



# Alligators and Crocodiles in Florida Parks (FWC)



Ryan Ford  
Crocodile Response Coordinator  
Florida Fish and Wildlife Conservation Commission

# The American Alligator (*Alligator mississippiensis*) in Florida



- Biology / Ecology
- Status
- Safety Concerns
- Problem Crocodilians
- Visitor Education



# Biology / Ecology

*Alligator mississippians* US range



- Alligators native to US (American Alligator) and China (Chinese Alligator)
- American alligator's range is primarily the Southeast.





# Biology / Ecology

- Sex determined by cloacal examination
  - Not sexually dimorphic
- Females: Not commonly larger than 8-9 feet
- Males: may grow to 14'



# Biology / Ecology



- Nocturnal hunters
  - Hunt from Sundown to Sunup
    - High daytime temperatures
- Ambush predators
- Opportunistic
  - Will eat anything



# Biology / Ecology

## Mating Season



- Courtship begins in the spring, with mating occurring in late May or June.
- Nests constructed after courtship
- Eggs hatch August-Sept



# Biology / Ecology



- Males will defend their breeding territory from other males.
  - Intrasexual selection
- Antagonistic behavior
  - often result in serious injury or death.
- Smaller gators will move away to avoid danger





# Egg Development

- 65-day incubation period
- Sex determined by temperature
- 100% Female nest: 87.8°F and below, or 95°F and above
- 100% Male nest: 90.5-92.3°F



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# Biology / Ecology

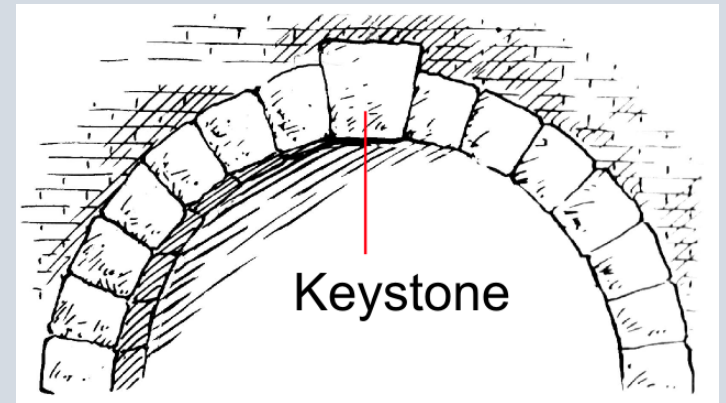
- Alligator eggs hatch in late summer (Aug. – Sept.).
- Hatchlings stay with mother most of 1<sup>st</sup> year and may remain near nest site for up to 3 years.



# Biology / Ecology

## Why Alligators are important?

- Keystone species
  - Alligators create holes and caves that store water during dry seasons
  - Top predator in freshwater ecosystems





# Biology / Ecology

- Natural Behavior:
  - Water is their home
  - Basking in sun to control body temperature
    - Ectothermic (cold-blooded)
  - Not usually hunting while basking





# Population Status

\*Federally listed: Threatened (Similarity of Appearance to the American Crocodile)



- By the 1960's, alligator populations decreased due to uncontrolled hunting
- Endangered Species List in 1967. Downgraded to Threatened late 1970's
- Alligators recovered throughout range in 1987
  - SNAP began



# Population Status

Regulated hunting and farming



- Hunted/Harvested for skin and meat
  - Recreational
  - Commercially



# Nuisance Alligators in Florida



- Greater than 4 feet in length and a real or perceived threat to people or their property.
- If an alligator is determined to be a nuisance, a trapper will be sent to capture the animal.





- Nuisance alligators are not relocated for several reasons;
  1. They will often return to the capture site.
  2. They may be a nuisance at the release site.
  3. Relocation may cause intraspecific turmoil at the release site.



# Problem Alligators at a Park



- Most parks with a designated swimming area will have a THA
  - Targeted Harvest Area
- Allows for removal of problem alligator by the trapper without contacting SNAP



# How to apply for THA

- Management sends in a written request to SNAP
- SNAP will send instructions on what is needed for the specific THA
- Management provides the needed info
- THA permit is drafted and sent back to management for approval
- THA is finalized and sent to NAT and park management
- Good for 5 years





- In Florida, there could be an alligator in any body of water



# American Crocodiles (*Crocodylus acutus*) in Florida



Keith Kleppinger



# Biology and Ecology



C. Guinto/FWC

- American crocodiles are a recovering species in south Florida and the Keys
- Listed as endangered in 1975
  - 200-300 adults
- Reclassified as threatened in 2007
- Today, population estimated at 2000-3000 adults
  - Most in Everglades National Park





# Biology and Ecology

- Prefer coastal mangrove wetlands with readily available fresh water source
- Occasionally seen in more open areas such as bays when traveling



