



Human-polar bear conflict management

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Human-polar bear conflicts in the Arctic

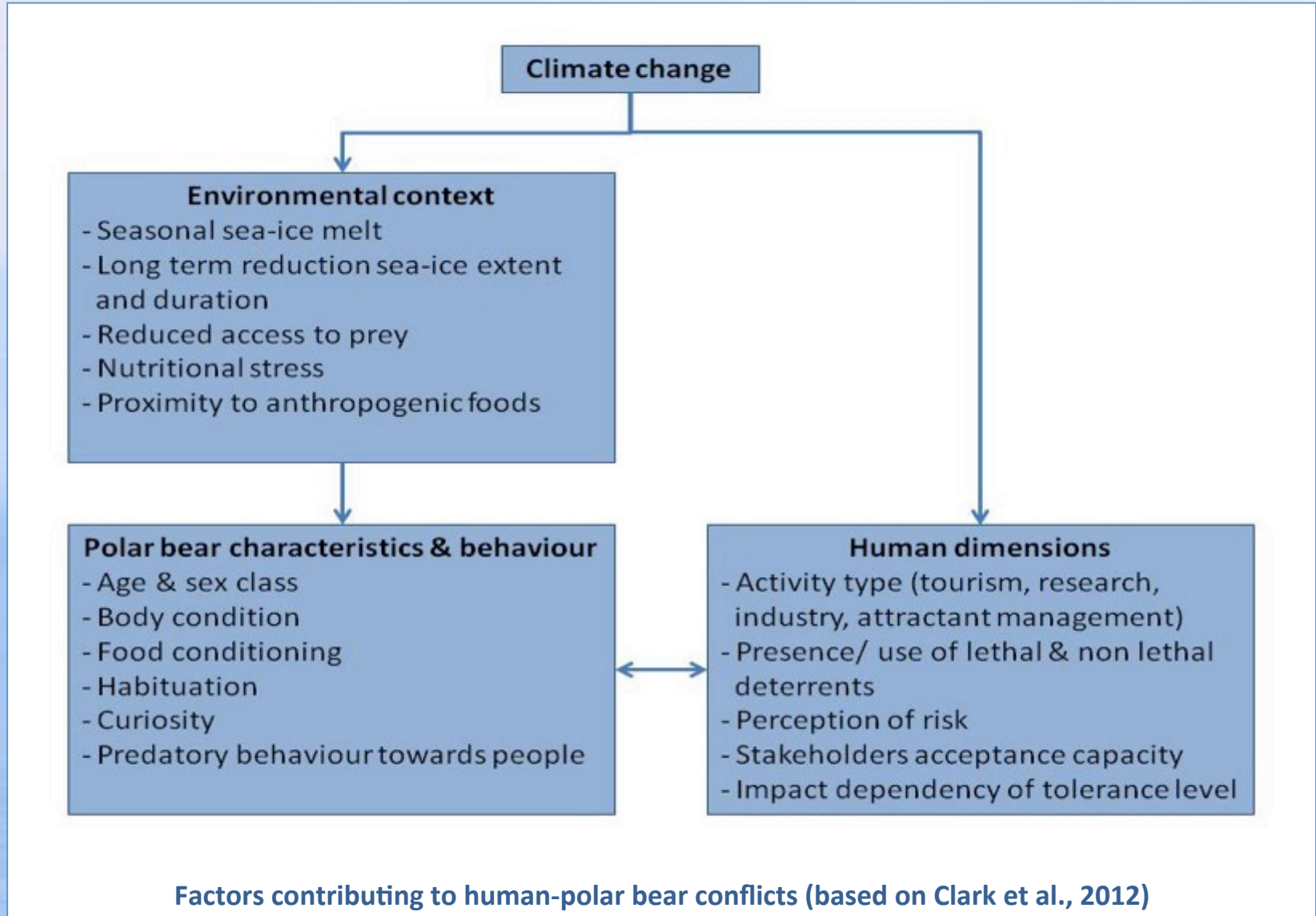
Increasing interaction between people and polar bears

