

Living With Wildlife

PROMOTING COEXISTENCE AND REDUCING CONFLICTS

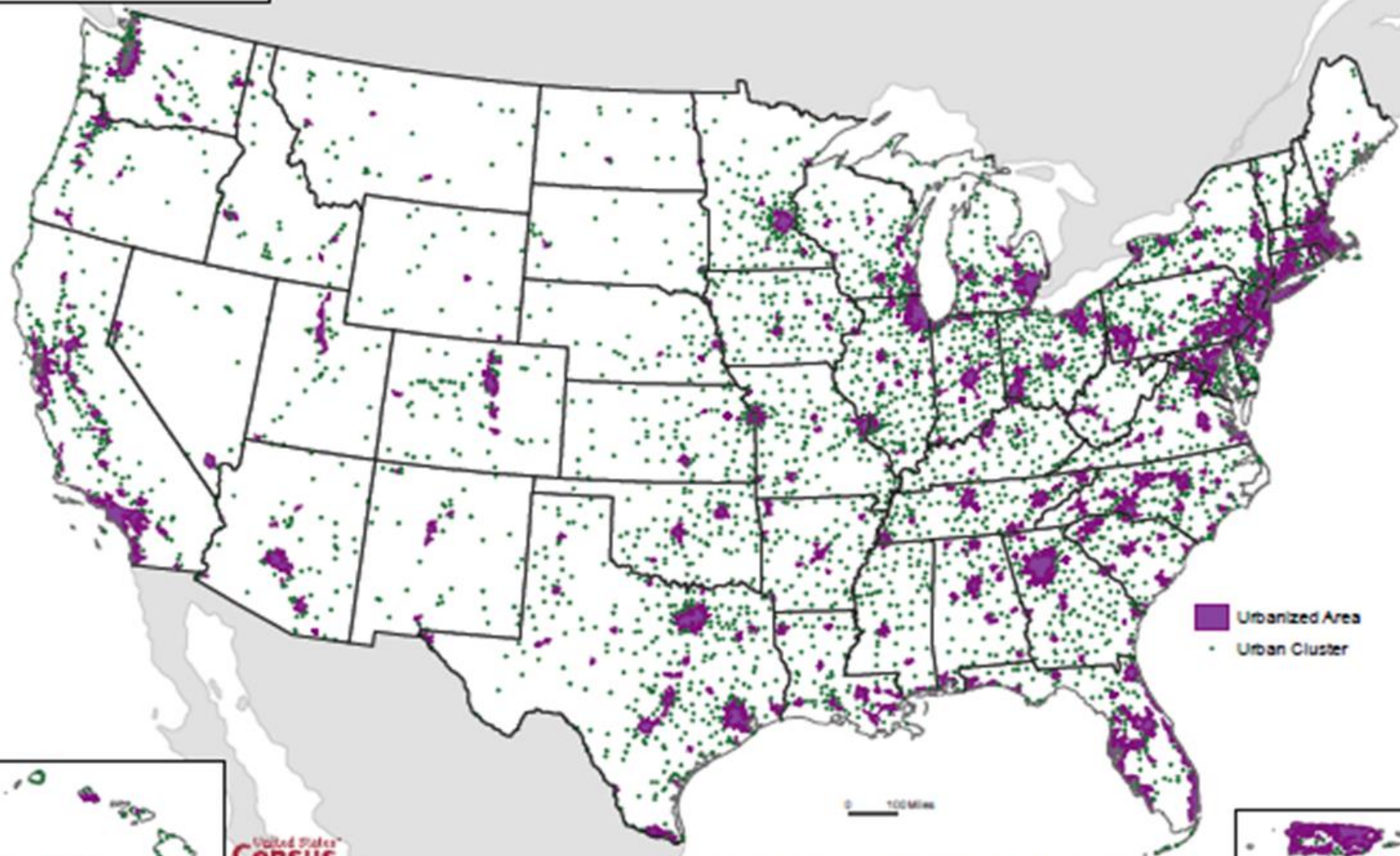
Chris Anderson

Washington Department of Fish and Wildlife



Washington Department of
FISH and WILDLIFE

Urbanized Areas and Urban Clusters: 2010



United States
Census
Bureau

Source: U.S. Census Bureau, 2010 Census Urban Area Delineation Program

Urbanization

What does it do to wildlife and their surroundings?



