Navigation Bar

Introduction
Objectives
Wildlife Slides
Suggested Reading
Tests of Knowledge
Copy of Quiz

Gardening for and with Wildlife

Virginia Cooperative Extension
Virginia Tech • Virginia State University

This module was developed by Phyllis Turner, PhD,
Bedford Extension Master Gardener

Welcome to ‘Wildlife Management’

In this module you will learn about the interrelationship of plants, animals, and humans within systems and habitat;
common wildlife problems faced by home gardeners; and recommendations for these problems. You will learn laws related to wildlife management in horticultural settings.

- Browse the Suggested Readings at the end of these slides. They contain online sources that will be helpful for your learning
- Read Chapter 18, Habitat Gardening for Wildlife in the Master Gardener Handbook
- The Test Your Knowledge section is for fun and review
- When you are ready, take the quiz, you can print out a copy by clicking on “Printable Copy of Quiz” on the first slide to get a copy to work on
- Click on “Wildlife Quiz” to take the quiz online

Virginia Cooperative Extension
Virginia Tech • Virginia State University

What Will I Learn in This Module (Objectives)

- Definition and structural components of wildlife habitat
- Contributing factors to the loss of wildlife habitat
- Steps to avoid wildlife conflicts
- How to systematically evaluate a wildlife conflict
- State and local laws related to wildlife management in horticultural settings
- Recommendations for home gardeners to reduce deer intrusion; reduce squirrel damage; and reduce vole and mole damage

Plants, animals and humans interact in a very complex system, each existing in its own unique, yet often overlapping habitat.

What is a habitat?

an area where an animal is able to secure the food, water, cover and space it needs to survive and reproduce.

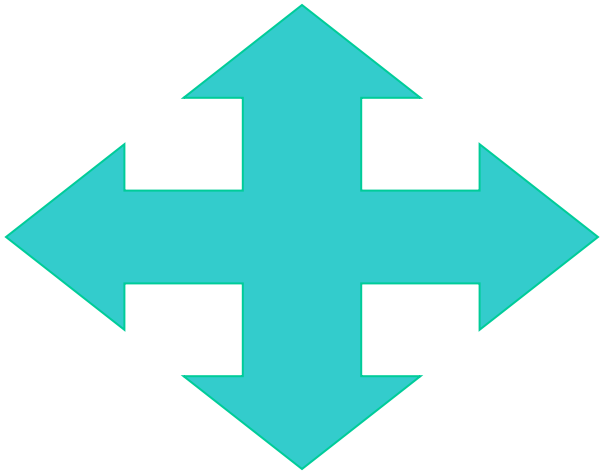
Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Elements of Habitat

Space

Food



Cover

Water

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Structural components of wildlife habitat

- Brush piles and rock piles (shelter and protection)
- Dead trees (nesting; refuge)
- Nest boxes
- Bare soil (dust bath; nesting)
- Water features (ponds, streams)

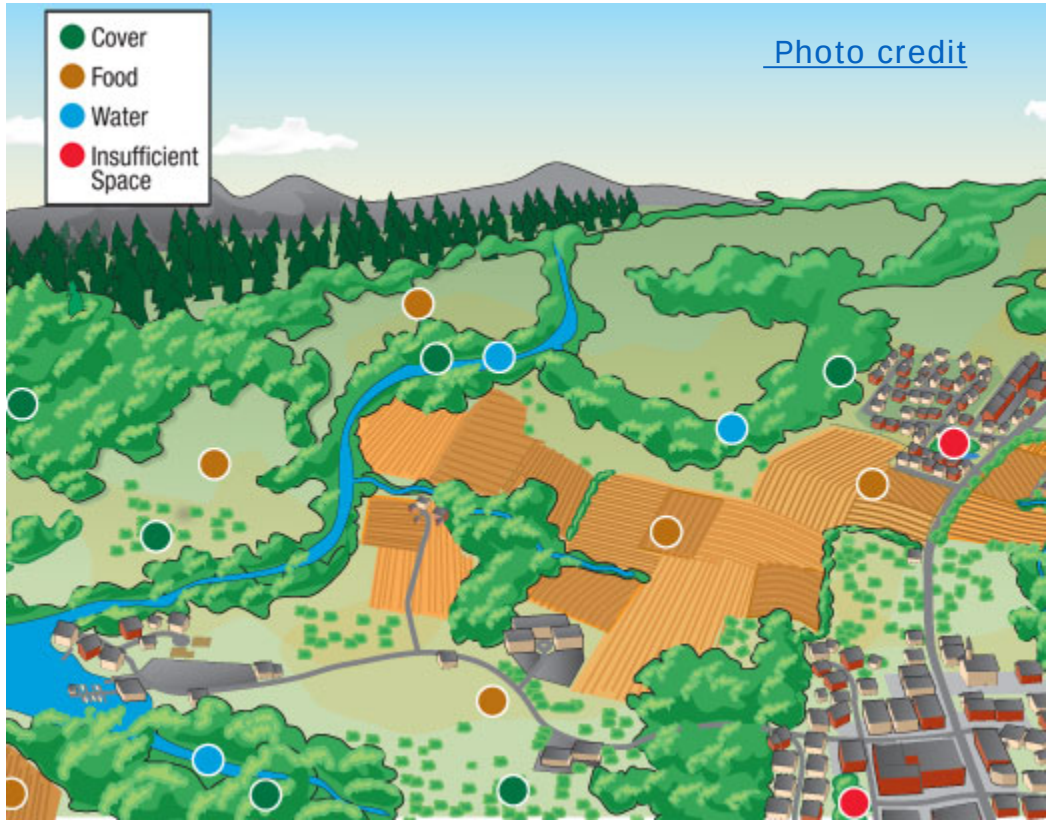


Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Loss of Habitat

The loss of habitat by one species increases the likelihood of negative interactions between that species and other species

For example, when wildlife habitat is reduced, they move into habitats populated by humans, increasing unwanted interactions

Photo credit

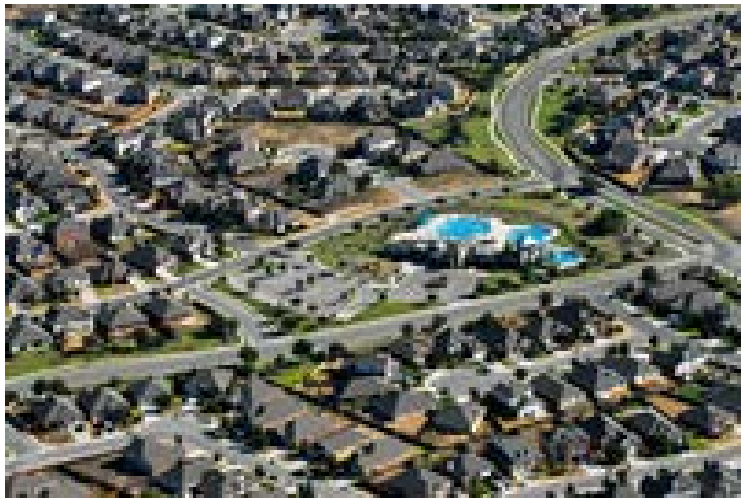


Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

What has contributed to the loss of wildlife habitat?

