



Bear Events in the Savage River Area of Denali National Park and Preserve

Summer 2020

Denali National Park and Preserve Natural Resource Report February 2021



ON THE COVER

Grizzly bear on the Denali Park Road.

NPS Photo (A. Kirk)

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Abstract

The summer of 2020 in Denali National Park and Preserve presented the Wildlife Management team with many challenges, not the least of which was a bear that frequented the Savage river and Primrose areas of the park. Starting about mid-June, a grizzly bear interacted with visitors and staff on numerous occasions by approaching closely and charging. For safety reasons, the situation was initially managed with trail and area closures for short as well as extended periods of time. The eventual plan was to catch the bear, attach a radio collar and perform a hard release on site. Aerial reconnaissance was not successful in locating the bear nor were attempts to lure the bear into a culvert trap. In early August a bear fitting the description was reported west of Savage river. The bear was subsequently darted from a helicopter, collared, and released at Savage river. Examination of the bear revealed that it had been captured and collared in the past as part of a grizzly bear research project. Data gathered from that project showed that the bear spent little time in the Savage river area in the two previous years. In this report we explain the detailed timeline of events that lead to eventual capture and release of this bear and its subsequent movements. We discuss what we learned as this situation progressed and provide suggestions to avoid a similar situation in the future.

Acknowledgments

Funding for this program was provided by the National Park Service, Denali National Park and Preserve, AK, USA. Thank you to the 2020 Wildlife Management team for working tirelessly through a most exceptional season exacerbated by the Covid-19 pandemic, park operations, the likes of which had not been seen before, and wildlife situations requiring flexibility and long hours. Team members include Greg Colligan, team lead, Jason Reppert, and Max. Other Denali staff members stepped in to assist as needed and schedules allowed including Visitor and Resource Protection, Road Ecology, Interpretation, and Road and Trails. Peer review of this report was provided by park management.

Introduction

In mid-June 2020, wildlife management staff at Denali National Park and Preserve began receiving reports of a grizzly bear frequenting the Savage river area. This was not unusual as bears move through this area frequently. This bear, however, at times seemed tolerant of people and at other times displayed both dominance and intolerant behavior when people were about. The bear's behavior was best described as erratic. A similarly described bear behaving in a similar fashion had been reported a number of times in the same area in both summer 2018 and 2019. What follows is a detailed timeline of events and responses, assessment of the final outcome, what was learned, and suggestions and plans for how a similar situation might be prevented or handled in the future.

Timeline

June 18 - A grizzly bear was reported on the east side of the Savage Loop trail, just 100 yards from the trailhead. Wildlife management staff approaching to investigate, unintentionally flushed the bear from the carcass of a mostly consumed moose calf. Since this is high visitor use area and the bear had moved off, it was encouraged to keep going with firecrackers rounds. The remains of the carcass, including some hide and a couple hooves were removed and as a precaution, the area was closed until June 22 during which time the bear was not observed in the area.

June 30 – A grizzly bear was reported on the Savage Alpine trail with visitors in the vicinity. While attempting to clear the trail of visitors, a wildlife management technician (WMT) encountered the bear at close range. As it charged, he discharged bear spray in its direction. The bear veered off then began moving downhill toward the river. At this time the WMT descended back down the Savage Alpine trail to the parking area in order to drive to the west side of the river where visitors on the Savage Loop trail were photographing the bear as it travelled toward them. While attempting to clear visitors from west Savage Loop trail the WMT was charged by the bear a second time. The bear eventually turned north and went out of site. The technician continued down the Savage Loop trail where he met up with a family that had not seen the bear then he eventually made his way back to the trailhead. Savage area trails were closed for the remainder of the day. No further observations of the bear were reported.

July 1 - Two members of a four-person vegetation crew working and camping on Primrose ridge, west of Savage river, report an encounter with a bold grizzly bear fitting the description of the bear previously frequenting the Savage river area. Bear spray was deployed but did not make contact with the bear. The noise and visual of the spray seemed to startle the bear and it ambled off a short distance. After the arrival of the two remaining team members, the bear moved off slowly and only left the area after 10-15 minutes had passed. Due to this encounter and those two days prior, all Savage river area trails (Savage Loop and Savage Alpine) were closed in addition to the entire Primrose ridge between Savage and Sanctuary rivers.

July 5 - A grizzly bear of the same description was reported walking westbound on the road from the east Savage river parking lot. It sniffed around the Savage river check station then chewed on a traffic cone before continuing west out of sight.

July 19 - With no human-bear interactions since July 5 and few sightings, Savage river area trails and Primrose ridge were reopened.

