

Managing Wildlife

Lesson Description

Domestic livestock have profound impacts on wildlife. In many cases, adding livestock to the landscape reduces habitat where wild animals can thrive and reproduce. In other cases, feed provided for livestock is eaten by wildlife, elevating the numbers of these animals past a natural level that can be sustained without human help. The most serious impact is the potential for transmission of diseases that can be passed back and forth between livestock and wild animals. Some diseases may also affect humans. It is difficult to control disease in wildlife populations. All these factors result in consequences for landowners, pets, livestock and wildlife.

Managing wildlife is a multifaceted process. First and foremost, landowners must determine the species of wildlife that inhabit their surrounding areas. Are wildlife permanent residents, or are they seasonal or migratory? Then, landowners must decide if they want to encourage a specific wildlife species or discourage it. Learning what wildlife is on your property and deciding which species you want to encourage or discourage can help you achieve your goals.

Lesson Objectives

1. Understand how to minimize negative impacts to and from wildlife.
2. Understand methods to discourage wildlife.
3. Understand the aspects of predator control.
4. Understand methods to encourage wildlife and the risks of doing so.
5. Establish goals for managing wildlife on your property.



Module 6, Lesson 3

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Worksheets

1. Setting Wildlife Goals Activity Sheet

- a. Using the Setting Wildlife Goals Activity Sheet:
 - i. Determine the local wildlife population on or around your property.
 - ii. Determine wildlife goals for your property:
 1. Complete exclusion.
 2. Open access.
 3. Combination.
- b. Determine available wildlife habitat on your property.
- c. Come up with a plan to modify your property and facilities appropriately to achieve your wildlife goals. This plan should include:
 - i. Existing areas and facilities used by your animals.
 - ii. Manure storage areas and schedules.
 - iii. Fencing, feeding areas and facilities, new or redesigned, to minimize negative animal impacts, discourage/encourage wildlife and limit or eliminate predation.
 - iv. Landscaping or features to attract desirable wildlife.

Supplemental Handouts

Enhancing Wildlife Habitat, Washington County Soil and Water Conservation District

Living with Nuisance Wildlife, OSU Extension

Selecting Plants for Pollinators: Pacific Lowland, Mixed Forest Province, Pollinator Partnership



Setting Wildlife Goals Activity Sheet, page 1 of 3

1. What species of wildlife are common in your area? _____

2. Which species of wildlife do you want to encourage?

3. Have you considered what animal(s) prey on the species of wildlife you want to encourage? How will you deal with this potential problem?



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4. Which species of wildlife do you want to discourage?

5. Are there portions of your property on which you want to limit access by wildlife?

6. Are there portions of your property in which you want to encourage access by wildlife?



Setting Wildlife Goals Activity Sheet, page 3 of 3

7. What assets does your property have, in terms of wildlife needs?

a. Food sources: _____

b. Water sources: _____

c. Shelter, shade, cover and nesting habitat: _____

8. What assets do you need to add to your property to provide for wildlife needs?

9. What actions are necessary to implement your goals?



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Amphibians: Cold-blooded vertebrates that require their eggs to be laid in water and the larvae to develop in water. This class of animals includes frogs, toads, newts and salamanders.

Artificial feeding: Use of crops or pasture by wildlife as a food source, drastically increasing the numbers of wildlife beyond those normally present.

Avian influenza: A serious, usually fatal, disease of domestic fowl and wild birds. It is spread between birds, both wild and domestic, through feces and other bodily fluids. It can affect humans and may affect domestic and wild cats. Mutation by the virus to a highly human-transmissible form is a worldwide concern.

Bird flu: See “avian influenza.”

Bovine spongiform encephalopathy: Aka “mad cow disease.” A type of transmissible spongiform encephalopathy. A fatal neurological disease of cattle characterized by sponge-like changes in the brain. It is thought to be caused by an infectious prion, a self-replicating protein.

Brucellosis: A bacterial disease that can affect domestic animals (cattle, goats, sheep, swine, etc.), wild animals (moose, elk, bison) and humans. In animals, it can cause spontaneous abortions. In humans, it can cause remittent fever.

Bubonic plague: A bacterial disease caused by *Yersenia pestis* that has been responsible for at least three “black death” pandemics in history. It is transmitted by fleas biting infected rodents and then biting another animal or a human. Human-to-human transmission can occur. It is now treatable.

Carnivore: An animal that feeds chiefly on the flesh of other animals.

Chronic wasting disease: A type of transmissible spongiform encephalopathy. A fatal neurological disease of deer, elk and moose characterized by sponge-like changes in the brain. It is thought to be caused by an infectious prion, a self-replicating protein. Cattle and other domestic livestock appear to be resistant to natural transmission.

Commensal rodents: Rodents living in close association with humans. The term commensal means eating at the same table. These rodents live at man's expense without giving anything in return.

Cover: Relative to wildlife, cover refers to the protection or concealment an animal requires for survival.

Diurnal: Animals that are active during the day.



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Disease: A pathological condition of a part, organ or system of an organism resulting from various causes, such as infection, genetic defect or environmental stress, and characterized by an identifiable group of signs or symptoms.

