

Human Wildlife Interactions Conflict to Coexistence



April 15, 2014

Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
Division of Hunting and Game Management

Version 2

Version 2 changes:

Page numbers added to slides where previously missing (8, 10, 11, 14, 27, 28, 33, 34, 38 & 39).

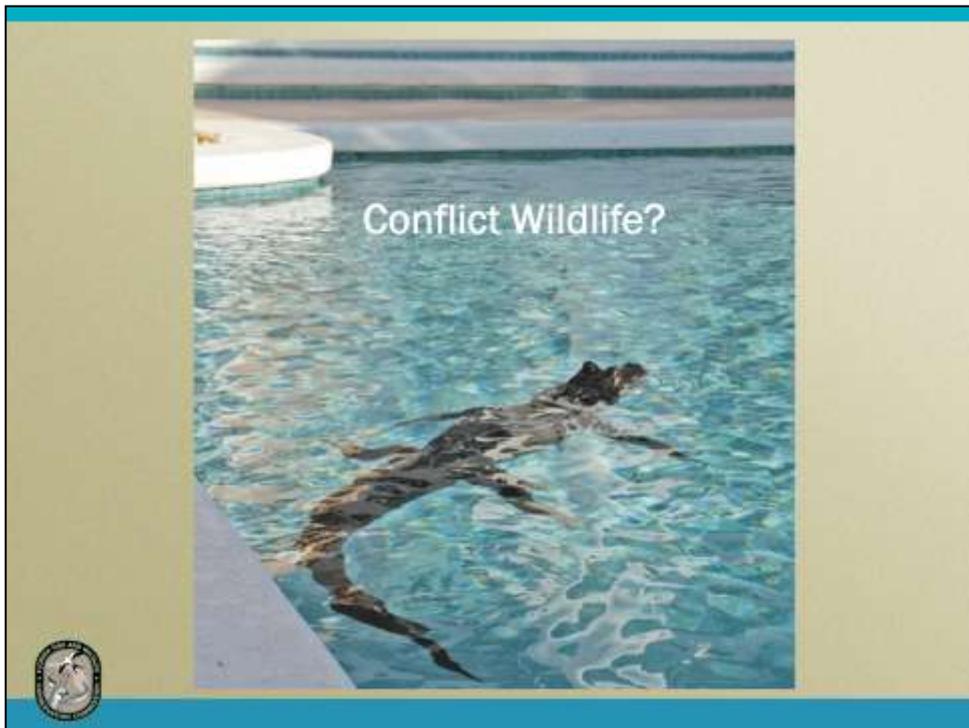
Slide #s 4 and 32 depict a different example, specifically, impacts of alligators to people who use a lake.

Slide #6, arrows added to text.

Slide #7, first text bullet deleted.

Previous slide #28 moved to current #26, slides #'s 26-28 renumbered.

Previous slide #26 (current #27) graph revised.



Conflict wildlife – those individual animals that cause direct, negative impact as perceived by people

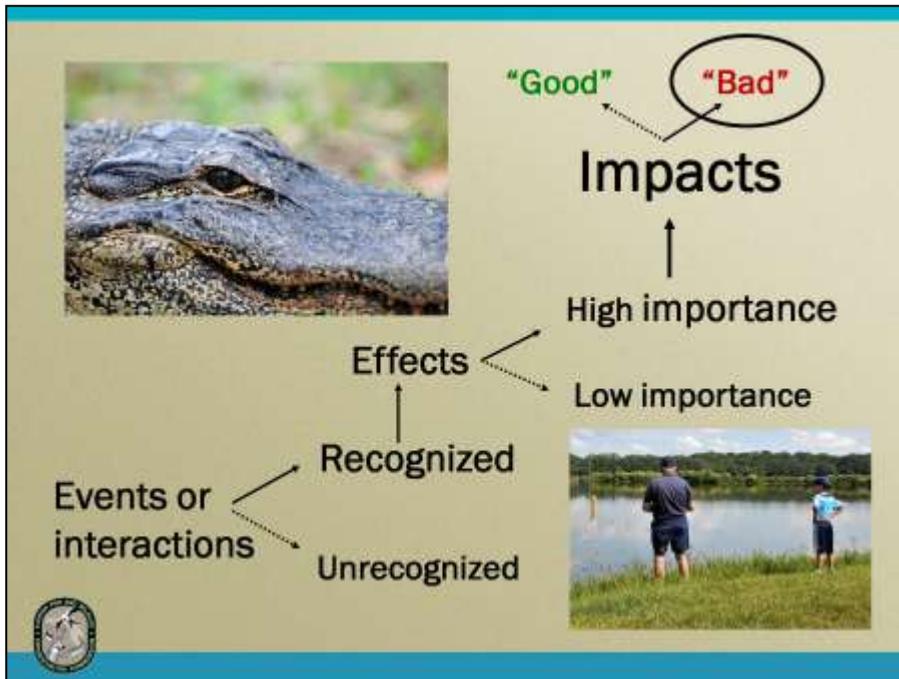
Although conflict wildlife category includes nonnative species, the FWC staff presentation focuses on native species.

