“Nuisance” Urban Wildlife

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“Nuisance” Wildlife?

• Florida is home to a great diversity of wildlife—many are desirable & others are less desirable

• There are many native and non-native wildlife species that you may encounter in urban areas

• “Nuisance” is in the mind of the beholder

• Tolerance should always be the first consideration for native species

• Other measures should be considered for non-native species
Urban Wildlife Viewpoints

• Personal Pleasure and Connection to Nature
• Environmental Ethic
• Utilitarian (e.g., economic/scientific)
• Fear and Loathing
Personal Nature Connection
Viewpoint

Punk flamingoes
Fear & Loathing Viewpoint
Florida Biodiversity

• Native Ecosystems
  – 69 Identified Statewide
  – 6 Categories
    • Interior vs Coastal
    • Uplands vs wetlands vs waters
• Native Animal Species
  – 700 land vertebrates
  – 1,000 fish
  – 30,000 land invertebrates
• Native Plant Species
  – 4,000 flowering plants
  – 3rd largest plant diversity of any state
Florida Biodiversity

• How Many Wildlife Watchers does Florida Draw Each Year?
  – 700,000
  – 3.2 million
  – 5.1 million

• 3,242,000 Wildlife Watchers a year
• $1.8 billion economic impact
• 19,000 jobs
Florida’s Imperiled Biodiversity

**FIGURE 1–3**

**Florida Ranks High in Threats to Species**

The maps show that Florida, Hawaii, California, and Georgia rank highest in the nation in numbers of species of plants, animals, and other living things becoming threatened and in danger of going extinct.

*Sources: Adapted from Rodriguez and Roberts/Environmental Defense Fund 1997; Flack 1996; Doyle 1997.*
Florida’s Imperiled Biodiversity

• Categories
  – Endangered, threatened, & species of special concern
• 64 Plants Species
• 118 Animal Species
• Protected by Rules & Regulations
• See Florida Fish & Wildlife Conservation Commission (FWC) website
  http://myfwc.com/imperiledspecies/
Florida’s Imperiled Biodiversity

• Loss of Natural Ecosystems

• Factors
  – Urban Development
  – Agriculture
  – Exotic Species
  – Functional Constraints
    (eg., fire exclusion)
Florida Imperiled Biodiversity

• Native vs Exotic Species
• Exotic Plants
  – over 1,200 reported
  – 30 % of total species
• 113 Exotic Fish Species
• Exotic Animal Species
  – 279 reported statewide
  – 41 reported in Sarasota County
• Originally introduced as garden ornamentals, agricultural crops or escaped pets
Florida Exotic Species Examples

Nile Monitor

Python vs Alligator

Frill neck lizard

Iguana

Rhesus monkey
Florida Imperiled Biodiversity

• Protection Strategies
  – Federal & State Laws
  – Environmental Lands Protection Programs
  – Landowner Wildlife Habitat Conservation
“Nuisance” Wildlife?

“This ain't gonna look good on our report, Leroy.”
“Nuisance” Wildlife Basics

• People should direct all nuisance wildlife questions to the Florida Fish and Wildlife Conservation Commission (FWC) at (850) 488-4676 & website http://myfwc.com/wildlife/

• Many laws protect Florida's wildlife. All fish and wildlife, including their nests, eggs and young, are protected from wanton destruction. The poisoning of wildlife is illegal because of its nondiscriminatory method of killing.

• However, these restrictions don't prohibit individuals from killing certain wildlife (exceptions include but are not limited to migratory birds, deer, bear and those listed as endangered, threatened or species of special concern), on their property in the immediate vicinity of the damage.
“Nuisance” Wildlife Basics

• FWC authorizes trappers to take destructive or nuisance wildlife from private property with the consent of the property owner. Most trappers will charge for services.

