OSU Extension Service Mission Statement

The Oregon State University Extension Service engages the people of Oregon with research-based knowledge and education that focus on strengthening communities and economies, sustaining natural resources, and promoting healthy families and individuals.

OSU Extension is…

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Wildlife on your land: Boon or bane?

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Roadmap

• Useful concepts and reminders
• How conflicts might arise
• Basics on how we can manage conflicts
• Usual suspects and some specific strategies
• How we can provide opportunities

Broad scale benefits of functioning systems

• Nutrient cycling
• Pollination
• Germination
• Seed dispersal
• Soil generation
• Habitats & niches
• Predators on pests
• Excrete natural fertilizer
• Wildfire risk reduction
• Soil stabilization
• Water quality, quantity, runoff storage
However…

Sometimes animals don’t comply with our plans!

Let’s remember what “motivates” animals

Habitat, a biological definition

Habitat is the combination of factors
• biotic
• abiotic
necessary to produce
– Occupancy, survival, and reproduction by members of a given species

Needs provided by habitat:

• Food
• Water
• Cover
• Other species-specific needs

Native species and species habitat requirements

• Each species’ habitat requirements reflects the native communities in which the species evolved
• Our efforts to provide habitat for native species will be most successful when we can provide native plants, structures, and habitat elements
• Our efforts to exclude animals should be based on the same framework, but in reverse

Build it (or protect it) and they will come…

►►We can provide necessary elements of habitat for native species…

►►We sometimes provide habitat “opportunities” for guests we do not want…
Keep Wildlife WILD!

Habituation can be deadly, damaging, and dangerous
• “Fed bears are dead bears”
• A wild animal is always a wild animal
• Habituation often centers on food
  – Decreased fear of humans
  – Increased aggressiveness for food or space
  – Competition/elimination of domestic “competitors”
  – Disease or waste products
  – Prey species attract predators
  – Other risks…

What about you?
• Main interest is in managing wildlife damage in:
  Home or other structures
  In yard or garden
  In field crops and/or forestry
  In livestock operation
• Main interest is in managing to enhance wildlife
• Would like to have wildlife present on land “up to a point”

Conflicts arise when:
• Animals get into & occupy structures
• Animals eat what we don’t want them to:
  – Ornamentals
  – Personal food
  – Production crops (plant or animal)
• Animals cause structural damage or loss
  – Structures or crops
• Animals pose a physical risk
  – direct or indirect

Basic tactics
• Block
• Deter
• Remove the animal(s)
• Change the game –
  – Remove the “draw” or increase the risks/costs to the animal
### How do you prevent wildlife damage?

- Learn about the life cycle of wildlife species
- Assess your level of tolerance, resources, and possible neighborhood solutions
- Think ahead and implement exclusionary measures for long-term success
- Utilize multiple tools tailored to your home, garden, or operation

### For prevention of all wildlife conflicts...

- Institute exclusion solutions before the problems develop
  - Primary access point
  - Border of entire area
  - Around specific area of concern
- Keep all food and garbage indoors or in wildlife-proof containers
- Do not leave pet food out unattended
- Consider short- and long-term solutions. Remember that hazing and/or trapping are only temporary solutions

### Assessment

- How serious is the problem?
  - insignificant, tolerable, beyond acceptable?
- Are there health or safety concerns?
- What is the context?
  - For example is the problem limited to certain seasons?
- Is the conflict or problem likely to reoccur?

### Homes and buildings, Plan A

- Prevent your house/structure from being a shelter opportunity
  - Plan blocking efforts with particular species in mind
- Do not provide food that “advertises” your place

### Homes and buildings, Plan B

Once you have unwanted visitors –

- Evict
  - Physical trap & remove live animals
  - Drive out & Deter – Make your home unbearable to them
  - Lethal trap or poison
  - If seasonal visitors, wait until they (and their kids) leave
- Once clear, go back to Plan A to exclude

### Some examples

With many thanks to Nancy Taylor  
Oregon Dept. of Fish and Wildlife  
541 797-4186 ext 226  
nancyc.taylor@state.or.us
How to keep raccoons out

• Install hardware cloth
  – bury at least 6 inches down and 6 inches out from the building
• Replace and reinforce damaged screen vents
• Keep crawl spaces tightly covered
• Secure pet doors at night or use electronic pet doors. Use one-way doors.
• Secure openings in chimney caps
• Adopt a noisy dog to patrol the yard

Move cat & dog food indoors!

