# GUIDELINES AND REFERENCE FOR MANAGING AGGRESSIVE WILDLIFE/HUMAN INTERACTIONS



## WYOMING GAME & FISH DEPARTMENT June 2012



#### TABLE OF CONTENTS

Introduction	3
Receiving the Call	6
Equipment	9
Arrive at Scene	11
Media Coordination.	14
Contacts	18
County Sheriff's Offices	19 20
Forensic Guidelines	22
Evidence	33
Predatory Animal Sign	48

## GUIDELINES AND REFERENCE FOR MANAGING AGGRESSIVE WILDLIFE/HUMAN INTERACTIONS

#### INTRODUCTION

This document provides a reference for an effective and professional response to aggressive wildlife/human interactions in Wyoming. Wildlife conflicts that do not involve direct human contact (e.g., livestock depredation and property damage) are not addressed in this document. These guidelines are to provide consistent and clear direction while allowing employees maximum flexibility in determining specific actions to take in dealing with wildlife conflicts. Most wildlife attacks on humans are caused by grizzly bears, black bears, wolves, and mountain lions, but these guidelines should be useful when dealing with any type of wildlife attack on humans. Wolf management in Wyoming is currently the responsibility of the U.S. Fish and Wildlife Service (USFWS). Aggressive encounters with wolves should be reported to the USFWS Wyoming Wolf Management Office at 307-330-5631. Grizzly bears protected under the Endangered Species Act (ESA) will require special consideration in some management situations. Unless immediate human safety is being jeopardized, any Wyoming Game and Fish Department (WGFD) employee dealing with grizzly bear/human interactions should consult with the Large Carnivore Conflict Program personnel to ensure federal regulations, policy and guidelines are followed. More information regarding grizzly bear management can be obtained from the Interagency Grizzly Bear Guidelines (USFWS 1986).

This document will be used as a guide for WGFD personnel responding to an aggressive wildlife report to: 1) secure human safety and assist with injured persons; 2) determine if a wildlife attack has occurred and by what species; and 3) investigate and manage the incident accordingly. The circumstances of any wildlife attack vary, and therefore, require adaptive responses.

Any report of an aggressive animal requires a response and should be evaluated in regard to the potential threat to human safety. Department personnel should notify the Regional Wildlife Supervisor and consult with Large Carnivore Conflict Program personnel as soon as possible to determine the course of action required, if any.

It is essential that WGFD personnel respond immediately and mobilize teams to investigate the incident and if necessary, control the animal involved. If a control action is warranted, an immediate response is critical. **Assemble and mobilize investigative and control personnel at once.** 

#### **MANAGEMENT ACTIONS**

Based on information reported and evidence gathered, including the cause of the animal's aggressive behavior, the WGFD may utilize any or all of the following management actions in the event of human injury or death that results from a wildlife attack. Area closures may be used in conjunction with these actions and should be coordinated with the appropriate land management agency as necessary.

o No management action-Investigation only

Taking no action to manage the animal involved in the attack.

o Deterrent methods

Hazing, scaring, herding, or otherwise dispersing an animal from the scene.

Aversive conditioning

Using pain, noise, or harassment to change an animal's behavior.

Trapping and relocation

Capture and/or relocation of an animal from the attack scene.

o Removal of the animal

Lethal or live removal of the animal from the wild.

# THIS PAGE WOULD BE A "TAB" PAGE FOR RECEIVING THE CALL SECTION

#### RESPONSE GUIDELINES TO A REPORTED ANIMAL ATTACK

0	Receiving the call (see page 7; "Animal Attack Caller Information"):
	<ul> <li>□ Full name and all contact information of victims and reporting party.</li> <li>□ Detailed location of the incident.</li> <li>□ Type and severity of injuries.</li> <li>□ Attack details.</li> <li>□ Number of people involved.</li> <li>□ Animal species and number of animals.</li> <li>□ Is animal(s) still at large? Wounded? Dead?</li> <li>□ Unique identifying characteristics of the animal.</li> </ul>
0	Notify appropriate law enforcement and land management agency.
0	ESTABLISH COMMUNICATION WITH ALL DESIGNATED PERSONNEL WHILE IN ROUTE TO SCENE OR DESIGNATE SOMEONE TO DO SO:
	<ul> <li>□ Predator Attack Team (PAT) members (see page 18)</li> <li>□ Regional Wildlife Supervisor</li> <li>□ Large Carnivore Conflict Personnel</li> <li>□ Regional I&amp;E Specialist</li> <li>□ County Sheriff (see page 19)</li> <li>□ Game and Fish Laboratory (307-766-5616 or 307-766-6313)</li> <li>□ Wyoming State Veterinary Laboratory (307-742-6638)</li> <li>□ State Crime Laboratory (307-777-7539 or 307-777-7808)</li> <li>□ Appropriate Land Management Agency (call SALECS)</li> </ul>
0	Gather Regional Carnivore Human Interaction Evidence Collection Kit (CHICK) or have it brought to the location.
0	Respond to scene immediately as allowed by location of incident.
0	Instruct others to respond with additional equipment, personnel, etc.
0	May designate radio talkgroup (MAT or CAT) for incident.
0	Assemble personnel to capture or remove the animal (see page 18).

#### ANIMAL ATTACK CALLER INFORMATION

Date and Time of Call:Name of Caller:	_Received by:
Phone Number(s):	
Detailed Location:	
T	
Type and Severity of Injuries:	
Attack Details:	
Names and Number of People Involved:	
Animal Species and Number of Animals Involven	ved:
Current Status of Animal(s): At large? Wound	led? Dead?

# THIS PAGE WOULD BE A "TAB" PAGE FOR EQUIPMENT SECTION

#### **EQUIPMENT NEEDED:**

THIS IS A LIST OF SOME OF THE BASIC EQUIPMENT NEEDED WHEN RESPONDING TO A WILDLIFE ATTACK:

Firearms, Ammunition and/or Non-Lethal Rounds	
CHICK Kit	
Global Positioning System (GPS) (charged or with batteries)	
Digital Camera (charged or with batteries)	
Satellite Phone or Cellular Phone (charged or with batteries)	
Portable Radio (charged or with batteries)	
Animal Capture Equipment	
<ul> <li>□ Culvert/Box trap</li> <li>□ Foot snares/Neck snares</li> <li>□ Leg-hold traps</li> <li>□ Immobilization equipment</li> <li>□ Hounds and/or houndsmen</li> </ul>	
Additional Personnel	
<ul> <li>□ PAT members</li> <li>□ Large Carnivore Program personnel</li> <li>□ Regional Wildlife Supervisor</li> <li>□ WGFD media contact (Regional I&amp;E Specialist)</li> </ul>	

## THIS PAGE WOULD BE A "TAB" PAGE FOR ARRIVE AT SCENE SECTION

#### AT THE SCENE:

The scene of any human injury or fatality is under the authority of the County Sheriff (S.O.) and/or coroner's office. WGFD personnel will assist the S.O. with investigation of the scene as requested. After it has been determined that a wild animal was involved, the scene is secure for medical/coroner personnel, and the injured/killed persons are attended to, the S.O. will likely turn over scene management to the WGFD. Capture, control, or removal of a wild animal involved in a human injury or death is under the authority of the WGFD (and the USFWS for ESA listed species) and should be accomplished while coordinating with local law enforcement and land management agencies. The Regional Wildlife Supervisor or his/her designee will act as the Department's officer in charge and will ensure that all necessary coordination, communication and appropriate actions are accomplished.

