

# Agriculture & Wildlife Protection Program



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**Disclaimer**: THE INFORMATION PROVIDED WITHIN IS FOR EDUCATIONAL PURPOSES ONLY. WE ENCOURAGE YOU TO DO YOUR OWN RESEARCH ON SPECIFIC METHODS THAT WILL WORK BEST FOR YOU AND YOUR PROPERTY. ANY BELIEFS AND/OR OPINIONS STATED BY THE RESOURCES LISTED ABOVE DO NOT NECESSARILY REFLECT THE BELIEF AND/OR OPINION OF BENTON COUNTY, OR ITS AFFILIATE ORGANIZATIONS.

# **PREDATORY MAMMALS**



### CO-EXISTING WITH WILDLIFE

<u>The Livestock-Predator Hub</u> (UC Rangelands) is designed to provide research-based information for rangeland livestock producers and wildlife managers on mitigating and managing potential conflicts. This resource is based in California, but contains many methods used all over the world.

<u>Farming with Carnivores Network</u> is a collaborative of farmers, specialists, biologists, and other experts who are working together in relation to the reality of farming with predators.

Non-Lethal Solutions to Reduce Conflicts (Project Coyote) is a national non-profit organization based in Northern California whose website promotes understanding, respect and appreciation for wildlife. A rich resource of non-lethal deterrent options are provided based upon the type of predator.

The Encyclopedia of Animal Predators Learn to identify threatening species through tracks, scat, and the damage they leave behind. Fascinating profiles of more than 30 predatory mammals, birds, and reptiles teach farmers, ranchers, homesteaders, and backyard-animal raisers how to prevent their livestock, poultry, and pets from becoming prey. By understanding how predators think and behave, where and how they live, and how they attack and kill prey, you'll be able to interpret the potential threats surrounding your home.

<u>Safeguarding Livestock</u> (Mountain Lion Foundation) Learn common methods for keeping livestock safe from mountain lions (cougars), including small herd enclosures, guard animals, and techniques and devices to scare predators away.

**Bear Smart Society** Learn about living with bears and bear deterrents for farmers, ranchers, and beekeepers.

<u>Ranching With Wildlife Brochure</u> (Project Coyote) Livestock losses are an unfortunate reality of ranching. Good animal husbandry practices combined with strategic non-lethal predator control methods can considerably reduce such losses. Ranchers can choose which methods will work best for their livestock operation.

### LIVESTOCK GUARDIAN DOG WEBINARS

Selecting, training and utilizing a guardian animal, especially a livestock guardian dog (LGD), appropriate for your circumstances is important. The following webinars by LGD expert, Jan Dohner, may be helpful to you:

# <u>LIVESTOCK GUARDIAN ANIMAL OVERVIEW - LLAMAS, DONKEYS AND DOGS:</u> <u>PART 1 OF 3</u>

Fundamentals of using guardian animals, including llamas, donkeys and dogs, to protect your animals on pasture. She will address the pros and cons of using each type of guardian animal, how to choose the right animal for your farm, basic care and more.

Watch Recording or Download Slides

#### A DEEPER DIVE INTO LIVESTOCK GUARDIAN DOGS: PART 2 OF 3

This webinar focus on using dogs as livestock guardian animals. Presenter Jan Dohner covers the various breeds, questions of crossbred dogs, how to find a good dog/breeder, identifying good rescue dogs, choosing a puppy, and bringing home a new dog or puppy.

**Watch Recording or Download Slides** 

# TROUBLESHOOTING LIVESTOCK GUARDIAN DOG BEHAVIORS: PART 3 OF 3

Presenter Jan Dohner, author of Livestock Guardians, will cover the adolescent behavior problems commonly exhibited by livestock guardian dogs, including tips for observing and identifying the good and bad physical signals, and guidance for poultry guarding.

**Watch Recording or Download Slides** 

#### PREDATOR PROTECTION OF LIVESTOCK

Learn how to keep your cattle, goats, and sheep safe from predators such as coyotes, roaming dogs and birds of prey. This webinar will help you identify threats through tracks, scat, and the damage they leave behind. Our presenter is Jan Dohner, author of The Encyclopedia of Animal Predators. Watch

**Watch Recording or Download Slides** 

#### PREDATOR PROTECTION FOR POULTRY

Join us to learn practical strategies for protecting your flock from predators such as raccoons, foxes, and birds of prey. Nonlethal methods for prevention and protection will be discussed. Our presenter is Jan Dohner, author of The Encyclopedia of Animal Predators.

