

# Coping with Wildlife that Can be Dangerous or Damaging



Holly Ober, Bill Giuliano, Steve Johnson Department of Wildlife Ecology & Conservation



#### Overview of How to Stop Damage Caused by Nuisa Wildlife in Your Yard<sup>1</sup>

#### How to Modify Habitat to Discourage Nuisance Wildlife in Your Yard<sup>1</sup>

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# Damage in Your Yard<sup>1</sup>

Holly K. Ober and Arlo Kane<sup>2</sup>

UF IFAS Extension

How To Identify the Wildlife Species Re How to Use Deterrents to Stop Damage Caused by Nuisance Wildlife in Your Yard<sup>1</sup>

WEC327

### Although many homeowners enjoy wildl there are situations where wildlife can be In some circumstances, wild animals can

damage to lawns and gardens. Learning t species is responsible for this damage is t finding a solution to the problem. See the tion, WEC323, titled "Overview of How t Caused by Nuisance Wildlife in Your Yan outline of the steps to finding solutions to problems in your yard.

In this publication we provide informatic step toward putting a stop to problems ca wildlife: identifying the culprit. Here we of wildlife damage in residential settings determine which species may be causing in your yard.

#### Animal Scat and Tracks

Although some animals are active during highly visible (i.e., many birds and a few : wildlife is fairly secretive. In cases where the animals themselves are challenging, y identify the culprit by the droppings it lea size, shape, and color of wildlife dropping nautant aluan Cmall facan nallata tha aira

#### How to Use Traps to Catch Nuisance Wildlife in Your Yard<sup>1</sup>

Holly K. Ober and Arlo Kane<sup>2</sup>

When wildlife become a nuisance in your yard, there are three general approaches you can take (see EDIS publication WEC323, "Overview of how to stop damage caused by nuisance wildlife in your yard," for a description of all three approaches). You can make habitat modifications, use deterrents, or trap animals. In most residential settings, making habitat modifications or using deterrents will be both simpler and more effective than trapping. See EDIS publications WEC325, "How to modify habitat to discourage nuisance wildlife in your yard," and WEC326, "How to use deterrents to stop damage caused by nuisance wildlife in your yard," for more information on these approaches. However, trapping is warranted in certain situations when trying to solve conflicts between people and wildlife.

This document provides information on stopping wildlife damage through the use of trapping. We describe several of the trap types most commonly used to capture wildlife; list the species you are likely to catch with each trap type; provide guidance on where to set each trap; make suggestions on what materials to use to bait traps; provide instructions on how to set traps; describe safety issues associated with setting traps and safety issues caused by dangerous animals

and, finally, describe legal regulations regarding trapping and relocation.

#### When is trapping warranted?

Before you begin to trap animals, it is important to realize that trapping is often only a temporary solution to nuisance wildlife problems. Trapping is far more effective when animals need to be removed from a building than when they are causing a problem in an outdoor setting. If the habitat quality in your yard is high and the abundance of wildlife in the area is high, it will not take long for new individuals to move in once you have trapped the original out.

It is also important to realize that trapping requires patience, persistence, and knowledge of the habits of the animal you are trying to capture. Trapping is not a quick fix to nuisance wildlife problems.

Before you begin trapping, be sure you have a suitable plan for what you will do with the trapped animal. Regulations regarding the release of wild animals from traps are strict, so wait to set your live traps until you have a workable plan 

to leave, deterrents may be your

ize that animals tend to become er a period of time. Animals also in those situations where they you are trying to protect (i.e., ms of food, water, or cover are ective use of deterrents is to (1) soon as possible after the problem the problem can be anticipated) so habit of using the resource, (2) ularly so animals do not become that is meant to scare them, and l to more than one sensory modaled in several ways and remain

iss three types of deterrents: ll, sensitive areas; hazing or scare viation of wildlife problems; and provide recommendations on the r each species (see Table 1).

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### Managing Conflicts with Wildlife: Living with Coy

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#### **Managing Conflicts with Wildlife: Living with Fro**

Steve Johnson, Holly K. Ober, and William M. Giuliano<sup>2</sup>

Frogs are fascinating animals with importance to people and to the environment. They control garden pests such as insects and slugs. They also serve as a food source for many larger wildlife species. In addition, frogs have been essential to several medical advances that help humans. Research on the substances frogs secrete through their skins has led to the creation of new painkillers and antibiotics.