- SECURE THE SCENE AND PEOPLE. Provide for human safety <u>first</u>. Close area to and remove any unauthorized personnel.
- WAIT for backup unless public safety is an immediate concern (i.e. animal at large or still present).
- Alert medical personnel/coroner, assist and protect if necessary.
- Secure the area---and assign job responsibilities Control access to area, establish ☐ Staging Area-roadblocks or checkpoints, establish a perimeter, use crime scene tape. Exclude media and other nonessential personnel. ☐ Media Control---The Regional Wildlife Supervisor, in conjunction with the Regional Information and Education Specialist (RIES)/Public Information Officer (PIO), will coordinate appropriate response and actions regarding the media. Provide for human safety when animal is at □ Scene Security-large (use as many people as necessary). Communicate with family and friends, gather ☐ Family Liaison-information and provide regular updates, conduct interviews. Control family members and friends from interfering with investigation. Remove them from scene if necessary.

□ Evidence Team-- Follow instructions in FORENSIC GUIDELINES and EVIDENCE Section (see page 22). Make notes of initial observations prior to formal scene investigation. Preservation of EVIDENCE is CRITICAL and must be maintained. Identify entrance, exit, and travel path into scene. Mark ANY item as potential evidence.

\*\*Prevent evidence destruction by medical/other personnel

☐ <u>Capture Crew</u>-- WGFD personnel, Wildlife Services or hired houndsmen.

# THIS PAGE WOULD BE A "TAB" PAGE FOR MEDIA COORDINATION SECTION

#### **MEDIA COORDINATION:**

All unauthorized personnel shall be immediately excluded from the scene of a wildlife attack in order to preserve evidence. WGFD personnel should request law enforcement assistance to exclude non-compliant or other unauthorized personnel from entering the scene.

- 1. The Regional Information & Education Specialist (RIES) will be notified by the Regional Wildlife Supervisor (RWS) or designee as soon as possible.
- 2. The RIES will contact the Department's Public Information Officer (PIO-Asst. Chief-I&E-Services Division) and inform him/her of the situation that has occurred. An Incident Public Information Officer (IPIO) may be identified and used in place of a PIO.
- 3. The PIO will be in contact with the RWS or his designee, the investigative team, and the media.
- 4. The County Sheriff/Coroner's Offices and/or medical personnel should coordinate all media regarding the status of human injuries and/or deaths. The RWS or his designee will consult with the appropriate emergency personnel before speaking to the media to ensure that everyone receives a consistent message.
- 5. The land management agency should coordinate all information releases that pertain to non-law enforcement area, trail, or campground closures, or any additional emergency land management agency action.
- 6. The REIS and RWS or his designee will review all the facts of the incident.
  - Working closely with Wildlife Division Administration and PAT personnel, the RWS and PIO will make a decision whether and how to release information to the public.
    - ☐ In making the decision, the following should be considered:
      - > Is there an internal concern for public safety threat?
      - > Is there an expressed public concern for safety?
      - ➤ Has the public or media expressed an interest in knowing more about this incident, or large carnivore issues in general?
    - ☐ Are there other agencies or organizations that would be more appropriate to answer certain questions.
      - ➤ If the media/public learns of the incident and calls for comment, a response should be provided using only information known to be factual.
      - Consider if other agencies need to be consulted prior to release of information, or is a joint release appropriate? (see #9).

- 7. If a decision is made to release information to the public, the PIO, RWS or his designee may conduct one or more press conferences. If necessary, the location of the conference may be well away from the attack scene.
  - The PIO will make all the necessary media contacts and press conference arrangements.
  - The PIO or his designee will develop a fact sheet and talking points for media distribution.
  - All news releases will be reviewed by the Wildlife Division Administration, RWS, PIO, and designated Attack Team lead prior to release. All news releases will be distributed statewide and also sent to "WGF" (statewide) on the Department's internal email list.
- 8. The PIO, RWS or his designee will respond to media requests. This can be done either by returning the media's calls, or enlisting assistance from regional office managers to inform the media that interview requests or press conferences will be provided after a specified time (see #14 for additional direction).
- 9. Situations involving federally listed species (grizzly bear or wolves) will require special coordination between the USFWS and WGFD.
- 10. The designated attack team lead will communicate with the RWS and PIO on a frequent basis, to keep them informed of investigation progress and collaborate on decisions affecting the ongoing release of information. The RWS or PIO will keep the designated attack team lead informed on media matters.
- 11. Department personnel should be helpful and open with the media and public, but specific questions and/or interview requests related to the incident should be directed and responded to by the RWS and/or PIO.
- 12. Experience has shown that the media is not only interested in the incident, but also in the generalities and details of the wildlife species involved.
  - The RWS, PAT Leader, Regional Large Carnivore Biologist, or designee, needs to be able to anticipate the questions that may arise (How many bears in an area? population trends, recent trapping, releases, history of attacks on humans, what will happen to the offending animal?, etc.)
  - This information should be made available to the RWS.
  - o If time allows, a fact sheet should be prepared.
  - It may be useful to ask a non-Department expert to speak about animal behavior or provide other general information.
- 13. Media access to the attack scene, including photographs and/or video, of any captured or killed wildlife may be arranged only through the RWS or PIO, who

will coordinate with the PAT lead or designee and private landowner, when necessary.

Most requests for information from the general public will be handled by the front office staff.

- 14. That information will be based on the most recent and previous public news releases. Comments, complaints, offer of new information, and inquiries requiring a more detailed response will be responded to by the RWS, PIO, or other designated staff as time allows.
- 15. There is a special need for information communication with specific groups and individuals such as people living in the area near where the attack occurred, or hunters with permits in the area, etc.
  - Attempts to make these contacts should be done as a matter of courtesy and safety.
  - o Contacts should be timely and updated as information becomes available.
  - Information should be based on the most recent and previous news releases.
  - Contacts may be assigned to the local game warden, wildlife biologist or other department employee that knows the area and landowners, and who is not involved in the investigation.
    - ☐ These assignments should be made as early in the process as is possible. Contacts may be made by telephone or in person.
- 16. Wildlife Division Administration will be responsible for any review process required by the Department Director.