- Commercial and residential building
- Increased impervious surfaces leading to erosion
- Extensive use of lawn and non-native plants in the landscape
- Use of herbicides and pesticides
- Clean farming practices (removal of hedgerows)

Photo credit

Habitat Gardening

Habitat gardening is a way to improve the available food, water and cover for wild creatures in our landscape. The first step when gardening for wildlife is to determine the priority species, then identify the food, water, shelter and other resources each animal requires. Your MG Handbook describes how to develop several types of habitat gardens.

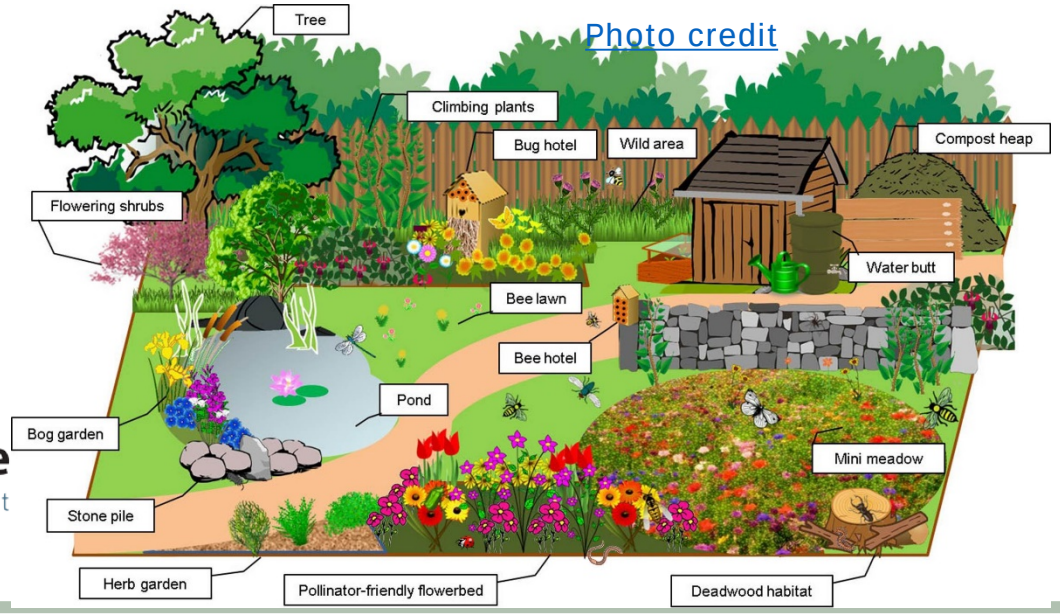


Photo credit

Virginia Cooperative
Virginia Tech • Virginia St

Improving habitat

- Food sources: The best source is a diverse selection of native plants
- Water: shallow in-ground pools or ponds, water barrel or bird bath
- Cover: trees, shrubs, thickets, grasses, man made house

Photo credit

While we garden to improve biodiversity, what can we do to decrease adverse interactions with wildlife?

Mole. Photo credit

Photo credit

Photo credit

Wildlife are part of the natural environment and most of us enjoy seeing them

However…

Groundhogs. Photo credit

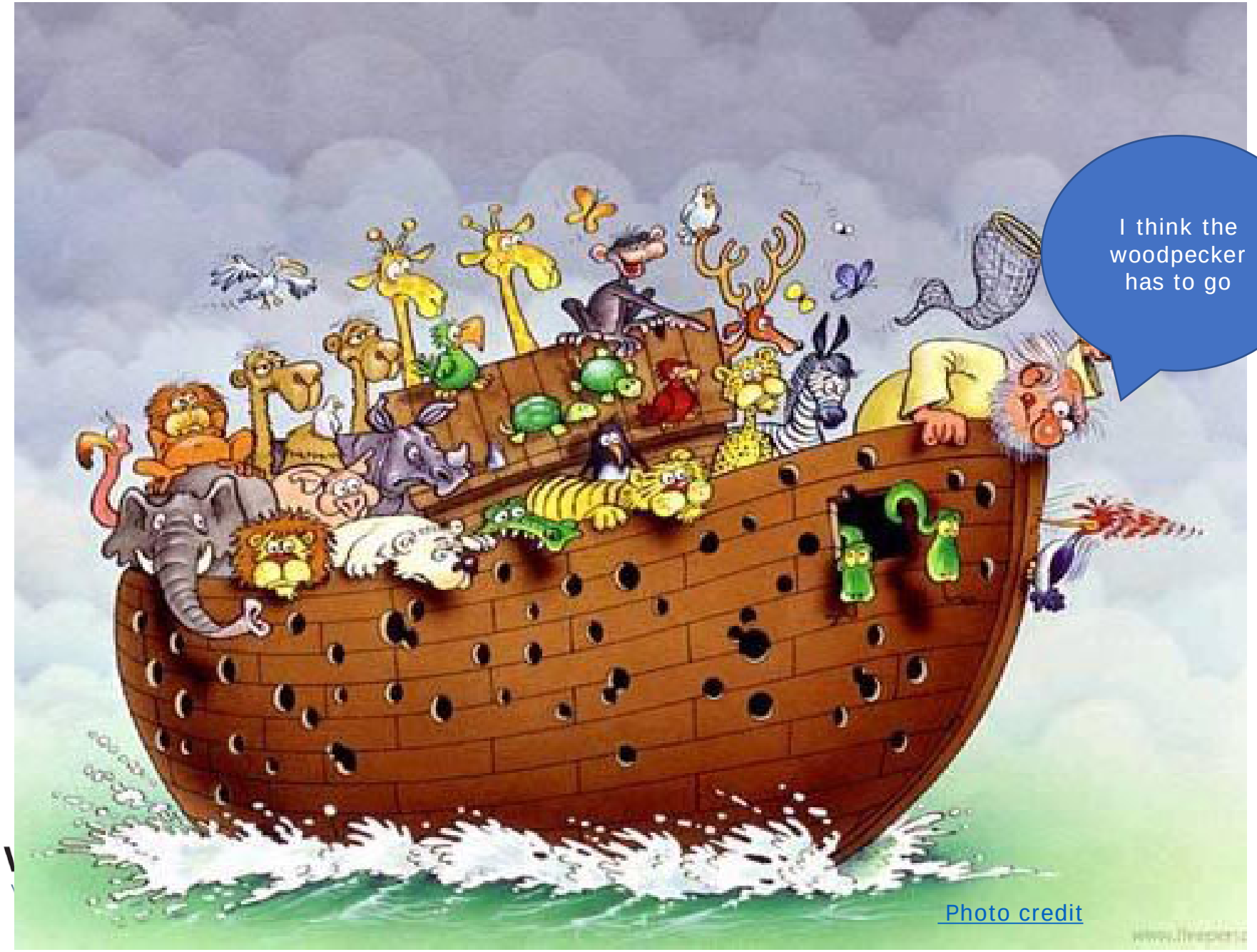
Virginia Cooperative Extension
Virginia Tech • Virginia State University