Appropriate arrangement of food, water, and cover space =

- Foraging opportunity
- Avoidance of predators
- Seasonal movements
- Seeking mating opportunities
- Juvenile dispersal





NATIVE GROWTH PROTECTION AREA

THIS STREAM, WETLAND,
AND UPLAND BUFFER ARE
PROTECTED TO PROVIDE
WILDLIFE HABITAT AND
MAINTAIN WATER QUALITY



PLEASE DO NOT DISTURB
THIS VALUABLE RESOURCE.

Coexisting with Wildlife



- Use preventative measures for nuisance wildlife.
- Consider how activities and use of our urban spaces may impact wildlife.
- Keep pets under control.
- Provide habitat for desired wildlife.

Why are problem wildlife in my community?

Accessible garbage/compost

Pet food left outdoors

Fallen fruit

Accessible vegetable garden

Bird seed on ground

BEST answer - identifying and removing animal attractants at landscape level!



Human Activity Zones



What About Trapping?

- Prevention is the best approach
- Trapping one individual may open up area for a problem animal
- Only a temporary solution, especially if food/shelter source exists
- Relocation ILLEGAL*, generally not effective, Inhumane; particularly with common, human-conditioned animals (e.g. raccoons, squirrels) - *pilot beaver relocation process
- Mandatory euthanization when professionally trapped

Common Offenders



Wildlife Day Shifts

Rodents



- 2,200+; 40% of all mammals
- Most not long lived, breed often and quick gestation. E.g. Norway Rat – live less than one year, breed year round, gestation 3 weeks, 6-10 young, weaned in 20 days, breed at three months of age
- All have continuously growing incisors = problems for man
- Most urban are non-native generalist granivores/mast consumers

Rodents - Squirrels



Prevent Conflicts

- Install baffles at feeders
- Install baffles around trees
- Eliminate access to nest sites
- Trap, Trap, Trap

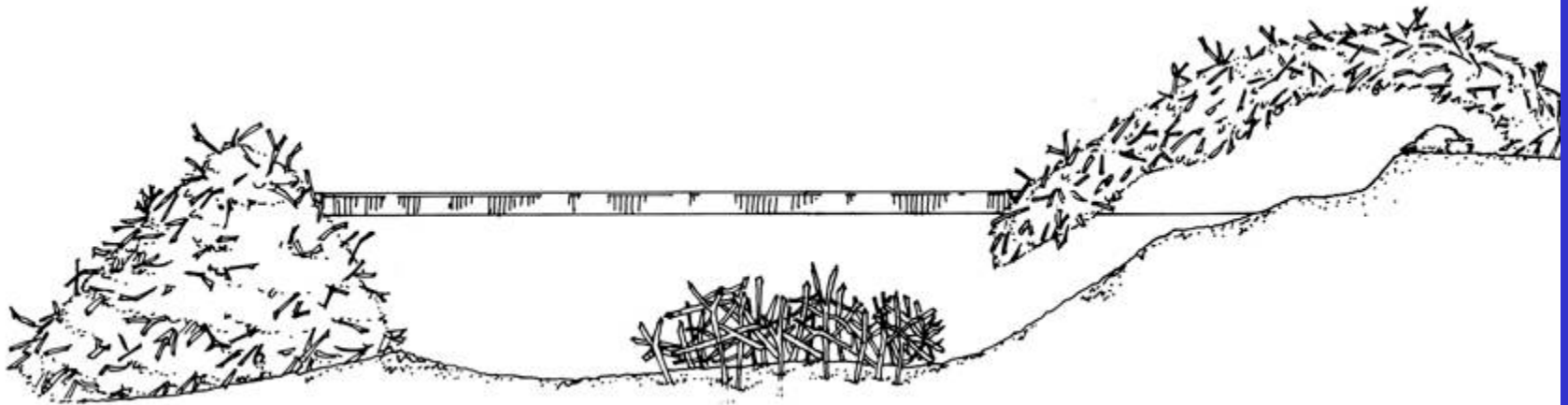


Hand-drawn signature or scribble.