- destroyed human property
- dogs being eaten by polar bears
- human injury and death
- polar bears killed in defence





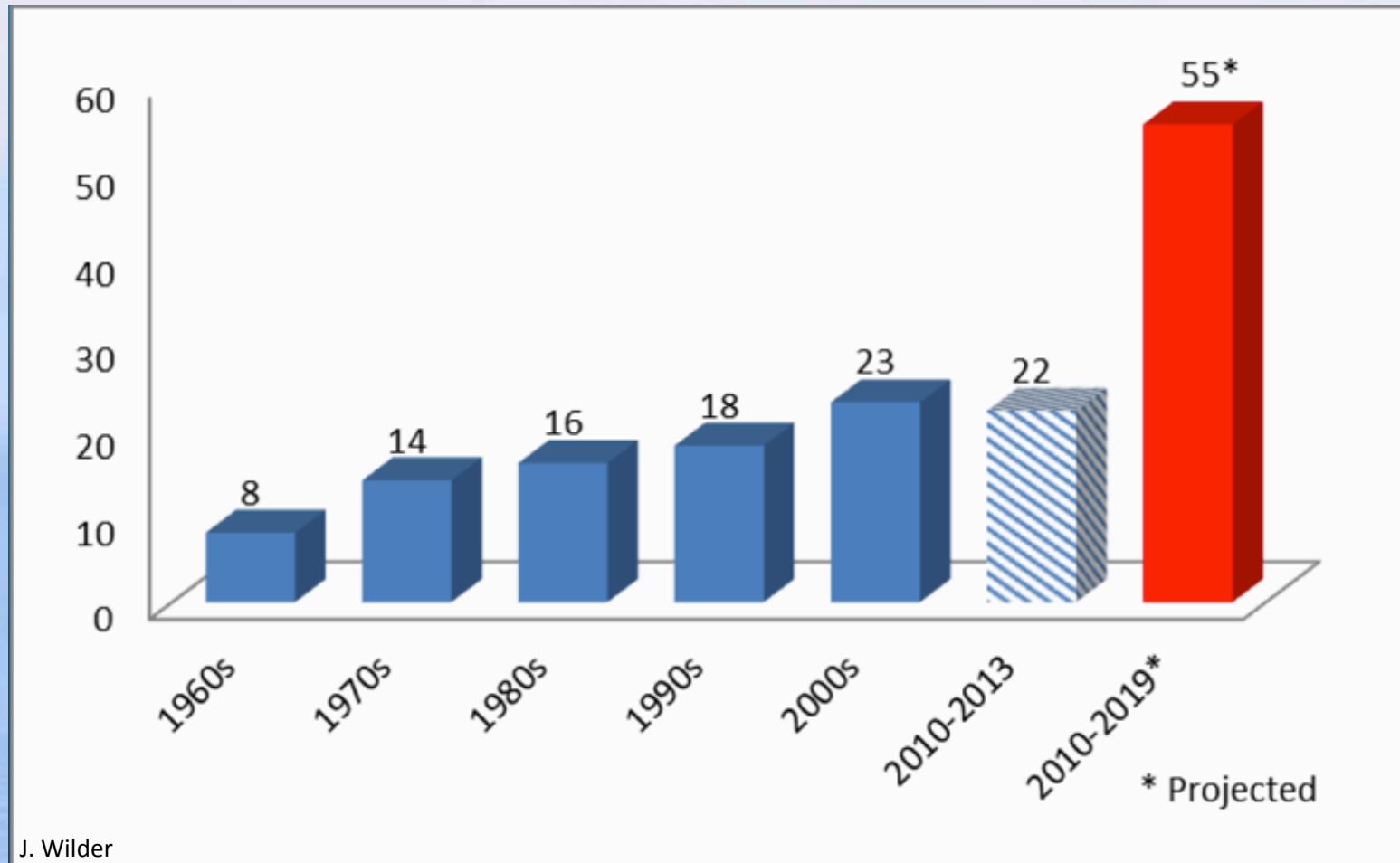
Context of human-polar bear conflicts





Context of human-polar bear conflicts

Range-wide attacks & attempted attacks on people, 1960-2013 (n=101)