**Watch Recording or Download Slides** 

# **BEAVERS**



### DETERRENCE & COEXISTENCE INFORMATION

<u>Beaver Institute</u> Provides technical and financial assistance to public and private landowners experiencing beaver conflicts, support scientific research, train mitigation professionals, and increase public appreciation of the beaver's critical role in creating healthy wetland ecosystems.

<u>Beavers Wetlands & Wildlife</u> An educational nonprofit that has been helping people learn about lasting, win-win solutions for beaver/human conflicts for over thirty years. Two great resources include:

- 1. Manage Flooding
- 2. Protect Trees and Plantings

<u>Working With Beaver</u> A joint project of Wildlife 2000 and The Grand Canyon Trust. This document provides detailed information on building flow devices and more.

# BIRDS OF PREY AND OTHER BIRDS



### **IMPORTANT NOTE:**

### LEGAL PROTECTIONS FOR BIRDS OF PREY

<u>Eagles</u>, <u>hawks</u> and <u>owls</u> are protected under the <u>Migratory Bird Treaty Act</u> and other federal and state laws. <u>They cannot be harassed</u>, <u>captured</u>, <u>harmed</u>, <u>or</u> killed without a permit.

In addition, bald and golden eagle nest sites are protected under the federal Bald and Golden Eagle Protection Act. Hazing with gunfire, explosives, and airplanes is prohibited without a permit. Consult the U.S. Fish and Wildlife Service or the Oregon Department of Fish and Wildlife for specific regulations.

### **EAGLES**

**Bald eagles** are sometimes attracted in large numbers to large-scale pastured poultry operations; chicks, in particular, are very vulnerable to predation. Eagles will also prey on 3-4 week old lambs and kids as they begin to wander or play farther from mothers, but not generally after 6 weeks of age. **Golden eagles** are more of a threat to older lambs and kids, but there are few Golden eagles present in the Willamette Valley. These individuals spend late February to early March in the Valley, generally departing by the end of March.

# HOW CAN I PROTECT MY LIVESTOCK AND POULTRY FROM EAGLES?

- ✓ Set up **birthing sheds or protected pens** less than 1 or 2 acres in size. Temporary pens for night and early morning are very useful since eagles are unlikely to enter smaller spaces.
- ✓ Use **livestock guardian animals**, particularly dogs that alert to aerial attacks. Livestock guardian animals are more effective in areas small enough for them to actively protect, rather than very large spaces with scattered stock or poultry.
- ✓ Provide brushy grazing areas and shelters, which are safer than large open pastures with no overhead protection to deter aerial attacks.
- ✓ Provide an active herding and human presence to discourage eagles.
- ✓ Remove all carrion. Do not feed eagles to attract them away from pastured livestock. This practice will attract other carnivores to the area.
- Mount or suspend clothed scarecrows, with movable arms, on high points near nightly bedding areas, to scare eagles for up to 3 weeks (after which they become used to them).
- ✓ Use portable electric netting to subdivide large pastured poultry areas.
- ✓ Use **netting or wires over pastured poultry** to disrupt aerial attacks.
- ✓ Use **rounded corners in pens** to reduce smothering during an attack.
- ✓ Remove roosting sites for hawks, owls, and eagles.

### **HAWKS**

# HOW CAN I PROTECT MY LIVESTOCK AND POULTRY FROM HAWKS?

- Cover coops, runs, and pens well.
- Cover larger yards with grid systems or wire, reflective tape, Kevlar cord, or netting.
- Do not locate free-range areas near potential perching sites such as trees or poles.
   These areas should be provided with protective shelters. Outfit tall posts with electric pole shockers, metal cones, or spikes to discourage perching.
- **Keep a rooster.** Roosters often give useful alarms to their flock and may chase off predators, providing time for the flock to hide in protective shelters or brush.
- Livestock guardian dogs will alert, bark, and charge at raptors.
- Use noisemakers, whistles, pyrotechnics, and gunfire to **scare off hawks**, until they become habituated.