Rodents - Beaver

- Largest rodent in North America, 40+ lb

• Warmer months eat



• eating

- Dams built to stabilize water levels for den, food
- Freestanding lodge in unstable water conditions, otherwise bank den/lodge



Rodents – Beaver and Other



- Beaver colonies 2-12 individuals; adult pair, kits of year, JV of previous year(s)
- JV goes off to find mates initiate colony. Densities no more than 1 colony per ½ mile in ideal situations.
- Often confused with muskrat or nutria
- Nutria and muskrat prefer herbaceous emergent and shoreline vegetation to eat – keep water open – can have “eat out” – e.g. nutria eat 25% body weight daily
- Nutria use bank dens, vegetative lodges, feeding platforms
- Nutria are prolific breeders – up to 20 kits per year

Planting Plans

Plants Beavers Prefer

- Aspen
- Willow
- Cottonwood
- Vine maple
- Hawthorn
- Red cedar

Less Preferable

- Cascara
- Sitka spruce
- Salmonberry
- Elderberry
- Paper birch
- Red-twig dogwood
- Ninebark

Note: Plant away from known beaver trails

Exclusion and Flood Control



- Individual barriers 3-foot tall, welded wire
- Cluster fencing staked and flush with ground
- Field fencing flush with ground
- Flexible leveler in dams
- Beaver deceiver on culverts

Relocation



- Beaver can be under pilot program – Certified Beaver Relocator
- A feel good approach
- Often die from territorial disputes or food shortages; also disease, genetic integrity problems
- Problem moved not solved

Rodents – Mountain Beaver



Slope Stabilization and Erosion Control

- [Introduction](#)
- [Using this Site](#)
- [Your Property](#)
- [Role of Vegetation](#)
- [Planting Program](#)
- [Planting Techniques](#)
- [Key](#)
- [Checklist](#)
- [Applicability Chart](#)
- [Plant Selection](#)
- [Glossary](#)
- [References](#)
- [Credits](#)

[SEA Program publications](#) > [Slope Stabilization and Erosion Control home](#) > [Introduction](#)

Introduction

(Converted into web page from [Ecology publication #93-30: Slope Stabilization Erosion Control Using Vegetation: A Manual of Practice for Coastal Property Owners](#))

Puget Sound and its associated coastal waters have created a dramatic system of coastal landforms along which have developed the population centers of Western Washington. It is the natural beauty of this coastal system that continues to place residential pressures on coastlines. Construction practices on and around coastal slopes, in combination with the increasing stormwater runoff from developing properties around Puget Sound, contribute to the acceleration of slope erosion and landslide activity along coastal waterways.

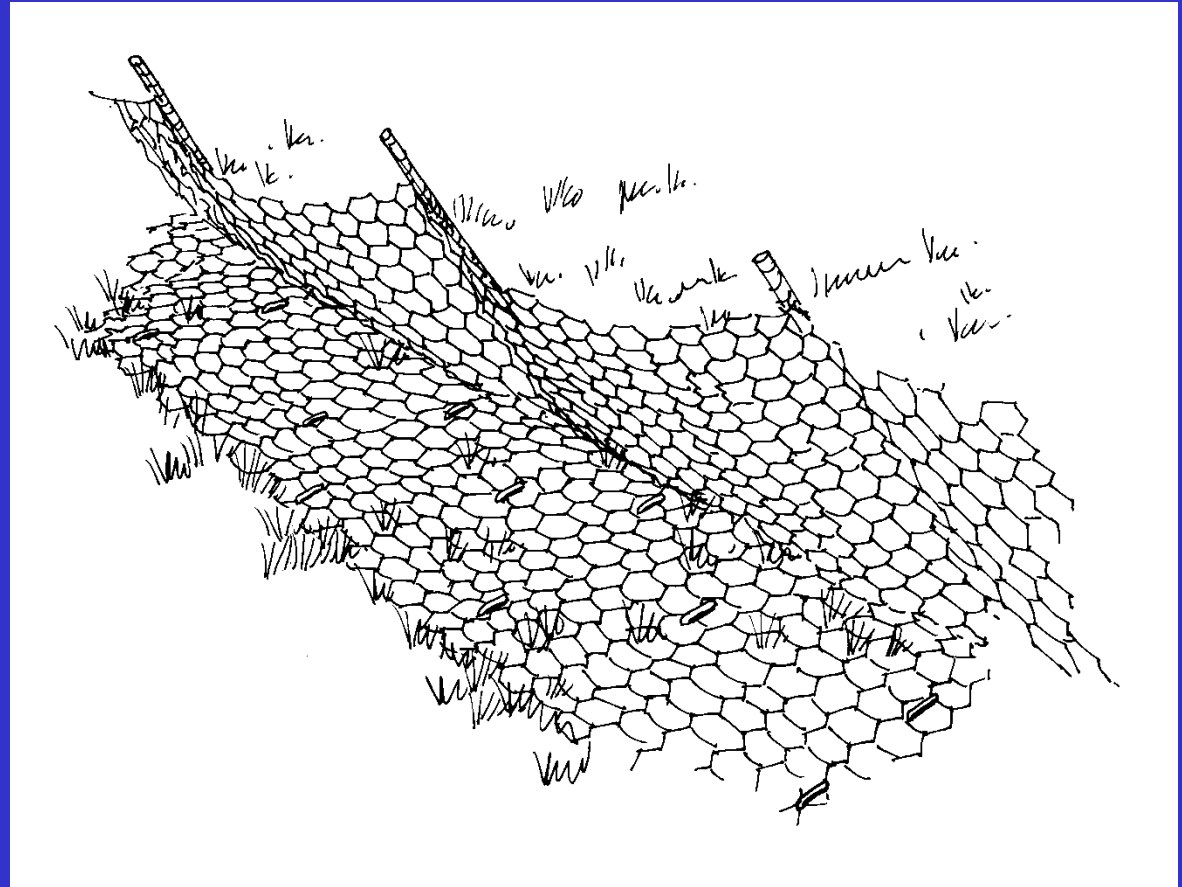
Too often, well intended erosion control and slope stabilization programs do not recognize and incorporate vegetation as a legitimate design tool to address these slope processes. Primarily, these oversights are because the use of vegetation alone (soil bioengineering) or together with other slope stability structures (biotechnical engineering) for slope protection is poorly understood. Therefore, the value of vegetation along a slope is either underestimated or ignored during the important project planning, design, and agency permitting periods.