# THIS PAGE WOULD BE A "TAB" PAGE FOR CONTACTS SECTION

PREDATOR ATTACK TEAM MEMBERS (May 2012)

			OFFICE	OTHER PHONE
REGION	NAME	CELL PHONE	PHONE 307-733-2383	CONTACT
JACKSON	BILL LONG	307-730-2803	ex234	307- 733-7212(home)
JACKSON	BILL LONG	307-730-2803	ex234	307-733-7212(Hoffle)
CODY	CHRIS QUEEN	307-899-3124	307-754-5290	
SHERIDAN	DUSTIN SHORMA	307-751-2438	307-655-9495	307-941-0083 (personal cell)
LANDER	BRAD HOVINGA	307-330-6345	307-332-2704	
GREEN RIVER	NEIL HYMAS	307-679-4067	307-279-3466	
LARAMIE	SHAWN BLAJSZCZAK	307-421-2664	307-638-8354	
CASPER	BRADY VANDEBERG	307-340-0469	307-334-3281	
PINEDALE	ADAM HYMAS	307-260-8966	307-276-3359	
MEDIA (INFO AND EDUC)-CODY	TARA TEASCHNER	307-272-1019	307-527-7125	307 587-2560 (personal cell)
LARGE CARNIVORE PROGRAM				
LANDER	BRIAN DEBOLT	307-330-6977	307-332-2688	307-335-8456(home)
CODY	MARK BRUSCINO	307-899-8157	307-527-7125	
	LUKE ELLSBURY	307-250-3306	307-527-7125	
PINEDALE	ZACH TURNBULL	307-360-7336	307-367-4352	307-537-3416
JACKSON	MIKE BOYCE	307-690-1177	307-733-2383	
WGFD FORENSICS LAB	DEE DEE HAWK	307-761-1124	307-766-5618	307-745-3767(home)

## WYOMING COUNTY SHERIFF'S OFFICES CONTACT LIST (May 2012):

ALBANY	307-721-2526
BIG HORN	307-568-2324
CAMPBELL	307-682-7271
CARBON	307-324-2776
CONVERSE	307-358-4700
CROOK	307-283-1225
FREMONT	307-332-5611
GOSHEN	307-532-4026
HOT SPRINGS	307-864-2622
JOHNSON	307-684-5581
LARAMIE	307-637-6524
LINCOLN	307-877-3971
NATRONA	307-235-9282
NIOBRARA	307-334-2240
PARK	307-527-8700
PLATTE	307-322-3221
SHERIDAN	307-672-3455
SUBLETTE	307-367-4378
SWEETWATER	307-922-5321
TETON	307-733-2331
UINTA	307-783-1000
WASHAKIE	307-347-2242
WESTON	307-746-4441
SALECS	800-442-2767

#### US FISH AND WILDLIFE SERVICE

Agent Roy Brown (Lander)..... 307-332-7607(office)

307-349-4720(cell)

Agent Dave Ripeto (Cody)...... 307-527-7604(office)

307-272-8048(cell)

Agent Scott Darrah (Casper)..... 307-261-6365(office)

307-258-5678(cell)

Chris Servheen (grizzly bears)... 406-243-4903(office)

406-240-6506(cell)

#### WGFD CONTRACTED OR EMPLOYEE HOUNDSMEN (March 2012)

Dave Hyde (Star Valley) 307-730-7403

Bradley Walden (Sheridan) 307-674-6405

Greg Hartman (Sheridan) 307-672-0383

Jim Barkhurst (Encampment) 307-327-5504

Jay Talbott (Laramie) 307-742-9004

Jim Forbes (Kaycee) 307-738-2254

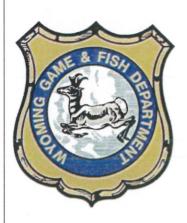
Tessa Fowler (Ten Sleep) 307-388-5411

Other houndsmen may be available that are not on this list and can be contracted with in case of an emergency. Work with RWS for additional houndsmen and contract requirements.

# THIS PAGE WOULD BE A "TAB" PAGE FOR FORENSIC GUIDELINES SECTION

## 2010

Wyoming Game & Fish Dept. January 2010



# SUGGESTED PROTOCOL FOR FORENSIC EVIDENCE COLLECTION IN AGGRESSIVE WILDLIFE/HUMAN INTERACTIONS



Dee Dee Hawk, Laboratory Director Wyoming Game and Fish Wildlife Forensic and Fish Health Laboratory Laramie, WY

#### SUGGESTED PROTOCOL FOR FIELD OFFICER COLLECTION AND TRANSFER OF PYSICAL EVIDENCE IN AN AGGRESSIVE WILDLIFE/HUMAN INTERACTION

This document will suggest standardize protocol for handling collection of forensically pertinent evidence in a wildlife/human interaction. For the purpose of this document, large carnivore specifically refers to grizzly bear (*Ursus arctos*), black bear (*U. americanus*), gray wolf (*Canis lupis*), and mountain lion (*Felis concolor*). Other species of concern primarily includes big game but could potentially include interactions with other canids, felids, or mustelids.

In the instance of an attack or death caused by an aggressive interaction with wildlife, the public wants to have confidence that the correct animal has been captured or removed. They do not want animals euthanized without evidence they are the offending animal. This collection procedure will provide assistance with this goal.

This protocol is intended to be used as a guide only. Every circumstance of aggressive interactions with wildlife is going to be different, and as such, will require that they be handled differently. The main point is to have a system in place before the interaction occurs. It may be difficult to coordinate with a forensic and diagnostic laboratory in a timely manner, after an attack as taken place.

#### **FORENSIC GUIDELINES**

## **EXAMINATION OF ATTACK SCENE-**Use **CARNIVORE CARCASS COLLECTION KIT** for collection and transfer of physical evidence

- 1. <u>NOTIFY ALL DESIGNATED PERSONNEL:</u> In general, it is best to radio or phone Regional Wildlife Supervisors, County Sheriff, Large Carnivore Program, and the Forensic and Diagnostic Laboratory personnel.
- 2. In most instances, wildlife officers will assume immediate control over the attacking animal and the carcass (upon death).
- 3. Approach and treat the area as a crime scene.
- 4. Take overall photographs of the scene and the location of the animal (if present) in the scene. Make sure to get all objects of interest in the photograph and their relationship to the animal.
- 5. Take close-up photographs of any tracks, bite marks, claw marks, etc. on objects that cannot be collected (tree, etc.). Make sure to take photographs with and without a ruler and take the photo at a 90-degree angle so they can be enlarged for comparison.
- 6. Make a sketch of the scene area and locate, with measurements, all items which are relative to the animal and other evidence. Attempt to locate one permanent landmark to use as a reference point.
- 7. Secure items such as clothing, tents, sleeping bags, objects used for defense during the attack, objects chewed on by the carnivore, or any other materials which may possess the attacking animal's saliva or blood stain evidence. These items will need to be submitted to the forensic laboratory.
- 8. Collect obvious carnivore hairs from the scene with tweezers and place in an evidence envelope.
- 9. If scat is present, collect in plastic container containing silica beads. It may be possible to perform a DNA match of the scat back to the suspect animal.
- 10. Collect, label, and package all evidence in the area.

