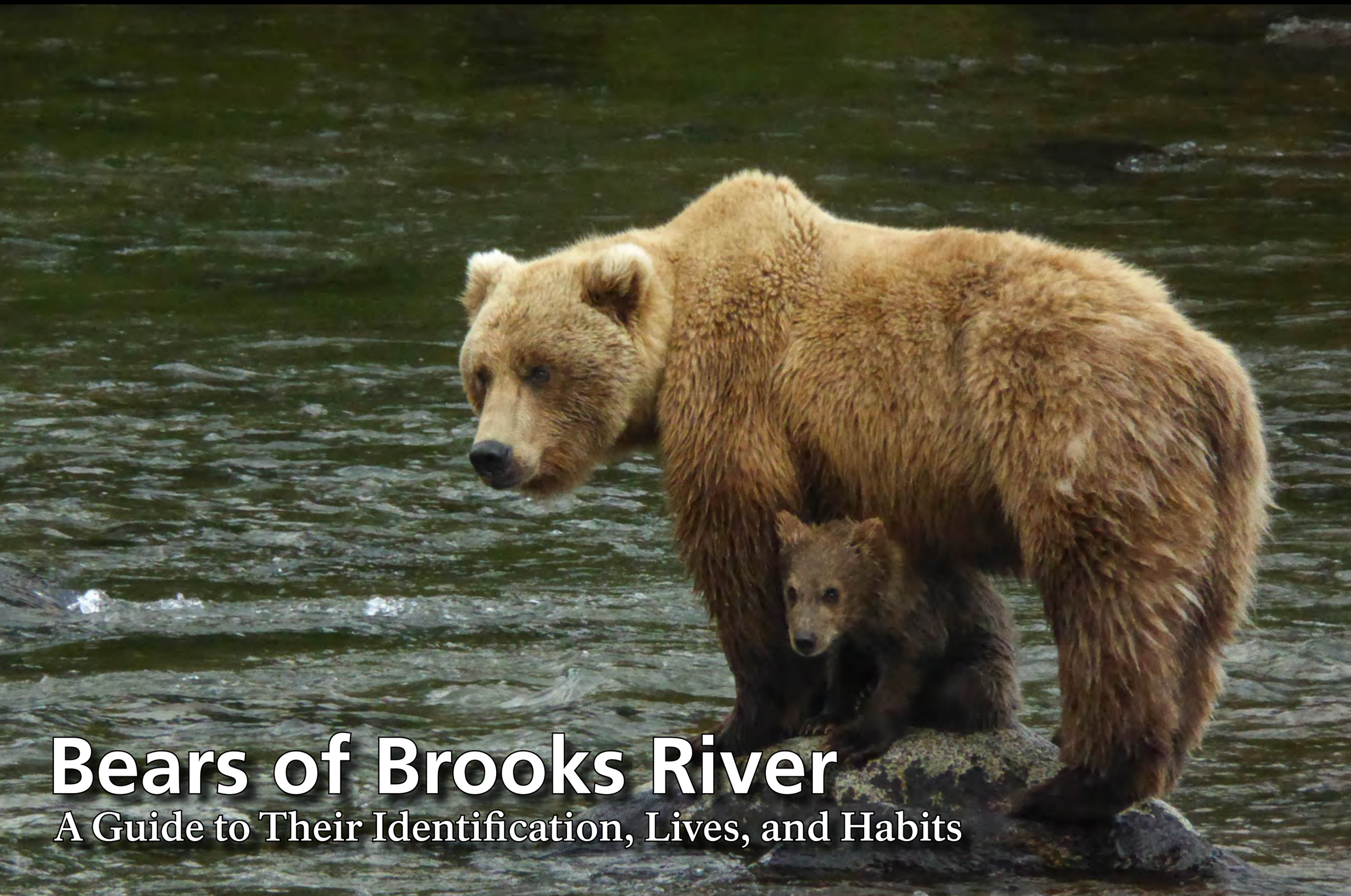
Katmai National Park and Preserve

National Park Service
U.S. Department of the Interior



Bears of Brooks River

A Guide to Their Identification, Lives, and Habits

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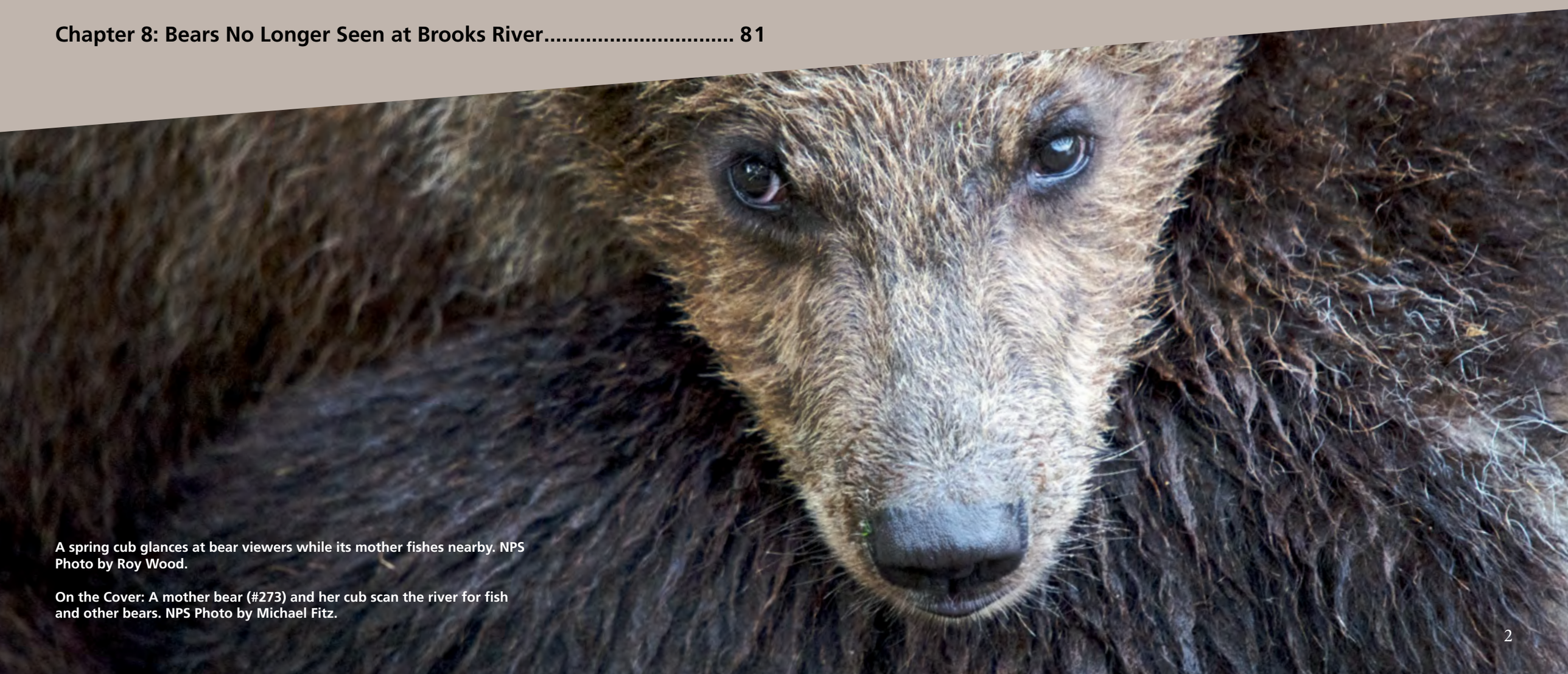


A spring cub glances at bear viewers while its mother fishes nearby. NPS Photo by Roy Wood.

On the Cover: A mother bear (#273) and her cub scan the river for fish and other bears. NPS Photo by Michael Fitz.

How to Use this Book

This book is intended to present the basic life histories, habits, and identifying characteristics of some of the most frequently seen bears along Brooks River within Katmai National Park. It is not intended provide a complete checklist of bears at Brooks River, but rather a representative sample.

Chapter one of this book provides general information on Katmai's brown bears. Chapter two presents more specific information about Brooks River and Brooks Camp. Chapters 3-6 discuss individual bears. In those chapters, bears are arranged first by age classification and sex (adult males, adult females, subadults, and cubs) and then numerically by the number biologists have randomly assigned to them. The final chapter provides information on bears that are no longer seen at Brooks River. At right is a sample page.

Number, Nickname, other basic information

Early and Mid-Summer Photos: Look for shed patterns, scars, and less body fat.

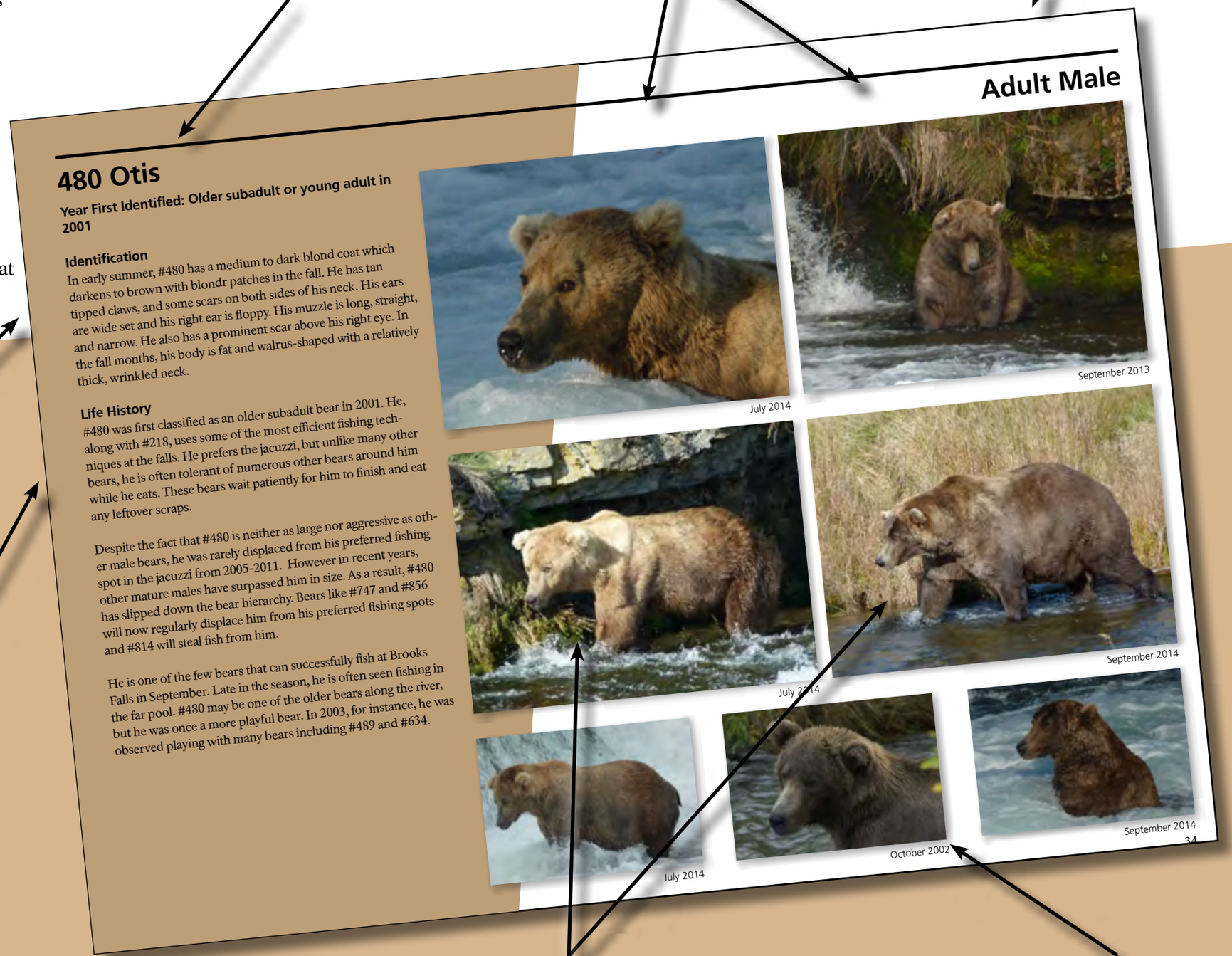
Age Classification and Sex

Identification: Look here for information about a bear's body shape, size, color, scars and wounds, shed patterns, ear shape, and claw color.

Life History: Read about a bear's behavioral traits, preferred fishing spots, fishing techniques, important life events, and other pertinent information.

Late Summer and Fall Photos: Compare these with mid-summer photos noting the differences in fur color and overall size.

Each photo is accompanied by a date.



480 Otis

Year First Identified: Older subadult or young adult in 2001

Identification

In early summer, #480 has a medium to dark blond coat which darkens to brown with blondr patches in the fall. He has tan tipped claws, and some scars on both sides of his neck. His ears are wide set and his right ear is floppy. His muzzle is long, straight, and narrow. He also has a prominent scar above his right eye. In the fall months, his body is fat and walrus-shaped with a relatively thick, wrinkled neck.

Life History

#480 was first classified as an older subadult bear in 2001. He, along with #218, uses some of the most efficient fishing techniques at the falls. He prefers the jacuzzi, but unlike many other bears, he is often tolerant of numerous other bears around him while he eats. These bears wait patiently for him to finish and eat any leftover scraps.

Despite the fact that #480 is neither as large nor aggressive as other male bears, he was rarely displaced from his preferred fishing spot in the jacuzzi from 2005-2011. However in recent years, other mature males have surpassed him in size. As a result, #480 has slipped down the bear hierarchy. Bears like #747 and #856 will now regularly displace him from his preferred fishing spots and #814 will steal fish from him.

He is one of the few bears that can successfully fish at Brooks Falls in September. Late in the season, he is often seen fishing in the far pool. #480 may be one of the older bears along the river, but he was once a more playful bear. In 2003, for instance, he was observed playing with many bears including #489 and #634.

Adult Male

July 2014

September 2013

July 2014

September 2014

July 2014

October 2002

September 2014

Chapter One: Introducing Katmai's Bears

#32 Chunk lunges for salmon downstream of Brooks Falls.

Katmai's Most Famous Creature

Shoulder Height: 3-5 feet (.9-1.5 m)
Length: 7-10 feet (2.1-3 m)
Weight (Adult Male): 600-900 pounds (272-408 kg) in mid-summer
Weight (Adult Female): 300-600 pounds (136-272 kg)
Average Life Span: 20 years

The only bears to regularly inhabit Katmai National Park and Preserve are brown bears. Taxonomists currently consider brown bears and grizzly bears to be the same species (Ursus arctos). The difference between the two is somewhat arbitrary. In North America, brown bears are commonly distinguished by their access to coastal food sources such as runs of salmon, while grizzlies reside further inland.

Bears are eating machines, and their survival is dependent on attaining enough calories over the course of the spring, summer, and fall to sustain them through their denning period. As the summer wanes into fall, bears spend an increasing amount of time feeding.

Hearing and vision is estimated to be equivalent to humans, but a bear's sense of smell, which is many times better than a dog's, sets them apart. Bears use scent to communicate everything from dominance to their presence in an area to receptivity to mating.

Brown bears are distinguished from other North American bear species by several physical characteristics. They usually have a rounded and dish-shaped face, unlike the faces of black or polar bears that usually have a more "Roman" nose profile. Polar bears and black bears also lack the prominent shoulder hump found on brown bears. This hump contains muscles that add power to their front legs.

Brown bears' strength comes in part from the rigid anchorage on their thick skeleton, and the position and size of its powerful muscles. Extremely thick bones inside their legs and a plantigrade gait (the whole length of each foot—from heel to toe—touches the ground) help to support their great weight.

Brown bears are aptly named for their color. Their brownish fur comes in a wide variety of shades and hues. The fur of brown bears range from blonde to dark brown. As a general rule, their coats tend to darken with age and the season.

#410 is usually very fat in the fall. She is one of the oldest and largest female bears known to use the river.

The Individual Bear

It is easy to perceive bears as unthinking animals whose actions are dictated by instinct. Bears eat when they are hungry. They sleep when they are tired. They mate when hormones are right. While instinct influences bear behavior (and it may be the major influence), these animals are also highly intelligent. Like other intelligent animals, bears behave in ways which suggest they have the ability to make decisions and act as individuals.

A large male bear steals salmon from smaller bears. Another, equally large male, ignores the salmon smaller bears catch. A big female fishes at Brooks Falls, but the next year when she has cubs, she never ventures within a half kilometer of the falls. An older adult bear, one that has visited Brooks River for years, still flees from approaching anglers in the river. A younger bear, no more than two years removed from its mother, habitually uses the trails within 10 meters of Brooks Lodge. One bear does this, another does that.

Bear watching at Brooks River is unique, because biologists have gathered an incredible amount of information about how bears use this place. This data not only records when and where bears use the river, but also how they use the river—as a group and as individuals.

Even if you only spend one hour watching bears at Brooks River, it is easy to see how each bear is different. These bears are not only distinguished by physical characteristics, but more importantly, they are also distinguished by their habits and behavior. Each bear is a unique individual. Rarely do we have the opportunity to get to know a group of wild animals as individuals. Bear watching at Brooks River, however, gives us that chance.

You are encouraged to get to know the Brooks River bears as the individuals that they are. This book is an aid to their identification. However, providing the information necessary to identify each bear is not the goal or intention of this book. Most importantly, this book serves as a reference for their life history and behavior. A bear's life is full of experiences that are unique to that individual. These experiences affect everything from how they fish to where they den to their tolerance of people.

No matter if you are watching the bears of Brooks River in person or online, take a moment to get to know these animals. The individuality they demonstrate provides great opportunities for us to gain insight into their intelligence and ability to survive in a harsh world.

Not all bears will use the river in the same way. Get to know these animals as individuals.

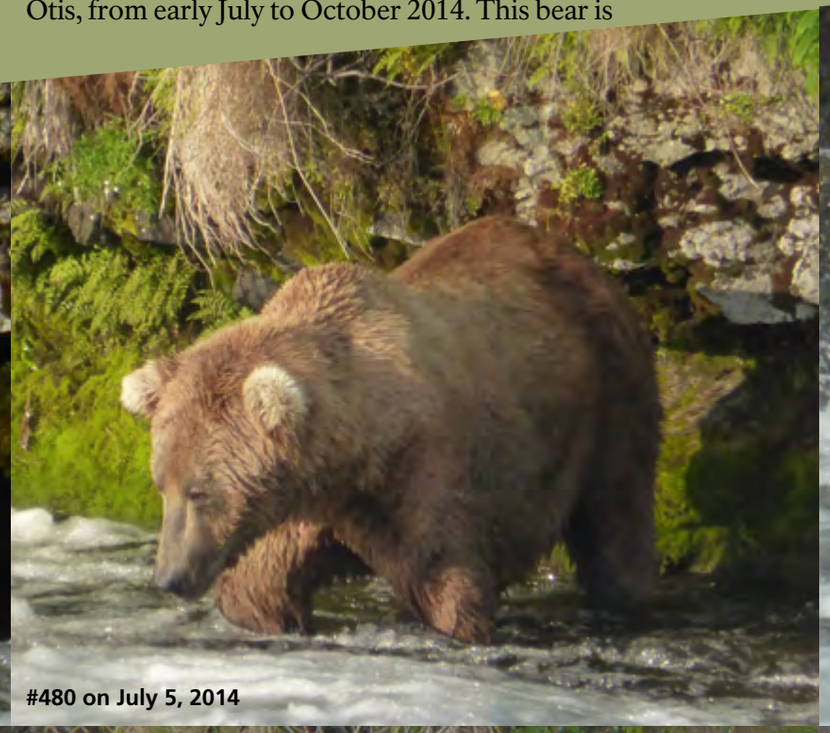
Let's Get Fat

Excessive weight gain is key to a bear's survival. Bears must eat an entire year's worth of food in six months or less in order to survive winter hibernation and continued weight loss in the spring. During hibernation, bears can lose 1/4 to 1/3 of their body weight. Lactating females can lose even more.

In contrast to the famine of winter and spring, Katmai's brown bears rapidly regain weight in summer and fall. Incredibly, they can sometimes gain as much as one kilogram— over two pounds— of fat per day!

The photos below show the dramatic weight gain of one of Brooks River's more recognizable bears, #480 also known as Otis, from early July to October 2014. This bear is not the largest on Brooks River, but a reasonable estimate for his mid-summer weight would be 600-700 pounds (272-318 kg). In the fall, this bear might weigh 900 pounds (408 kg) or more.

#480 on July 2, 2014



#480 on July 5, 2014

#480 on July 12, 2014

#480 on July 23, 2014

#480 on September 1, 2014

#480 on September 22, 2014

Bear Hibernation

Originally posted on the blog, Katmai Terrane, on November 21, 2013.

One remarkable adaptation that has evolved in some animals is hibernation. Simply and broadly defined, hibernation is a state of dormancy that allows animals to avoid periods of famine. It takes many forms in mammals, but is particularly remarkable in bears.

In the Katmai region, most bears go to their den and begin hibernation in October and November. Hibernation in bears is most likely triggered by a shortage of high calorie food as well as hormonal changes. After a summer and fall spent gorging on food, a bear's physiology and metabolism shifts in rather incredible ways to help them survive several months without food or water.

When hibernating, a bear's body temperature remains above 88˚F (31°C), not much lower than their normal body temperature of 100˚F (37.7°C). This is unlike other hibernating mammals such as ground squirrels whose body temperature drops close to freezing. A bear's heart and respiratory rates, however, drop dramatically. They average only one breath per minute with a heart rate of 8-10 beats per minute in hibernation.

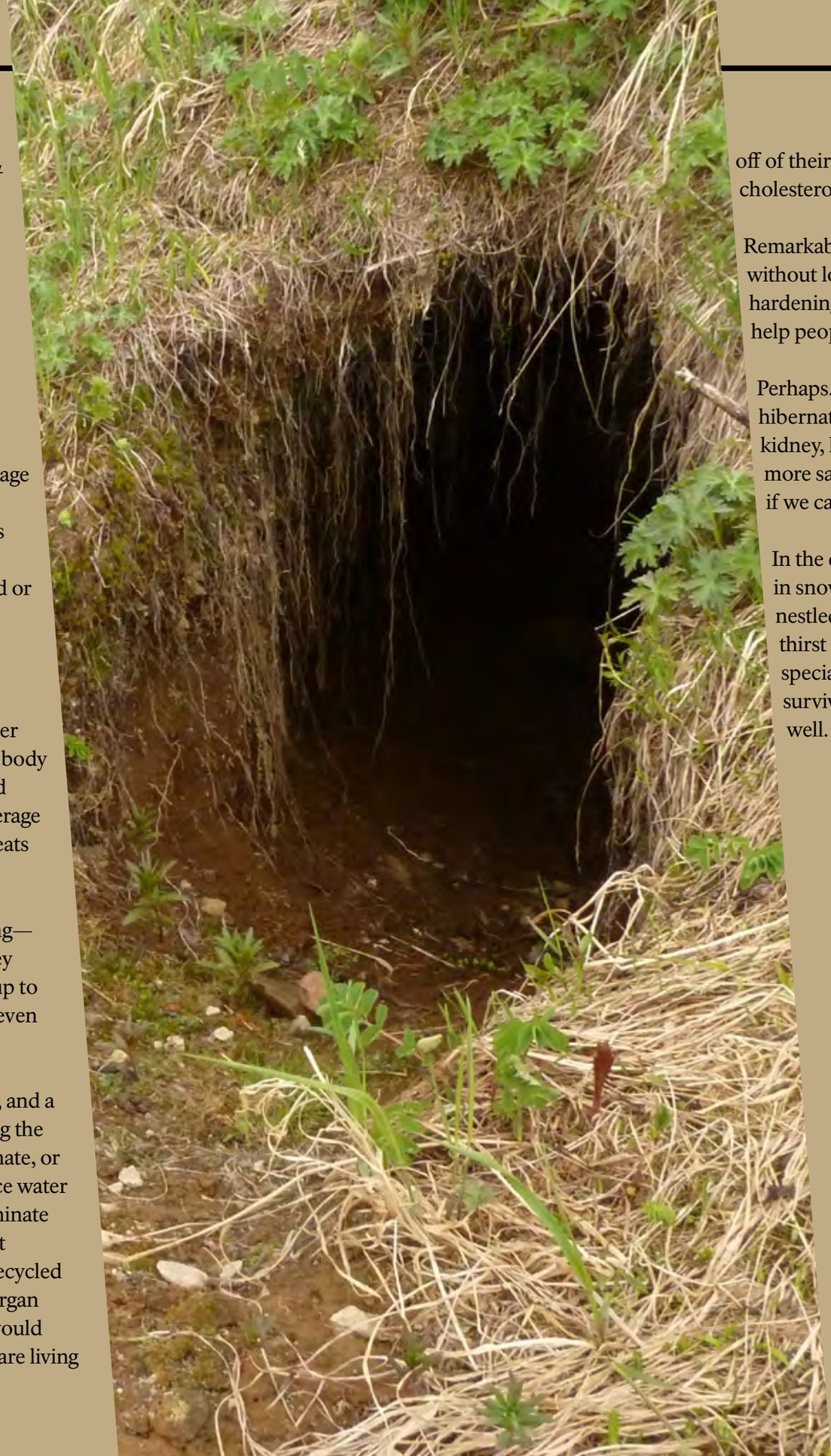
They still need to burn many calories while hibernating—sometimes more than 4000 calories per day. When they emerge from their dens in the spring, bears have lost up to 33% of their body weight. Lactating females can lose even more weight.