When properly installed and maintained, vegetation can protect slopes by reducing erosion, strengthening soil, and inhibiting landslides which increase general slope stability. The use of vegetation to manage erosion and protect slopes is relatively inexpensive, does not require heavy machinery on the slope, establishes wildlife habitat, and can improve the aesthetic quality of the property. This website - an online version of our popular booklet - introduces general soil bioengineering practices to coastal property owners so that they may realize the practical and financial benefits of using vegetation to control erosion and help stabilize slopes.

[Next section](#)

Barriers and other Controls

- Barriers work, harassment
- Floppy fence
- Repellents and fumigants don't work
- Trapping



Rabbits



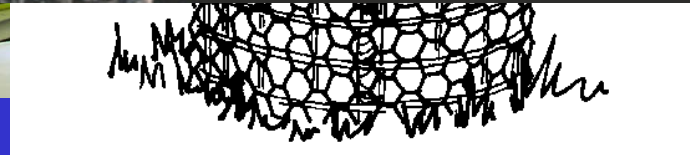
Eastern Cottontail



Domestic Rabbit

Prevent Conflicts

- Barriers
- Repellents, scare devices
- Biological control



Biological Control – Small Mammals

- Large hawks and owls eat many rodents; e.g. Barn Owl family eats **1-3,000 rats/mice!** Per nesting season!



- Incorporate exclusion and habitat alteration
- Residual population remains and repopulate an area in a short period = **ONGOING MANAGEMENT**



- Nests boxes/Perch poles
- **DEAD AND DYING TREES...SNAGS**

SNAGS...Use em', don't lose em'!!!



- Dead/Dying trees many times **DO NOT** pose a hazard
- Apartment complex & buffet all rolled into one
- Act as a one-stop “Wildlife Station”

