#### **BOARD OF REVIEW REPORT**

# Fatality of Mr. John L. Wallace from a bear attack on the Mary Mountain Trail in Yellowstone National Park on August 25, 2011

January 30, 2012

### Board of Review members<sup>1</sup>:

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## **Summary:**

Mr. John L. Wallace was found dead, killed by a grizzly bear, on August 26, 2011 on the Mary Mountain Trail in Yellowstone National Park (YNP), 5-6 miles from the Canyonside of the Mary Mountain trailhead. His body was discovered by 2 hikers who hiked back and reported to park authorities. YNP authorities began looking for the body on the afternoon of August 26 and Mr. Wallace's body was found at approximately 1800 hours approximately 5 miles from the trailhead (Figure 1). Mr. Wallace's body had been partially consumed and was covered with debris, typical of food caching behavior by a bear. Mr. Wallace arrived in YNP alone on Wednesday, August 24, 2011. Mr. Wallace's wife, who stayed home in Michigan, talked with her husband the evening of August 24. Several witnesses reported seeing a man with a brightly colored daypack similar to Mr. Wallace's (Mr. Wallace was carrying a bright orange daypack) and driving a vehicle like his at the Mary Mountain trailhead on the morning of August 25. Mr. Wallace left the trailhead heading southwest, hiking alone on the morning of August 25. It appears that he was killed sometime that morning based on the fact that he had not consumed the lunch in his daypack and of his 2 water bottles, one was empty and one was \(^3\)4 full. His body was discovered approximately 24 hours later by 2 hikers and secured and retrieved by YNP officials approximately 34 hours after he started his hike.

#### Format of this report:

An interagency Board of Review composed of state and federal personnel prepared this report. A Board of Review is required after each human fatality caused by a grizzly bear

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<sup>&</sup>lt;sup>1</sup> Arranged in alphabetical order by agency affiliation.

as per the Interagency Grizzly Bear Guidelines (p. 59). This report is based on the efforts and reports of an investigation team of Yellowstone National Park Rangers who responded to and investigated this incident. This report summarizes the incident, the response to the incident, the investigation of the incident, resolution or response to the incident, and presents information gathered as part of the investigation team effort. After examining the detailed investigation materials compiled by the Park Service, the team discussed the incident with these Park Service staff personnel to clarify any issues. Informational materials that were used to develop the finding of the investigation team are appended to this report. The team attempted to reconstruct the incident as much as possible given the information available while avoiding speculation about details not supported by the evidence. All times in this report are Mountain Daylight Time.

#### Situation:

The Mary Mountain trail runs through the northern portion of Hayden Valley in YNP. The trailhead used by Mr. Wallace starts along the interior Park road and runs west and south toward Mary Mountain. The trail traverses open grassland and sagebrush habitat with patches of trees interspersed. Further west, the trail enters primarily timbered habitat (Figure 1). Hayden Valley is noteworthy for wildlife viewing, especially for bears and bison, which are relatively common in the extensive open valley and along the adjacent timber edge. Grizzly bears are regularly observed in the vicinity of the Mary Mountain Trail. At the time of the fatality, there were 2 bison carcasses close to the trail, one of which was 330 meters southeast of the fatality site that had 16 bear beds around

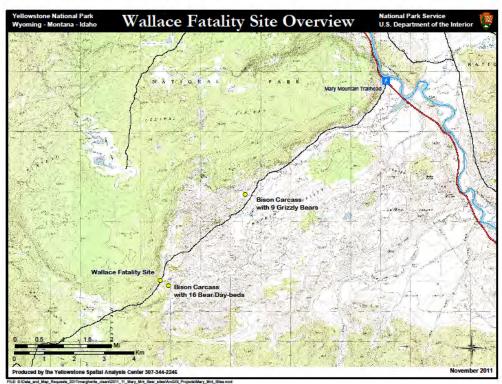


Figure 1. Fatality site and locations of bison carcasses at the time of the incident. Green color indicates timbered areas.

it. The other bison carcass was near the trail about 1.5 miles away from the fatality site. Nine different grizzly bears, including a female with 2 cubs-of-the-year, were observed by a day-hiker on August 22 at this second bison carcass, 3 days before Mr. Wallace was killed.

#### **Detailed Information:**

#### Actions of Mr. Wallace:

Mr. Wallace arrived alone at YNP the morning of August 24, 2011 and stayed in the Canyon Village campground that evening. The morning of August 25, he traveled from the Canyon Village campground to the Mary Mountain trailhead in Hayden Valley in his vehicle, a green jeep, which he had driven from Michigan. He was observed at 0730 hours alone on the morning of August 25 at the Mary Mountain trailhead starting a hike on the Mary Mountain Trail. According to an interview with a park visitor that was at the parking spot where Mr. Wallace started his hike, a person meeting his description was seen by another park visitor getting ready to hike carrying a brightly colored daypack, no overnight gear, and was not observed to be carrying bear spray. The manner in which extra camping gear, equipment, and trail guidebooks were stored in Mr. Wallace's vehicle indicated that he was an organized, well planned hiker. A conversation Mr. Wallace had with the concession employee that checked him into the Canyon Campground indicates that Mr. Wallace was knowledgeable about bears. Family members stated that Mr. Wallace was a competent, experienced backcountry hiker and outdoorsman. It is not unusual for experienced outdoorsman to understand and accept the risks associated with hiking alone in bear country. Many hikers in Yellowstone National Park hike alone.

Actions of the hikers who found Mr. Wallace's body:

and his daughter, arrived at the Mary Mountain trailhead on August 26 at 0730 hours, intending to hike to Mary Lake. At approximately 1030 hours, after hiking for what they thought was 6-7 miles on the trail, Ms. she saw some birds circling in the air and then she observed a backpack and a water bottle containing a reddish or pinkish liquid. At this point she was in front of her father on the trail. She walked closer to the objects and saw what she believed to be a deceased human. She observed both legs below the knees, boots, and a portion of one arm. The lower part of the legs and the boots were on the trail, with the body oriented at about 90 degrees to the trail. The rest of the body was covered with dirt and debris. She and her father did not get any closer than 5-10 yards from the body. She and her father immediately turned around to hike back to the trailhead, believing there was a bear nearby. Approximately 10 minutes from the trailhead on the way back, they met 2 males in their mid-20's and told them there was a human body down the trail. These 2 male individuals stated they were only hiking a short distance and continued hiking after this warning. When the woman and her father arrived at the trailhead a few minutes later, she observed a rental camper, a small red car, and a green SUV. Her father reported seeing a rental camper, a white car, and a green jeep at the trailhead. After arriving back at the trailhead, she and her father immediately drove to the Canyon backcountry office to report the incident. She had taken 31 pictures along the trail but no pictures of the deceased individual.

#### The Incident Site:

The incident site was on a trail in Hayden Valley where the trail begins to enter scattered timber (photo 1). The general area is a mosaic of scattered timber, open meadows, rolling hills, and thermal features and the trail goes through all of these.



Photo 1. The trail in the area of the fatality site showing mixed timber and open areas.

Sight distances vary along the trail being generally good in open habitats (Photo 2), but sight distance is reduced in rolling hills and timber stands that provide dense cover adjacent to the trail.

#### Cause of Death of Mr. Wallace

Mr. Wallace received multiple puncture wounds over the upper right part of his body including bite marks on his right hand plus scratches, lacerations, and punctures of his right forearm, consistent with self defense and facing a bear. Superficial scratches also occurred on the upper left part of his body. On his back, he had several bite marks that appeared to be opposing pairs of canines. The canine bite marks on his back were wide apart, suggesting that the bear's jaw was wide open when they were inflicted. The wounds on his back were also accompanied by bruising indicating they were inflicted when Mr. Wallace was still alive. There were significant injuries to the left side of his head, including a laceration at the left corner of his mouth and a severe laceration to his left ear. There were areas of significant bruising on his upper left arm and over his right hand and forearm. This bruising is indicative of wounds suffered while Mr. Wallace was still alive. The conclusion of the Coroner was that Mr. Wallace died of severe injuries received during an attack by a large animal, with death from blood loss (exsanguination).



Photo 2. The incident site showing trees adjacent to the site.

Mr. Wallace suffered additional significant injuries to his body but these were likely inflicted post-mortem, associated with consumption by a bear(s). Mr. Wallace suffered several open fractures to his ribs on the front left side that were most likely post-mortem injuries. There were no other broken bones. The toxicology report on Mr. Wallace was

Table 2. Time line of what we know about Mr. Wallace's movements 8/24/2011 to 8/26/2011. All times are Mountain Daylight Time.			
8/24 Time	Description of event		
0753	Mr. Wallace arrives in a green Jeep at the Yellowstone Park east entrance. Time recorded by camera at the east entrance station.		
Evening	Mr. Wallace registers and stays in the Canyon Village campground.		
8/25 Time			
Approx. 0730	Mr. Wallace is seen at the Mary Mountain Trailhead at his green Jeep apparently getting ready for a day hike wearing a brightly colored daypack.		
8/26 Time			
0730	Two visitors start a day hike from the Mary Mountain trailhead on the same trail taken by Mr. Wallace 24 hours earlier.		
1030	The 2 visitors come upon human remains approximately 5 miles from the trailhead. They turn around and begin hiking back to the trailhead.		
1330	Report received by Rangers from the Canyon Backcountry Office that 2 hikers had discovered a dead body on the Mary Mountain Trail		
1800	Rangers discover a body on the trail in the general location reported by the 2 visitors. The remains are subsequently confirmed as those of Mr. Wallace.		
2015	Mr. Wallace's remains and Rangers in the search party flown out of the area by helicopter to the Canyon area.		

negative so there were no toxicology issues associated with Mr. Wallace's death. His heart appeared to be normal, with nothing indicating heart disease or heart attack as a cause of death.

#### **Results of the Investigation:**

On August 24, 2011, Mr. John L. Wallace arrived in YNP at 0753 hours through the east entrance, as recorded by a camera and Park personnel. He was driving a green jeep with Michigan license plates, having driven from Michigan. Mr. Wallace was alone. He had visited YNP several times before. He registered at the Canyon Village Campground on the evening of August 24, 2011. He was given the standard lecture about food storage and bear safety by campground personnel upon registration. He made a statement to campground personnel that he did not need to hear that information and that he was a "grizzly bear expert." The standard verbal directions on proper behavior in bear country and literature were given to Mr. Wallace.

At 0730 hours on August 25, 2011, a single male in a green jeep was seen at the Mary Mountain trailhead getting ready for a day-hike. He was reported by another visitor who saw him at the trailhead to be wearing a brightly colored daypack.

At 0730 hours on August 26, 2011, two hikers (a father and daughter) arrived at the Mary Mountain trailhead and began a day-hike. They both noted a green SUV/jeep at the trailhead. At approximately 1030 hours, these two hikers observed what appeared to be human remains on the Mary Mountain trail approximately 5 miles from the trailhead. They observed legs, boots, and one arm. The rest of the body was covered with dirt and debris. They immediately turned around and returned to the trailhead and drove to the Canyon Backcountry Office where they reported the body.

The initial investigation by YNP Rangers involved 5 Rangers being dropped off by helicopter west of the general area of the fatality. They began hiking east along the trail looking for a body. They observed tracks in the trail of an adult grizzly bear with at least one yearling approximately one mile west of where Mr. Wallace's body was found. They found Mr. Wallace's body at approximately 1800 hours. Mr. Wallace's remains were lying on his back, his feet were in the hiking trail, and his body was lying on the uphill slope of the trail. His body had been partially consumed and exhibited bite and claw marks consistent with attack by a bear.

When found, Mr. Wallace's remains were mostly covered with dirt and debris, consistent with the food caching behavior of a bear. Several of Mr. Wallace's belongings, including his pack, rain jacket, long sleeved shirt, and lunch container were on top of the body or adjacent to it placed there by the caching bear (Figure 2). Two water bottles, one

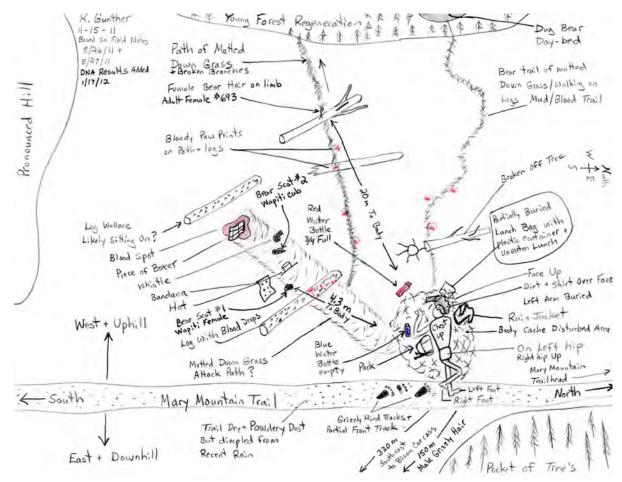


Figure 2. Sketch of the Wallace fatality site along the Mary Mountain Trail showing body location and other evidence. (Not drawn to scale.)

empty and one ¾ full were found adjacent to the body. A partially eaten "energy bar" with the wrapper still covering the uneaten portion was found under the body. Mr. Wallace's lunch had not been consumed and was still inside a closed plastic container, inside a plastic bag adjacent to the body. Mr. Wallace was not wearing his daypack and it was found with the zipper partially open mixed in with the duff covering the body. The main compartment zipper and hip belt buckle were both open, suggesting he was not wearing the pack when attacked. Approximately 12.5 m from the body, a blood spot in the dirt and a piece of cloth from Mr. Wallace's boxer shorts were found. There was a trail of matted down grass from this blood spot and cloth to the site where the body was cached. Along this trail of matted down grass was a whistle, a hat, and a bandana (Figure 2). Photo 3 shows the fatality site.

