











Clockwise from top left: all bears develop their own fishing style; the Fishing Branch River never freezes; grizzlies thrive in this remote area of Yukon; raising

investment for all female grizzlies, who spend up to three years with their offspring; matriarchs teach cubs to survive in harsh conditions.

"Having a salmon run at this time of year in the Yukon, so near the Arctic Circle, is unique."

passing meal, the grizzlies of the Fishing Branch River are unique in their behaviour. They are revered and protected.

Above: frosted but

always ready for a

Stanley is one of many grizzly bears that visit the Fishing Branch River at Bear Cave Mountain each year. This remote wilderness area is located in the mountainous Ni'iinlii Njik Territorial Park, in northern Yukon, the Canadian territory that borders Alaska.

Between September and November

tanley has a unique hunting

river and simply dives down

to retrieve a spawning salmon

at the bottom. Over the years,

become one of Phil Timpany's

this 16-year-old grizzly has

favourite bears to watch. "When he was

eight, he started moving his mouth around, showing his teeth and making noises," says Phil, a bear-viewing guide with Bear Cave Mountain Eco-Adventures. "It just looks like he is talking to himself... it's quite comical."

strategy. He walks into the

the bears come here to feast on a chum salmon run. It helps them build their fat reserves for winter. At this time of the year, their presence is an unusual sight so far north. Elsewhere in Yukon, plummeting temperatures freeze rivers and slow down wildlife, and grizzlies are getting ready to hibernate. But at Bear Cave Mountain, the Fishing Branch River is still flowing freely and teeming with life, and the grizzlies are galloping into the water, chasing fish.

The chum salmon are drawn from the Bering Sea and undertake a journey over 2,000km long to spawn and die in this area. The limestone karst topography provides warm groundwater that percolates from the gravel bed and allows the river to stay ice-free year-round. The groundwater keeps the gravel beds well oxygenated, creating the perfect conditions for salmon to spawn and for the eggs to survive.

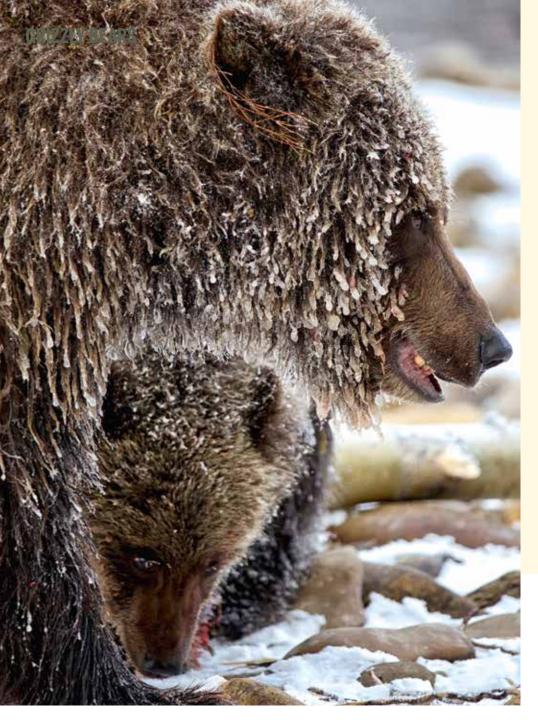
## Wildlife hot spot

Three salmon species come here to spawn. Chinook salmon are first, in the summer, then come the chum salmon, and finally the coho, which spawn as late as December.

"Bears fishing this late in the year are nearly always close to the coast," says Grant MacHutchon, a wildlife biologist who studies grizzly bears in different parts of Yukon. "Having a salmon run at this time, in the interior of Yukon so near the Arctic Circle, is unique." The area not only attracts bears, but also other wildlife such as moose, wolves, wolverines, bald eagles and waterfowl. "It is a little oasis," Phil says.

In 2005, Phil started a small bear-viewing operation at Bear Cave Mountain – the only one in Yukon – in partnership with the Vuntut Gwitchin First Nation people. Only four visitors per day are allowed over a seven-week period between September and November. Once they arrive at Bear Cave Mountain, a two-hour helicopter ride from Dawson City, visitors can watch the grizzlies from various observation sites. Bear numbers vary from year to year, from a dozen to over 40 animals. After feeding on

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# **Grizzlies and climate change**

Researchers are already noticing changes in bear hibernation patterns, whereby they are entering their dens later in the year and emerging earlier. "We are getting shorter periods of denning," notes Grant MacHutchon. "For example, if the ground is not frozen and there is no snow, the bears may still be able to dig nutritious plant roots later in the season." It is also likely that a warming climate may contribute to a longer growing season for plants at high altitude and improve bear habitat in the north, allowing the species to expand its range, for example, into the Canadian Arctic Archipelago.

In a recently published study, a team of researchers led by Douglas Clark, a conservation scientist at the University of Saskatchewan, has for the first time documented the presence of polar bears, black bears and grizzlies in the same area. Their study was based at Wapusk National Park, on the west coast of Hudson Bay, in northern Manitoba. These observations, made between 2011 and 2017, add to the growing evidence that grizzlies are increasing their range in northern Canada in response to climate change.

Left: despite the need to keep piling on the calories, mother grizzlies will still share much of their daily catch with their cubs. Right: female grizzlies choose well-trodden routes and favourite fishing spots.

berries during the summer, the grizzlies are ready to gorge on salmon and display their long, glistening coats.