• Sarasota County Animal Services officers enforce county animal ordinances. Their service includes response to nuisance complaints, contained animals, and reports of animal bites, cruelties, and snake in the house. (Call (941) 861-9500.)
• Any person owning property may take nuisance wildlife or they may authorize another person to take nuisance wildlife on their behalf except those species listed in subsection (1) below on their property by any method except those methods listed in subsection (2) below.
Animals that may not be taken as a nuisance (subsection 1)

- Black Bear
- White-tailed Deer
- Bats (there are exceptions)
- Threatened and Endangered Species
- Migratory birds
- Quail
- Wild turkey
Methods that may not be used (subsection 2)

- Gun and light
- Steel traps
- Poison
- Bat exclusion devices from April 16 – Aug 14
- Live traps and snares unless visited every 24 hours
Live captured wildlife must be:

^ native

• Released or euthanized within 24 hours of capture or inspection of traps
• Released on the same property it was captured

or

• Released on a property that is at least 40 acres, in the same county, and you have written permission
Release of animals

• No person shall release any species on any wildlife management area that the Commission is the landowner or lead managing agency.

• On state or federal lands where the Commission is not lead agency, you still must have written permission from the landowner to release animals on their land. (rarely given).
You cannot:

• Euthanize a bobcat
• Relocate a non-native species (ex. Coyote or red fox). They must be released on site or euthanized
Migratory Birds

- Blackbirds, Cowbirds, Grackles, and Crows can be taken without a permit if they are committing or about to commit depredation on:
  - Ornamental or shade trees
  - Agricultural crops
  - Livestock
  - Wildlife  OR

When concentrated in such numbers that they are a health hazard or other nuisance

*Must try non-lethal methods first*
“Nuisance” Wildlife—Examples

Mesomammals
Alligators
Bats
Birds
Feral and Domestic Cats
Feral Hogs
Nonindigenous Lizards
Native Frogs
Nonindigenous Frogs
Snakes
4 Step Process to Manage Nuisance Wildlife

1) Identify your guests
   - Inspect the damage (digging, gnawing, scratching, pecking)
   - Examine the animal sign (tracks, droppings, burrows, nests)
   - Determine the timing of activity

2) Assess what makes your yard appealing
   - Animals need 3 resources: food, water, cover

3) Consider your 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 Guests

Who made this burrow?
Note the shape of the burrow entrance matches the shape of the carapace.
Identify your guest - tracks
Identify your guest - scat

- House mouse
- Roof rat
- Norway rat
- Bear
- Raccoon
- Coyote

- White-tailed deer: smooth texture, oval shape
- Eastern cottontail: coarse texture, rounded
Your options for convincing nuisance wildlife to leave

1) Habitat modifications

2) Deterrents

3) Trapping or killing
Option 1: Habitat Modifications

- Cheapest option
- Most effective
- Long-term solution

Goal is to remove resources wildlife need so they go elsewhere
Option 1: 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
   - Consider replanting 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

1. Physical barriers
   • Fencing, netting

2. Frightening devices
   • Fake predators
   • Motion-sensitive sprinklers
   • Strobe lights
   • Alarm call recordings, horns, bells, whistles, cannons

3. Chemical repellents
   • Offensive odors
   • Offensive tastes
   • Fear inducing
Option 3: Trapping
Mesomammals: Problems and Solutions

• Raccoons, opossums, armadillos

• Problems: Eat pet food, annoy and threaten pets, invade dwellings, get into garbage, tear up lawns, etc.

• Solutions: Don’t leave pet food or water bowls outside at night, secure garbage cans, capture with live-traps, erect fencing to exclude (never feed raccoons or opossums)
Nuisance Alligators

• The FWC receives > 15,000 alligator-related complaints each year

• The FWC permits and coordinates the state’s Nuisance Alligator Control Program

• Gators 1.2 m long that present a threat to humans, pets, or livestock are considered “nuisance” gators

• Trappers permitted by the FWC capture “nuisance” gators and sell their meat and skins to offset costs
American Alligators Facts

- They play important ecological roles
- Alligators can grow to 14 ft and weigh 1,000 pounds
- They eat a variety of food items
- Most active April through September
- Most alligators are not aggressive and will not attack people
- They are protected by federal and state laws
- Florida has a regulated hunt each year
Coexisting with Alligators

• Do not harass or molest an alligator!