At the time the body was located at approximately 1800 hours on August 26, two bear scats were found on either side of the hat and the bandana along the trail of matted down grass, 4.4 m and 6.9 m from the body. There was a heavy rain and hail storm in the area of the fatality on the afternoon and evening of August 25, and this rain and hail had obliterated most tracks along the hiking trail. Two grizzly bear hind foot



Photo 3. The fatality site. The white card to the right notes the location of Mr. Wallace's body. The cards to the left note the location of some of his person items.

impressions and 1 partial front foot impression were found on the trail a few meters south of the victim's body (Figure 2).

On Saturday morning, August 27, investigators returned to the site and found fresh grizzly bear cub tracks in the dust on the trail where the victim's body had been cached. These tracks were left sometime after the body was removed from the area on August 26 at approximately 2000 hours. There were also tracks from a larger bear (11-12 cm in width) at the site. These larger tracks are consistent with an adult grizzly bear, probably the mother of the cub that left the track at the site. These tracks indicated that an adult female and at least 1 cub-of-the-year had returned to the site of the body in the evening of August 26, after the body was removed. Another set of grizzly tracks was found heading away from the victim's cache site to a bear day bed in an area of lodgepole pine west of the body's location. These tracks consisted of mud and blood paw prints on top of a log lying on the ground. These tracks could not be accurately measured. These bloody tracks on the log were made by a bear that had obviously been at the fatality site standing on blood sometime on August 25 or August 26.

#### **DNA Evidence**

Bear hair was collected from the victim's body, from broken branches on logs near the body, and from soil in the cache pile (Figure 2). Saliva, presumably from a bear, was collected from bite wounds on the body and from Mr. Wallace's clothing. Saliva was collected with swabs moistened with sterile water in an attempt to identify bear DNA.

Bear scat #1 was tested and DNA indicated it was from a female grizzly bear. DNA from bear scat #2 indicated it was from a male grizzly bear that could be related to, or the offspring of, the female identified in scat #1. DNA from Scat #1 matched DNA from the scat of a female grizzly bear collected on July 6, 2011 at the Wapiti Lake trail fatality incident site involving Mr. Brian Matayoshi. The straight line distance between where Mr. Matayoshi was killed on July 6, 2011 and the location of Mr. Wallace's body is approximately 8.1 miles. The investigation team report on the Matayoshi fatality is attached as Appendix B. DNA from the male scat (scat #2) did not match the genotype of the male scat collected at the Wapiti Lake fatality site, but was consistent with a sibling of the male bear scat collected there. DNA from scats #1 and #2 did not match any of the 619 grizzly bears in the Interagency Grizzly Bear Study Team's DNA database. No saliva swabs were reactive for DNA so nothing could be determined from these samples.

A partial DNA genotype was obtained from bear hair collected from the victim's body and clothes. Most hairs collected from the body and clothes were non-reactive (i.e., no DNA extracted). The partial DNA genotype of 1 hair from Mr. Wallace's body indicated the bear was a male. The partial genotype did not allow identification of the individual bear, its relation to other bears, or even the bear species (black or grizzly). Hair collected from the soil on the body was all non-reactive.

One hair sample collected from a broken branch on a log 20 m west of the body was successfully genotyped and found to be from a female grizzly bear. This female grizzly bear was later captured as part of the capture operations around the fatality site on October 4, 2011, approximately 500 meters from the Wallace fatality site. This bear had never been captured before. It was radio-collared and released.

A hair sample was collected from a broken branch next to a bear daybed approximately 150 m from Mr. Wallace's body. This hair was associated with a bison carcass and was not necessarily related to Mr. Wallace's death. This DNA was from a male grizzly bear. It did not match the hair collected 20 m from Mr. Wallace's body, the 2 bear scats, or the bear hair from Mr. Matayoshi's eye glasses. This male bear was not an offspring of the adult female who killed Mr. Matayoshi. This male bear did match a male grizzly bear in the Interagency Grizzly Bear Study Team's DNA database. The database indicated this same bear had left hair at a hair snagging station located on Clear Creek on the east side of Yellowstone Lake during a 2008 research project.

Summary of DNA Evidence Related to the Mary Mountain Incident (from Appendix A)

- Based on bear hair collected from the victim's body, a male bear of unknown age and species made contact with Mr. Wallace (Table shown below).
- DNA from the bear known as the Wapiti sow (#2011030) captured on September 28, 2011, is a match with DNA from the female bear scat found along the suspected attack path approximately 4.4 m (4.8 yards) from Mr. Wallace's body. DNA from the Wapiti sow is also a DNA match with the female bear scat collected at the Matayoshi fatality site. In addition, hair collected from the Wapiti sow is also a DNA match with grizzly bear hair snagged on Mr. Matayoshi's eye glasses.

- DNA from the Wapiti sows' blonde colored male cub (#2011032) is a match with DNA from the male bear scat found along a fresh bear path approximately 6.9 m (7.5 yards) from Mr. Wallace's body.
- DNA from the Wapiti sows' dark colored male cub (#2011031) is a match with DNA from the male bear scat found at the Matayoshi fatality site.
- DNA from adult female grizzly bear #693 captured on October 4, 2011 approximately 500 m (546.8 yards) from the Wallace fatality site, is a DNA match with the female grizzly bear hair found along a fresh bear path approximately 20 m (21.9 yards) from Mr. Wallace's body.
- DNA from yearling male grizzly bear #688 captured on the Natural Bridge Road on September 21, 2011, and whose on the ground track size impressions matched tracks found in the trail at the Wallace fatality site, did not match with any DNA found at the attack site. Due to the considerable over-lap in track sizes between different individual bears, this yearling bear and its mother cannot be conclusively linked to the fatality site.
- DNA from one additional unmarked individual bear, a male, was collected approximately 150 m (164 yards) southeast of Mr. Wallace's body. Based on DNA, this male bear is not related to either the Wapiti sow or female grizzly bear #693. This male bear hair was collected on a broken branch at a daybed associated with a bison carcass and therefore cannot be directly linked to the fatality incident. The DNA from this male bear was a match with the genotype of a male grizzly bear in the IGBST DNA database. The hair in the database was collected remotely with a barbed wire hair snare at Clear Creek on the east side of Yellowstone Lake during a research project in 2008. This bear is not currently and likely has never been captured or radio collared.
- DNA Evidence Conclusion: DNA evidence indicates that the Wapiti Sow (#2011030) and the Wapiti sows' blonde cub (#2011032) were both present at the Wallace fatality site and deposited scats there. By association, we can assume that the Wapiti sows' dark colored cub (#2011031) was present as well. In addition, adult female grizzly bear #693 was also present at the Wallace fatality site. DNA from an additional grizzly bear, an unmarked male, from hair found at a daybed associated with a bison carcass near the fatality location cannot be directly linked to the fatality site. The male bear was never captured during the investigation.

#### Track Evidence:

Before Mr. Wallace's body was located by Park authorities, a small adult female grizzly bear left a partial front track and a yearling or subadult grizzly bear left hind foot tracks in the trail next to the victim's body. The width of the hind foot tracks were approximately 10 cm.

Prior to the removal of the body by Park authorities, bloody tracks were left on a downed log close to the body site. These tracks were from an adult grizzly bear and a cub-of-the-year. Sometime after Mr. Wallace's body was removed at 2000 hours on August 26 and prior to the arrival of Park authorities on the morning August 27, a grizzly bear cub-of-the-year left tracks on the trail in the dust next to the site where the body had been.

Table 2 (from Appendix A). DNA results from bear hair and scat samples collected at the Wallace fatality site along the Mary Mountain Trail in Yellowstone National Park, 2011.

	DNA Results						
Evidence	Distance To Body	Genus/Species	Sex	Individual Genotype	Match With	Individual Bear	
					Known Bear		
Bear Hair on Body	0 meters	Ursus/Unknown	Male	No	Not Possible	Not Possible	
Bear Scat #1	4.4 meters	Ursus/arctos	Female	Yes	Yes	Wapiti Sow <sup>a</sup>	
Bear Scat #2	6.9 meters	Ursus/arctos	Male	Yes	Yes	Blond Male Cub of Wapiti Sow	
Bear Hair on Log	20 meters	Ursus/arctos	Female	Yes	Yes	Adult Female Grizzly #693 <sup>b</sup>	
Bear Hair at Daybed Associated with Bison Carcass	150 meters	Ursus/arctos	Male	Yes	Yes <sup>c</sup> /No <sup>d</sup>	Unmarked Research Bear From Clear Creek	

<sup>a</sup>The Wapiti Sow is also the bear known (through DNA) to be involved in the Matayoshi Fatality on July 6, 2011. The Wapiti sow and her two cubs were captured and removed from the ecosystem on September 28, 2011.

#### Aerial Reconnaissance:

Aerial reconnaissance was conducted in Hayden Valley area over a 33 day period from August 27 through September 29, 2011. During these flights in Hayden Valley, 30 grizzly bear sightings and/or radio locations from at least 19 individual grizzly bears were documented. Individual radio-collared bears #155, #211, #281, #321, #394, #448, #481, #688, and #689 were all documented in the area. This aerial reconnaissance indicates there were a high number of grizzly bears in the area.

#### **Trapping Operations:**

Bear trapping operations commenced on August 27 and continued through October 16, 2011. Traps were set at the fatality site and 9 other locations in the Hayden Valley (Figure 3). In 173 traps nights of effort, there were 25 captures of 13 individual grizzly bears: 5 adult males, 4 adult females, 2 yearling males, and 2 male cubs-of-the-year. No bears were ever captured at the fatality site.

<sup>&</sup>lt;sup>b</sup>Adult female grizzly bear #693 was first captured on October 4, 2011, approximately 500 m (546.8 yards) from the Wallace fatality site. Grizzly bear #693 was radio collared and released on site pending results of DNA analysis. <sup>c</sup>DNA match with bear hair collected from a barbed wire hair snare in the Clear Creek drainage on the east side of Yellowstone Lake during a research project in 2008.

<sup>&</sup>lt;sup>d</sup>This bear has likely never been captured as a research or management bear and is known only from hair collected remotely from a hair snare during a research project.

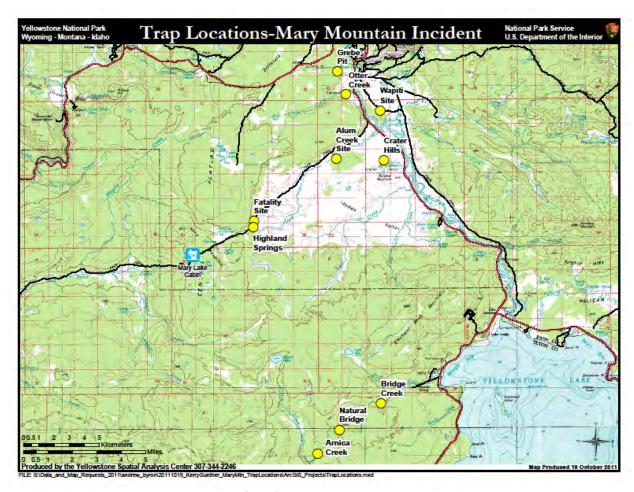


Figure 3. Trapsite locations in the area of the fatality.

#### Finding of the Investigation Team:

On August 25, 2011, Mr. John Wallace started hiking on the Mary Mountain trail at approximately 0730 hours. He was on a day hike, as indicated by his lack of overnight equipment. He was alone and no bear spray was found anywhere at the fatality site. Mr. Wallace's body was found on August 26 at approximately 1030 hours 5 miles from the trailhead by two hikers using the same trail. At the fatality site, Mr. Wallace's lunch was found uneaten and one "energy bar" was partially eaten. He had 2 water bottles, one of which was empty and the other was ¾ full. Mr. Wallace's pack was found associated with his body but the waist band was unclipped and the pack was partially open, indicating he was probably not wearing his pack when attacked. The idea that he was not wearing his pack was further supported by the presence of bite marks on his back in areas that would have been covered by his pack if he had been wearing it. Mr. Wallace's body exhibited bites and bruising on the hand and forearm, indicating that at some point he faced a bear and tried to defend himself with his hands when attacked. The attack likely occurred on the morning of August 25, as evidenced by the fact that Mr. Wallace's lunch was uneaten.

The attack site is approximately 5 miles from the Mary Mountain trailhead. It is unclear why Mr. Wallace stopped at this location but the fact that his day pack hip belt was unclipped, that the zipper was open, that the pack was not on his body, and that a partially eaten "energy bar" was found under his body indicates he possibly stopped to have a snack, a drink, or get something out of his pack. He was then attacked by a bear. This evidence that Mr. Wallace was most likely not wearing his daypack at the time of the attack is consistent with an individual stopping for a break on or close to the trail or reacting to a pending bear attack by taking off his pack. Thus, it is unlikely that Mr. Wallace was hiking at the time he was attacked by a bear(s). The visual site distance at the attack site is variable because of interspersed vegetation. A bear approaching from the north from the direction of the trailhead would have been partially obscured by a large lodgepole next to the trail (Photo 4). There is no clear evidence indicating what prompted the bear(s) to attack Mr. Wallace.