Remember…

❖ In Oregon, raccoons are classified as a Furbearing Mammal and are therefore protected (OAR 635-050-0052)
❖ A permit from ODFW is available for live trapping. Transported raccoons are required to be euthanized after transport. Most folks use a .22 while it’s in the live trap.
❖ Wildlife diseases prevent ODFW from allowing relocation (e.g., distemper)

Raccoon Denning Deterrent

• A radio set to a talk station and/or
• a strobe light placed in an attic or crawl space
• often sufficient to cause a raccoon to move from the area and take her young

Raccoon juveniles

• Most young born March-June
• Weaning occurs 3-4 months of age
  – Juveniles may start moving out July-Sept
Skunk Exclusion

Skunks don’t climb high fences

• Seal off foundation openings
• Use wire mesh fence around garden and bury 1-2 feet in ground

Other skunk control methods

• Remove lumber and junk piles
• Store garbage in tightly sealed cans
• Bring in pet food and water at night
• Use insecticides to control grubs in lawn
• Restrict use of bird seed
• Institute rodent control program
• Never leave out food for wild animals
• Remove downed fruit
• Place ammonia soaked towels in den

Trapping Skunks…

• Use live traps near den entrance
• Traps should be solid sided if open, plan on using a tarp so that you don’t get sprayed
• Mayonnaise, peanut butter, & dried fruits are good baits that don’t attract cats
• Treatment for skunk spray: 1 qt 3% hydrogen peroxide + ½ cup baking soda + 1 tsp liquid soap

Rodent Exclusion

Wire mesh dug at least 1.5 feet into ground
Bent at 90° and facing outwards

Rodent Control:

• Control vegetative cover and refuse: a messy garden and fermenting compost pile is attractive to rodents
• Flood burrows/tunnels with garden hose
• Let your pets do some of the work!
• Biting Agents: Thuram and Ro Pel
• Trapping, but must locate the active tunnel
• Fumigate or gas cartridges: when hit, burns through rodent tunnels producing carbon monoxide which kills rodents. This technique commonly used on large farms
• Please keep in mind secondary impacts of pesticides
  - 2 years ago D.D.T. poisoned but not killed hundreds of thousands of geese

Yard and garden

• Same basic strategies
  • but broader spatial scales and size of animals increase the challenges
Common Yard & Garden Culprits

- Raccoons
- Skunks
- Non-burrowing rodents
- Deer
- Nutria
- Burrowing rodents
  - e.g., moles, voles, gophers, ground squirrels
- Turkeys

And in broader expanses...

- elk
- black bear
- mountain beaver, or “boomers”
- voles, again

Signs of Deer Damage

- Hoof prints
- Deer in yard
- Jagged or torn surfaces on leaves or stems
- Horning to trees, usually at waist level
- Damage from the ground to 6’ high (higher for elk)
- Deer scat

Plants that deer don’t like:

- Barberry
- Buffalo berry
- Gooseberry
- Honeysuckle
- Juniper
- Lilac
- Raspberry
- St. John’s Wort
- Wormwood
- Rhubarb
- Russian olive

They generally avoid thorny plants
Fencing

- Should be a minimum of 6 ½ feet tall
- Consider building to 8’ high
- Metal fences are longer-lasting and sturdier than polypropylene
- Also:
  - Consider height
  - Topography
  - Maintenance

A single electric wire along the top discourages deer from jumping over.
Charge has to be on for it to work.
Fence excludes predators as well.
Maintain bottom edge of fence: Fill in openings > 6”.

