



2007 Summary of Brown and Black Bear Activity

General Overview

There were 32 bear-human interactions reported in Kenai Fjords National Park (KEFJ) in 2007. All of the known bears involved in these reports were black bears (*Ursus americanus*). There were no injuries to either humans or bears. The greatest number of interactions occurred in July ($n=15$) followed by June ($n=11$), August ($n=4$), September ($n=1$) and May ($n=1$).

Bear-human interactions occur when bears and humans are mutually aware of each other, and are classified as either encounters or incidents. Bear-human encounters include all cases of bears responding to the presence of humans with indifference, curiosity, avoidance, stress, or surprise that do not result in a charge, property damage, or physical contact. Bear-human incidents are bear-human interactions involving damage or loss of property, garbage or food, unusual behavior on the part of the bear, charges, physical contact, and extreme evasive action in response to a bear (such as bear pepper spray or firearm use).

Of the 32 bear-human interactions reported in the park in 2007, there were 21 encounters and 11 incidents. The majority of bear-human interactions occurred in Exit Glacier ($n=24$).

In addition to reports of bear-human interactions, notable or unusual bear sightings are also documented. A bear sighting or observation occurs when a person sees a bear, but the bear is apparently unaware of the person. In 2007, there were 43 reports of bear observations; 27 of these involved black bears and 15 involved brown bears (*Ursus arctos*).



Black bear in the Exit Glacier Picnic Area on July 7th.

Bear Observations

Of the 15 brown bear sightings reported in 2007, three involved single bears and 12 involved multiple animals (e.g., females with offspring and subadult or adult bears travelling or foraging together). Most brown bear sightings ($n=14$) were from the Exit Glacier area and occurred between late May and early July. One possible brown bear was observed at the head of Aialik Bay by visitors in July.

Of the 27 black bear observations reported; 24 of these sightings were in the Exit Glacier area and three were on the coast. Eight were single bears and 19 were females with cubs. All of the family groups were reports from Exit Glacier. There were four reports of black bears eating

leaves in trees at Exit Glacier. Coastal biologists observed a black bear descending a cliff band above an active seabird colony on the Outer Coast apparently looking for eggs. There were separate reports of a single black and brown bear stalking and chasing mountain goats above the Harding Icefield Trail.



Black bear in Aialik Bay.

Bear-Human Encounters

There were 21 reports of bear-human encounters in KEFJ in 2007, all involving black bears. The vast majority occurred at Exit Glacier ($n=19$), with only two encounters reported on the coast (Holgate Beach and Otter Cove). These 21 bear-human encounters can be grouped into four categories for analysis purposes: 1) persistent bears approaching human use areas with humans present ($n=6$); 2) habituated bears encountered in their natural habitat ($n=8$); 3) surprise encounters of close proximity where the bear showed signs of excitement ($n=6$); and 4) chance encounters between curious bears and human property ($n=1$).

There were six encounters involving persistent bears approaching places of human use such as camps, picnic areas, restrooms and other visitor facilities. In two of these encounters little attempt was made to deter the bears, but in four of these encounters the people involved successfully hazed the bear from the area possibly preventing an incident. On two occasions it appears that extensive hazing efforts by visitors deterred overly curious bears from obtaining human food at the campground cook shelter. On another



Black bear checking out the Exit Glacier restrooms on June 19th.

occasion a persistent bear wouldn't leave the Exit Glacier restrooms until hazed away by a large group of staff and visitors. At the Holgate camping area, the day after a bear destroyed a tent, campers had to repeatedly haze a bear from their camp.

There were eight encounters reported of people getting too close to habituated bears (bears that are very tolerant of humans in close proximity) in the Exit Glacier area. On two occasions park staff observed a female and cub that were foraging near the paved trail despite crowds of visitors nearby. On three occasions visitors approached feeding bears too closely while taking photos. Only when the people approached in close proximity did the bears show signs of excitement. The other three encounters involved bears that refused to move away from human trails when people were present.

There were six surprise encounters between people and bears in the Exit Glacier area. In five of these encounters people were hiking along a trail in areas of thick brush and limited visibility and were

not making much if any noise. Another surprise encounter occurred in the Exit Glacier housing area when a park employee stepped outside in the middle of the night and startled a bear on his porch. The bear moved off without further incident.

A researcher and RM employee were camped in Northwestern Fjord at Otter Cove when they observed a bear walking along the beach near their camp seemingly unaware of the people. Upon seeing their kayaks, the bear approached and placed its front paws on one of the boats and bounced on it. At this time, the campers began shouting loudly and the bear wandered off.

It is not uncommon for curious bears to investigate kayaks, tents and other gear when humans aren't present. Carefully stowing potentially attractive gear such as PFDs, spray skirts, paddle floats and paddles inside sealed hatches rather than in open cockpits is a sound way to prevent loss or destruction of critical equipment by naturally curious bears.



Black bear near porch of employee cabin in Exit Glacier.