As the season progresses, a stunning transformation takes place. By mid-October, winter settles and it gets colder, with temperatures dropping to –30°C. Every day, as the bears venture into the river, water freezes on their coats. They become 'ice bears', a spectacle that attracts wildlife lovers and photographers from around the world. "Sometimes you don't see their eyes much, because the hair around the eyes is covered in ice," says Phil, who has come to recognise individual bears as old friends. He has learned to appreciate their distinct behaviour and hunting strategies.

The guide fondly remembers an II-yearold female bear called Sophie, who has evolved a successful technique to hunt salmon. He describes how she goes to the upper part of the spawning area and moves the water with her paw a few times to get the salmon to panic. As they swim to another part of the channel, she runs and meets the fish down the river, leaping to make a catch when the salmon go through a narrow part.

## Clever strategies

However, the fish soon adapt and learn not to move, so Sophie has to figure out how to herd them in a different way. "She has the ability to learn, strategise how to catch fish and change her hunting technique several times," Phil explains. "It's amazing how much knowledge the bears pack around with them."

By early November, the spectacle is over. The chum salmon run ends, daylight becomes scarce, the last park visitors go home and the icy bears meander to the nearby mountain, where they den in limestone caves until spring. So far, Phil has counted 22 dens at Bear Cave Mountain. While walking through some of the caves, which are naturally heated, he has found piles of vegetation and debris mixed in with fur that the bears use to create comfortable beds. "The hair I picked up could have been thousands of years old," he marvels.

It appears that the bears re-use the same caves at Bear Cave Mountain year after year for hibernation, an uncommon strategy in North America. Bears generally dig dens and use them only once. Grant MacHutchon is curious about how the bears divide the caves among themselves, especially as they are close to each other – sometimes within just 100–200m.



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# The whole area is seen as sacred, and has a long history of traditional use by the Vuntut Gwitchin.

Above: the high protein component in the bears' diet, and the fact that it's available for a longer period, helps the bears survive the winter.

Usually, dens are far apart – at least Ikm and often much more.

Pregnant females, mothers with cubs and young bears enter the dens first and emerge last. Adult males go in later and spend the least time inside. At Bear Cave Mountain it is not known whether the dominant, large males that are last to enter the dens displace the early-arriving females and younger bears, or simply use other caves. "Are the caves used repeatedly by the same bears, so that they just head to their own cave?" Grant wonders. "We don't know anything about the social dynamics of who dens where in this system."

Fortunately, in this remote part of Yukon, grizzlies are safe from human disturbance. The Vuntut Gwitchin First Nation, together with the Yukon government, has set up a territorial park, protecting the Fishing Branch Watershed, and named it Ni'iinlii

Njik, meaning 'where fish spawn'. The whole area is seen as sacred, and has a long history of traditional use by the Vuntut Gwitchin. For example, they hunt the huge porcupine caribou herd that migrates annually through the site.

# Safe haven

"As the water is open and free of ice all year, there is a lot of life in this area," says Greg Charlie, a representative of the Vuntut Gwitchin. "It is a very good place for the animals to find plants and other food, and it has always been somewhere we knew we'd be able to get food, too."

In this traditional territory, bear hunting is not permitted. However, that is not the case in the rest of Yukon, where the right to hunt grizzlies remains a highly controversial topic, given the species' plight in many regions.

# PLANNING TO VISIT?

- )) Grizzlies can be seen here all year, but viewing 'ice bears' is more limited. By mid-October Arctic air arrives, and the ice bear season begins. Moose can be seen mid-September to early October.
- bear Cave Mountain Eco-Adventures (bearcavemountain.com) offers grizzly viewing in Ni'iinlii Njik (Fishing Branch) Territorial Park between mid-September and November. Trips are limited to four guests and depart from Dawson City, a 70-minute flight from Whitehorse, Yukon's capital.
- )) Steppes Travel (steppestravel.com) is one of the few UK tour operators offering trips to see ice bears.

Worldwide, the distribution of grizzlies, or brown bears, *Ursus arctos*, – 'grizzly' is a term used only for bears found in North America – has shrunk by half since the mid-1800s. In the USA alone, they've lost about 98 per cent of their range in the lower 48 states (at one time, they occurred south throughout the Great Plains and even into central Mexico). Western Canada now represents one of the last significant strongholds for grizzlies. It is estimated that there are over 26,000 grizzlies in the region – the majority in British Columbia, with about 15,000 individuals. Yukon has an estimated 6,000–7,000 grizzlies.

Grizzly bears suffer high mortality in areas where they come into conflict with people, such as anglers, or where they are hunted. While much pristine wilderness remains in Yukon, its human population has nonetheless grown, leading to a corresponding increase in land development and recreational activities, which in turn impacts the bears. Acknowledging this trend, in June 2018 the Canadian government listed the western population of the grizzly bear as of special concern under the federal Species at Risk Act.

Meanwhile, 'ice bears' enjoy a safe haven at Bear Cave Mountain. "There always was a mutual respect among local people for the bears, because of their power," Greg says. "Our people don't bother them and they don't bother us. We coexist."



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**FIND OUT MORE** Read the COSEWIC grizzly bear assesment and status report at: bit.ly/grizzlyreport

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