### **OWLS**

#### HOW CAN I PROTECT MY LIVESTOCK AND POULTRY FROM OWLS?

- **Cover the top of the pen** or coop with hardware cloth or tight mesh. Install wires or reflective tape to disrupt flight paths and areas of potential attack.
- For larger yards, set up **grid systems of wire**, monofilament, or Kevlar cord, covered with netting.
- Seal or cover all access around gates.
- Provide nighttime hiding places for free-ranging birds, waterfowl, and rabbits.
- Add a rooster to your flock as a warning system.
- Avoid free-ranging sites with high perches (such as trees), although owls will also use fence posts.
- Use **livestock guardian dogs** if socialized to poultry for patrolling around poultry areas.
- Set up scare devices such as noisemakers, motion-activated sprinklers, lights, scarecrows, and reflective items. However, owls do become habituated to routines, lights, and many scare devices. Barred Owls, in particular, are attracted to lights to hunt for large insects.

### **DETERRENT INFORMATION – OTHER BIRDS**

<u>Bird Control Group</u> Laser bird deterrents are a cost-effective and animal-friendly solution for protecting agricultural areas and keeping your valuable crops safe.

<u>Bird Guard Electronic Bird Control</u> Broadcast distress call recordings that instantly trigger a flight response in pest birds, causing them to relocate to an area less threatening.

**Bird Barrier** Products to prevent birds from landing, roosting or nesting.

<u>Bird-B-Gone</u> Over 100 affordable, effective and humane bird control products.

<u>Bird-X Bird Repeller Products</u> Bird control products that are environmentally friendly, humane, safe to use, and effective.

**Shock Tape** Electrified transparent adhesive tape to repel perching birds without harming them.

<u>Inflatable 'Dancing' Tube Man</u> Dynamic unrepeatable dancing motion keeps birds away from crops or poultry

<u>Standards for Bird Control in Vineyards</u> From the Oregon Wine Growers Association.

<u>Falconry-based Bird Abatement</u> From the Oregon Falconers Association.

<u>Bird Controls and Falconry</u> From the Northwest Berry Foundation.

<u>Integrated Avian Solutions</u> Falconry-based abatement of nuisance birds for agriculture and industry in the Pacific Northwest.

<u>MaxYield Falconry</u> Falconry-based nuisance bird abatement services to agriculture, industry, and other situations where nuisance birds prevail.

### **SOURCES**

Dohner, Jan Vorwald. The Encyclopedia of Animal Predators. North Adams, MA: Storey Publishing, 2017.

Frank Isaacs, Founder and Project Manager, Oregon Eagle Foundation, Inc.

Livestock Guardian Dogs and Poultry (Mother Earth News)

# **NUISANCE ANIMALS**



<u>Human-Wildlife Conflicts</u> (Chintimini Wildlife Center) Every year as animals move around looking for food, shelter, and places to nest and have their babies, the potential for nuisance wildlife situations arises. While most people are thrilled to see wildlife, not everyone relishes the idea of sharing their property with them. This web page has a great list of simple actions you can take to reduce conflict and live more easily with your resident wildlife.

<u>Attracting Birds of Prey</u> (Oregon State University Extension) If you are experiencing issues with rodent-related damage to crops you might consider attracting birds of prey.

<u>Find Answers to Wildlife Problems Tool</u> (Humane Society of the United States) Learn about innovative, effective, and humane approaches for solving problems with wildlife via this tool. Humane and non-lethal solutions are given priority when addressing conflicts between people and wildlife.

**Washington Department of Fish and Wildlife** Learn about co-existing with wildlife from WDFW, and how to deal with animals on your property through their "Nuisance Wildlife" and "Living with Wildlife" web resources.

For personalized advice on dealing with wildlife conflicts, call Chintimini Wildlife Center at 541-745-5324, 9am-5pm daily.

# LIVESTOCK AND POULTRY PREDATOR ID GUIDE



### ASSESSING YOUR WILDLIFE CONFLICT RISK

#### ASSESS YOUR RISK CONSIDERING THE FOLLOWING:

- Predation statistics from the <u>USDA National Agricultural Statistics Service</u>
- Wildlife identification in your local area, even at your specific farm or home
- **Predation pressure changes** during the year, including offspring needing food, and weather or season reducing access to prey animals.
- Wildlife movements that are likely in the future as animals migrate into new areas.
- Wildlife attractors including your terrain, livestock, and husbandry practices.