Managing Wildlife for the Public – Now and for the Future

- Agency mission: “Managing fish and wildlife resources for their long-term well-being and the benefit of people.”
- Public Trust Doctrine
- Urbanization, disconnect from nature
- Conservation support - personal experiences
- Human dimensions – common approach



These points are the basis for FWC’s work on addressing conflict wildlife.



We are moving toward framing wildlife conservation and management issues around the concept of managing the impacts of wildlife on people. Here's what we mean by that: Impacts are the significant beneficial and detrimental effects, defined and weighted by human values. These impacts help determine priorities for management. These are human perception issues.

An example:

- Alligators occur in nearly every water body in Florida, most of which are used or appreciated by people. Those are the events or interactions.
- FWC staff and many citizens recognize this situation, but some people are unaware or are not affected by it (unrecognized).
- Many people around the lake may feel the effect is important, for any number of reasons – concern about their own or their pet's safety, interest in watching/appreciating alligators, or interest in recreational hunting. To them, the presence of alligators is an impact they'd like to see managed. Others who use the lake may not share these reactions or interest, and to them the effect is unimportant. They are just interested in having a lake to walk around or take their kayak on. Managing the impacts needs to be grounded in an understanding of the affected people's perceptions.

Conflict wildlife issues are in the "bad" impacts realm. These interactions can influence people's willingness to coexist with alligators. Our job is to manage "bad" impacts and work toward sustainable coexistence.

Human Safety First and Foremost



In terms of negative impacts, managing for human safety is first-and-foremost in our priorities.

Destination: Sustainable Coexistence



Involvement, appreciation



Innovative Solutions



Outreach



Science - Human, Wildlife



Partners & Resources



Note to Commissioners (not part of presentation)

- Author Jim Sterba's presentation follows here (not included)
- Following Mr. Sterba, the next slides will be presented by Dr. Thomas Eason