Most frogs in Florida are reclusive and harmless to people, but two species of frogs that have invaded Florida can be harmful to humans and their pets. In this document, we present some facts about native frogs, describe the problems invasive frogs cause, and provide suggestions on how to cope with problem frogs.

#### **Getting to Know Frogs**

- There are approximately 6,000 species of frogs worldwide. Thirty species of frogs breed in Florida; 27 of these are native and 3 are non-native.
- Frogs have a unique body design with long, powerful rear legs for jumping, a short backbone, and a large head with a wide mouth.
- All of Florida's native frogs lay their eggs in water.
   Tadpoles hatch from the eggs, grow, and eventually

- Male frogs call (croak) to attract females to Most Florida frogs breed in the spring and several species breed during the winter, an the spring peeper (Pseudacris crucifer) and leopard frog (Lithobates sphenocephalus).
- All toads and frogs are in the same order (
  is a specific type of frog with drier, wartier
  other frogs. Toads' egg-laying behavior is a
  that of other frogs. They lay their eggs in la
  whereas other frogs lay eggs one at a time
  floating films.
- It is not true that you can get warts from to or frog or from accidentally contacting the these animals. Warts on human skin have with toads or frogs.
- Frogs provide benefits to humans and to n. tems. They consume insect pests that both they keep their natural ecosystems healthy predators and prey.
- Many of Florida's native frogs are common areas. The presence of native frogs around an indication that your yard is "Florida Frifyn, ifas.ufl.edu/).

# Managing Conflicts with Wildlife: Living with Alligators<sup>1</sup>



WEC351

#### Managing Conflicts with Wildlife: Living with Bears<sup>1</sup>

UF IFAS Extension

WEC353

#### Managing Conflicts with Wildlife: Living with Deer<sup>1</sup>



WEC355

# Managing Conflicts with Wildlife: Living with Wild Hogs<sup>1</sup>

William M. Giuliano, Holly K. Ober, Lauren Watine, Raoul Boughton, and Don Coyner<sup>2</sup>

Wild hogs are a popular species, pursued and hunted by many throughout Florida. They are also an important food source for the endangered Florida panther.

However, there are situations where wild hogs can become dangerous or damaging. In this document, we present some facts about hogs, describe dangers and problems they may cause, and provide suggestions on how to cope with these issues.

#### Getting to know wild hogs

- Wild hogs are often referred to as feral hogs or swine (Figure 1); an exotic, invasive species.
- They include free-ranging swine from domesticated stock, Eurasian wild boar, or hybrids of the two; all are considered the same species, Sus scrofa. They are true pigs of the family Suidae.

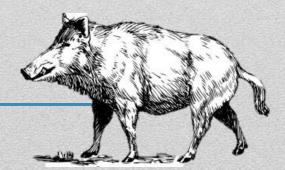


Figure 1. A foraging wild hog Credits: M.S. Smith

 They typically have black, white, or reddish-brown hair either in solid or mottled patterns.

# 4 Step Process to Manage Nuisance Wildlife

- 1) Identify your guests
  - Inspect the damage
  - Examine the animal sign
  - Determine the timing of activity
- 2) Assess what makes the property appealing
  - Animals need 3 resources: food, water, cover
- 3) Consider options to convince animals to leave
  - Habitat modifications
  - Deterrents (fencing, scare tactics, chemical repellents)
  - Trapping or killing
- 4) Monitor and adjust as necessary
  - Document your success/failure





Identify your guest - tracks & scat

### Ungulates







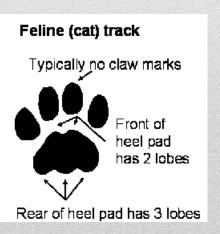


### Canines & Felines









# Identify your guest - tracks



Tubular



Globular



# Identify your guest - scat

# Your options for convincing nuisance wildlife to leave

- 1) Habitat modifications
- 2) Deterrents
- 3) Trapping or killing



# Option1: Habitat Modifications

- Cheapest option
- Most effective
- Long-term solution

Goal is to remove resources wildlife need so they go elsewhere

# Option1: Habitat Modifications

Consider the 3 resources wildlife need to survive:

#### 1. Food

- Household food garbage cans, outdoor grill
- Pet food
- Wild bird food
- Fruit trees
- Replant with wildlife resistant species/varieties