Bear-Human Incidents

There were 11 bear-human incidents in KEFJ in 2007 (Table 1). Five incidents occurred in the Exit Glacier area, five at coastal campsites and one at the Aialik Bay Ranger Station (ABRS). These bear-human interactions were classified as incidents because they involved the use of firearms for hazing ($n=2$), and/or bears that either damaged property ($n=7$) or obtained human food ($n=2$). These incidents are described in greater detail below.

Exit Glacier	5	Holgate Beach	1
ABRS	1	Quicksand Cove	3
ABRS Beach	1		

Locations of bear-human incidents in KEFJ in 2007 ($n=11$)



Habituated black bear in Exit Glacier.



Ranger Sean Brennan stands in front of the Trail Builders Camp cook tent that was damaged by a bear in July.

Bears Obtaining Human Food

The most significant bear incident of the season occurred in the Exit Glacier picnic area. A family of 11 people was having a large picnic, when a bear approached. They immediately scattered and the bear consumed the abandoned food over a 45 minute period while inexperienced park staff tried unsuccessfully to haze the bear away.

The second incident involved a bear getting into improperly stored food (bananas) near ABRS in September. A party of kayakers camping on the beach in front of ABRS did not have enough Bear Resistant Food Containers (BRFCs) for all of their food. Instead of hanging the food in a tree, they stashed it in the beach grass near their tent. When they awoke the following morning, they discovered a bear at their food cache. The campers hazed the bear off the food by yelling and firing flares, and reported that the bear had actually consumed very little of the food.

Property Damage

There were seven incidents where a bear damaged property without gaining a food reward. Two of these incidents occurred at Exit Glacier and five occurred at coastal locations. The total monetary damage reported for all of these incidents was approximately \$735.

A bear was able to get through the electric fence at the Trail Builders Camp and damage the wall tent and a personal tent. The food was stored well (no food reward) and damage was limited. A bear destroyed a tent, sleeping bag, and pillow at site #8 at the Exit Glacier campground. There was food left out at the camp but there was no evidence that the bear got into any of these items.

At ABRS in late August, a bear knocked over an overpack containing unleaded fuel and punctured the gas line to the fuel pump. The rangers were not present at the time.

Three incidents occurred at Quicksand Cove all within the month of July. A seat pad was pulled out of a kayak, a tent was destroyed and a nylon tarp was bitten. The tent was 30-45 m from the cook area but the campers never heard or saw the bear that damaged their tent.

Another tent was damaged at Holgate Beach where the guides of a commercial group set their tent up on an obvious bear trail. While the camp was left unattended, a bear destroyed the tent along with a pillow and sleeping pad. The bear also dragged away a sandal, a dry bag of books and a duffel bag of eating utensils.



Tent damaged by a bear in Quicksand Cove.

Training

Training is an important component of the KEFJ bear management program. In April 2007, Meg Hahr, the park Ecologist, and Sean Brennan, the Exit Glacier District Ranger, attended a one week NPS Alaska Region aversive conditioning workshop in DENA. The purpose of the workshop was to provide resource managers and park rangers with the necessary training to implement effective aversive conditioning protocols in the parks. All Bear Incident Response Team (BIRT) members qualified as shotgun bearers and attended a one day aversive conditioning training at KEFJ with NPS Regional Wildlife Biologist Terry DeBruyn. The RM Chief and Chief Ranger conducted two bear pepper spray trainings for KEFJ field staff. The Bear Management Team conducted a debriefing after the picnic area incident and had follow up meetings with other interpretive staff to clarify bear management roles and responsibilities. RM staff also presented bear safety briefings to SCA and SAGA trail crews staying at the Exit Glacier Trail Builders Camp.



Park Ranger Katie Peck demonstrates use of bear pepper spray.

Management Interventions

Hazing and Aversive Conditioning

There were 19 total incidents that involved some form of hazing (yelling, clapping, throwing rocks, non-lethal rounds, etc.). Most of these were low level hazing but others involved rock throwing ($n=3$), pyrotechnic flares ($n=1$), and non-lethal firearm rounds ($n=2$). There were no reports of pepper spray use on a bear.

After a bear consumed a picnic at Exit Glacier, a targeted aversive conditioning campaign was initiated by the Bear Management Team. Three hours after the incident in the picnic area, the KEFJ Chief Ranger shot a bear in the rump with a rubber bullet as it sniffed a tent in the Exit Glacier campground. One week later, a bean bag round was used on a persistent bear in the campground cook area. It is not known if this was the same bear in each incident or if it was the same bear that obtained the food, but there were no further bear problems after these two hazings.

Other Management Actions

The Exit Glacier paved trail by the 1917 sign was temporarily closed on two occasions by Park Rangers to protect a female black bear and cub from harassing visitors. The Exit Glacier picnic area was closed to visitors for about 2 weeks in response to the bear-human incident in which visitors surrendered their food to a black bear in early July. Campsite #8 in the Exit Glacier campground was closed for less than a week after a bear destroyed a tent and other gear.

