



ODFW LIVESTOCK DEPREDATION INVESTIGATION REPORTS

June - November 2018

This document lists livestock depredation investigations completed by the Oregon Department of Fish and Wildlife since June 1, 2018. Investigations are done at the request of the owner of injured or dead livestock when they suspect wolf depredation. The goal of these investigations is to determine if the livestock was attacked by a predator and if that predator was a wolf. The goal is not necessarily to determine the cause of death, as in some cases that would require a veterinary pathologist (e.g. illness, injury, age, poisonous plants). In some areas of Oregon, USDA Wildlife Services assists ODFW when wolves are suspected and is the lead agency to investigate when other predators such as coyotes, bear, or cougar are suspected. In areas where wolves are federally protected, the USFWS may choose to assist at investigations. In some counties, the local Sheriff's office deputies also attend investigations. ODFW needs to make the determination for lethal removal of chronically depredating wolves to be considered or if the livestock producer wants financial compensation from the Oregon Department of Agriculture.

There is information about methods to minimize conflict at https://www.dfw.state.or.us/Wolves/non-lethal_methods.asp. The investigation determination criteria and previous investigations are listed at https://www.dfw.state.or.us/Wolves/depredation_investigations.asp. Additional information about Oregon wolves and answers to frequently asked questions are provided at www.odfw.com/wolves.

November 18, 2018 – Jackson County (Boundary Butte area)

Date Investigated: 11/18/18

Cause of death/injury: Confirmed

General situation and animal information: On the morning of 11/18/2018, a livestock producer found a dead, 4-month-old, 320 lb. calf in a private-land grass pasture. Extensive feeding was observed on the muscle tissue of the hindquarters and internal organs, but remainder of carcass and hide were largely intact. The calf was estimated to have died within the last 24 hours.

Physical evidence and summary of findings: The calf carcass was partially shaved and skinned. Paired 3/16" diameter tooth scrapes with 1 7/8" spacing were found on the inside of the left hind leg above the hock. Multiple other tooth scrapes and bite marks up to 3/16" diameter were also found on both hind legs. There was premortem hemorrhaging on the underside of the hide between the hock and the groin on both hind legs, with associated residual crushed muscle tissue on the hide of the right leg. Additional premortem hemorrhaging and tissue damage was found on the throat, above the right front elbow, and on the chest below the left front leg. The paired canine puncture spacing and location of trauma to the hindquarters are similar to other injuries observed on calves attacked by wolves. The Rogue Pack has previously depredated on this property.

November 11, 2018 – Umatilla County (Saddle Mountain)

Date Investigated: 11/11/18

Cause of death/injury: Other

General situation and animal information: On the morning of 11/10/18, an individual found the remains of a dead, nine-year-old, 1100 lb. cow in a 3700-acre private-land pasture. ODFW investigated on 11/11/18 after the landowner was contacted and access was granted. The carcass was intact with muscle tissue consumed from the left front leg, left thigh, neck, and the anus. The heart was consumed but organs were otherwise intact. Estimated time of death was 3-4 days prior to the investigation.

Physical evidence and summary of findings: No chase, struggle, or kill scene was found. The cow carcass was skinned and examined. No premortem bites, scrapes, or punctures on the hide or bite-caused hemorrhage or muscle tissue trauma indicating a predator attack were found. The cause of death was categorized as "Other".

November 10, 2018 – Jackson County (Rancheria area)

Date Investigated: 11/10-11/2018

Cause of death/injury: Possible/Unknown,
Confirmed, and
Other

General situation and animal information: On 11/10, a livestock producer requested investigations on three dead approximately eleven-month-old 500-700 lb. heifers in the same 50-acre grassland pasture on private land. The owner reported that calf A had been found mostly consumed on 11/6. When examined on 11/10, there were scattered bones and a small piece of hide; the only remaining tissue was below the ankles. Calves B and C were found on 11/10 and estimated to have died one to three days earlier. On calf B, muscle tissue above the hocks on both hindquarters and the internal organs were missing. Calf C was intact with a circular 4 inch hole in the flank and lying in a creek. A neighbor reported hearing wolves howling in the pasture on the night of 11/2. A ranch hand heard wolves howling the evening of 11/9.

Physical evidence and summary of findings: No chase or kill scene was found for any of the heifers. The remaining 2' X 4' piece of dried hide from carcass A was shaved and examined. No premortem trauma to indicate a predator attack was found. Due to the lack of muscle tissue and hide remaining on the carcass the cause of death was categorized as "Possible/Unknown". Carcass B was partially shaved and skinned revealing multiple $\frac{3}{16}$ inch tooth scrapes on the hide and premortem hemorrhaging in the remaining tissue on both rear legs above the hock. The left front leg had minor premortem tissue trauma behind the elbow. The right front leg had premortem hemorrhage and tissue trauma behind and above the elbow extending $1\frac{1}{4}$ inch into the muscle tissue. The injuries on carcass B are clear evidence of predator attack and the size, location, and severity of bite injuries are similar to injuries observed on cows attacked by wolves. This is a confirmed depredation attributed to the Rogue Pack. Carcass C was removed from the creek, skinned, and examined. There was no premortem hemorrhaging, trauma, or tooth marks indicative of a predator attack so the cause of death was categorized as "Other".