Surviving a winter without food or water requires fuel, and a bear fuels its body on the fat reserves it acquired during the previous summer and fall. Bears do not eat, drink, urinate, or defecate while in the den. Fat is metabolized to produce water and food, but instead of defecating or urinating to eliminate waste, bears recycle it. Their kidneys shut down almost completely and urea, a major component of urine, is recycled into proteins that maintain a bear's muscle mass and organ tissues. Without the ability to recycle urea, ammonia would build to toxic levels and poison the animal. Since they are living off of their stored body fat, bears also have very high levels of cholesterol in their blood.

Remarkably, healthy bears emerge from hibernation in the spring without losing muscle mass and bone density, or suffering from hardening of the arteries. Can the abilities of a hibernating bear help people in the future?

Perhaps. If we can unlock the physiological secrets of a hibernating bear, then we may be able to find new ways to treat kidney, heart, and bone diseases. We also might be able to more safely send humans on long distance space expeditions if we can find a way to hibernate like a bear.

In the depths of winter, when Katmai's landscape is covered in snow and ice and the wind is howling fiercely, bears are nestled snug in their dens and sleep soundly. They feel no thirst or hunger at this time. Bears are survivors with a very special adaptation—hibernation—that allows them to survive harsh wintertime conditions and famine remarkably well.



In Katmai, bears dig dens on well vegetated, steep slopes typically between 500-1500 feet (152-457 m) in elevation. This abandoned den was found on Dumpling Mountain.

Bear Identification

Individual bears are difficult to identify, especially the first few times you see them. Bears at Brooks River are not tagged or marked for identification. The information in this book is drawn from thousands of hours of data collection, which is used to document long term patterns of bear use along the river.

Often no specific feature is diagnostic of any individual bear. Rangers and biologists use a combination of a bear's physical characteristics, habits, and disposition to identify the animals.

Body Size and Shape

Overall size and shape are useful identification characteristics, but bears grow rapidly from season to season and year to year. It can also be difficult to gauge a bear's size with little or no frame of reference. Therefore, size and shape is sometimes most useful to differentiate between adults or subadult bears. Since bears are sexually dimorphic, size can be used to differentiate between males and females. Adult male bears can grow twice as large as adult females.

Claw Color

Most of Katmai's bears have dark claws, but a few have lighter tan-tipped claws and some even have white claws.

Disposition

There are behaviors that all bears share, but not all bears do the same things in the same way. Some are aggressive towards other bears. They show other bears how dominant they are. Others avoid confrontation and are more subordinate. Some bears are tolerant of people and others will avoid people at almost all costs. These behavioral characteristics are important differences between each bear.

Ears

Bear ears come in a variety of colors, shapes, and sizes. Note if a bear's ears are large or small, triangular or oval, upright or flopped over. Some bears are even missing all or part of an ear. Generally speaking, the ears on adults are more widely spaced than cubs and subadult bears. Some bears also have very light colored ears, even in the fall.

Face

Brown bears typically have dished-shaped faces (i.e. wide with a prominent brow ridge). Like humans though, each bear's face is unique. Look closely at a bear's face to note the shape of its muzzle and the relative position of its eyes.

Fishing Techniques

Bears have an instinct to eat high calorie foods like salmon, but fishing is a learned behavior. Not all bears fish in the same way or in the same places. This offers great insight into their individuality.

Fur Color and Shed Pattern

The color of a bear's fur or coat and the pattern it is shed is somewhat consistent from year to year, but it is important to place fur color within the context of the season and the bear's relative age. A bear's coat generally darkens as it grows from a cub into an adult bear. It also typically darkens from late summer to fall. A blondish bear in July may become dark brown by September.

Scars and Wounds

Almost every bear carries a unique suite of scars and/or wounds. These are very useful for identification. However, wounds heal and a bear's new fall coat can hide scars. Be mindful that not all bears can be identified from scars and wounds alone.

Sex

Is it a male or female? Genitalia is usually only visible on adult males. It is harder to see on females and younger bears. If you can't see a bear's genitalia, then watch them urinate. Male bears will urinate straight down between their hind legs, while females urinate behind them. This is especially useful when trying to determine the sex of cubs.

Cub Killer? Infanticide in Bears

Do male bears kill cubs? If so, why? These are two of the most frequently asked questions rangers hear at Brooks Camp. The answers are paradoxically simple and complicated. Yes, bears kill cubs, but no one is completely sure why. Female bears have been observed killing cubs as well, so the behavior is not restricted to just males.

Infanticide is the term commonly used to describe the killing of a bear cub. During the past 35 years at Brooks River there have been twelve documented cases of infanticide. Several hypotheses have been proposed to explain why bears kill cubs.

Increased Reproductive Potential

Motivation to mate with a female bear may drive a male to kill her cubs. Biologists describe this behavior as sexually selected infanticide. Female bears will not enter estrus ("heat") as long as they are nursing. If a female loses her cubs in the spring or early summer, then she may enter estrus and become receptive to mating.

Food

Bears are cannibalistic, so hunger may motivate some bears to kill cubs. Even subadult and small adult female bears fall victim to predatory attacks by larger bears.

Reduced Competition

Perhaps some bears view cubs as potential competitors in the future. Through infanticide, a bear can eliminate a competitor at its weakest point.

These ideas have merit, but there is no "one size fits all" explanation for this behavior. Each idea proposed has evidence to contradict it. Cubs are sometimes killed and not eaten. If a bear kills a cub to reduce competition, that may require a level of forethought and intelligence in bears that has yet to be scientifically demonstrated.

Even the idea of sexually selected infanticide has issues. Bears are promiscuous. There is no guarantee that an infanticidal male will sire another litter with the mother, nor is their any guarantee that the male bear would even have access to the female. A more dominant male could appropriate the female for himself. Even though few infanticides have been witnessed at Brooks River, they occur during spring, summer, and fall—not just during the mating season which peaks in late spring. Female bears kill cubs too, which does not support the idea of sexually selected infanticide either.

The videos on this page show two instances when large male bears separate a spring cub from it's mother. Both cubs are eventually killed. In the video at lower left, #814 Lurch chases #435 Holly and her spring cub in 2009. He quickly overpowers #435 and kills her cub.

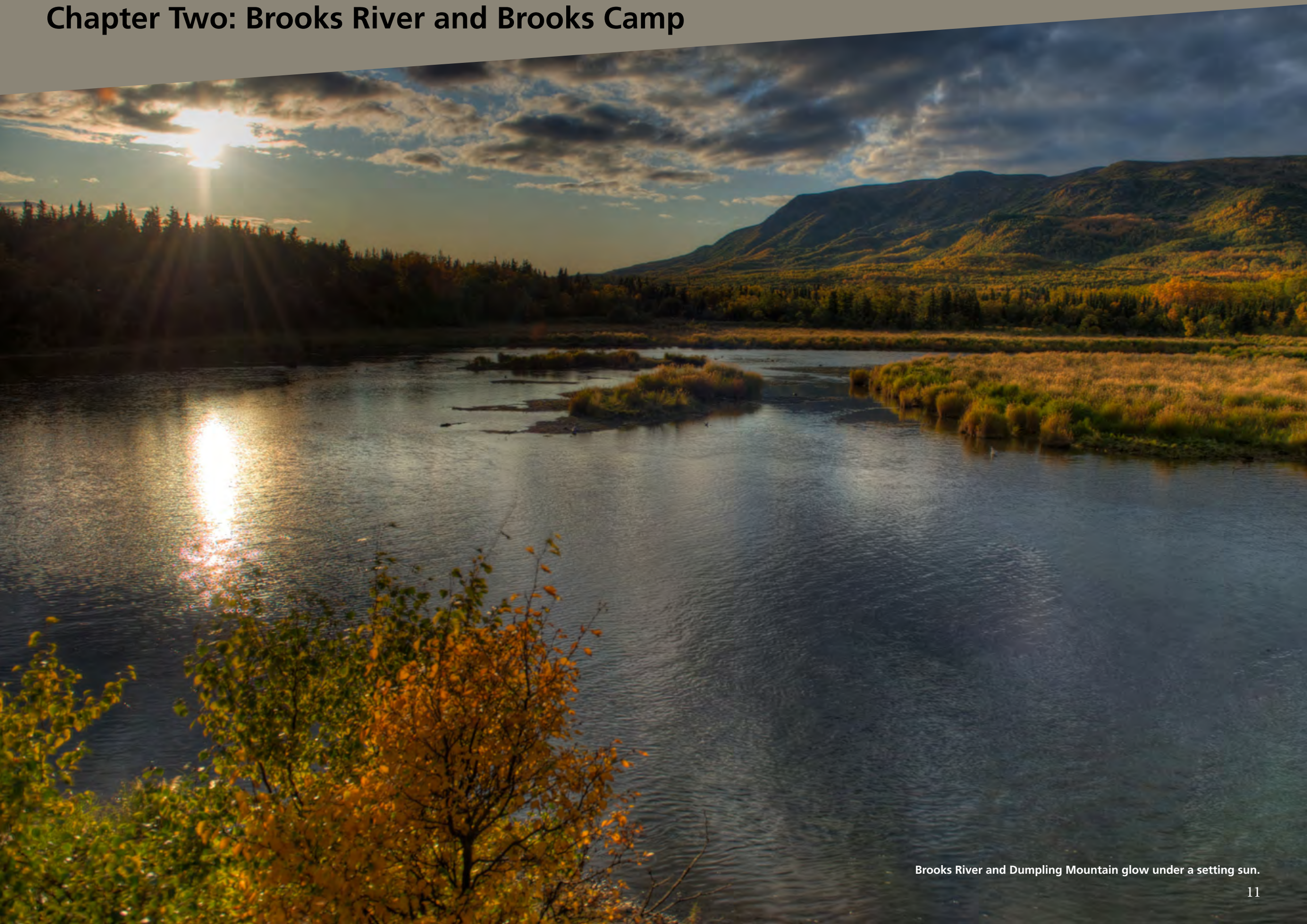
In the video at lower right, after a prolonged standoff #856 separates #402 from one of her spring cubs in 2011. Although not captured on video, he eventually returned and killed the cub. Curiously, #856 was seen mating with #402 in 2010. Therefore, he could have potentially killed his own offspring.

Infanticide may be difficult to reconcile from a human point of view, but bears exist and behave outside of our moral and ethical boundaries. This is a behavior that will continue among Katmai's bears as long as they remain wild creatures, and it is a behavior we may never be able to fully understand or explain.

In this video, #814 Lurch captures and kills #435 Holly's spring cub in 2009. Click to play.

In this video, #856 separates #402 from one of her spring cubs. Click to play.

Chapter Two: Brooks River and Brooks Camp

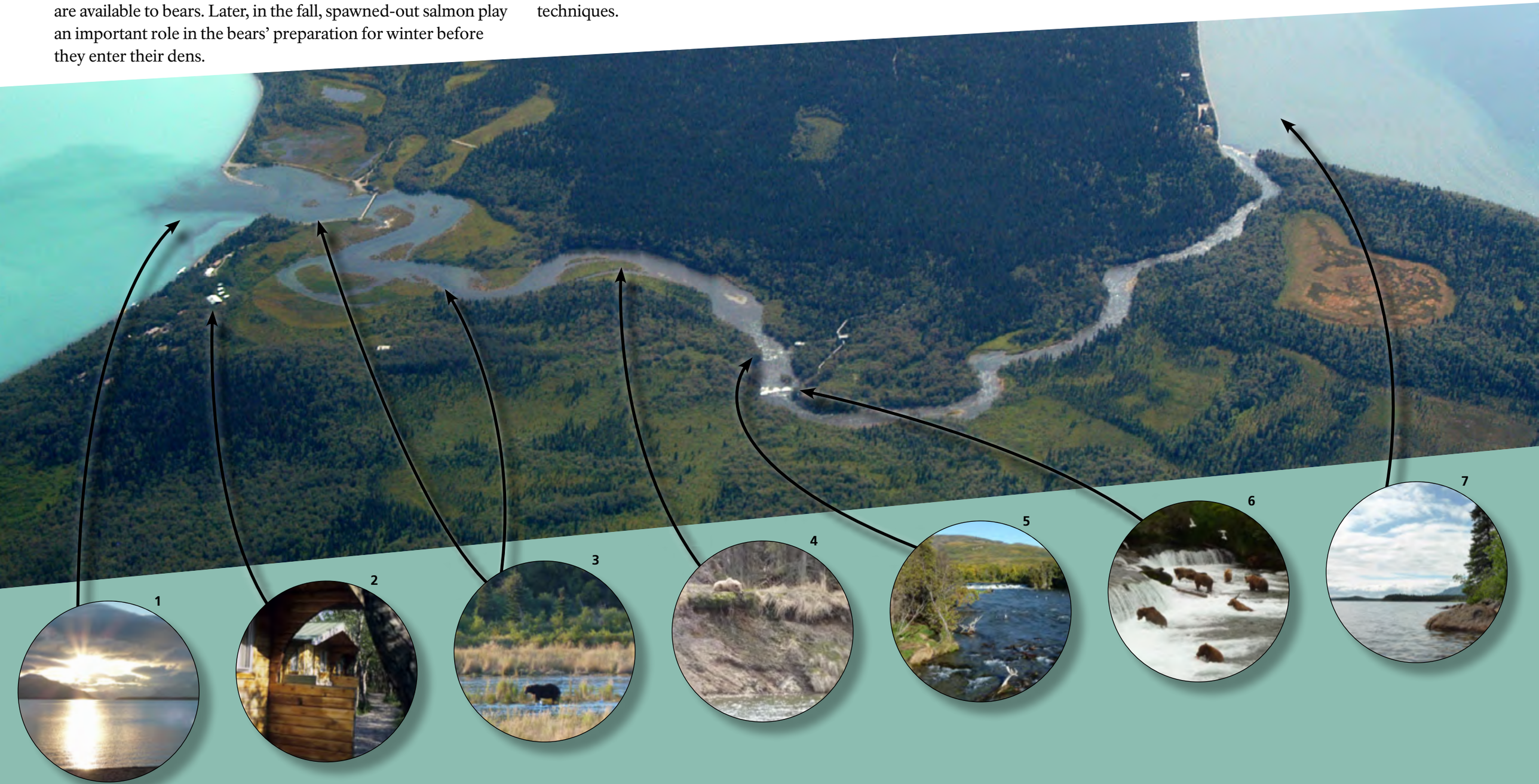


Brooks River and Dumpling Mountain glow under a setting sun.

Brooks River

No more than 1.5 miles (2.4 km) long, Brooks River hosts one of the greatest seasonal concentrations of brown bears anywhere on earth. In early summer, the river becomes one of the first places in the region where bright, energetic, and pre-spawned salmon are available to bears. Later, in the fall, spawned-out salmon play an important role in the bears' preparation for winter before they enter their dens.

How, where, and when bears fish along the river depends on many factors such as the time of year, salmon density, locations of salmon spawning activity, the age and relative position of the bear within its social hierarchy, and a bear's preferred fishing techniques.



1. Brooks River empties into Naknek Lake.
2. Brooks Camp.
3. During late summer and fall, bears usually concentrate in the lower half of Brooks River.
4. The cut bank provides a fishing area for bears that are less tolerant of people.
5. In July, the riffles area below Brooks Falls is fished most often by less dominant bears and females with offspring.
6. Early in the salmon run, Brooks Falls creates a temporary barrier to migrating salmon. This results in a particularly successful fishing spot for bears.
7. Lake Brooks is the river's source.

Brooks Falls

Brooks Falls creates a temporary barrier for the surge of migrating salmon through Brooks River. Consequently, Brooks Falls is one of the first places in the region where salmon are accessible to bears.

A bear's fishing location is dependent on its skill and where the bear ranks in the hierarchy. Many of the very dominant males prefer to fish in the plunge pools below Brooks Falls. The jacuzzi is a particularly sought after fishing spot by those bears. Less dominant bears are often forced to fish at other locations. In recent years, the lip of the falls has been used most often by adult females.

Some bears are specialists. They've mastered fishing at only one spot. Other bears are skilled enough to fish nearly anywhere.

1. Fish Ladder: Opened in 1950, it is no longer passable to salmon and bears rarely fish here.

2. Lip: Watch here for bears catching leaping salmon.

3. Jacuzzi: This is one of the most productive and sought-after fishing spots.

4. Far Pool: This spot is often occupied by bears who are less tolerant of people.

5. Less dominant bears often wait downstream for their opportunity to access fishing spots or scavenge dead salmon.

6. Downstream to the Riffles and Naknek Lake.

Here Today, Gone Tomorrow: Seasonal Bear Use At Brooks River

Rangers and biologists are frequently asked, "Where are the bears?" The answer depends on the season, but finding the answer is as simple as knowing where the bears are finding food. Patterns of use along Brooks River reflect bears' ability to learn and adapt to changing conditions—traits that help them survive extreme contrasts between seasons of abundance and famine.

Springtime is a lean season for bears who live in the interior of Katmai National Park. Little food is typically available to bears in the spring, so they are dispersed throughout the area and are only infrequently seen at Brooks Camp in May and June. At this time of the year bears are focused on eating grass and sedge, hunting moose calves, and competing for mates.

When salmon begin to arrive in late June, bears migrate to Brooks River. Bears can be seen fishing at Brooks Falls and in the lower Brooks River throughout the month. Mid-July is typically when the largest number of bears can be seen along the river. After that, bears slowly begin to disperse to other areas.

In August, salmon are beginning to spawn in Brooks River, but they are less concentrated, remain energetic, and are no longer migrating. This creates difficult fishing conditions for bears and almost all of the bears will leave the area. Like June, there are typically days in August when no bears are seen at Brooks Camp. For the bears, salmon fishing is easier in other places.

By late August, many salmon have already spawned and will begin to die. As the fish weaken and die, bears migrate back to Brooks River to feed. In September, bears are usually present in high numbers as they search for dead and dying salmon. In the fall, bear numbers usually peak by the first week in October.

Bears are largely absent from Brooks River except in July, September, and October.

Sockeye Salmon of Brooks River

The rivers, lakes, and streams of Bristol Bay host the closing acts of an epic migration. Each summer tens of millions of sockeye salmon leave the North Pacific, instinctively driven to return to the exact spawning grounds where they hatched years earlier. For several hundred thousand salmon the path leads up Brooks River.

Near the summer solstice, sockeye salmon begin migrating into Naknek River from Bristol Bay. From there, salmon swim into Naknek Lake and reach Brooks River. This is the final stop for some fish; here they will spawn and die. For others, the voyage is not quite over. Their destination lies beyond Brooks River, in the small tributaries of Lake Brooks.

Sockeye salmon reach sexual maturity when they approach their spawning grounds. Their silver color disappears, replaced by red-colored bodies and green heads. They also attain humped backs, elongated jaws and prominent teeth. These features are especially pronounced in male salmon.

Using their tails, female sockeye excavate a series of nests in the river bottom. Males don't dig nests, but they viciously fight with other males for access to females. When she judges a nest to be just right, she releases eggs in it. Simultaneously, the attending male fertilizes the eggs with milt. Then the female buries the eggs in gravel. Once spawning is complete, a female will defend her redd as long as she can. Male salmon move on and may attempt to fertilize the eggs of other females. After spawning though, salmon are on borrowed time. Spawned-out and with their life purpose complete, they will never return to the ocean. They slowly weaken and die.

Eggs incubate for about four months. After hatching, the tiny larval fish, called alevin, remain in the gravel until they emerge as fry in spring. When large enough, young salmon fry move from streams to lakes, where they stay for one to two years.

Salmon fry become smolt when they begin to migrate downstream to the ocean. Salmon smolt imprint on their natal streams and lakes while migrating to the ocean. Along this journey, they undergo many physiological changes to prepare for a saltwater existence. Salmon smolt are about to enter a totally new environment, whose conditions they cannot know until they get there. Substantial changes to the kidneys and gills are required for the fish to survive the harsh transition from freshwater to the salty ocean. Sockeye salmon feast in the North Pacific for two additional years. There they grow into the large and beautiful fish who return as adults to spawn.

Spawning sockeye salmon look far different compared to those who arrive in early July (inset above). Secondary sexual characteristics like red bodies, humped backs, elongated jaws, and greenish heads signal these fish are ready to spawn.

Katmai's Keystone

What makes salmon such interesting and charismatic creatures? Is it their importance to brown bears? Is it the commercial and recreational fishing opportunities they provide? Is it the promise of food through a long winter? What about their epic migrations and battle against the odds?

Of course, all of these things make them interesting and important. For a moment though, consider how salmon are important in other ways that might not be obvious. Salmon are conveyor belts of energy and nutrients. They are the keystone that turns impoverished land and water into productive and vibrant landscapes.

Salmon provide the energy necessary for bears to grow large and fat over the summer and fall. Katmai's bears are larger and achieve greater reproductive success compared to bears without salmon in their diet. In Katmai, most of a bear's yearly calories comes from salmon.

Salmon also provide food for dozens of other species, including fish and invertebrates. Many different fish species gorge on salmon fry and smolt in the spring and salmon eggs in the fall. Anglers often catch arctic char and rainbow trout with stomachs visibly distended with salmon eggs. In the winter, these fish may not eat much at all. They, like bears, are surviving on the energy brought to them by salmon.

Even decomposing salmon are vital to the ecosystem. Dead salmon provide tons of nitrogen and phosphorus that fertilize nutrient poor freshwater lakes and streams. These nutrients boost the primary productivity of plankton, which in turn feed salmon fry. Without this yearly boost, streams and lakes could not support high numbers of salmon fry. Riparian vegetation also grows quicker along salmon streams.

What would the loss of salmon mean for a place like Brooks River? Most people come to watch bears and fish for trophy-sized trout, grayling, and char. Without salmon, Brooks River would not be a world famous fishing destination, because there would be no large fish to catch. Without salmon, no one would visit Brooks Camp to see bears, because no bears would gather here. For thousands of years, people fished at Brooks Falls for salmon too. Even today, salmon are the heartbeat of the area's culture and economy. Without salmon, the economy of Bristol Bay and Southwest Alaska would collapse.

The survival of the modern day Katmai experience, the ecosystem as we know it, and the history of Brooks River is intimately tied to these fish. They are, without doubt, Katmai's keystone species.

Dead salmon play a vital role in the productivity and abundance of Katmai's ecosystems.

Bear Safety at Brooks Camp

For many people, a trip to Brooks Camp is a once in-a-lifetime experience. To protect that experience for future generations, the National Park Service requires all arriving visitors to attend a 20 minute orientation and safety talk. This "bear school" teaches visitors how to behave in ways protecting both themselves and bears. While at Brooks Camp, you must:

- Keep an appropriate distance between yourself and bears: Stay at least 50 yards (~46 meters) away from all bears in the Brooks Camp area.
- Prevent bears from associating human gear with play items: While at Brooks Camp, any items brought outdoors must be kept within arm's reach at all times.
- Prevent bears from obtaining human food and garbage: At Brooks Camp, people are not allowed to carry or consume food or drinks (besides water) while outside, except in designated picnic areas.
- Bears have the right of way: If you encounter a bear, you should give it the space it needs to continue fishing, walking, or sleeping. At times, bears may block access to areas such as the viewing platforms. Pack your patience and remember the bears' freedom is what makes Brooks Camp an exciting destination.

By following these rules, we prevent bears from learning behaviors that will lead them into conflicts with humans. Please visit Katmai's website for more information about staying safe in bear country.

How would you react towards an approaching bear? Special rules and regulations apply at Brooks Camp in order to better protect people and bears. Photo © Jake Bortscheller.

To Name or Not to Name?

Bears at Brooks River are assigned numbers for monitoring, management, and identification purposes. Inevitably, some bears acquire nicknames from staff and these nicknames are included in this book, but naming wild animals is not without controversy. Is it appropriate to name wild animals?

Personnel at many bear watching areas in Alaska, like Brooks River, attach nicknames to frequently seen bears. These serve to help people identify, track, and manage the animals. However, names undoubtedly alter the way in which we relate to an animal. For some people, a named bear (or one with ear tags or a radio collar) may seem less wild, and more pet-like, than an unknown counterpart.

Names also carry meaning, intentionally or not. What stigmas would you attach to a young bear nicknamed Fluffy versus a large male bear named Killer? How would those stigmas alter your experience when watching that animal?

With those questions in mind, randomly assigned numbers are certainly more neutral than a name, but over time a number may lead to just as much anthropomorphizing as a nickname. No matter how we relate to these animals though, at Brooks River the bears with nicknames remain wild animals. Management decisions are never based on whether or not a bear is named and the bears are completely unaware of the numbers and names assigned to them.

Explore this subject more and share your thoughts in these related posts on Katmai's blog.
To Name or Not to Name
Why National Parks Can't Ignore Individual Animals

#130 was nicknamed Tundra when she was a yearling cub. What meanings are associated with that name? Does her nickname change the way you perceive her? Is it appropriate to name wild animals?

Bearcam! Watch Live Streaming Video of Brooks River and Its Famous Bears

Watch live footage of brown bears fishing for salmon anywhere with an internet connection. Katmai's bearcams are live, freely accessible, streaming webcams from Brooks River. Cameras are located at Brooks Falls, at the outlet of the Brooks River, near the summit of Dumpling Mountain, and even underwater. Don't miss a second of the action. Go to go.nps.gov/bearcam and follow the links to watch the world famous bearcams.