Photo 4. The fatality site showing partial visual obstruction from trees at the site. Mr. Wallace's body was found in the center right of the photo.

The blood spot and a piece of his boxer shorts found next to a log approximately 12.5 m from the body site are evidence that perhaps the initial attack occurred at this location, off the hiking trail. Mr. Wallace's bandana, whistle, and hat were found between this blood spot and the body site. It is possible that Mr. Wallace moved from the initial attack site to the location where his body was found but his body also could have been moved by the bear(s). The specific details of the spatial relationship between the blood spot, boxer shorts, hat, whistle, bandana, and the final location of the body cannot be

determined. Mr. Wallace's pack, water bottle, rain jacket, and lunch container were all found in close proximity to his body as opposed to these other objects which were all more than 4 m away. This distribution of his materials as it relates to the attack cannot be explained.

Portions of Mr. Wallace's body were consumed by a bear or bears. Bloody bear tracks were found on logs in the area of the body, indicating that a bear had walked in blood that was very likely from Mr. Wallace's body, then walked away from the site at least once. Mr. Wallace's body was cached and covered with dirt and grass as a bear does when it covers a partially consumed carcass. Mr. Wallace's pack was found on top of his body, indicating that during the caching process, the bear pulled the pack and associated dirt and grass onto the body. No part of Mr. Wallace's lunch was eaten by either Mr. Wallace or the bears. A partially consumed "energy bar" was found under his body. The consumption of this "energy bar" indicated human use rather than bear use because the wrapper was partially opened and unconsumed portions were still covered by the wrapper. Around Mr. Wallace's body were found what is assumed to be contents of his pack, including 2 water bottles, his lunch container, an extra shirt, and his rain jacket. It is unknown whether these items were removed by Mr. Wallace prior to the attack, or fell out of the pack as Mr. Wallace struggled with the bear(s), or fell out of the pack as it was moved around by the bear(s) after his death.

Two scats were found at the body site and these scats matched the adult female (the Wapiti sow) that killed Mr. Matayoshi and one of her offspring. Hair from a different adult female grizzly bear was found on a broken branch on a bear trail leading to the body approximately 20 m from the body. This previously unmarked adult female grizzly bear was subsequently captured 500 meters from the fatality site on October 4, 2011. There is DNA evidence that at least 3 different grizzly bears were at the site – the adult female and at least one of her cubs of the year from the Matayoshi fatality and a separate female, the adult female captured on October 4, 500 meters from the site. The fact that the bloody tracks on the log were from a cub-of-the-year and an adult bear indicates that a family group fed on the body of Mr. Wallace.

The wounds to the hands and arm of Mr. Wallace are consistent with an attempt to defend himself from a bear at close range. The fact that his lunch was found uneaten suggests the attack and his subsequent death from a bear attack took place on the morning of August 25.

There is no clear evidence of what bear attacked and killed Mr. Wallace. The presence of bloody adult and cub tracks suggests that the adult female that killed Mr. Matayoshi and one of her offspring were likely involved in the consumption of Mr. Wallace's body. However, there could have been other bears involved in the consumption of Mr. Wallace. Mr. Wallace's body was found approximately 24 hours after his death. During that time, a portion of his body was consumed by a bear(s) but significant portions remained unconsumed. Given the large amount of Mr. Wallace's body that was not consumed and that he had been dead for approximately 24 hours before being found, it may be that consumption was initiated separately from and sometime after the attack

and his subsequent death. There is no clear evidence that the bear that attacked and killed Mr. Wallace is or is not the bear(s) that consumed part of his body.

#### Conclusion:

Mr. John L. Wallace was killed by a grizzly bear on the morning of August 25, 2011 approximately 5 miles from the trailhead on the Mary Mountain trail in Hayden Valley in Yellowstone National Park.

Mr. Wallace was either stopped along or adjacent to the trail or stopped in reaction to a close encounter with a bear(s) at the time he was attacked. He tried to defend himself from the attacking bear, as evidenced by bite marks to his hands and arm. Portions of his body were consumed during the approximately 24-hour period between when he was killed and when his body was initially found by 2 hikers the next day. There is DNA evidence of at least 4 different grizzly bears at or near (within 150 meters) the site where his body was found. Two of those grizzly bears likely left bloody tracks, evidence they had likely been feeding on Mr. Wallace's body. The third grizzly bear was an adult female without cubs that was subsequently captured on October 4, 2011, 500 meters from where Mr. Wallace was killed. The fourth grizzly bear was an unknown male that was linked by hair DNA to a daybed near a bison carcass, 150m from the fatality site. Additional track evidence at the scene suggests that another unknown yearling, subadult, or small adult grizzly bear crossed the trail after the fatal encounter and prior to discovery of Mr. Wallace's body.

There is no evidence that explains why Mr. Wallace was attacked. It is likely he was not hiking and had stopped for some reason at the time he was attacked because his pack was off with the waist belt unbuckled when his body was found. There is no evidence indicating what bear(s) killed Mr. Wallace, nor is there evidence to determine if the attack was defensive or predatory in nature. There is some indication that the consumption of Mr. Wallace's body occurred sometime after he was attacked and killed because only a portion of his body was consumed in the 24 hours between the time of his death and the time his body was discovered.

Mr. Wallace was hiking alone, without bear spray, in an area of very high grizzly bear density. A sign posted at the trailhead warned hikers that they were entering bear country, encouraged use of bear spray, and discouraged hiking alone. We do not know why Mr. Wallace was attacked. We do know he was attacked by a bear and died from this attack. We do not know the identity of the bear that attacked him. We do know that the adult female grizzly bear accompanied by 2 cubs-of-the-year that killed Mr. Brian Matayoshi in a surprise encounter on the Wapiti Lake trail on July 6, 2011 8.1 miles from where Mr. Wallace was killed was confirmed with DNA at the site of Mr. Wallace's death and that this bear and at least one of her cubs were likely involved in the consumption of part of Mr. Wallace's body.

The bear and her cubs that killed Mr. Matayoshi were permanently removed from the wild subsequent to Mr. Wallace's death based on a combination of 3 factors: 1) DNA

confirmed that she and at least one of her cubs were present at Mr. Wallace's body; 2) she may have been the bear that attacked and killed Mr. Wallace; and 3) members of this family group were very likely involved in the consumption of his body. The other bear documented specifically at the fatality site is an adult female identified by DNA from hair collected 20 m from the body and subsequently captured on October 4, 2011 500 meters from location where Mr. Wallace was attacked. This bear may or may not have been involved in the attack on Mr. Wallace, but this bear was at the fatality site.

# LIST OF APPENDICES

Appendix A – Forensic evidence summary from the YNP Ranger investigation.

Appendix B – Track size measurements from Yellowstone ecosystem grizzly bears.

Appendix C – Investigation Team Report on the death of Mr. Brian Matayoshi.

#### **APPENDIX A**

# **Forensic Evidence Summary**

Forensic evidence collected as part of the investigation included bear track measurements and bear bite wound measurements, as well as bear hair, bear scat, and bear saliva for DNA (genetic) analyses. Measureable tracks were found in the dust on the trail near the victim's body on the day the body was recovered. New fresh bear tracks were found on the trail at the body cache site on the morning after the body was recovered. Partial but un-measureable bloody bear tracks were found on logs near the body. Canine bite wounds that could be measured were found on the victim's back. Bear scats were collected near the victim's body and possessions scattered near the body. Bear hair was collected from the victim's body, from staubs on logs near the victim's body, and from the soil of the cache pile on top, under, and immediately adjacent to the victim's body. Saliva was swabbed from bite wounds on the victim's body and clothing.

Bear tracks are not 100% reliable as a method for identifying individual bears. An individual bear can leave different sized track impressions depending on the type of substrate (sand, fine dirt, dust, hard packed ground, wet ground, mud, snow, etc.) the track impressions are left in. The bears gate (walking, running, loping, standing on two legs) and the amount of weight or pressure placed on each foot will also affect the size of the foot pad impression left on the ground. There is significant overlap in track sizes between bears of the same sex and age classes and some overlap between bears of different sex and age classes. Also, the actual foot pad measurements taken from captured bears often don't match 100% with measurements of the foot pad impressions from the same bear left in dirt or mud, because the bear's foot pad flattens out as an increasing amount of weight or pressure is placed on the foot as it strikes the ground.

Likewise, bite wounds are not a 100% reliable method of identifying individual bears because human skin is somewhat elastic. In addition, the amount of pressure of the bite determines how deep the canines penetrate the skin. Any movement by the bear (shaking of the head) or by the person being bitten (pulling away) can tear or stretch the skin and change the shape and distance between canine impressions left in the skin. As with tracks, there is significant overlap in bite wound impressions between bears of the same sex and age class, and some overlap between bears of different sex and age classes.

DNA from blood, tissue, hair, scat, or saliva is the most accurate method of identifying individual bears. However, DNA deteriorates under outdoor environmental conditions, especially wet conditions. Heavy rain and hail that occurred after the fatality likely deteriorated the condition of some of the DNA samples collected. Hair, scat, and saliva samples collected for DNA analysis were sent to two laboratories for analyses:

Wyoming Game and Fish Wildlife Forensic and Fish Health laboratory Wildlife Genetics International

The Wyoming Wildlife Forensics Laboratory analyzed bear hair and saliva samples collected as part of the investigation. However, because the Wyoming Wildlife Forensics Laboratory does not specialize in DNA extraction from bear scats, all bear scats as well as subsamples of hair were sent to the Wildlife Genetics International Laboratory which has had a high success rate at extracting DNA from bear scats. The Wildlife Genetics International Laboratory also houses the Interagency Grizzly Bear Study Team (IGBST) DNA database for the Greater Yellowstone Ecosystem. The IGBST DNA database allowed comparison of the genotypes of bears present at the Mary Mountain fatality site to the genotypes of 619 known individual grizzly bears from the Greater Yellowstone Ecosystem to help identify the individual bear or bears involved in the fatality. The IGBST DNA database contains individual genotypes from most bears handled in Yellowstone National Park since the late 1990s.

# **Bear Track Evidence Collected Prior to the Body Recovery**

Hind Foot Track Width - On Friday, August 26, 2011 at approximately 1805 hours, two grizzly hind foot tracks were observed in the dust on the hiking trail near the victim's body. The hind tracks did not have the large wedge instep common to black bear hind tracks. The track width (metatarsal pad) measurements on both tracks were 10 centimeters (cm) or 3.9 inches (in). A 10-cm hind foot track width is consistent with a yearling grizzly bear, subadult grizzly bear, or small adult female grizzly bear. These tracks were too small to be from a large adult male grizzly bear. The tracks looked fresh and dimpling in the dust on the trail indicated that these tracks were made after the most recent rain/hail storm.

**Front Foot Track Width** – On Friday, August 26, 2011 at approximately 1805 hours, a partial bear front track (3 toes, 2 claws, and partial foot pad) was also found on the trail near the victim's body. Though un-measureable, the toe and claw imprints were suggestive of an adult grizzly bear. This track looked fresh and dimpling in the dust on the trail indicated that this track was made after the most recent rain/hail storm.

# **Bear Track Evidence Collected After the Body Recovery**

On Saturday morning, August 27, 2011, fresh grizzly bear cub tracks were found in the dust in the hiking trail near the site where the victim's body had been cached, suggesting that a female with cubs may have returned to feed on the body. These tracks were left sometime after the body was flown out on Friday, August 26, 2011 at 2000 hours, and sometime before the arrival of the trapping team which was flown in on Saturday morning, August 27, 2011. The tracks led south up the trail from where the body had been cached. The front pad width of these cub tracks measured 7.8 cm (3.1 in) and the hind pad width measured 7.2 cm (2.8 in). Less distinct grizzly bear tracks with a pad width of 11-12 cm (4.3-4.7 in) were also observed on the trail. The larger tracks are consistent with an adult female grizzly bear, while the smaller tracks are consistent with a grizzly bear cub-of-the-year.

Another set of grizzly bear tracks of an adult plus at least one cub-of-the-year were found on a bear path heading from the victim's body cache site to a day bed in an area of lodgepole pine regeneration west of the body cache site. These tracks consisted of

mud and blood paw prints on top of logs lying on the ground. These were not complete tracks and could not be measured accurately. These bloody tracks indicated that a female with a cub or cubs had fed on or made contact with Mr. Wallace's body. In addition, a second path used by a bear was also found heading west from the victim's body cache site. Evidence suggested that a bear ran from the body cache site toward the lodgepole pine regeneration. While running through the blow-down numerous dead limbs were broken from branches of logs lying on the ground. Partial bear tracks on some of the logs contained dried blood. Track size indicated a medium size adult grizzly bear. Bear hair was collected from a broken staub on one of the logs and DNA analyses indicated that the hair came from a female grizzly bear. This hair did not match DNA from the bear scats found at the site, any of the genotypes in the IGBST DNA database, or the genotype of the female grizzly bear (Wapiti sow) involved in the human fatality along the Wapiti Lake trail earlier in the summer. The DNA from this hair was a DNA match with DNA from adult female grizzly bear #693 captured on October 4, 2011, 500 m (546.8 yds) from the fatality site. Adult female grizzly bear #693 was not accompanied by cubs, yearlings, or two-year-olds and had no previous capture history.