Bill Billings



# Biology and Ecology



## Mating Season

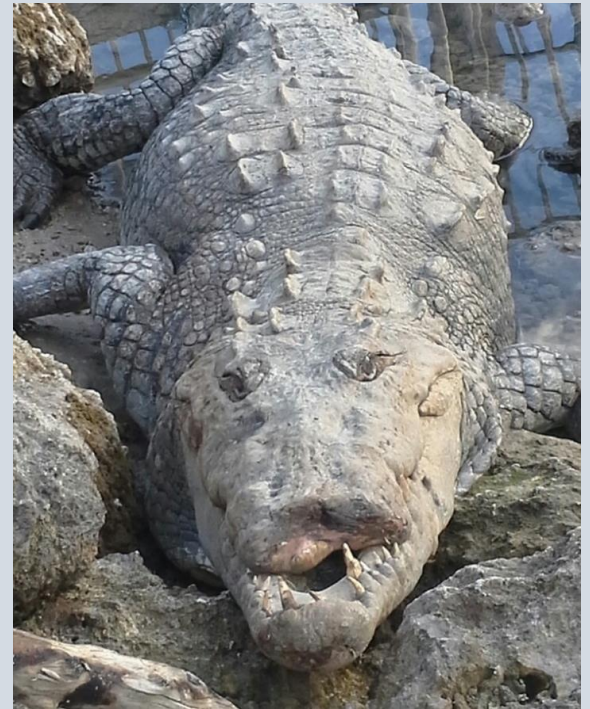
- Courtship begins in winter, with mating occurring in Feb to early March
- Nest sites are selected after courtship
- Eggs hatch between June and August



# Biology and Ecology

## Courtship

- More active and visible
- Males will defend their breeding territory from other males
  - Often results in serious injury or death
- Smaller crocodiles will move away to avoid danger



M. Parry/FWC





# Biology and Ecology

## Nesting

- Hole-type or mound-type nest
- 88-93 day incubation period
- Sex determined by incubation temperature
  - Similar to alligators
- Females return after eggs hatch to unbury the hatchlings



W. Carter/FWC



# Biology and Ecology

## Hatchlings

- Female often carry hatchlings to the waters edge after they hatch
- Hatchlings stay together for the first few days or weeks before dispersing



W. Carter/FWC



# FWC Crocodile Response

- FWC's crocodile response agents:
  - Assess each situation
  - Provide information and suggestions to minimize human-crocodile interactions



C. Guinto/FWC





# FWC Crocodile Response

- Sometimes CRA suggestions to minimize human-crocodile interaction do not have the desired result
  - Crocodiles may be moved in an attempt to reduce further conflicts
  - Moving crocodiles is situational



M. Parry/FWC



# FWC Crocodile Response

Crocodiles that have been relocated:

- Often return to the capture site
- May be involved in conflicts at the release site
- May cause turmoil between crocodiles at the release site
- May perish or get a chronic illness from the stress of handling



M. Parry/FWC



# Alligators

- Broad, rounded snout
- Grayish-black coloration\*
- lower teeth is **NOT** visible when jaw closed
- Lack salt-excreting glands



Photo © 2001 by Kent Vliet





# American Crocodiles



- Narrow, pointed snout
- Light tan or brown coloration\*
- Teeth on lower jaw visible when mouth is closed
- Possess salt-excreting glands



# Common Confusion

## American Crocodile

### *(Crocodylus acutus)*

- Found in Florida
- Typically no larger than 12 ft
- Shy and reclusive
  - Alligators more aggressive
- Hunt small to medium land animals (ducks and iguanas)
- Extremely uncommon for any bite incident in the state of Florida (1 provoked bite incident 2014)

## Saltwater Crocodile

### *(Crocodylus porosus)*

- Indo-Pacific
- Commonly over 17ft
  - Largest extant reptile by mass
- Aggressive and territorial
- Hunt large land animals
- Common occurrence for fatal bites to happen (~2 per year in Australia)



# FWC's Alligator/Crocodile Safety Advice



C. Guinto/FWC





# FWC's Alligator/Crocodile Safety Advice



M. Royer/FWC

- Leave alligators and crocodiles alone
  - The chance of conflict is much higher when an alligator or crocodile is provoked
- If you see an alligator or crocodile being fed call, email or text the Wildlife Alert hotline
- Send text or email to [Tip@myfwc.com](mailto:Tip@myfwc.com)
- <http://myfwc.com/contact/wildlife-alert/>



# FWC's Alligator/Crocodile Safety Advice



- Never feed  
Alligators/crocodiles – it is illegal and dangerous
- When fed they can overcome their natural wariness and learn to associate people with food



# FWC's Alligator/Crocodile Safety Advice



- Dispose of fish scraps in the garbage
- Throwing fish scraps in the water at marinas, docks and boat ramps may unintentionally attract alligators or crocodiles



# FWC's Alligator/Crocodile Safety Advice



- Only swim during the day
- Alligators can be in any body of water (salt or fresh)
- More active at night between dusk to dawn.





# FWC's Alligator/Crocodile Safety Advice

- Closely watch children when they are playing near water
- Stay a safe distance from waters edge
  - Drowning
  - Dangerous organisms
    - Alligators, snakes, ect...



# FWC's Alligator/Crocodile Safety Advice



- Alligators and crocodiles hunt from water's edge
- *Obey leash laws*



**Florida is the only place on Earth where  
you can see American alligators and  
American crocodiles together in the wild**



For more information please visit our website:

[www.MyFWC.com/alligator](http://www.MyFWC.com/alligator)



Statewide Nuisance Alligator Program (SNAP):  
8am-5pm everyday (can call after hours):

**866-392-4286**

FWCC Law Enforcement (after hours emergency):

**888-404-3922**