As you assess risk of wildlife conflict for your farm operation, remember to consider the site size, setting, environment, and terrain and how they relate to your husbandry practices:

- It is more difficult to protect livestock over large areas
- Livestock are more vulnerable using grazing areas farther from human presence
- Forested areas and vegetated streams provide cover and corridors for wildlife
- Land with a mosaic of fields and forests with high deer populations attract predators
- Rolling or steep terrain provides cover for wildlife while open, flat, terrain makes it difficult for carnivores to approach livestock undetected
- Unsecured hay or other crop storage will attract deer and elk, and their predators
- Afterbirth and sick, injured, or dead livestock will attract carnivores

### BEWARE OF THE DOGS

#### **DID YOU KNOW?**

Coyotes are the primary predator in Benton County. However in many areas domestic dogs kill the next-largest number of livestock. Dogs often "surplus kill" livestock and poultry in large numbers, not primarily for food.

### WAS THIS AN ATTACK?

Sometimes scavengers and predators get blamed for a kill when they are just eating what was killed by local dogs or died of natural causes. Getting to the carcass quickly after the animal's death is critical for proper identification of the guilty species. Tracks and droppings alone are not proof of depredation or of the species responsible. They are evidence that a particular predator was in the area and, when combined with other characteristics of depredation, can help determine what species is causing the problem. Consider using a trail camera to help you determine which predators are nearby and pose a threat to your livestock. Some questions to consider when determining if a dead animal died from natural causes or a predator attack:

- Can you determine the time of attack?
- **Are there signs of a struggle?** Signs may include torn wool, hair, or feathers; blood spatter; drag marks; and damaged vegetation.
- How are your other animals behaving? Are they nervous, scattered, or vocal?
- Are there bite marks? If so, where are they located and what is their size? Take measurements and photographs. Try to identify whether it was a mammal or a raptor. You may need to clip hair or wool to look for puncture marks. When bites are made to a living animal, there will be bruising or hemorrhaging under the skin.
- **Is there significant blood?** Profuse bleeding occurs before death and for a short time afterwards. A death from natural causes, not an accident or attack, may show a loss of bodily fluids such as urine but not much blood.
- Is the animal a newborn or stillborn? Stillborn animals may have soft membranes covering the hooves. A field autopsy can also reveal important information. Pink lungs indicate the animal was breathing before death, while stillborn animals have dark-colored lungs that will not float in water. Milk in the stomach indicates the newborn was able to nurse before death.

## DAMAGE ID TABLES

# IDENTIFY POTENTIAL CULPRITS USING THE LIVESTOCK AND POULTRY DAMAGE ID TABLES BELOW

Small predators can only kill, carry away, or consume very small livestock. Predators can be active during non-normal times or behave atypically. For more detailed information, see **The Encyclopedia of Animal Predators**, by Jan Vorwald Dohner.

	Livestock Part 1	Bear	Bobcat	Cat	Cougar	Coyote	Crow	Dog	Eagle	Fox	Marten	Mink	Raccoon	Rat	Raven	Skunk	Weasel	Wolf
	Day	1	1		1		1	1	1	1					1		1	
Time	Dusk	1	1	1	1	1		1		1	1							1
Ē	Night	1	1	1	1	1		1		1	1	1	1	1		1	1	1
	Dawn		1	1	1	1		1	1	1	1							
	Missing Animal	1	1	1	1	1			1	1						1		
	One or two animals killed	1	1	1	1	1		6	2	7,						1		1
	Several animals killed			1				1			1	1					1	1
	Animal killed not consumed				1			1										
	Small animal, only head and neck consumed				1						1	1				1	1	
	Small animal consumed	1	1	1														
(a	Opened ventrally	1	1			1												
Dead Animal (Small or Large)	Vital organs consumed first, not rumen and intestines (may be pulled out)	~	~	1		1												1
al (s	Udder (consumed?)	1																1
Inim	Breast and neck eaten										1							
ad /	Small wounds on body											1					1	
De	Meaty areas consumed	1	1	1		1												1
	Newborn eyes, nose, tongue, genitals, rectum, or hooves pecked						1								1			
	Newborn, nose or other parts chewed												1	1				
	Nose, lower jaw, ears, palate, brains eaten								1									