Image: computer mash: P. Turner, EMG

This is What Deer Look Like to Your Plants

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Photo credit


I think the woodpecker has to go
Photo credit

What's the Problem?

- The most difficult task is assessing what the actual "problem" <u>is</u>.

- You must separate minor <u>inconveniences</u> from true <u>economic damage</u> or potential <u>personal health and safety</u> issues and resolve <u>real</u> problems.

Photo credit

The snake was after the "mouse"

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Defining the Problem

Photo credit

Many of today's residents of the suburbs have never had any true "connection to the land."

- No sense of what is "normal" or "expected" behavior in wildlife
- Very low tolerance
- Little sense of their role in or contribution to the situation

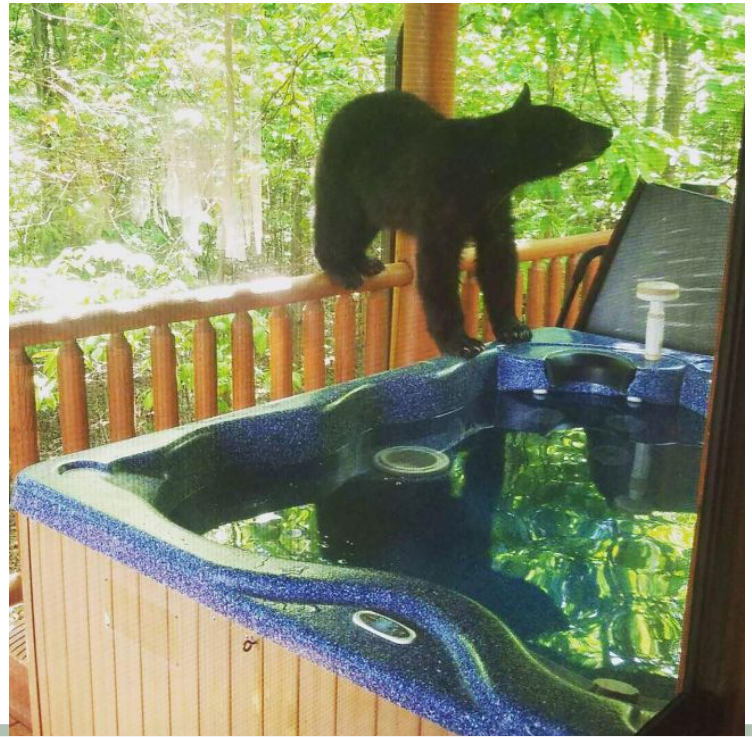


Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Appropriate Approach to Take

- Don't accept simple diagnoses - *in many cases, they will be wrong*
- Accurately determine species of offending animal(s)
- Determine true underlying causative factors

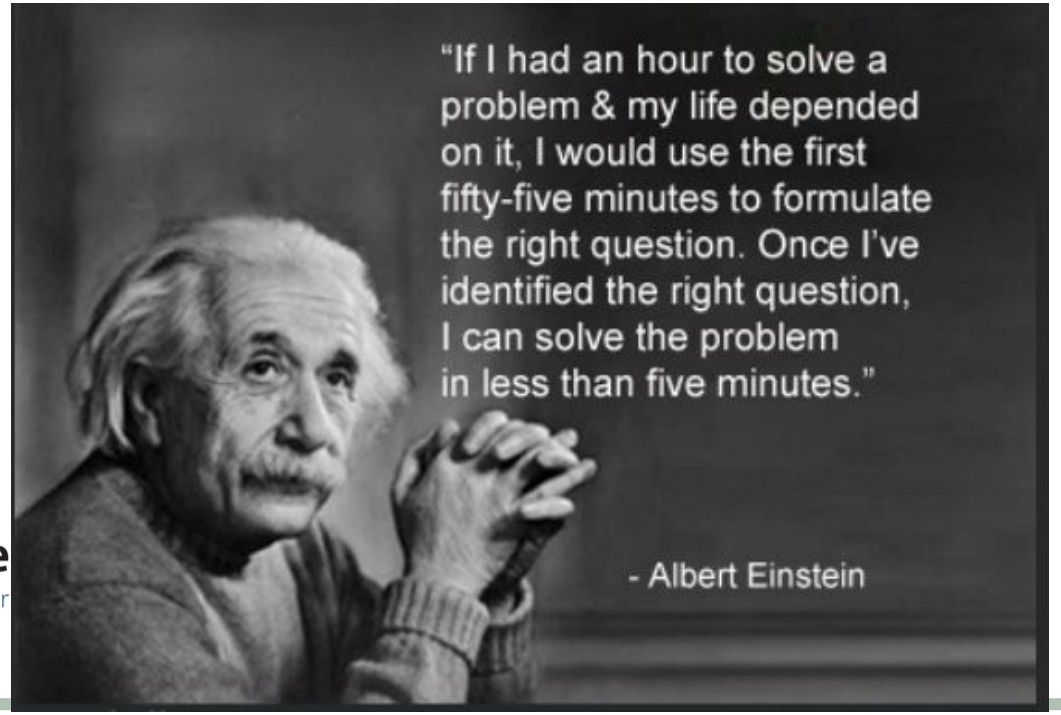
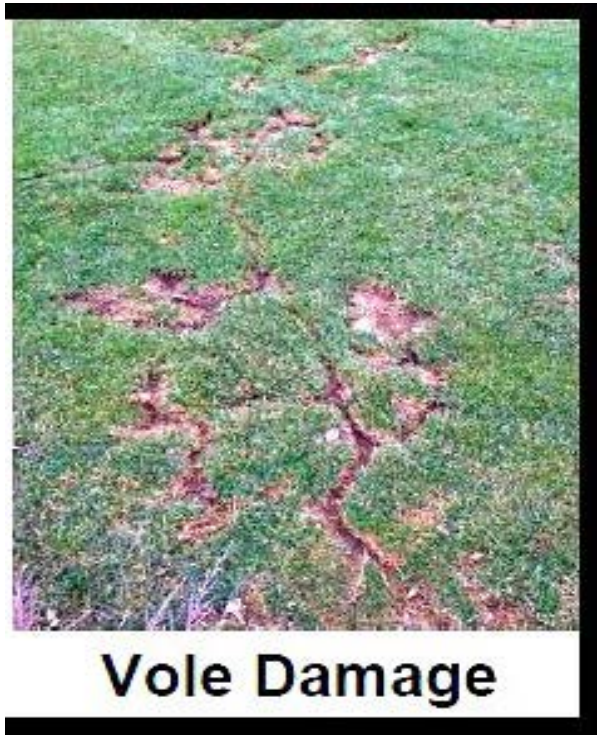