October 27, 2018 – Klamath County (Wood River Valley)

Date Investigated: 10/27/18

Cause of death/injury: Confirmed

General situation and animal information: On the evening of 10/26/18 a livestock producer found a dead 675 lb. calf in a private-land grass pasture. Extensive feeding was observed on the muscle tissue of the hindquarters and pelvic area but remainder of carcass was largely intact. Producer reported his ranch hand had observed four wolves on 10/25/18 in a nearby pasture. The calf was estimated to have died on 10/25/18.

Physical evidence and summary of findings: The calf carcass was partially shaved and skinned, revealing premortem deep muscle tissue trauma and hemorrhaging on the flanks and both elbows. Although not much of the muscle tissue on the hindquarters remained, premortem hemorrhaging and deep muscle tissue trauma was found on both hind legs above the hock. Observed premortem hemorrhaging and associated muscle tissue trauma are clear evidence of a predator attack and the size, severity, and location of the injuries are similar to injuries observed on other calves attacked by wolves. This depredation was attributed to the Rogue Pack.

October 25, 2018 – Coos County (Langlois area)

Date Investigated: 10/25/18

Cause of death/injury: Other

General situation and animal information: On 10/25/18, a producer discovered a dead 170 lb. ewe in a fenced grassland pasture on private property. The carcass was missing hide and tissue on the right side from the center ribcage rearward to the hock, but was otherwise intact. The sheep had an apparent wound to the throat. It was estimated the ewe died on 10/24 or 10/25.

Physical evidence and summary of findings: No chase, struggle, or kill scene was found. The remaining carcass was skinned and examined. Premortem canine tooth punctures and associated hemorrhaging were found on both sides of the throat. Tooth holes in the hide were less than ¼” in diameter and trauma extended about ½” into underlying tissues. The premortem bites and trauma are consistent with a coyote attack. The cause of death/injury was categorized as “Other”.

October 24, 2018 – Klamath County (Wood River Valley)

Date Investigated: 10/24/18

Cause of death/injury: Confirmed (3 events)

General situation and animal information: On 10/24/2018 a livestock producer found a dead 600 lb. calf in a private-land pasture. The carcass of calf A was intact, but open at the abdomen with feeding on the right flank, and estimated to have died overnight. Based on the evidence collected during the investigation, the producer unburied two dead calves that had been removed from the same pasture the day before. Calf B had similar feeding on the flank and estimated to have died 10/22. Calf C had been mostly consumed and was estimated to have died the night of 10/21.

Physical evidence and summary of findings: A struggle/kill scene was found for calves A and C, which included blood spray, and pooled blood. There was a trail of blood and rumen for 50 ft. ending at carcass A. Carcass A was skinned and partially shaved revealing numerous ¼ inch wide bite scrapes on both armpits, the hind legs above the hock, flanks, and the groin. Deep underlying tissue damage with

associated premortem hemorrhaging was evident under the bite wounds. Calves B and C were skinned, revealing premortem tissue trauma on the hind legs between the hock and anus, and behind the elbows. These injuries are clear evidence of predator attack and the size, location, and severity of bite injuries are similar to injuries observed on other calves attacked by wolves. Remote camera photographs show Rogue Pack wolves 2.5 miles from the pasture on 10/23. The Rogue Pack has depredated on this property before. Since the evidence shows that each calf died on a different night, these are considered three separate incidents of depredation.

October 23, 2018 – Wallowa County (Howard Butte area)

Date Investigated: 10/23/18

Cause of death/injury: Other

General situation and animal information: On the morning of 10/22/18, hunters found a dead, 700 lb., nine-month-old calf in a timbered, private-land pasture. The hunters reported seeing five, possibly six, wolves about 100 yards from the carcass. The carcass was mostly intact with minor scavenging at the anus and behind the left front shoulder. Estimated time of death was approximately 3-4 days prior.

Physical evidence and summary of findings: No chase, struggle, or kill scene was found. The carcass was shaved, examined, and skinned from the back down the left side to the belly, down the right side to the top of the flank, down both rear legs to the hock, the left front shoulder to the elbow, and the entire neck and head. Multiple postmortem bite marks and scrapes were found on the carcass, mostly around the sites of scavenging. No premortem bites, scrapes, or punctures on the hide or bite-caused hemorrhage or muscle tissue trauma indicating a predator attack were found. The cause of death was categorized as "Other".

October 22, 2018 – Grant County (Logan Valley area)

Date Investigated: 10/22/18

Cause of death/injury: Confirmed

General situation and animal information: On the morning of 10/22/18, ODFW was notified about an approximately four-month-old, 300 lb. injured calf that was found in a private irrigated meadow pasture. The producer first noticed the injuries to the calf on 10/11/18. The injuries on the calf were estimated to have occurred 1.5-2 weeks prior to the investigation on 10/22, based on healing.

Physical evidence and summary of findings: The live calf was examined and the hair was shaved around an approximately 2 inch by 3/4 inch open wound on the back of the right rear leg, about midway between the anus and hock. Multiple parallel tooth scrapes, 3/16 inch in diameter and up to 4 inches long, were found adjacent to the open wound. Two puncture marks, 1/4 inch in diameter, were also found on the inside rear of the right hind leg above the hock. These injuries are clear evidence of a predator attack and the size and location of the bite injuries are similar to other injuries observed on calves attacked by wolves. Although ODFW has received occasional reports of a single wolf, there is no known pack currently using the area. ODFW will continue to monitor wolf activity in the area.