#### **Bite Wound Evidence**

**Upper Canine Width -** On Sunday, August 28, 2011, three canine bite wounds on the victim's body were measured at the autopsy in Bozeman, Montana. The center-to-center distance of all three of the upper canine bite wounds on the victim's back measured 60 millimeters (mm) or 2.4 in. Upper canine bite wounds of this size are too large to be from a mountain lion, wolf, or average-sized adult male or female black bear, and too small to be from a large adult male grizzly bear. A 60-mm upper canine width is consistent with an adult female grizzly bear, subadult male grizzly bear, or large adult male black bear. The upper canine puncture wounds were fairly small and somewhat rounded, suggesting that they were inflicted by a young adult bear and not by an old bear with extremely worn or broken upper canines.

**Lower Canine Width** – Three lower canine bite wounds were measured on the victims back. One of the lower canine puncture wounds tore the skin making the tooth impression less distinct and harder to measure. The centers of the lower canine punctures had to be estimated. The lower canine estimated center-to-center distances were 50 mm (2.0 in), 52 mm (2.1 in), and 55 mm (2.7 in). Lower canine bite wounds of this width size are too large to be from a mountain lion, wolf, or average-sized adult male or female black bear, and too small to be from large adult male grizzly bear. A 50-55 mm lower canine width is consistent with an adult female grizzly bear, subadult male grizzly bear, or large adult male black bear.

#### **Bear Saliva DNA Evidence**

Multiple bite wounds on the victim's body and clothes were swabbed with swabs moistened with sterile water to collect saliva of the bear that attacked and/or partially consumed the victim. All of these swabs were non-reactive for DNA. Heavy rain and hail on Thursday afternoon which saturated the victim's clothes may have contributed to deterioration of saliva DNA evidence.

#### **Bear Scat DNA Evidence**

The Wildlife Genetics International laboratory in Canada was able to get genotypes from two bear scats collected near Mr. Wallace's body. Bear scat number #1 was collected next to the victim's hat and bandana and 4.4 m (4.8 yds) southwest of the victim's body (Table 1). DNA from bear scat #1 indicated that it was from the adult female grizzly bear referred to as the Wapiti sow that had been captured on September 28, 2011. Bear scat #2 was collected next to the victim's hat and bandana and 6.9 m (7.5 yds) west-southwest of the victim's body. DNA from bear scat #2 indicated it was from the Wapiti sow's blonde colored male cub captured on September 29, 2011. DNA from the female bear scat (bear scat #1) collected near the victim's body matches DNA from both hair and scat from the Wapiti sow collected at the Wapiti Lake trail fatality incident site of July 6, 2011. DNA from the male scat (bear scat #2) did not match the genotype of the male bear scat collected at the Wapiti Lake trail fatality incident site, but was consistent with a sibling of that male bear. DNA from the scats of the female and male bears at the Wallace fatality site did not match any of the 619 bears in the IGBST DNA database and were therefore new bears with no known previous management or capture history.

Table 1. Distance in meters (m) of bear scats #1 and #2 from Mr. Wallace and his possessions along the Mary Mountain trail in Yellowstone National Park on August 26, 2011.

	Distance From			
		Hat and		Piece of Torn Cloth
Evidence	Body	Bandana	Whistle	and Blood Spot
Bear Scat #1	4.4 m (4.8	1.3 m (1.4	6.9 m (7.5	8.2 m (9.0 yds)
	yds)	yds)	yds)	
Bear Scat#2	6.9 m (7.5	1.3 m (1.4	4.4 m (4.8	5.6 m (6.1 yds)
	yds)	yds)	yds)	

#### **Bear Hair DNA Evidence**

Bear Hair Collected From the Victim's Body and Clothes – The Wyoming lab was only able to get a partial genotype from the bear hair collected from the victim's body and clothes. Microscopic analysis confirmed the hair as being from a bear. Most of the hairs collected from the victim's body and clothes were non-reactive (no DNA extracted). The partial genotype allowed identification of the sex of a bear that had contact with the victim's body. The bear was a male. The partial genotype did not allow identification of the individual bear or bear species (grizzly or black). From this hair we cannot determine if this bear was an adult male, subadult male, yearling male, or male cub-of-the-year. Heavy rain and hail on Thursday afternoon that saturated the victim's clothes may have contributed to deterioration of saliva DNA evidence.

**Bear Hair Collected From Soil of the Body Cache Site** – The hair collected from the soil on top of, under, and around the victim's body was all non-reactive or turned out to be human hair. Heavy rain and hail on Thursday afternoon that saturated the victim's clothes may have contributed to deterioration of saliva DNA evidence.

**Bear Hair Collected from Logs Along the Bear Trails Leading from the Victim's Body -** The Wyoming and Canadian labs were able to get a complete genotype from one set of hair samples collected from a broken-off branch on a log along a bear path 20 m (21.9 yds) west of the victim's body. The DNA indicates that the hair on the staub of this log was left by adult female grizzly bear #693 which was captured on October 4, 2011, 500 m (546.8 yds) from the Wallace fatality site. The DNA from this hair does not match the DNA collected from the bear hair (Wapiti sow's hair) snagged on the eye glasses of the victim (Mr. Matayoshi) in the Wapiti Lake trail fatality incident, and did not come from offspring of the bear involved in the Wapiti incident.

The Wyoming and Canadian labs were also able to get a genotype from bear hair collected from a staub next to a bear day bed approximately 150 m (164 yds) southeast of Mr. Wallace's body. The daybed was associated with a bison carcass and may not be directly related to the fatality incident. The DNA from this hair is from a male grizzly bear. The DNA from this hair did not match the DNA from the hair collected from the staub 20 m (21.9 yds) from Mr. Wallace's body, two bear scats found near the victim's body, or bear hair snagged on the eye glasses of the Wapiti Lake trail incident victim (Mr. Matayoshi). This bear was also not offspring of the bear involved in the Wapiti Lake trail fatality incident. The DNA from this male bear was a match with the genotype of a male grizzly bear in the IGBST DNA database. The hair in the database was collected remotely from a hair snare at Clear Creek on the east side of Yellowstone Lake during a research project in 2008.

# **Summary of Track Evidence Related to the Mary Mountain Incident**

- Sometime after the last rain following the fatality and before Mr. Wallace's body
  was located by park personnel at approximately 1800 hours on Friday August 26,
  2011, a small adult female grizzly bear, yearling grizzly bear, or subadult grizzly
  bear left hind foot tracks in the hiking trail next to the victim's body. The width of
  the hind foot tracks was 10 cm.
- Sometime after the fatality but prior to the body being removed, a female grizzly bear visited the body and left bloody tracks on logs heading west from the victim's body cache site. Hair from this bear was snagged on the staub of a log approximately 20 m (21.9 yds) from the body cache site. DNA providing both an individual genotype and sex of the bear (female) was obtained from this hair.
- Sometime after the fatality but prior to the body being flown out, a female grizzly bear with a least one cub-of-the-year visited the victim's body and left partial bloody paw prints on logs along a path leading from the body to the young forest regeneration to the west of the body cache site.
- Sometime after Mr. Wallace's body was flown out at 2000 hours on Friday, August 26, 2011, and sometime prior to the arrival of the trapping team on the morning of August 27, 2011, a grizzly cub-of-the-year left fresh tracks in the dust on the trail next to the body cache site. The front tracks measured 7.8 cm (3.1 in) and the hind foot tracks measured 7.2 cm (2.8 in). These tracks match the foot pad measurements of the dark colored grizzly cub-of-the-year captured at the Wapiti trap site on September 29, 2011 (Wapiti sow's dark colored cub).

- On September 22, 2011, yearling male grizzly bear #688 was observed along the Natural Bridge road. The bear's tracks measured 10.0 cm (3.9 in) in the dirt, the same as the hind foot tracks found in the trail next to Mr. Wallace's body on August 26, 2011, the day the body was found. A female grizzly bear with one large yearling and one small yearling was observed multiple times in Hayden Valley during summer 2011. Yearling male #688 is the larger of the two yearlings. The adult female and the smaller yearling were not captured during the fatality investigation. No DNA from grizzly bear #688 was found at the Wallace fatality site.
- Conclusion: Based on track evidence, an adult female with cubs and an adult female with yearlings or a subadult or small adult female grizzly bear were present at the Wallace fatality site. Bloody cub paw prints indicate that an adult female with cubs likely fed on or made contact with Mr. Wallace's body.

# **Summary of Bite Wound Evidence Related to the Mary Mountain Incident**

- As evidenced by canine bite wounds on the victim's body, an adult female grizzly bear, subadult male grizzly bear, or large adult male black bear bit Mr. Wallace on the back. As evidenced by defensive wounds on Mr. Wallace's hands and arms and bruising associated with some of the wounds on his body, Mr. Wallace was alive when the attack was initiated.
- Conclusion: Based on bite wound evidence, an adult female grizzly bear, subadult male grizzly bear, or large adult male black bear attacked Mr. Wallace.

# **Summary of DNA Evidence Related to the Mary Mountain Incident**

- Based on bear hair collected from the victim's body, a male bear of unknown age and species made contact with Mr. Wallace (Table 2).
- DNA from the bear known as the Wapiti sow (#2011030) captured on September 28, 2011, is a match with DNA from the female bear scat found along the suspected attack path approximately 4.4 m (4.8 yds) from Mr. Wallace's body. DNA from the Wapiti sow is also a DNA match with the female bear scat collected at the Matayoshi fatality site. In addition, hair collected from the Wapiti sow is also a DNA match with grizzly bear hair snagged on Mr. Matayohi's eye glasses.
- DNA from the Wapiti sows' blonde colored male cub (#2011032) is a match with DNA from the male bear scat found along the suspected attack path approximately 6.9 m (7.5 yds) from Mr. Wallace's body.
- DNA from the Wapiti sows' dark colored male cub (#2011031) is a match with DNA from the male bear scat found at the Matayoshi fatality site.
- DNA from adult female grizzly bear #693 captured on October 4, 2011 approximately 500 m (546.8 yds) from the Wallace fatality site, is a DNA match with the female grizzly bear hair found along a fresh bear path approximately 20 m (21.9 yds) from Mr. Wallace's body.
- DNA from yearling male grizzly bear #688 captured on the Natural Bridge Road on September 21, 2011, and whose on the ground track size impressions

- matched tracks found in the trail at the Wallace fatality site, did not match with any DNA found at the attack site. Due to the considerable over-lap in track sizes between different individual bears, this yearling bear and its mother cannot be conclusively linked to the fatality site.
- DNA from one additional unmarked individual bear, a male, was collected approximately 150 m (164 yds) southeast of Mr. Wallace's body. Based on DNA, this male bear is not related to either the Wapiti sow or female grizzly bear #693. This male bear hair was collected on a staub at a daybed associated with a bison carcass and therefore cannot be directly linked to the fatality incident. The DNA from this male bear was a match with the genotype of a male grizzly bear in the IGBST DNA database. The hair in the database was collected remotely with a barbed wire hair snare at Clear Creek on the east side of Yellowstone Lake during a research project in 2008. This bear is not currently and likely has never been captured or radio collared.
- DNA Evidence Conclusion: DNA evidence indicates that the Wapiti Sow (#2011030) and the Wapiti sows' blonde cub (#2011032) were both present at the Wallace fatality site and deposited scats there. By association, we can assume that the Wapiti sows' dark colored cub (#2011031) was present as well. In addition, adult female grizzly bear #693 was also present at the Wallace fatality site. DNA from an additional grizzly bear, an unmarked male, from hair found at a daybed associated with a bison carcass near the fatality location cannot be directly linked to the fatality site. The male bear was never captured during the investigation.

# **APPENDIX B**

Track size measurements from Yellowstone ecosystem grizzly bears. (IGBST data)

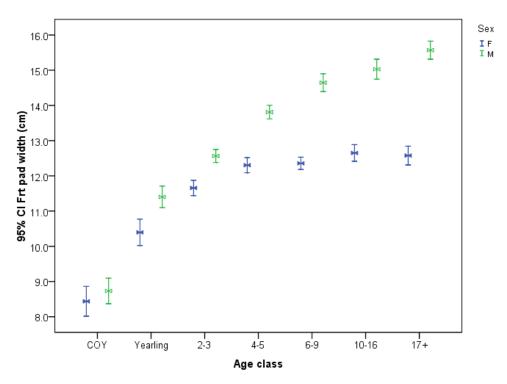


Figure 1. Grizzly bear front pad width centimeters. Males: N = 624. Females: N = 410.

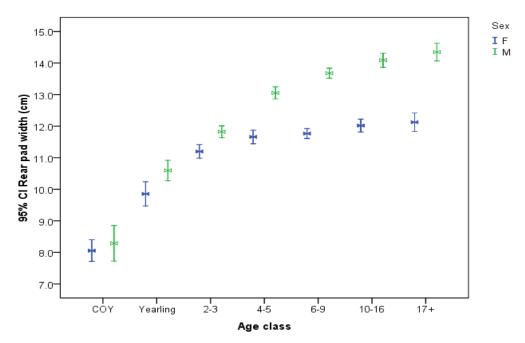


Figure 2. Grizzly bear rear pad width centimeters. Males: N = 608. Females: N = 406.