E. coli: Bacteria inhabiting the intestinal tract of humans and other warm-blooded animals. There are many different species of *E. coli* bacteria. Some, such as *E. coli* 0157:H7, can be very harmful if ingested.

Feral animal: A once-domestic animal that has reverted to the wild.

Giardia: A parasitic protozoan that lives in the intestinal tract of humans and other warm-blooded animals. It can cause severe diarrhea in humans.

Guard animals: Domestic animals specifically kept and trained to protect other domestic animals and/or humans.

Habitat: The natural home or location of a plant or animal.

Hantavirus: Viral disease passed through saliva, urine or droppings of infected rodents to humans. Rodents found to be significant reservoirs of the disease are the deer mouse, the cotton rat, the rice rat and the white-footed mouse.

Herbivore: An animal that feeds chiefly on plants.

Insectivore: An animal that feeds chiefly on insects.

Lure crops: Crops specifically planted to lure wildlife away from other crops or pastures.

Lyme disease: An inflammatory disease caused by a spirochete (*Borrelia burgdorferi*) that is transmitted by ticks. Initially it is usually characterized by flu-like symptoms, including fever, joint pain and headache. A rash in the form of a red circular patch appears three days to one month after the bite occurs. If left untreated, the disease can result in chronic arthritis and nerve and heart dysfunction.

Mad cow disease: See “bovine spongiform encephalopathy.”

Native species: Plants or animals that originate naturally in a particular region or location.



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Nesting habitat: An area that is conducive to nesting for birds. The physical requirements of the environment that are favorable to nesting.

Nocturnal: Animals that are active at night.

Omnivore: An animal that feeds on both animal flesh and plants.

Pollinator: An animal that carries pollen from one flower to another.

Predator: An animal that kills and eats other animals, called prey.

Prey: An animal hunted for food by another animal.

Rabies: An acute, infectious, often-fatal viral disease of most warm-blooded animals that attacks the central nervous system. It is transmitted by the bite of an infected animal.

Raptors: A bird of prey, such as an eagle, owl, hawk or falcon.

Reptiles: Cold-blooded vertebrates that generally lay eggs. They have no larval stage. The class includes snakes, lizards, turtles, and crocodiles or alligators.

Riparian buffer, riparian buffer strip: A strip of vegetation adjacent to a water body that serves to protect the water by filtering out or absorbing pollutants. Riparian buffers also serve as wildlife habitat.

Ruminant: Animal with a multi-chambered stomach capable of breaking down cellulose and synthesizing essential amino acids.

Scrapie: A type of transmissible spongiform encephalopathy. Scrapie is a fatal neurological disease of sheep and goats characterized by sponge-like changes in the brain. It is thought to be caused by an infectious prion, a self-replicating protein.

Shelter: Something that provides cover or protection. Shelter may be provided naturally by vegetation or artificially by landscaping or structures.

Snag: A dead tree that is still standing, usually in an undisturbed forest. Snags can provide food, shelter and nesting habitat for insects, birds and animals.

Solitary bees: Aka native bees. Any of a number of species of bees that are generally solitary and that will act as pollinators.



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Transmissible spongiform encephalopathies: Neurological, generally fatal, diseases that affect animals and humans, causing lesions or small holes to form in the brain. They are thought to be caused by prions, self-replicating proteins. The three most common diseases that affect domestic and wild animals are chronic wasting disease, bovine spongiform encephalopathy (“mad cow disease”) and scrapie.

West Nile virus: A virus mainly infecting birds and mosquitoes, but also sometimes transmitted by them to humans and other animals, mainly horses. The virus causes flu-like symptoms that can be mild to severe. There are vaccines available for horses.

Web sites for further information

General information (Many of these sites will have species-specific information.)

Living With Wildlife, Washington Department of Fish and Wildlife, <http://wdfw.wa.gov/living/>

Backyard Conservation, USDA-NRCS (Natural Resources Conservation Service), http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/?cid=nrcs143_023574

Wildlife, Know Your Forest, <http://knowyourforest.org/learning-library/creating-a-home-for-wild-animals>

Internet Center for Wildlife Damage Management, <http://icwdm.org/>

Managing Conflicts With Wildlife, Colorado State University Cooperative Extension, http://www.ext.colostate.edu/pubs/pubs.html#natr_wildlife This site has species-specific information and information on identifying the species responsible for wildlife damage.

National Wildlife Federation, <http://www.nwf.org/Wildlife.aspx>

Solving Problems with Wildlife, The Humane Society, http://www.humanesociety.org/animals/wild_neighbors/?credit=web_id65483799

NRCS Plants Database, <http://plants.usda.gov/characteristics.html>

Office of Migratory Bird Management, U.S. Fish & Wildlife Service, <http://migratorybirds.fws.gov/>

Prevention and Control of Wildlife Damage, <http://www.icwdm.org/handbook/index.asp>. This site has species-specific information and information on identifying the species responsible for wildlife damage.

