

Vertebrate Pests in the Orchard

Cory Farnsworth- Extension Assistant Professor- Grand County, Utah



Nuisance Wildlife

- Animals causing damage to property, livestock, or crops
 - Depredating Wildlife
 - Predatory Wildlife
 - Furbearers
 - Prohibited Animals



No License Required

- Field mouse
- Gopher
- Ground squirrel
- Jack rabbit
- Raccoon
- Prairie dog (Not the Utah Prairie Dog!)
- Red Fox
- Striped Skunk
- Coyote
- Nutria
- Virginia Opossum
- Muskrat
- Marmots



Need a Certificate of Registration

- Utah Prairie Dogs
- Nongame species
 - Examples: pika, shrews, kangaroo rats, Abert squirrels and bats



Prohibited Activities

- A person may not take, possess, import, export, transfer, or release to the wild...
 - Pose a threat to wildlife populations, environment, or human health or safety
 - Inhumane, stressful, low, ineffective
 - (An animal can be released unharmed, if not moved/transported)



Spotlighting

- Permission from County Sheriff
- According to county ordinances
- Coyotes, red fox, striped skunk, or raccoon



Poison

- High risk
- Often non-selective
- permanent

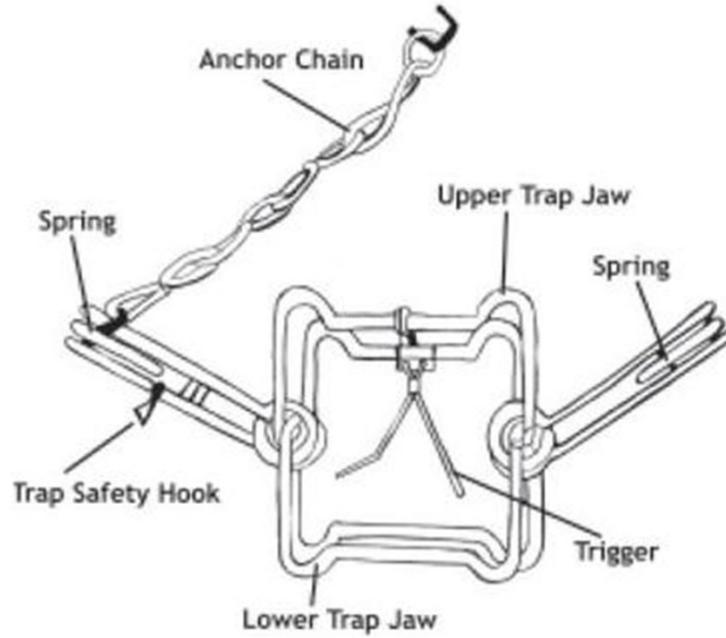
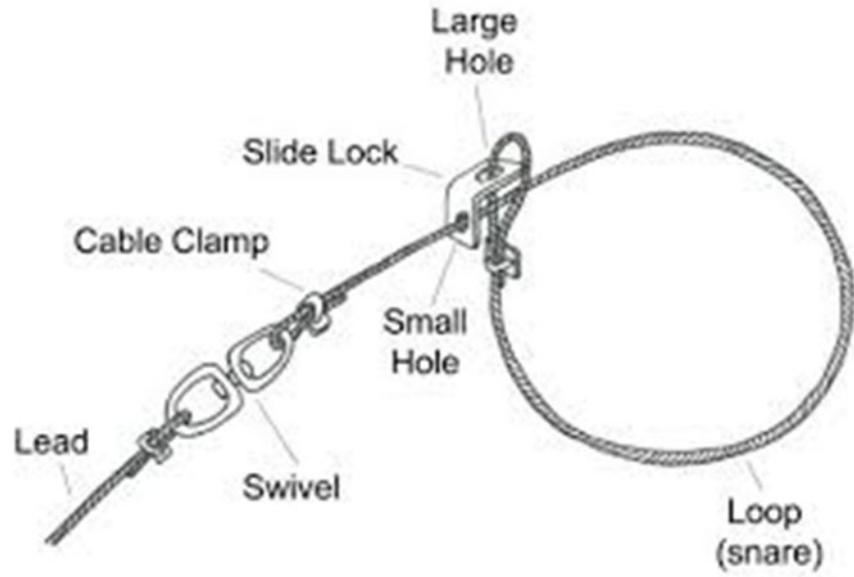
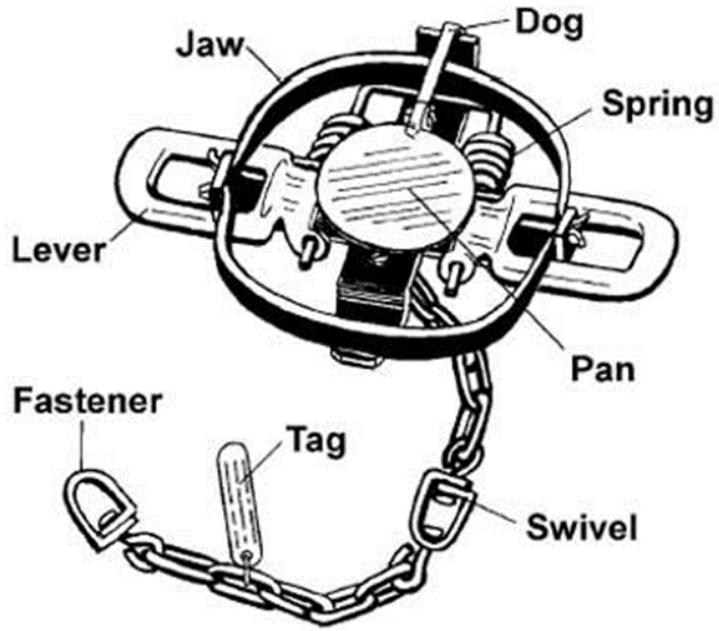