• **Never feed alligators** – “A fed gator is a dead gator!”

• Closely supervise children in and around water!

• Don’t allow pets to swim, play, or drink in areas that are known to, or may harbor alligators!

• Do not swim in areas that may have large alligators, especially at night!

Report “nuisance” gators to the FWC!

1-866-FWC-GATOR (1-866-392-4286)
“Nuisance” Bats

- Primarily two species of bats are considered nuisance species in Florida—these roost in colonies
- Will roost in/on buildings
- Large roosts may be noisy and smell bad
- Single bats are usually not a major problem

Free-tailed Bat (*Tadarida brasiliensis*)

Evening Bat (*Nycticeius humeralis*)
Florida Bats Facts

• Florida has 17 species of bats, only a few of which are sometimes considered to be a “nuisance”

• Bats consume large amounts of insects, including mosquitoes

• Although bats can have rabies, this reason to worry about bats is highly exaggerated

• Due to habitat loss, natural roosting sites for Florida’s bats have diminished considerably
Dealing with “Nuisance” Bats

• “Nuisance” bats may roost behind shutters or siding, or inside attics and chimneys—they like warm places

• Exclusion and eviction is the only viable option

• Contact a licensed and EXPERIENCED organization to perform the exclusion/eviction

• Exclusion/eviction can be a difficult process and must be done correctly

• Considerations: ALL small openings, maternity colonies, relocation sites, handling bats, timing of exclusion procedures
Avoiding Nuisance Bats

• Consider:

- Leaving Spanish moss in trees as potential roost sites (no ‘Moss Spraying’)

- Not cutting dead fronds from palms such as Sabal and Washingtonian palms—these may be roosts

- Installing a bat house—be the first on your block 😊
Some Potentially “Nuisance” Birds

Woodpeckers: Red-bellied, Pileated
House Sparrows
European Starlings
Rock Doves (aka Pigeons)
Monk Parakeets
Vultures

Monk Parakeets
Rock Doves
House Sparrow
Starling
Problems From “Nuisance” Birds

• Damage to buildings and vegetation
• Annoying sounds (e.g. woodpecker drumming)
• Aesthetic issues—droppings from roosting birds
• Blocked ventilation in attics from nest material
Nuisance Birds Solutions

• Exclusion—wire screen, netting

• Trapping the birds

• Scare tactics such as pie pans, owl mimics, etc.

• Solution needs to be tailored to the problem...

• Contact a licensed nuisance wildlife control operator
Feral and Outdoor House Cats: Problems

• Domestic cats are hunters by nature and have significant impacts on native wildlife—Wisconsin study estimated cats kill 7.8 million birds a year in that state

• Cats are a large mortality factor for FL scrub jays near urban areas

• Even well-fed house cats hunt and kill wildlife (birds, herps, mammals)—Cats LOVE wildlife!

• Cats wearing bells are still efficient hunters
Feral and Outdoor House Cat Solutions

• Speak with your neighbors about their outdoor cats

• Live-trap outdoor cats and transport to local animal shelter - check local ordinances first

• Call your local animal control office

• Be a responsible pet owner—keep your cats indoors!!!!

• “Florida Friendly” yards are ‘cat free’
Native Frogs: Nuisance Species?

• Biggest complaint about native frogs: “I recently moved to Florida and I can’t sleep because the frogs are too loud.”