Join the Bearcam Community

Connect with the growing online community of Katmai and brown bear stewards. Discuss recent and past bearcam events with other fans, share your thoughts on national parks and wildlife conservation, and upload your favorite bearcam screenshots for others to enjoy.

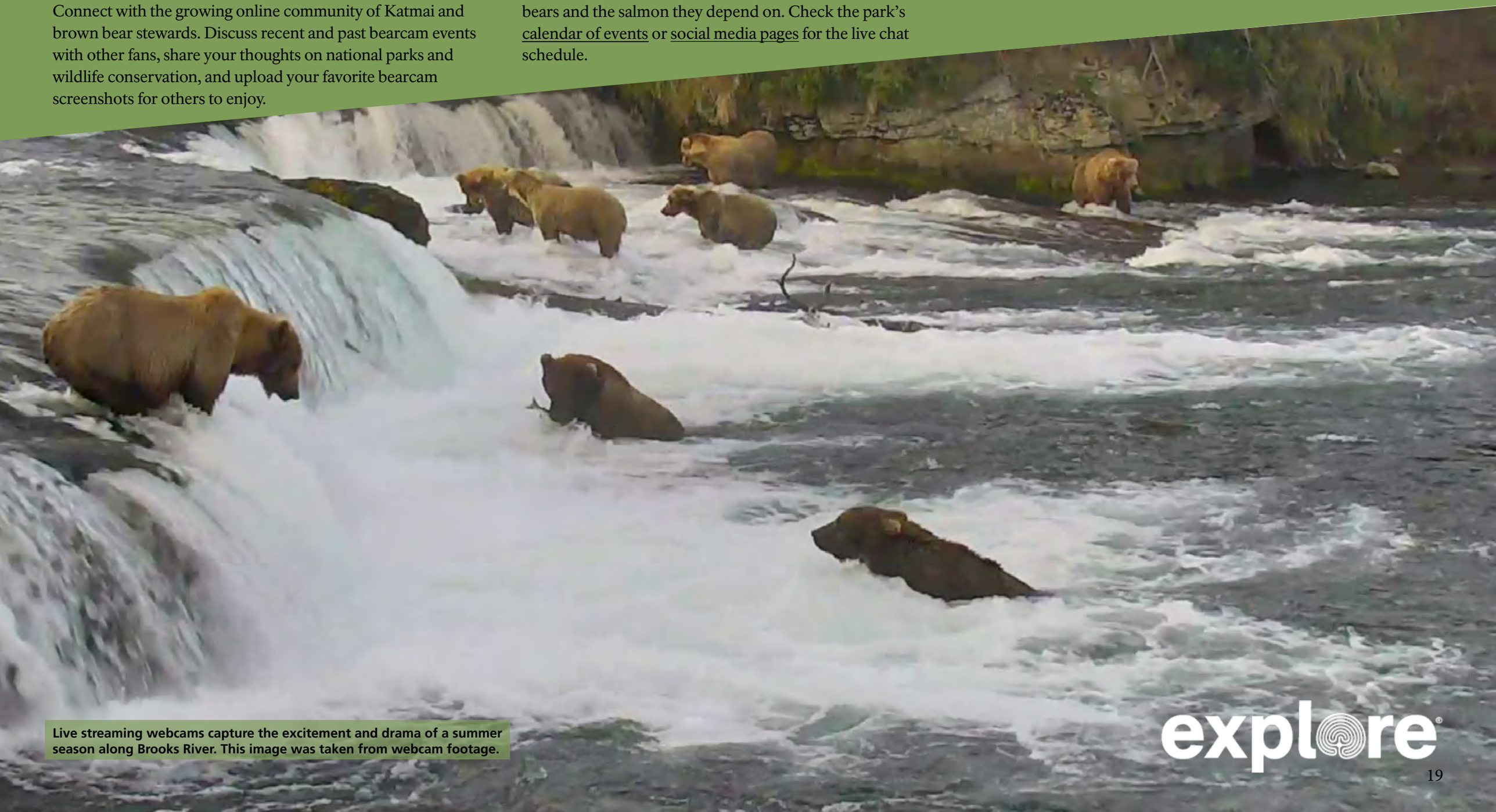
On social media, use #bearcam and join the real-time chat at the bottom of any bearcam page on www.explore.org/bears. Post updates about bear activity on the river through the bearcam wiki page. Share your bearcam screen shots via the bearcam group on Flickr.

Ranger Live Chats

Throughout the year, rangers host live webcasts on the bearcams to discuss the biology, behavior, and ecology of bears and the salmon they depend on. Check the park's calendar of events or social media pages for the live chat schedule.

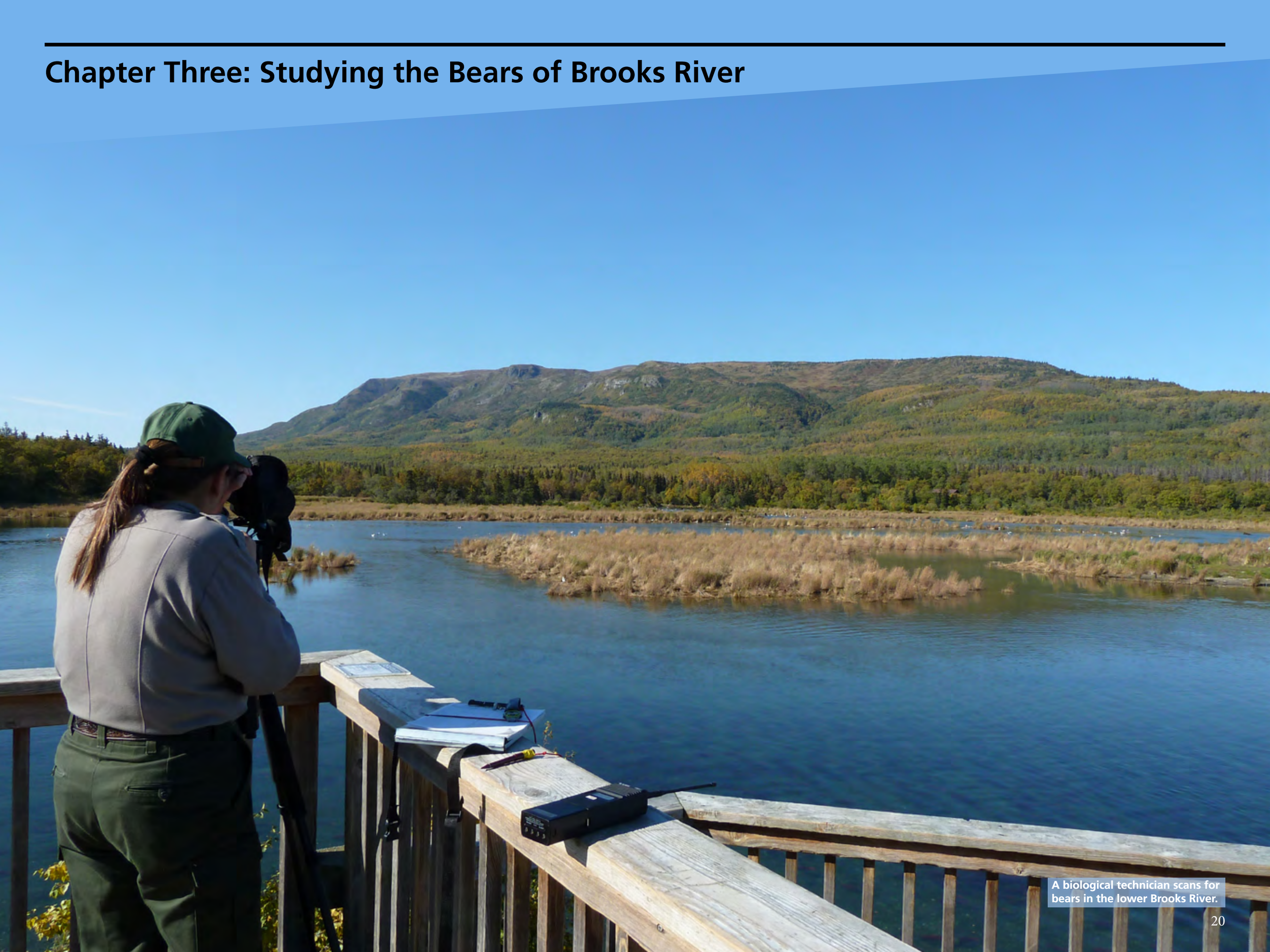
Explore.org

Funding for the installation, maintenance, and technical support for the bearcams is proudly provided by explore.org. Explore.org is a philanthropic organization with a mission to champion the selfless acts of others, create a portal into the soul of humanity, and inspire lifelong learning. Katmai was granted $150,000 by explore.org to further fund educational efforts related to the bearcams.



Live streaming webcams capture the excitement and drama of a summer season along Brooks River. This image was taken from webcam footage.

Chapter Three: Studying the Bears of Brooks River



A biological technician scans for bears in the lower Brooks River.

Monitoring Bears at Brooks River

Bear watching at Brooks River is different than most other bear watching sites in Alaska, especially when you consider the depth of information collected about individual bears. Since 2001, biologists at Katmai have conducted in-depth monitoring sessions along Brooks River to record data on bear and human use of the area.

Over time, this information has grown into one of the most comprehensive data sets about bear use of a particular place ever recorded. Park managers can use this data to follow trends in bear numbers, how they interact with each other, and how humans impact their movement and behavior. This information provides park managers with the data necessary to make informed decisions about the management of the river. It also provides the public with a great deal of information and insight into the lives of these amazing animals.

How is data collected?

The river from Brooks Falls downstream to its mouth on Naknek Lake is divided into several observation zones for data collection. Sampling is conducted from the public viewing platforms at the falls and near the floating bridge, as well as from a tree stand in the cut bank area.

What data is collected?

Observation sessions are scheduled to produce balanced sampling by time of day and sample zone. Biologists collect a wide variety of information during bear monitoring sessions including the number of bears using the river; activity rates by age, sex, and individual; behavior of bears seen; bear "arrival" dates (i.e. the first date seen in July and fall monitoring seasons). Arrival and departure times are recorded for each individual bear seen during an observation session, and counts of people and behavior of each bear in view are recorded at 10 minute intervals. In addition, fish caught and time spent fishing is recorded for a subsample of the bears seen.

From year to year, records of identifying characteristics of individual bears are maintained, and each bear identified is assigned a unique identification number. The age (adult or subadult) and sex of each bear is also recorded. Age classification is a subjective determination, based primarily on size and behavior (and often on the documented identification history of the bear). Sex is determined by observation of urination, posture, genitalia, or presence of offspring. Photo records are maintained for as many different individuals as possible. The photo records are an important aspect of recognizing individual bears across seasons and years, particularly when several biologists are involved in data collection.

Read about overnight bear monitoring sessions at Brooks Falls.
Watch a live ranger chat replay about the bear monitoring program.

#856 eats his catch near Brooks Falls. A bear's fishing activity is just one of the many behaviors recorded by Katmai's staff.

How Many Bears Use Brooks River?

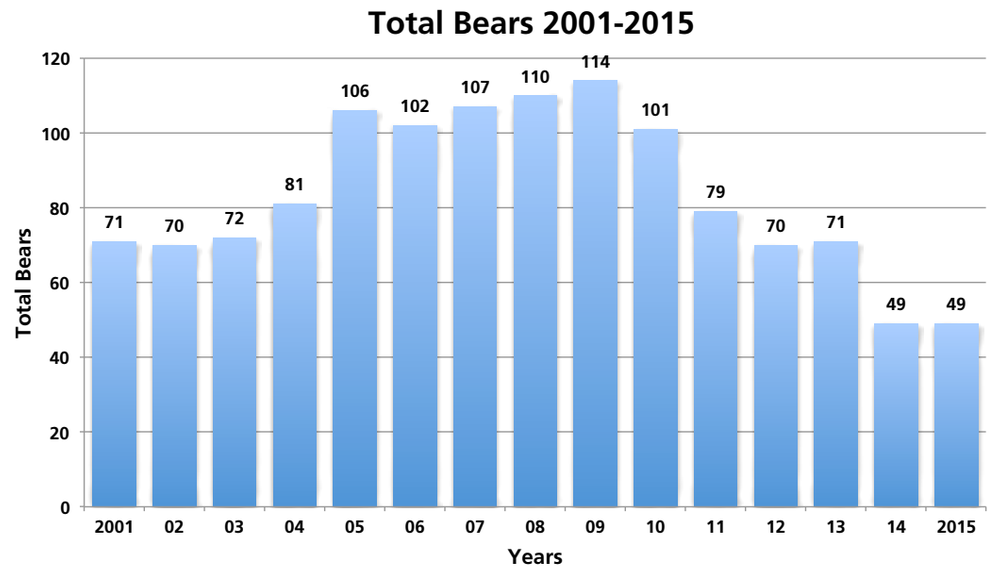
High numbers of bears at Brooks River may be a relatively new phenomenon in Katmai National Park's recent history. Archaeological excavations reveal evidence of extensive human use on the river for thousands of years. During much of this time, humans and bears directly competed for access to salmon. When humans gathered at Brooks Falls to fish, bears may have been displaced. After the establishment of Katmai National Monument in 1918, and especially after the monument was expanded to include the Brooks River area in 1931, bears were granted a high level of protection. Even so, anecdotal evidence suggests that Katmai's bear population was at an ebb in the 1950s. Since then, the number of bears using Brooks River has greatly increased. Why?

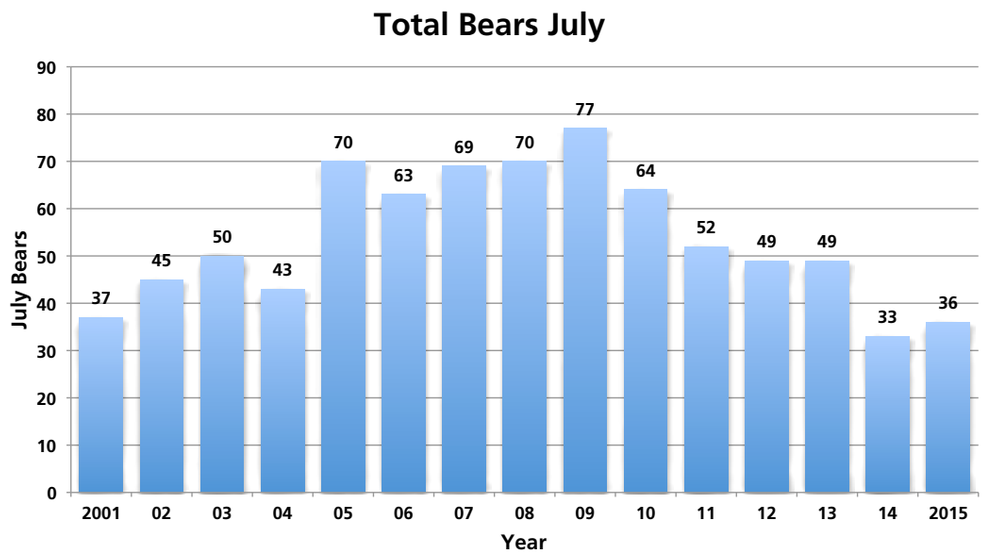
Abundant salmon are likely the reason for this trend. Bear survival and productivity is directly linked to salmon. In the Naknek River watershed, which includes Brooks River, the 20 year average salmon escapement is 1.62 million fish (1996–2015). About 20% of the Naknek River's salmon escapement migrate to Brooks River. Also, over the past 30 years, Katmai's bear management policies have placed increasing emphasis on minimizing bear-human conflicts. Bear cubs that accompany their mothers to Brooks River typically experience relatively benign contacts with people. Thus, as these cubs grow into adults we would expect the number and proportion of adults tolerant of people to increase.

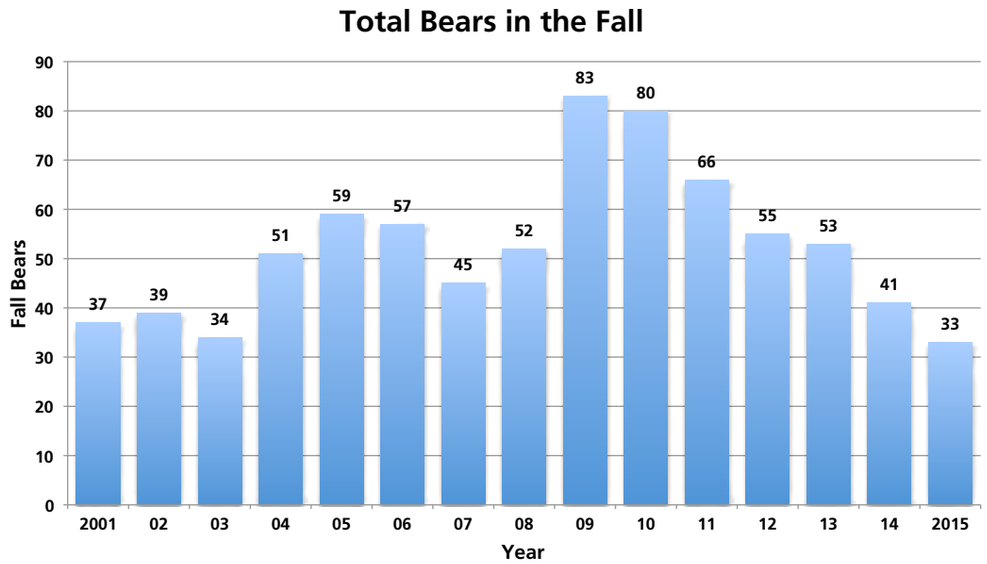
In the 1970s, very few bears used Brooks River in July (usually not more than 6-8 bears) while 25-40 bears used Brooks River in the fall during that same time. In the 1980s, bears began to fish at Brooks Falls during July in ever increasing numbers. By the early 2000s, bear numbers in July surpassed bear numbers in the fall. For unknown reasons, bears took longer to learn to exploit salmon at Brooks River in July than in the fall. Bear numbers also differ from season to season. Brooks River is one of the first streams in Katmai where migrating salmon become accessible to bears (and the caloric value of bright pre-spawned salmon is exceptionally high). In contrast, spawning and spawned-out salmon are available at several streams during fall.

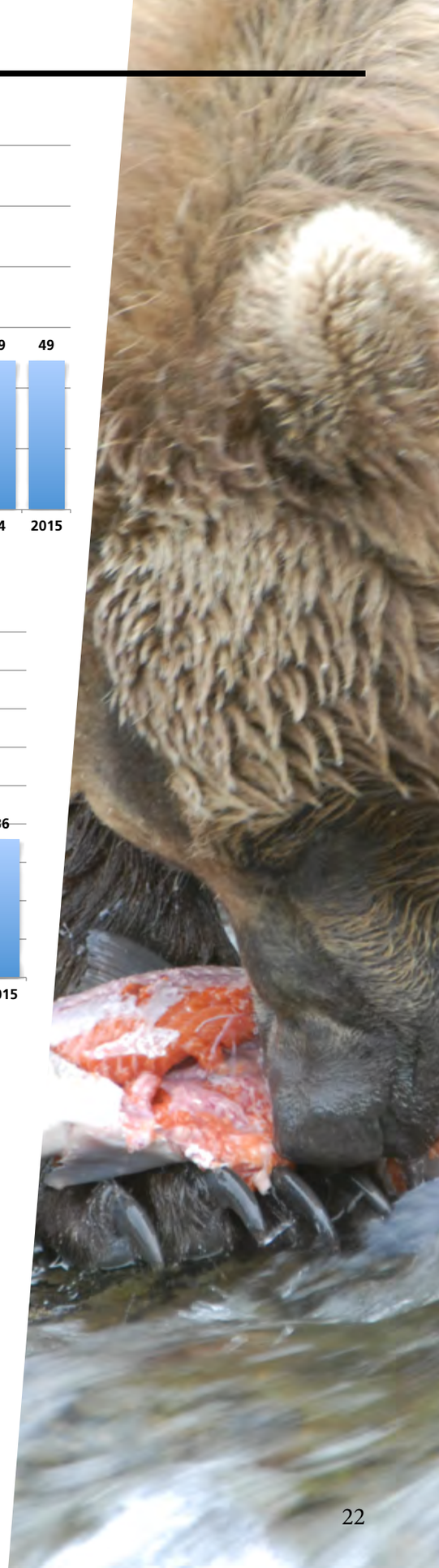
How many bears use the river now? During late June through July, the annual cumulative total number of independent bears identified regularly using Brooks River during 2001-2015 has ranged from 33 to 77. During September through early October, the annual cumulative total of bears has ranged from 33 to 83. Typically, another 5 to 10 transient bears are documented in each of the two monitoring periods annually. In 2015, 36 individual bears were identified in July and 33 in September and October.

Bear numbers from 2001-2015 are shown in the graphs on this page. The vertical axis represents bears. Years are represented on the horizontal axis.









Do the Same Bears Return to Brooks River Each Year?

Bears are creatures of habit. Once they learn when and where food is available, they will return to those places again and again. Since Brooks River typically offers reliable access to salmon, many of the bears seen at Brooks River each year are recognized from prior years. Some bears visit the river every year for their whole lives.

The majority of newly recognized bears are usually subadult bears who are establishing their own home ranges and experiencing life away from their mother for the first time. However, almost every year mature adult bears who are unknown to park staff visit the river. Some are transient; they stay for only short periods of time and are never seen again. Others are persuaded to stay and fish for salmon in subsequent years.

Forty-nine different, independent bears were identified in 2015. Most were recognized from previous years. Only seven new bears were identified in 2015. This represents a typical ratio of previously identified bears and new bears. For comparison during 2007, a year with over 100 different bears, 50 of the 69 independent bears identified regularly using Brooks River during July were bears recognized from previous years, as were 34 of the 45 independent bears identified during fall. Recognizing bears from year to year is difficult; therefore, these figures should be considered minimum estimates.

Each year, a number of bears are also recognized between the July and fall (late August into October) periods of bear use at Brooks River. However, it should be noted that recognizing bears between July and Fall within a single year tends to be more difficult than recognizing animals across years within the July or the fall bear use periods.

#402 first came to Brooks River with her mother in the late 1990s. She has returned every year since. Top photo shows #402 as a 3.5 year-old subadult in 2001. Bottom photo is from 2014.

Predator and Prey at Brooks River

What might cause bear abundance to vary at Brooks River? This is a tale of predator and prey over years, months, and minutes. Comparing overall bear numbers with salmon escapement reveals a long term relationship (Figure 1). Escapement is the number of fish not captured by commercial fishing and migrate inland to spawn. The number of bears at Brooks River has risen and fallen over the past 15 years and seems to closely parallel a rise and decline in salmon abundance. Large runs of salmon support greater numbers of bears and increase reproduction rates. Like many predator-prey relationships though, predator numbers lag behind prey abundance.

Bear numbers can also be tracked over a month's time scale. Since the late 1990s, rangers at Brooks Falls have counted bears, salmon, and people at Brooks Falls. From late June to early August, staff record individual bears seen at the river near the falls and the number of people standing on the Brooks Falls wildlife viewing platform. Jumping salmon also are counted for one minute to document their relative abundance. This data is collected every half hour from approximately 9 a.m. to 4 p.m. When this data is compiled and tallied on a graph (Figure 2), a clear pattern of relative bear abundance emerges for July. The numbers of jumping salmon peak during the first two weeks of July. This reflects the peak of the sockeye salmon migration into Brooks River. Bear numbers increase steadily from late June and peak in the third week of July.

Bear numbers at Brooks Falls also vary considerably on a day to day, hour to hour, time scale. During extreme highs in salmon abundance, fish are so plentiful and easy to catch that many bears are satiated quickly. At these moments, bears spend less time fishing, because they get full and move out of the water to rest. When lesser numbers of salmon are seen at the falls, bears often spend more time fishing and more bears are seen. When you watch salmon and bears at Brooks Falls, look for these patterns to emerge. It's a real life drama of predator and prey.

Fewer bears fish at Brooks Falls during moments when salmon are especially abundant. When salmon are less abundant, bears typically need more time to catch their fill and will spend more time fishing. Click to play.