### 2. Cover

- Consider removal of shrubs and tall grass
- Firewood, brush piles, heaps of debris

### 3. Water

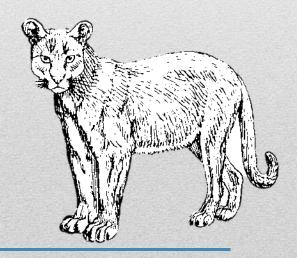
- Standing water pond, bird bath
- Time of day of watering lawn



# Option 2: Deterrents

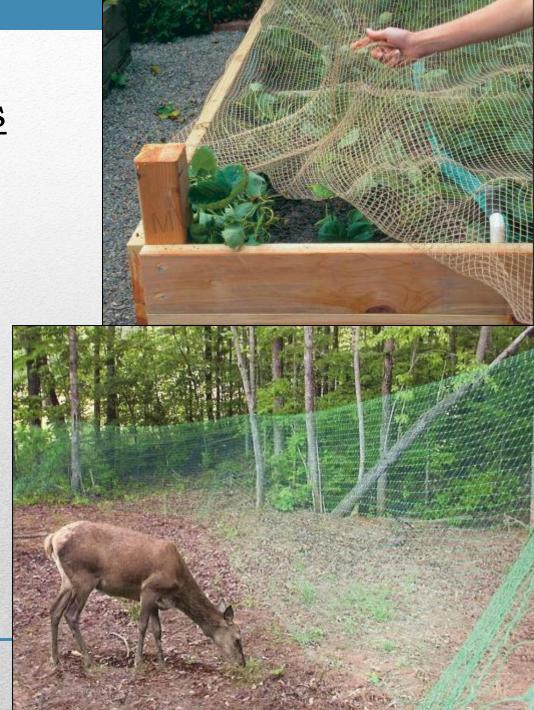
Goal is to prevent access to a resource

- 1. Physical barriers
- 2. Frightening devices
- 3. Chemical repellents



# <u>Deterrents –</u> <u>physical barriers</u>





# <u>Deterrents –</u> <u>physical barriers</u>



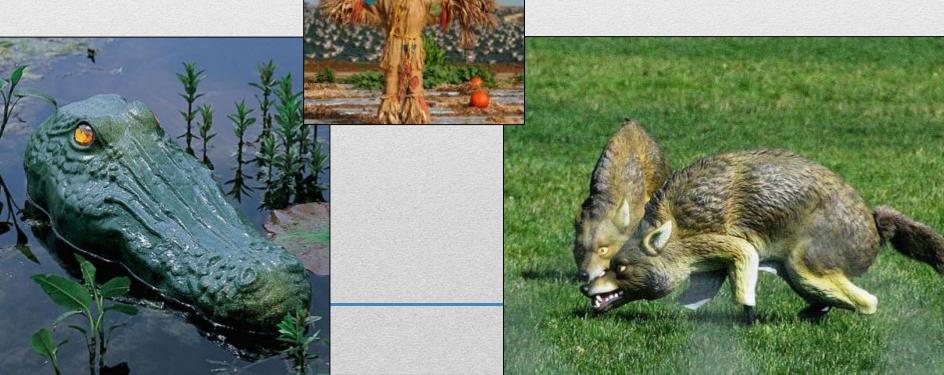




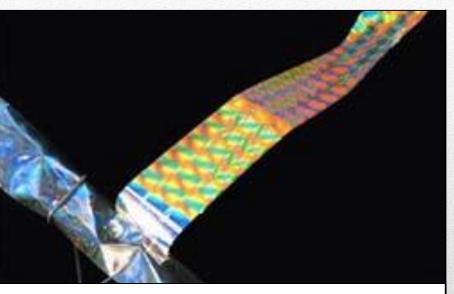
# <u>Deterrents –</u> <u>Frightening Devices</u>

Fake predators





# <u>Deterrents –</u> <u>Frightening Devices</u>









# Deterrents - Chemical repellents

Table 2. Commercially available chemical repellents suitable for nuisance mammals found in Florida. Note that products on this list are not endorsed by the University of Florida. (Abbreviations for application materials:  $\mathbf{G} = \text{granular}$ ,  $\mathbf{P} = \text{probe}$ ,  $\mathbf{S} = \text{spray}$ ,  $\mathbf{W} = \text{powder}$ . Abbreviations for active ingredients:  $\mathbf{A} = \text{ammonia}$ ,  $\mathbf{B} = \text{Bitrex}$ ,  $\mathbf{C} = \text{capsaicin}$ ,  $\mathbf{D} = \text{bloodmeal}$ ,  $\mathbf{E} = \text{egg}$ ,  $\mathbf{R} = \text{garlic}$ ,  $\mathbf{M} = \text{meat}$  or fish by-products,  $\mathbf{P} = \text{peppermint}$ ,  $\mathbf{T} = \text{thiram}$ .)