July 21 - A grizzly bear fitting the previous description was seen 300 yards north of the Savage Loop trail foot bridge. Though no incident took place the entire Savage area was closed for visitor safety and to allow both ground and aerial reconnaissance and management activities, including capture of the bear, to be safely performed. Weather prohibited aerial reconnaissance.

July 25 – In the evening, the bear was reported 75 yards south of the Park road, just east of Savage river (Figure 1). The bear moved toward stopped vehicles on the road when occupants exited to take

photographs. The bear bit the bumper of an RV and pursued it as it began to drive away. The bear then ambled among the remaining vehicles before darting off the road and into dense vegetation to the northeast.



Figure 1. Bear on the Park road near Savage river.

July 26 - Helicopter OAE arrived from the south district of the Park to search for the bear and perform an aerial capture if it was located. Two hours of flight time in all directions from Savage river revealed one very large bear that did not fit the description of the target bear. That afternoon both the east and west parking lots were closed to allow for culvert trap operations in an effort to catch the bear. After 3 days of unsuccessful trapping, the parking lots were re-opened.

July 29 – For the second time, helicopter OAE arrived from the south district to search for the bear and perform an aerial capture if it was located. Two hours of flight time in all directions from Savage river revealed no bears.

August 3 – This morning a bear fitting the description of the bear frequenting the Savage river area was reported south of the road near Hogan creek. Helicopter OAE arrived at the Park by mid-morning and with Owen and Colligan on board headed west where Rangers Syvertsen and Hayes directed the helicopter to the bear's location and managed traffic. The bear was observed at close

range from the helicopter and determined with good confidence to be the correct target. The bear was darted and down within a few minutes then transported to the Primrose rest stop where it was processed, radio collared (Figure 2), and placed in the culvert trap to recover from the immobilization drug.



Figure 2. Bear 244 immobilized and newly radio collared.

When examined, it was determined that this bear was a previously marked female. The bear was subsequently identified by its even number ear tag, #244. Post release, it was determined that 244 had been previously captured and collared in 2018 in the upper Sushana river as part of a bear research project, not near Savage river as initially assumed during this capture.

The plan was to let 244 recover in the culvert trap then perform a “hard release on site”. This technique involves releasing a bear in the area where conflicts occurred. As the bear is released it is bombarded with commotion to make the experience extremely unpleasant with the result that the bear avoids the area in the future due to the unpleasant association. Around 1900 hours, 244 was recovered from the drug and active in the culvert trap. She was released from the trap in the west Savage river parking lot with vehicle horns honking, humans yelling, a dog barking, and firecracker rounds (Figures 3 and 4). She was also hit with non-lethal 12-gauge bean bag rounds. Bear 244 exited the area uphill to the west and out of site.



Figure 3. Bear 244 exiting the trap at Savage river west parking lot.



Figure 4. Bear 244 leaving the Savage river area during hard release.

August 3-6 - Over the next 3 days, 244 travelled west, generally following the Park road and eventually made her way to the west side of Teklanika river. She was seen near the road in the Primrose area on the day after release. Her travel route as she exited the Savage river area is depicted in Figure 5.