Trapping as a Management Tool

- Population control
- Disease control
 - Parasites, Rabies, Distemper, etc.
- Damage control
- Relocation (DWR)
 - Beavers, species of concern



Parts of the Foothold Trap



Sets

- Dirt Hole
- Flat
- Drowning
- Connibear

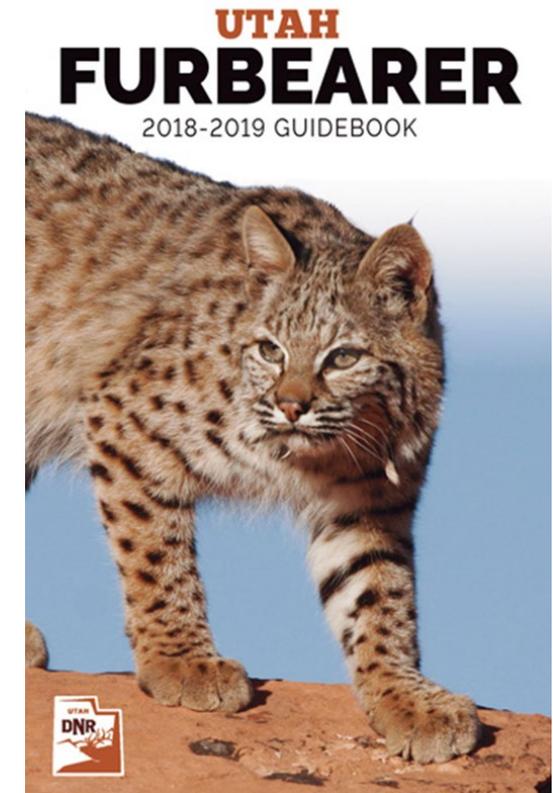


Rules and Regulations

- Utah Division of Wildlife Resources

- Season dates
- Bag limits
- Trap sizes, placement, spacing
- Trap #
- Furbearer Harvester Class
- Furbearers License
- Illegal to relocate animals
- Bait
- River otter restrictions

- <https://wildlife.utah.gov/utah-furbearer-guidebook.html>



Urban Wildlife Nuisance Control

- Requires a Certificate of Registration with DWR
- Requirement to follow Animal Veterinary Medical Association Guidelines for Euthanasia
- Authorizes use of specific substances to perform euthanasia
 - Inhalants
 - Carbon monoxide/carbon dioxide
 - chamber (must be able to see inside)
 - 6% saturation
 - Cannot use carbon monoxide from a combustible source such as engine exhaust
- Noninhaled chemicals
 - Topical, oral, injection
- Physical Methods
 - Captive Bolts
 - Blunt force trauma to the head
 - Gunshot to head or heart
 - Cervical dislocation
 - Decapitation



Carcass Disposal

- Safe Handling
- Burial
- Incineration
- Landfill
- Leave-Lay
- Composting



Integrated Pest Management

- Monitor for presence and damage
- Properly identify the pest and the damage
- Cultural controls
 - Remove habitat or prevent spread
- Mechanical and physical controls
 - Barriers and exclusion
- Biological Control
 - Predators
- Genetic Control
 - Resistance
- Pesticides or chemical controls
 - Repellents, poison
- Regulatory Control
 - Rules, regulations, bounties, etc.





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Bears

- Extremely damaging to limbs
- Become aggressive
- DWR
- Dogs





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Beavers

- ID: Flat tail
- Damage: Trees and irrigation ditches
- Wire mesh
- Noiseless culverts
- Remove excess vegetation
- Trapping
- Can be relocated with advanced DWR authorization





Catherine Lindell Lab, Michigan State University

Birds: Crows, Ravens, Magpies

- Extremely Smart
 - Scarecrows, owls
- Exclusion difficult
- Ravens protected
- Crows and magpies can be managed







Deer

- Most house hold methods do not work
- Fence needs to be 8ft tall



Foxes

- ID: Red and Gray
- Gray climbs trees, red has lots of hair in its tracks
- Damage: poultry and pets
- Dogs
- Remove pet food
- Trapping