• “Nuisance” is in the mind of the beholder

• Send a message of tolerance to your clients

• Frogs call seasonally—they will eventually quit making noise (they call loudest following rains)

• Solutions: close windows, create *white* noise, learn more about Florida’s 25 species of native frogs and appreciate them (they eat a lot of insects), don’t live near wetlands and retention ponds

Florida’s Fabulous Reptiles and Amphibians
Nuisance Non-native Frogs/Toads

At least three species of nonindigenous amphibians are established in Florida—two of these are nuisance species.

Both species most active at night during spring and summer—especially during rains.

- Cuban treefrog
- Marine toad
Non-native Frogs/Toads - Problems

• Both Cuban Treefrogs and Marine Toads are voracious predators of our native species

• Breeding choruses of these non-native species can be annoying

• Cuban Treefrogs may get into homes (toilets) and vehicles, they defecate on houses

• Marine toads are toxic and can be lethal to dogs/cats
Non-native Frogs/Toads - Solutions

• Capture and euthanize these non-native invaders!!!!

• **Cuban Treefrogs**: grab with gloves or plastic bags; use PVC pipe refugia, cover standpipes with wire mesh

• **Marine Toads**: grab with gloves or plastic bags; do not leave pets unattended, especially at night; erect barrier at edge of yard; do not leave pet food outside

• Wash your hands after handling these frogs
PVC Pipe Refuges: Habitat for Treefrogs in Your Yard

Treefrogs like to hide in confined spaces—erect PVC pipes to provide habitat for them

You can expect Green Treefrogs, Squirrel Treefrogs, Cuban Treefrogs, and possibly Pinewoods Treefrogs

Use 3 ft. sections of 1 ¼ inch, thin-walled pipe (not schedule 40)

Insert pipes in ground so they are secure (3-5 inches)

Locate pipes in vegetated areas near lights (food sources)

Cuban Treefrogs eat native treefrogs—remove and euthanize invasive Cuban Treefrogs
PVC Pipe Refuges: Pipe Installation

‘Plunge’ Cuban Treefrogs into bag
Solutions: Cover Standpipes

Some snakes and Cuban Treefrogs will enter homes through standpipes—these are used to vent toilets and sinks to allow them to drain.

Cover pipe with ¼ inch hardware cloth (12’X12’ w/ 4’X4’ notched corners) to exclude critters; also need UV resistant cable ties (14’ long).
Don’t misidentify native species!

**Toads**
- Marine Toad: Prominent cranial crests
- Southern Toads: Very enlarged poison glands

**Treefrogs**
- Squirrel
- Pinewoods
- Green
- Cuban
45 Native Snake Species in Florida

- Eastern Garter Snake

- Pine Woods Snake

- Corn Snake

- Eastern Hog-nosed Snake
Encourage Snakes in Your Yard—Just Be Careful!

- Know how to identify snakes with certainty
- Adopt a ‘leave them alone’ attitude
- Maintain brush piles for snakes—snakes in your yard are a good indicator of a “Florida Friendly” yard
- Know how to respond to snakebites
“Nuisance” Nonvenomous Snakes

• Most of Florida’s snake are nonvenomous (39 species)
• Problem: Many people are dreadfully afraid of snakes
• Solutions:
  • Simply leave all snakes alone
  • Exclude from homes by closing/screening all entrances
  • If snake is indoor—shoo them out with a broom,
  • Call a nuisance wildlife professional
  • Know how to identify venomous species
  • Teach neighbors to appreciate FL nonvenomous snakes
Snakes play important roles in the Florida environment

Non-venomous Brown Watersnake eating a fish

Black Racer eating a Leopard Frog

Red-shouldered Hawk eating a snake
Only 6 Venomous Species
(*Only 4 in Sarasota County Area)

Copperhead
*Cottonmouth
Coral Snake
*Diamond-backed Rattlesnake
*Pygmy Rattlesnake
Timber Rattlesnake
Characteristics of Venomous Species