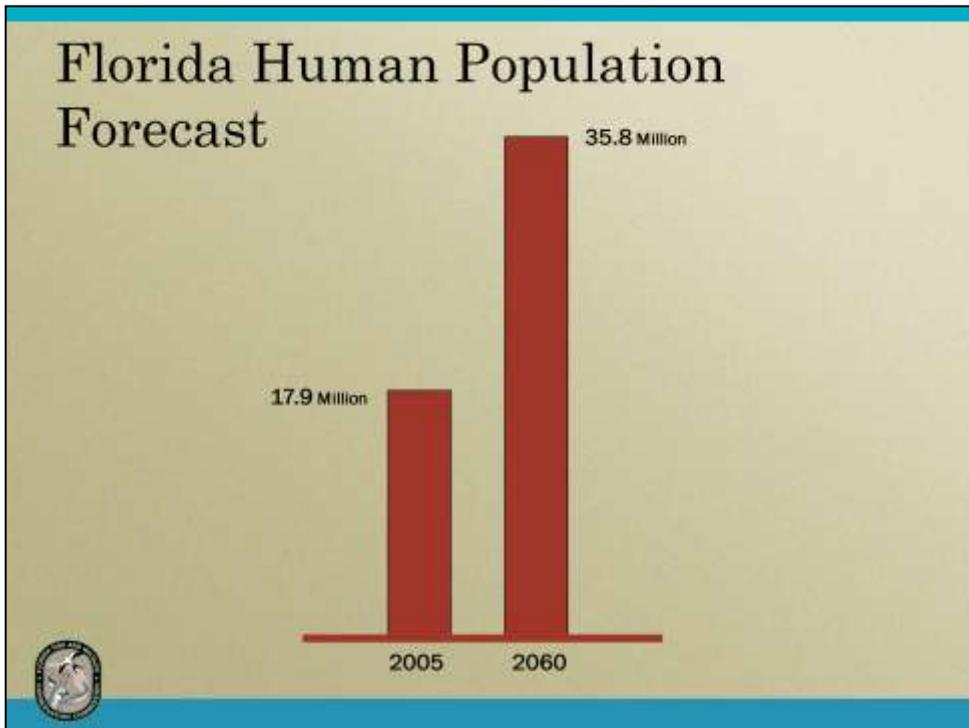


Human Wildlife Interactions Conflict to Coexistence

Florida
Perspective



The following slides move from the national perspective that Jim Sterba presented to the more local perspective here in Florida.



Florida is undergoing many changes that include an expanding human population. The human population in Florida is predicted to almost double from 2005 to 2060.

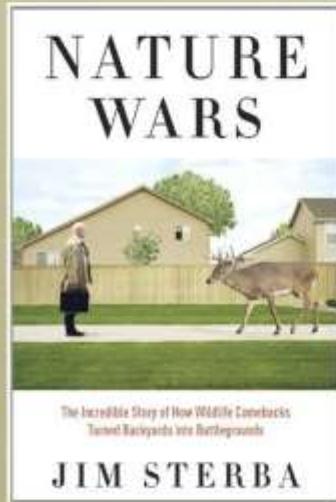
Demographic and Cultural Change

- By 2043, the United States will have a minority-majority population
- Rural to urban shift



Demographic changes will accompany the growing Florida population. Nationally, the United States is predicted to have more people in minority groups than in the majority group. Florida likely will hit this transition point sooner.

Human/ Wildlife Interactions

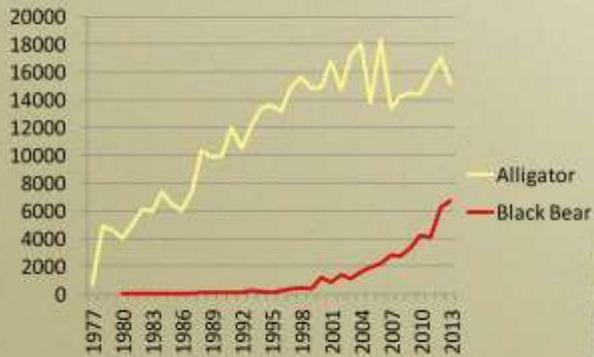


“Today, it is quite likely that more people live in closer proximity to more wild animals, birds and trees in America than anywhere on the planet at any time in history.”



Also, as Jim Sterba described, more people live in the exurban environment and encounter wildlife more than ever before.

Statewide Calls



In Florida, as nationally, these trends have led to more people coming into contact with wildlife and calling the FWC to report sightings or nuisance situations. Alligator and bear calls are good examples of these increasing interactions.

Florida's Challenge List

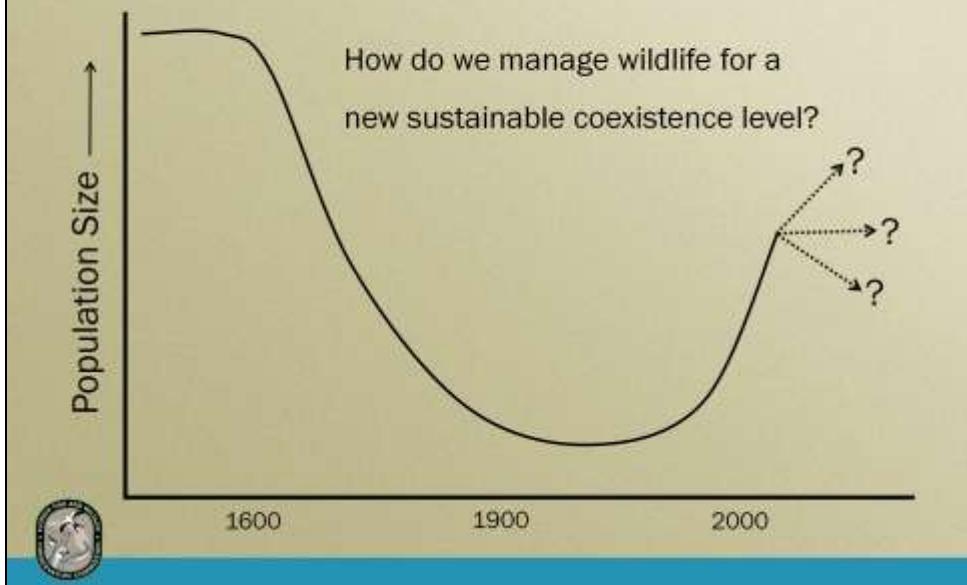
- American Alligators
- Goliath Grouper
- Bears
- Sandhill Cranes
- Florida Panthers
- Wild Hogs
- Coyotes
- Gopher Tortoises
- American Crocodiles
- Dolphins