#### **INVESTIGATION TEAM REPORT**

# Fatality of Mr. Brian Matayoshi from a bear attack on the Wapiti Lake Trail in Yellowstone National Park on July 6, 2011

September 9, 2011

## Investigation Team members<sup>1</sup>:

Kevin Frey, Montana Fish, Wildlife and Parks Department, Bear Management, Bozeman, MT

Dan Tyers, USFS, Greater Yellowstone Ecosystem Grizzly Bear Management Coordinator, Bozeman, MT

Mark Haroldson, USGS, Interagency Grizzly Bear Study Team, Bozeman, MT

Chris Servheen, USFWS, Grizzly Bear Recovery Coordinator, Missoula, MT

Mark Bruscino, Wyoming Game and Fish Department, Bear Management Supervisor, Cody, WY

Kerry Gunther, YNP, Bear Management Supervisor, Yellowstone National Park, WY

Nick Herring, YNP, Deputy Chief Ranger, Yellowstone National Park, WY

#### **Summary:**

Brian Matayoshi, and his wife Marylyn, visitors to Yellowstone National Park, were attacked by a grizzly bear on July 6, 2011 at approximately 1050 hours. Mr. Matayoshi died of injuries inflicted by the grizzly bear. His wife was not injured. Mr. and Mrs. Matayoshi intended to hike a loop trail at the north end of Hayden Valley beginning at the Wapiti Lake Trailhead. Approximately 1 mile from the trailhead the Matayoshi's joined another park visitor at a vantage point along the trail over-looking the valley. He was observing a female grizzly bear with 2 cubs of-the-year at a distance of several hundred yards. After watching and photographing the bears, the Matayoshi's proceeded on their planned route down the trail to the east and into the timber. They traveled about another ½ mile before they changed their plans because of the annoyance of mosquitoes in the area and began retracing their route to the trailhead. They soon encountered the same grizzly bear they had observed from a distance earlier. The bear, having left the open valley since they last saw it, had moved to the east and was now close to the trail that was their return route. Upon seeing the bear, which was now about 100 yards away on the far side of a dense line of trees, the Matayoshi's turned around, again heading east. The bear saw them and gave chase. They saw the bear move in their direction and responded by running down the trail yelling. At approximately 173 additional yards from where they first

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<sup>&</sup>lt;sup>1</sup> Arranged in alphabetical order by agency affiliation.

sighted the bear, the female grizzly caught up to Mr. Matayoshi and mauled him, causing fatal injuries. During the attack his wife stopped and took shelter behind a fallen tree 5 yards from where Mr. Matayoshi was being attacked. After mauling Mr. Matayoshi, the bear walked over to her, lifted her by her daypack, and then left the area. Mrs. Matayoshi received no injuries.

#### Format of this report:

An interagency investigation team composed of state and federal personnel prepared this report. An investigation team report is required after each human fatality caused by a grizzly bear as per the Interagency Grizzly Bear Guidelines (p. 59). This report is based on investigations and reports by Yellowstone National Park rangers who responded to and investigated this incident. This report summarizes the incident, the investigation of the incident, resolution or response to the incident, and presents information gathered as part of the investigation team effort. After reading the investigation materials compiled by the Park Service, the team discussed these reports and the incident with these Park Service personnel to clarify any issues. Written statements, interviews, and other informational materials are appended to this report. The team attempted to reconstruct the incident as much as possible given the information available while avoiding speculation. All times in this report are presented in Mountain Daylight Time.

#### Situation:

The Wapiti Lake trailhead and picnic area where the Matayoshi's began their hike are in the Canyon area located inside Yellowstone National Park. The trails in this area access Clear Lake, Ribbon Lake, and Wapiti Lake via several routes. The trail traverses open habitat for its initial 1.25 miles (Figure 1). It then enters lodgepole forest interspersed with open thermal areas. The trails in this area receive intensive human use with many people using the area for day hikes while others access Ribbon Lake and other backcountry locations for overnight camping. The area to the south of the Wapiti Lake trail was temporarily closed at the time of the attack because it is a known wolf den rendezvous site. The Hayden Valley and the area immediate to the incident are noteworthy for wildlife viewing, especially for bears and bison, which are relatively common in the extensive open valley and along the adjacent timber edge.

#### **Detailed Information:**

Mr. Matayoshi and his wife Marylyn arrived in Yellowstone National Park on July 5, 2011. They set up camp at a reserved site at Grant Village. On the morning of July 6, 2011, they traveled to the Canyon area and parked at the Wapiti Lake trailhead. Two signs containing relevant bear information were posted on the Wapiti trailhead signboard. One sign titled "Danger You Are Entering Bear Country" contained information on how to avoid and react to bear encounters as well as the specific recommendations "if a bear charges stand still, do not run" and "bear pepper spray is a good last defense". The second sign read "Warning Bear Frequenting Area".

They began their hike at 08:30 hours. They first hiked to Clear Lake and then returned to the junction of the Clear Lake/Ribbon Lake/Wapiti Lake trails. At that point, they hiked east toward Ribbon Lake on the Wapiti Lake trail. About a mile down the trail at approximately 1005 hours, they met a single hiker, who pointed out in the open valley to the south of the trail a female grizzly bear with 2 cubs-of-the-year. said that had been viewing these bears for about 5 minutes before the arrival of the Matayoshi's. Mrs. Matayoshi took several photographs of the bears from this location and these photos on her camera are time-stamped between 1012 and 1015 hours.



Photo 1. Photo of the bear that attacked the Matayoshi's taken by Mrs. Matayoshi at 1015 hours. Photo taken from the location on the Wapiti lake Trail where the Matayoshi's observed the bears with before proceeding east on the trail.

The bears were grazing and digging in open habitats at a distance of between 333 and 500 yards south of the trail (Photo 1). The bears appeared to be "specks" to the naked eye. allowed the Matayoshi's to observe the bears through his binoculars. and Mr. Matayoshi discussed the fact that the bears were far away and not near the trail. After these discussions and viewing the bears with Mr. and Mrs. Matayoshi continued on their hike eastward into the timber on the trail toward Ribbon Lake.

After the Matayoshi's left him to continue their hike, watched the bears until they disappeared behind a "hillside". The last image on his camera of the bears was time-stamped 1025 hours.

The Matayoshi's continued hiking on the trail eastward approximately 0.5 miles from where they left until they crossed Hot Spring Creek on the Wapiti Lake Trail. At this point, they turned around due to mosquitoes. On their way back, they saw a large grizzly bear within 25 yards of the trail and approximately

100 yards away from their position on the trail (photo 2). Mrs. Matayoshi was not sure if she saw cubs. Upon seeing the bear, they turned around again and started hiking back up the trail toward the cover of trees approximately 20 yards behind them. They kept looking back as they were retreating. In the incident interview, Mrs. Matayoshi explained what happened in these first moments of their retreat. She said she saw the bear's "head pop up and I told Brian". She [the female bear] started coming at us and Brian said, 'Run.' We were running down the trail." The Matayoshi's were yelling and shouting as they fled down the trail away from the bear, covering approximately 173 yards from the location where they first saw the bear to where the bear caught up to them and attacked Mr. Matayoshi. Mrs. Matayoshi recalls the bear impacting Mr. Matayoshi just as she took cover behind a small downed tree on the north side of the trail (photo 3) and approximately 5 yards from where Mr. Matayoshi was attacked.

Mrs. Matayoshi heard her husband yell and she turned around to see the female bear, "hit him." Mrs. Matayoshi said the cubs were running just behind their mother and they were growling. She said she had been running with her husband until he was attacked and at that point she ended up on the ground behind a small downed tree. She said that she started to get to her knees in an attempt to take her camera off when she saw the female bear look at her and start coming in her direction. She dropped facedown to the ground. She then felt a tug on her backpack and suddenly the bear was gone. Soon thereafter, she recalls that she walked over to her husband and attempted to use a jacket as a tourniquet to stop the bleeding on his leg. She recalls that she turned her husband over and a single exhalation escaped from Mr. Matayoshi. He was unresponsive and did not breathe beyond this single exhalation. She recalls trying repeatedly to call 911 on her cell phone but could not get a signal so she started yelling for help. See Appendix A for Mrs. Matayoshi's complete interview.



Photo 2. Location where the encounter began when Matayoshi's encountered the bear near the trail. Star shows approximate location of Matayoshi's on the trail when they saw the bear in, near, or through the trees at point of arrow.



Photo 3. Small downed tree next to the trail that Mrs. Matayoshi hid behind. Person to the left is standing on the trail.

#### Other People Present in the Incident Area: was approximately 1 mile down the trail observing a female with 2 cubs feeding south of the trail when the Matayoshi's arrived at his position. They observed the bears together. Both and the Matayoshi's took and the Matayoshi's encountered each photographs of these bears. other on the trail approximately 30 minutes prior to the attack. After watching the bear for a while, the Matayoshi's continued east down the trail. continued to watch the bears until they disappeared behind a "hillside." While waiting for the bears to reappear, and his 2 teenage sons arrived on the trail from the west. Then moved east along the trail approximately 300-400 feet in the direction the Matayoshi's had taken. After waiting a short time, saw the female travel across the meadow below him towards where he thought the trail was. He could only see the female a short period between a "split in the trees." stated that he later saw a cub run toward the trail in the area where he had just seen the female. and his sons joined at this location. suggested that they all turn around because there were bears close to the trail to the east. heard a bear "roar" and a male voice After a short period of time, yelling and a woman's voice screaming. The roar, yell, and scream lasted less son then called 911 and reported the incident. than 5-10 seconds. This call from son was logged by the Yellowstone Park Dispatch center at 1051 hours. About this time, 4 hikers arrived at this location and joined These 4 hikers stayed until rangers arrived and then returned to the trailhead at the direction of investigating rangers. At 1115 hours, Yellowstone Park Dispatch received a call from and the 4 hikers in the same area where they who was standing with initially heard the sounds of the attack. At that time, they could only hear a female voice calling for help. Dispatch instructed and the 4 hikers to stay at their current location and to await the arrival of rangers who were on the way. Full details can be found in Appendix B.

#### The Incident Site:

The incident site was on a trail in lodgepole timber on the Wapiti Lake trail (photo 4). The general area is a mosaic of scattered trees, open meadows, and thermal areas and the trail goes through all of these areas. The sight distances are fairly good in the open habitats and along the trail (see photos 2 and 4), but the timber stands provide dense cover adjacent to the trail. The overall view of the area can be seen in Figure 1.



Photo 4. Location of fatality below red arrow beside log along trail. View is from the direction the fleeing hikers and chasing bears came from.

#### Cause of Death of Mr. Matayoshi

Mr. Matayoshi was a 58 year-old male who had no chronic health problems. He was taking Lipitor daily for high cholesterol. According to Mrs. Matayoshi, he had no chronic health issues or high-risk factors for heart disease. As a result of the bear attack, he had a visible avulsion on the top of his forehead extending into his hairline that was approximately 6-7 cm long but there were no other injuries to his head. His chest, abdomen, and back had visible claw marks that did not break the skin and a few superficial puncture wounds. He had an 8 cm long avulsion on the right triceps. He had several bite marks on his right leg, including a wound above his knee 6.5 cm long and 2.5 cm wide located over the femoral artery. His left leg was untouched. The injury to his femoral artery resulted in

external blood loss of 1.5 to 2 liters of blood. The amount of internal bleeding associated with this wound was unknown but femoral artery injuries can result in significant internal blood loss. There was no autopsy performed on Mr. Matayoshi.

Cause of death was assumed to be a combination of blunt force trauma and blood loss associated with the femoral artery injury. His head wound may have contributed to the cause of death but without an autopsy, it was impossible to confirm this. It appears his death was fairly rapid since he was unresponsive and not breathing when his wife went to his aid after the bear left her. No part of his body was consumed by the bear. The Coroner's report is Appendix C.

#### The timeline on the day of the incident:

Table 2. Time Line of Incident Day 7/6/2011. All times are Mountain Daylight Time.						
Time	Description of event					
0830	The Matayoshi's begin h king on the Clear Lake trail, hike to Clear Lake, then return to the trailhead and begin hiking on the Wapiti Lake trail.					
1000	observes the female bear with 2 cubs from the Wapiti Lake trail and begins photographing them.					
1005	The Matayoshi's encounter on the Wapiti Lake trail and speak to him about the bears he is watching.					
1012-1015	Mrs. Matayoshi takes photographs of the female grizzly with 2 cubs while observing them from the trail with her husband and					
Approx. 1015	The Matayoshi's proceed east on Wapiti Lake trail and leave who continues to observe the bears					
1025	The last images of the bear with 2 cubs on at this time.					
Approx. 1040	The Matayoshi's decide to stop hiking and turn around due to mosquitoes. Time based on time stamp in Mrs. Matayoshi's camera of a photo at the assumed turn around point.					
Between 1045 and 1051	The encounter with the bears, the chase, and the attack.  followed by and his 2 sons have proceeded eastward approximately 300-400 feet in an attempt to sight the bear again. From this point, they hear a bear "roar" and a woman and a man screaming and yelling to the east in the direction the Matayoshi's had gone approximately 30 minutes prior to this.					
1051	son contacts 911 at Yellowstone Park Dispatch and reports hearing screaming and yelling from a man and woman on the Wapiti Lake trail.					
Starting at 1109	Mrs. Matayoshi makes 21 failed attempts to call 911 from the scene of the attack.					
1115	Second phone call to 911 Yellowstone Park Dispatch concerning the attack. Calls on his cell phone and asks for direction on approaching the source of calls for help. He and now only hear a lone female voice calling for help is told by Yellowstone Park Dispatch to remain in place until rangers arrive. Rangers arrive within minutes.					
1138	911 dispatch calls for a Coroner to report to the attack scene.					