Repellent name	Mode of action	Material	Active ingredient	Wildlife species intended for	Plants/areas that will be protected	
Bobbex Deer Repellent	odor, taste	S	E, M, R	• deer	ornamentals, flowering shrubs	
Bobbex-R Animal Repellent				• rabbits, chipmunks, squirrels, voles	all types of plantings, bulbs	
Buck Off	taste	S	E	deer, rabbits	flowers, bulbs, non-bearing food crops, hedges, shrubs, trees	
Critter Ridder	odor, taste	G	С	squirrels, skunks, raccoons	plants, lawns, garden paths, flower beds	
Deer-Away	odor	S	E	deer, rabbits		fers, non-bearing fruit and citrus Land ornamental shrubs
Deerbusters Deer & Rat Repellent	UF IFAS Extens	sion	VEC326	bery, trees, flowers, bulbs, nentals		
Deer Off	How to Use	e crops, flowers, grass, bulbs, s, seedlings, trees				
Deer Out	Nuisance V	ers, shrubs, vegetable plants, row				
Rabbit and Groundhog				rabbits	trops, trees, vines     bulbs, flowers, edible fruits, vegetables, forest trees, fruit trees     garden areas	
Out Critter Out				rats, mice, raccoons, opossums, squirrels, chipmunks		
Deer Pharm	odor	S	R	deer, dogs	flowers, shrubs, vegetables, trees, fruits, berries	
Deer Scram	odor (fear)	G		deer, rabbit	plan	ts
Deer Stopper	odor, taste	S	F	• deer	• shr	ubs. flowers, edible crops, forest

# Option 3: Trapping



# Living with Bats

- Bats are extremely helpful to humans
- 13 species are resident to Florida
- Favored roosts
  - <u>Natural:</u> trees with cavities, trees with peeling bark, foliage, Spanish moss
  - Man-made: bridges, culverts, utility poles, buildings, bat houses



# Living with Bats



- 1) It is lawful to conduct an exclusion
  - Identify the entryway
  - Install a one-way door/tube
  - Seal up after all bats have exited



# Living with Deer









# Living with Deer – Habitat modifications

Deer food preferences vary over time and space

Experiment to determine relative susceptibility of

various species/varieties

Coreopsis basalis (goldenmane

Coreopsis floridana (Florida tic

Coreopsis gladiata (coastalplai

Coreopsis integrifolia (fringelea

Coreopsis lanceolata (lanceleaf

Coreopsis leavenworthii (Leave

Gaillardia pulchella (firewheel)