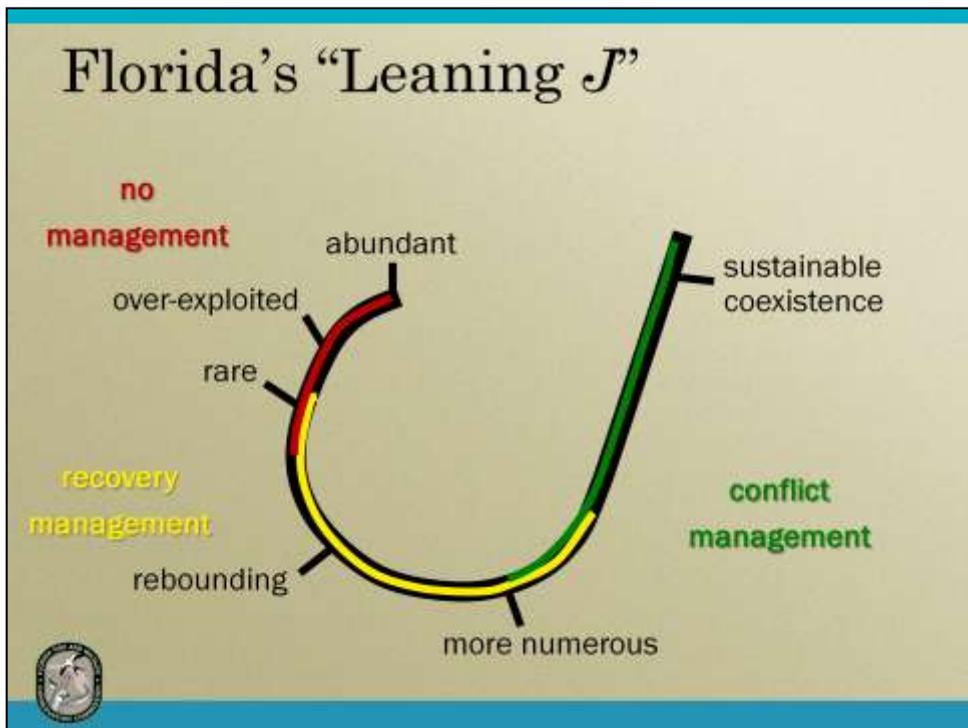
What others can you think of?

These are some of the species for which the negative impacts to people currently demand significant energy and resources of FWC staff. There are certainly others...

Recovery Graph



One way to think about these encounters is from an historical perspective. Jim Sterba described these dynamics well. Historically abundant species were nearly driven to extinction by overharvest and unregulated taking. Conservation actions were taken and proved successful for many of these species. We now have increasing numbers of wildlife living with increasing numbers of people. The question is as we look into the future how will these wildlife species fare?



Another way to conceptualize these dynamics is to think about a "leaning J" shape to illustrate a common platform that these species and their management share. While there are many differences at the individual action level, overall they can be grouped into six areas: 1) historically abundant, 2) over-exploited, 3) nearly extinct, 4) rebounding, 5) more numerous, and 6) sustainably managed. Three management areas overlap across this platform: 1) no management, 2) recovery based management, and 3) conflict/coexistence based management. The loop doesn't quite close back to historic conditions because management intervention at some level will be needed for all of these species.



The American alligator is our best example of a wildlife species in Florida that has traversed all of these areas and now mostly is at sustainable coexistence levels with humans.

The Alligator Example

Historical Abundance

- “[alligators] were in such incredible numbers, and so close together from shore to shore, that it would have been easy to have walked across on their heads, had the animals been harmless....”