October 21, 2018 – Jackson County (Worthington Road area)

Date Investigated: 10/21/2018

Cause of death/injury: Possible/Unknown
Other

General situation and animal information: At 6:30 PM on 10/20/2018, a livestock owner found two llamas dead in his arena within 50 yards of his house. The 200 lb. adult llama was intact with apparent trauma on its right front and rear legs, and on the underside of the neck near the base of the skull. The 7-week-old, 40 lb. cria had injuries to all four quarters and to the top of the neck with minimal scavenging. Both animals appeared to have died in the last 36 hours.

Physical evidence and summary of findings: There were bloody drag marks, a chase/kill scene with blood splatter, and tufts of hair in a 10 yard circle near the carcasses. Both carcasses were skinned from the ears back to the knees of all four legs and examined. The cria displayed premortem trauma on the upper portion of both hind legs and around the anus, extending approx. 2" into the muscle tissue. One paired premortem bite wound with approximately 1 ½" canine spread was found on the right hind leg. The right front leg had premortem trauma along the back and upper shoulder, and the left front leg had a portion of the skin peeled off with minimal muscle tissue consumed. The bones of the neck were intact with multiple premortem tooth marks along the top. The adult llama had premortem trauma on the right rear leg above the hock with some consumption on the top of the hip. Premortem trauma to the right front leg above the elbow, and a ¼" inch puncture wound with premortem trauma to the upper neck below the head were also observed. The premortem trauma on both carcasses and blood spray are clear indications of predation. Bite locations were consistent with a canid attack, but there was not enough evidence to indicate a domestic dog or wolf. The cause of death for both animals is therefore categorized as "Possible/Unknown".

Addendum (11/5/18): Since this investigation was completed, additional data has been collected causing ODFW to reassess the earlier determination of "Possible/Unknown". This new evidence warrants a change from "Possible/Unknown" to "Other". When investigating the llama mortalities on 10/21/18, ODFW was able to determine that a canid killed the llamas, but was not able to indicate a domestic dog or wolf. On 10/31/18, the owner reported that two more llamas were killed. Blood on their domestic dogs and trail camera photos of one dog attacking a llama indicated that one or both of the dogs were responsible for these mortalities.

October 18, 2018 – Coos County (Langlois area)

Date Investigated: 10/18/18

Cause of death/injury: Possible/Unknown

General situation and animal information: On 10/18/18, a producer discovered three dead and two injured ewes weighing 95-110 pounds in a fenced pasture on private property. The three carcasses were intact with little consumption. All three sheep had wounds on the front leg and throat region. It was

estimated these sheep died during the nighttime hours on 10/17-10/18. The injured ewes were not examined.

Physical evidence and summary of findings: No chase, struggle, or kill scene was found. The majority of each carcass was skinned and examined. On the first carcass, premortem tooth punctures, hemorrhaging, and tissue trauma were observed on and just below the throat, and right shoulder/elbow. On the second carcass, premortem tooth punctures, hemorrhaging, and tissue trauma were observed on the throat. Multiple shallow premortem bruises were also observed along the ribcage and belly, and a large area of hemorrhaging and tissue trauma extended from the front of the hind right leg from the flank to the spine. On the third carcass, premortem hemorrhaging and tissue trauma were observed on the throat. A small amount of hemorrhaging was observed behind the right front leg and on the side of the right rear leg above the hock. One sheep had a set of paired premortem tooth marks with 1 ¼" spacing. The premortem trauma and attack locations on all three carcasses are consistent with a canid attack, but lack diagnostic evidence to clearly differentiate between wolf, coyote, and domestic dog. The cause of death/injury was categorized as "Possible/Unknown". This determination may be changed if additional evidence is collected.

October 15, 2018 – Jackson County A (Rancheria area)

Date Investigated: 10/15/18

Cause of death/injury: Other

General situation and animal information: On the morning of 10/15/2018, a livestock owner found a dead, 8-month-old, 650 lb. calf approximately 200 yards from a residence in a 9-acre private-land pasture. All of the soft tissue below the head to above the knees, both scapula and the left front leg were missing. The skeleton was largely intact as was the majority of the hide, including the locations on the hindquarters, flanks, and behind the front legs most likely to be attacked by wolves. Estimated time of death was approximately 3-5 days prior. The livestock owner also found an injured calf in an adjacent pasture (report October 15, 2018 – Jackson County B).

Physical evidence and summary of findings: Scavengers had moved the carcass to the location where it was found, but no chase, struggle, or kill scene was found. We examined the carcass, including the largely intact hide, and found no evidence of premortem bite scrapes or hemorrhage. The only wounds found were postmortem tooth scrapes on the anus and the right flank. No evidence was found indicating a predator attack and thus the cause of death was categorized as "Other".