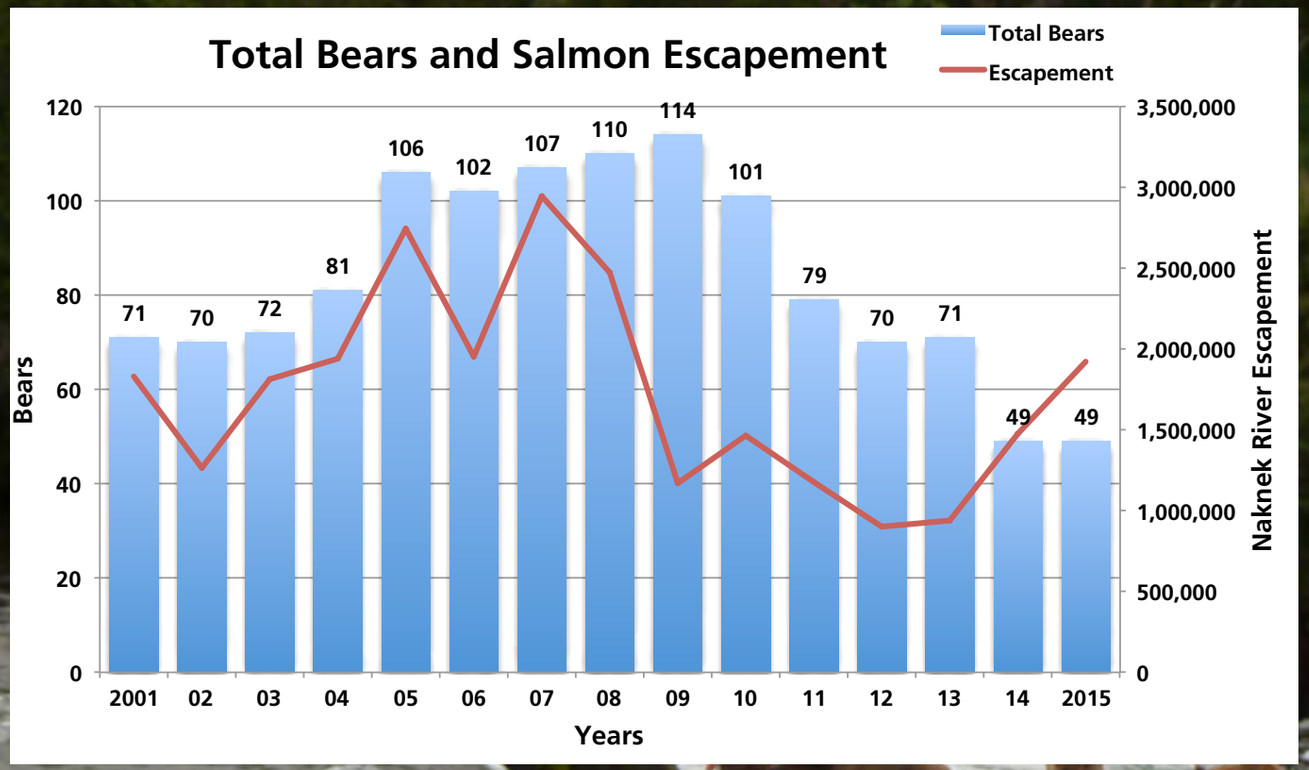


Figure 1. The graph above plots overall bear numbers (blue bars) and salmon escapement (red line). High numbers of bear in the mid 2000s were likely supported by very large runs of fish.

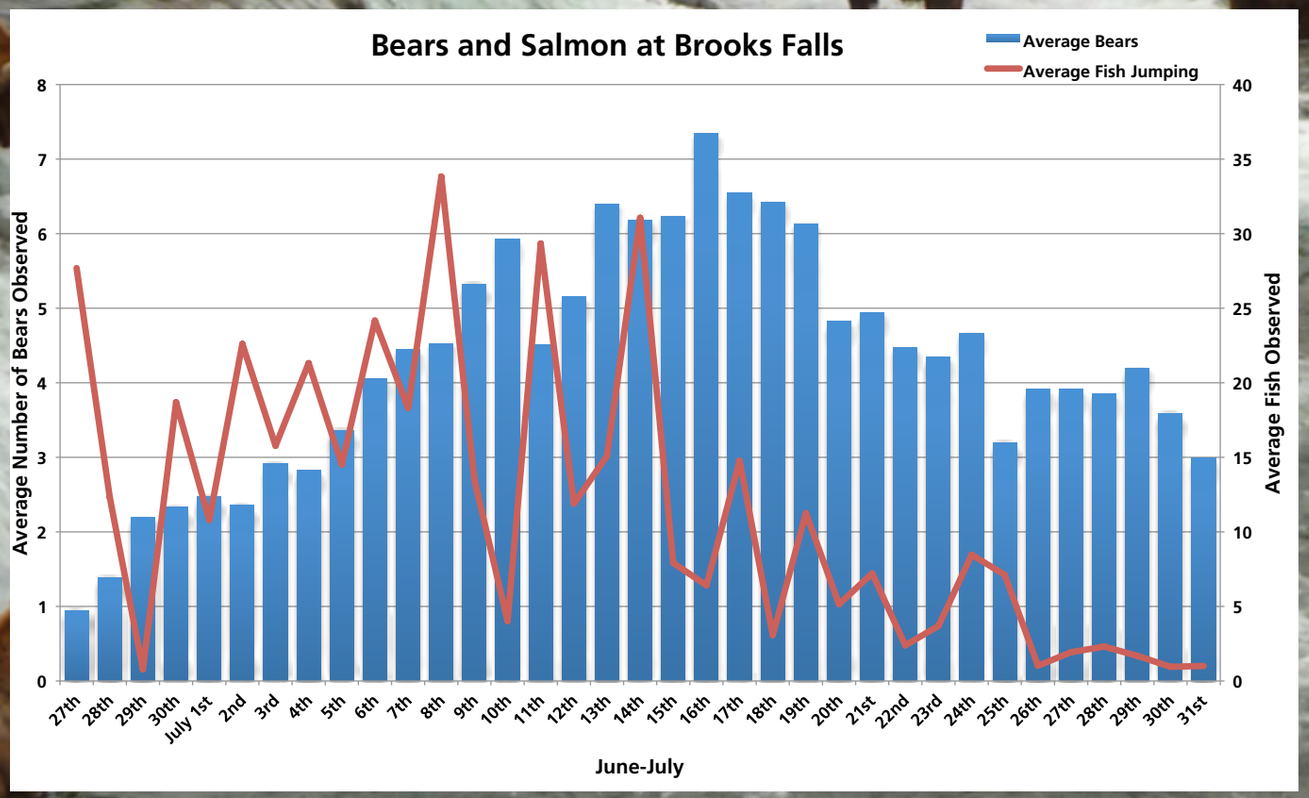


Figure 2. This graph plots the average number of bears observed (blue bars) and salmon jumping (red line) on a daily basis at Brooks Falls in July. Bear numbers typically peak in mid July after the majority of fish have migrated through the river.

Sudden Deaths of Two Bears in 2015

In late October 2015 two bears, an adult male and a spring cub, died within one week at Brooks River. These deaths highlighted a major risk that all organisms face—infectious disease.

In Katmai, a place with some of the highest densities of bears anywhere in the world, rangers and biologists rarely see a bear die or find dead bears. Still, the information about the few recorded bear deaths can help us glean some knowledge about the end of a bear's life. During the past 36 years at Brooks River, only about 15 bear deaths have been documented. Almost all of these deaths were caused by other bears, but illness and disease will take its toll.

On October 21, 2015 bearcam viewers watched a mother bear (451) and her two spring cubs. One of the cubs stumbled as it walked. The cub collapsed at the base of the viewing platform near one of the cams. For two and a half days, it remained there. 451 and her other cub remained nearby for most of this time before it died on October 23. The cub was collected for necropsy on Saturday, October 24.

A few hours after the dead cub was retrieved, webcam viewers noticed a large, brown, stationary object at the lake shore near where the cub died. It did not move in the following days. Due to its size, color, and location, park staff believed it was a dead bear. Since the possibility for a disease outbreak or human-caused deaths existed, park staff returned to Brooks River, conducted a gross field necropsy, and sent samples to a lab for further analysis. When they returned, they identified the bear as #868.

Results from a laboratory analysis indicate that the cub likely died from canine adenovirus type-I (CAV-1). This disease is also called canine infectious hepatitis. Infectious canine hepatitis is a viral disease found worldwide that primarily infects dogs, foxes, wolves, coyotes, and bears. A 1998 study documented about 10% of brown bears on the Alaska Peninsula had the antibodies that indicate they had contact with the virus. The tissue samples from the cub tested negative for rabies and canine distemper. Analysis was conducted by USGS staff at the National Wildlife Health Center (NWHC).

#868's cause of death is undetermined. No signs of outward trauma were visible on him, except for a broken nose (the nose could have been broken when he collapsed to the ground). 10-12 gallons of fluid were present in his abdominal cavity, which is not a normal finding. #868 tested negative for CAV-1 and canine distemper virus. No parasites were observed in the tongue or abdominal cavity fluid. It *appears* that his death is unrelated to the cub's, but there is no evidence that he died from a sudden, traumatic injury. However, samples from 868 were decomposing rapidly by the time they reached the lab for analysis, which prevents us from ever knowing his cause of death.

More information on these deaths.
Photos of the field necropsy on 868 (some photos are graphic).
View photos of the cub when it was collected.
More information on other causes of bear mortality in Katmai.

Wildlife technicians examined 451's dead cub for visible signs of trauma before collecting it.

868's body was examined and necropsied in the field. He was estimated to weigh 900 pounds.

Chapter 4: Cubs

A cub clings tight to its mother near Brooks Falls.

Identification

Cubs are small, young bears dependent on an adult female. First year cubs are called spring cubs or cubs-of-the-year, and are generally very small with dark fur. They can sometimes have a natal collar, a band of lighter fur around their neck. Cubs in their second summer are called yearlings. Their coats are generally lighter than spring cubs, especially early in the summer.

Relative size can help differentiate between spring, yearling, and 2.5 year-old cubs. Overall, spring cubs are very small compared to their mothers. Yearling cubs are often taller than spring cubs, while 2.5 year-old bears can be nearly as large as their mother.

Life History

Cubs are born in the den in mid winter. At this time they are hairless, blind, and only weigh about one pound (.45 kg). After birth, they nurse and grow rapidly until the mother emerges from the den in mid spring. When they exit the den with their mother, they may weigh 12 pounds (5.5 kg) or more, but their rapid growth doesn't end there. By the fall, they may weigh 60 pounds (27.2 kg) or more—equivalent to 6000% of their birth weight just 10 months before!

Spring cubs are highly dependent on mother's milk during their first year. Cubs will nurse as long as they remain with their mother, although as cubs age they rely less and less on mother's milk for nutrition. Separation between mother and cub occurs in the spring after the family exits the den. At that time, the mother bear pushes her offspring away, often aggressively. In the Katmai region, cubs typically remain with their mothers through 2-3 summers.

Cubs form strong, albeit temporary, social bonds with their siblings and mother. Cubs' playful demeanor often mask the risks they face. Mortality is very high within the Katmai region. As many as two-thirds of cubs will not survive their first year. Infanticide, drowning, illness, falling, and becoming lost are just some of the obstacles these young bears must overcome.

(503) Cubadult

Year First Identified: 1.5 year-old cub in 2014

Identification

This cub is a quickly growing young bear. In July his fur is light to medium-brown and he can appear skinny. In the fall, his fur darkens to a grizzled-brown. His claws are dark, and like most cubs he lacks distinctive scars.

Life History

In previous editions of this book, no individual cubs were treated separately, but this bear's story is unique enough to justify an entry.

This cub originally belonged to #402, but after an unusually timed series of events, this bear was abandoned by his biological mother in early July. Most cubs are pushed away by their mothers in the spring after two to three summers. As a lone and small yearling, he faced many threats to his survival, not the least of which
was other bears. Since he was then independent and observed during several bear monitoring sessions, he was assigned #503. Remarkably, by the end of the summer, this yearling was fat, playful and appeared very healthy.

By the end of July, he was adopted by #435, a female with a single spring cub. #435 treated her adopted yearling just like her biological spring cub. She allowed him to nurse, take fish from her, and play with the spring cub. We will never know #435's reasons for adopting the yearling with any certainty, but bears, even young bears, are adaptable and smart. They possess the ability to recognize favorable situations and take advantage of them. In #503's case, the reward (protection, food) was worth taking the risk (intolerant bear, injury, death) of approaching a strange bear. If he had approached an intolerant female too closely, he could have been injured or killed. Instead, his strategy may have helped to ensure his survival into subadulthood.

#435 continued to raise #503 through 2015. Will #435 Holly care for this bear and her biological cub for another summer in 2016? Or, will this be their first full summer of independence? If #503 returns to Brooks River as an independent bear, he will be classified as a subadult and another, perhaps more challenging, time in his life will begin.

3.5 Year-old Cub

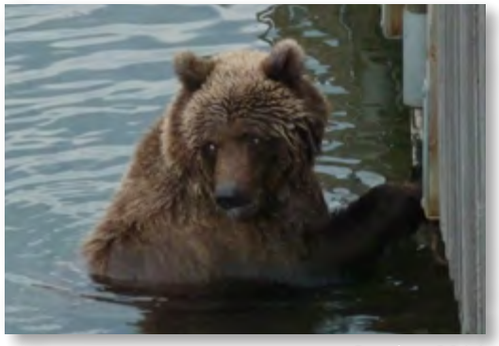
July 2015

October 2014

July 2014

October 2015

July 2014



October 2014

503 with his adoptive mother in September 2014

Chapter 5: Subadults

A subadult bear glances across the Brooks River

Identification

Subadults are generally small to medium-sized bears. Like adolescent humans, subadults appear to have not yet grown into their body, which sometimes gives them the impression of having a big head and ears. Behaviorally, they can be recognized by their playful and inquisitive nature. You might see a subadult play-fighting, chasing a duck, or awkwardly attempting to fish. They are often skittish around larger adult bears.

Young adult females and large, older cubs can sometimes be confused with subadults. Young adult females usually appear less lanky and more filled-out. They will also behave more confidently than a subadult. Older cubs are accompanied by their mother, unlike an independent subadult.

Life History

Subadults are young brown bears between 2.5 and 5.5 years old. They are independent of their mothers but have not yet matured into adult bears.

The distinction between a subadult and an adult bear is somewhat arbitrary and is defined by reaching sexual maturity. Like humans, there is no set age when this happens, but it generally occurs around the bear's sixth year. Until they reach maturity, subadults spend their time learning how to fit into the complex world of bears.

Because of their relatively small size and low position in the bear hierarchy, the subadult years are a difficult time in a bear's life. As the lowest members of the bear hierarchy, they are forced to yield space and food resources to larger adults. Subadults are relegated to the less than desirable fishing spots, and sometimes face predation by other bears.

500 Indy

Subadult Female

Year First Identified: 2.5 year-old subadult in 2014

Identification

#500 is a small subadult with very blond fur in July. By September her fur darkens to a dark and mottled blond. When shedding, she has a noticeable circular shed patch on her forehead. She also has large upright ears like many subadults.

Life History

When this bear first arrived in July 2014, #500 was often seen with another blond bear of similar size and color. Sibling bears sometimes associate with one another for days, weeks, or months after their mother pushes them away. In rarer instances, siblings may even den together the following fall after becoming independent. This may explain why #500 was seen with the other bear. Her suspected sibling, however, was not seen after early July.

This bear is believed to be the offspring of #409. She was one of the smallest independent bears at Brooks River during the past two summers and as such faced challenges posed by other bears. Still, this is a stage of life that all bears must survive before they reach adulthood. In 2015, she would visit Brooks Falls, but could not compete for fishing spots. #500 found an abundant supply of food by scavenging dead fish even though she was often displaced by older, larger bears.

As part of the growing pains of subadulthood, she would often challenge and/or approach larger bears. Many of these bears ignored her, but some would vigorously chase her away—even cubs from other litters. In these situations, she was likely just testing her limits and was constantly reminded of her place in the hierarchy: the bottom.

July 2015

August 2015

July 2015

September 2014

July 2015

July 2014

August 2014

600

Subadult Female

Year First Identified: 2.5 year-old subadult in 2015

Identification

#600 is a small bear with blond or brown coat and a faint dorsal stripe. Her face is somewhat distinctive with dark eye rings and a tapered, conically shaped muzzle.

Life History

This bear is thought to be the offspring of #854. Like other young, independent bears, she spent little or no time fishing at Brooks Falls and avoided older, larger bears. She was seen most often in the cut bank area in July. However, #600 was not identified in the fall of 2015.

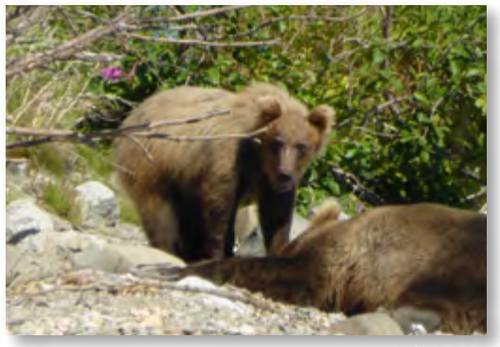
July 2015

September 2014

July 2015

October 2014

July 2015



July 2014

October 2014

602

Subadult Female

Year First Identified: Young subadult in 2015

Identification

#602 is a small, compact and well proportioned young bear. She has dark, grizzled fur even in July when most young bears sport blonder coats. Her ears are the same color as her body and perched high on her head. She has a round face with closely set eyes.

Life History

In July, this bear fishes quietly throughout the river. In the fall, she fishes for dead and dying salmon through most of the lower Brooks River.

Each year, the majority of newly identified bears at Brooks River are subadults, and #602 is a typical example of that. Subadults can be particularly hard to identify from year to year, because they grow rapidly and often lack noticeable diagnostic features.

July 2015

September 2015

July 2015

October 2015

July 2015

July 2015

September2015

Chapter 5: Adult Females

#402 stands over her four spring cubs near Brooks Falls.

Identification

Adult female bears, like their male counterparts, have bodies that look filled in, their heads appear smaller in proportion to their bodies, and their ears are generally wide-set. Genitalia is usually difficult to see on female bears, but you can still sex adult females by watching them urinate. Females will urinate backward between their hind legs.

Male bears usually carry more scars and wounds than females, but scarring or wounds concentrated on the back of a bear's neck can occasionally be an identifier of females. These scars can be the result of male bears biting them during copulation. The presence of cubs is an absolute indicator that you are looking at a female. Male bears play no role in raising young.

Life History

Adult females, or sows, generally weigh one-half to three-quarters as much as males, but can still grow to weigh between 300-600 pounds (136-272 kg) or more at maturity.

In the Katmai region, female bears generally reach sexual maturity around six years of age, but they may not produce their first litter until several years later. Mating takes place in late spring and early summer. However, fertilized embryos will not implant in the uterus until a female dens for the winter. This delayed implantation is a remarkable adaptation which allows the female to give birth in the den—a place where the vulnerable newborn cubs are most protected. A female may have no offspring at all if her body didn't receive the nutrition it needs over the course of the summer and fall.

In the Katmai region, females typically keep their cubs through two summers, and less commonly through three summers.

39

Adult Female

Year First Identified: Subadult in 2007
Number of Known Litters: 1

Identification

#39 is a medium-small female. She has large ears and a dark blond coat with a darker face and legs. Her eyes appear sunken. In the fall, she has a grizzled, dark blond coat and her ears look smaller than earlier in the summer.

Life History

In the fall, #39 is not often seen by the public at Brooks Camp, since she typically arrives late in September or in early October. At those times, she is most often seen fishing at the cut bank and riffles area downstream of Brooks Falls.

Earlier in the summer, #39 will visit Brooks Falls, but usually has a low success rate in that area. She appears to be wary of people and other bears, especially when she was caring for a cub in 2011 and 2012. She was not observed in 2014 or 2015.

July 2012

September 2014

July 2012

September 2014

July 2012

July 2011

July 2007

94

Adult Female

Year First Identified: Adult in 2008
Number of Known Litters: 2

Identification:

This bear can be hard to identify. #94 is a medium-sized adult female with a uniform medium-brown coat, a tapered muzzle that turns up at the nose, dark eye rings, and spade-shaped, proportionally large ears. In the fall, her coat is darker, but still appears uniformly brown. She is often very fat later in the year. She will often sit on rocks at Brooks Falls in July.

Life History

When #94 was identified in 2008, she arrive at Brooks Camp with three spring cubs. That year, she frequently fished in the river near the floating bridge, even with large groups of people present. This indicates that she had prior experience around people at Brooks River, so even though she was "new" that year she likely used the river as a younger bear. Since then, #94 is often seen fishing at Brooks Falls and the riffles in July and in the fall at the river mouth in the lake.

In July 2011 she was courted by #856. Courting is a process through which adult males habituate adult females to their presence before mating. During this courtship the pair spent extensive time along Brooks River's north bank, in the area between the Cultural Site Trail and Brooks Falls. As #856's consort, #94 approached the falls much closer than she would have as a single bear.

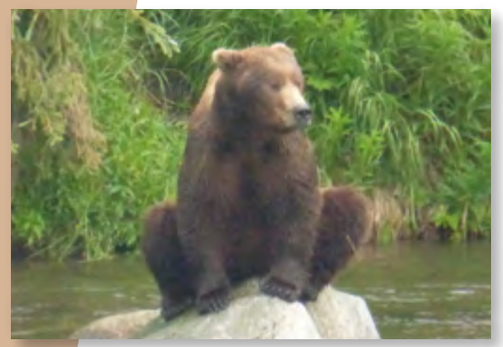
Courting brown bears are promiscuous. While #856 fished at the falls, #94 mated with other bears. During 2011 she mated with at least four males: #45, #218, #747, and #856. However, she had no cubs with her when first seen in 2012, nor did she have cubs in 2013 or 2014. Whether she lost cubs, or simply failed to give birth, is unknown. However, she returned to Brooks River with two spring cubs in September 2015.

July 2014

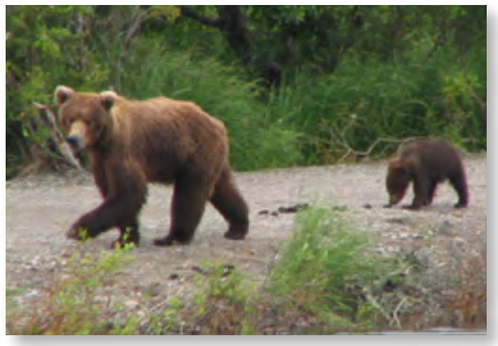
September 2015

July 2009

September 2015



July 2014



July 2008

September 2014

128 Grazer

Adult Female

Year First Identified: 4.5 year-old subadult in 2009
Number of Known Litters: 0

Identification

#128 is a medium to large adult female with a blond to light blond coat and dark patches around her eyes. She has a Roman nose and her large, oval-shaped, and widely spaced ears are very distinctive. In the fall, her coat darkens to dark blond, but her ears remain light blond. She has a long, linear scar across the top of her hips.

Life History

#128 is believed to be the offspring of #408. She was part of a litter of three cubs that #408 kept for three summers from 2005 to 2007. She uses Brooks River in July and the fall, but like most females she typically cannot compete with male bears for prime fishing spots. Recently, #128 has become one of the most skilled bears to fish the lip of Brooks Falls. In the fall, she will fish the lower river area, cut bank, and riffles.

#128 is bear who has learned to associate people with fish. This is a behavior shared with other bears like #438 and #854. She is relatively habituated to people and will rapidly approach anglers who have a fish on the line. Anglers should give this bear extra space in the river and stop fishing well before she is within 50 yards.

July 2015

September 2015

July 2015

September 2013

July 2014

128 (left) as a 2.5 year-old with 408.

September 2014

132

Adult Female

Year First Identified: 4.5 year-old subadult in 2009
Number of Known Litters: 1

Identification

#132 is a medium-sized bear and in early summer, her coat is dark blonde to light brown and shaggy. In the fall, her coat is brown with some grizzled fur on her head and shoulders. Her ears are light tipped and lean slightly forward. Her face is easily distinguished from other bears by the inverted V or chevron pattern of fur on her forehead.

Life History

Like #171, this bear was a frequent user of Brooks River for many years, yet didn't attract much attention from bear watchers until she returned in the fall of 2014 with three cubs in tow. In July and fall she fishes throughout Brooks River.

Until she arrived at Brooks River with cubs, she appeared to be somewhat habituated to people and would often walk by anglers in the lower river. Her behavior was noticeably different with cubs. Instead of tolerating people, she often avoided them. Bears posses the ability to change their behavior to best fit the circumstances. In this case #132 may have altered her behavior, because she viewed people as a potential threat or competitor.

When raising cubs, does #132 face a disadvantage because of her apparent intolerance of people? Bears who are consistently tolerant of people (like adult females #273, #409, and #410) at Brooks River can fish for salmon at all times, but bears that are not tolerant of people—those who are not habituated to humans—often avoid the river when people are present. Some bears seem to view people as competitors or threats even if that is not our intention.

July 2015

September 2015

July 2015

September 2014

July 2012

July 2010

September 2014

153

Adult Female

Year First Identified: Subadult in 2009
Number of Known Litters: 0

Identification

#153 is a small female with a dark blond coat and a semi-prominent shoulder hump. She has a faint stripe of darker fur across her back. Her large round ears are the same color as her body. Like #132, she has an inverted V or chevron pattern of fur on her forehead.

Life History

#153 is a young adult bear. Because she has not been observed with cubs and ranks fairly low in the bear hierarchy, she often patrols the river unnoticed by many bear watchers. This bear will fish in the riffles area and near Brooks Falls, but is not large enough to consistently occupy the best fishing spots. #153 also appears tolerant of people on the wildlife viewing platforms. She has not been observed in fall.

July 2015

July 2012

July 2015

July 2010

July 2015

July 2010

July 2013

171

Adult Female

Year First Identified: Subadult in 2009
Number of Known Litters: 1

Identification

#171 is a medium-sized female with somewhat triangular shaped ears, a "smiling" gape, and a prominent brow ridge. In July, her coat is dark blond. In fall, her coat is more brown and grizzled. Her legs are typically darker than her back and face.

Life History

This bear has been seen using Brooks River every fall since 2009, but she only sporadically uses the river in July. She seems tolerant of people on wildlife viewing platforms, yet she appears to avoid people in other locations. #171 often avoids other bears and isn't tolerant of their approach.