#### Finding of the Investigation Team:

On July 6, 2011, Mr. Brian Matayoshi was attacked between 1045 and 1051 hours by an adult female grizzly bear accompanied by 2 cubs along the Wapiti Lake trail in Yellowstone National Park. Mr. Matayoshi died of injuries from this bear attack. He died between approximately 1050 and 1109.

Mr. Matayoshi and his wife were hiking along the Wapiti Lake trail and were not carrying bear spray. They encountered on the trail at approximately 1005 hours, 1 mile from the trailhead. was observing a female grizzly bear with 2 cubs feeding in open habitat south of the trail. Mrs. Matayoshi took several photographs of these bears. The Matayoshi's then continued east on the trail through a lodgepole forest and turned around at approximately 1040 hours due to mosquitoes approximately 0.5 miles east of where they left

During the time the Matayoshi's were hiking east after leaving the female grizzly and her 2 cubs that they had seen and photographed earlier had moved in the same direction. The bears were now close to the trail. As the Matayoshi's were attempting to retrace their route on the trail they had hiked 15-20 minutes before, they sighted the female grizzly bear approximately 100 yards away in the direction they were now traveling. They turned around again and proceeded eastward in an attempt to avoid this bear. Very soon after they turned around, they looked over their shoulders and saw that the bear had begun to move toward them. They then started running down the trail, yelling and shouting as they did so. They ran eastward down the trail approximately 173 yards before the female bear overtook Mr. Matayoshi, impacting him and briefly mauling him. Mrs. Matayoshi took cover beside a downed tree approximately 5 yards from where her husband was being mauled. Mrs. Matayoshi did not witness the bear's attack on her husband. Mrs. Matayoshi looked up briefly and saw the bear standing over Mr. Matayoshi. The bear looked at Mrs. Matayoshi and then went over to her, lifted her by her backpack, then dropped her. She said she thought the bear left the area after dropping her.

Mrs. Matayoshi thought that she immediately went to assist her husband 5 yards away. It is unknown how much time elapsed between the attack and the time she went to her husband. He was unresponsive and apparently dead when she reached him. Based on her cell phone log, Mrs. Matayoshi attempted to call 911 21 times starting at 1109 hours but could not get a cell phone signal, so she began shouting for help. Her shouts were heard by a group of hikers, including who had traveled eastward 300-400 feet (in the direction the Matayoshi's went earlier) toward the encounter area in an attempt to re-sight the family group of bears. This group of hikers made contact with Yellowstone Park Dispatch via 911 at 1051 and again at 1115 when they reported hearing shouts for help. They were directed to stay in place and not approach the sound of the shouts in the timber and were told that rangers would be there soon. Two park rangers arrived within minutes by which time Mrs. Matayoshi had made her way from the fatality site to an area where she could be seen (approximately 275 yards west of the attack site along the trail). stayed with Mrs. Matayoshi while the rangers returned to the and fatality site and determined that Mr. Matayoshi was dead. Rangers then proceeded to assist and support Mrs. Matayoshi, secure the site, and begin a complete investigation.

The bear's chase response to the Matayoshi's was most likely exacerbated by their running and yelling as they fled the bear. The distance from their location when they initially sighted the bear and fled to the fatality location was approximately 173 yards. The Matayoshi's reported that the bear was approximately 100 yards away when they first saw it. That meant that the bear had to pursue them for approximately 273 yards to the point where the attack and fatality occurred.

There are multiple reports of grizzlies being able to run 25-30 miles per hour at full speed. Assuming that a grizzly could run for a short distance at a conservative 20 miles per hour, in a minute a bear could cover approximately 586 yards. Thus, at a speed of 20 miles per hour a grizzly could cover the approximate distance of the chase (273 yards) in 28 seconds. Ranger Dave Page ran the 173 yards between the initial sighting and the attack site and it took him 27 seconds. Even assuming the Matayoshi's took twice as long to cover this distance, it would only take them 54 seconds to run 173 yards. Given this, it seems likely that the time of the chase from the initial sighting to the attack was probably no more than a minute or so.

The attack on Mr. Matayoshi appeared to be very brief. The bear did not attack Mrs. Matayoshi but instead lifted her by her pack before dropping her and then leaving the area. Thus, the intensity of the attack was limited and brief. The bear immediately left the area after lifting and dropping Mrs. Matayoshi and was not seen in the area again.

The bear involved in this attack was an unmarked adult female grizzly accompanied by 2 cubs-of-the-year with no known history of conflicts with humans. The bear had never been captured or handled. The bear had been in the area of the Wapiti Lake trailhead and the trails in this area for several weeks. It had been photographed several times and had likely encountered many parties of hikers during this time.

#### **Conclusion:**

Mr. and Mrs. Matayoshi encountered a female grizzly with 2 cubs at a distance estimated at 100 yards, but this initial sighting distance is based only on an estimate by Mrs. Matayoshi at a time of stress and is impossible to substantiate. The Matayoshi's turned around when they saw the grizzly. Soon after they turned around they began to run away from the bear along the trail through the timber. They were yelling and screaming as they ran away from the bear. The attack occurred approximately 173 yards from the location where Mrs. Matayoshi reported that they first sighted the bear. The adult female was in the lead followed by the 2 cubs. The adult female grizzly impacted Mr. Matayoshi knocking him down and subsequently biting and clawing him. He had no injuries on his hands or arms indicating that he was not facing the bear when he was attacked. He expired from his injuries at the location where he was first impacted

by the bear. His most serious injuries included a bite puncture to his femoral artery causing extensive blood loss and a large contusion on his forehead extending into his scalp. No part of Mr. Matayoshi was consumed by the bear. Mrs. Matayoshi hid behind a fallen tree beside the trail approximately 5 yards beyond where Mr. Matayoshi was attacked. The bear looked at her as it stood over Mr. Matayoshi. She made eye contact with the bear and then looked down. The bear then came over to her as she lay prone on her stomach, picked her up by her backpack, and then dropped her. The bear did not injure Mrs. Matayoshi. After dropping Mrs. Matayoshi, the bear left the area with its cubs. Mrs. Matayoshi went to aid her husband but the exact time between the attack on her husband, her being lifted by the bear, and her going to her husband is unclear. The time between the attack and Mrs. Matayoshi's attempting to contact 911 is 24 minutes between 1045 and 1109. Mrs. Matayoshi reported that her husband was unresponsive and not breathing when she went to him.

The incident was initiated by a surprise encounter followed by the bear chasing two fleeing people for over 270 yards and then attacking one person and not injuring the other person. Although the bear initially saw the Matayoshi's at an estimated 100 yards while it was adjacent to or perhaps within forest cover, the mother bear responded to the surprise encounter by proceeding toward them rather than fleeing. Adjacent forested areas would have allowed the bear to quickly disappear from their view if she had moved into the forest. What possibly began as an attempt by the bear to assess the Matayoshi's activities became a sustained pursuit of them as they fled running and yelling on the trail. In addition to the unfortunate circumstance of being at the wrong place at the wrong time, a possible contributing factor to the chase that ensued was that the victims ran from the bear while screaming and yelling. The bears left the area rapidly after the chase and attack. The bear was unmarked, had never been captured, and had no known history of conflicts with humans. The bear was not removed after the attack due to the fact that the encounter was characteristic of a surprise encounter.

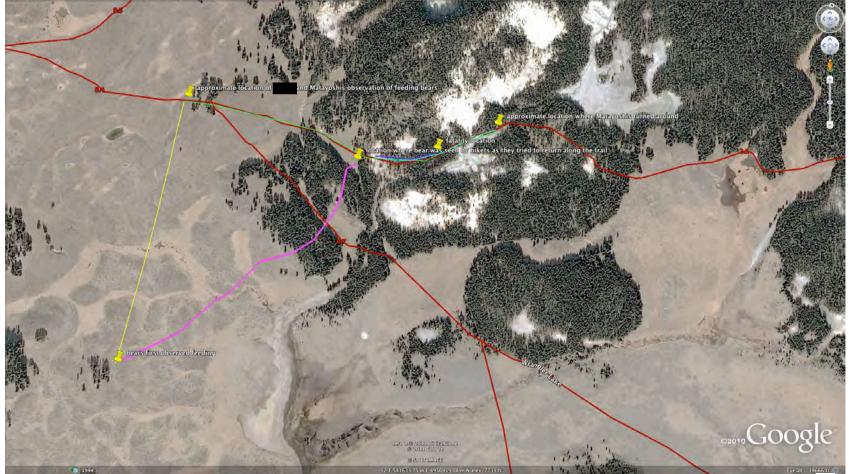


Figure 1. Overview of the fatality site showing approximate locations and movements. Yellow line is approximate line of sight from where and the Matayoshi's first observed the bears feeding on open habitats south of the trail. Purple line is general movement direction of the bears from the initial sightings to the eventual location where the bears were seen by the Matayoshi's as they attempted to return to the trailhead. Green line is path of Matayoshi's as they hiked east until they turned around due to mosquitoes.

## LIST OF APPENDICES

Appendix A – Interview with Mrs. Marylyn Matayoshi Appendix B – Case Incident Record by Ranger David Page. Appendix C – Yellowstone National Park Coroner Report.



## United States Department of the Interior National Park Service Investigative Services Branch



## **Investigative Activity Report**

Case Title: Matayoshi Fatality	ISB Case Numb	ISB Case Number:			
	Park Case Num	ber:			
Location:	Case Status:	Report Date:	Report Number:		
Yellowstone National Park	Closed	July 9, 2011	2		
Report Subject:					
Interview with Marylyn Matayoshi					
SUMMARY	COF	Y			
On July 6, 2011, at approximately 104 Wapiti Lake Trail while hiking with hand encountered Brian and Marilyn Marityn provided a written statement to	iis wife, Marilyn Matayosh Iatayoshi on the trail appro	i. wa ximately 30-45 min	s hiking in the same area nutes prior to the attack.		
Case Name: Matayoshi Fatality Person Interviewed: Marylyn Matayos Date/Time: July 7, 2011 Location: Antler Motel Jackson, WY Present for Interview: U.S. Park Rang Method of Documentation: Handwritt	Rm 208 er Dave Page, ASAC Les S	Seago			
Marylyn Matayoshi described she and They drove through the Moran entrance AM. They obtained a campsite at Grathis was their fourth visit to Yellowsto On July 6, 2011, the couple drove to the Marylyn described she had wanted to They saw the Howard Eaton trail was	ce station of Grand Teton Nant and finished the day at Cone and they had never seen the Canyon District and standike the north rim but Bria	National Park on Jul Old Faithful walking In a bear in Yellowst ted the hiking betw In insisted they hike	ly 5, at approximately 11:30 g the boardwalks. She said tone before.  Yeen 7:00 and 8:00 AM. along a non-paved trail.		
Clear Lake / Wapiti Lake junction.	closed and started niking ti	ne Clear Lake trail.	The two walked passed the		
They met after hiking all bears seemed like boulders.	ong the trail. He pointed on gave them his binocula	at the sow and her cars to use and he tal	cubs but to Marylyn the ked about his attempt to		
Reporting Official/Title	Signature		Date /		
Les Seago,	2-1/		7/26/11		
Assistant Special Agent in Charge			7/~~//		
Approving Official/Title	Signature Robert W.		Date		
Robert W. Mullikin,	Mullikin	Park Service, ou=Investigative Services, email=Robert_Mullikin@nps.gov, c=US			
Special Agent in Charge	Mullikin	Date: 2011.07.26 17:25:32 -07'00'			
Distribution: Original – Case File	Other: Other				



ISB Case Number: ISB-IM-11-0122 Park Case Number: YELL 11-0682

hike to Ribbon Lake but he had to turn around due to the mosquitoes. Marylyn said seemed to know about the bears and she thought he described them as this year's cubs. Marylyn described the bears being in an open grassy area and beyond the bears was sand and bison. They watched the bears for approximately 10 to 20 minutes.

The Matayoshis continued hiking the trail to Ribbon Lake and Marylyn said she didn't think they walked very far. She described they crossed Hot Spring creek and hiked to an unknown body of water but had to turn around because of the mosquitoes. They did not encounter any other hikers.

 On their hike back, Marylyn thought Brian saw the sow first and was not sure if he saw the cubs. They turned around and started hiking back towards the unknown body of water. She said she and Brian kept looking back to watch the mother bear. She saw the sow's "head pop up and I told Brian. She [the sow] started coming at us and Brian said "run." We were running down the trail." Marylyn heard Brian yell and she turned to see the sow "hit him." Marylyn said the cubs were running behind their mother and they were growling. She did not think the cubs were far behind their mother when Brian was attacked. Marylyn said she was running when she went behind some downed trees and she didn't know how she ended up on the ground.