October 15, 2018 – Jackson County B (Rancheria area)

Date Investigated: 10/15-16/18

Cause of death/injury: Possible/Unknown

General situation and animal information: On the morning of 10/15 a livestock owner found an injured, two-week-old, 100 lb. calf in a 9-acre private land pasture, approximately 500 yards from a residence. The calf was depressed, walking stiffly, with multiple lacerations on its tail. The estimated time of injury was the night of 10/14. ODFW investigated the same day, and completed the investigation on 10/16 after

making arrangements with the livestock owner to shave the wound sites. The livestock owner had also found a dead heifer calf in an adjacent pasture (report October 15, 2018 – Jackson County A).

Physical evidence and summary of findings: No chase or struggle scene was found. The tail was missing the last 3-4 inches, and had multiple bleeding lacerations. The groin, anus, tail and rear legs above the hocks were shaved, revealing three lacerations approximately 1/8 inch wide and 1 1/4 inches long running laterally across the groin. Observed injuries are consistent with a canid attack, but lack diagnostic evidence to differentiate between wolf and coyote. The cause of injury was categorized as "Possible/Unknown". This determination will be changed if additional evidence is collected.

October 12, 2018 – Malheur County (Westfall area)

Date Investigated: 10/12/18

Cause of death/injury: Other and
Possible/Unknown

General situation and animal information: On the evening of 10/11/18, a livestock producer found two dead adult cows in a private-land pasture. The investigators responded that evening after dark, but covered the carcasses in order to protect them from scavenging and the elements and returned on 10/12/18. The first carcass was intact with the exception of minimal post-mortem scavenging around the anus, abdomen, and left side jaw, eye, and ear. The second cow was tangled in a barbed-wire fence. This cow had been scavenged heavily with little tissue and hide remaining behind the ribs and additional scavenging to the right side ear, eye and nose. Estimated time of death for both cows was between 24 and 72 hours.

Physical evidence and summary of findings: There was no evidence of a predator attack at the scene and no evidence was found to suggest wolves were in the area or that the deaths were wolf related. Both carcasses were skinned and examined. On the intact cow there were no premortem bites, scrapes or punctures on the hide or bite-caused hemorrhage or muscle tissue trauma indicating a predator attack, the cause of death was not related to predation and thus categorized as "Other". The second cow did not have any premortem bites, scrapes or punctures on the hide or bite-caused hemorrhage or muscle trauma to indicate predator attack. However, there was a lack of tissue and hide on the back end of the second cow and thus the cause of death is categorized as "Possible/Unknown".

October 1, 2018 – Wallowa County (Zumwalt area)

Date Investigated: 10/1/18

Cause of death/injury: Possible/Unknown

General situation and animal information: On the morning of 10/1/18, a mostly consumed adult cow carcass was found on a private rangeland pasture. ODFW was notified and examined the carcass and site the same day. The cow had been scavenged with muscle tissue consumed above the hocks, on the right rib cage, and on the right front leg above the knee. All internal organs except the heart and lungs were consumed. The date of death was estimated to be 9/29/18.

Physical evidence and summary of findings: The remaining cow carcass was skinned and examined. There were no premortem bite marks, scrapes, or punctures on the hide or bite-caused hemorrhage or muscle tissue trauma indicating a predator attack. No struggle scene or attack scene was found. No evidence was found to suggest the death was wolf related or other animal attack. Due to the lack of muscle tissue and hide remaining on the carcass, the determination is possible/unknown.

September 25, 2018 – Jackson County (Boundary Butte area)

Date Investigated: 9/25/18

Cause of death/injury: Confirmed

General situation and animal information: Sometime between 12:00am and 2:00am on 9/24/18, a livestock owner was awakened by the sound of his livestock guardian dog being attacked approximately 400 yards from his residence in a fenced pasture containing his cattle. He investigated and found his severely injured adult Tibetan Mastiff limping through the field towards his residence. It died at approximately 9:00pm that night.

Physical evidence and summary of findings: The dog was shaved from the base of the skull to the tail, revealing at least 25 canine puncture wounds and tooth scrape marks to both hind legs above the knee, along the top of the pelvis, the neck, groin, and behind the left front leg. There were paired bite punctures with 1 7/8 inch spacing on the back of the right hind leg. The animal was skinned revealing pre-mortem bruising and deep tissue trauma associated with the tooth scrapes and canine punctures on the hide. The location of the injuries, the paired canine puncture spacing, severity of trauma, and wolf tracks on the property show that this animal was attacked by a wolf. The location of the attack is within the Rogue Pack AKWA.

September 12, 2018 – Wallowa County (Harl Butte area)

Date Investigated: 9/12/18

Cause of death/injury: Confirmed

General situation and animal information: On the afternoon of 9/11, a livestock producer found a dead, seven-month-old, 600 lb. calf on a large timbered USFS allotment. The following morning, ODFW was notified and examined the carcass and site. The majority of muscle tissue on both hind legs had been consumed, but hide on back and inside of hind legs was intact. All internal organs, most right and left flank muscle tissue, and some muscle tissue on left rib cage was also consumed. The death of the calf was estimated to have occurred early on 9/11/18.

Physical evidence and summary of findings: The remaining calf carcass was skinned revealing numerous premortem canine tooth scrape marks (1/2-2 1/2 inches long, 1/8-3/16 inches wide) on the inside of both hind legs above the hocks. Most of the muscle tissue of both hind legs was consumed, with premortem bruising found in the remaining muscle tissue. The location of the injuries, and the number of pre-mortem bites was similar to other confirmed wolf attack injuries on calves. The location of the attack was within the Harl Butte Pack AKWA.