Photo credit

Photo credit



“Voles eat Vegetation” Photo credit

Photo credit

“*Moles eat Meat*”

Photo credit

Moles and Voles

Wrong Diagnosis = Wrong Treatment

Photo credit

- If you perform an inappropriate treatment, *YOU* are legally responsible for any illegality that may arise

- EXAMPLES:
  - Home remedies
  - Unregistered products
  - Unlawful actions for that species

Concerns...

- Be certain of what you're dealing with
- Know the law(s)
- Know the option(s)
- Know who to contact for help or second opinions

Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Appropriate Strategy

- Fully describe the situation / history
- Ask lots of follow-up questions that get to the heart of the issue
- Implement a *vertebrate integrated pest management* (VIPM) protocol

Photo credit

What is VIPM?

". . . a hierarchical decision-making process that seeks to resolve conflicts using a level of response appropriate to the defined needs and circumstances"

- Start simple, cheap, easy
- Increase in intensity, labor, and cost
- Use only as much effort as truly required to resolve situation . . . don't start with last resort option first (e.g., lethal measures)

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Basics of a Vertebrate IPM Program

1) Husbandry options

2) Non-lethal options

3) Lethal options

Husbandry Options

Focus: concentrate your attention and potential solutions on aspects that relate to the habitat or operational practices within which the problem situation has arisen

Objective: make habitat less suitable or less attractive to offending animal or change the behaviors of client

Urban / Suburban Husbandry Options That Lead to Problems

- Pet food dishes left outside
- Messy bird feeding stations
- Compost piles
- Firewood piled against or near home
- Refuse / debris stored close to residence
- “Heavy” landscaping / mulch
- Overhanging branches at residence

Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

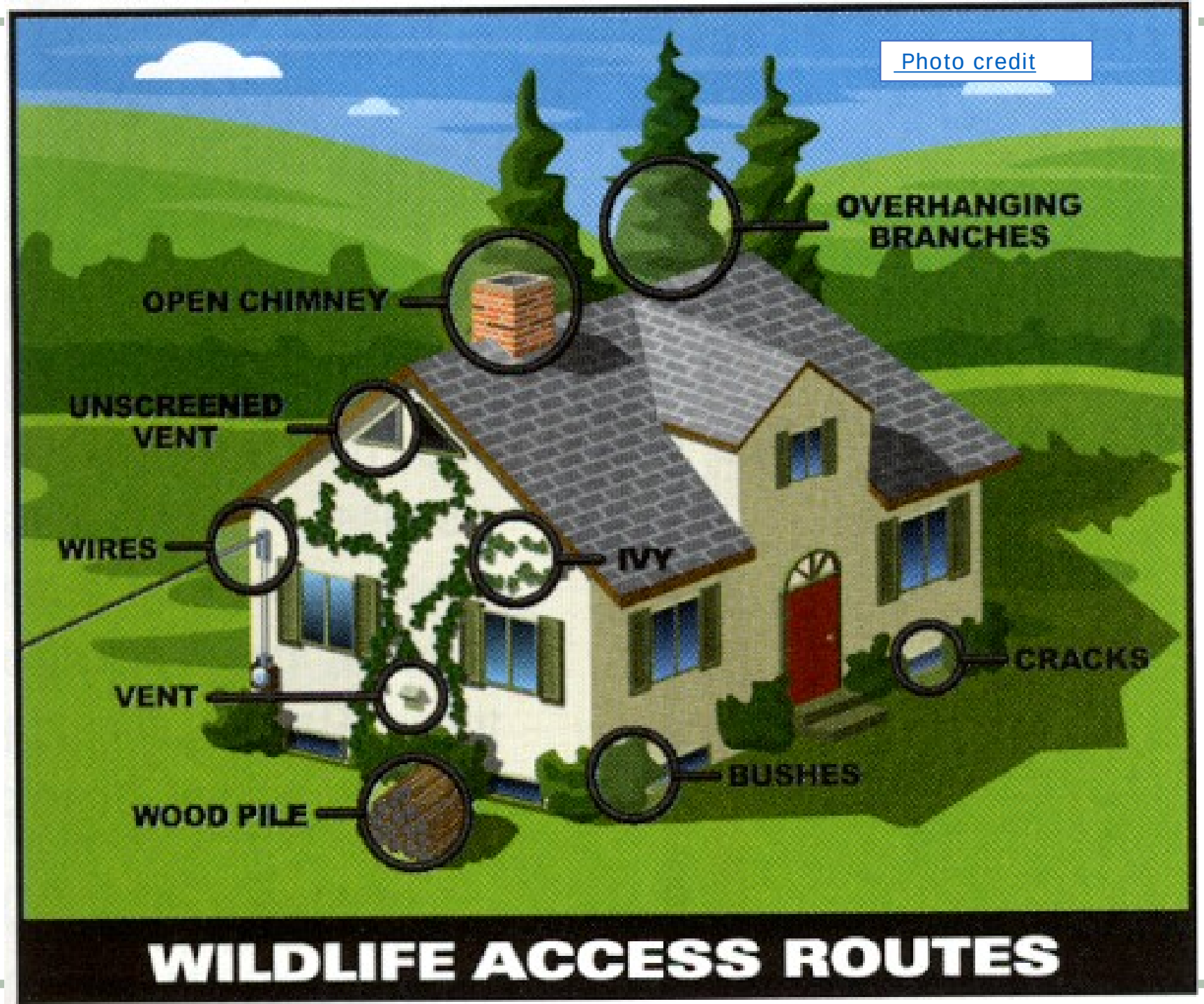


Photo credit
OVERHANGING BRANCHES
OPEN CHIMNEY
UNSCREENED VENT
WIRES
IVY
CRACKS
VENT
BUSHES
WOOD PILE
WILDLIFE ACCESS ROUTES


Photo credit
HABITAT MODIFICATION
SANITATION
1 REMOVE PILES
2 REDUCE OR CHANGE MULCH
3 STORE FIREWOOD PROPERLY
4 MOW GRASS REGULARLY
5 ALLOW SHRUB CLEARANCE
1 SELECT PLANTS
2 FILL FEEDERS WISELY
3 SEPARATE COMPOST
4 REMOVE PET FOOD
5 FENCE VALUED PLANTS
6 INSTALL DECK SKIRT
7 COVER WINDOW WELLS
8 FILL HOLES
9 SPRAY ANIMAL
6 SECURE LIDS ON TRASH
7 BAND TREES
8 CHANGE LIGHT COLOR
9 REMOVE WATER
MANAGING WILDLIFE OUTDOORS

Non-lethal Options

Focus: prevent access to or minimize the animal's interest in an item or area that you don't wish to have damaged

Objective:

1. Stimulate animal's innate reflexes and invoke natural fear/flight response

or

2. Implement a physical barrier/deterrent

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Urban / Suburban Non-lethal Options - Examples

- Exclusion
- Fencing
- Visual scare devices or barriers
- Noise deterrents
- Repellents (odor and taste aversion)

Non-lethal Exclusion Options

- Most reliable, long-lasting solution, *if done properly and completely*
- Timing is critical – don't trap animal in !
- In older homes, it may be impossible to exclude all animals

Recognize that animals are tenacious and will be persistent in trying to get back in.

Virginia Cooperative Extension
Virginia Tech • Virginia State University

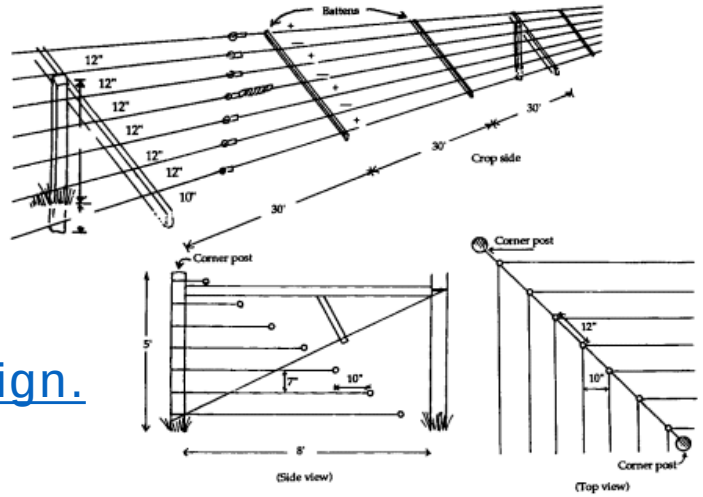
Non-lethal Fencing Options

- Check local ordinances
- Safety – electric fencing???
- Permanent vs. temporary?
- Assess cost-effectiveness
- Maintenance needs

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Dig fence. Photo credit

Fenced bed. Photo credit



Fence design.
Photo credit

Fence to protect bee hives from bear. Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Electronic Deer Repellent

$70/3 units

1 unit for every 100-400 square feet

Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Effective...???

Non-lethal Visual Scare Options

Habituation is rapid, unless reinforcement with a perceived threat is provided.

- Predator effigies (owl, snake, eye-spot balloons, etc.)
- Scarecrow
- Lights / strobes
- Mylar reflecting tape
- Plastic garbage bag flags

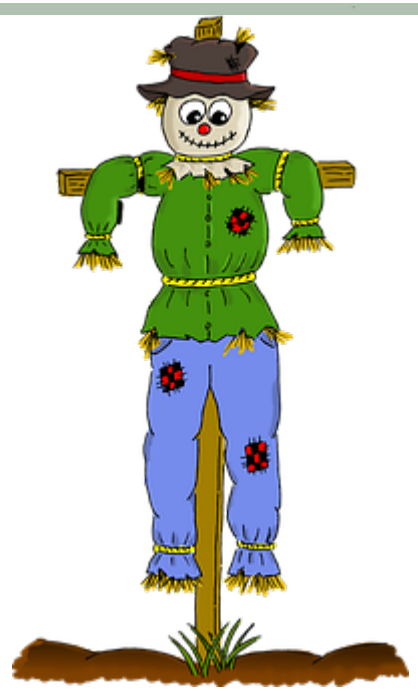
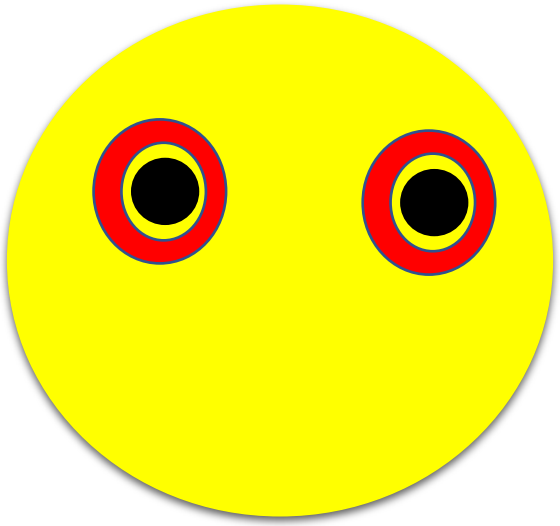


Photo credit

Photo credit



Computer generated image: P. Turner EMG

Photo credit

Scare Tape.
Photo credit

Non-lethal Noise Deterrent Options

As with visual techniques, anticipate that habituation to noise will be quick.

