be aware that polar bears can come into Longyearbyen, and other settlements.
- People do not carry rifle in town
- Statistically polar bears are observed close to town 1-2 times a year, very seldom in between the houses.
- If you observe a polar bear in town; seek shelter and call the Governor's office at:
Emergency number: 112





On foot (hiking or skiing)

Make a plan ahead of time and agree within the group how to behave if you observe a polar bear or tracks. Define roles within the group.

- Preplan – information?
- Route and overview?
- Polar bear terrain?
- Necessary equipment?
- Group dynamic?
- Weather/conditions?

If you observe a polar bear; leave the area immediately!



Staying in a field camp

Staying in a field camp requires extra skills and is recommended for experienced personnel only.

Section for Operations and Field Safety supports field teams with adequate training and equipment if field camp is demanded in field work.



Staying in a cabin

Make a plan ahead of time and agree within the group before going to a cabin. Define roles within the group.

- Polar bear terrain?
- Necessary equipment/storage?
- Group dynamic?
- Weather/conditions?



Landing from a boat

- Preplan – information?
- Route and overview
- Polar bear terrain?
- Necessary equipment?
- Group dynamic?
- Weather/conditions?



On snowmobile

- Preplan – information?
- Route and overview
- Polar bear terrain?
- Necessary equipment?
- Group dynamic?
- Weather/conditions?



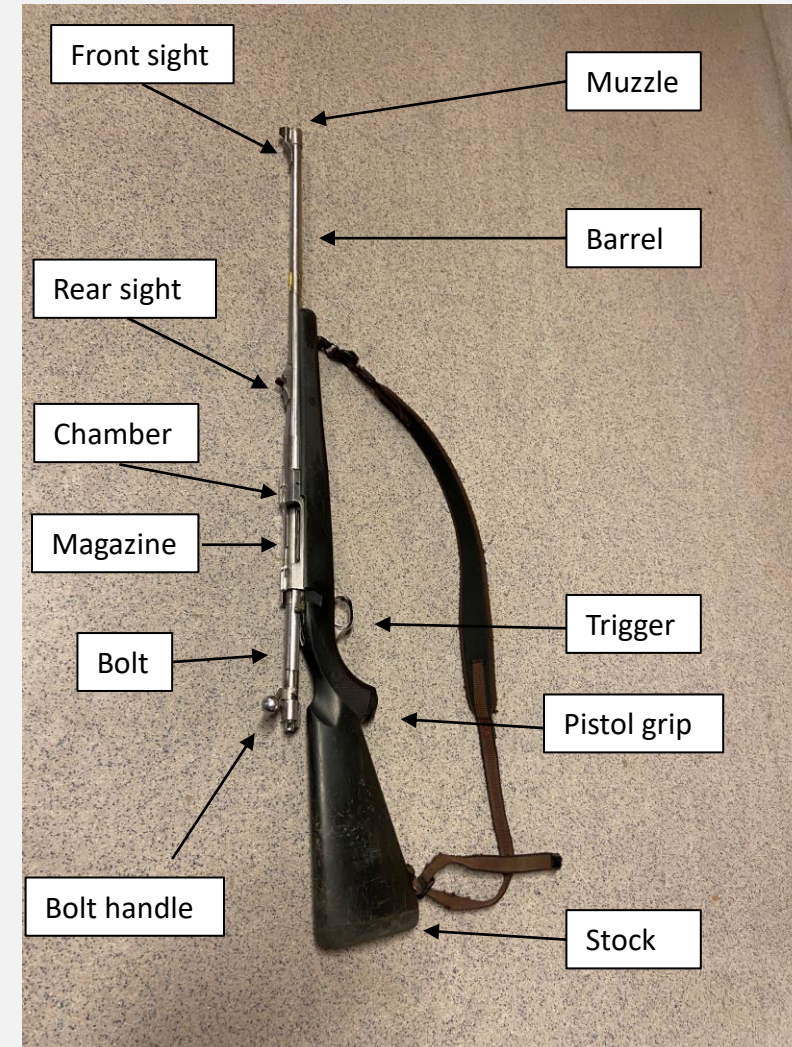
Deterrents and firearms

At UNIS, you are not allowed to do fieldwork without a rifle and a flare gun. The flare gun is for scaring the of the polar bear, the rifle is for killing it. You need to have sufficient skills for handling both the safety equipment and the situation.