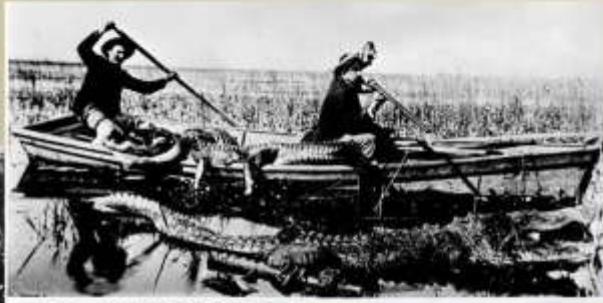
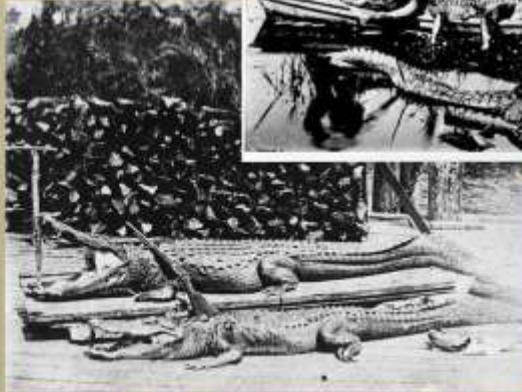
~William Bartram, 1791



Historically, alligators were abundant in Florida, as well captured by William Bartram in his book about his early explorations of Florida.

The Alligator Example

Greatly Depleted



The over-harvest of alligators, which extended well into the 20th century, resulted in greatly reduced abundance, culminating in imperiled population levels across the southern United States, including Florida.

The Alligator Example

Conservation Success



As alligator populations reached their low point, conservation efforts began and had great positive impact on alligator population levels.