#### CARNIVORE CARCASS COLLECTION KIT

- 1. Follow this chain of authority over Physical Evidence resulting from an attack:
  - A. The forensic laboratory that will be responsible for DNA testing/matching of the animal to the victim should receive all collected evidence as soon as possible.
  - B. The forensic laboratory will turn the carcass over to a diagnostic laboratory for disease testing after they have completed examination of the carcass for evidence.
- 2. Use the <u>CARNIVORE CARCASS COLLECTION KIT</u> to transport the carcass to the forensic laboratory while maintaining evidence (and chain of custody). The major contents include: large body bag, one box of disposable gloves, four face masks, paper bags and/or cotton sheets for head and feet, freezer tape, gauze, paper bags and labels for evidence recovered from the attack site.

- A. When the suspected animal is taken:
  - 1) Avoid shooting it in the head if at all possible. This is extremely important for two reasons:
    - i. The brain is needed for disease testing.
    - ii. The large amount of blood and debris from this shot will potentially destroy any evidence of the victim on the head making it much more difficult to match the animal to the victim.
  - 2) Wear clean protective gloves while handling the animal. If very small quantities of blood are present on the carcass, then facemasks should be worn to prevent contamination of DNA. Facemasks are also a good idea to protect the personnel working with the carcass. In some instances of animal attacks, the animal is not well and has thus lost their fear of humans. The reason for their illness may be contagious to humans (ie. plague or rabies).
  - 3) Immediately plug the wound caused by the killing shot with tight gauze to minimize contamination of the animal with its own blood. This is also essential to maintain trace evidence.
  - 4) Prior to moving the animal, place and secure paper bags over extremities (paws, etc.) as well as bag the head in paper (this is to assist with keeping trace evidence in place or in paper bag). *Note*: plastic bags should NOT be used to cover paws or head.
  - 5) Photograph and then collect any obvious evidence which is loose on the animal (foreign soil, grease, glass, fibers, etc.) prior to packaging and transporting the animal.
  - 6) Place the animal inside a protective durable body bag. If the temperature is warm, cover the animal with a cotton sheet before placing inside the body bag and then leave the bag open to prevent degradation of biological materials.
- B. Make sure to protect the animal's external body from:
  - 1) Loss of bloodstains or other physical evidence originating from the human victim.
  - 2) Contamination by the animals' own blood.
  - 3) Contamination by the human handler's hair, sweat, spittle, skin cells, etc.

#### PACKAGING AND PREPARATION OF ANIMAL FOR TRANSPORT

- 1. If at all possible, it is recommended that the animal be transported out of the field prior to any additional forensic samples being collected or a necropsy being performed.
- 2. Arrangements for transportation of the animal may take some time and therefore security of the area and animal may be necessary. When making arrangements for initial transportation, consider making arrangements for cold storage (not frozen), if transportation to forensic and diagnostic site will be delayed. If weather is hot and humid, open body bag to allow air circulation and minimize spoiling.

- 3. Attempt to move the animal in the same position/posture as initially found. Rolling the animal from one position to another could result in the loss of evidence as well as contamination of the body.
- 4. Use a clean transport bag. Place the animal in a bag, use additional "carry" bag to cover if large animal or handles needed to transport the animal.
- 5. ATTACH SEIZURE TAG WITH CHAIN OF CUSTODY, SIGN, AND INITIAL APPROPRIATE LINES.
- 6. Once the animal has been moved from the initial crime scene, examine the area for any additional evidence (especially under where the animal was laying).
- 7. Take additional photographs of the scene with the animal removed and photographs of the area under animal. Thoroughly check the area under the animal for foreign objects; it may be appropriate to sift, or collect the soil under the animal for later processing.

#### FORENSIC LABORATORY

- 1. The forensic laboratory will examine the carcass and remove any trace evidence that may match the animal to the victim; including any possible foreign biological material in teeth, on paws or claws.
- 2. The forensic laboratory will attempt to genotype the animal DNA in any retrieved hair, blood or saliva that was deposited by the attacking carnivore on the human victim. If successfully typed, this DNA will be compared to DNA from the suspected attacking animal for identification purposes. Carnivores to be typed include mountain lion, black bear and grizzly bear. Others species for consideration include wolves.
- 3. The presence of significant human biological material (tissue or blood) on the animal will be sufficient to accurately identify the animal. If some time has passed before the carnivore can be captured, and thus there is no human biological material available on the carnivore, a different course of action will be taken. Biological samples collected from the victim and the attack site will be used to attempt a DNA match with the suspected carnivore to confirm that the correct animal has been identified.
- 4. Domestic animal attacks are NOT tested by the WG&FL.

#### **NECROPSY**

Note: When euthanizing the suspect animal, avoid shots or blows to the head if at all possible because intact brain material is required for rabies assessment.

- 1. A complete gross and histopathological necropsy will be performed by a diagnostic laboratory.
- 2. Samples will be taken for disease and toxicological assessment, as required/requested.
- 3. The diagnostic laboratory will recheck the animal for any possible foreign material and collect if present.
- 4. The necropsy should include photographs (with and without ruler at 90 degree angles) of wounds, trauma areas, and any damage to animal as they are revealed

#### VICTIM SAMPLING KIT

- 1. If the victim is alive, PROVIDE the attending medical personnel with the <u>VICTIM</u> <u>SAMPLING KIT</u> for collecting possible animal saliva stains or hair that might be on the victim.
- 2. If possible, collect outer clothing from the victim before they are transported (place in a paper bag inside out). Use a lint brush and collect trace fibers from the victim's clothing.
- 3. If the victim did not survive the attack, advise the medical examiner of the need to collect this evidence.
- 4. Collection of this material is extremely critical. It is even more critical if the animal in question has not been captured immediately. The longer it takes to find the attacking animal, the greater the possibility of all human biological evidence being lost. In those instances, the only way to confirm the correct animal may be to match hair and trace evidence collected from the victim to the animal upon its capture/death days or even weeks later.

## WYOMING GAME AND FISH FORENSIC LABORATORY CARNIVORE ATTACK PROTOCOL VICTIM SAMPLE KIT

#### 1. Contents:

- a. Six (6) coin envelops for hairs and fibers.
- b. Six (6) swabs, sterile cotton tipped applicators for blood and saliva.
- c. Four (4) vials of sterile water for wetting swabs.
- d. Six (6) evidence envelopes for swabs after sample collection.
- 2. Directions on sampling the wound:
  - a. Sample with dry swab if wound edges are moist.
  - b. Sample with slightly moistened swab (sterile water) if wound edges are dry.
  - c. Allow swabs to briefly dry in non-contaminating area.
  - d. Place the swabs into evidence envelopes and complete information requested.

#### 3. Additional information:

- a. Remove any possible carnivore hairs (a lint roller works well for this purpose) from the victim and place them into the small plain envelopes and label with: location, source, collector, date and time.
- b. Seal the collected samples into the large envelope and complete information requested.
- c. Sign on large envelope over flap sealing evidence, keep at room temperature and transport to forensic lab.