Context of human-polar bear conflicts

Lea Sanimuinaq Madsen, Ittoqqortoormiit, East Greenland





Minimizing human-polar bear conflicts

Policy

1973 agreement on conservation of polar bears

Circumpolar action plan polar bear range states → conflict working group

Svalbard (Norway):

Svalbard Environmental Act: *Guidelines for tourism, scientists and other visitors*

Greenland (Denmark):

Greenland Home Rule Executive Order no. 21 of 22 September 2005 on the Protection and Hunting of Polar Bears: *Catch report and control*

Alaska (USA):

Marine Mammal Protection Act (co-management), Alaska Nanuuq Commission Cooperative Agreement, U.S. / Russia Bilateral Agreement—Alaska-Chukotka population, The Canada / United States Memorandum of Understanding, U.S. Fish and Wildlife / Alaska Department of Fish and Game

Canada:

Governments of Nunavut and Manitoba: conflict management strategies

Russia:

Ministry of Natural Resources and Ecology of the Russian Federation

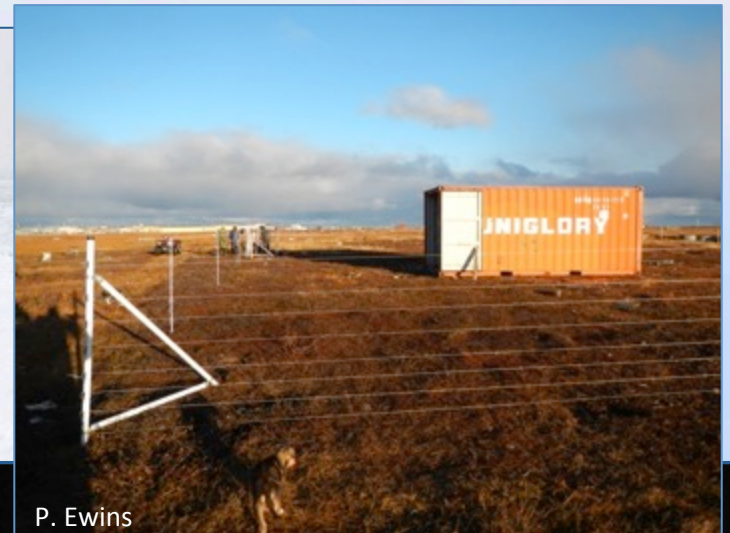


Minimizing human-polar bear conflicts

Attractant management and safe communities



Russian Academy of Sciences



P. Ewins



B. Hansen (govt. Nunavut, dept. Of environment)



Minimizing human-polar bear conflicts

Deterrents and self defence






Minimizing human-polar bear conflicts

Education and awareness raising

GUIDELINES FOR VISITORS TO THE ARCTIC




Association of Arctic Expedition Cruise Operators **AECO**



U.S. Fish & Wildlife Service

Polar Bears and Humans Safety Guidelines

near density in Alaska is highest in fall months when polar bears come along the coastline. Due to changing ice conditions the U.S. Fish and Wildlife Service (FWS) anticipates that bear use of the coast will increase during open-water seasons through November). During these months many villagers engage in subsistence activities, and more people are coming to the coast interested in polar bears for opportunities. Increasing numbers of visitors to Barrow and Etah to view polar bears increases potential interactions between humans and polar bears. Polar bears are naturally curious and predatory which increases the risk to humans.

The purpose of these guidelines is to minimize polar bear-human interactions and maximize the safety of both humans and polar bears, so each can continue to thrive in the Arctic environment.

Arctic Law Regarding Polar bear-human Interactions

Polar bears are protected under the Marine Mammal Protection Act (MMPA) which prohibits take and import of any marine mammal.

Take is defined under the MMPA as: "to hunt, capture, or kill, or attempt to hunt, capture, or kill any marine mammal." This includes feeding or attempting to feed a marine mammal wild.

Harassment: is any act of pursuit, harassment, or annoyance which has the potential to injure a polar bear.