- Thick, blocky head with obvious neck
- Heat-sensitive pit on side of face
- Complete scales on underside of tail
- Keeled scales (in some non-venomous too)
- Usually a dark band from eye to corner of jaw
Non-venomous Watersnakes (NOT Moccasins)

These snakes are often persecuted as Moccasins. They are harmless!!!
Coral Snake and Non-venomous Look-alikes

Coral Snake

Steve A. Johnson photo

Scarlet Kingsnake

Steve A. Johnson photo

Scarlet Snake

Steve A. Johnson photo

Yellow
Red
STOP!
These legless reptiles are often persecuted as snakes. They are harmless!!!
Venomous Snake Safety Issues

• Do I really need to worry about being bitten by a venomous snake?
• How can I reduce my chances of being bitten by a venomous snake?
• What should I do if I or someone I’m with gets bitten by a venomous snake?
Venomous Snakebite Statistics

-The chances of being bitten are VERY, VERY small!

- Estimated 7,000-8,000 bites in US annually

- Most occur in southwestern US

-Fatalities are extremely rare!

- Only 5-6 deaths in US annually

-Victims are predominantly males 17-27 years old

- Alcohol intoxication is often a factor

-Harassing, or trying to kill a venomous snake is a BAD IDEA

-Most bites occur between April-September
Tips for Safety around Venomous Snakes and Their Habitats

- Avoid wetland edges and other habitats that may harbor snakes
- Stay alert around wetlands and in thick brush
- Erect barriers to exclude snakes
- Keep grass mowed
- Remove brush piles
- Do not harass or attempt to kill a venomous snake
- Wear leather gloves while gardening
Snakebite Action Plan

- Obtain prompt medical care—call 911 immediately!
- Call the Poison Control Centers National Hotline 1-800-222-1222

**DO!**

- Get the victim away from the snake
- Keep bitten extremity lower than victim’s heart
- Wash the bite area with soap and water (do not delay seeking medical help)
- Keep victim warm; as comfortable as possible; offer reassurance
- Remove bracelets, rings, watches or restrictive clothing on bitten extremities

**DO NOT!**

- Apply a tourniquet to a bitten extremity
- Apply ice to the bite
- Make incisions and attempt to suck out venom
- Attempt to capture the snake to ensure identification
- Wait to seek medical attention until symptoms develop

Snakebite Kit
Summary

• “Nuisance” is in the mind of the beholder

• Numerous laws protect wildlife as well as provide for removal of harmful wildlife

• Consult FWC for nuisance wildlife questions
Online Resources

  US Geological Survey page on bats and management of bats in houses.
- [http://www.wec.ufl.edu/extension/frogs/#](http://www.wec.ufl.edu/extension/frogs/#)
  UF Extension page for identifying Florida’s frogs
- [http://myfwc.com/trappers/](http://myfwc.com/trappers/)
  Nuisance wildlife trappers in Florida by region
- [http://www.wildlifedamagecontrol.com/index.htm](http://www.wildlifedamagecontrol.com/index.htm)
  Site for Wildlife Damage Control
- [http://www.flmnh.ufl.edu/herpetology/](http://www.flmnh.ufl.edu/herpetology/)
  FL Museum of Natural History with links to on-line guides to Florida’s snakes
- [http://edis.ifas.ufl.edu/TOPIC_Wildlife](http://edis.ifas.ufl.edu/TOPIC_Wildlife)
  UF EDIS Extension site with links to wildlife resource materials
  FL Fish and Wildlife Conservation Commission with numerous links to information on individual species of wildlife that may be nuisance animals
- [http://ufwildlife.ifas.ufl.edu/snakes/leglesslizards.shtml](http://ufwildlife.ifas.ufl.edu/snakes/leglesslizards.shtml)
  Florida’s legless lizards
- [http://wildflorida.org/gators/Default.htm](http://wildflorida.org/gators/Default.htm)
  FLFish and Wildlife Conservation Commission site on alligators with a link to Nuisance Alligator Control Program
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