# DIRECT QUESTIONS TO: DEE DEE HAWK, LAB DIRECTOR WYOMING GAME AND FISH FORENSIC LABORATORY Ph: (307)-766-5616, FAX: (307)-766-5630

The WG&FL will attempt to type the animal DNA in any retrieved hair, blood or saliva stain that was deposited by the attacking Carnivore on the Human victim. If successfully typed, this DNA will be compared to DNA from the <u>suspected</u> attacking <u>animal</u> for identification purposes.

## WYOMING GAME AND FISH FORENSIC LABORATORY CARNIVORE ATTACK PROTOCOL CARNIVORE CARCASS COLLECTION KIT

#### 1. Contents:

- a. Two (2) large body bags and one large heavy-duty transport bag with handles.
- b. One (1) box of large disposable gloves.
- c. Four (4) facemasks (to prevent DNA contamination for use when only trace quantities of blood or saliva are present on carcass).
- d. Paper bags for head and feet.
- e. Freezer tape.
- f. Gauze plugs for wounds.
- g. Paper bags, boxes and labels for evidence recovered at attack site.

#### 2. Directions:

- a. Do NOT shoot animal in the head if at all possible!!
- b. Wear clean protective gloves and a face mask while handling the animal.
- c. Tape paper bags over the head and paws.
- d. **Immediately** plug wounds with gauze to minimize contamination of animal with its own blood.
- e. Place animal carcass inside body bag, secure and KEEP COOL IF POSSIBLE. Transport to forensic/diagnostic laboratory. Place animal in cotton sheet before it is placed inside the body bag if it is not possible to keep the carcass cool.

#### 3. Comments:

- a. Protect yourself from exposure to communicable diseases such as rabies, plague and bacterial infections (WEAR NITRILE GLOVES).
- b. Be guided by the need to protect the ANIMAL'S external body from:
  - 1) Loss of bloodstains or other such Physical Evidence originating from the human victim.
  - 2) Contamination by the animals own blood.
  - 3) Contamination by the human handler's hair, sweat, spittle, skin cells, etc. (GLOVES AND MASK)
- c. Secure items such as clothing, tents, sleeping bags, objects used for defense during attack, objects chewed on by the carnivore, or any other materials which may possess the attacking animal's saliva or blood stain evidence on them. Package in paper bags, boxes, NO PLASTIC BAGS, label and indicate chain of custody.
- 4. If the victim is alive, advise the attending medical personnel about the CARNIVORE ATTACK VICTIM SAMPLING KIT for collecting possible animal saliva stains or hair that might be on the victim. If the victim is dead, advise the medical examiner of the need to collect this evidence and to contact the WYOMING GAME & FISH LABORATORY.

DIRECT QUESTIONS TO:
DEE DEE HAWK, LAB DIRECTOR
WYOMING GAME AND FISH FORENSIC LABORATORY
Ph: (307)-766-5616, FAX: (307)-766-5630

## WYOMING GAME AND FISH FORENSIC LABORATORY CARNIVORE ATTACK PROTOCOL ANIMAL SAMPLING KIT

NOTE: If at all possible, this collection should be done in clean, cool laboratory environment. If that is the case, all of the collection material will be available in the laboratory. This is for emergency collection of the evidence away from a laboratory setting.

#### 1. Contents:

- a. Twenty (20) manila coin envelops, for hairs and fibers.
- b. Ten (10) swabs, sterile, cotton tipped applicators for blood and saliva collection.
- c. Six (6) tubes of sterile water for wetting swabs.
- d. Twelve (12) evidence envelopes, for swabs insertion after sample collection.
- e. Three (3) plastic Ziploc baggies.
- f. Large plastic garbage bags and string
- g. Magnifying glass

#### 2. Directions

- a. Examine the animal very closely, especially if some time has passed since the attack. A magnifying glass is especially helpful for checking the head/face area of the animal.
- b. Swab blood on paws, claws, mouth parts, facial region and on hair of legs, throat or other parts of the hide.
- c. Dry and place in evidence envelope.
- d. Look for human hair in mouth, on claws or other locations on hide, collect and place in coin envelopes.
- e. Look for tissue around mouth or on claws, collect and place into evidence envelope.
- f. Remove a pencil eraser size piece of tissue from the muscle mass on rear legs or from an area not involved in trauma caused at death and place in a desiccant tube, seal and label.
- 3. Place hair, desiccant tube and evidence envelope containing swabs into large envelope and seal. Fill in evidence information.
- 4. If there is still a possibility of transporting the carcass, keep it cool during transportation to the lab.
- 5. After all trace evidence has been retrieved, it is time to perform a field necropsy. Wear protective clothing for this procedure, mainly gloves and a mask.
  - a. This would include collection of the brain, determination of body condition and collection of the stomach and intestinal track.
  - b. Use the string provided in the kit to tie off the top of the stomach and the bottom of the intestine.

DIRECT QUESTIONS TO:
DEE DEE HAWK, LAB DIRECTOR
WYOMING GAME AND FISH FORENSIC LABORATORY
Ph: (307)-766-5616, FAX: (307)-766-5630

The WG&F forensic laboratory will identify any material collected from the animal to determine if any human biological material can be identified. If human biological material can be detected (tissue or blood), no further testing will be done. If additional testing is necessary, tissue from the animal in question will be used to attempt to DNA match to biological material collected at the attack site and any material collected from the victim.

# THIS PAGE WOULD BE A "TAB" PAGE FOR EVIDENCE SECTION

#### **COLLECTION AND TRANSFER OF PHYSICAL EVIDENCE:**

<u>NOTIFY</u> the Game and Fish Laboratory (307-766-5616 or 307-766-6313), and the Wyoming State Veterinary Laboratory (307-742-6638). WGFD personnel should assume responsibility of the animal carcass.

Follow this chain of authority over Physical Evidence resultant from an attack:

- PREDATOR ATTACK TEAM MEMBER, REGIONAL WILDLIFE SUPERVISOR, DISTRICT GAME WARDEN, OR DESIGNATED AGENT - holds initial responsibility and authority over the scene once relinquished by the Sheriff's Office, locating the animal, and any other physical evidence from the attack; and will ensure proper transfer and disposition of all physical evidence to the Wyoming Game and Fish Department Laboratory (WGFL).
- 2. WYOMING GAME AND FISH LABORATORY (WGFL) receives and/or directly obtains all pertinent physical evidence. Once the WGFL has secured and removed samples for DNA and other testing, they will then release authority over the animal remains to the Wyoming State Veterinary Laboratory for disease studies.
- 3. WYOMING STATE VETERINARY LABORATORY (WSVL) receives authority over the animal carcass remains after the WGFL. The WSVL will conduct necropsy and disease studies of the carcass and retain primary authority over this aspect of the investigation. The carcass should be retained until the conclusion of the investigation.