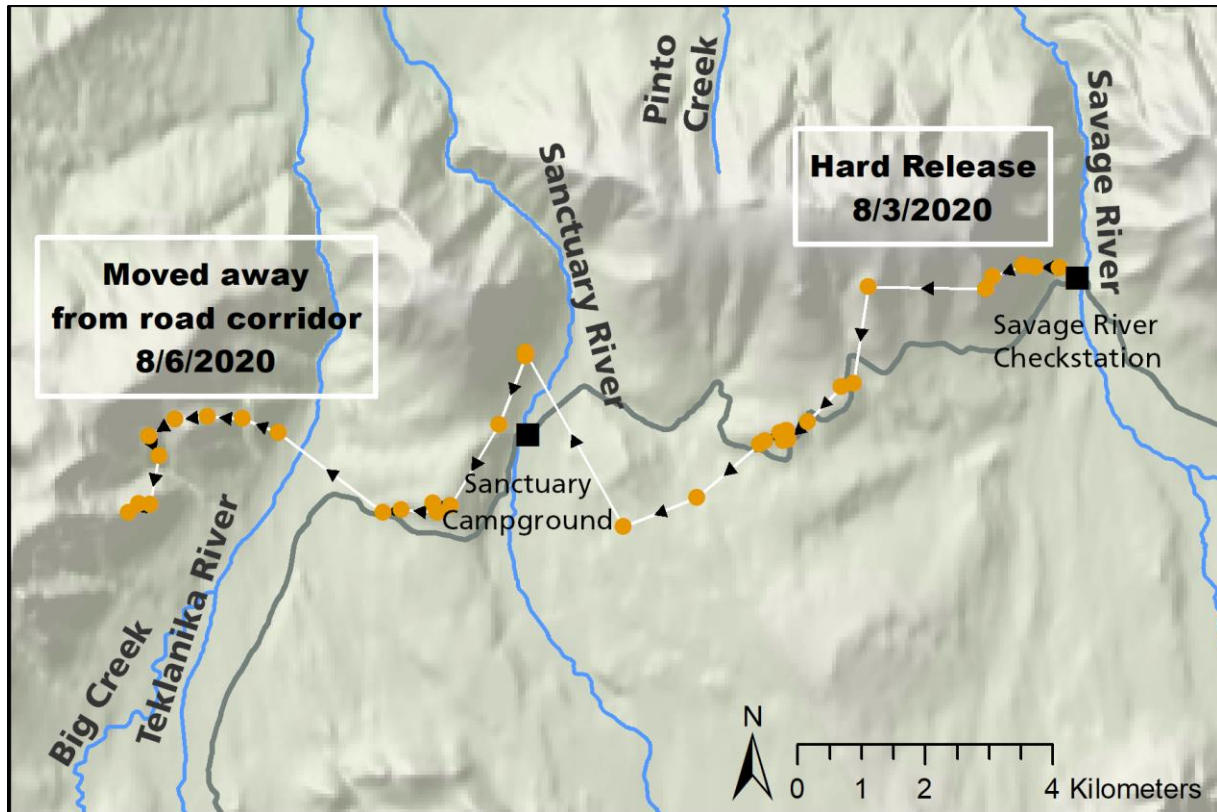


Figure 5. Locations of Bear 244 for the 3 days following hard release at Savage river.

Remainder of August – Bear 244 was generally west of Hogan creek and came within proximity of the road a number of times during weeks 2 and 3. A few reports of sightings were received in those weeks, mainly on the road near Teklanika river. Bear 244 spent the last week of August north and west of Big creek on the west side of Teklanika river (Figure 6).