Ruger rifle

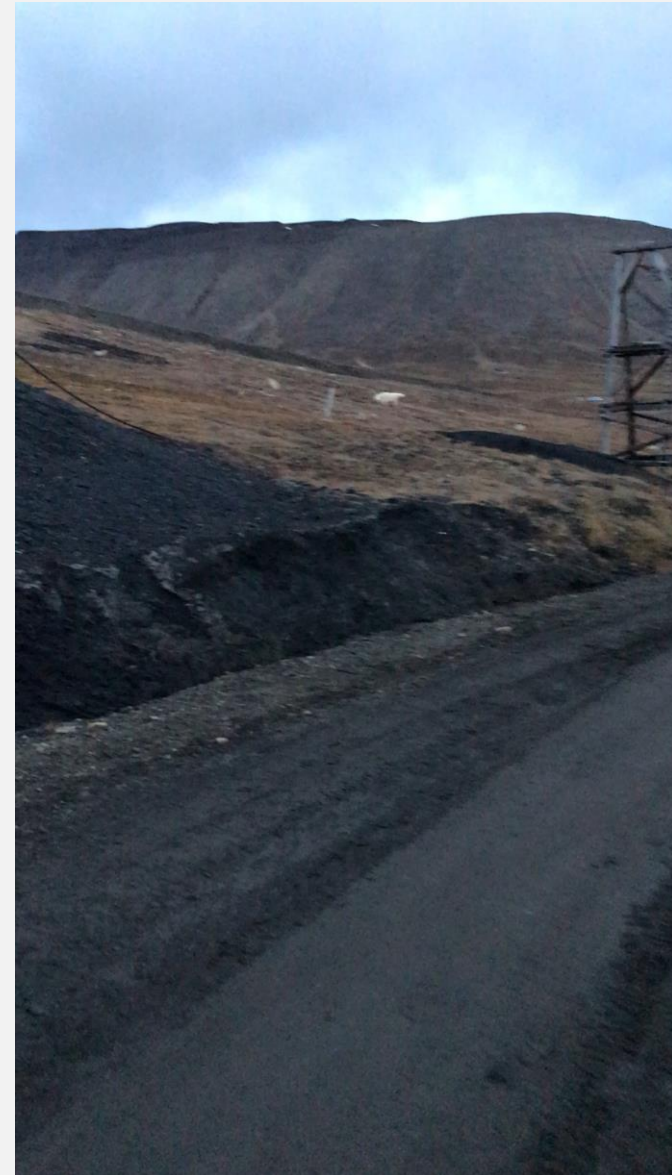
UNIS offers Ruger bolt-action rifles (cal. 30-06) with a magazine of four rounds.





Flare gun

- Single action trigger mechanism.
- Normal ammunition is a “double-banger” or a red flare.
- Shot range is approximately 100 meters.



Two main conflict scenarios

Scenario 1 – You have control in the situation and can choose how the situation should develop.



Solution: Leave the area or stay in safety.

Scenario 2 – You do not have control in the situation, and you will have to respond to how the polar bear behave.



Solution:

1. Gather the group and leave the area.
2. If the bear comes after you and you can't get somewhere safe:
 - Stop, hold your ground, keep the group together
 - Try to scare the bear off. Scare it properly!
 - Define a critical distance in the terrain
 - If the bear cross the defined line; put the bear down.

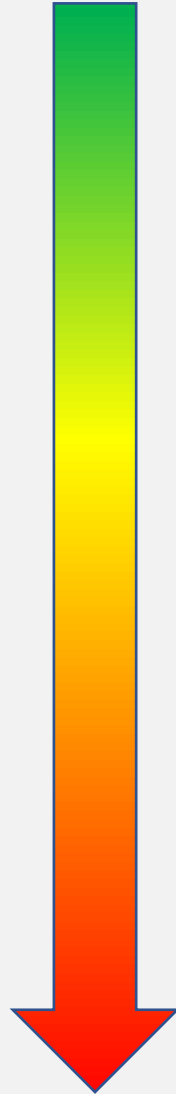
How to behave if seeing or meeting a polar bear

Long distance > 500 m

Medium distance 500 – 200 m

Short distance < 200 m

Near meeting



1. Gather the group and leave the area.
2. If the bear comes after you and you can't get somewhere safe;
 - Stop, hold your ground, keep the group together
 - Try to scare the bear off. Scare it properly!
 - Define a critical distance in the terrain
3. If the bear cross the defined line; stop it with the rifle.

Immediate action must be taken.
Be aware of “flee, freeze or fight” response
Must be exercised and mentally / practically prepared

Aiming points



Summing up - how do we avoid conflict?



Proactive barriers / measures:

- Knowledge about the polar bear
- Gather info on bear sightings – plan your trip
- Do not seek the bear – keep your distance
- Avoid potential high-risk areas / situations
- Stay alert – and keep control of your surroundings
- Binoculars are just as important as a rifle!
- Travel more people together
- Have a plan for how to act if you see or meet a polar bear

Reactive barriers / measures:

- Always have **both** deterrents and fire-arms to scare off or kill a bear
- Know how to use this equipment and train realistically
- Have a plan for how to get out of a difficult situation - agree and train within the group
- Scare the bear properly the first time!
- Do not hesitate if the situation becomes life-threatening.

Do you spot the polar bear?