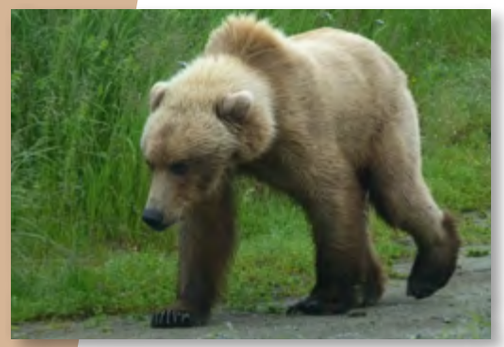
In July 2014, she returned to Brooks River with two small spring cubs. When she was last seen in the fall, she only had one cub. In 2015, no cubs remained from this litter. This was #171's first documented litter. No one knows why this bear's cubs disappeared, but it is not uncommon for bear cubs to die from a myriad of circumstances.

July 2015

September 2015

July 2014

September 2014



July 2011

September 2010

September 2010

201

Adult Female

Year First Identified: Subadult in 2010
Number of Known Litters: 0

Identification

#201 is a small adult bear. In July, she has long, blond and shaggy fur. In the fall, her coat is light brown, but the fur on her head and ears is grizzled brown. Her claws are dark and she lacks distinctive scars. #201's face has a wedge shaped profile with a tapered muzzle.

Life History

This is a relatively inconspicuous female who often fishes at the cut bank and in lower Brooks River in July. She is also seen hovering in the riffles and around the fringe of Brooks Falls. As a young female, she holds a relatively low position in the bear hierarchy. She is only infrequently seen in the fall.

July 2015

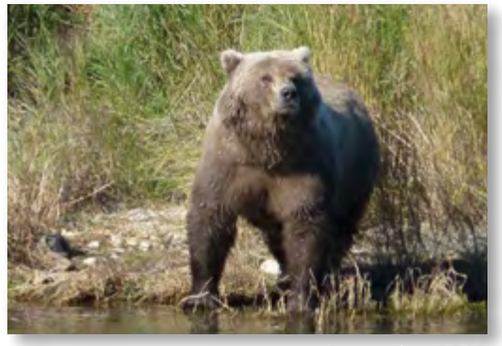
September 2013

July 2015

September 2013

July 2014

July 2013



September 2013

263

Adult Female

Year First Identified: Subadult in 2010
Number of Known Litters: 0

Identification

#263 is a relatively thin looking, young adult with a long muzzle and a light brown coat. Her head, neck, and ears are blond.

Life History

#263 is a female seen along Brooks River in the fall. Unlike the large adult male #775 that also only uses Brooks River in the fall, #263 seems habituated to the presence of people and will use areas where people are concentrated. She typically fishes in the lower Brooks River at the oxbow and near the river mouth.

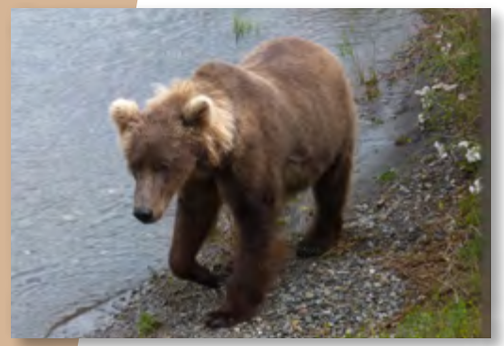
In 2014, this bear returned to Brooks River with a severe limp. She would place no weight on her left front leg. This injury certainly put her at a disadvantage at a critical time of the year when most bears are gaining the weight necessary to survive hibernation. She was not seen in 2015.

September 2014

September 2011

September 2014

September 2011



September 2011

September 2010

September 2010

273

Adult Female

Year First Identified: Older subadult in 2011
Number of Known Litters: 1

Identification

#273 is medium-sized female with a blonde, shaggy coat and darker legs. Her ears are large and round. She has a furry face with closely set eyes and dark eye rings. In the fall, her coat is dark blond.

Life History

#273 returned to Brooks River in July 2015 with one spring cub. She proved to be an attentive, playful mother and her cub mimicked her behavior closely. The antics of mother and cub quickly captured the attention of bear watchers at Brooks Camp and on the bearcams. In July, she often fishes downstream of Brooks Falls near the island and in the riffles. #273 also frequently fishes in the lower Brooks River.

For several years, #273 seemed to show little curiosity towards human buildings or gear, but that changed in 2015 when she damaged several structures at Brooks Camp. Bears are curious creatures that often investigate strange and novel objects. Human habituated bears, like #273, are more likely to find and explore human buildings and equipment, often damaging them in the process.

Brooks Camp's location—in habitat that attracts and harbors bears—creates a high likelihood for conflict between people and bears. While #273's behavior was unwelcome, she was simply expressing her curiosity and playfulness. Special regulations apply to Brooks River to help reduce the risk of bear and human conflicts. It is not possible or appropriate to manage the curiosity out of bears, but we can alter our behavior to reduce the chances that bears will express their curiosity on human property. When you visit Brooks Camp, be sure to give bears adequate space and do not leave anything unattended.

(Previous versions of this book noted that this bear was not seen in the fall, but bear monitoring staff now believe she was misidentified in the fall as #256.)

July 2015

September 2015

July 2015

September 2015

July 2014

July 2012

#256 in September 2012

284

Adult Female

Year First Identified: 3.5 year-old subadult in 2011
Number of Known Litters: 0

Identification

#284 is a small adult with a uniformly dark blond or medium-brown coat in July. In the fall, her coat is brown and very grizzled. She has a very prominent shoulder hump and a tapered muzzle. #284 looks remarkably similar to #708, who is her mother.

Life History

As a subadult, #284 was curious and explored the world around her through play. People watched her dig holes, bounce on fallen trees, slide down the river bank, and balance pumice on her nose. Her behavior has been described as erratic and even "crazy," but these terms are not accurate descriptors. #284's behavior was typical of many subadult bears who are still learning and exploring their world.

#284 should be given extra space. Despite growing up in the Brooks River area and often encountering humans, she has hop-charged people on several occasions. #284 also seems to pay extra attention to anglers, suggesting that she may have gotten fish from people in the past and now associates the two.

June 2015

September 2015

July 2014

September 2014

Subadult #284 in July 2012

Subadult #284 in September 2011

Subadult #284 in September 2012

289

Adult Female

Year First Identified: 4.5 year-old subadult in 2012
Number of Known Litters: 0

Identification

#289 is a relatively small young adult. She has a long, slightly dished muzzle and rounded ears. In July, she has a medium-blond coat that is shed in patches. By the fall, her coat is browner with a grizzled neck and head.

Life History

This bear is believed to be the offspring of #94. She fishes at Brooks Falls, but like most smaller adult females she is often displaced by larger bears. Later in the year, she will fish the cut bank and lower river. She's also been seen diving for dead salmon. In the fall of 2014, she was often seen associating with #151 and may have mated with him in 2015. She was courted by other bears in 2015 including #856 and #32.

July 2015

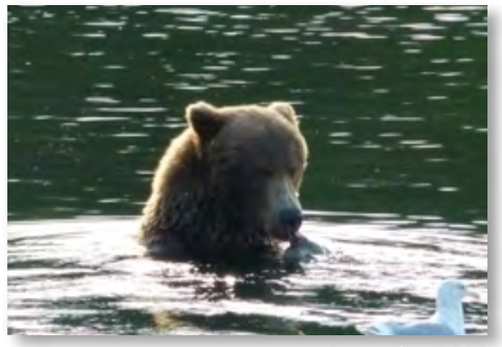
September 2015

July 2015

September 2014

July 2014

Subadult #289 in July 2012



September 2014

402

Adult Female

Year First Identified: 3.5 year-old subadult in 2001
Number of Known Litters: 5

Identification

A large female, #402 has a short, dark blonde or brown coat of fur. Her face is crescent shaped with a straight profile and her ears are oval or slightly triangular in shape and erect. In July, she often has long fur under her muzzle that resembles a goatee. During the fall months, her fur is brown and grizzled.

Life History

#402 is often seen at Brooks Falls in July where she fishes the lip of the falls and will sometimes dive for salmon in the jacuzzi. She is among the few females who will fish at Brooks Falls with spring cubs. In the fall, she often fishes the lower Brooks River and in the lake.

#402 has had five known litters. In 2007 she arrived at Brooks River with a single spring cub, but soon lost it. If females lose their cubs early in the year, they may mate and produce cubs the next summer. This happened to 402, because in 2008 she returned to Brooks River with three spring cubs.

In recent years, #402 has struggled to raise and wean offspring. In July 2011, after a prolonged confrontation with #856, she and her smallest cub became separated. During this time the cub was completely defenseless. #856 later returned to the falls and killed the cub.

In June 2014, #402 returned to Brooks River with one cub remaining from her 2013 litter. This cub, now a yearling, was separated from #402 for extended periods of time and was eventually abandoned while #856 courted and mated with #402 in July of that year. The yearling was eventually adopted by #435. To the surprise of many, #402 returned to Brooks River in 2015 with four new cubs. When she was last seen in the fall of 2015, she still had all four cubs.

July 2015

September 2015

July 2014

September 2014

July 2004

Subadult #402 in June 2002

September 2014

409 Beadnose

Adult Female

Year First Identified: Subadult in 1999
Number of Known Litters: 3

Identification

#409 has a long, straight muzzle with a slightly upturned nose and a medium to large body. She has a light to medium brown coat with wide-set, blond ears. In the fall, she is often very fat and her coat is a uniform brown, but her ears remain very blond.

Life History

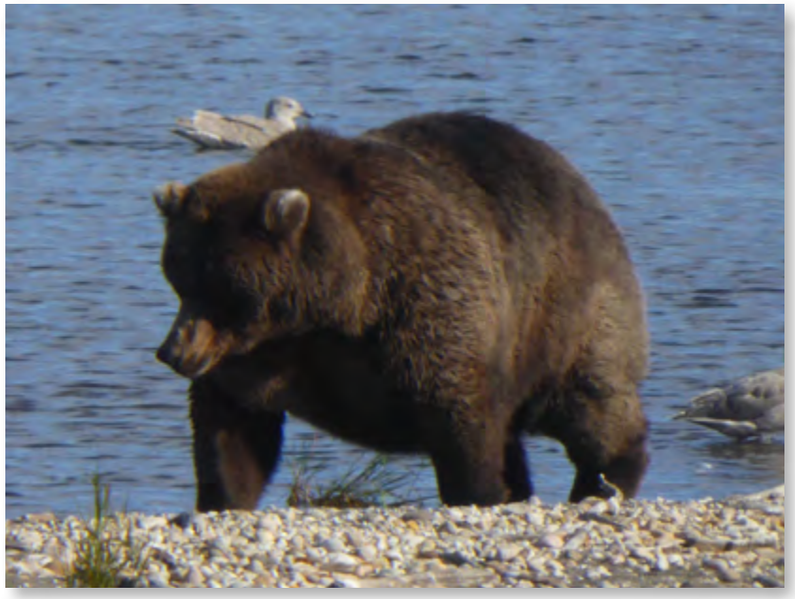
#409 is frequently seen along Brooks River in July and in the fall. Like #410, she appears habituated to the presence of humans and will use areas near people to rest, travel, and feed. At Brooks River, she can fish successfully in many places such as the lip and far pool at Brooks Falls as well as the river mouth.

#409 had her first known litter of one cub in 2004, and she could be seen with the cub latched onto her back as she swam across the river. She returned in June 2007 with three spring cubs, but was soon observed with only two cubs. She raised the two survivors through 2008. One bear from this litter is now recognized as #130.

When she is not raising cubs, this bear is usually one of the fattest females in the fall. In those years, her size can easily be compared with females caring for cubs. Raising offspring is very energetically taxing for bears. Females with offspring must sacrifice body fat to raise cubs. #409, in recent years, has been able to devote more energy to her own survival as her overall size indicates.

In 2012, she returned with three spring cubs. This was her third known litter. She had weaned those cubs by 2014. #500 is likely a bear from the 2012 litter.

July 2015


September 2015

July 2014

September 2014

July 2010

September 2013

October 2002

410 Four-Ton

Adult Female

Year First Identified: Spring cub in 1989
Number of Known Litters: 3

Identification

#410 is a large adult female. Early in the summer, her coat is light to medium-brown and often shaggy. Her fall coat is darker and grizzled. She has a recognizable dished-shaped face, a droopy lower lip, and prominent muzzle. Her claws are dark and she lacks distinctive scars.

Life History

#410 is one of the largest females frequenting the Brooks River and fishes almost anywhere. She has been observed fishing in Naknek Lake, the lower Brooks River, and both above and below the falls.

She is arguably the most human-habituated bear to be found using the Brooks River, even while caring for cubs. #410 has been observed with people and heavy equipment operating within 15 meters. She will sleep on the trail near the bridge, on the beach near the visitor center and lodge, and in front of or underneath the wildlife viewing platforms.

Habituation is simply defined as getting used to something. Human-habituated bears are used to our presence and often tolerate our close proximity. This give us remarkable opportunities to observe them, but they should not be considered tame or safe to be close to. Human-habituated bears are more likely to obtain food and play rewards (unattended equipment) from people if we are not careful (see #273). Plus, if they do react defensively, then we also have less time to react because they may be close when they are defensive.

July 2015

October 2014

July 2014

September 2014

July 2014

July 2012

September 2014

435 Holly

Adult Female

Year First Identified: Young adult or older subadult in 2001
Number of Known Litters: 3

Identification

#435 is a medium-sized bear with a distinctive light blonde coat in early summer. In fall, her coat darkens and can be described as the color of a toasted marshmallow. Her ears are large and very blond. She has a dished-shaped face, a short muzzle, and tan colored claws. Her dark eye rings are distinctive early in the summer.

Life History

#435 is one of the most recognizable bears to use Brooks River. She will fish at Brooks Falls, but not when caring for first year cubs. She is commonly seen fishing in the lower Brooks River, even during July. She is the mother of #89, who she successfully weaned despite #89's injured leg when he was a yearling. Not all of her attempts to raise cubs have been successful though. In 2009, she returned to Brooks River with one spring cub, but this cub was killed by #814.

In 2014, #435 again returned to Brooks River with one spring cub. By September, she became one of Brooks River's most famous bears when she adopted #402's abandoned yearling. In 2015, the mixed family returned to Brooks River and were seen together in October of that year. Adoption of cubs by bears is very rare. Bears are generally selfish creatures who are not known for displays of altruism, so why would 435 Holly adopt the yearling?

Some biologists hypothesize that altruism evolved in some animals as a result of shared genes. If costs to your own fitness are not too great, it would make sense for you to care for your siblings and their offspring because you share genes with them, genes that will be passed on when they reproduce. However, #402, the abandoned yearling's mother, and #435 Holly are not known to be related. Another cub in the family may also reduce the risk that #435's biological cub could fall victim to predation. We will never know why #435 became an adoptive mother, which may make the event more intriguing.

July 2015

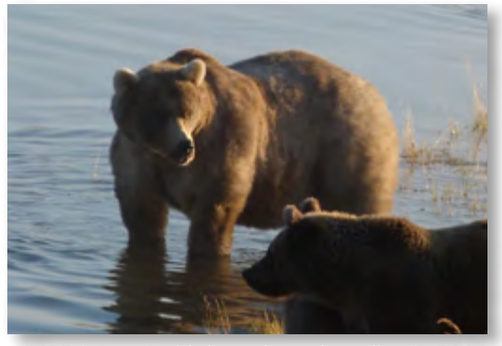
September 2015

July 2014

October 2014

July 2012

Subadult #435 in June 2003


#435 (center) with her adopted yearling in 2014

438 Flo

Adult Female

Year First Identified: 1999
Number of Known Litters: 2

Identification

#438 is a medium-sized female with a blond coat. Her coat only darkens slightly in the fall. She also has wide-set and large blond ears as well as a grooved muzzle. Her claws are distinctly white.

Life History

#438 was first classified as an adult female in 1999, but older records suggest she was likely raising yearling cubs in 1997. She raised her first confirmed litter into their third summer. In 2010, she kept her most recent litter into their fourth summer. It is rare for bears in Katmai to care for offspring this long.

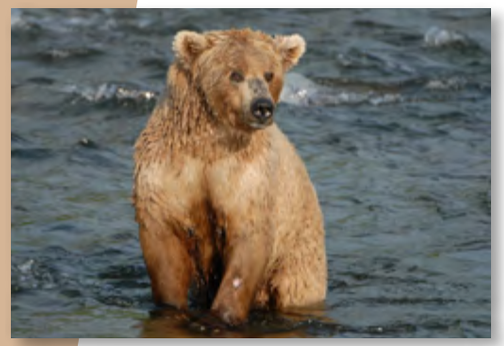
In 2004, #438 and her cubs directly approached an angler with a fish on his line. Within 30 minutes, the family group moved downstream and they obtained a bagged fish from an angler who had dumped it on the beach as the family rapidly approached. In 2009, she and her two cubs obtained garbage from the incinerator building at Brooks Camp. After receiving this reward, they frequently investigated the buildings near camp and were difficult to haze away. Help keep bears from learning these behaviors. Store all food and garbage securely. Stay alert at all times and stop fishing well before a bear approaches within 50 yards. This bear was not identified in 2014 or 2015.

July 2013

September 2013

July 2012

September 2011


July 2006

June 2004

#438 with cubs in October 2003

451

Adult Female

Year First Identified: Young adult in 2013
Number of Known Litters: 1

Identification

#451 is a medium-small adult bear who is easily identified by her persistent limp. She limps off of her rear right foot. In July, she has a light brown coat. In the fall her coat is uniform brown. She often stands without placing weight on her right rear leg.

Life History

Since 2013, this bear has persisted through any disability caused by her injured rear leg or foot. No one witnessed how she was injured, but it happened sometime between July and September 2014. #451 may limp, but she still chased fish in the river and looked relatively healthy in the fall of 2015.

Despite her leg injury, #451 was raising three spring cubs when she was first seen in September 2015. One of these cubs disappeared due to unknown circumstances. The others appeared healthy until late October when one cub stumbled and collapsed near the mouth of Brooks River. For the next two days, it lied nearly motionless before dying.

During this time, #451 and her other cub remained close by, only taking short trips to the river to fish. 451 demonstrated strong maternal instincts—persistence, patience, and defensiveness. Only long after the cub was collected for necropsy by wildlife technicians did 451 and her surviving cub move on.

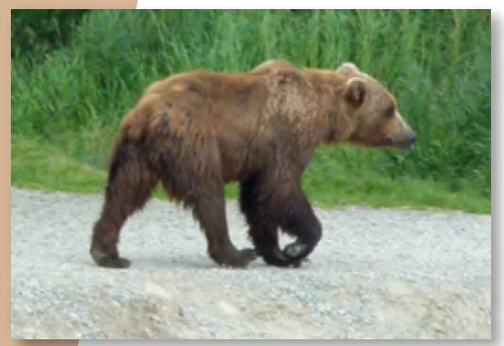
View photos of the cub when it was collected.
Read more detailed information about the cub's death.

July 2014

September 2015

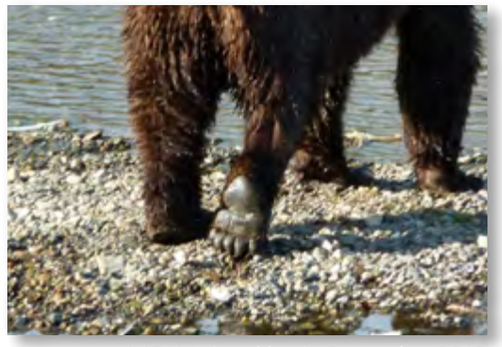
July 2014

#451 and her healthy cub rest near a sick cub in September 2015.



July 2013

September 2014



#451's injured leg in September 2013

477 Sara

Adult Female

Year First Identified: Adult in 2001
Number of Known Litters: 4

Identification

#477 is a medium-sized adult female bear with light colored, oval shaped ears and long, distinctive white claws. In July, her coat is light brown or dark blond. In the fall, her coat is more uniformly brown. She has a long, straight and droopy lower lip.

Life History

Since 2001, this bear has sporadically visited Brooks River. In some years, she uses the river in July and in the fall. In other years, she is only seen in one season but not the other or not at all. In July, she will fish at the riffles and the cut bank. During fall, she fishes the upper Brooks River near the outlet of Lake Brooks and the cut bank, perhaps to avoid the presence of groups of people. She does not appear to consistently tolerate people in the river.

June 2015

September 2006

July 2015

September 2006

July 2010

July 2006

July 2006

505

Adult Female

Year First Identified: Adult in 2014
Number of Known Litters: 0

Identification

#505 is another medium-sized adult bear. In summer, her coat is brown with a blonder mane and ears. She has a tapered, conical muzzle and a round face. Her claws are dark with tan colored tips.

Life History

Little information is known about this bear. When she was first identified in July 2014, she seemed inexperienced at Brooks Falls. At the time, she would try to fish nearly everywhere at the falls where she could gain access. Eventually, #505 settled into a routine of fishing the lip, begging, and occasionally stealing salmon, which she continued in 2015.

When attempting to steal or beg for salmon, she will sometimes stand on her hind legs below the lip while reaching up to grab or catch partially eaten salmon washing towards her. #505 will also lie flat on her stomach and coyly reach out with her front paws in an attempt to steal fish. She has not been identified in the fall.

July 2015

July 2014

July 2015

July 2014

July 2015

July 2014

July 2014

700 Marge

Adult Female

Year First Identified: Young subadult in 2003
Number of Known Litters: 1

Identification

#700 is a medium-sized bear with a short brown coat. The fur on her face and legs is usually longer than on her body. She has a sharp muzzle and dark claws. Her ears sometimes appear very large, especially early in the summer.

Life History

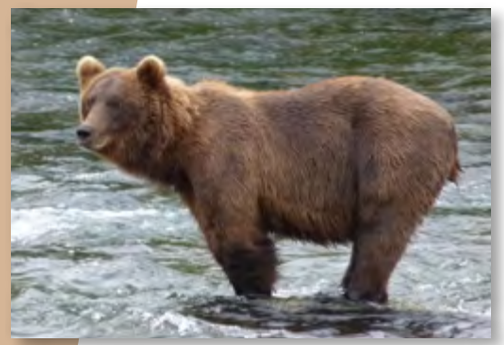
She is apparently wary around other bears (but relatively habituated to people) and kept cubs underneath the falls platform or treed them nearby while she fished. She acts very skittish around the falls in response to other bears. She raised her only known litter into their third summer. In 2008, this family was more often heard than seen as her cubs were particularly vocal when begging for salmon. She was last identified at Brooks River in 2013.

July 2013

September 2007

July 2013

September 2010



July 2012

June 2003

September 2011

708 Amelia

Adult Female

Year First Identified: 2.5 year-old subadult in 2003
Number of Known Litters: 1

Identification

This bear has a small, but rotund body. In June and July, she has a light brown coat. By the fall, her coat becomes uniformly brown, but she can have more reddish fur around her neck in some years. #708's ears are perched high on her head. She also has dark claws and a straight and short muzzle that resembles #468's.

Life History

Several years ago, #708 was very well known by visitors and staff. When she was a subadult and young adult, she would often pass directly through camp if not discouraged, even when she was raising her first cub. More recently, however, she's rarely seen moving through Brooks Camp.

This bear has been seen fishing nearly everywhere in the river—falls, cut bank, lower river, and even at Lake Brooks. She often stands on her hind legs for prolonged periods to scan the river, which is a behavior that her offspring, #284, also does. #708 is believed to be the offspring of #468. She was nicknamed in her subadult years because of her propensity to disappear. She was not identified in 2015.

July 2014

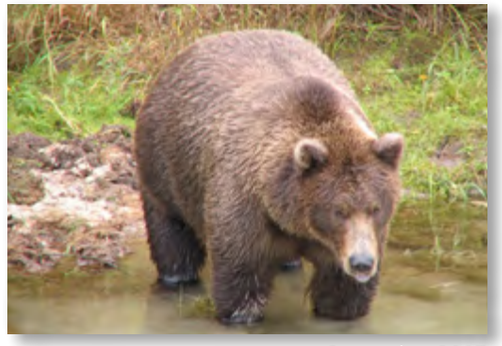
September 2014

July 2014

September 2014

July 2010

Subadult #708 in July 2003



September 2007

744 Dent

Adult Female

Year First Identified: 2.5 year-old subadult in 2004
Number of Known Litters: 0

Identification

#744 has a small, thin body. Her summer coat is blond to light brown in color. She often sheds most of her coat by the end of July. She has large, triangular ears, dark claws with lighter tips, and her head and feet appear large in proportion to her body.

Life History

This bear appears to tolerate other bears, even large males. She will approach large males at the falls in hopes of picking up any fish scraps they leave behind. She has not been observed with cubs, but has showed signs of estrus. #744 seems habituated to people and is often seen on the beach in front of camp and near the bridge. She was not seen in 2014 or 2015.

June 2012

September 2012

July 2012

September 2012

Subadult #744 in July 2004

Subadult #744 in August 2006

Subadult #744 in August 2004

813 Nostril Bear

Adult Female

Year First Identified: Subadult in 2004
Number of Known Litters: 1

Identification

#813 is an average-sized female bear. In July, she has brown, evenly colored fur that can sometimes be ragged in appearance. In the fall, her fur is also brown but appears less ragged. Her most distinctive feature is her oddly shaped nostrils.

Life History

This bear has infrequently used Brooks River during her adult life. When she was a subadult though, she was documented along the river more consistently. Bears can use their curiosity and powerful sense of smell to find and exploit new food resources. It is likely that she has found another place to fish during those years. When she is at Brooks River, she will fish at the falls in July as well as the cut bank and lower river. This bear typically does not use areas with high human use.