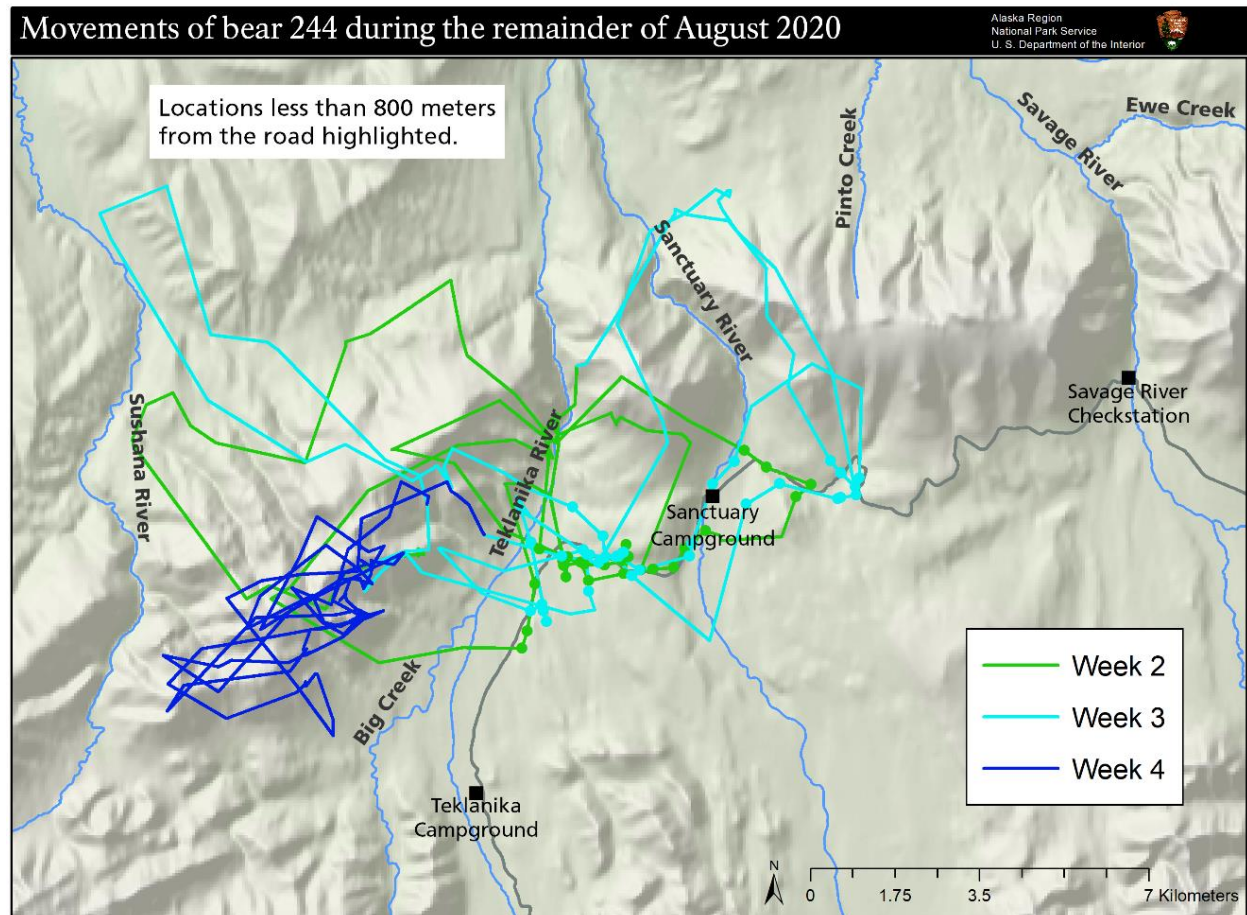


Figure 6. Movements of Bear 244 for the month of August 2020.

September - Bear 244 remained north of the Park road roughly between Hogan creek to the east and the ridges west of Teklanika river most of the month. She did cross or come in close proximity to the Park road on a few occasions, but no sightings were reported (Figure 7).

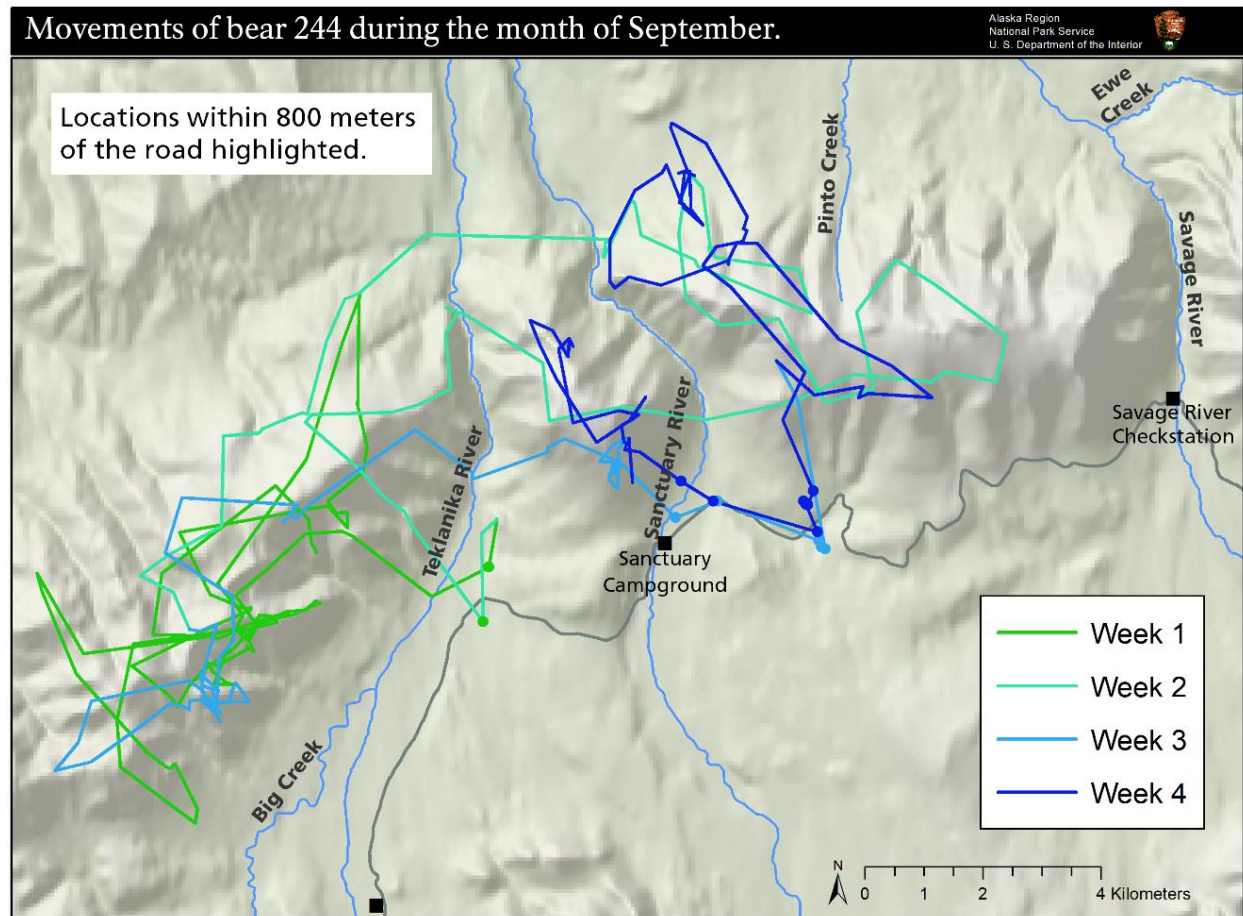


Figure 7. Movements of Bear 244 for the month of September 2020.