Ratibida pinnata (pinnate prair

Rudbeckia fulgida (orange con

Rudbeckia hirta (black-eyed St

Rudbeckia mollis (softhair cone



# Living with Deer - Chemical repellents

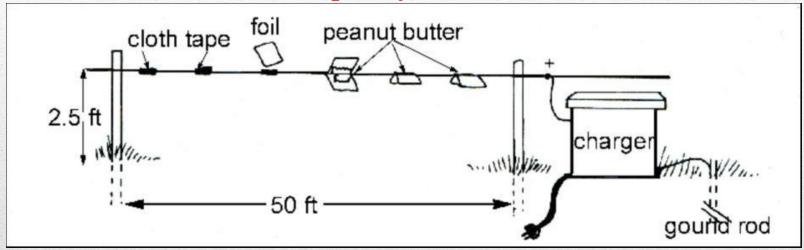
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Critter Ridder	odor, taste	G	С	squirrels, skunks, raccoons	plants, lawns, garden paths, flower beds
Deer-Away	odor	S	E	deer, rabbits	conifers, non-bearing fruit and citrus trees and ornamental shrubs
Deerbusters Deer & Rabbit Repellent	odor, taste	S	C, E, R	deer, rabbits, squirrels	shrubbery, trees, flowers, bulbs, ornamentals
Deer Off	odor, taste	S	C, E, R	deer, rabbits, squirrels	edible crops, flowers, grass, bulbs, shrubs, seedlings, trees
Deer Out	odor, taste	S	Р	• deer	• flowers, shrubs, vegetable plants, row
Rabbit and Groundhog				• rabbits	crops, trees, vines
Out Critter Out				rats, mice, raccoons, opossums, squirrels, chipmunks	<ul> <li>bulbs, flowers, edible fruits, vegetables, forest trees, fruit trees</li> </ul>
					• garden areas
Deer Pharm	odor	S	R	deer, dogs	flowers, shrubs, vegetables, trees, fruits, berries
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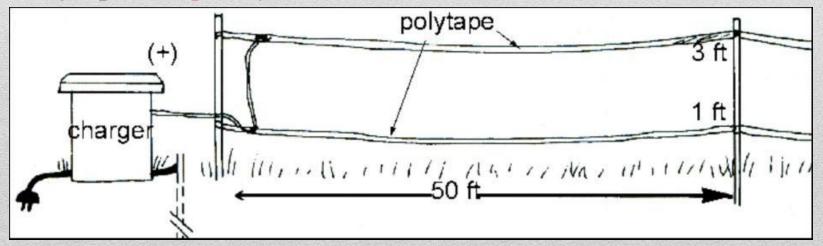


# Living with Deer – Physical Barriers

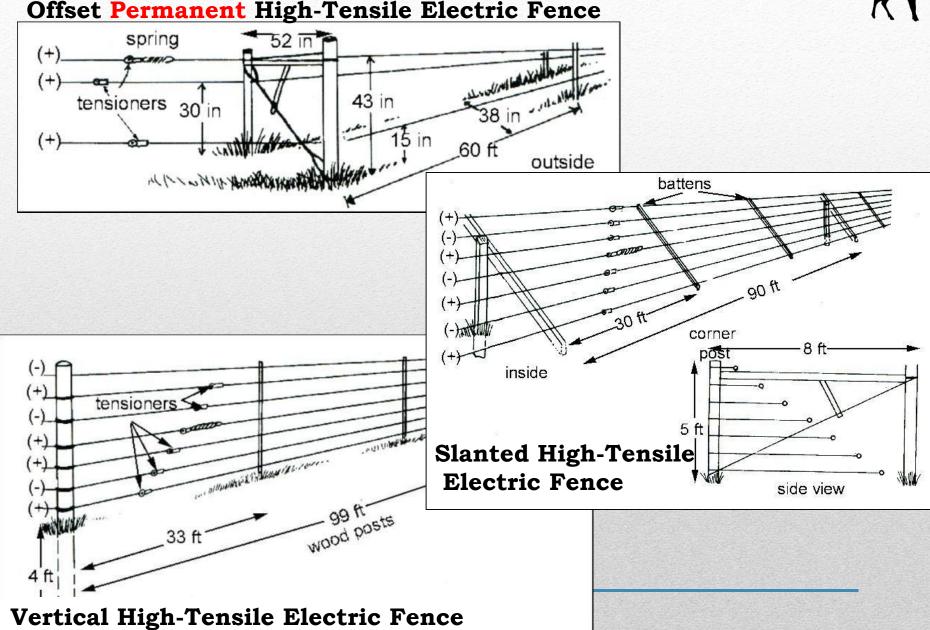
#### Peanut Butter-Baited Temporary Electric Fence



#### Polytape Temporary Electric Fence











WEC135

### **Coping with Deer Damage**

Holly Ober, Martin B. Main, and Joe Schaefe

#### Introduction

The number of white-tailed deer (Odocoileus virginianus)
(Figure 1) in the United States has increased dramatically during the past few decades. Deer are herbivores, known feed on hundreds of different types of plants. In situation where natural, preferred food is scarce, deer may damage agricultural crops, horticultural plantings, and timber plantations. Deer feed upon many row crops, forage crops, vegetables, fruit trees, nursery stock, and ornamentals. They will even feed upon stacked hay during periods of food shortages. Many factors contribute to whether or not a particular plant is eaten, such as palatability, nutritional needs, and availability of alternative foods. Deer feeding causes not only immediate losses, but also reductions in future yield from fruit trees or perennial forages, and permanent