Marylyn described she started to get to her knees in an attempt to take her camera off of her when she saw the sow look at her and started walking towards her location. Marylyn dropped to the ground. She felt a tug on her backpack then the bear was gone. Marylyn did not hear the sow make any noise when the bear came towards her.

Marylyn walked over to her husband and attempted to use a jacket as a tourniquet on Brian's leg and heard a long breath escape from Brian. Marylyn said she tried to call 911 with her cell but could not get a signal. Concerned the bear could be still in the area, Marylyn started to yelling for help.

FOR OFFICIAL USE ONLY

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ES DEPARTMENT OF THE INTERIOR

# UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

CASE INCIDENT RECORD

1 ORGANIZATION CODE   2 OR	GANIZATIONAL (PARK) NAME		21000	TION CODE				
1570	Yellowstone National F	Dork	3 LOCA	ATION CODE	=	4 CASE		ENT NUMBER
5 LOCATION OF INCIDENT	Tollowstone Hadional I	rain		0402			11-	2587
Wapiti Lake Trail- Canyon Dis	atriat			OCCURRED	7 TIM	E OCCU	RRED	8 DAY OF WEEK
			07,	/06/2011		10:5	0	4
	0 NATURE OF INCIDENT						11	1 HOW REPORTED
	atality, Accidental – Bear Att	ack					'	Cell Phone
12 REPORTED BY	13 ADDRESS			т.	14 HOME	DUONE		
					14 HOME	PHONE		BUS. PHONE
15 RECEIVED BY	16 DATE RECEIVED	12=						
Yellowstone Dispatch	07/06/2011	17 7	IME BROAD		18 WHEN			D - DATE / TIME
19 INVESTIGATED BY	07700/2011		10:58			07/06	/2011	11:00
David Page			ON NUMBER	21 WHEN	CLEARE	D	22 DIS	SPOSITION .
		#6	526	07/06	/2011	20:00		Closed
23 INVOLVED PERSONS	24 ADDRESS		25 PI	IONE	26	T27	28	29 DATE OF BIRTH
A MATAYOOU D.				_	SEX	1 -		29 DATE OF BIRTH
1 MATAYOSHI, Brian Dean								
2 MATAYOSHI, Marylyn E	Same as above		<b>1</b>					
	Came as above		9					100/40
30 DETAILS OF INCIDENT						7	-	

#### **SUMMARY:**

On July, 06, 2011, at about 1050 hours, Brian Dean MATAYOSHI was attacked and killed by a sow grizzly bear on the Wapiti ake Trail. The sow grizzly was observed with two cubs of the year. B. MATAYOSHI was hiking with his wife, Marylyn E. MATAYOSHI, who survived the attack and was uninjured. The MATAYOSHIs observed the bear while hiking west on the Wapiti ake Trail approximately 1.4 miles from the Wapiti Lake Trailhead/Picnic Area.

The MATAYOSHIs observed the bear at approximately 100 yards (300 feet) and attempted to return east along the trail, and pack into the cover of trees. The bear noticed them and began to run towards them. The MATAYOSHIs began to run east back not the forested trail corridor. They were also shouting and yelling at this point. The chase continued for approximately 173 rards (520 feet) from where they observed the bear in the meadow to where the bear attacked B. MATAYOSHI. It appeared that he had stopped and turned towards the bear. The bear mauled B. MATAYOSHI causing fatal injuries.

M. MATAYOSHI had taken cover behind a fallen tree just beyond the attack location. The bear went to M. MATAYOSHI's ocation and lifted her by her day pack and then released her. After a short time period, M. MATAYOSHI raised her head and the lears were gone. She went to her husband, attempted to provide care, and then realized he had died. M. MATAYOSHI initially tayed at the mauling site and began to yell for help. She eventually began to hike to the west where she met responding

Ithough no other witnesses viewed the chase or mauling, five hikers to the west of the incident heard what they described as a ear "roar" and a male and a female voice yelling and screaming. Hikers from this group called 911 and reported what they had eard. Other visitors at Grizzly Overlook, a viewing area in Hayden Valley, reported seeing hikers in the Wildlife Protection losure Area - Howard Eaton and Sour Creek Trails prior to the attack time (this report was determined to be unfounded). "isitors also reported seeing a grizzly sow with two cubs in the Wapiti Trail area from this viewpoint.

Page 1 of 6

VESTIGATED BY (SIGNATURE AND DATE )		APPROVED BY CLONATURE AND EVEN		
avid Plage #626 #626	08/03/2011 8/3/2011	APPROVED BY (SIGNATURE AND DATE)  ALT (NAVAIULE 29)	8/4/2011	

FORM NO. 10-344 (Rev. 3-73)

### S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

SUPPLEMENTARY CASE/INCIDENT DECORD

ORGANIZATION (PARK) NAME		CASE/INCIDENT NUMBER						
Yellowstone National Park			1	1	2	5	8	7
LOCATION OF INCIDENT		DATE OF I	NCIDE	ENT				<u></u>
Wapiti Lake Trail, Canyon District			M	О.	D.	\Y	Y	R.
wapin Lake Itali, Callyon District			0	7	0	6	1	1
NATURE OF INCIDENT Fatality – Bear Attack			10	1 /	10	10_	1 1	
COMPLAINANT'S NAME (Victim) MATAYOSHI, Brian Dean	COMPLAINANT'S ADDI	RESS						
INVESTIGATION FINDINGS: (10f 3)					.77			

B. and M. MATAYOSHI arrived in Yellowstone on July 05, 2011, entering through the South Entrance Gate. At the South Entrance they received a Yellowstone Today - Summer 2011 edition of the park newspaper. After setting up camp at their reserved campsite at Grant Village, they travelled to Old Faithful. At Old Faithful they walked through the geyser basin and visited the Old Faithful Visitor Center. They picked up a Canyon Area Trail Guide at the visitor center. They returned to their campsite at Grant Village for the night.

On July 06, 2011 they got an early start and travelled to the Canyon area. They parked at the Wapiti Lake Trailhead/Picnic area. They first walked down to the Chittenden Bridge to view the Yellowstone River. They returned to the trailhead and began their hike at about 0830 hours. They would have walked past the trailhead sign which has the standard "Danger: You Are Entering Bear Country" posting. They first hiked to Clear Lake and then returned to the junction of the Clear Lake -Ribbon Lake-Wapiti Lake trails. From here they hiked east and met a single male hiker, later identified as They spoke with and he pointed out a sow grizzly bear with 2 cubs of the year which he had been viewing and photographing. The bears were to the south of their location feeding in a grassy basin/drainage. shared his binoculars with them so they could see the bears better. M. MATAYOSHI took photographs of the bears from this location. Time stamps from M. MATAYOSHI's camera show them in this area at 1012 - 1015 hours (adjusted for Daylight Pacific Time).

they continued their hike of the Ribbon Lake Loop. They hiked about one half mile further before deciding to After speaking with turn around due to mosquitos. A photograph of a distinctive thermal feature where they turned around has the time stamp of 1045 hours. They now began hiking west, and within about four minutes, B. MATAYOSHI saw a bear with its head down in a meadow. This observation was made across a dry open thermal area, through a thin line of trees and into a green meadow. The distance was later measured (range finder) to be about 100 yards. B. MATAYOSHI indicated sighting to M. MATAYOSHI and she then also saw the bear. She did not remember seeing the cubs at that time. They turned around and began hiking back towards the cover of trees, approximately 20 yards behind them. M. MATAYOSHI reported that they kept looking back over their shoulders to see the bear. At some point they looked and the bear's head was up and looking at them. When this happened the bear began to come towards them, charging.

B. MATAYOSHI and M. MATAYOSHI then began running east on the trail and yelling. M. MATAYOSHI did not remember looking over her shoulder as they were running, but does remember seeing the cubs behind the sow at some point. After running for about 520 feet (173 yards measured by GPS) the bear caught up to them. M. MATAYOSHI remembered the bear impacting B. MATAYOSHI and that she took cover behind some downed trees. At first she could hear B. MATAYOSHI yelling and the bear growling. She said she attempted to swing her camera around to her side so she could duck down further behind the tree. As she was doing this she realized that it was silent and she looked up. The bear was at B. MATAYOSHI and was looking directly at her. M. MATAYOSHI crouched down and remembered covering her head or neck with her arms and hands. She then felt the bear lift her by her day pack and then it released her. She held that position for what she thought was a short period and then looked up. The bears were gone.

She then went to B. MATAYOSHI and attempted to treat his injuries. He was unresponsive and she heard one exhalation then nothing further. Although I did not ask M. MATAYOSHI directly, it was apparent to me later that in order to treat his injuries, she had rolled him from a face down position to a position more on his side. She had also removed his pack and placed it near his head. M. MATAYOSHI attempted to call 911 from her cell phone but she was unsuccessful. She had attempted 21 calls at 1109 hours based on her cell phone log. She covered B. MATAYOSHI with two light jackets as best she could. She remembers being scared that the bears would return, but did not want to leave B. MATAYOSHI alone. She said she attempted to walk back towards the trailhead multiple times but stopped often, uncertain to leave B. MATAYOSHI alone and not wanting to encounter the bears again. She continued to yell for help. She did make it to the edge of the meadow where the bears were seen and charged from. It was at this location where she was found by responding rangers.

Page 4 of 6

SUBMITTED BY (SIGNATURE AND DATE)  APPROVED BY (SIGNATURE AND DATE)  FAT VALUE 29, 8/4/2011  David Page #626 08/03/2011  APPROVED BY (SIGNATURE AND DATE)  FAT VALUE 29, 8/4/2011		
	2 6/3/2011	1 • D• · · · · · · · · · · · · · · · · ·

# ..S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE SUPPLEMENTARY CASE/INCIDENT RECO

BUILDINA	CASE/INCIDENT RECORD	
RGANIZATION (PARK) NAME	CASE/INCIDENT NUMBER	_
ellowstone National Park	1 1 2 5 8 7	7
OCATION OF INCIDENT	DATE OF INCIDENT	
apiti Lake Trail, Canyon District	MO. DAY YR.	
	0 7 0 6 1 1	ī
ATURE OF INCIDENT		<u> </u>

'atality – Bear Attack

COMPLAINANT'S NAME (Victim)

AATAYOSHI, Brian Dean

COMPLAINANT'S ADDRESS

#### **NVESTIGATION FINDINGS: (2 of 3)**

#### 1ATAYOSHI's knowledge of hiking in bear country:

- The MATAYOSHIs had traveled to Yellowstone National Park four times previously. M. MATAYOSHI does not remember seeing a
  bear during these visits.
- She and her family have hiked in black bear territory, observing bears on hikes and from roads in the Mammoth Lakes area in California.

### 1ATAYOSHI's access to information on hiking in bear country for July 2011:

- The MATAYOSHIs received the Yellowstone Today Summer 2011 edition.
- The newspaper includes information on visiting the park and on page 7, titled Exploring Yellowstone; it has a section titled Bear Country Tips. This section includes information on bear spray and what to do if you encounter a bear.
- The Wapiti Lake Trailhead sign includes a posting titled "DANGER: You Are Entering Bear Country" that provides information on hiking in bear country, what to do if you have an encounter, and using bear spray. In addition, there was a posted "Warning Bear Frequenting Area" sign and a posting of "Warning Upper Pelican Creek Trail Closed Due to Bear Danger". These postings were closure information for an area 15 miles distance on the Wapiti Lake Trail.
- The MATAYOSHIs did not carry bear spray.

#### IATAYOSHI's reaction to the bear encounter:

- The MATAYOSHIs first sighting of the bear on their return hike was at a distance of approximately 100 yards and was through a thin line of trees in front of the meadow.
- Their first reaction was to hike back to cover and it did not appear that the bear was aware of their presence.
- M. MATAYOSHI stated that she wished they had not looked over their shoulders multiple times because that may have slowed them and the bear may have noticed that movement.
- The MATAYOSHIs ran when the bear began to charge.
- The MATAYOSHIs did shout and yell when the bear charged.
- B. MATAYOSHI remained standing just prior to the bear making contact.
- M. MATAYOSHI dropped to the ground, covered her neck, and remained silent.

#### he bear's reaction and known history:

- The bear began its charge from approximately 100 yards. Tracks from the bear and cubs were observed thermal soil and crossed the trail at an angle to the north.
- At about 80 yards from the meadow the tracks suggested that the bear turned and may have stopped. There are bear cub tracks that lead to this area. This spot also is also at a higher elevation than the trail and offers a slightly improved view down the trail corridor.
- The bear did not appear to continue to maul B. MATAYOSHI after he became quiet. This is based on M. MATAYOSHI's statement there was a period of quiet when she looked up and the bear was looking at her.
- The bear inspected M. MATAYOSHI and did not maul her.
- The bear and cubs departed the area rapidly.
- There is no evidence that the cubs participated in the mauling.
- There is no documented history of this bear having previous encounter with humans.
- A male grizzly bear (boar) had been sighted in the Wapiti Lake Trailhead area during the previous days. It is unknown if the sow had any encounter with the boar.