October - Bear 244 did not come near the Park road but stayed to the north in the hills east and west of Sanctuary river, including Primrose ridge. In mid-month the collar turned off as programmed, to save on battery life during hibernation (Figure 8).

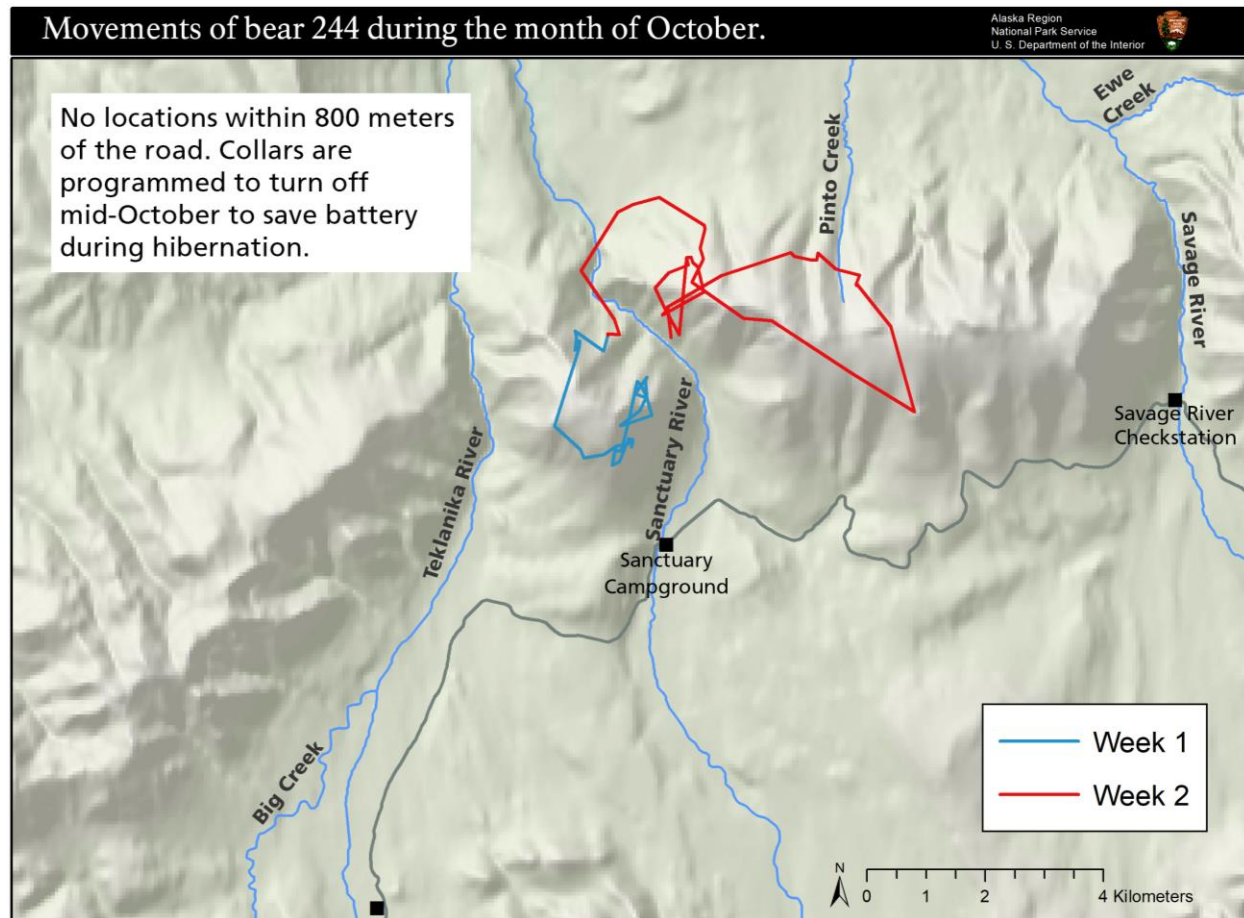


Figure 8. Movements of Bear 244 for the month of October 2020.