August 29, 2018 – Grant County (Desolation Creek area)

Date Investigated: 8/29/18

Cause of death/injury: Possible/Unknown

General situation and animal information: On the morning of 8/29/18 a property manager found the remains of a calf in a large forested private-land pasture. The calf had been scavenged with muscle tissue consumed above the hocks, on the pelvis, and ribs. Internal organs were consumed in the abdominal cavity. The date of death was estimated between 8/27/18 and 8/28/18.

Physical evidence and summary of findings: The remaining calf carcass was skinned and examined. There were no premortem bite marks, scrapes, or punctures on the hide or bite-caused hemorrhage or muscle tissue trauma indicating a predator attack. No struggle scene or attack scene was found. No evidence was found to suggest the death was wolf related or other animal attack. Due to the lack of hide and muscle tissue on the hindquarters, the determination is possible/unknown.

August 20, 2018 – Wallowa County (Joseph Creek area)

Date Investigated: 8/20/18

Cause of death/injury: Confirmed

General situation and animal information: On the morning of 8/20, a range rider found a dead, five-month-old, 300 lb. calf on a large timbered USFS allotment. All internal organs, the right eye, the majority of muscle tissue on the left front leg and left rear leg, and some muscle tissue from the right rear leg had been consumed. The calf was estimated to have died during the night of 8/19.

Physical evidence and summary of findings: The entire carcass was skinned and examined. A total of five tooth puncture wounds through the hide on the back of the hind legs measured 1/4-3/8 inches across and were associated with premortem hemorrhaging under the skin. Two of these canine punctures between the anus and the hock were paired with a spacing of 2 inches and had associated hemorrhaging of 1 ½ inch depth into the muscle tissue. A total of three premortem tooth scrapes 3/4-2 inches long and 1/8 inch wide with associated hemorrhaging under the skin were found on the back of the hind legs. Wolf tracks and scat were found at and around the carcass. There have been four confirmed wolf depredations in the area since mid-June. The puncture size, canine spacing, depth, and location of the injuries were similar to other confirmed wolf attack injuries on calves. This attack was attributed to the Chesnimnus Wolves.

August 14, 2018 – Malheur County (Little Malheur River area)

Date Investigated: 8/14/2018

Cause of death/injury: Other

General situation and animal information: On the morning of 8/14/18, a livestock producer found a dead 5-month-old, 500 lb. calf in a private-land irrigated pasture. The carcass was intact with exception of post-mortem scavenging around the anus. Estimated time of death was less than 24 hours.

Physical evidence and summary of findings: The calf carcass was skinned and examined. There were no bite scrapes or punctures on the hide or bite-caused hemorrhage or muscle tissue trauma indicating a predator attack. The cause of death was not related to wolf predation and thus categorized as "Other".

August 8, 2018 – Baker County (Lake Fork Creek area)

Date Investigated: 8/8/18

Cause of death/injury: Other

General situation and animal information: On the afternoon of 8/7/18 a trail crew found a dead adult cow. The livestock owner was notified that evening and ODFW investigated the next day. The cow was on a large forested public land allotment. The carcass of the cow was intact with minimal tissue missing from the groin, front right leg below the elbow, nose, lower jaw, and both ears. The date of death was estimated to be 8/4/2018.

Physical evidence and summary of findings: Most of the carcass was skinned. There were no premortem bite marks on the hide or hemorrhage in the tissue. There were postmortem bite marks on the right elbow, left rear leg and the left front leg. There was no evidence of predator attack on the carcass or the scene. The cause of death was not determined but was not related to wolves.

August 5, 2018 – Wallowa County (Threebuck Creek area)

Date Investigated: 8/5/18

Cause of death/injury: Other

General situation and animal information: On the morning of 8/5, while checking cattle, an employee found a dead adult cow in a large private rangeland pasture with other cattle. Light scavenging was evident around the anus on the intact carcass. It was estimated that the cow died in the evening on 8/4.

Physical evidence and summary of findings: Most of the carcass was skinned and parts of the hide were clipped and examined. No bite marks, scratches, scrapes, or holes were found on the hide. Several large shallow bruises were observed in the muscle tissue on parts of all four quarters of the adult cow. The muscle tissue did not have tears or similar damage which is found when predators bite. There was no evidence of a predator attack on the carcass or the scene. The death of the cow was not wolf related.

August 2, 2018 – Wallowa County (Cougar Creek area)

Date Investigated: 8/2/18

Cause of death/injury: Confirmed

General situation and animal information: On the afternoon of 8/1, a livestock producer found an injured 4-month-old, 350 lb. calf on a large timbered USFS allotment. The calf was hauled to a veterinary clinic for care on 8/2. The producer reported seeing wolf tracks on the morning of 8/1. The injuries to the calf had begun to heal and are estimated at one week old.