At the Exit Glacier Trail Builders Camp, RM and Maintenance staff combined the tent and cook areas into a single site encircled by an electric fence at the start of the season. RM and Maintenance also worked together to reinforce the electric fence and construct a solid hinged gate after a bear entered the enclosure and damaged the cooking tent. By the end of the summer, Maintenance staff had replaced the cook tent with a hard-sided cook building in an effort to prevent future bear issues at the camp.



Improvements to the electric fence including an alarm system and solid hinged gate and construction of a hard-sided cook shelter at the Trail Builders Camp were initiated in response to a bear incident in early July.

Management Issues

The Bear-Human Information Management System (BHIMS) facilitates the collection, storage, and analysis of detailed information on bear-human interactions, and enables informed bear management and public education efforts. Reports submitted by visitors, commercial operators, and KEFJ employees provide valuable information that managers can use to improve visitor safety and to protect bears and bear habitat within the park.

Bear management at KEFJ is an evolving process. In 2007, the Superintendent approved an Interim Bear Management Plan (BMP) to guide bear management in the park. The BMP is proving to be an effective tool for managers and field staff and has significantly clarified the goals and purposes of the program. Continued communication and training are needed to facilitate increased participation in the program from staff and visitors and to better define the roles and responsibilities of those involved. The BMP will be updated regularly as lessons are learned and



Large black bear track from Aialik Bay.

new information becomes available.

At the end of the field season, a man shot at (but apparently missed) a charging brown bear while hunting along the Resurrection River Trail on the Chugach National Forest near Exit Glacier. This report was received two weeks after the incident occurred, highlighting the need for improved communication between agencies to ensure that important information such as this is conveyed in a timely manner.

By understanding the types of bear-human interactions that frequently occur in KEFJ, managers, staff and visitors can hopefully improve their understanding of bear behavior and avoid negative interactions in the future. In 2007, the types of encounters and incidents observed include: 1) persistent bears approaching human use areas with humans present; 2) habituated bears encountered in their natural habitat; 3) surprise encounters of close proximity where the bear showed signs of excitement; 4) chance encounters between curious bears and human property; 5) bears that damaged property; and 6) bears that obtained human food. Some lessons learned from these interactions: properly store all food in BRFCs; be aware of bears while hiking and make noise to avoid surprise encounters; do not harass habituated bears by approaching too close; avoid camping in high use bear areas; keep tents, kayaks and other gear in close proximity; and be ready to defend your food and gear if a curious bear approaches.

Black and Brown Bear Activity annual summaries are prepared by the KEFJ Resource Management Team. This report was prepared by Meg Hahr. We wish to thank all park staff and visitors who contributed wildlife observations, BHIMS reports, and photos this year. Comments or questions? Contact us:

KEFJ Bear Management Team

Chief of Resource Management

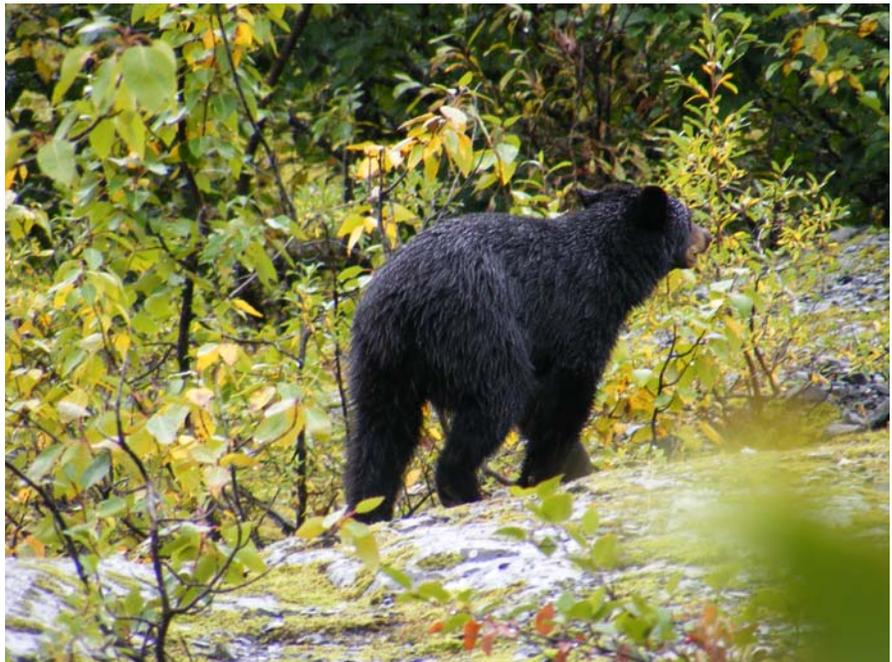
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The KEFJ Interim Bear Management Plan can be found on the park's intranet site: http://165.83.62.205/KEFJ/KEFJ_Intranet/documents/SOPs/General/2007-04-24@23.05.51.pdf

The Bear-Human Encounter Report form is also located on the park's intranet: http://165.83.62.205/kefj/KEFJ_Intranet/documents/Ranger_Forms.cfm



Black bear seen from the Overlook Loop Trail in September.