- Fear provoking stimuli (e.g., predator calls, distress call tapes)
- Human presence (e.g., bang on garbage can lid)
- Pyrotechnics

Photo credit

Pyrotechnic Devices

Wildlife biologist shoots pyrotechnics to scare birds from airfield in Tampa, Fla. Photo credit

Photo credit

Drone for bird control.
Photo credit

Non-lethal Repellent Options

- Most requested option by public
- Usually only effective for short periods or with repeated application
- Often can be quite expensive
- Limited selection of materials for most species (hence, high abuse)

Repellents[1]

Registrations change over time. Always check for most recent lists of legal products and use accordingly

Species	Registered Product
Beavers	Denatonium saccharide (Ropel)
	Coyote Urine (Shake away granules)
	Fox urine (Shake away granules)
	Polybutene (J.T. Eaton 4the birds Bird Repellent Liquid)
Commensal Rodents	Thiram
Voles	Capsaicin
Muskrats	- None -
Woodchucks	Coyote and fox urine
Chipmunks	- None -
Tree Squirrels	Capsaicin; napthalene; denatonium saccharide

[1] **Federal registration**

Repellents[1]

Species	Registered Product
Coyotes	- None -
Foxes	- None -
Skunks	- None -
Moles	Castor
Rabbits	Capsaicin; thiram; ziram; tobacco dust; higher fatty acids
Deer	Capsaicin; thiram; egg solids; higher fatty acids; denatonium saccharide

Virginia Cooperative Extension
Virginia Tech • Virginia State University

[1] Federal registration

Repellents[1]

Species	Registered Product
Bats	Napthalene
Raccoon	Napthalene; tri-n-butylin chloride
Opossum	- None -
“Birds”	Avitrol®; capsaicin; denatonium saccharide; napthalene; di/methyl anthranilate
Snakes	Sulphur; napthalene

Virginia Cooperative Extension
Virginia Tech • Virginia State University

[1] Federal registration

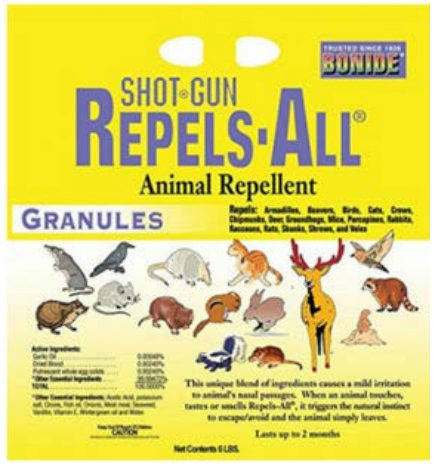


Photo credit

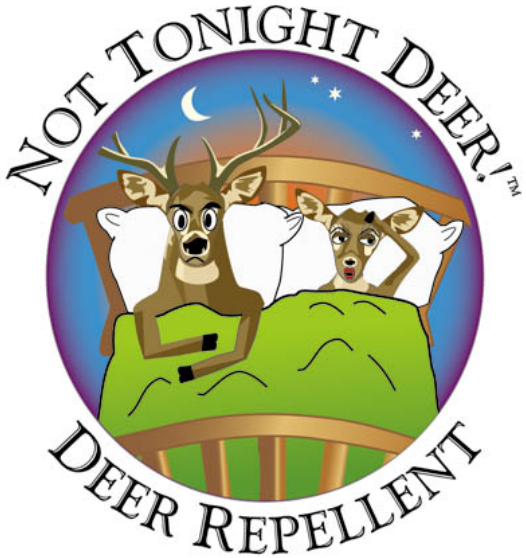


Photo credit

Read the label carefully and know restrictions on use !!!

Photo credit

Photo credit

Photo credit

Types and Costs of Selected Repellents

- *Snake Away*® - ~$10/1.75# (requires 4-5 inch band)
- Critter Ridder - ~$12/1.5# (treats 50 sq. ft)
- Rabbit/Dog Repellent - $10/3# (requires 2” band)
- Hot Pepper Spray - $11/quart
- Bar soaps - variable (3 “hotel sized” bars / tree)
- *Deer Off*® - ~$18 / quart
- Mole Med - $15-20 treat 10,000 sq. ft (lasts up to 3 mo.)

Plant Selection - A Natural Repellent?

Unfortunately, little concern given to issues of population density and energy demands of animal.

In short . . .

". . . when the number of mouths gets high enough, relative to the food supply, they will eat what they have to to stay alive."

Lethal Options

Should be viewed as a "*method of last resort.* "

Questions often exist as to:

- What is "acceptable" or legal method to kill offending animal(s)
- Disposition of any animal(s) taken
- Handling "out-of-season take" (for game species)

Lethal Options

- Toxicants
- Fumigants
- Shooting
- Trapping

Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Lethal Options - Toxicants

- US EPA registered poisons used to kill an offending animal via oral ingestion of chemical compound
- Typically referred to as "***acute***" and "***chronic***" active ingredients
  - ***acute*** = single dose usually will kill
  - ***chronic*** = multiple small doses intended
- Many products are "restricted use" materials

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Lethal Options - Fumigants

- US EPA registered poisons used to kill an offending animal via inhalation of chemical product
- With few exceptions, generally a method best left to experts . . . . serious potential for danger from exposure
- Limited application for suburban client

Registered Lethal Materials[1]

Note: Not all products will be available locally and some are only for use by professionals. Always check labels for legal and proper use.