She had her first documented litter in 2014 when she returned to Brooks River with three spring cubs. In 2015, #813 returned with two yearling cubs from the 2014 litter. Since this is her only known litter, no one knows if she will keep her cubs for another summer or push them away in the spring. Brown bears in Katmai usually keep their cubs for 2-3 summers.

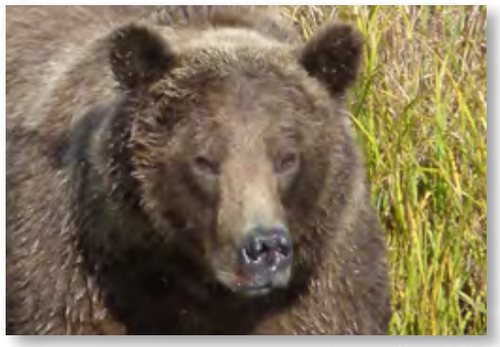
July 2015

September 2014

July 2013

September 2014

July 2013



September 2014

September 2014

854 Divot

Adult Female

Year First Identified: 2.5 year-old subadult in 2004
Number of Known Litters: 1

Identification:

#854 is medium-sized female. She has a golden-blond coat in July which darkens by late August to brown. Her muzzle is short and straight. In July, #854 often has a noticeable shed patch on her forehead. Her most distinctive feature is a circular scar around her neck from a wire snare that was removed in July 2014 (see next page). This scar, however, can sometimes be hard to see.

Life History

Bear #854 shares a similar life history as her sibling #790. DNA analysis has confirmed that her mother is #216 and #24 is her father. Over the past several years, her use of the river has varied considerably. In some years (2013) she used the river infrequently, while in others (fall 2014) she was seen almost daily. As a young bear, she was often seen at the mouth of Brooks River in May digging in exposed gravel, apparently attracted to those spots by rotten scraps of salmon from the previous year. The divots she left in the gravel inspired her nickname.

#854 has learned to associated people with fish. In the lower Brooks River, she will often sit or lie on the shore while people fish nearby. She often looks like she is resting and not paying attention to the water, but when someone hooks a fish, she quickly enters the water in pursuit of an easy meal. Anglers should be especially careful around bears and remember that the sound of a splashing fish is the sound of food to a bear. Each time a bear takes a fish from someone's fishing line it reinforces that behavior. The bear is then more likely to approach people in the future with the idea of obtaining food.

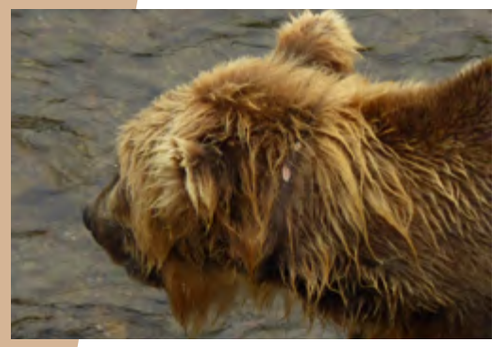
In mid July 2014, #854 arrived at Brooks River with two yearlings. After fishing in the lower Brooks River for a day or two the family disappeared for about two weeks. When she returned on July 28, she had only one yearling and a wire snare tightly constricting her neck. Park staff successfully removed the snare.

July 2015

September 2014

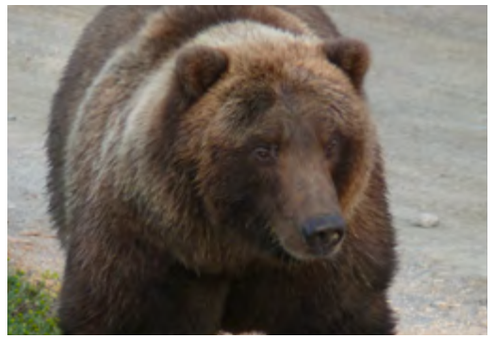
July 2015

September 2010



#854's scar from a wire snare, July 2015

July 2008



September 2009

Removing a Wire Snare from 854 Divot

A team of rangers and biologists successfully removed a wire snare from the neck of a bear.

In mid July 2014, #854 arrived at Brooks River with two yearlings. After fishing in the lower Brooks River for a day or two the family disappeared for about two weeks. When she returned on July 28, she had only one yearling and a wire snare tightly constricting her neck.

Katmai is a large park, but wild animals do not recognize our political boundaries. #854 likely got caught in an illegally set, out of season, snare designed to capture wolves. Four days before she returned to Brooks River, she was photographed outside of the park (see first photo at right) with the wire snare around her neck.

Rangers and park biologists tracked #854 and her yearling to a small stream that drains the eastern slopes of Dumpling Mountain. On July 30, park staff tranquilized #854 and successfully removed the snare. The snare had cut about one inch (2.5 cm) deep into her neck. Luckily for the bear, the snare had not completely penetrated her epidermal layer.

By October, 2014, this bear and her yearling cub appeared very fat and healthy. By removing the snare, park staff rectified a mistake and gave this bear family the best chance of survival.

Read a complete description of the effort to remove the snare.
Watch a video of the effort.

Bear 854 with a wire snare around her neck on July 24 near King Salmon, AK.

Bear 854 with the wire snare after she returned to Brooks River on July 28.

Park staff removed the snare from the bear after she was tranquilized.

854 lies unconscious during the snare removal. Note the wound around her neck from the snare.

A lip tattoo was applied to the bear for future identification.

Recovery from the tranquilizer took hours. Here 854 has not yet regained the use of her legs.

Chapter 6: Adult Males

#775 approaches Brooks Falls in pursuit of salmon.

Identification

The largest bears frequenting the Brooks River are adult males, also called boars. Like full grown adult females, their bodies appear filled in, their heads appear smaller in proportion to their bodies, and their ears are generally wide-set. When male bears are shedding in the early summer, numerous scars are often visible. Looking for genitalia is the easiest way to identify male bears, but you can also determine the sex of adult bears by watching them urinate. Male bears will urinate straight down between their hind legs.

Life History

Due to their large size and strength, no other class of brown bear is able to compete physically with a large adult male.

They can stand 3-5 feet (.9-1.5 m) at the shoulder and measure 7-10 (2.1-3 m) feet in length. Most adult males typically weigh 600-900 pounds (272-408 kg) in mid-summer. By October and November, large adult male bears in Katmai can weigh well over 1000 pounds (454 kg).

The best fishing spots at Brooks Falls are dominated by adult males. Hierarchy and displays of dominance play important roles in preventing these animals from entering into violent battles, but wounds and their associated scars are often received during fights with other males. These fights can be the result of competition for food resources (access or appropriation) or for the opportunity to mate with females.

During the mating season, male bears may wander great distances in search of females in estrus. Once they locate an estrous female, they may need to follow her closely for days before she becomes receptive to mating. During this time, the male must defend access to her from other males.

32 Chunk

Adult Male

Year First Identified: Young subadult in 2007

Identification

#32 is a young, medium-large male. In early summer, his coat is medium-brown and he sheds the fur on his shoulders first. This bear often has numerous small scars and wounds around his neck and face. In the fall, his coat is a uniform medium to dark brown. In all seasons, he appears to carry more weight in his hind quarters than in front which gives #32 a distinctive silhouette. He lacks a prominent shoulder hump.

Life History

#32 was first identified as a young subadult in 2007, and has since reached adulthood. Over the past several years, he has become increasingly dominant along the river. In 2015, he was subordinate to only the largest adult males at Brooks Falls. He will sometimes attempt to steal fish from other bears.

He fishes at the falls and the lower river. At Brooks Falls, he usually fishes the far pool, but will sometimes fish in the jacuzzi when more dominant bears are not present. #32 is sometimes seen in the Brooks River area in May and June. During this time he appeared to be courting young adult females. Look for #32 to become increasingly dominant as he grows over the next few years.

July 2015

September 2014

July 2014

September 2014

July 2007

July 2008

September 2011

45 Tatonka

Adult Male

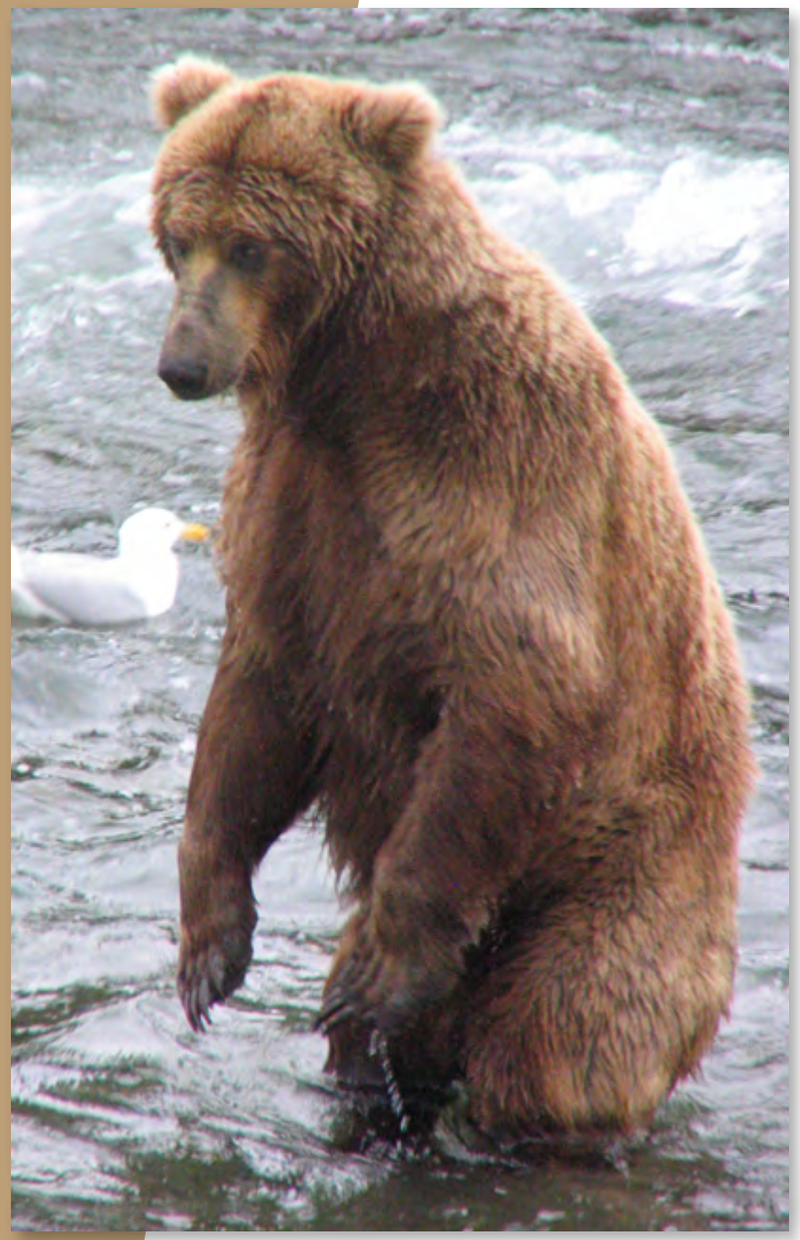
Year First Identified: Young adult in 2007

Identification

#45 is an adult male with a medium brown coat. In early July, he is most recognizable by his sloping body shape, which gives him the appearance of having shorter hind legs than most bears. He also has a distinct face, characterized by closely spaced eyes and oval shaped ears. His muzzle is long and pointed with a semi-distinctive dark band or scar running across it.

Life History

First observed as an adult in 2007, #45 was a regular visitor to Brooks Falls during July. Now he may have shifted his use of the river more towards the fall months. He has not been seen at Brooks River in July since 2012, but has been seen in September or October. He is usually seen moving slowly back and forth between the falls and the riffles, and his behavior suggests that he is intolerant of bear viewers and anglers. He was not seen in 2015.



July 2010

September 2014

September 2014

July 2008

July 2012

July 2012

51 Diver Junior

Adult Male

Year First Identified: Subadult in 2007

Identification

#51 is an adult male with large, oval ears and a medium blond or rusty brown coat. He has a long muzzle that tapers nearly into his forehead. In July, numerous small scars are visible on his body and neck.

Life History

Although #51 is nicknamed Diver Junior, there is no known relation between this bear and the famous Diver, who was last seen in the late 1990s.

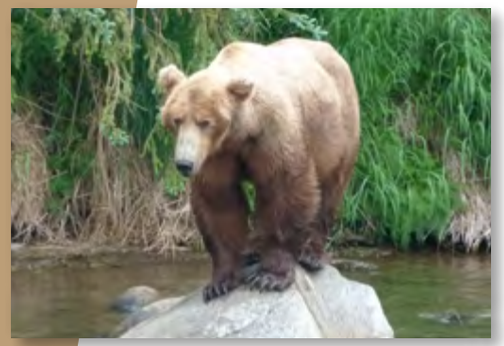
#51 can be seen walking below the Falls Platform to and from the fish ladder. He commonly fishes the far pool on the north side of the falls, and has attempted to fish the jacuzzi. He is usually displaced by most other adult males at the falls. #51 is not known to use the river consistently in the fall. 2012 was the only year he was seen at Brooks River in September.

July 2015

September 2012

July 2014

July 2011



July 2013

July 2012

July 2007

68

Adult Male

Year First Identified: Subadult in 2007

Identification

#68 is large bodied with a dark coat. His fur sometimes has lighter highlights around his face and neck. He also has light-tipped, oval ears and lighter circles around his eyes.

Life History

Not much is known about this bear. Although he has been seen at Brooks River every year since 2007, he often goes unnoticed. This bear has been documented on Brooks River in July just once in 2013. Most often he is only seen in the fall.

In September 2011, he suffered through a large wound on his lower right leg. At the end of the month, he had trouble moving that leg and appeared to be dragging it. However, he appears to have made a full recovery and has even grown in size. His history is another example of toughness and resiliency—a hallmark of bears.

September 2015

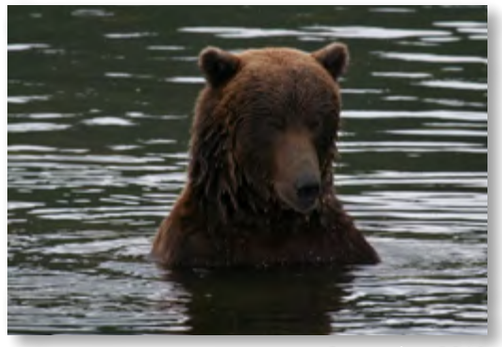
October 2012

September 2015

August 2012

October 2011

September 2010



September 2010

83 Wayne Brother

Adult Male

Year First Identified: Adult in 2008

Identification

#83 is a large bodied bear. In July, he often sports a light brown coat, dark eye rings as well as numerous small scars and wounds on his face, neck, and front legs. Like many large adult males, his ears are wide set. He displays a large scar on his right shoulder from a wound received in 2012. In 2015, he had a large, deep wound above his hips which should produce another distinctive scar. In the fall, his coat is medium brown in color with grizzled highlights especially around his neck.

Life History

#83 is another adult bear that matured along the Brooks River. He is believed to the offspring of #438 and the sibling of #868.

Even though #83 and #868 undoubtedly shared many of the same learning experiences as cubs, they differ in their fishing styles and hold different ranks in the bear hierarchy. In July, this bear fishes below Brooks Falls in the jacuzzi and, especially, near the middle of the falls. In contrast, his sibling #868 is often seen fishing the lip. Over the past several years, #83 was also a more dominant bear at the falls than his sibling.

Over the last two years, #83 was only displaced by the very largest male bears. In the fall, #83 fishes the cut bank and lower river like most bears. He will sometimes play with his sibling and #161.

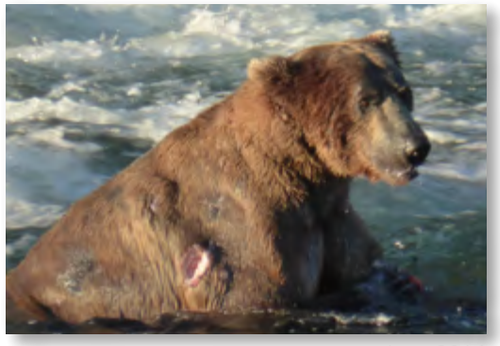
July 2015

October 2015

July 2015

September 2014

83 with a very deep wound in July 2012



June 2014

October 2012

89 Backpack

Adult Male

Year First Identified: 2.5 year-old subadult in 2008

Identification

#89 is a medium-sized young adult bear. He has a distinctive face with dark, round eye rings and a straight muzzle. His coat is usually dark blond in early summer, but it changes to grizzled, dark blond or brown in the fall.

Life History

As a cub, #89 was very recognizable and as a result he is one of the few bears whose mother is known. Born in 2006, he is the offspring of #435 and was first observed as an independent bear in 2008.

He seems tolerant of other bears, even at Brooks Falls. He will fish at Brooks Falls in July, and like many young adult males he is ascending the hierarchy of bears at Brooks River, but is still displaced by larger, more mature males. Young male bears like 89 sometimes look small compared to older adult males, but 89 is not small. He has grown significantly since 2008 and likely will grow much more as he continues to mature.

In July 2014, he would regularly fish at Brooks Falls near much larger bears that tolerated his presence. He can be a playful bear too. In 2014 and 2015, for example, he was seen play fighting with #32, #151, #274, and #474.

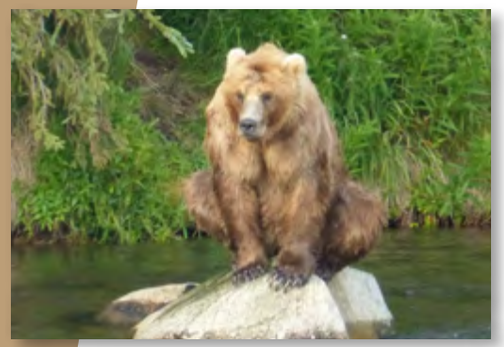
As a yearling cub in 2007, his right front leg was obviously injured and he limped noticeably throughout the summer. Remarkably, by the early fall, his leg appeared to be healed. The injury was not noticeable in 2008, which was his first summer as an independent bear. This is another example of the resilient nature of bears and their ability to persevere through significant injuries.

July 2015

September 2015

July 2014

September 2014



July 2014

89 as a yearling cub with an injured leg in 2007.

September 2012

92 Enigma

Adult Male

Year First Identified: Adult in 2008

Identification

#92 is a medium-large, long bodied male who has a uniform light brown coat, tan claws, dark eye rings, and a slight lip droop. His ears are blond and triangular.

Life History

#92 was first classified as an adult male in 2008. He is not habituated to the presence of people, and visitors should not expect to see him very often. He will fish at Brooks Falls but seems wary of people on the Falls Platform. He also appears to avoid other bears, but has been observed stealing fish.

Many bears using Brooks River show some level of habituation towards humans, but some like #92 show little. In past editions of this book, #92 was documented as showing even less. This bear has been observed reacting to loud noises or sudden movements from people on the Falls Platform.

Since people can impact the movements of bears like #92, it is important to give bears who are not habituated to people the opportunity to feed in the absence of people. This is the primary reason for the seasonal, nighttime closure of the Falls Platform and boardwalk.

July 2015

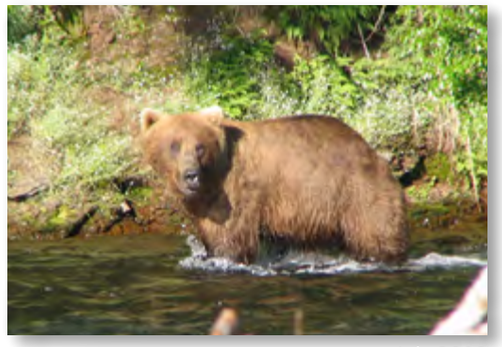
July 2012

July 2013

July 2012

July 2012

July 2011



July 2008

151 Walker

Adult Male

Year First Identified: 2.5 year-old subadult in 2009

Identification

#151 is a small, young adult with a lanky body. His coat is uniformly brown, even in July. He has upright and wide-set ears, a distinctly upturned and skinny muzzle, and large dark eye rings.

Life History

#151 was classified as an independent 2.5 year-old bear in 2009. He is now a young adult male who will regularly visit Brooks Falls in July and fishes at the cut bank and lower Brooks River in the fall. However, like all bears his age, he is regularly displaced by more dominant bears at their preferred fishing locations.

Young adulthood can be difficult and challenging for bears. Young adults, like #151, are consistently challenged by older, larger, and more dominant bears. This is a fact of life in the bear world. The most dominant bears are the least likely to yield space or food while less dominant, younger bears are the most likely to yield. The hierarchy of bears at Brooks River changes every year, however. #151 may not be very dominant now, but neither was #747 or #856 at his age.

July 2015

September 2015

July 2015

September 2014

July 2014

July 2014

September 2014

161

Adult Male

Year First Identified: Subadult in 2009

Identification

#161 is a semi-large, mature adult and is comparable in size to #83 and #868. He has a dark coat, a thick and blocky muzzle, and a large round scar on his right hip. His ears are rounded, light-tipped, and perch on top of his forehead.

Life History

#161 was first identified in July 2009, but since that time he has only been seen at Brooks River in the fall. He fishes the cut bank and lower Brooks River. In 2014, he was seen participating in extended bouts of play with #83 and #868.

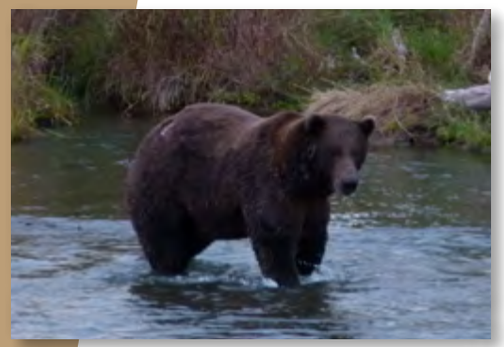
Little information about this bear is contained within Katmai's ID records. Like #879, this bear seems to only use Brooks River in the fall. It is unlikely that this bear uses Brooks River in July, since the large scar on his right hip is so identifiable. He was not identified in 2015.

September 2012

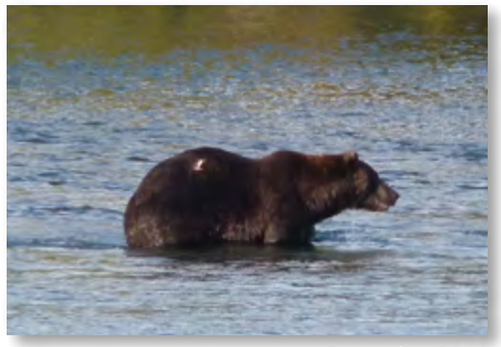
September 2013

September 2010

September 2012



September 2012



September 2014

September 2014

218 Ugly

Adult Male

Year First Identified: Young adult male in 2001.

Identification

#218 is a medium-large bear with a dark blond coat that is lighter towards his head. When shedding, his coat will be patchy with dark, bare spots. He has blond, wide-set ears and dark claws.

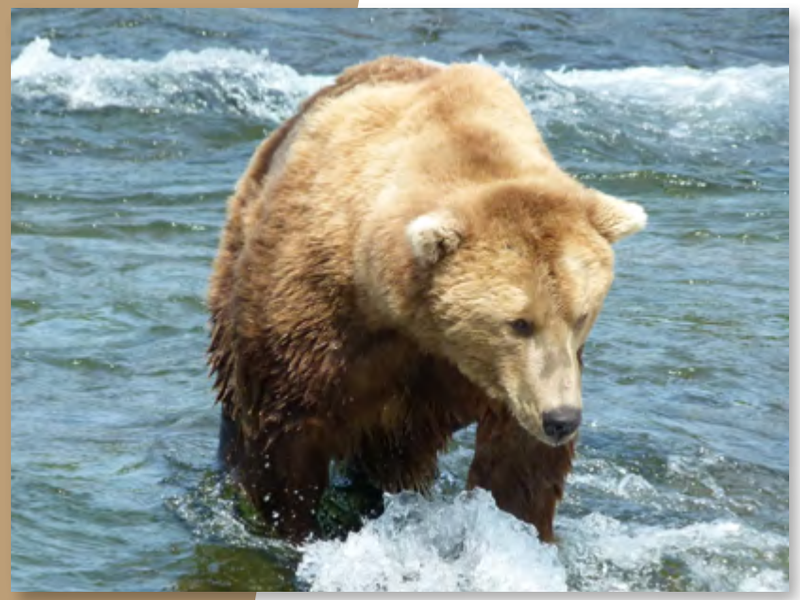
His dark eyes contrast with his coat and #218 has a short blocky nose. In late September 2010, he had a large wound on his left rear leg. In 2011 he had a large, round scar in this area.

Life History

#218 uses some of the most efficient fishing techniques at Brooks Falls. He has been observed fishing successfully almost anywhere, but seems to prefer fishing in the plunge pools below the falls, especially the jacuzzi. After catching many fish, he will often eat only the fattiest, most calorie rich parts of the fish (brains, roe, skin) and leave the carcass for scavenging bears and other animals.

When first described as a young adult male in 2001, he fished anywhere he could fit in, but was easily displaced by larger bears. More recently he has become one of the more dominant bears at Brooks Falls. He is responsible for the scar on #489's left hip.