#### Table 1. Comparison of three major types of fences

Factors to consider when choosing among fence options	Temporary Electric	High Tensile Electric	Permanent Woven
Deer pressure	Low-moderate	Moderate-High	High
Size of area	Small-medium	Medium-large	Medium-large
Cost of materials and labor per linear meter	<\$2.00/m	\$2.00-5.00/m	\$10.00- 15.00/m
Ease of installation	easy	complex	intermediate
Maintenance	frequent	frequent	low
Life expectancy	5-20 years	20-30 years	30-40 years
Efficacy	60-90%	60-80%	90-99%





### Getting to know them

- Relatively recent canid to Florida every county
  - Game species
- 15-30 lbs, dog-like, variable pelage
- Generalist ranging up to 10,000 acres
- Crepuscular



### Getting to know them

- 6 pups/year, live 5-6 years
- Excellent senses, variety of vocalizations
- Social: usually pairs or family groups, rarely packs





### Potential risks and damage

- Predation and competition with other wildlife
- Livestock and crop depredation
- Pet issues
- Attacks on humans rare
- Identifying the culprit



### How to prevent risks and damage

- Consult FWC and USDA-APHIS
- Control maybe, but no eradication
  - Hunting, trapping, toxicants, repellants



### How to prevent risks and damage

- Livestock and crops
- Night corrals, near humans, fencing, guard animals
- Pets
  - Indoors, inside fences, food control, on leash diurnally





### How to prevent risks and damage

- Attacks on humans very rare!
  - Stand upright and aggressively fight back
  - Never run stand your ground
  - Report to FWC





### Getting to know them

- Race of puma or mountain lion south Florida
- Protected in Florida, game species elsewhere
- 100-160 lbs, cat-like, tan-colored pelage
- Habitat generalist ranging up 120,000 acres
- · Crepuscular, ambush predator



### Getting to know them

- 2-3 kittens/year, live12+ years
- Excellent vision and hearing, variety of vocalizations
- Solitary and secretive





### Potential risks and damage

- Livestock and pet depredation
- Attacks on humans never in Florida!
- Identifying the culprit



### Living with Panthers

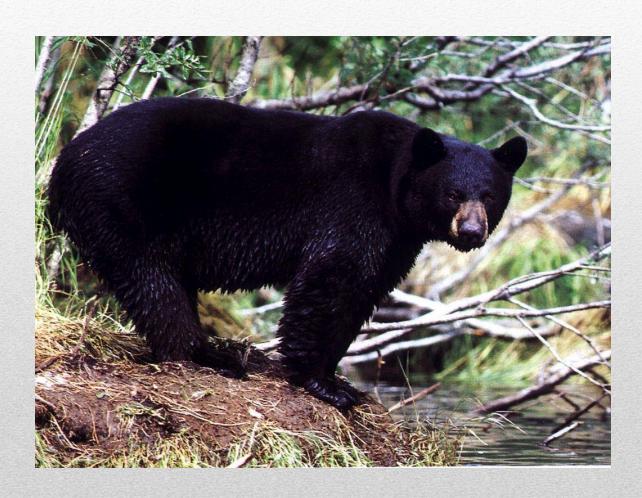
- They are protected!
- Livestock
  - Well-lit night corrals, fencing
- Increased stocking rates, guard animals
- Remove foraging cover
- Pets
  - Indoors, inside fences, food control



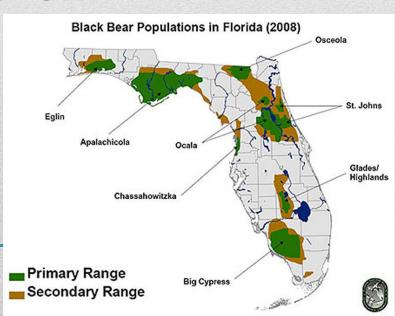
#### Living with Panthers

- Attacks on humans never in Florida!
- Be wary at dawn and dusk, avoid panther habitat
- Stay in a group
- Stay at a distance
- Never run face and stand your ground never play dead
- Stand upright and raise arms
- Assertive voice, make noise, throw things
- Move away slowly
- Report to FWC





- Race of American Black Bear scattered populations
  - Game species?
- 125-450 lbs, bear-like, usually black
- Thick habitats with mast ranging up to 75,000 acres
- Hibernators



- 2-3 cubs/yr, live 20+ years
- Excellent senses, relatively quiet
- Fast, good climbers
- Males solitary, females with offspring