Species	Registered Active Ingredient
Beaver	- None –
Tree Squirrel	- None –
Bat	- None –
Deer	- None –
Rabbit	- None –
Snakes	- None –
Muskrat	Zinc phosphide
Woodchuck	Aluminum phosphide; potassium nitrate; sodium nitrate
Chipmunk	Aluminum phosphide; chlorophacinone
Coyote	- None -

[1] Federal registration

Registered Lethal Materials[1]

Species	Registered Active Ingredient
Commensal rodents	Many products; refer to product labels
Voles	Chlorophacinone; zinc phosphide; diaphacinone; aluminum phosphide
Fox	Sodium cyanide (USDA only); sodium nitrate (red fox only)
Skunk	Sodium nitrate; potassium nitrate
Moles	Aluminum phosphide; sodium nitrate; warfarin; bromethalin; diaphacinone' potassium nitrate; zinc phosphide; bifenthrin
Birds	DRC-1339 (USDA only)

Virginia Cooperative Extension
Virginia Tech • Virginia State University

[1] Federal Registration

Photo credit

Photo credit

Photo credit

Know your products, formulations, and restrictions on use!

Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Lethal Options - Shooting

Safety must be your prominent concern !

- Many communities have local ordinance(s) prohibiting discharge of firearm
- Where acceptable, can be an effective tool for hard to treat animals
- Should be limited to small caliber weapons, short trajectory

Lethal Options - Shooting

- Landowner (tenant or lessee) not required to have hunting license to “take” offending animal on own property
- Must abide by established season(s) for game species or receive permit from local Conservation Police Officers (except for *nuisance species*)

Many exceptions and “gray areas”

Lethal Options - Capture

Landowner is allowed to capture most animals causing verifiable damage to property, but . . . .

- In some cases, prior notification of game warden is necessary
- For certain species (e.g., deer, bear), no capture is allowed (only Va. Dept. of Wildlife Resources personnel)

Lethal Options - Trapping

Should be viewed as a *lethal option* due to existing state regulations.

Disposition of any animal captured alive is problematic because you *may not* . . .

- Possess a wild animal
- Transport a wild animal
- Liberate a wild animal . . .

without prior authorization (i.e., have a permit)

Lethal Options - Trapping

By VA law, allowable disposition means . .

1) Release at site of capture
2) Transport to rehab for treatment
3) Euthanization at site of capture

Live trap. Photo

Coyote in trap. Photo credit

Know the Law

Not knowing the laws dealing with wildlife is not a justifiable excuse if what you do is illegal.

What are urban/suburban clients supposed to do? They should . . .

1) Learn more about what is natural and expected with wildlife

2) Don't expect to spray something or use any type of method to solve a "problem"

3) Accept some responsibility & fix it !

4) Participate in community-wide, cooperative efforts to resolve today's complex problems

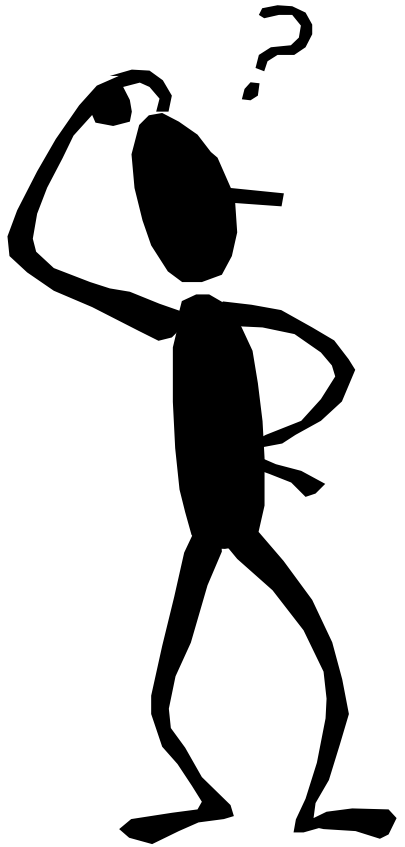


Photo credit.

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Who can “urbanites” call?

- Assistance of federal agencies:
  - US Fish & Wildlife Service
  - US Environmental Protection Agency

- Assistance of state agencies:
  - Department of Game & Inland Fisheries
  - Extension Office
  - Department of Health

- Private Sector Assistance:
  - Look for certified practitioners

Roanoke, VA. Photo credit

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Parting Shot

Photo credit

We've lived with wildlife for many years, and likely will continue to do so in the future.

Although they can be a nuisance, they are only doing what nature taught them to do . . . . ***survive*** and ***reproduce***.

Ideally, we need to make the necessary adjustments to avoid having the conflict in the first place, which includes ensuring that they remain . . . . ***wild***.

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Bees

While many species of wildlife are a nuisance to gardeners, some are beneficial. Honey bees are a good example of a species that gardeners want to recruit to the garden.

Many Master Gardeners also become beekeepers because of the important role that bees play in their gardens.

Why are honey bees so important?

- Honey bee pollination helps produce a third of the nation's diet
- More than 3.5 million acres of crops in the U.S. depend on honey bees for pollination
- Honey bee pollination is worth about $15 billion to the food supply
- The number of honey bees is in sharp decline

  Why…….

Why the concern about honey bees?

CCD, Colony Collapse Disorder, a phenomenon where adult honey bees disappear from the hive, has led to the loss of millions of honey bees in recent years.

While research continues on the cause of this disease /disorder, current theory is an interaction between biotic factors (mites, disease) and environmental factors (toxic chemicals).

This will continue to be an important issue and concern for gardeners.

Colony Collapse Disorder
Bee Colony Collapse Disorder

Virginia Cooperative Extension
Virginia Tech • Virginia State University

End of Slide Set

You can continue to next slide: 'Suggested Readings'

OR

Click on the house below to return to the Navigation Page

Photo Credit: Bev Turner

Suggested Readings

- Wildlife Control (2 pages)
- Nuisance Wildlife (5 pages)
- Gardening for Wildlife

Test Your Knowledge

Deer Resistant Plants

What do you know about Wildlife?

Use the PMG

Match your Knowledge

Help Desk Quiz

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Which of these plants is deer resistant?

Answers on next slide

Hostas
Tomatoes
Aucuba
Boxwood
Redbud
Raspberry
Leyland Cypress
Sunflowers
Yarrow
Foxglove
Columbine
Apple Trees

Click to return to Tests of Knowledge

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Which of these plants is deer resistant?

Photo credit

We love these

- Hostas
- Tomatoes
- Redbud
- Raspberry
- Leyland Cypress
- Apple Trees

We don't generally eat these

- Sunflowers
- Aucuba
- Yarrow
- Boxwood
- Foxglove
- Columbine

Click to return to Tests of Knowledge

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Which of the following statements about wildlife are True?