Follow Up

As part of a bear research project, Bear 244 had been captured and collared in May 2018. The Store-on-Board radio collar she was fitted with at the time collected location data in 2018 and 2019 until it released and was retrieved in September 2019 as planned. Location information downloaded from the collar for 2018 and 2019 showed that 244 spent very little in the Savage river valley near the Savage Loop or Savage Alpine trails (Figure 9).

Locations of Bear 244 during first collar deployment

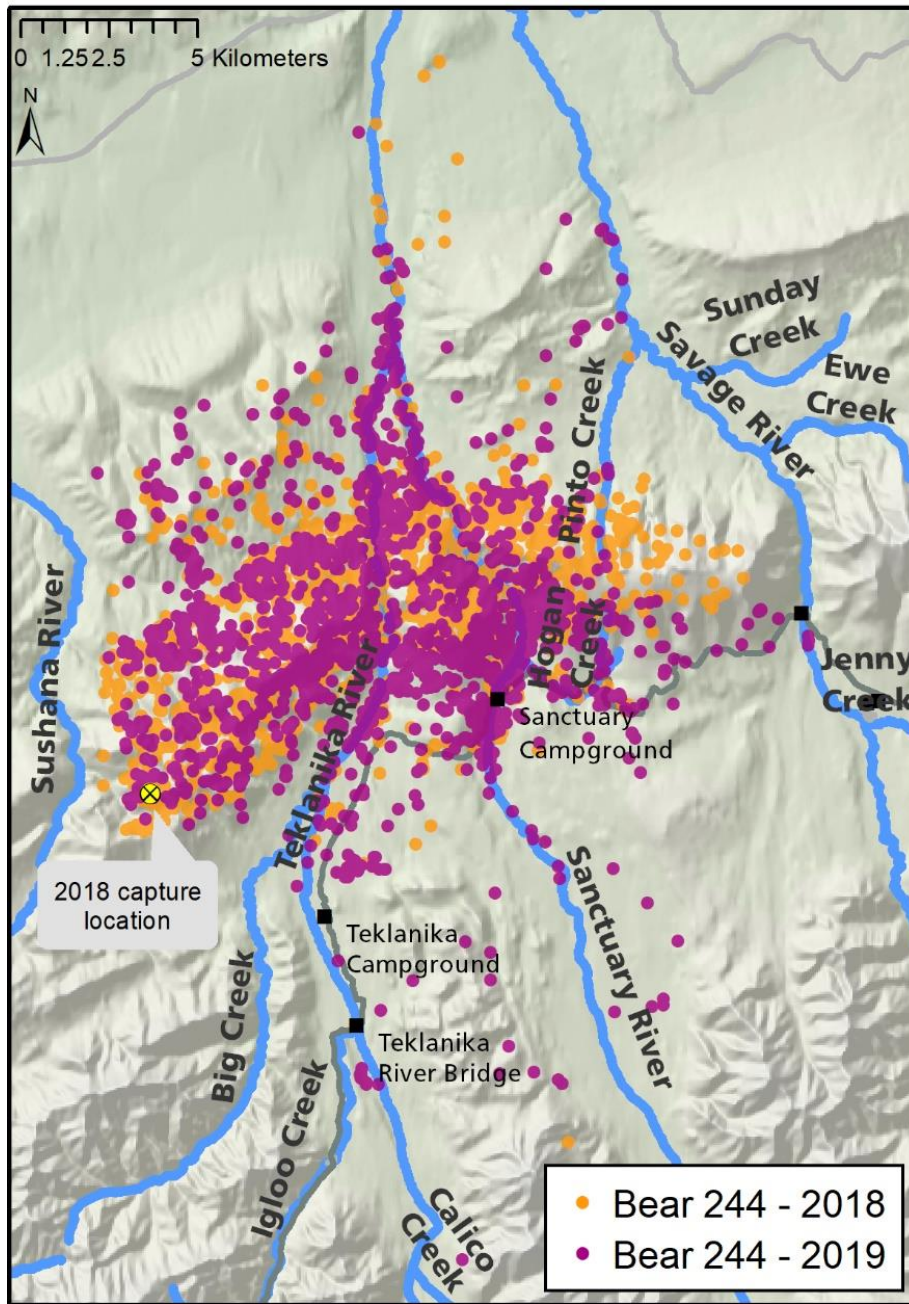


Figure 9. 2018 and 2019 location points for Bear 244 including initial capture location.

The bulk of Bear 244's locations in 2018 and 2019 result in a home range that covers much of the same area she frequented post release in 2020 (Figure 10).