Bats of Washington



...Thank you Merlin Tuttle and BCI

Bats



Thomas & Orr © California Academy of Sciences

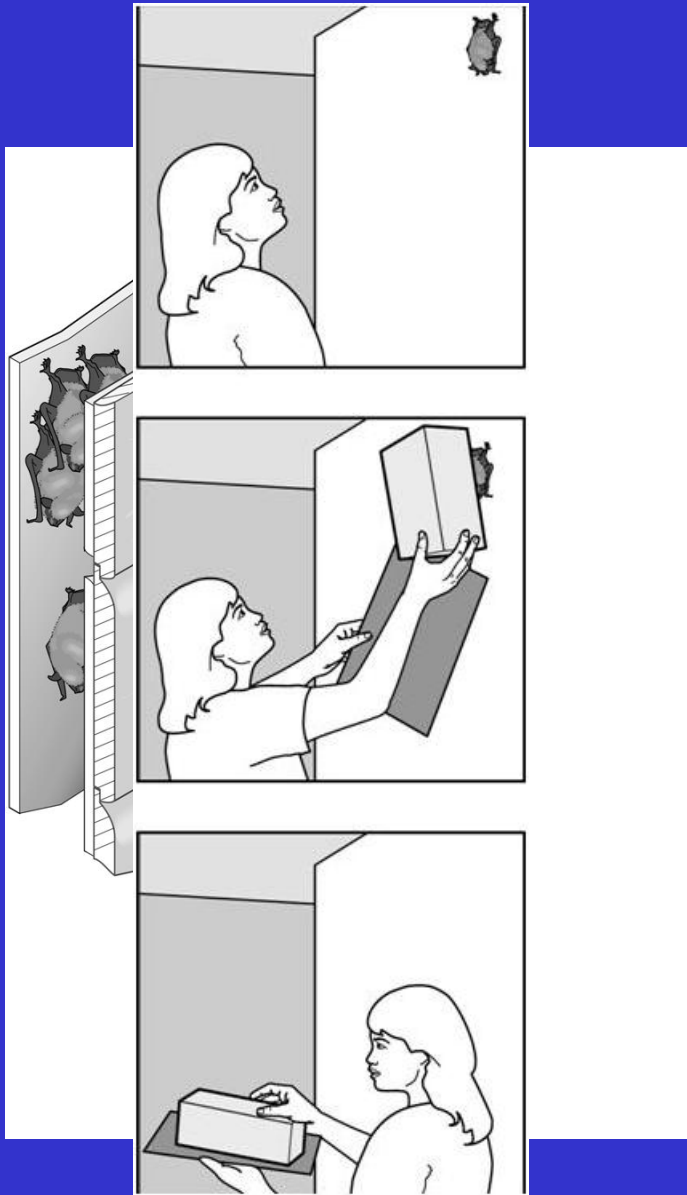
Big brown bat

- Bats are the only reservoir for rabies in WA.
- Estimated less than one percent of bats are carriers.
- Don't touch or pick up sick animals!!!
- Bats provide GREAT insect control!!!



**EXCLUSION...at the
right time**

How and When to Exclude?



- Seal all potential entry mid-October to mid-March – make sure no bats first!!!
- If bats present – seal in evenings over a few days mid-August to mid-October or early spring, before birthing in May. Consider lights, wind, noise harassment in roost.
- Watch for exit holes (1/2") and make note of bat numbers.
- Seal all gradually but main exit.
- Final evening, plug main hole after bats have left to feed.

BATS CONTROL PESTS



es,

- Studies show bat activity and feeding higher on organic farms
- CA. study shows codling moth damage LESS THAN 5% when within 1 mile of bat roost (60% elsewhere)
- Moths made up **35%** of little brown bat diet!!!!

A black bat box is mounted on a wooden post in a field. The box is rectangular with a peaked roof and is positioned vertically. The background shows a line of trees and a fence. The text "ALTERNATIVES: THE BAT 'ROCKET BOX'" is overlaid in yellow.

**ALTERNATIVES:
THE BAT "ROCKET BOX"**

Raccoons



Often seen near water

Density higher in urban areas

Rest in trees

Coyote prey?