Secure Physical Evidence as instructed by the WYOMING GAME & FISH LABORATORY - 307-766-6313. Use the <u>CARNIVORE CARCASS COLLECTION KIT</u> (found in the CHICK Kit).

0	<ul> <li>When the suspect animal is taken:</li> <li>Avoid shooting it in the head if possible</li> <li>Wear clean protective gloves while handling the animal. If very small quantities of blood are present on the carcass, then face masks should be worn to prevent contamination of DNA.</li> <li>Tape paper bags over the head and paws.</li> <li>Plug wounds with tight gauze to minimize contamination of human evidence on animal with its own blood or other fluids.</li> <li>Place the animal inside a protective durable body bag. Immediately start to cool the animal.</li> </ul>
0	Be sure to protect the animal's external body from:  □ Loss of bloodstains or other physical evidence originating from the human victim.  □ Contamination by the animal's own blood, saliva or tissue.

- ☐ Contamination by the human handler's hair, sweat, saliva, skin cells, etc.
- Secure items such as clothing, tents, sleeping bags, or objects used for defense during the attack, objects chewed on by the carnivore, or any other materials which may possess the attacking animal's saliva, hair, tissue or blood stain evidence on them.
- o If the victim is alive, provide the attending medical personnel with the <a href="VICTIM">VICTIM</a>
  <a href="SAMPLING KIT">SAMPLING KIT</a> for collecting possible animal saliva stains, animal blood, or hair that might be on the victim. Assist medical personnel with evidence collection if possible. Collect all bandages, swabs, gauze, splints, stretcher covers, or other used medical supplies that may have DNA evidence on it.</a>
- If the victim is dead, advise the medical examiner of the need to collect this evidence and contact the WYOMING GAME & FISH LABORATORY for further direction. Assist medical personnel or coroner with evidence collection when possible.

#### An on-site evidence collection team should consist of the following personnel:

SEARCHER- Identifies and marks any evidence that should be documented and collected and marks with flags.

Identify the entrance and exit and travel paths within the scene.

Ensure that any evidence that may be destroyed is documented, photographed and collected.

RECORDER- Photographs, records and numbers any item to be collected. Make a preliminary sketch or notes of scene.

#### Photograph and Video

- ☐ Comprehensive, medium and close-up coverage
- ☐ Take photographs of evidence with and without measurement tools or markers
- ☐ Aerial view, witness view, and under body view once it has been removed Sketching and Measurements
  - ☐ Preliminary sketch of the scene, indicate North
  - ☐ Measurements of where evidence is located at the scene
- COLLECTOR- Bags, marks and stores all evidence that has been collected at the scene.
- SECURITY- Provides for human safety if the animal is still in the area.

#### **HUMAN REMAINS**

- Coroner will coordinate activity, assist as requested
- Provide coroner with VICTIM SAMPLING KIT
- o Have a Team member attend post mortem medical examination and autopsy

#### ANIMAL HANDLING AND NECROPSY

- Best to be conducted by WGFD or State Vet Lab Contact the WGFD Lab first.
- o If possible, chemically euthanize the animal and keep it cool.
- o Transport the animal as soon as possible.
- Have a Team member attend necropsy.
- Don't worry about trying to pick up trace evidence from the animal. The lab will do this.
- o Place paper bags over all four feet and tape over the bag to hold in place.
- o Place a bag over the head and tape in place.
- o Place the entire carcass in a body bag for transport.

IF YO	U HAVE TO CONDUCT A FIELD NECROPSY:
Refer	to ANIMAL SAMPLING KIT Instructions (page 30)
PH01	OGRAPH and DESCRIBE all items as they are collected
	Collect head and paws, measure canine spacing
	Tie off esophagus where it was cut from head
	Collect sample of liver, spleen, kidneys, heart, and lungs
	Collect entire stomach and contents
	Tie off as much intestine as possible and cut and remove

#### WYOMING GAME AND FISH DEPARTMENT

		E	VIDENCE	COLLE	CTION	FORM	CASE NUMBER	<u>.</u> :	-
DATE OF COLLEC	CTION:	WARDEN DISTRICT:	ARRIVAL TI ME:		DEPARTU	RE TIME:	SUBJECTS OF	INVESTIGAT	ION:
LOCATION:				GAME WAF	DEN:				
				NOTES BY:					
				NOTES BT.					
EVIDENCE SUMM	MARY:			PHOTOGRAP	HED	FILM:		TOTAL	#
Photographs Tak	ken		YES NO	YES NO		35mm □	Color Rolls:		
DATE OF COLLECTION: WARDEN DISTRICT:  LOCATION:  EVIDENCE SUMMARY:  Photographs Taken Latent Prints Obtained Physical Evidence Collected Suspect Footprints Observed Audio Tapes Produced Video Tapes Produced Additional Notes/Sketch On Back Additional LOCATED EVIDENCE LIST Attached  NOTES:						120mm □	B&W Rolls:		
Physical Evidend	ce Collecte	ed				Other:	Polaroids:		
Suspect Footprin	nts Observ	red				TAPES:			
		ed					settes/Tapes:		
						Video Cas LATENT PRII	settes/Tapes:	1	
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AUDIO/VIDEO TA	DES BY:	PHOTOC	GRAPHY BY:		EVIDENCI	E COLLECTED BY:	WITNES	S TO COLLEC	TION

LOCATION:	NOTE BY:	CASE NUMBER:
	SKETCH BY:	DATE:
	SKETOTI BT.	DATE.
NOTES:		
SCENE SKETCH:		COMPASS HEADING
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		g - E
		*
		VECUS
	ADDITIO	YES NO DNAL NOTES ATTACHED
		L SKETCHES ATTACHED

## WILDLIFE ATTACK SCENE EVIDENCE LOG

Case Number	
Badge #-date-01,02,03,etc	
Date/Time In/Time Out	
Collector: Agency/Title	
Location	

ITEM#	TIME	<b>Description</b> (where found, use distance to victim or wildlife)	GPS Location	SEIZURE TAG#
		,		
		1		

WILDLIFE ATTACK SCENE EVIDENCE LOG (continued)

ITEM#	TIME	Description (where found, use distance to victim or wildlife)	GPS Location	SEIZURE TAG#
			The state of the s	
			VO	

#### Wyoming Game & Fish Wildlife Forensic Laboratory Biosciences Bldg, Rm. 323

#### Department 3312, 1000 E. University Ave. C/O Shipping and Receiving, 16<sup>th</sup> and Gibbon St Laramie, WY 82071