Harassment: is defined as: any act of pursuit, harassment, or annoyance which has the potential to disturb a bear by causing disruption of normal patterns, including, but not limited to, migration, breeding, nursing, feeding, or sheltering.

It means that any change in the polar bear's natural behavior that is a result of human presence in proximity to the animal can be considered level B harassment and is unlawful.

Some exceptions are:

- Take for subsistence purposes, as long as take is not wasteful. The hunter is required to have the hide and skull tagged within 30 days. Harvest taggers are located in coastal villages to help.
- Authorized harassment of bears (deterrence) by government officials (i.e. North Slope Borough Polar Bear Patrol) is permissible as long as it is done in a humane manner and is for the purposes of protection or welfare of the bear, the public, or non-lethal removal of nuisance animals that pose a risk to public safety.
- Defense of life take is only permissible if such taking is imminently necessary in self defense or to save the life of a person in immediate danger, and such taking is reported to FWS within 48 hours. Public officials have the authority to use lethal methods to protect the public from polar bears, and may do so when all reasonable steps to avoid killing the bear(s) have been taken.
- Scientific research such as polar bear population surveys, ecology studies etc. can be authorized.


Photographing polar bears in the wild is permissible if no take occurs. If such activity is for educational or commercial purposes and could result in Level B harassment (disturbance), a permit is required.

Polar bears are also listed as a "threatened" species under the Endangered Species Act. This designation does not alter the definitions or exceptions of take outlined above under the MMPA.

Guidelines for Living in Polar Bear Country

Most polar bears avoid people and have historically inflicted few human injuries and fatalities. However, the combination of curious and occasional sudden aggressive behavior creates the potential for human injury. In addition, polar bears spending extended periods of time on land without an adequate food source may be nutritionally stressed animals and potentially more dangerous.

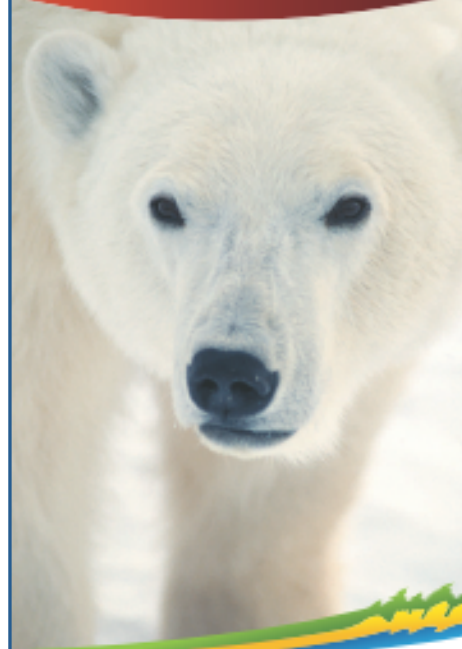
Polar bears are predators and should always be treated as dangerous; their behavior includes an element of unpredictability. In general, polar bears will react to humans by avoiding them, exhibiting curious behavior, treating them as other bears, or attempting to prey on them. The closer that humans are to polar



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Safety in Polar Bear Country

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Examples from the Arctic: Russia

Polar Bear Patrol Programme (PBPP)

- Keeps the villages safe from bears
- Escorts children from and to school
- Preserves walrus haul-outs



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© T. Arnbom

- Moves walrus carcasses away
- Polar bear monitoring activities

All-Russian Research
Institute for nature
Protection (ARRINP)





Examples from the Arctic: Russia



POLAR BEAR PATROL

**CHUKOTKA
RUSSIA**





Examples from the Arctic: Alaska

Villages of North slope Borough

- Attractant management
- Public outreach and education
- Exchange with Russia



Patrols:

- Deterrence
- Monitoring

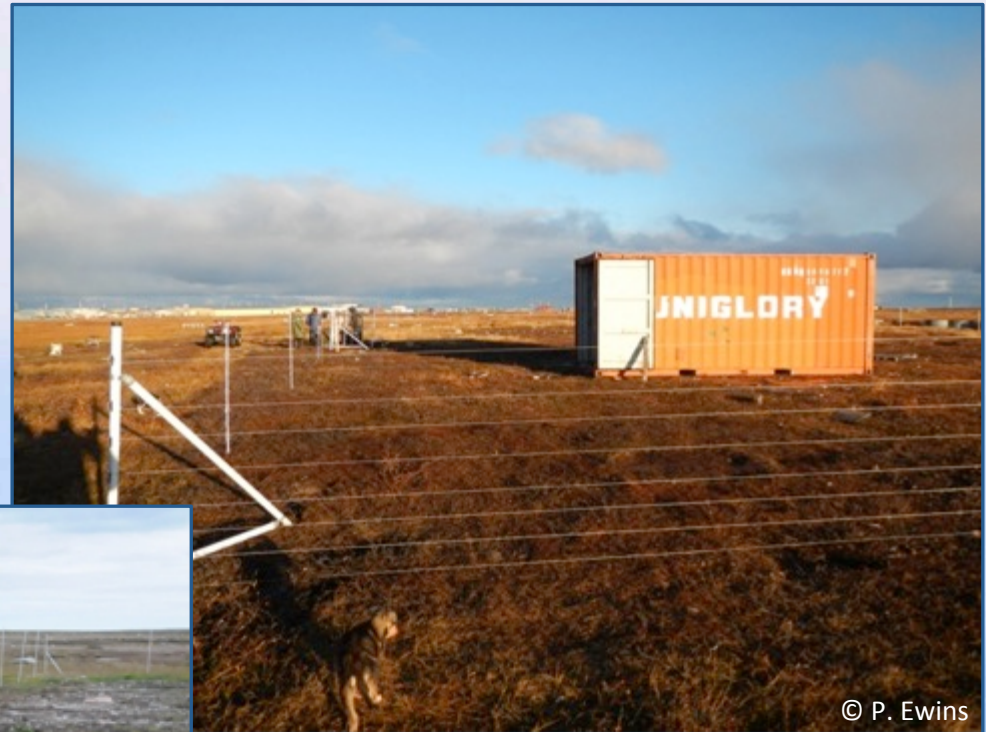




Examples from the Arctic: Canada

Arviat, Nunavut

- Electric fences dogyards
- Containers for storage of food and dogfood



No bears killed in conflict in the past two years!



“What the community needs is additional freezers for dog food since the community freezer is full with people food. Freezers in big shipping containers, powered by solar or something would be useful.”

Leo Ikakhik & Michael Aragalak,
polar bear monitors

Arviat, Canada





Examples from the Arctic: Greenland

Ittoqqortoormiit, East Greenland

Assessment of conflict situation (interviews, geographic survey)

Main attractants: dog food (seal and walrus meat) in wooden crates, waste dump

Need for polar bear patrol
and bear safe storage bins



“Last summer a polar bear came to my dog feeding container for three days in a row and I chased it out every time. It broke the container and ate the meat. The bear kept coming back, and I asked the hunting officer for permission to put the bear down, but was refused. Some days later the same bear broke into another hunters dog bin and this hunter then shot the bear. “

“It was frustrating with lacking guidelines for handling conflict bears, and that we ourselves have to use so much time and resources to keep the bears away from. “

“It is no longer safe to let children walk to school or play by themselves in and on the outskirts of town. That is quite different now than from when I was a child.”

**Johannes, retired hunter
Ittoqqortoormiit, East Greenland**





Conclusions

Future: less sea ice → bears more and longer on shore & more human activity → more interaction → more incidents

Fragmented data on extend of problem and effectiveness of interventions

Conflict is unpredictable: we need to take precautionary measures:

- People need to be aware how to act: actions on the ground
- Governments need to be able to act: proper plans and strategies



Needs

More knowledge on conflict context and effectiveness of interventions

Exchange of knowledge and experiences

Proper strategies on circumpolar and regional level

On the ground implementation and testing of interventions

Education and awareness raising – people living, working, visiting the Arctic



Thank you!



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