In 2009 he arrived at Brooks Falls with numerous, small wounds presumably received while fighting other bears. Few other bears can now displace him from his preferred fishing spots. He was not seen in 2014 or 2015.

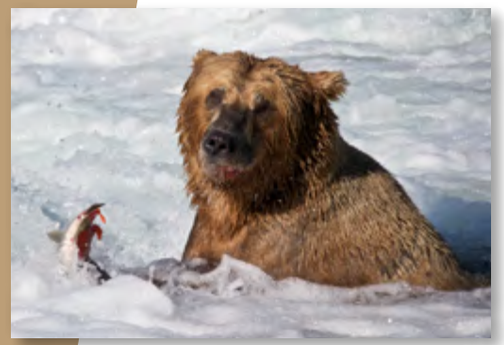


July 2013

September 2012

July 2013

September 2012



July 2008

July 2011

September 2012

274 Overflow

Adult Male

Year First Identified: 4.5 year-old subadult in 2011

Identification

#274 is a young adult male. He is large for his age and has long legs, which gives him a lanky appearance. His coat is blond and fluffy especially around his face and forehead. In July, he quickly sheds and his new coat grows in dark brown except for a golden crown along the top of his head and ears. In the fall, he looks very similar to 868, only smaller.

Life History

As a young adult bear, #274 appears more confident around larger adults than other bears his age, often approaching them much closer than other young bears would dare.

He has attempted to fish the lip, fish ladder, and jacuzzi, but in 2015 he was seen fishing more often in the cut bank and lower river area. He has had success fishing at the riffles and by scavenging scraps from other bears. In one notable moment in 2013, he managed to steal a fish from #856 when that bear confronted another male. Seeing that #856 had left his fish unattended, #274 swooped in, picked it up, and ran quickly down river before the dominant boar turned around.

Like #83 and #868, he is believed to be the offspring of #438.

July 2015

September 2012

June 2015

September 2012

June 2014

July 2011

September 2012

469

Adult Male

Year First Identified: Adult in 2001

Identification

469 is a medium-large male bear. His claws are dark and he has short, round, ears. His muzzle is blocky and straight. #469's coat is brown. His most distinctive feature is a blond, diamond shaped patch of fur on his left shoulder.

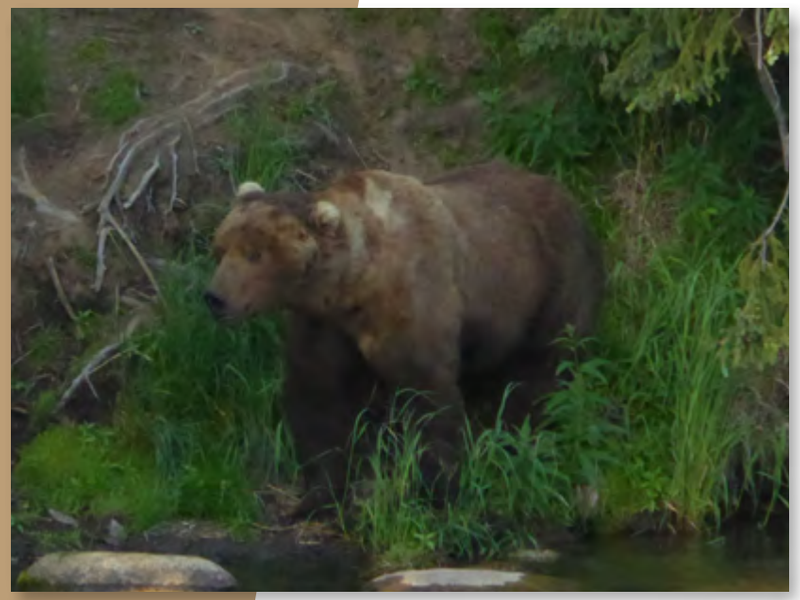
Life History

From 2001-2011, #469 was an irregular user of the Brooks River and was only seen in the fall. At those times, he fished the lower Brooks River and in Naknek Lake, but he was usually only seen in the morning and would leave the area when human activity increased. This indicates that #469 is not tolerant of people.

In 2013, this pattern was broken and he was seen fishing regularly at Brooks Falls for the first time in July, even when large numbers of people were watching from the Falls Platform.

It is unknown why this bear changed his habits. When #469 arrived in 2013, he was limping and would not place any weight on his left hind leg. This injury may have reduced his ability to find food elsewhere, or he may have just discovered the fishing opportunities at Brooks Falls in July. Whatever the reason, #469 modified his behavior to fish at Brooks Falls. Bears, even older bears, are able to shift their habits and behaviors when it is necessary for survival.

This bear was also seen guarding a bear carcass in October 2012. It is unknown whether or not #469 killed the other bear. He was not seen in 2014, but he made one brief appearance at Brooks Falls in June 2015.



June 2015

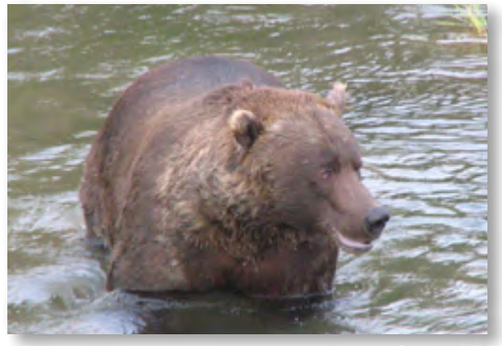
September 2010

July 2013

September 2012

July 2013

July 2013



September 2006

474

Adult Male

Year First Identified: Adult in 2014

Identification

This is a medium-sized adult male bear with a dark, smooth looking face. His ears are light tipped and his coat is dark brown with longer fur on his back and neck.

Life History

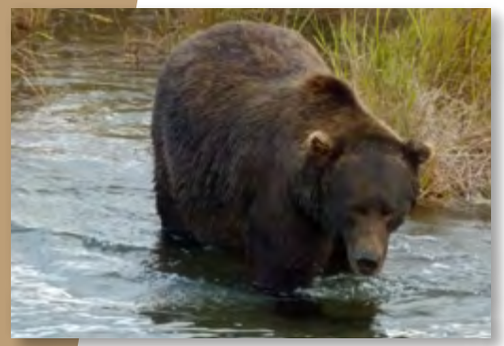
#474 is another bear only seen at Brooks River in the fall. Like most bears in September and October, he tends to fish the cut bank and lower river area, although he typically doesn't fish the mouth of the river with many people present. Many bears like #474 are only seen in the fall and typically fish the cut bank area. These bears, when observed closely, are not usually tolerant of the close proximity of people.

September 2015

September 2014

September 2015

October 2014



September 2015

September 2015

October 2014

480 Otis

Adult Male

Year First Identified: Older subadult or young adult in 2001

Identification

In early summer, #480 has a medium to dark blond coat which darkens to brown with blonder patches in the fall. He has tan tipped claws, and some scars on both sides of his neck. His ears are wide set and his right ear is floppy. His muzzle is long, straight, and narrow. He also has a prominent scar above his right eye. In the fall months, his body is fat and walrus-shaped with a relatively thick, wrinkled neck.

Life History

#480 was first classified as an older subadult bear in 2001. He, along with #218, uses some of the most efficient fishing techniques at the falls. He prefers the jacuzzi, but unlike many other bears, he is often tolerant of numerous other bears around him while he eats. These bears wait patiently for him to finish and eat any leftover scraps.

Despite the fact that #480 is neither as large nor aggressive as other male bears, he was rarely displaced from his preferred fishing spot in the jacuzzi from 2005-2011. However in recent years, other mature males have surpassed him in size. As a result, #480 has slipped down the bear hierarchy. Bears like #747 and #856 will now regularly displace him from his preferred fishing spots and #814 will steal fish from him.

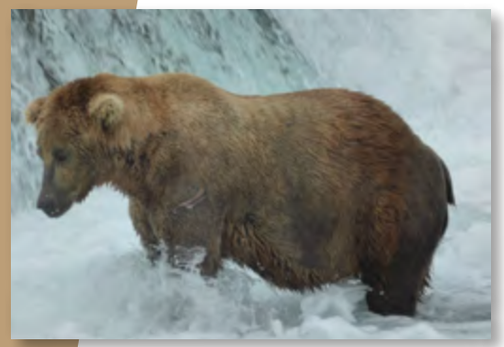
He is one of the few bears that can successfully fish at Brooks Falls in September. Late in the season, he is often seen fishing in the far pool. #480 may be one of the older bears along the river, but he was once a more playful bear. In 2003, for instance, he was observed playing with many bears including #489 and #634.

July 2015

September 2015

July 2015

September 2014



July 2014

October 2002

September 2014

489 Ted

Adult Male

Year First Identified: Subadult in 2001

Identification

#489 is easily recognizable because of his large, distinctive scar on his left hip. This is a medium-large bear. His coat is light brown and often patchy when shedding, but is darker in September. He has a slightly drooping lower lip, dark eye rings, and dark claws. His ears are large, upright and triangle shaped. His nickname, Ted, is short for "triangle-eared."

Life History

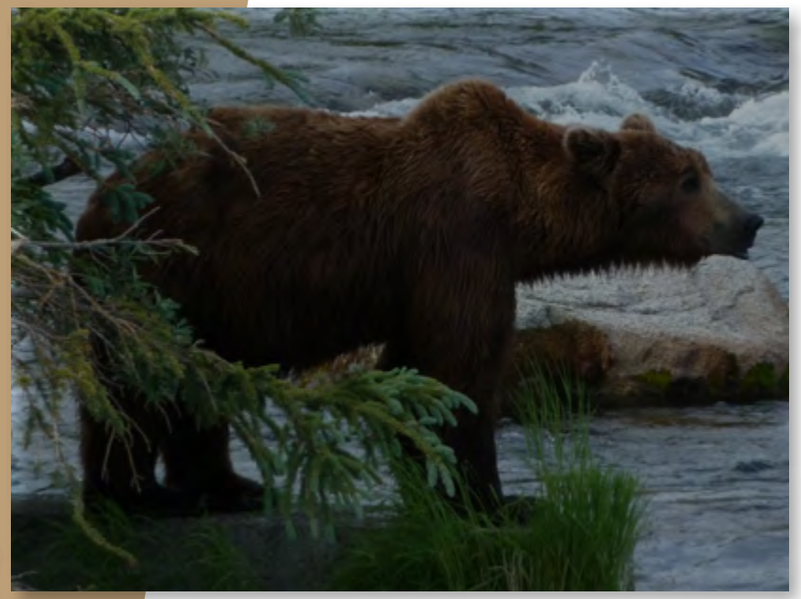
Bear #489 was classified as a subadult when first identified in 2001 and has grown into a mature adult since then. In 2007, he received a wound on his left hip during a brief altercation with #218 (see video below). While the wound he received looked vicious, it has since healed and scarred over, and is this bear's most identifiable mark.

From 2008-2013 he was one of the very few bears regularly seen fishing the river in mid-August. During these periods he has repeatedly entered Brooks Camp, something most adult males do not do regularly.

#489 often begs from other bears, sometimes very vocally. He is one of the few adult bears to show this behavior. Other bears will not give #489 fish, but this technique does put him in a good position to access discarded fish remains. He was not seen in 2014 or 2015.

July 2010

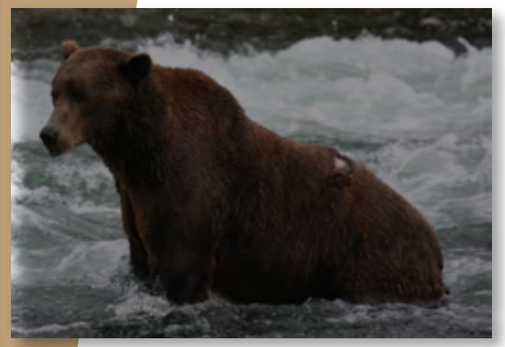
August 2007



July 2013

August 2013

In this video, 489 is attacked by 218.



September 2012

489 begs for salmon from 747 (left) in July 2010.

Subadult 489 in September 2002.

634 Popeye

Adult Male

Year First Identified: Older subadult in 2002

Identification

This bear is medium-large. He has large (furry), dark forearms that inspired his nickname. His coat is brown, grizzled, and generally uniform with blondish ears. #634's muzzle is short and upturned. He lacks distinctive scars.

Life History

#634 was classified as a subadult in 2002 and then as an adult in 2003. In May of 2004 he appeared on the beach at Brooks Camp with a severe limp. He would not place any weight on the injured leg. Now, however, no apparent injury can be seen.

He fishes the far pool and the lip of the falls. Over the last few years, #634 has maintained a semi-high position in the bear hierarchy. He will aggressively steal fish from smaller bears, especially early in the salmon run and he mated with several females in 2014 including 128, 708, and 409. He occasionally wanders through the lower Brooks River area, including through camp. This is one bear that may be seen near Brooks Camp and on Dumpling Mountain in May and early June.

June 2015

September 2010

June 2015

September 2006

634 copulated with 409 in June 2014.

July 2011

Subadult 634 in July 2003

747

Adult Male

Year First Identified: Subadult in 2004

Identification

#747 is one of the largest, heaviest bears that use Brooks River. He has a medium-brown coat with reddish shoulders. Early in the summer, his fur regularly sheds out in an erratic pattern and he often has a noticeable shed patch on his forehead. During the fall months, his fur is dark brown. His ears are round and peg-like, and his face has a prominent brow ridge. He has dark claws, a short but blocky muzzle, and a large, stocky, and squat body.

Life History

First classified as a subadult in 2004, #747 is now a mature adult bear and may have been the heaviest bear on Brooks River in recent years. He is often seen at Brooks Falls in July and is very successful at fishing in the jacuzzi and far pool. He also fishes the falls in September and October.

#747 does not appear to be wary of people on the viewing platforms near Brooks Falls and is sometimes seen near the mouth of the Brooks River. In years past, he was rarely seen in areas with high numbers of people.

Since 2007, this bear has noticeably grown in size. He is now one of the most dominant on the river. Even though he is very dominant, he is somewhat more tolerant of other bears than other very dominant bears like #814 and #856. He will only yield consistently to #856.

June 2015

September 2014

July 2015

September 2012

June 2014

Subadult 747 in July 2004

August 2012

755 Scare D Bear

Adult Male

Year First Identified: Subadult in 2004

Identification

#755 is a medium-sized adult male with a golden brown or tan colored coat, round ears, and a tapering muzzle. His dark eye rings can be a distinctive feature early in the summer. In the fall, his coat is a uniform brown with contrasting, light colored ears.

Life History

#755 was classified as a subadult when first observed in 2004. He has fished at Brooks Falls every year since but this bear has never shown much tolerance towards humans. He can be described as not human-habituated.

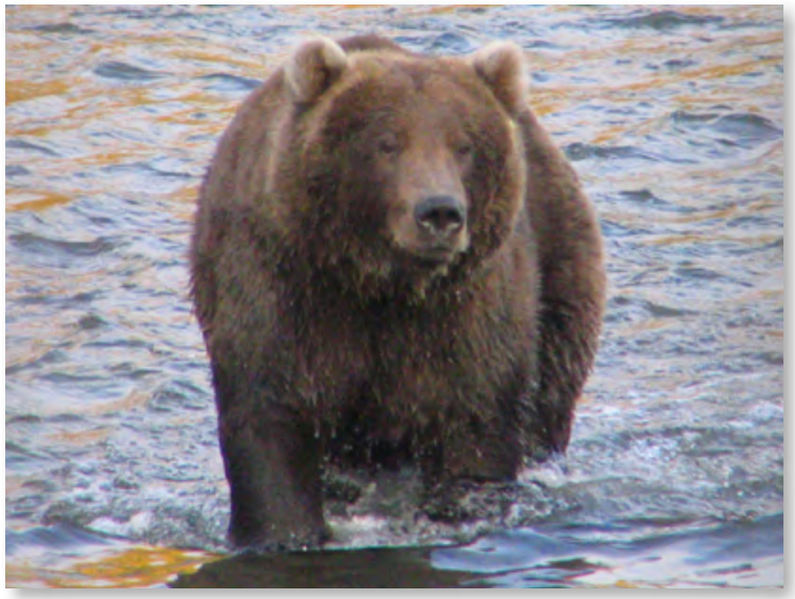
#755 will fish at the falls during daylight hours when the platform is full of people, but rarely leaves the far side of the river at those times. If he does approach the falls platform, he moves quickly behind it, never in front. Sometimes, however, he will fish the lip of the falls when only one or two people are on the platform. He has been observed running away from the riffles area when people approach and is not known to use the lower Brooks River, even in the fall. His intolerance of people seems to increase in the fall.

People can easily displace bears like #755 from the river. Humans, in his mind, are competitors to be avoided. For bears that display this behavior, it is important to give them space so we don't displace them from the resources they need to survive.

July 2015

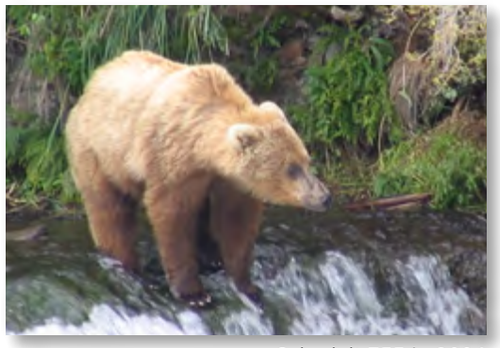
September 2012

July 2014



September 2006

June 2008



Subadult 755 in 2004

September 2011

775 Lefty

Adult Male

Year First Identified: Adult in 2004

Identification

#775 is a medium-large bear with a tapering, but thick neck. He has a Roman nose and lacks a prominent brow ridge. His coat is a uniform brown and he has a sizable scar near his left hip. This bear's most distinctive feature is his short left ear.

Life History

Until 2015, #775 was only known to use Brooks River in the fall. That changed in July 2015, when he arrived unexpectedly at Brooks Falls and fished for several weeks. When he first arrived, #775 appeared to have no prior experience fishing at Brooks Falls and his behavior indicated he was very hungry. He challenged nearly every bear at the falls for fish, even very dominant bears like #856, and successfully stole fish from female bears. For several days, the mere sight of salmon caused him to run and pursue them. He even leaped off of the falls into the jacuzzi to try and catch salmon. After a few days, he learned to fish the lip of the falls without resorting to belly flops.

Bears are typically ravenous by early summer, but most bears with experience fishing at Brooks Falls know to bide their time and be patient. #775's frenzied activity showed his need for calories and lack of experience at the falls. He quickly learned to catch fish on the lip, a skill he did not posses when he first arrived. This, combined with his energetic pursuit of salmon, demonstrated his hunger and ability to learn.

In the fall, he is often seen fishing at the cut bank and sometimes further downstream, but does not typically approach the mouth of the river. Like many of the bears that use the river in the fall, he does not appear to be particularly tolerant of the presence of people. He often moves away from groups of people walking through the river.

Watch #775 leap off of Brooks Falls.

July 2015

September 2014

July 2015

September 2013

October 2006

October 2004

October 2004

814 Lurch

Adult Male

Year First Identified: Young adult in 2005

Identification

#814 is one of the most distinctive bears at Brooks River. He is very large and he is missing his right ear. His muzzle is long and he has a distinctive scar above his right eye. In June and July, his back has a pronounced saddle and is sometimes noticeably shed out. Late in the summer, his new coat is a uniform dark brown. Like #856, #814 is often seen repeatedly licking his lips while he fishes and walks around Brooks Falls.

Life History

#814 was described as a young adult male when he was first identified in 2005. At that time, he typically fished the riffles, cut bank area, and scavenged salmon carcasses at Brooks Falls. Since 2008, however, this bear has become increasingly dominant. He will steal fish and regularly displaces other bears from his preferred fishing spots. #814 is now one of the most dominant bears on the river and only consistently yields to #856.

He was observed killing #435's spring cub in June 2009. In October 2012, #814 was seen guarding a food cache near the mouth of the Brooks River. Later observations determined that he was guarding and feeding on a dead bear. It is unknown whether or not #814 killed the bear he was feeding on. He likely appropriated the cache from #469 who was seen digging in the same spot. He also appropriated a food cache containing another dead bear in October 2013. For bears like #814, calories are calories. It makes no difference whether or not the calories come from salmon or another bear. #814's actions demonstrate the successful survival skills of a dominant bear.

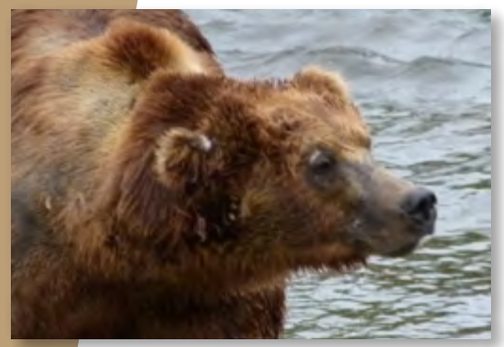
#814 apparently had his right ear torn off in the spring of 2015. How and when did this happen? No one knows, but the wound around his ear and right side of his face appeared very fresh when he was first seen in mid June 2015. He likely was injured in a fight with another bear, but this is not known with certainty.

July 2015

October 2014

July 2015

October 2014



July 2012

July 2006

September 2011

856

Adult Male

Year First Identified: Young adult in 2006

Identification

#856 is another very large bear. He has a uniformly brown and grizzled coat, his ears are blond and wide-set, and his forehead is wide and furred. He also has a noticeable dorsal stripe in July. His face and front legs may have numerous small scars. Like #814, #856 is often seen repeatedly licking his lips while he fishes and walks around Brooks Falls.

Life History

#856 was classified as a young adult in 2006. Since then, he has become one of the largest, and most dominant bears along the river. Over the past several years, he has not yielded space or resources to any other bear at Brooks Falls. Even other very dominant males, like #747 and #814, yield space to him.

#856's behavior and mere presence often has cascading effects on the behavior of bears at Brooks River. Dominance over other bears confers many advantages. Over the past several years, he has mated with several females. In July 2014, #856 spent considerable time courting females. Consequently, he was noticeably skinnier than #747 or #814 by the end of that month.

In Katmai, most male bears do not have the opportunity to mate with females until they are fully grown adults—when their size allows them to compete with other adult males for access to females. However, the hierarchy can change quickly, even within the same season. Therefore, most bears like #856 are adapted to take advantage of their position in the hierarchy.

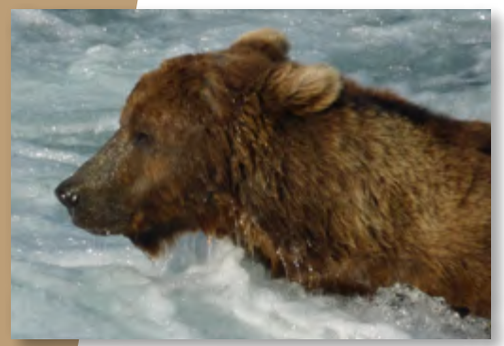
In July 2011, #856 managed to separate #402 from one of her cubs; he later returned and killed it. It is unclear why adult males will sometimes kill cubs as the cub is not always eaten (also see #814). In this instance #856 and #402 mated in 2010. Therefore, it is possible #856 killed his own offspring. These two bears mated again in 2012, and #402 returned with three spring cubs in 2013. In 2014, #856 continued his soap opera-like relationship with #402. While she was still caring for a cub from her 2013 litter, #402 apparently went into estrus, abandoned the cub, and after an extended courtship period of 11 days she mated with #856. Since #402 had a litter of four cubs in 2015, it is possible that #856 is their father.

June 2015

September 2014

July 2015

September 2014



July 2014

July 2006

July 2006

879

Adult Male

Year First Identified: Subadult in 2006

Identification

#879 has a tall, large body and a brown coat. His muzzle is long and straight. He has tall, upright ears that are the same color as his coat and a long neck.

Life History

#879 is another "fall" bear who has not been identified in July. He may fish other streams in the summer, choosing to use Brooks River only later in the season. Alternatively, he may use Brooks River in July but is unrecognizable when he returns in late August or September. Like the salmon they depend upon, brown bears go through dramatic physical changes over the course of a few weeks. As they gain hundreds of pounds and shed their fur, it can become difficult to distinguish individuals from one another or match those individuals to bears observed earlier in the season.

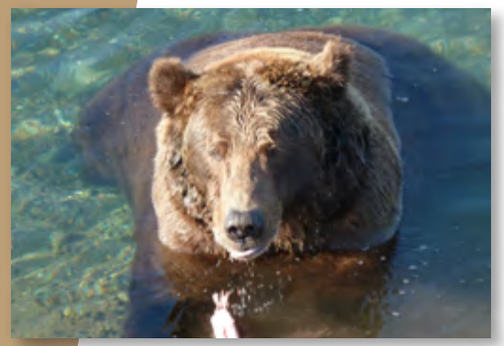
Unlike most bears, he never swims underneath the floating bridge at the mouth of Brooks River. He also makes a lot of noise (groans and heavy breathing) when he eats salmon.