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..S. DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SUPPLEMENTARY CASE/INCORPORT RECORD

ORGANIZATION (PARK) NAME	CASE/INCIDENT RECORD  CASE/INCIDENT NUMBER	
Cellowstone National Park	1 1 2 5 8 °	 7
OCATION OF INCIDENT	DATE OF INCIDENT	
Vapiti Lake Trail, Canyon District	MO. DAY YR.	_
ATURE OF INCIDENT Patality — Bear Attack		
COMPLAINANT'S NAME (Victim)  MATAYOSHI, Brian Dean	COMPLAINANT'S ADDRESS	
TOWN COMMISSION		-

**NVESTIGATION FINDINGS: (3 of 3)** 

nvestigation results concerning the report of hikers in the Wildlife Management Closure – Howard Eaton and Sour Creek Trails and hat hikers hay have been approaching bears:

- The initial report and written statements from visitors at Grizzly Overlook of hikers in the closure area were determined to be unfounded. Grizzly Overlook is located in Hayden Valley and offers views north into the closure area. The initial reports of hikers in the closure most likely fit the description of the MATAYOSHIS parties as they were in the knoll area near the junction of the Wapiti Lake Trail and the Sour Creek Trail. Additional reports of activity in the closure were most likely the party and the British group of four hikers. This activity would have been between 1050 and 1115 hours, with hikers moving around on the slope as they reacted to the yells and seeking better vantage points. This area is visible from Grizzly Overlook.
- Responding rangers did not observe any hikers in the closure or leaving the closure. No reports were received from hikers on the trail system leading to the incident of any observed closure violation.
- On July 26, 2011, using M. MATAYOSHI's and photographs, I located the approximate points from where the photographs were taken. From the series of photographs, I determined the distance to the bears from the hikers/photographers ranged from 333 to 500 yards (0.2 0.3 miles).
- I determined that the pictures were taken from the trail corridor and not in the closure. Time stamps from theses photographs leave no, or very little, time to deviate from the trail corridor.
- On visits to Grizzly Overlook, prior to and after the incident, I have determined that you can see a section of the Wapiti Lake Trail
  corridor as it drops below junction with the Sour Creek Trail. In this area there are terrain features, consisting of small ridges and
  swales that are hidden when viewing from the Grizzly Overlook. The viewing of this terrain is additionally complicated when viewed
  through binoculars and/or spotting scopes due to foreshortening.
- The meadow from where the bear began its charge and the attack site are not visible from the Grizzly Overlook.
- I spoke with two of the Grizzly Overlook viewers that submitted written statements ( Both confirmed that they did not see the actual charge or the actual distance of the between the bear and hikers. One observed that the bears appeared unhurried.
- The bears moved about 0.5 miles to the east and north from the time that the MATAYOSHIs and the attack. This was from the grassy basin to the meadow where the charge began. This 0.5 miles was traveled by the bears in about 35 minutes or at the pace of 1 mile per hour.
- remained in the area for a short time once the MATAYOSHIs hiked to the east. In his statement the bears went out of sight around a hillside, which coincides with statements from observers at Grizzly Overlook.
- then moved to the east and north. This would be further from the closure. Then he observes the sow in the meadow, and then one cub running in the meadow. This sighting would most likely be at a minimum distance of 266 yards and most likely greater.
- Based on my analysis of the photographs, photograph time stamps, statements and observations, there are no grounds to suspect an illegal approach of the bears by any of the hikers. The closest distance appears to be the MATAYOSHI's unintentional approach of approximately 100 yards prior to the bear's charge.

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FORM NO. 10-344

# U.S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

# APPENDIX C

SUPPLEMENTARY CA	SE/INCIDENT RECORD
ORGANIZATION (PARK) NAME	CASE/INCIDENT NUMBER
Yellowstone National Park	11-2587
LOCATION OF INCIDENT	DATE OF INCIDENT
Wapiti Lake Trail-Canyon District	July 6, 2011
NATURE OF INCIDENT	
Accidental Death- Grizzly Bear Mauling	
COMPLAINANTS NAME	COMPLAINANTS ADDRESS
MATAYOSHI, BRIAN DEAN	

RESULTS OF INVESTIGATION CORONER REPORT-

#### **Summary**

On July 6, 2011, at approximately 1050 hours visitor Brian MATAYOSHI was killed by a grizzly bear on the Wapiti Lake Trail near Canyon. The incident was witnessed by Marylyn Matayoshi, MATAYOSHI'S wife. The summary of the incident was reported to me by the first ranger on scene, Park Ranger Dave Page, who interviewed Matayoshi and gathered scene evidence.

Rangers Page and Brian Speeg were in the area on a backcountry patrol and responded to the area. They found MATAYOSHI lying on the trail with blood around him and two dark colored jackets on his body. They confirmed MATAYOSHI was deceased. They then covered MATAYOSHI with a silver space blanket.

Ranger Page interviewed Marylyn Matayoshi at the scene. She stated that she and her husband had been hiking back toward the Wapiti Lake Trailhead. They walked toward a meadow and spotted a sow grizzly bear with two cubs grazing. They turned around and started to walk away from the bears. They noticed the sow was rapidly following them and they started to run. The bear caught up to them the bear knocked MATAYOSHI to the ground. Marylyn stated she heard the attack on MATAYOSHI, but did not see the actual attack. Then the bear came over to her and lifted her off the ground by her daypack and dropped her. The bear then left the area. Marylyn checked on MATAYOSHI. She stated MATAYOSHI took one last breath. She then attempted to dress the wounds on his right thigh with one of her jackets. She stated that she knew he was dead and covered him with her two dark colored jackets. She then moved away from the body and started yelling for help and dialing 911.

See supplementary case/incident record for investigative findings.

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#### U.S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

SUPPLEMENTARY CASE/INCIDENT RECORD

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COMPLAINANTS NAME	COMPLAINANTS ADDI	RESS
MATAYOSHI, BRIAN DEAN		

RESULTS OF INVESTIGATION

#### Examination of Body on Scene

On July 6, 2011 at 13:50 hours, I examined MATAYOSHI'S body on scene on the Wapiti Lake Trail. Ranger Phil Strehle assisted in the examination. MATAYOSHI was covered with a silver space blanket and two dark colored jackets. I confirmed that MATAYOSHI was deceased. His eyes were fixed and dilated. Rigor mortis had set in to his neck and arms. There was noticeable lividity on the back of his neck and shoulders.

I pronounced MATAYOSHI dead at 13:50 hours. There was a red, black, and gray daypack with a GPS unit next to his head. These items were not covered by the space blanket.

I removed the space blanket. MATAYOSHI had two woman's jackets covering his mid-section and shoulders and face; one was blue in color, the other black in color. I removed the jackets. MATAYOSHI was wearing a white tshirt and white shorts that were torn and bloody. He had on white cotton briefs that were torn and bloody. He was wearing white socks with light brown ankle high hiking shoes. I photographed the body after I confirmed death. There were visible injuries to the head, right arm, and right leg.

#### Head to Toe Examination

There was a visible avulsion midline on top of the forehead extending into the hair line. It was approximately 6-7 centimeters (cm) long. There were no other injuries or deformities to his head. Examination of the neck was unremarkable. MATAYOSHI's chest and abdomen had scratch marks and superficial puncture marks. I palpated his shoulders and chest, and no fractures or dislocations were found. He had an approximately 8 cm long by 1.5 cm wide avulsion on the tricep of his right arm. His left arm was unremarkable. His pelvic structure felt intact. He had superficial puncture wounds on his right buttock. MATAYOSHI'S right leg had three large visible avulsions or puncture wounds on his inner thigh. The avulsion closest to his groin was approximately 5 cm long and 5 mm wide. The next wound toward the knee was approximately 2.5 cm long and 1 cm wide. The wound closest to the knee was approximately 6.5 cm long and 2.5 cm wide. It was located over the femoral artery. He also had multiple superficial scratches and puncture wounds on the inner thigh. There was a puncture wound in his right calf muscle. There were also scratches on the right calf. His left leg was unremarkable. After examination of the puncture/penetrating wounds no obvious bite marks were visible. MATAYOSHI was then rolled on to his stomach. He had superficial scratches and puncture wounds on his upper back. I collected a blood sample from his left femoral artery and a vitreous sample from the right eye.

#### Transportation of the Body

MATAYOSHI was packaged in a body bag, carried on a stretcher approximately 1/4 of a mile to a helicopter, and flown to the Canyon Government Corrals. He was then transported by ambulance to the Canyon Fire Cache.

On July 6, 2011, at approximately 1730 hours MATAYOSHI was transported to Jackson, WY, by of Valley Mortuary.

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#### U.S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

SUP	PIF	MENT	ARY	CASE/IN	CIDENT	RECORD
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ORGANIZATION (PARK) NAME		CASE/INCIDENT NUMBER
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LOCATION OF INCIDENT		DATE OF INCIDENT
Wapiti Lake Trail-Canyon District		July 6, 2011
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COMPLAINANTS NAME	COMPLAINANTS ADDRESS	
MATAYOSHI, BRIAN DEAN		
RESULTS OF INVESTIGATION		

#### Interview of Marylyn Matayoshi

At approximately 1630 hours I interviewed Marylyn Matayoshi at the Canyon Backcountry Office. I questioned her regarding MATAYOSHI'S medical history and health. She stated that he was in good health. MATAYOSHI saw a physician at least once a year. He had no known medical problems except high cholesterol. He was taking Lipitor daily for the high cholesterol. He had no other risk factors for cardiac problems.

#### Reexamination

MATAYOSHI was re-examined at the Canyon Fire Cache at approximately 1630 hours. Yellowstone Park Paramedic Amy Mazzarisi and Ranger Phil Strehle assisted me with the examination.

No new puncture wounds or visible trauma were found.

After examination of the puncture/penetrating wounds, no obvious bite marks were visible.

Yellowstone Park Medical Director Dr. Luanne Freer advised Mazzarisi to look for signs of chest trauma. Hard palpation by Mazzarisi and me did not find any possible rib, clavicle, shoulder, or arm fractures. There were no visible signs of massive chest trauma. MATAYOSHI had a deeper than normal stern bone but all external chest tissue and bone structure was intact. There were no defensive wounds on the hands or forearms.

MATAYOSHI'S abdominal area appeared larger than my initial examination in the field.

Valley Mortuary was contacted on July 7, 2011 at approximately 1100 hours. stated that no new bruises developed since they had possession of the body.

#### Weather/Temperature

Weather for Canyon on July 6, 2011 was mostly clear with a few light clouds. The temperature reading at 12:00 noon at the Canyon Snotel Site was 75 degrees Fahrenheit. The temperature at the Canyon Snotel Site at 1800 hours was 72 degrees Fahrenheit. The temperature readings from the Canyon Snotel Site were obtained from the website www.wcc.nrcs.usda.gov/nwcc/site?sitenum=384&state=wy.

Page 4 of 5 SUBMITTED BY (SIGNATURE AND DATE) ED BY (SIGNATURE AND DATE

# U.S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

SUPPLEMENTARY CASE/INCIDENT RECORD

ORGANIZATION (PARK) NAME		CASE/INCIDENT NUMBER
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MATAYOSHI, BRIAN DEAN		
RESULTS OF INVESTIGATION		The state of the s

RESULTS OF INVESTIGATION

Consultation with Forensic Pathologist

On July 8, 2011 I had a telephone consultation on the morning of with forensic pathologist Dr. Thomas Bennett, the forensic pathologist for eastern Montana and northern Wyoming. I described the event and injuries to Dr. Bennett. I also described that there was not a large amount of blood on the body or on the ground. Dr. Bennett stated that he has done many autopsies on punctured femoral arteries where the blood stayed in the tissue of the leg and there was no noticeable change in size or shape of the leg.

I also described the change in size of the abdomen and the air temperature at the time of the mauling and my reexamination approximately four hours later. Dr. Bennett stated that any change would probably be internal bleeding from the liver or spleen. He stated the increase in size of the abdomen would not be consistent with normal decomposition for the temperature and time period between examinations.

Dr. Bennett stated that a person could bleed out internally from the femoral artery, the spleen or liver, or both, in 1-2 minutes. He also stated that the blunt force of the bear hitting MATAYOSHI and knocking him to the ground would be enough force for a fatal crushing injury to the chest or abdomen. He stated it would be more likely that it was a fatal crush injury to the abdomen due to the change in the abdomen.

Dr. Bennett concluded cause of death would be from penetrating and blunt force trauma.

#### Evidence

A pair of black Nike sunglasses that were broken during the mauling was collected off the trail as evidence. The sunglasses had 6-8 bear hairs on the bridge of the nose. The bear hair was collected and given to Kerry Gunther, Yellowstone National Park bear biologist. Gunther sent the hair to a laboratory for DNA testing.

#### Toxicology Report

Blood and vitreous samples were sent to AIT Labs in Indianapolis, IN, for a comprehensive drug and electrolyte panel. I received the toxicology results from AIT Labs on July 22, 2011. The comprehensive drug and electrolyte pane were negative. Toxicology report attached.

#### Death Certificate

On the State of Wyoming death certificate the manner of death was accidental. The cause of death was penetrating and blunt force trauma due to a grizzly bear mauling.

End of report.

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