Den Sites

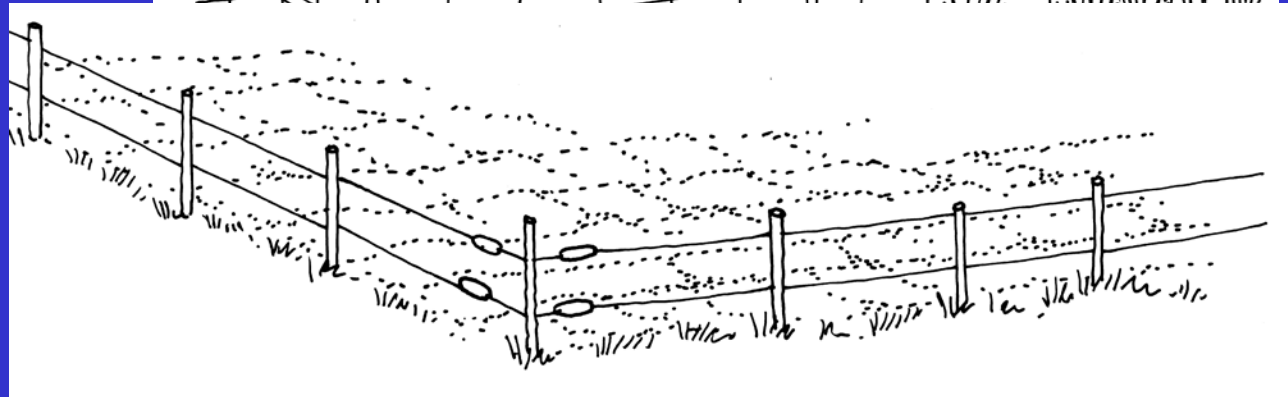
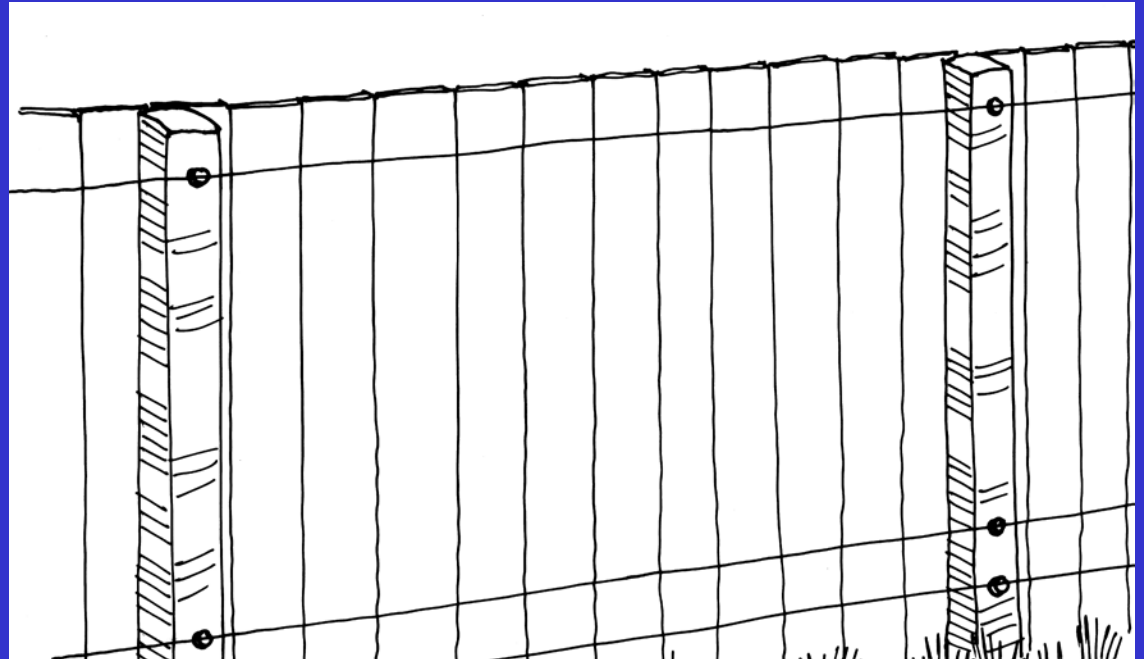


Den Sites



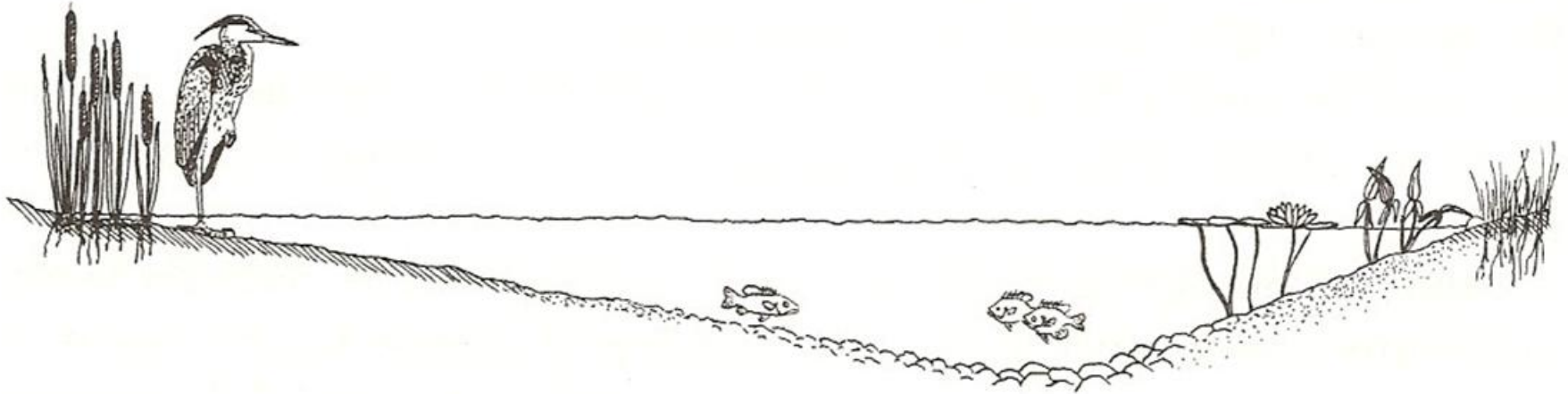
Prevent Conflicts

- Don't feed
- Manage compost and bird feeders
- Prevent access into houses chicken coops and ponds





SLOPE – WHAT'S IT DO?