(307) 766-6313

## REQUEST FOR WILDLIFE LABORATORY EXAMINATION Please Print or Type Officer Case # Assigned Lab # Offense Charged: TYPE OF EXAMINATION REQUESTED: Species I.D.: \_\_\_\_\_ Sex: \_\_\_\_ DNA Match: \_\_\_\_ Other (describe) \_\_\_\_\_ SPECIES TO BE TESTED: KNOWN or SUSPECTED \_\_\_\_ Elk \_\_\_\_ Mule Deer \_\_\_ Whitetail deer \_\_\_ Pronghorn \_\_\_ Moose \_\_\_ Grizzly Bear \_\_\_ Other \_\_\_\_ Black Bear \_\_\_\_ Mountain Lion \_\_\_ Mountain Goat \_\_\_ Bighorn Sheep \_\_\_ Bovine \_\_\_ Porcine \_\_\_\_ **EVIDENCE SUBMITTED:** (use additional sheet if more than 6 items submitted) √ If species Known Item Description Item # Seizure Tag # SUBMITTING OFFICER (Address where report is to be sent and evidence returned to): Name and Title: Address: \_\_\_\_\_ City/State/Zip: Phone Number: E-mail: CHAIN OF CUSTODY (Evidence received via: Certified mail Personal Delivery Other ): Signature of Recipient Date & Time Signature of Recipient Date & Time 6

Original-Stays with evidence

WGFL Form 6 (6/03)

## WYOMING GAME AND FISH DEPARTMENT

Matt Mead, Governor



Scott Talbott, Director

Conserving Wildlife - Serving People

# WYOMING GAME AND FISH WILDLIFE FORENSIC & FISH HEALTH LABORATORY

Department 3312 1000 E. University Ave. Laramie, WY 82071 (307) 766-5616 Fax (307) 766-5630

#### VICTIM SAMPLING KIT

PATIENTS NAME – Please print				
EXAMINER'S NAME – Please pr	rint na	nme and sign		
MEDICAL PERSONNEL'S NAM	ME –	PLEASE PRINT NAME AN	ND S	SIGN
HOSPITAL	AG	ENCY/CASE NO.	DA	ATE OF EXAM
WYOMING STATE CRIME LAB# WYOMING GAME & FISH FORENSIC LAB#				FORENSIC
СН	IAIN	OF EVIDENCE		
FROM – Print name and sign	ТО	– Print name and sign		DATE/TIME
			-	

# WYOMING GAME AND FISH DEPARTMENT

Matt Mead, Governor



Scott Talbott, Director

Conserving Wildlife - Serving People

# WYOMING GAME AND FISH WILDLIFE FORENSIC & FISH HEALTH LABORATORY

Department 3312 1000 E. University Ave. Laramie, WY 82071 (307) 766-5616 Fax (307) 766-5630

## ANIMAL SAMPLING KIT

PATIENTS NAME – Please prin				
WYOMING GAME & FISH FORENSIC LAB#				
CHAIN OF EVIDENCE				
FROM – Print name and sign	<b>TO</b> – Print name and sign	DATE/TIME		
a				

Greg Phillips

Attorney General

# ATTORNEY GENERAL

## DIVISION OF CRIMINAL INVESTIGATION

316 W. 22<sup>ND</sup> STREET

CHEYENNE, WY 82002-0150

Forrest Bright Director

ADMINISTRATION

INVESTIGATIONS

CRIME LABORATORY

CRIMINAL INTELLIGENCE

CRIMINAL RECORDS INFORMATION (307)777-7523

(307)777-7181 FAX (307)777-7252 (307)777-7183

(307)777-7607

(307)777-7184

(307)777-7523 (307)777-7545(Telecom)

To: All law enforcement officers and evidence technicians submitting evidence to the WSCL

\*\*\* ALL EVIDENCE SHOULD BE SHIPPED TO:

DCI-CL 208 S. College Drive Chevenne, WY 82007

The Wyoming State Crime Laboratory is now an accredited Lab. It is required by our accrediting body (ASCLD/LAB) that all evidence received and maintained by this laboratory be properly:

- 1. **Packaged** this refers to the primary evidence container- so as to prevent deleterious change to the actual item of evidence.
- 2. **Sealed** to preserve the integrity of the evidence regarding contamination issues and *chain of custody*.
- 3. **Hazard Labeled** When relevant.

The following paragraphs briefly describe our expectations regarding the sealing and labeling of evidence packaging submitted by outside agencies.

#### Seal Defined:

- 4. A primary evidence container is sealed only if:
  - a. its contents cannot escape,
  - b. if entering the container results in obvious damage/alteration to the container or its seal, and
- c. all <u>seals</u> (on primary evidence packaging) <u>must be initialed or otherwise marked to document the person sealing the evidence</u>. This does not apply to the seals placed on the **shipping** container, unless the shipping container is also the primary evidence container. In such an instance, the paperwork should be affixed to the outside of the container by means of an envelope marked "paperwork."

Note: The actual seal itself must be sufficient to prevent the possibility of the item(s) contained from being lost or removed without altering the seal or from being contaminated by outside sources.

Note: Be aware when using paper envelopes and bags that "leaks" may occur away from the opening being sealed. This situation typically occurs at the four corners of envelopes and folds and seams of bags. Therefore, to comply with the definition of sealed, these trouble areas must be taped.

#### Acceptable Sealing of Evidence Packaging:

- 5. Heat or glued/gummed sealing of a plastic bag. Requirements:
  - a. The heat/glued seal must transverse the entire length of the opening.
  - b. Initialed/dated across the heat/glued seal by the person preparing the seal.
- c. Excess air should be removed from bag prior to sealing. This is necessary to accommodate increasingly limited storage space.
- 6. Tape seals
  - a. Acceptable tape:
    - i. Commercially available evidence tape
    - ii. Strapping tape
    - iii. Commercially available "packaging tapes"
  - b. Unacceptable tape:
    - i. "Scotch" type tapes
    - ii. Masking tape
- c. <u>The tape seal must transverse the entire length of the opening</u>. A single piece of tape placed horizontally across an envelope flap or folded paper bag <u>is unacceptable</u>.
- d. <u>Initials of the person placing the seal- along with the date- should be boldly marked across the tape and onto the packaging.</u>

#### **Unacceptable Sealing Materials:**

- 1. Staples- also should not be used to attach tags or paperwork to evidence
- 2. Paperclips
- 3. String
- 4. Any other materials and methods not described above as an acceptable seal.

#### Labeling:

- 1. <u>Each item of evidence should be marked with the agency case number and item number</u>. The item numbers marked on the packaging should correspond with the items listed on the evidence submittal form.
- 2. Weapons should be marked with the make, model, serial number and condition. This is especially important when the item is wrapped for latent examination and the contents cannot be seen. Firearms should be clearly marked "MADE SAFE." (Note: scopes, slings, etc. should also be listed if attached to the weapon)
- 3. Hazard Labeling

- a. All evidence packages which contain any amount of known or suspected body fluids must contain a bio-hazard label.
- b. Do not use a bio-hazard label if the hazard is chemical in nature.