#### Potential risks and damage

- Crops and feed
- Damage to feeders and structures
- Attacks on humans usually created by people
- Identifying the culprit



- Food source and garbage storage and security
- Inaccessible feeders
- Electric fencing



- Attacks on humans very rare in Florida
  - Stand upright, raise arms, assertive voice
  - Back away slowly, then make noise never run
  - If annoyed stand your ground, avoid eye contact
  - Never play dead or climb a tree
  - If attacked fight back
  - Report to FWC





- Invasive species every county
  - Livestock or game species
- 100-200+ lbs, true pig, variable pelage
- Habitat generalist ranging up to 750 acres
  - Thick cover away from people, omnivore



- 2 litters of 5-7 piglets/year, live 4-5 years
- Good senses except vision, variety of vocalizations
- Boars solitary, sows and young in sounders



#### Potential risks and damage

- Predation and competition with other wildlife
- Crop, feed, and seedling depredation
- Rubbing, rooting, wallowing
- Human danger
- Identifying the culprit



- Consult FWC and USDA-APHIS
- Control maybe, but no eradication
  - Hunting, shooting, trapping, fencing, toxicants, repellants



### Living with Snakes

- 1) Tolerate native species—remove invasives
- 2) Only 6 of Florida's ~45 species are venomous
  - 5 pitvipers, 1 elapid (only 4 venomous S of Gainesville)
- 3) Several large species of constrictors breeding
  - Burmese python, rock python, red-tailed boa
- 4) Learn to identify venomous species
  - Thick body, blocky head, distinct neck, rough appearance
- 5) Leave all snakes alone to avoid confrontation
  - Be prepared in the unlikely event of snakebite
  - Call 911 and seek immediate medical care



### Living with Snakes

- 1) Create favorable or unfavorable conditions
  - Brush piles, debris, tall shrubs & grass, control rodents, keep cats indoors!
- 2) Exclude snakes from buildings
  - Seal gaps/spaces to exclude snakes
- 3) Shoo snakes outside with broom/doors opens
  - Call a professional (\$\$)
- 4) Learn more about these fascinating animals
  - A Florida-friendly yard has native snakes
- 5) Get REDDy: http://ufwildlife.ifas.ufl.edu/reddy.shtml
  - Take online training to learn to identify and report invasive snakes and lizards

### Living with Alligators

- 1) Alligators are an iconic native species
  - Play important ecological roles
  - \$\$ value of regulated hunts and ranching
- 2) Found in potentially any body of freshwater
- 3) Potentially dangerous (~14 ft), but NOT man-eaters
- 4) Not inherently aggressive toward people
  - Females vigorously defend nests
- 5) Rarely kill Floridians
  - Only 22 human fatalities in FL from 1948 to 2013

### Living with Alligators

- 1) Do not feed alligators!!!
  - Against state law
  - Become habituated to humans
- 2) Do not swim from dusk to dawn—warm months
- 3) Be especially vigilant with children and pets
- 4) Discard fish scraps in garbage cans
- 5) Report "nuisance" gators to FWC
  - >4 ft., caller feels it poses a threat
  - 866-FWC-GATOR (866-392-4286)
  - "Nuisance" gators are trapped and killed
- 6) Do not tackle Florida Gators ©



### Living with Frogs

- 1) 28 native & 3 introduced species in FL
- 2) Major population declines and extinctions!
  - Most threated group of vertebrates globally
- 3) Frogs eat lots of insects and are important prey for mammals, birds, snakes
- 4) All toads are frogs, not all frogs are toads
  - Toad/frog "pee" does NOT cause warts
- 5) Inhabit diversity of uplands and wetlands
  - Some species thrive in suburbia
  - Create habitats for frogs in your yard



### Living with Frogs

- 1) Tolerate native species—remove invasives
- 2) Breeding calls of many species are loud
  - Breeding season mainly in summer
  - Close windows/use "white" noise
  - Embrace and appreciate natives
- 3) Cuban Treefrogs & "Bufo" Toads are problems
  - CTFs: eat native frogs, invade homes, other
  - "Bufo": toxic to pets, eat native wildlife
- 4) Dealing with CTFs & "Bufo"
  - Hand capture, PCV "traps" for CTFs
  - Euthanize: benzocaine, chill then freeze
  - Remove breeding opportunities
  - Remove pet food, water bowls, monitor pets