Fencing Quality reminder

Scarecrows

- Motion activated water deterrent
- Element of surprise
- *Can be effective against birds, deer, turkeys
- May need multiple scarecrows to cover your garden area
- Assess foot traffic and wind…”
- Must maintain battery

Deter by taste

- Commercial products are available
  - Most need reapplication after rain
  - Vary in effectiveness
- *Non-commercial options may be available (hydrolyzed casein)
- Check out the research by APHIS - A great source of current research!

Barriers for individual plants

- Cloches: Bell-shaped protection, built out of milk gallons, pvc tubing, or other plastic
- Tree guards
Hazing

- Water scarecrows
- Rubber bullets (permit from ODFW)
- Bangers, screamers, shell-crackers, propane cannons.
- Need a permit from State Fire Marshal, signed by ODFW biologists.
- Call Oregon State Fire Marshal at: (503) 373-1871, x272 or x274

The small burrowers

- Townsend’s mole
- Pocket gopher
- Vole (meadow mice)

Can create extensive yard damage

- Moles
  - Eyes not visible
  - Mounds are round
  - Tunnels are visible because they are shallow

- Gophers
  - Eyes are visible
  - Mounds are crescent shaped
  - Tunnels not visible
  - Plug or open hole is visible in mound

Northern Pocket Gopher

- Burrowing rodent
- Herbivores that prefer roots, bulbs, tubers
- Does not hibernate
- Young born Feb. to June
Pocket gopher mounds

- Extensive burrowing
- Notice the lumps in soil and plug in burrow entrance

Gophers

- Exclude with hardwire cloth or plastic mesh <1/2"
- Bury at least 12" deep
- One client dug a 2' trench lined it with hardware cloth and filled it with rocks to keep gophers from accessing his yard

Moles

- Insectivores
- Prefer moist, loose soils of the sort favored by grubs and earthworms
- Townsend’s Mole (8-9’ long) is likely to eat plant tubers and roots

Mole Control

- L-shaped concrete with edges 8-12" deep
- Castor Bean or Castor oil plant; gopher plant, others
- Treat lawn for grubs to reduce main food source for the moles
- Actively harass moles so they will seek homes elsewhere (stomp on runways)

Voles

- Short lifespan: 2 to 16 months, but high reproductive potential
- Most common complaints re: gray-tailed vole
- Reach 5 to 7 inches long at maturity, dep. on the species
- Create extensive tunnel systems, or “runs”
- Damage gardens by eating tubers, seeds, and bulbs (prefer grasses)

Meeting the vole challenge

- Exclusion is difficult for larger areas of herbaceous plants
  - Creation of barriers can work, esp. around orchard trees
- Poison baiting allowed, but follow the rules!
- Let nature help – Consider increasing natural predation:
  - Raptor perches
  - Don’t persecute other small- & medium-sized predators
Basic tactics

- Block
- Deter
- Remove the animal(s)
- Change the game –
  - Remove the “draw” or increase the risks/costs to the animal

Always remember…

- Any garden is a potential food & shelter resource for wildlife
- Well-built exclusion is the best long term solution
- Native plant species are adapted to deal with native plant-eaters
- Removing the resource (food) or access to it is often easier than removing the animal
- Never attempt to feed or rehabilitate wildlife yourself
- Always welcome to call ODFW for advice or hire a private wildlife control operator if you are not successful with your initial wildlife damage efforts

Go online for research from APHIS

- APHIS Goose contact: Dave Williams in Portland 503-326-2346

Other ODFW links of interest

- http://www.dfw.state.or.us/wildlife/license_permits_apps/wildlife_control_operator_contacts.asp
- http://www.dfw.state.or.us/wildlife/living_with/

Some of the many resources

  http://icwdm.org/handbook/index.asp
Oregon Conservation Strategy –

http://www.dfw.state.or.us/conservationstrategy/