#### Miscellaneous Issues:

- 1. <u>All</u> evidence must be accompanied by appropriate submittal paperwork or pre-log information. Please be sure your paperwork is complete (officer's first and last name, victim/suspect first and last name, DOB's and court dates when known), and legible-typed paperwork is best. Do not seal the paperwork inside the evidence package- paperwork should be accessible without breaking evidence seals. \* Please refrain from sending your chain of custody forms- they will not be returned. Copies of reports may be sent if the case is complex (homicides, rapes, kidnappings, etc). It is not usually necessary to include case reports for offenses such as simple drug possession.
- 1. Evidence which can cut or puncture should be packaged in a sharps container. If impractical, then package sharp items to render them safe. Label the packaging to indicate contents: Broken glass, knives, razor blades, etc. Call if you need advice/assistance in packaging an item
- 2. WSCL does not routinely analyze syringes (with partial or full needles) due to safety hazards. If a syringe/needle is associated with a suspected overdose, unknown death, or accidental needle stick, the submittal of same must be approved in advance.

  No exceptions. Contact the Lab Director or Chemistry Unit Leader prior to shipping the evidence!

NOTE: \*\*Paper items of evidence (fingerprint cards, handwriting exemplars, etc.) should be packaged and sealed the same as any other evidence.\*\* This includes *copies*, as well. They should be listed as an item of evidence on the submittal form.

#### Items that cannot be sent to the Crime Lab:

208 S. College Drive Cheyenne, WY 82007

#### **Questionable Situations:**

This letter is not intended to cover all possible situations that a person may encounter. If you have any questions when dealing with unusual situations not already discussed, we **strongly recommend** the individual call the laboratory for assistance.

As always, we here at the Wyott Facility will be glad to answer any packaging questions that may arise. Please call if we can be of assistance.

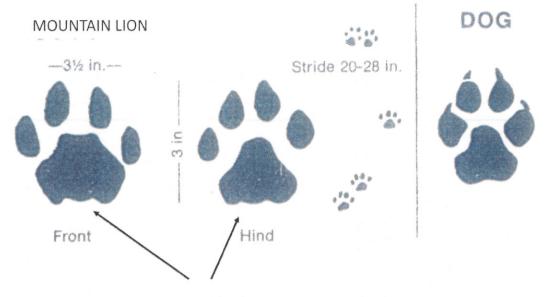
Susan Aughe/Forensic Evidence Tech - WSCL (307) 777-7539 Vince Gierisch/Forensic Evidence Tech - WSCL (307) 777-7808

FAX: (307) 777-5796

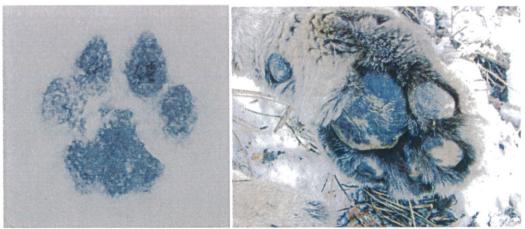
# THIS PAGE WOULD BE A "TAB" PAGE FOR PREDATORY ANIMAL SIGN SECTION

## COMMON SIGN ASSOCIATED WITH LARGE CARNIVORES

## **TRACKS**



Diagnostic Tri-lobed pad



Mountain lion track in snow

Mountain lion front foot

# Bear Track Identification

Black Bear





Front Claw

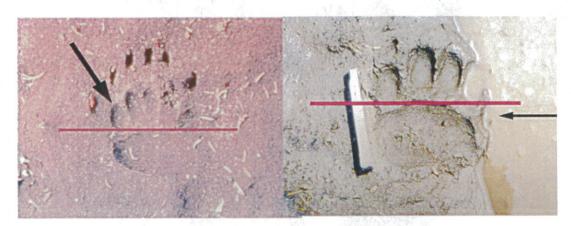




Front Track



# **Front Feet**



**Grizzly Bear** 

Black Bear B for Black, B for Below

One or more outside toes of a BLACK bear will fall below the line along the top of the front pad. All toes of a GRIZZLY bear should fall above this line. Note-claws of grizzly may extend 1-3" in front of toes.

## **Hind Feet**

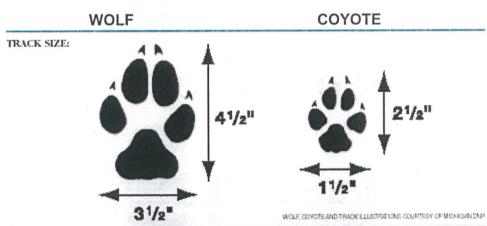


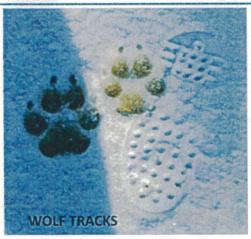
Black Bear Rounded-heel



Grizzly Bear V-shaped heel

## WOLF TRACK IDENTIFICATION





## **DAYBEDS**

Many bear attacks have been associated with bears being surprised or disturbed from their daybeds. Daybeds are usually simple depressions under a tree in moderate to thick timber, mostly dirt but sometimes lined with pine boughs or duff (see examples).



#### HAIR

Animal hair can often be used to identify individual animals through DNA analysis. Look for animal hair snagged on bushes, other vegetation and woody debris. Look for animal hair on broken vegetation or down logs, etc. as a result of contact from an animal during an attack. Victims may have animal hair in their hands, fingernails, or snagged in zippers or buttons of clothing. Animal hair could be found in the barrel of a victim's firearm. Hair may also be collected away from the immediate attack site on a fence, from a daybed, or a marked tree (rub tree). Hair may also be soiled with trace evidence (blood) for use in other forensic analyses.



For a complete mammal hair guidebook see: Moore, et al. 1974. Identification of Dorsal Guard Hairs of Some mammals of Wyoming. Wyoming Game and Fish Department, Bulletin No. 14.

Felid (mountain lion) hairs are banded with a black tip preceded by light and dark brown bands to the base. Mountain lion hair is somewhat stiff and coarse, but less so than ungulate hair.

Ursid (bear) hairs are unbanded and the color varies according to individuals. Bear hair is fine and relatively thin. GRIZZLY bear hair usually has a white tip. Do not confuse the white root of a hair as a white tip.

Canid (wolf and coyote) hairs are banded, usually with a dark tip preceded by light, dark, light bands. Canid dorsal guard hairs are more stiff and coarse than the almost down feather-like belly hair that is present mostly in the winter.

#### OTHER SIGN OF CARNIVORE ACTIVITY

Mountain lion "cache" site. This lion will return to feed on the carcass.





Mountain lion burial of prey, in this case, a wolf. Note that the partially eaten prey was drug under a tree and then duff and ground debris was pulled on top of the carcas.



Pictured above is a burial or "covering" site of a domestic calf killed by a grizzly bear. Grizzlies may only pull some ground debris and grass over a carcass or attempt to completely bury it and create significant ground disturbance as shown here.

Bears often leave claw marks on trees from climbing or rubbing (see below). Note vertical pattern of scratches. Mountain lions will also leave claw marks on trees from marking or climbing, but the scratches will be more horizontal. Look for animal hair on scratched trees.



Vegetation sprayed with blood during a wolf attack on a domestic calf (below).



Fresh bear scat (clockwise from top left) after consuming garbage, meat, pine nuts and vegetation.