Physical evidence and summary of findings: Both rear legs of the calf were shaved above the hocks. More than 15 canine tooth scrapes were found on the outside and rear of both hind legs measuring up to ¼ inch wide and 4 inches long. There were five puncture wounds measuring up to ¼ inch wide. A large open wound between the rear legs behind the scrotum measured about 8 inches long, 2.5 inches wide, and at least 2 inches deep. The location, size, and extent of the premortem injuries are sufficient to confirm this incident as wolf depredation by the Chesnimnus Wolves. The calf was found about three miles from where three calves were injured in June by the same wolves.

July 31, 2018 – Lake County (Chewaucan River area)

Date Investigated: 7/31/18

Cause of death/injury: Other

General situation and animal information: On the afternoon of 7/30, a rider found an injured adult cow outside the fence of the 2000-acre private-land pasture she should have been in. An injury was observed in the cow's right armpit. While locating the cow for ODFW examination on 7/31, the riders found a dead 5-month-old, 450 lb. calf. Both livestock are covered in this report. The calf was intact skeletally, but most internal organs and most of the hindquarter muscle tissue was missing. The hide was missing from the abdominal area, right flank, and front of the right hind leg. It was estimated that the calf died on 7/29.

Physical evidence and summary of findings: Evaluation of the injury sustained to the adult cow revealed two cuts between 3 and 5 inches long, of varied widths, and of unknown depth into the right armpit. The wound was determined to be greater than a week old and of a type and shape consistent with injury, not predator attack. The cow was shaved on the hindquarters, flanks, and behind elbows; no bite marks were found. ODFW determined the injury was not wolf related.

There was no evidence of a predator attack at the scene of the dead calf. Carcass remains were shaved, skinned and examined. There were no premortem bite marks on the hide or signs of predator attack on the carcass. The right ear and an area of skin approximately 6 inches in diameter around the ear had been scavenged, and upon skinning back the remaining hide, a void of muscle tissue with necrotic margins and large, third instar stage maggots were observed. No evidence was found to suggest that predation occurred or that the death was wolf related.

July 31, 2018 – Umatilla County (Upper Dry Creek area)

Date Investigated: 7/31/2018

Cause of death/injury: Other

General situation and animal information: While checking cattle on the afternoon of 7/31, a livestock producer found a dead 3-month-old, 250 lb. calf in a dried up creek bottom within a privately owned grazing pasture. The calf was intact except for an 8 inch by 4 inch piece of hide

missing from the right side between the last rib and pelvis where part of the entrails had been removed. It was estimated that the calf died earlier the same day.

Physical evidence and summary of findings: The carcass was shaved, skinned, and examined. No premortem bite marks, scrapes, or punctures were found. Multiple 1/16 to 1/8 inch postmortem bite marks were found on the hide in the area it had been scavenged. A paired postmortem bite mark with spacing measuring 1 1/8 inch was observed on the rump. There was no evidence of a predator attack on the carcass or the scene. The death of the calf was not wolf related.

July 27, 2018 – Lake County (Chewaucan River area)

Date Investigated: 7/27/18

Cause of death/injury: Possible/Unknown

General situation and animal information: Midday on 7/27, a livestock producer found a dead 5-month-old, 450 lb. calf in a 400-acre open land pasture on private land. The calf had been scavenged with little tissue remaining behind the ribs. The hide was missing on the left side behind the ribs and on the back of both hindquarters. It was estimated that the calf died on 7/25.

Physical evidence and summary of findings: There was no evidence of a predator attack on the scene. The remaining calf carcass was skinned and examined. There were no bite punctures, bite scrapes on the hide, or signs of predator attack on the carcass. There was significant swelling of unknown cause under the lower jaw and on the throat with no marks on the outside of the hide. An area on the upper neck had advanced tissue decomposition and possibly muscle trauma, but there were no marks on the hide. No evidence was found to suggest wolves were in the area or that the death was wolf-related, but due to the lack of hide and muscle tissue on the hindquarters and tissue decomposition the determination is possible/unknown.

July 24, 2018 – Umatilla County (Government Mountain area)

Date Investigated: 7/24/18

Cause of death/injury: Other

General situation and animal information: On the morning of 7/24, a livestock producer found an injured 14-month-old 1,200 lb. bull in a 7000-acre open grass land pasture with timbered draws on private land. The bull had a one inch hole on the right side of the mouth. The bull was taken to a veterinarian for treatment and diagnosed with a broken jaw. The bull was later euthanized then examined by ODFW for any signs of wolf depredation.

Physical evidence and summary of findings: The bull carcass was shaved and skinned. There was no bite scrapes on the hide, bite-caused hemorrhage, or tissue trauma indicating a predator attack. A puncture hole measuring 1/2" wide x 3/4" deep was found on the right rump directly above the pelvis. Both sides of the lower jaw were broken. There was no evidence of a predator attack on the carcass.

July 23, 2018 – Umatilla County (Ruckel Ridge area)

Date Investigated: 7/23/18

Cause of death/injury: Confirmed

General situation and animal information: A sheep herder reported a wolf-sheep dog conflict that happened at about 3am on 7/23/18 near the sheep band he takes care of on a USFS grazing allotment. The herder heard wolves howling outside his camp, then witnessed the six livestock guard and herding dogs engage two wolves approximately 60 yards from the sheep night pen. The wolves retreated and one guard dog continued to chase after them through the timber. Approximately twenty minutes later the dog returned to the camp severely injured. ODFW investigated the same day, but was unable to examine the dog closely. The guard dog died the following night and ODFW completed the examination of the 80 lb. male guard dog on 7/25/18.