USDA-APHIS (Animal and Plant Health Inspection Service) National Wildlife Research Center, http://www.aphis.usda.gov/wildlife_damage/

Wildlife Damage Management, eXtension, <http://www.extension.org/human-wildlife+relations>

Wildlife Damage Management Series, Utah State University Extension Publications and Knowledge Base, <http://extension.usu.edu/hm/publications/by=category/category=63>

Web sites for further information: Diseases



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Animal Disease Information, USDA,

http://www.aphis.usda.gov/wps/portal/aphis/ourfocus/animalhealth/sa_animal_disease_information

Wildlife, Centers for Disease Control, <http://www.cdc.gov/healthypets/pets/wildlife.html>

Farm Animals, Centers for Disease Control, <http://www.cdc.gov/healthypets/pets/farm-animals.html>

Chronic Wasting Disease Alliance, <http://www.cwd-info.org>

Cryptosporidium and Giardia: Waterborne Parasites, University of Nevada Cooperative Extension SP-04-09, <http://www.unce.unr.edu/publications/files/ag/2004/sp0409.pdf>

West Nile Virus in Washington State, WA State Dept of Health

<http://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/WestNileVirus>

Preventing *E. coli* From Garden to Plate, Colorado State University Cooperative Extension Fact Sheet no. 9.369, <http://www.ext.colostate.edu/PUBS/foodnut/09369.html>

Nuisance wildlife, insects

Livestock IPM, WSU Extension, <http://ipm.wsu.edu/livestock/livestock.html>

Livestock Pests, Pacific Northwest Insect Management Handbook,

<http://insect.pnwhandbooks.org/livestock>

Insect Pests of Horses, H.J. Meyer, R.D. Christie and D.K. McBride, 1991, North Dakota State University Extension, Extension Bulletin No. 55,

<http://library.ndsu.edu/tools/dspace/load/?file=/repository/bitstream/handle/10365/4831/eb55.pdf?sequence=1>

Identification and Management of Mormon Crickets, University of Nevada Cooperative Extension Fact Sheet-06-16, <http://www.unce.unr.edu/publications/files/ag/2006/fs0616.pdf>

Nuisance wildlife, birds

Managing Problems Caused by Urban Canadian Geese,

http://digitalcommons.usu.edu/extension_histall/1023/

Preventing Woodpecker Damage, <http://www.ext.colostate.edu/PUBS/NATRES/06516.html>

Nuisance Birds, WSU, OSU, EPA,

http://www.ipmnet.org/tim/IPM_in_Schools/Pests!%20Pests!%20Pests!/PNW_PP_NuisanceBirds.pdf

Nuisance wildlife, mammals

Commensal Rodents, Wildlife Damage Management Series,

http://extension.usu.edu/files/publications/publication/NR_WD_010.pdf

Feral Cat Activist, How to Conduct Trap-Neuter-Return, <http://www.alleycat.org/page.aspx?pid=285>

Living with Wildlife, Montana Fish, Wildlife & Parks, <http://fwp.mt.gov/fishAndWildlife/livingWithWildlife/>

Moles, <https://pubs.wsu.edu/ItemDetail.aspx?ProductID=15697>



Meadow Voles and Pocket Gophers, University of Idaho,
<https://pubs.wsu.edu/ItemDetail.aspx?ProductID=15423>

Playing Defense, Audubon at Home,
<http://archive.audubonmagazine.org/audubonathome/audubonathome0609.html>

Preventing Deer Damage, <http://www.ext.colostate.edu/PUBS/NATRES/06520.html>

Web sites for further information: Encouraging wildlife

NatureScaping of Southwest Washington, <http://www.naturescaping.org/>

The Xerces Society, <http://www.xerces.org/>. This site has information on pollinator resources and butterflies.

Pollinator Partnership, <http://pollinator.org/guides.htm>

Bat Conservation International, <http://www.batcon.org>

Encouraging Songbirds in Your Backyard, WSU Extension,
<http://ext.nrs.wsu.edu/publications/documents/backyardbirds.pdf>

Building a Nesting Box, USDA Agricultural Research Service,
<http://www.ars.usda.gov/Main/docs.htm?docid=10743>

Butterflies and Moths of North America, <http://www.butterfliesandmoths.org/>

Butterfly Gardening, The Butterfly Site, <http://www.thebutterflysite.com/washington-butterflies.shtml>

Digs, Dwellings and Dens, Wild About Gardening,
http://www.wildaboutgardening.org/en/dig_dwell_den/quickprint/index.htm

Explore Birds of Prey, http://www.peregrinefund.org/Explore_Raptors/index.html

Hawk Facts, Birds of Prey Foundation, <http://www.birds-of-prey.org>

Little Brown Bat, Oregon Extension Service, EC 1584,
<https://catalog.extension.oregonstate.edu/sites/catalog.extension.oregonstate.edu/files/project/pdf/ec1584.pdf>

North American Butterfly Association, <http://www.naba.org/>

Plant Selection, Wildlife Habitat, Backyard Conservation, NRCS,
http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/features/?cid=nrcs143_023553

Solitary Bees, Audubon, <http://www.audubonathome.org/solitarybees/>

Wildlife Habitat, Backyard Conservation, Natural Resources Conservation Service,
http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/features/?cid=nrcs143_023574