1. Placing permatil™ in the hole around where you are planting a bulb is a short term prevention for vole damage.
2. It is not illegal to shoot crows and starlings in Virginia.
3. Chronic wasting disease is a disease of squirrels.
4. Moles eat tulip bulbs.
5. It is possible to control wildlife in our gardens.

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Click to return to 'Tests of Knowledge'

Which of the following statements about wildlife are True?

- Placing permatil™ in the hole around where you are planting a bulb is a short term prevention for vole damage. True
- It is not illegal to shoot crows and starlings in Virginia. True
- Chronic wasting disease is a disease of squirrels. False
- Moles eat tulip bulbs. False
- It is possible to control wildlife in our gardens. False

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Click to return to 'Tests of Knowledge'

Matching

Match the items on the right with the appropriate descriptions on the left
Answers on next slide

1. Husbandry, non-lethal, lethal options
2. Eats vegetation
3. Poisons used to kill via inhalation
4. Pet food dishes left outside
5. Single dose will usually kill
6. Fencing, noise deterrents
7. Toxicants, shooting
8. Multiple doses used
9. Eats meat
10. Space, food, cover, water

A. Fumigants
B. Acute
C. Non-lethal option
D. Chronic
E. Moles
F. VIPM
G. Elements of Habitat
H. Lethal option
I. Husbandry Option
J. Voles

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Click here to return to 'Tests of Knowledge'

Matching

Match the items on the right with the appropriate descriptions on the left (Click to show Answers)

1. Husbandry, non-lethal, lethal options
2. Eats vegetation
3. Poisons used to kill via inhalation
4. Pet food dishes left outside
5. Single dose will usually kill
6. Fencing, noise deterrents
7. Toxicants, shooting
8. Multiple doses used
9. Eats meat
10. Space, food, cover, water

1. F
2. J
3. A
4. I
5. B
6. C
7. H
8. D
9. E
10. G

A. Fumigants
B. Acute
C. Non-lethal option
D. Chronic
E. Moles
F. VIPM
G. Elements of Habitat
H. Lethal option
I. Husbandry Option
J. Voles

Click here to return to 'Tests of Knowledge'

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Help Desk Quiz Answers on next slide

1. Deer are eating all my plants. What can I do?
2. Moles, voles, or something is chewing all the bark off around the bottom of my young trees. What can I do about this?
3. What can I use to keep the voles from eating all my plant roots? I don't want to use poison.
4. Ground hogs are digging a hole into and underneath the house. Client wants someone to remove the groundhogs.

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Click here to return to 'Tests of Knowledge'

Help Desk Quiz

1. Deer are eating all my plants. What can I do?

Answer: The most effective resolution is a high fence. Deterrents such as movement, noise, and foul smells may be effective for a while, but eventually will lose their 'fear factor' for the deer. Deer deterrent products can be bought and may be effective, but need to be replenished often and are expensive.

2. Moles, voles, or something is chewing all the bark off around the bottom of my young trees. What can I do about this?

Answer: It is winter, there is 4-6 inches of pine straw piled tightly around the base of the trees. This is probably mice damage. Remove some of the mulch (leave a depth of 2-4 inches); remove all mulch within 6 inches of the tree base. You can buy tree base covers to wrap around the trunk. If none of these strategies solve the problem, you can buy traps to kill the mice.

3. What can I use to keep the voles from eating all my plant roots? I don't want to use poison.

Answer: Capsaicin is the only non-lethal deterrent approved for use for voles. Removing weeds and dense groundcover may help. Can use galvanized cloth below the surface around plants.

4. Ground hogs are digging a hole into and underneath the house. Client wants someone to remove the groundhogs.

Answer: dogs, gassing, trapping, flooding and repellant sprays are used to control them. If these aren't feasible contact a licensed professional commercial wildlife control company.

Use the PMG

- Use the PMG to identify landscape plants that are less palatable to deer.

PMG: Selective Planting Recommendations for Deer Management

Virginia Cooperative Extension
Virginia Tech • Virginia State University

COPY OF QUIZ

1. In managing wildlife problems, if you perform an illegal treatment, it is an excuse if you didn't know that it was illegal. a. True; b. False
2. A Vertebrate Integrated Pest management Program includes:
   a. husbandry options b. non-lethal options c. lethal options d. all of the above
3. When evaluating a wildlife conflict, the third step (after identifying the species causing the conflict and researching what it wants) is to:
   a. determine the various options available and choose the least invasive or least toxic.
   b. investigate lethal options c. call the Virginia Cooperative Extension office d. call a Master Gardener
4. Urban/suburban husbandry options that lead to problems are
   a. compost piles b. firewood piled against or near the home c. pet food dishes left outside d. all of the above
5. Landowners (tenant or lessee) are required to have a hunting license to "take" offending animals on their own property a. True b. False
6. Landowners are allowed to capture deer and bear if they are causing verifiable damage to the landowner's property
   a. True b. False
7. The most difficult task in 'dealing' with wildlife is:
   a. laws don't allow us to get rid of them b. the danger wildlife present to us
   c. determining what the problem is d. wildlife don't act like we think they should
8. What is a wildlife habitat? a. any garden planted with flowering plants b. an area within an ecosystem where an animal is able to secure food, water, cover and space c. a monoculture growing food for animals
   d. an herbaceous layer of growth providing food and cover for wildlife
9. What is "horizontal structure" (a habitat principle)
   a. planting in rows b. the transitional edge between a lawn and trees
   c. a biologically diverse community combined with abiotic elements of the environment
   d. arrangement and interspersion of different successional stages of growth in proximity to one another
10. All of the following are elements for a conservation landscape EXCEPT:
    a. provides habitat for wildlife b. conserves and cleans water
    c. promotes healthy soils d. emphasizes healthy turfgrass
11. What is VIPM
    a. vertebrate integrated pest management b. very important pest management c. viciously intercept pests in motion d. Virginia is pest minded

Virginia Cooperative Extension
Virginia Tech • Virginia State University

Credits

This module was adapted by Scott Baker, Extension Agent, Virginia Cooperative Extension, Bedford, VA from

Jim Parkhurst, Extension Wildlife Specialist

Department of Fisheries & Wildlife Sciences

Virginia Tech

Virginia Cooperative Extension
Virginia Tech • Virginia State University