Physical evidence and summary of findings: The carcass was shaved, skinned, and examined. Multiple paired canine punctures with spacing ranging from 1 ¾" to 2" were observed around the neck, right armpit, and lumbar vertebra. Numerous bite marks (¼" to ¾" wide) were also found on the top, bottom, and both sides of neck, rear of the right hind leg, right flank, and abdomen. Premortem hemorrhage and muscle tissue damage was observed in all of the above mentioned areas, as well as the inner portions of both hind legs, and left ear. A radio-collared Ruckel Ridge wolf had a GPS location about ½ mile from the sheep band at 2am on 7/23/18. The size, number, and locations of the bite marks with the associated muscle trauma are sufficient to attribute the death of this livestock dog to a wolf or wolves of the Ruckel Ridge pack.

July 22, 2018 – Wallowa County (Harl Butte area)

Date Investigated: 7/22/18

Cause of death/injury: Confirmed

General situation and animal information: On the afternoon of 7/22, a livestock producer found a dead two-month-old 225 lb. calf on a forested USFS cattle allotment. The producer reported seeing two wolves in the vicinity just prior to finding the calf. The carcass was partially consumed with tissue removed from the hindquarters, abdomen, and right shoulder. The death of the calf was estimated to have occurred early that morning on 7/22.

Physical evidence and summary of findings: The calf carcass was shaved and skinned revealing multiple canine tooth scrape marks on the hide of the right hind leg, back, and left front leg. Premortem hemorrhage and muscle tissue damage from canine bites were present on the upper left front leg, left elbow, both hind legs above the hocks, and the lower left side of the back. The size of the tooth scrapes, the location of the injuries, and the severity of the trauma was similar to other confirmed wolf attack injuries on calves. The location of the confirmed wolf attack was within the Harl Butte Pack AKWA.

July 22, 2018 – Wasco County (Juniper Flats area)

Date Investigated: 7/22/18

Cause of death/injury: Other

General situation and animal information: On the morning of 7/22/18, a livestock owner found three dead and 1 injured sheep in his seven-acre, private-land pasture about 400 yards from his house. The carcass of one ewe was intact but most tissue behind the front legs had been consumed, the two dead lambs were uneaten. The sheep had died that morning. The injured ewe was euthanized the same day.

Physical evidence and summary of findings: All four carcasses were skinned and examined. There were bite punctures and premortem hemorrhage on all four sheep indicating they had been attacked by a predator. Paired canine punctures had 1 1/8 to 1 3/8 inch spacing consistent with coyote bite spacing. The locations of the hemorrhage in tissue on the throat just behind the lower jaw, back of the hindquarters, and behind the elbows was consistent with coyote attack locations on sheep. The sheep deaths were not wolf related.

July 13, 2018 – Umatilla County - A (Government Mountain area)

Date Investigated: 7/13/18

Cause of death/injury: Possible/Unknown

General situation and animal information: On the morning of 7/13/18 a livestock producer found the remains of a 5-month-old 300 lb. calf in a fenced 1,200 acre private-land pasture. On the way to this investigation, an additional calf carcass was discovered and that calf is covered in report 7/13/18 Umatilla County - B. Muscle tissue was consumed above the hocks, on the pelvis, and ribs. Internal organs were consumed in the abdominal cavity. The right rear leg was found detached and 30 feet from carcass. The date of death was estimated to be 7/11/18.

Physical evidence and summary of findings: The calf carcass was skinned and examined. There were no bite scrapes on the hide or bite-caused hemorrhage or muscle tissue trauma indicating a predator attack. Several coyote and wolf tracks were found near the carcass. Evidence typical of scavenging by small predators, such as coyotes and birds, were observed on the carcass. No evidence was found to suggest the death was wolf related. Due to the lack of hide and muscle tissue on the hindquarters, the determination is possible/unknown.

July 13, 2018 – Umatilla County - B (Government Mountain area)

Date Investigated: 7/13/18

Cause of death/injury: Other

General situation and animal information: On the morning of 7/13/18, while investigating a dead calf found by a livestock producer (report 7/13/18 Umatilla County - A), ODFW discovered the remains of a 3-month-old 200 lb. calf about 75 yards away in the same private-land pasture. The carcass was intact with all muscle tissue on the hindquarters above the hocks consumed as well as all the abdominal organs. The hide was missing only on the abdomen and inside of the hind legs. The date of the death was estimated to be 7/12/18.

Physical evidence and summary of findings: The calf carcass was shaved, skinned and examined. The right side of the neck and shoulder exhibited two bite marks with 1 ¼ inch spacing with associated shallow

muscle tissue damage measuring 1/8 inches in depth. Although the calf's death is not wolf related, it is unknown if the calf died from a coyote attack or other causes.

July 10, 2018 – Wallowa County (Howard Butte area)

Date Investigated: 7/10/18

Cause of death/injury: Other

General situation and animal information: A livestock producer found a dead adult cow on 7/10/18 in a large, forested, private-land pasture. The entire cow was intact except for some missing skin on the right side of the abdominal area. It was estimated that the cow died on 7/8/2018.