3:1 gradient = deep for fish

**6:1 = shallow shoreline for wildlife
(~ 1/2 of pond)**





Historic and Current Occurrence

Native to plains and southwest deserts of North America

Pre-European (mid-1800s)



Current Distribution



Are coyotes a threats to humans?



Rarely. Most of you live with coyotes everyday (yet coyotes only make the papers when a perceived conflict occurs).

Coyotes, either family groups or solitary animals, occur in nearly every part of the Seattle Metropolitan area.

Are coyotes a threats to humans?



Domestic Dogs (2006 Report from Seattle Animal Control)

297 dog bites that broke the skin

Coyotes

Two incidents of coyote bites have been reported in WA

(No coyote has tested positive for rabies)



Urban Habitat is Coyote Habitat



Cemeteries



Golf courses



Park grasslands

Notes on Coyotes



Dots = radio collared alpha female

Yellow line = home range of solitary coyotes

Colored lines = group territories, alpha pairs



Feeding Habits

Tim Quinn's W WA area study
analyzed 735 droppings

43% Fruits

apple, cherry, other

38% Small mammals

cats (13%), voles, squirrels,
mountain beaver, other

Other

4.5% Dog food

4.0% Grass/other vegetation

2.7% Bird/reptile

1.4% Garbage



What do I do if a coyote approaches me?

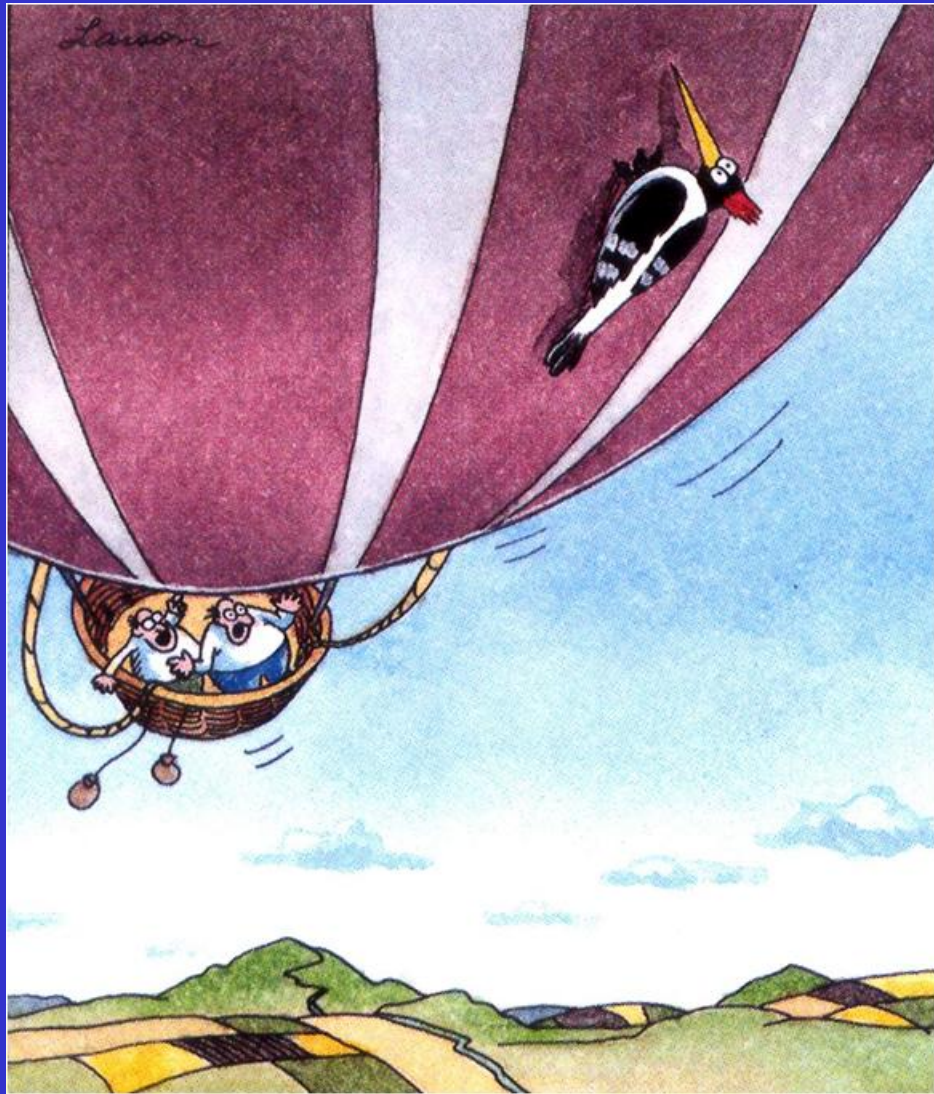
Make aggressive gestures (moving arms and legs), shout, and throw rocks, sticks or objects.