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Muskrats

- ID: Small beaver, flat skinny tail
- Damage: irrigation ponds and ditches
- Dry up ditches and fluctuate ponds
- Keep vegetation sparse
- Proper dam structure and ditch upgrades
- Trapping





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Opossums

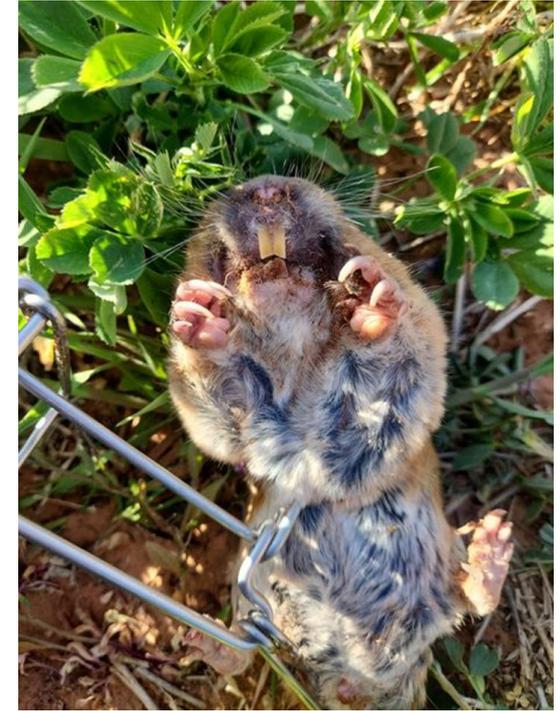
- ID: hairless tail, gray with light face, Non-Native!
- Damage: Poultry, gardens
- Recently reported in Utah
- Electric fences
- Trapping
- Please report to USU Extension/DWR





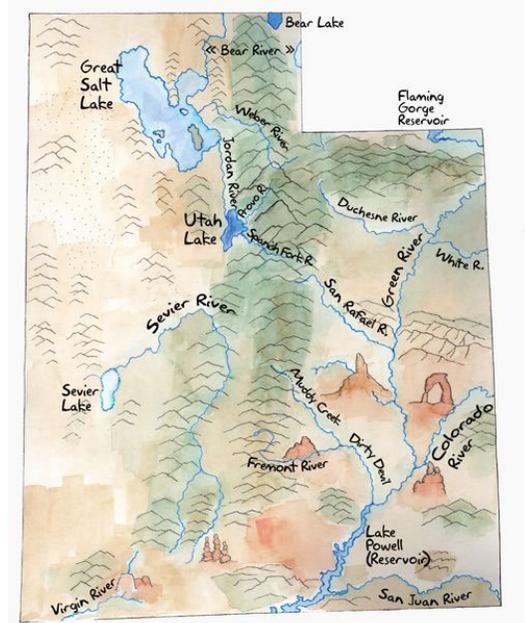
Pocket Gophers

- ID: covered mounds, pocket cheeks
- Damage: agriculture crops, ornamentals/wires
- Mesh barriers, deep tillage, flood irrigation
- Trapping- Gophinator (concave side)
- Hand Baiting- locate tunnels
- Burrow Builders
 - strychnine (underground only)
 - Zinc phosphide
 - Anticoagulants
- Fumigation
- Predators



Prairie Dogs

- ID: Utah Prairie Dog, White tailed, and Gunnison
- Damage: agriculture crops/rangeland, plague
- Borders, tall vegetation
- Deep tillage (ripper)
- Badgers, hawks, ferrets, fox
- Zinc phosphide, fumigants
- Shooting
- trapping





Raccoons

- ID: Masked face, ringed tail, Non-Native!
- Damage: gardens, structures, poultry, rabies (80% of tested exposed)
- Electric mesh fence, remove pet food
- Dogs where hunted frequently
- Trapping- coon cuff or wire in bait in cage traps





Skunks

- ID: Striped Skunk and Spotted Skunk
- Damage: Digging, gardens, poultry, rabies carrier
- Remove pet food
- Treat grubs
- Electric fencing (low wires)
- Trapping





Utah Rock Squirrel

- ID: Lives underground, grey checkered pattern
- Damage: fruit, gardens, eggs, grain, structural, plague and disease, irrigation
- Fencing/mesh (electric)
- Badgers, canines
- Trapping- Squirrelinator, tube traps
- Zinc Phosphide
- Fumigation





Voles

- Usually damage occurs with snow
- More at risk in high elevations
- Weasels, birds of prey
- Mowing/ grazing before snowfall –remove grass
- Remove vegetation from base of trees
- Hardware cloth 4-6 inches into ground and 18-24 inches high-allow for 5 years of growth
- Zinc Phosphide-knock population down – 10lbs/acre broadcast or 2lbs/acre placed in tunnels
- Bait stations, beverage cans, half tires- 1 per 10 yards
- Ramik Brown (anticoagulant)-through winter





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Questions

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