	Livestock Part 2	Bear	Bobcat	Cat	Cougar	Coyote	Crow	Dog	Eagle	Fox	Marten	Mink	Raccoon	Rat	Raven	Skunk	Weasel	Wolf
	Small animals bitten through forehead, top of head or neck, or back	1		1	1	1				1	1	1					1	~
	Skull or neck crushed	1																
	Deep talon marks in head or neck								1									
	Small animal bitten in throat		1			1				1								V
Jarks	Animal killed or eaten through abdomen or rectum					1					1							~
Claw N	Larger animal bitten through top of neck or back	1	1	1	1													
on, or	Larger animal bitten head, neck, back, flank, or hind					1												
Teeth, Talon, or Claw Marks	Larger animal bitten hind, sides, shoulders, tail, or nose																	*
	Larger animal, deep talon Marks in back or upper ribs								1									
	Bites on side, rips, gashes					1		1										
	Claw marks and gashes on shoulder, back, flanks, body	1	1	1	1													
	Deep talon marks								1									
	Clean edges on bones and flesh		1			1												
	Large bones crushed			1	1													
	Carcass partially or completely skinned out	1							1									
us	Carcass cached a distance away	1		1	1													~
atio	Vegetation crushed at site	1																
Serv	Wounds on live animal					1		1										
Other Observations	Mutilated animals: ears, tails, wool, or fur torn off; broken legs							1										
	Extremely stressed and anxious survivors							1										
	Strong smell	1	1													1		

	Poultry	Bobcat	Cat	Coyote	Cougar	Crow	Dog	Eagle	Fox	Hawk	Human	Marten	Mink	Opossum	lwo	Raccoon	Rat	Raven	Skunk	Snake	Weasel
Time	Day	1	1			1	1	1	1	1	1							1		1	1
	Dusk	1	1	1	1		1		1	1	1	1			1						
	Night	1	1	1	1		1		1		1	1	1	1	1	1	1		1	1	1
	Dawn	1	1	1	1		1	1	1		1	1			1						
Eggs	Eggs eaten					1	1		1				1	1		1		1	1		1
B	Eggs missing					1					1			1		1	1	1		✓	
<b>60</b>	One bird missing	1	1	1	1			1	1	1		1			1						Г
Missing Birds	Multiple birds missing										1										
Σ	One or more chicks missing				1									1			1			1	
_	One or two birds killed	1	1		✓			1	1	1				1	1	1			1		
	Several birds killed				1		1					1	1		1	1					1
ate	Chick or chicks killed		1			1								1			1	1	1		
ds nly l	Heads removed or eaten	1	1							1			1	1	1	1					1
Mai	Bodies piled together												1								~
Dead Birds (Partially or Mainly Eaten	Missing limbs or heads pulled through fence						1									1					
art.	Breast or anal area eaten											1		1							
<u>.</u>	Abdomen eaten													1					1		
	Breast and legs eaten								1							1					
lon	Talon punctures on head or body							1		1					1						
Teeth or Talon Marks	Bites on neck			1	1														1		
Ma	Bite on head or neck	1										1									
Tee	Many bites on head, neck, body or legs												1						1		~

### Poultry - Other Observations

Event	Cause
Animal(s) killed and mauled but not eaten	Dog
Bites on legs of live birds	Rat
Dead chicks or birds stuck in tunnels	Rat
Musky smell	Skunk, weasel, mink
Feathers on ground	Fox, coyote, hawk, owl
Wounds or pulled feathers on back and tail of live bird	Cannibalization
Injuries on back, pulled feathers	Rooster mounting hen
Several dead birds piled against fence or in corners, carcasses flattened	Fright and panic due to chasing by dogs, wolves, or other large predators
Serious damage to coop	Bear
Latches opened	Raccoon, human

## SOURCES

Dohner, Jan Vorwald. <u>The Encyclopedia of Animal Predators</u>. North Adams, MA: Storey Publishing, 2017. Adapted with permission from the author.

USDA-APHIS Wildlife Take and Resource Loss Summaries for Benton County 2004-2014 obtained through Freedom of Information Act (FOIA) requests.