Appear as large and threatening as possible.

Never run; coyotes, like most canids, like to chase moving objects.







Still Have Wildlife Problems?

Getting Help



Self help (call WDFW or look on our website)

Nuisance Wildlife Control Operators (call your local WDFW office for a list)

Wildlife rehabilitators (if the animal is sick, injured, or orphaned)



LIVING WITH WILDLIFE

 Search

- Home
- About WDFW
- Conservation
- Fishing
- Hunting
- Wildlife Viewing
- Licensing & Permits
- Living with Wildlife

Species Fact Sheets

- Mammals
- Birds
- Reptiles and Amphibians

Attracting Wildlife

Injured/Orphaned Wildlife

Nuisance Wildlife

Damage Claims

Dangerous Wildlife

Wildlife Interaction Rules

Living with Wildlife Books



REPORT
Violation/Poacher

For more information on the Living With Wildlife series, contact the WDFW Wildlife Program

Species Fact Sheets

From bats to woodpeckers, the animal species covered in these fact sheets were selected after surveying agencies and organizations that receive calls from the public about local wildlife. While many people call for general information about wildlife, in many cases the calls are from people who are—or think they are—experiencing a conflict with a wild animal and are seeking a way to remedy the problem.

It's important to note that not all wildlife create conflicts. Although it might not appear so at the time, the animals, which are often referred to as nuisance or problem animals, are innocent. When a conflict exists between humans and animals it is usually because the animal is only doing what it needs to do to survive. It is simply following its own instincts, and intends no harm or discomfort.

Dealing with a conflict can be difficult because it is often a community issue. Some people habitually feed and perhaps inadvertently shelter wildlife, while their neighbor may not want wildlife around at all. "One person's nuisance is another person's joy", etc. This scenario can create undesirable situations for people, pets, and the animals themselves. Raccoons, coyotes and squirrels that are fed by people often lose their fear of humans and may become aggressive when not fed as expected. These hungry visitors might approach a neighbor who might choose to remove these animals, or have them removed.

A conflict also can quickly alter a wildlife lover's perception about a certain species, especially when the situation exceeds his/her current level of tolerance. Such is the paradox that wildlife around homes and property present: We want them and we don't want them, depending on what they are doing at any given moment.

Each entry in the "Living with Wildlife" series begins with a description of a species followed by details on feeding behavior, reproduction, and other biological information. For people needing to learn more about an animal to help solve a conflict, details on tracks, burrows, nest sites, etc. are provided. Finally, for those interested in attracting the animal, tips for attracting and maintaining its habitat are provided.

The section "Preventing Conflicts," encounters between home and property owners and wildlife found in yards, gardens, and structures are



Mammals

Birds

Reptiles and Amphibians

<https://wdfw.wa.gov/species-habitats/living>



- Watchable Wildlife
- Watching Wildlife Responsibly
- Viewing Guides & Maps
- Report Wildlife Observations
 - Wolf Sightings
 - Elk Hoof Disease
 - Highway 20 Elk Sightings
 - Mountain Goat Encounters
 - Moose Sightings
 - Invasive Animal Species
 - General Wildlife Observations
- Nature Tourism
- Weekender Report
- WildWatch Cams
- Species Fact Sheets
- Wildlife Areas
- Water Access Sites



Concrete, WA) will help identify where elk are most likely to based observations can be used in transportation and s.

have been received in southwest Washington since the mid 1990's. Particularly seen and sometimes harvested an elk with this condition

a few decades. We seek your assistance in helping us identify

Found Injured Wildlife?

<https://wdfw.wa.gov/get-involved/report-observations>



Any
questions?

Washington Department of Fish and
Wildlife

<http://wdfw.wa.gov/>

Chris Anderson

425-775-1311 ext. 111

Christopher.Anderson@dfw.wa.gov