

Safety Plans for Encounters with Polar Bears

Dorthe Dahl-Jensen, project leader, professor, Niels Bohr Institute, University of Copenhagen

Safety Briefing:

A safety briefing including examples of polar bear encounters will be held for every group in Kangerlussuaq and on arrival to EGRIP. The field operations manager and the EGRIP field leader will be responsible for this.

In camp, we will follow up with a briefing especially making sure all are aware of the placement of all safety equipment. From time to time a polar bear drill will be held.

Safety Equipment in CAMP:

RIFLES: The EGRIP camp has five rifles. In case of remote sub camps two rifles will be taken into the remote camp. There will always be two named team members in camp responsible for the rifles. Rifle training will be practiced after each exchange of named rifle responsible at EGRIP. A rifle will be stored in the Dome, while the other will be stored in the mechanics fiberglass tomato hut for safety in case of fire in the Dome.

RADAR: A polar bear detection radar is mounted on main Dome. The radar is based on motion and detects moving objects up to 3.5 km from camp. A computer is set up in the Main Dome that shows the radar scanning and an alarm system is setup on two cell phones. There will always be two named persons in camp that are responsible of the alarm phones. One of these persons sleeps in the Main Dome to be able to check alarms on the computer and have an overview of the camp from the Cupola.

SIREN: A siren is mounted on the Dome (assembly point ALFA) and the Carpenters Garage (Assembly point BETA). An unbroken alarm is a polar bear alarm. (stay where you are and wait for pick up). A broken signal means you should gather at the ALFA assembly point (the Dome).

ANTI-BEAR-BAG: All weatherports, garages, snowmobiles, other snow mobiles, outdoor toilets and tents are equipped with an anti-bear bag. This will include an emergency horn to be used in case a polar bear is spotted, pepper spray to deter the bear, a can of liver paste to occupy the bear, as well as a knife to permit emergency evacuation of the tent. If you are in a tent and would like to have a pepper spray, ask the field leader and you will get one from the store in the cupola.

BINOCULARS: A selection of binoculars are placed in the top office of the Dome (the Cupola) and in the PistenBully's.

COMMUNICATION The Cupola and the PistenBully's are permanently equipped with radios and six handheld radios are available for out-off camp activities. In camp there is a cell phone system.

SNOW MACHINES: Snow Machines and Tracked Vehicles (PistenBully, Flexmobil) are always available in camp. They are parked for fast and unrestricted movement and will be used to pick up all in camp in case of a polar bear sighting.

Polar bear encounter:

SIGHTING: If you sight a Polar bear ensure your own safety and alert the camp/field leader (shout/make noise if you are outside but near the camp - use cell phone, radio, InReach or iridium phone if you are away from camp).

If the polar bear is close to you, use the available safety equipment to scare the bear away. The bear is scared by motorized vehicles and by loud noise (loud sirens, horns, kitchen lids...) Use bear spray if the bear is within 9-12 m (30-35 feet) downwind.

ALARM: The siren will be sounded to alert all.

FIRST ACTION: When the alarm is heard, stay where you are, if you are inside a structure, and get ready to be picked up by people on snowmobiles from the main dome. If you are outside, go inside the nearest structure.

In the unlikely event that the polar bear is close (less than 50 m) at the time of alarm do not run, but gather in groups. If possible, wait for a snow machine to pick you up, as polar bears are generally scared by motorized vehicles.

ASSEMBLY IN THE DOME: Most important is to get all to safety – preferable in the Dome (Assembly point ALFA)

HEAD COUNT: A head count will be conducted to account for all team members. The housing plan on the bulletin board should be used as check list (The FL is responsible that the housing is accurate).

NEXT ACTIONS: When all are safely accounted for, actions will be taken to shoot the bear. Also the Greenland Authorities and the Field Operations Office in Kangerlussuaq will be contacted as EGRIP is in the National Park where special rules apply.

While the encounter is going on

1. Follow directions of the Field leader
2. Team members and guests will stay in the Dome
3. Stay calm. The camp is safe and it is important that we all remain safe.
5. All essential activities outside the Dome will require the field leader's permission and coordination.

Such activities include: Ensuring fuel supply for the generator, water for the Dome, warm clothing and sleeping gear for all in the Dome.

6. Until the situation is resolved, all communication with the outside World on the situation has to be sanctioned by the FL. This is to ensure that all communication to the outside world is considerate and coordinated to avoid unnecessary worries of colleagues, family and friends.
7. If the event takes long time, inform National Representatives to avoid rumors and to ensure correct information to family and friends.

After the encounter

1. A debrief to ensure that the event has been handled appropriate.
2. The debrief should also ensure that all information on the event is shared and to improve/change the safety measures.
2. Professional help should be offered first from the doctor and later from out of camp professionals if needed.
3. Information of the event should be given to the Greenlandic Authorities, the whole EGRIP team and the Safety Committees at the Universities.
4. All personnel should be given the offer not to be in/come to camp if they do not feel comfortable with the situation.

Camp Rules

When you are at EGRIP or in the field remember to look around and be aware of your surroundings. The common approach angle for a polar bear is against the wind.

All will be informed on the placement and use of the safety equipment upon arrival to EGRIP (rifle training will first occur later when a flight period is over). All team members will be informed on who the rifle operators will be.

The camp is laid out to ensure food stocks are placed upwind from the camp. A polar bear will normally approach camp against the wind. The prevailing wind is from WSW, so the freezer, fresh food tent and the garage areas are placed ENE of the sleeping areas and the Main Dome.

Do NOT keep food in- or outside your sleeping tents and do not store food or food waste immediately outside the Dome or other buildings/tents.

A housing plan clearly showing with name where all are sleeping will be placed on the main board. In case of emergencies this plan will serve as a list used for head counts.

An early riser should take a 360 deg look from the Cupola and around 7am take a snow mobile in a circle around camp checking for foot prints. The radar performance should also be checked.

Do NOT move away from camp without first informing the field leader of the points of your travel plans. The required safety equipment (anti-bear bag, communication, equipment,..) will be provided. For fieldwork, always be two persons and have a snow mobile with you.