September 2015

September 2014

September 2014

September 2014

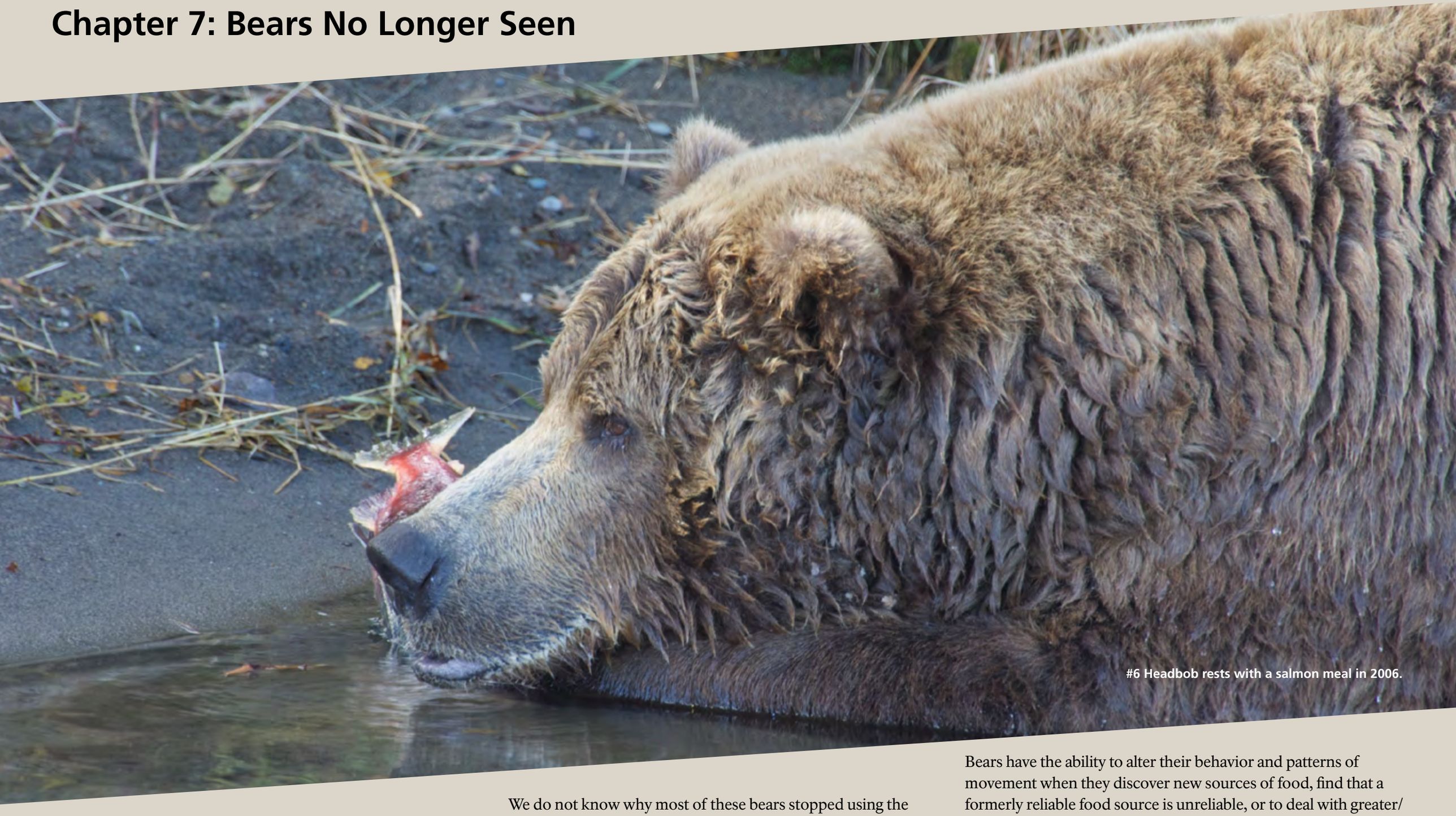


September 2014

September 2011

Subadult #879 in September 2006

Chapter 7: Bears No Longer Seen



#6 Headbob rests with a salmon meal in 2006.

The following profiles are about bears that have not been seen along Brooks River in at least three summers or that are known to be deceased. They are included at the end of this book because they can still teach us many things about the lives of bears. Some of these bears returned to the Brooks River for nearly 25 years before they stopped. Others were younger, but still mature, adult bears who no longer are seen. Bears in this section are arranged by number only.

We do not know why most of these bears stopped using the river. Some older bears like #6, #16, and #236 were frequent users of the Brooks River year after year. They likely didn't return because they died. Other bears may have met the same fate as the older bears mentioned above. However, it is also possible that these bears decided to use areas other than the Brooks River. In only a few instances (#130, #219, and #868) can death be confirmed.

Bears have the ability to alter their behavior and patterns of movement when they discover new sources of food, find that a formerly reliable food source is unreliable, or to deal with greater/lesser levels of competition from bears or people. Disease, injuries, and predation can shorten a bear's life, but some of these bears may have found success elsewhere by altering their behavior in the wake of changing food sources or competition.

1 Diver

Adult Male

Year First Identified: Unknown, likely in mid 1970s.
Year Last Identified: 1999

Identification

Diver was a large adult male with golden-brown fur in July and dark brown fur in the fall. His muzzle was blocky and his ears were wide-set. He had a distinctive scar on his back from a wound he received in the late 1980s.

Life History

Diver was an extremely long-lived bear and was estimated to be over 30 years old when he was last seen around the year 2000. He was nicknamed for his habit of diving, a technique he used much more than any other bear. Even as early as the 1970s, he was noted for his diving skills. He would fish the jacuzzi at Brooks Falls in July, but diving allowed him to feed on salmon that are generally inaccessible to most other bears. In the fall, he was often very fat—evidence that diving can be a lucrative fishing style.

July 1997

6 Headbob

Adult Male

Year First Identified: Adult in 1988
Year Last Identified: 2010

Identification

In July, #6 had an orange-blond coat. His left ear was flopped over and his muzzle was dog-like. He also had a thin lower lip and dark claws. He was sometimes confused with #211 who also has a droopy lip and ear, but #211 was darker, stockier, and had a more barrel shaped torso.

Life History

Bear #6 was one of the oldest and most recognizable bears in Katmai due to his preferred fishing spot at the top lip of the falls. He was classified as a young adult in 1988 and eventually became one of the oldest bears that frequented the Brooks River.

When he fished on the lip of the falls, #6 typically stood in one spot waiting for fish to jump within range rather than shifting locations. He could sometimes be observed holding his head out with his neck extended, then raising (bobbing) his head upward once or twice in quick succession as if sniffing the air.

Despite his old age he often displaced younger males at the top of the falls. In July, he fished the lip but also fished in the far pool and the jacuzzi, and he occasionally stole fish. He was often seen fishing in and sleeping on the banks of the lower river late in the season.

July 2010

July 1988

October 2002

16 Cinnamon

Adult Male

Year First Identified: Adult in 1988
Year Last Identified: 2011

Identification

#16 had a cinnamon-brown coat with blonder ears, a drooping lower lip, and white claws. This bear had no large distinctive scars, but he did have scars on the side of his head and shoulders. In recent years, he was thinner than most adult bears.

Life History

When he was last seen in 2011, this was among the oldest bears in the Brooks River area. #16 was classified as an adult in 1988, placing his age around 30 in 2011 and well past an adult male brown bear's average life expectancy.

He returned to Brooks River every year from 1988 to 2011. At the falls in 2011 he rarely fished. Instead, he regularly begged other bears for fish scraps, and was often able to obtain leftover fish parts. When not begging he often rested near the Falls Platform or on the small island nearby. Although it appeared other bears would "give" #16 fish, such compassion is believed to lie outside a bear's capacities.

It is likely that some bears, notably #747, learned to tolerate #16 because of his advanced age, poor physical condition, and submissive posture. This increased his chances of scavenging leftover fish from other bears. In some respects #16's advanced age and dramatic fall to the bottom of the hierarchy are reminders of the harsh realities wild animals face. Yet #16's presence at Brooks Falls, when other bears of his age class and status have died or otherwise failed to return, demonstrated his survival skills.

July 2003

July 1988

September 2010

24 BB

Adult Male

Year First Identified: Adult in 1996
Year Last Identified: 2009

Identification

#24 was a large, long-legged, tall, and dark bear with white claws. In July, his coat was medium-dark brown with hints of blonde around his neck. Large areas of his hind quarters were usually bare when he was shedding. He had a narrow, straight Roman nose which gave his face a black bear-like profile. He was missing a chunk of flesh from his nostrils and numerous scars were visible, but none were distinctive.

Life History

For many years, #24 was one of the largest, most dominant bears seen along Brooks River. As early as 1997, bear monitoring staff noted that he was the most dominant bear on the river.

Bear #24 had a reputation of being hyper-dominant and was observed killing other bears. His reign as most dominant bear of Brooks River ended in 2006 and 2007 when he was displaced by #864. After his encounters with #864, he was less aggressive towards other bears, but still very dominant. He has not been seen since 2009. DNA analysis has confirmed that he is the father of #790 and #854.

June 2003

In this video from July 2007, #24 is defeated by #864 in a fight.

July 2007

June 2007

130 Tundra

Adult Female

Year First Identified: 2.5 year-old subadult in 2009
Year Last Identified: 2014
Number of Known Litters: 0

Identification

#130 was a small adult with a medium-blond coat and round ears of the same color. Her most distinctive feature was a scar above her left eye.

Life History

#130 commonly fished the cut bank and lower Brooks River. Occasionally she visited the falls, but she was not large enough to regularly compete for fishing spots there. This young bear showed signs of habituation towards people, especially around Brooks Camp, but she usually avoided other bears and people when surprised.

She is believed to be the offspring of #409. In 2008, while #130 was still being raised by her mother, she received a bloody wound above her left eye that resulted in her recognizable scar. On July 1, 2014, this bear was found dead at the cut bank. Her skull was collected and cleaned so it could be used for educational and interpretive programs. As it turns out, her skull revealed a biography of trauma she apparently suffered through several years before. #130 apparently fractured her skull in 2008 only to persevere through the injury to live many more years.

View photos of this bear on the day she was found dead (some photos are graphic).

June 2014

In July 2008, #130 apparently suffered a skull fracture.

#130's skull reveals evidence of a fracture above her left eye.

211 Backbite

Adult Male

Year First Identified: Adult in 1996
Year Last Identified: 2010

Identification

#211 was large with a uniformly brown coat. He had a distinctive muzzle and profile. His head was wide with a thin muzzle and a drooping lower lip. His claws were dark and his right ear drooped. This bear lacked a prominent shoulder hump. He had numerous scars on his back, face and head, but none were distinctive.

#211 was often confused with #6, especially in September and October, but #211's barrel-shape, medium-dark fur, and lack of a prominent shoulder hump set him apart.

Life History

Bear #211 was first described as an adult male in 1996. He was regularly seen in July at Brooks Falls and he also returned to the Brooks River in September. He preferred to fish in the jacuzzi and often sat in the water to eat his fish. He was also observed napping in the water above Brooks Falls after fishing for salmon. In the fall, he was often only seen at dawn and dusk.

July 2002

June 2010

September 2009

216 Marilyn

Adult Female

Year First Identified: Subadult in 1996
Year Last Identified: 2008
Number of Known Litters: 3

Identification

#216 was a medium-sized adult female. She had a prominent shoulder hump, a shaggy and dark blond coat, and blond ears. Her muzzle was straight and the long hairs on her chin gave it a bearded appearance.

Life History

#216 was observed along the Brooks River every year from 1996-2008. She fished at the falls and the lower river area, and appeared habituated to humans. She was sometimes aggressive towards other bears and had been observed bluff charging bears beneath the Falls Platform. DNA analysis confirmed that she is the mother of females #790 and #854. Compare the face of #216 and #854 and you may see the resemblance between those bears.

Beginning in 1998, #216 raised several litters of cubs, but only kept them through two summer seasons. She was not observed caring for cubs into their third summer. In 2005, she arrived at Brooks with four spring cubs. By the end of the summer season in 2006, she had only two left from this litter.

June 2003

July 2007

September 2006

219 One Toe

Adult Male

Year First Identified: Adult in 1997
Year Last Identified: 2008

Identification

#219 was distinctive and easily identified in mid-summer. He had numerous, large scars on his head, face, neck, and body. His claws were white and he was missing the outermost claw on his left front foot, hence his nickname. His coat in early summer was reddish-brown. In the fall, his coat turned dark brown covering most of his scars.

Life History

In October 2008, during an event rarely seen, park biologists observed #219 dying in the Brooks River from unknown but apparently natural causes. He was seen coughing up blood before he died in the river (see the photo at lower right from October 2008). His body eventually washed into Naknek Lake and disappeared.

#219 is another bear that apparently never habituated to humans and rarely approached the Falls Platform when people were present. Late summer and fall, he was sometimes seen in the lower river. He fished the riffles downstream of the Brooks Falls and regularly stole fish from other bears. Some of his scarring reflected this behavior.

DNA analysis confirmed that he is the father of #604 and #608.

July 2007

July 2006

219 hemorrhages blood in October 2008

234 Evander

Adult Male

Year First Identified: Adult in 1996
Year Last Identified: 2010

Identification

This bear was tall with tan claws and a short, blocky muzzle. He was easily identified by his missing left ear.

Life History

Bear #234 was one of the easiest bears to recognize along the Brooks River due to his missing left ear and prominent fishing location on the lip of the falls. He lost his left ear late in 2001 or in the spring of 2002.

He was predictable in his fishing activities, almost always fishing the lip of the falls and less frequently in the far pool. Like #6 and #16, he appeared to be one of the oldest bears that frequented the Brooks River. In 2009 and 2010, he showed visible signs of aging. In 2009, he arrived looking very thin with a swollen front paw. Visitors with binoculars could often see that his teeth were worn to the gums.

In the past, most bears that fished the lip of the falls yielded space to #234 when he approached, but this was no longer the case in 2009 and 2010 as #234 more readily yielded to younger, more dominant males.

July 2003

This photo was taken in July 2000. It shows #234 with two ears.

September 2006

236 Milkshake

Adult Female

Year First Identified: Adult in 1997
Year Last Identified: 2011
Number of Known Litters: 5

Identification

#236 was a large adult female with a relatively large shoulder hump and a round, filled in body. Her coat was medium-brown in July and fall. She had the classic grizzly/brown bear dish-shaped face, a rectangular muzzle, and lighter, wide-set ears.

Life History

When last seen in 2011, #236 was one of the older adult females to frequent the Brooks River. She fished the lower river and the lip of the falls. She was first identified in 1997 caring for two spring cubs. Since then, she had at least four more litters. Records from the past 20 years indicated that she was one of the most fertile and successful female bears to use the Brooks River. DNA analysis has confirmed that she is the mother of #604 and #608.

In 2003, #236 was seen with four spring cubs, which is unusual for any sow. Remarkably, she returned in 2010 with more four spring cubs, her fifth known litter, but by the end of August 2011, she has lost the entire 2010 litter. The specific causes of her cubs' deaths remains unknown. #236 probably lost her cubs to a variety of factors.

Older females who are raising a litter of cubs may have higher mortality rates than younger, single females. As one of the older sows with cubs in the Brooks River area, a lean salmon run in 2011 may have taxed #236 beyond her physical limits and left her unable to support and defend cubs.

In Katmai's movie, The Ends of the Earth: Alaska Wild Peninsula, #236 is the adult female with a litter of four cubs.

July 2008

June 2008

October 2002

247 Snaggletooth

Adult Male

Year First Identified: Adult in 1994
Year Last Identified: 2009

Identification

#247 was a medium-sized bear with a rectangular muzzle, tan-tipped claws, a brown coat, and wide-set ears. His most identifying characteristic was his distinctive, protruding lower left canine tooth.

Life History

As early as 2000 observers at Brooks River reported that his namesake tooth had "been this way for many years" and it did not seem to affect his ability to fish. He fished the far pool and never seemed to approach the platform side of the river. #247 was not seen in areas of high human use.

Although it can never be known for sure, his distinctive tooth may have been the result of a fight with another bear. During intense fights, bears will sometimes lock jaws and vigorously twist their heads and neck in an attempt to injure their opponent. #247's tooth could have been snapped free from it's roots during such a bout.

The video of #247 at lower right shows him as a thin and slow moving bear in October 2009. Unseen injuries and illness can often prevent bears from feeding properly during the critical autumn months. Thin bears may even starve to death in the den.

October 2002

This video from October 2009 captures #247 struggling to walk.

July 2007

September 2006

403 Egberta

Adult Female

Year First Identified: 3.5 year-old subadult in 2003
Year Last Identified: 2007
Number of Known Litters: 1

Identification

Bear #403 was a large female with a blond coat that darkened to reddish-brown in the fall. Her facial profile revealed a straight Roman nose resembling a polar or black bear rather than the classic dish-shaped face of a brown/grizzly bear.

Life History

As a subadult and young female, #403 successful learned to use multiple fishing styles, including diving. She would not only dive for salmon, but also salmon eggs. In July, #403 fished the lip of the falls and stole fish. #402 and #403 are siblings, and while #402 frequently uses the Brooks River area, #403 has not been seen at all since 2007.

October 2002

#403 (top) in July 2007 with her 2.5 year-old cub.

September 2006

408 CC

Adult Female

Year First Identified: Older subadult or young adult in 2001
Year Last Identified: 2010
Number of Known Litters: 1

Identification

#408 was a medium-sized adult female with a dark blond to blond coat. She had light blond ears and a long and slightly upturned muzzle. She fished the riffles below Brooks Falls and in the lower river area. She had a crooked claw on her left front foot, hence her nickname. #408 was easily confused with #409 who also has light blond ears and a similar body and shape.

Life History

#408 was first identified as a young adult female in 2001. Her behavior that year hinted at subadult, but she was pursued by male bears and had scars on the back of her neck, possibly from mating. She was first observed with cubs in 2005. She was very attentive to these three cubs and occasionally charged other bears that were simply walking by. She raised this litter into their third summer.

Both #408 and #409 are remarkably similar in appearance, especially late in the season. It is suspected that these two bears are siblings. She fished the lower river and riffles areas.

September 2004

July 2010

June 2007

415

Adult Female

Year First Identified: Young adult in 2001
Year Last Identified: 2012
Number of Known Litters: 2

Identification

This was a medium-small adult female. #415 had a uniformly brown coat and a short straight muzzle. She had no distinctive scars.

Life History

#415 wasn't easy to identify by appearances alone. Her behavior, more than her physical features, was the key to identifying her. She was very aggressive with other bears when fishing the lip of the falls. Even with her smaller stature, she would often force larger bears to back down to retain her preferred fishing spot. She was even seen chasing #480 out of the far pool. When fishing for salmon on the lip of the falls, she almost continuously bobbled her head.

July 2004

July 2012

September 2008

418 Jack

Adult Male

Year First Identified: Adult in 2001
Year Last Identified: 2011

Identification

This bear had a compact, medium-large body and a brown coat that became lighter towards the front. He also had dark claws, a small, but distinctive, scar above his right eye, and a short, stocky and dog-like muzzle.

Life History

While fishing, #418 often plunged quickly into the river. He usually fished the jacuzzi and far pool. In the past, he used to regularly fish at Brooks Falls in July, but was not seen during the autumn months. However, this pattern was broken in more recent years, and #418 returned for brief visits in October 2009, October 2010, and September 2011.

July 2004

July 2009

September 2011

420 Genghis

Adult Male

Year First Identified: Adult in 2001
Year Last Identified: 2010

Identification

#420 was easy to identify due to his protruding teeth on his lower-right jaw. Otherwise, he was a long, large-bodied bear with a blocky muzzle, rusty brown coat, tan-brown claws, and a floppy left ear. He was confused with #247, but that bear is smaller and only has one protruding canine tooth on his left jaw.

Life History

#420 was aggressive around other bears and regularly stole fish. In 2005, he was seen with a very large, open wound on the left front leg that eventually healed and scarred over. In 2007, he returned to the Brooks River with a broken lower jaw and large, open wounds on both sides of his body. The jaw injury appeared to affect his ability to chew and swallow fish that he caught. However, he showed signs of rapid healing, both from the jaw injury and the wounds on his body. In 2009 and 2010, he was one of the more dominant bears fishing at Brooks Falls.

Even though #420 was typically very dominant at Brooks Falls, he did not appear to be habituated to humans and rarely approached the Falls Platform side of the river.

July 2007

June 2004

July 2003

468 Reggie

Adult Female

Year First Identified: Adult female in 1999
Year Last Identified: 2009
Number of Known Litters: 3

Identification

#468 was a medium-sized and sometimes fat female. She had a light brown, uniformly colored coat that darkened in the fall. Her facial features were easy to recognize. She had a drooping lower lip, a long muzzle, and a prominent brow ridge.

Life History

#468 was first observed and classified as an adult female with one spring cub in 1999. In 2007, she returned to the Brooks River with one spring cub marking her third litter. She is the mother of #708 (and grandmother of #284). #468 fished the oxbow, lower river area, and far pool at the falls.

October 2004

July 2004

September 2003

604 Little

Adult Male

Year First Identified: 2.5 year-old subadult in 2002
Year Last Identified: 2007

Identification

In July 2007, #604 had a large open wound on his right hind leg, which was a diagnostic feature at the time. Otherwise, he was a medium-sized young adult bear with wide-set ears and a somewhat straight nose. #604 had a brown coat with a darker head and dark claws. He had longer fur under his chin which resembled a beard or goatee.

Life History

#604 was easily recognized in 2007 because of the large, deep wound on his right hind leg. The wound was deep enough that muscle tissue was visible through the skin and fatty layers. After receiving this injury his behavior changed and he became a more passive bear, often begging for scraps.

According to observations by bear biologists and DNA analysis, he is the offspring of #236 and sibling of #608. This bear fished the lip of Brooks Falls and scavenged for scraps below it. Before 2007, he was infrequently seen at Brooks during the autumn months.

July 2007

604's sustained a deep laceration in July 2007.

June 2004

608

Adult Female

Year First Identified: 2.5 year-old subadult in 2002
Year Last Identified: 2010
Number of Known Litters: 2

Identification

#608 had a small to medium-sized body and a dark blond coat. The fur around her neck often gives her mane and forehead a fluffy appearance. She also had dark claws and a long muzzle.

Life History

DNA analysis confirmed that she was the offspring of #236 and #219 and the sibling of #604. #608 was raised in the Brooks River area. She frequently fished the lower river and used the area around camp which indicated some level of human-habituation, but she was a defensive mother around people.

She and her first litter of cubs obtained play rewards in the form of unattended property on the lodge porch, cabin porches, and from boats. There is good evidence that she also obtained play rewards from humans when she was a cub. While #608 was not a "problem" bear, her past behavior, especially with cubs, highlights the importance of maintaining appropriate distances as well as storing all equipment properly so that bears don't learn to associate our possessions with toys. Bears have long memories. If #608 got unintentional toys from people when she was a cub, that may have made her more likely to investigate our possessions and teach that behavior to her own offspring.

Watch a video of #608's yearling cubs play with a basketball.

July 2010

July 2007

June 2004

790 Weevil

Adult Female

Year First Identified: 3.5 year-old subadult in 2005
Year Last Identified: 2009
Number of Known Litters: 0

Identification

This was a medium-small adult female with skinny legs. #790 had a long, shaggy light brown coat, a straight facial profile, and small ears in proportion to her head. She resembled #216 and was often confused with #854.

Life History

When first identified in 2005, #790 was classified as a subadult and estimated to be 3.5 years old at that time. She was often seen fishing in the lower river. DNA analysis has identified #216 and #24 as her parents. #854 is her sibling.

July 2007

July 2008

September 2007

864 Norman

Adult Male

Year First Identified: 2006
Year Last Identified: 2007

Identification

This was a very large male, but his body did not appear to be well filled out like many other large males. His coat was dark brown, his muzzle was blocky and scarring was usually visible on his forehead. The whites of his eyes were often visible giving him a distinctive look.

Life History

Bear #864 was identified in July 2006, but was certainly a large, mature adult at that time. When present, he was arguably the most dominant bear along the Brooks River in July, even fighting and displacing #24. During the rare instances when he was seen, #864 didn't acknowledge other bears while fishing. This is common behavior for very dominant bears.

In 2007, he was only observed by bear biologists on overnight surveys which suggests he developed little to no habituation towards people. It is possible this bear visited Brooks Falls briefly in July 2014 (see photo at lower right). If it was #864 at that time, he was no longer the dominant bear that he used to be. #747 quickly chased him away from the falls area.

July 2006

Watch #864 display his dominance by marking trees after defeating #24 in a fight.

July 2006

This photo was taken in July 2014. Is this 864?

868 Wayne Brother

Adult Male

Year First Identified: Subadult in 2006
Year Last Identified: 2015

Identification

#868 had a medium-sized body with a light brown or blond coat, and a grooved, medium length muzzle. His ears were wide-set, triangular, and very blond. When shedding, he had a distinct vase-shaped patch around his tail area. In 2014, he had a large scar on the top of his left hip that is similar in its size, shape, and location to #489's diagnostic scar. In the fall, his coat was dark blond but he retained a blondish muzzle and ears.

Life History

#868 was first classified as a subadult in 2006. His mother is believed to be #438 and is the sibling of #83. This bear often fished on the lip of Brooks Falls, but also anywhere else he could find space. When he and #83 fished Brooks Falls at the same time, #868 was certainly less dominant than his brother.

#868 died on the shore of Naknek Lake at the outlet of Brooks River in late October 2015. Wildlife technicians collected organ and tissue samples and performed a basic field necropsy. No signs of trauma were found during the necropsy. Tissue samples were too badly decomposed for the lab to analyze. His skull was collected for future educational use.

View photos of the field necropsy (some photos are graphic).

July 2015

This is how park staff found #868 in late October 2015.

Subadult #868 in July 2006

Designed and written by Michael Fitz with many contributions
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