Home range of Bear 244 during first collar deployment

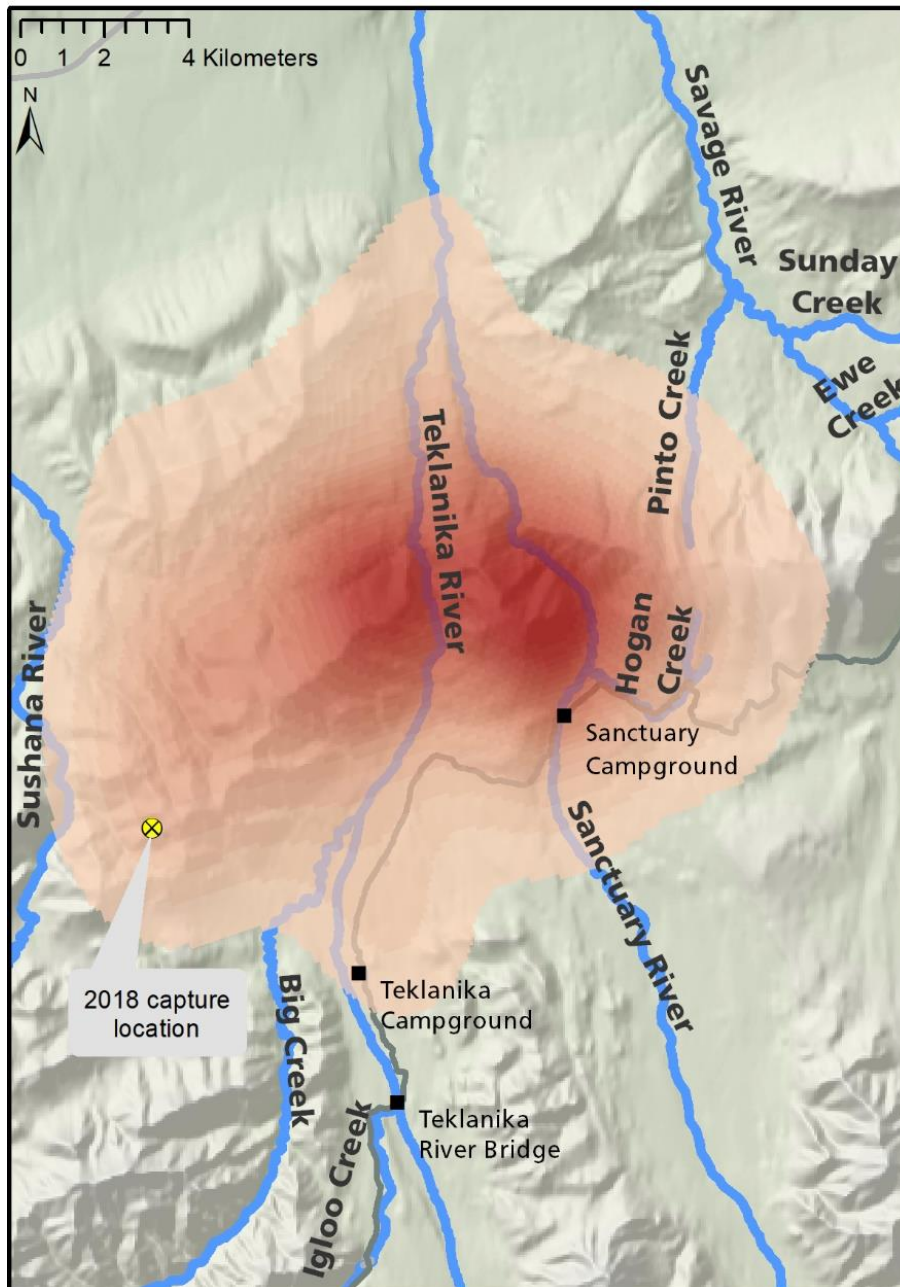


Figure 10. Home range of Bear 244 based 2018 and 2019 GPS radio collar location data.

Questions remain. The bear that was spotted near Hogan creek on the morning of August 3, 2020, fit the description of the bear that had been frequenting the Savage river area and interacting with visitors and staff there. Immediately prior to darting that bear, Owen and Colligan looked closely at the bear from the helicopter and determined with high confidence that the size and coloring were a match. Information learned after the 2020 capture regarding the identity of Bear 244 and her previous movements leaves some questions unanswered.

Was the correct bear caught in 2020?? Bear 244 was the only bear observed in the area that fit the description of the bear reported previously so the probability is high.

Was Bear 244 the bear that interacted with visitors and staff in the Savage river area in 2020? Again, bear 244 fit the description.

Did the bear reported in 2018 and 2019 in the Savage river area return in 2020? Though previous collar locations show that 244 spent virtually no time in the Savage area in 2018, she was in the vicinity in 2019 and may have had opportunity to interact with visitors and be reported there.