Physical evidence and summary of findings: There were two bite marks on the right elbow that were determined to be made postmortem once the area was skinned. There was no evidence of predator attack on the carcass or the scene. The cause of death was not wolf-related.

June 20, 2018 – Klamath County (Sprague River Valley area)

Date Investigated: 6/20/18

Cause of death/injury: Other

General situation and animal information: The livestock producer found a dead 5-day-old calf on 6/19 in a 55-acre grass pasture about one half mile from the residence. (Added on 7/13/18: The pasture was on private land.) The calf was last observed on 6/17 and appeared weak and sedentary compared to other calves in the pasture. The carcass had been heavily scavenged with the majority of tissue consumed/missing. All bones were present and intact with the exception of the posterior ribs. The hide was mostly all present and attached to the carcass. Estimated date of death is 6/18 pm.

Physical evidence and summary of findings: There was no evidence of predator attack on the carcass or the scene. The remaining carcass was skinned and partially shaved. No premortem bite marks were found on the hide. One premortem injury was observed on the back near the spine approximately ½ inch diameter and ½ inch into muscle tissue. The remaining muscle and soft tissue contains no pre mortem hemorrhage. The cause of death is unknown, but was not wolf-related.

June 19, 2018 – Crook County (Mill Creek area)

Date Investigated: 6/19/18

Cause of death/injury: Possible/Unknown

General situation and animal information: A livestock producer discovered a dead adult cow on the evening of 6/18/18 in a 500-acre pasture on private land. He requested an investigation because he could not explain the cause of death. The carcass had been heavily scavenged. The skeleton was intact, but most hide and tissue from the left side behind the shoulder and tissue from both hindquarters was gone. The hide on the right side of the cow was intact except for the inside of the right hind leg. The date of death was estimated between 6/12/18 and 6/14/18.

Physical evidence and summary of findings: The remains of the cow carcass was skinned and examined. There were no bite scrapes on the hide, and no bite-caused hemorrhage or muscle tissue trauma to indicate predator attack. There was no evidence of attack by a predator on the carcass. There were broken branches and disturbed ground within 15 yards of the carcass possibly indicating the cow struggled at some point while dying. No evidence was found to suggest the death was wolf-related, but due to the the lack of hide and tissue the determination is possible/unknown.

June 14, 2018 – Wallowa County (Joseph Creek area)

Date Investigated: 6/14/18

Cause of death/injury: Confirmed

General situation and animal information: On the late afternoon of 6/13, an approximately 190-pound injured calf was found in a creek-bottom pasture on private land. The calf had injuries on the hind legs, similar to two injured calves found in the same pasture earlier in the day and previously investigated. This calf was taken to a veterinarian for treatment and ODFW's investigation on 6/14. The injuries to the calf were estimated to have occurred during the day on 6/13.

Physical evidence and summary of findings: The injured calf was shaved revealing multiple canine punctures and tooth scrape marks to both rear legs above the hocks that were clear evidence of a predator attack. A large open wound with multiple bite marks and severe muscle trauma was present above the hock on the left rear leg. There were paired bite punctures and scrapes with two inch spacing. The canine spacing, location of the injuries, and the severity of the trauma was similar to other confirmed wolf attack injuries on calves. The location of the attack was within the Chesnimnus Pack AKWA.

June 13, 2018 – Wallowa County (Joseph Creek area)

Date Investigated: 6/13/18

Cause of death/injury: Confirmed

General situation and animal information: On 6/13, a livestock producer found two injured four- to six-week-old, 200 lb. calves in a large creek-bottom pasture on private land. The producer reported seeing a wolf near the livestock on 6/12 and 6/13. Both calves had multiple open wounds on the hind legs. The calves were taken to a veterinarian for treatment and ODFW's investigation the same day. The injuries to the calves were estimated to have occurred during two different events between 12 and 48 hours earlier, based on the age of the injuries.

Physical evidence and summary of findings: Both live calves were shaved around the injuries and examined. Bite marks and large open wounds were found on the inside, back, and outside of the rear legs above the hocks and had muscle tissue trauma associated with the bite marks. These injuries are clear indications of predator attack. Multiple tooth scrapes, up to 1/8 inch wide and up to four inches long, were found parallel and leading into the large open wounds on the rear legs of each calf. The location, muscle tissue trauma, and severity of the injuries are similar to those observed in other calves attacked by wolves. The pasture where both depredation events occurred is within the Chesnimnus Pack AKWA.

June 12, 2018 – Investigation in Wallowa County (Reagin Gulch area)

Date Investigated: 6/12/18

Cause of death/injury: Confirmed

General situation and animal information: On 6/12/18 a four-month-old, 350-pound injured calf was found in a large rangeland pasture on private land. The calf had injuries on the hind legs. The calf was brought to a veterinarian for examination. The injuries to the calf were estimated to have occurred four to five days earlier.

Physical evidence and summary of cause of death: The live calf was examined and the hair was shaved around the injuries. Bite marks were found on the inside, rear, and outside of both hind legs above the hocks. These bite marks were associated with muscle tissue trauma, and are clear evidence of a predator attack. The size, number, and locations of the bite injuries are similar to injuries observed in calves attacked by wolves. Although individual wolves have been documented, there is no known pack currently using this area. ODFW will continue to monitor wolf activity in the area.