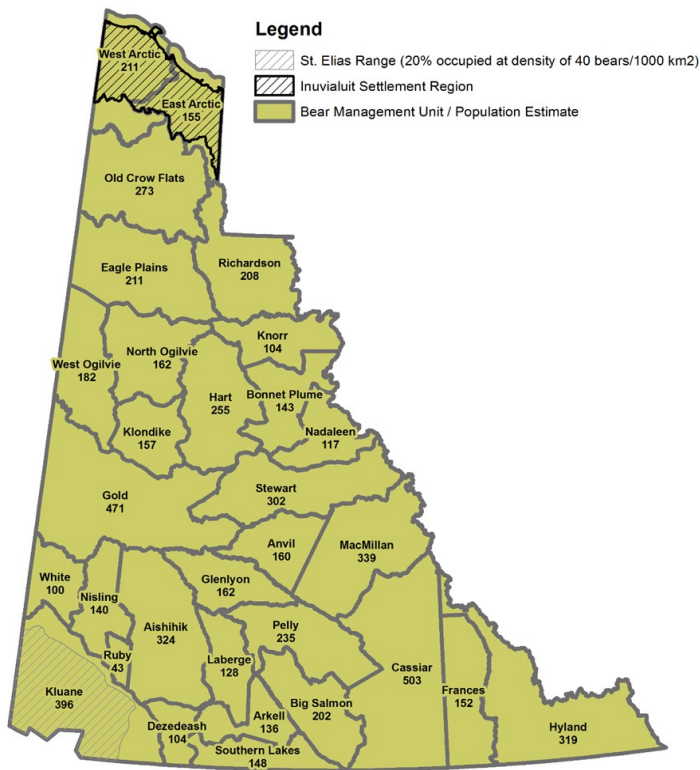


Review of grizzly bear monitoring and mortality management in the Yukon



Bear Management Units in the Yukon and grizzly bear population estimates.

How we estimate grizzly bear populations

We base population estimates for grizzly bears in areas of the Yukon on:

- expert opinion;
- survey work (including aerial surveys, DNA surveys and others); or
- a combination of both.

Other methods for monitoring include:

- mortality monitoring;
- ground-based monitoring;
- local observation programs; and
- collecting traditional and local knowledge.

Background

We need to manage grizzly bear populations carefully because:

- grizzly bears have low reproductive rates; and
- are sensitive to changes in the mortality of adult females.

For most of the Yukon, grizzly bear population estimates come from expert opinion. We need to re-evaluate these estimates and create science-based population measurements.

In the Yukon, we manage bears in Bear Management Units. The boundaries of these units align with outfitter areas.

Managing grizzly bear mortality

Within the Yukon portion of the Inuvialuit Settlement Region (ISR), located in the far north, grizzly bears are co-managed with the Inuvialuit through the Wildlife Management Advisory Council (North Slope), Parks Canada, the Government of Yukon, and the Aklavik Hunters and Trappers Committee.

Bear harvest in the ISR is managed by quota. The **sustainable harvest rate** for bears in the ISR is:

- three per cent of bears aged two years and older; and
- no more than 33 per cent of this harvest be females.

For the rest of the Yukon, we use a **sustainable mortality rate** for bears of:

- four per cent of the total population; and
- no more than 25 per cent of this harvest be females.

Hunters need a hunting licence and seal to harvest grizzly bears. Hunters can harvest a grizzly bear for its pelt and meat. It's against the law for a hunter to waste the pelt.

Types of bear harvest include: subsistence harvest, resident harvest, and non-resident harvest.

Outside of the ISR, there is no quota for resident harvest. However, outfitting areas are allocated quotas based on the four per cent sustainable mortality rate.

All sources of mortality are considered when calculating quotas for both the ISR and outfitting areas.

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Trends in mortality for Bear Management Units outside of the Inuvialuit Settlement Region

Between 1980 and 2016, an average of 79 grizzly bears were harvested each year in Bear Management Units outside the ISR. These areas had a range 50 to 126 bears.

- **Thirty** (38 per cent) of grizzly bears were harvested by residents.
- **Forty-nine** (62 per cent) of grizzly bears were harvested by non-residents. This includes hunters that were guided by a resident hunter with a special guide licence.

The number of bears harvested by residents and non-residents has declined since 1980.

Between 1980 and 2016, an average of 34 per cent (with a range of 22 to 45 per cent) of the grizzly bears harvested each year by residents and non-resident hunters were females.

Between 1980 and 2016, the oldest male grizzly bear harvested was 37, and the oldest female harvested was 34.

Sometimes bears are killed in defence of life or property, when a person has run out of non-lethal options to deter the bear.

Between 1980 and 2016, a yearly average of 11 (range four to 23) grizzly bears were reported as defence of life and property kills. Among these:

- conservation officers killed an average of **four** (range 1 to 15);
- residents killed an average of **seven** (range 1 to 14).