Was the hard release of Bear 244 effective or did she simply return to her home range? Post hard release, 244 did not return to the Savage area so if she did indeed have an affinity for that area in 2020, the hard release was effective in subsequently deterring her from that area.

Will we be dealing with another bear exhibiting similar behaviors in the Savage river area in 2021? There will most certainly always be a high number of human-bear interactions in the Savage river area. As evidenced by the Figure 11 below, 50% of all Bear-Human Incident Management System (BHIMS) reports for interactions between trail hikers and bears between 2015 and 2020 came from Savage area trails. More interactions between humans and bears occur on Savage area trails than any other area trails. The Savage river valley is an easy corridor for bears to travel between the north and south sides of the outer range mountains (Mt Healy, Mt Wright, Primrose ridge, Mt Margaret). It is also good foraging and hunting habitat meaning that bears will continue to frequent the area. It is a very popular area for large numbers of visitors as the farthest point to travel the Park road by private vehicle without a permit and thus will regularly experience high human visitation. Wildlife management staff will continue to mitigate conflicts by closely monitoring the area and using closure authority when necessary.

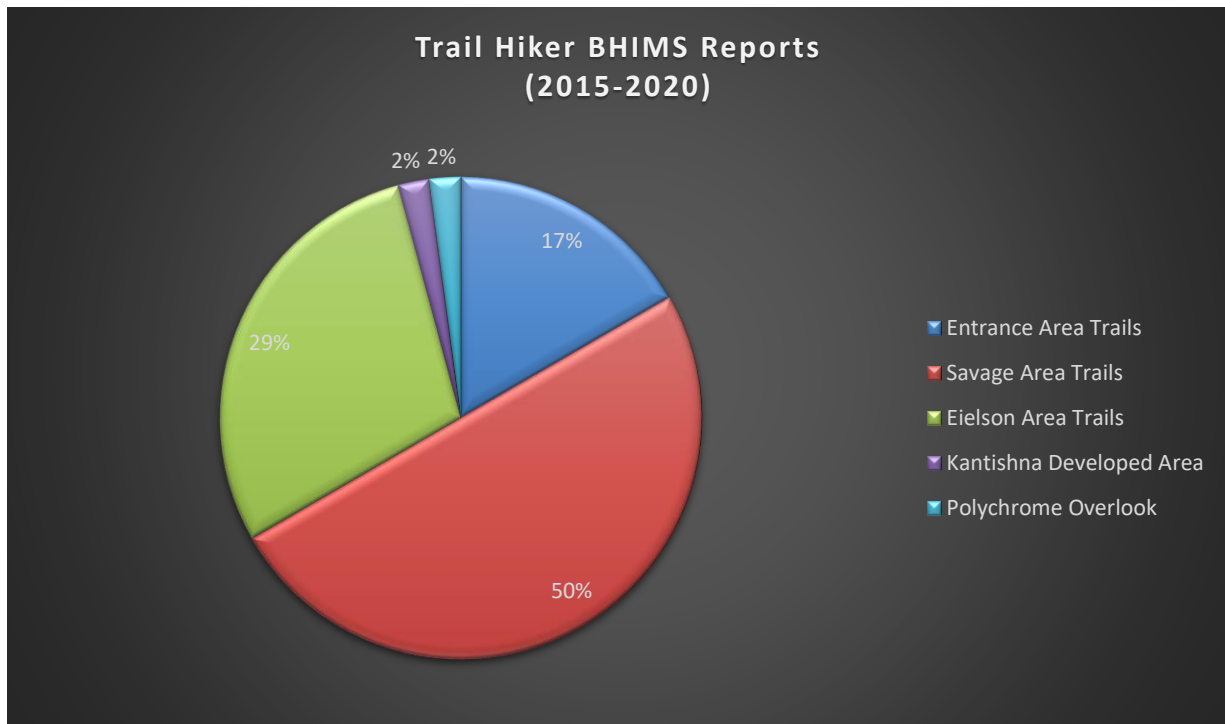


Figure 11. Breakdown of trail hiker BHIMS reports by area.

In the 2021 season and hopefully beyond, there will be volunteers in the Savage area to help monitor for bears and to educate visitors about bears and bear safety. Volunteers will provide bear spray demonstrations and encourage visitors to be prepared and vigilant while hiking in bear country. They will be available to collect BHIMS reports when visitors encounter bears, increasing efficiency of that data collection. Closing trails and parking lots, especially when the Savage check station is not staffed, helps to regulate visitors using the area and provides valuable tools for mitigating human bear conflict in the area by keeping bears and people separated.

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