The Alligator Example

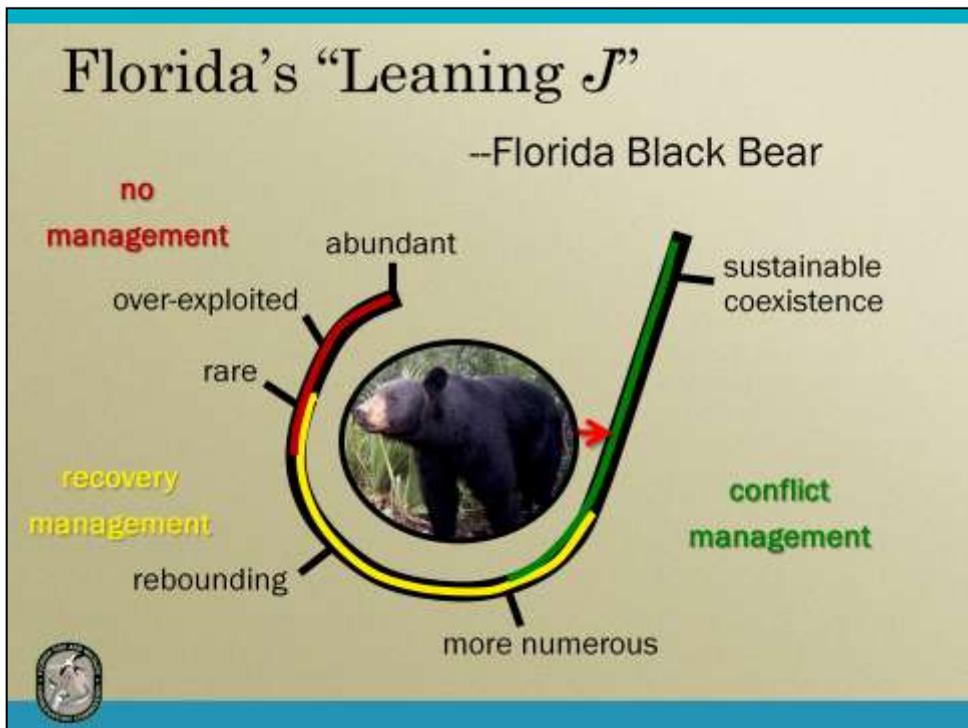
Conflict Management



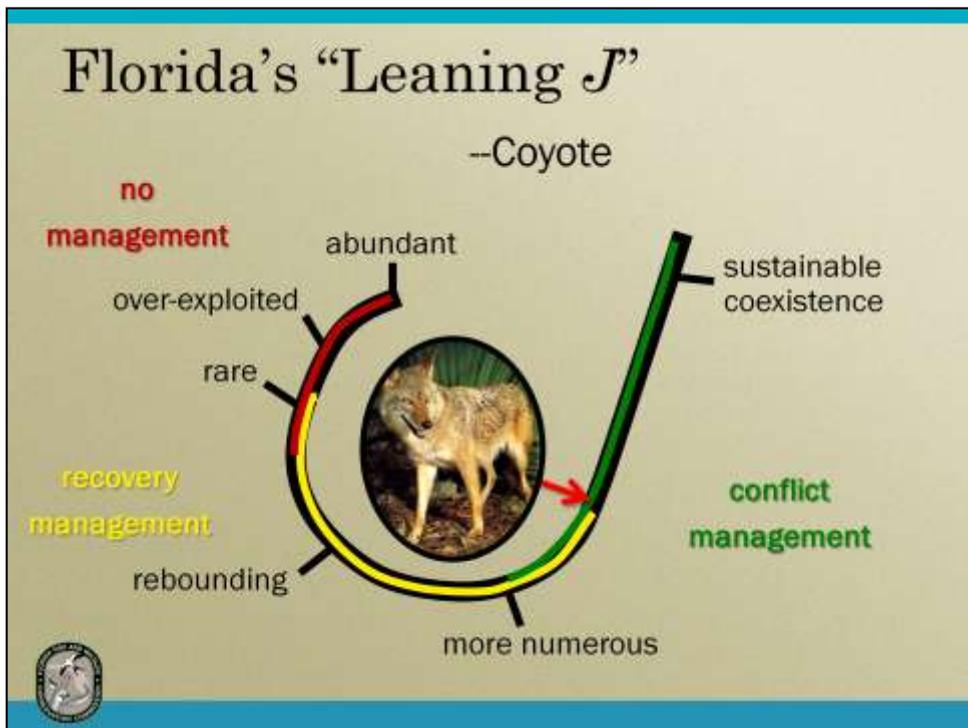
As alligator numbers have increased, the frequency of contact with people over the last several decades has risen sharply. Our management response has evolved to deal with these increased interactions to limit negative impacts from alligators on people. FWC currently works with a broad array of partners and stakeholders to ensure that alligators and people can coexist sustainably into the future.



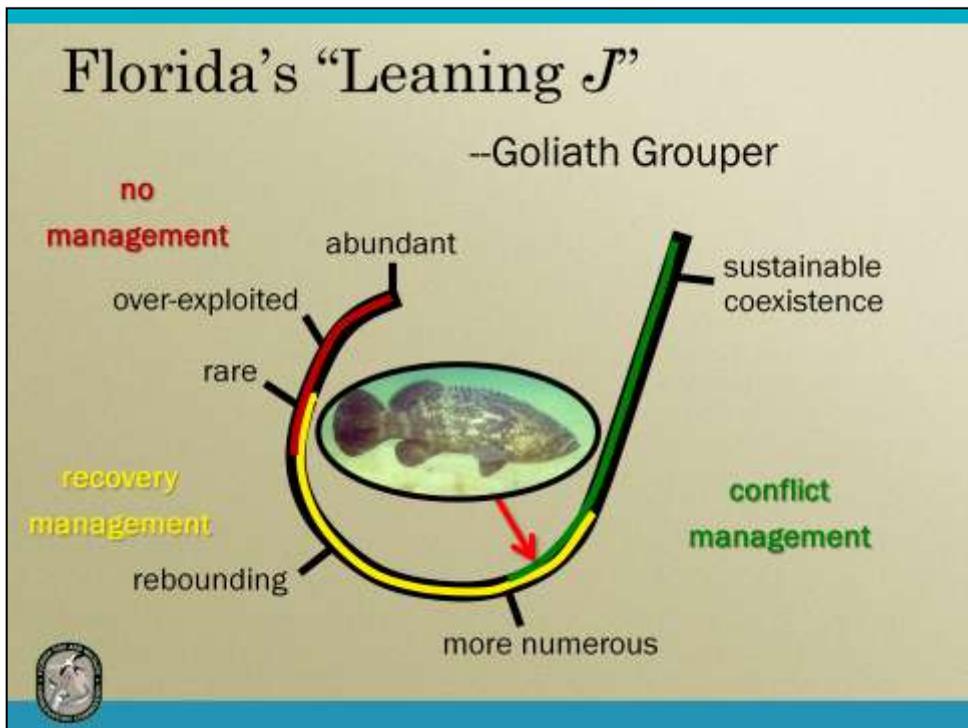
The American alligator is our best example of a wildlife species in Florida that has traversed all of these areas and now mostly is at sustainable coexistence levels with humans.



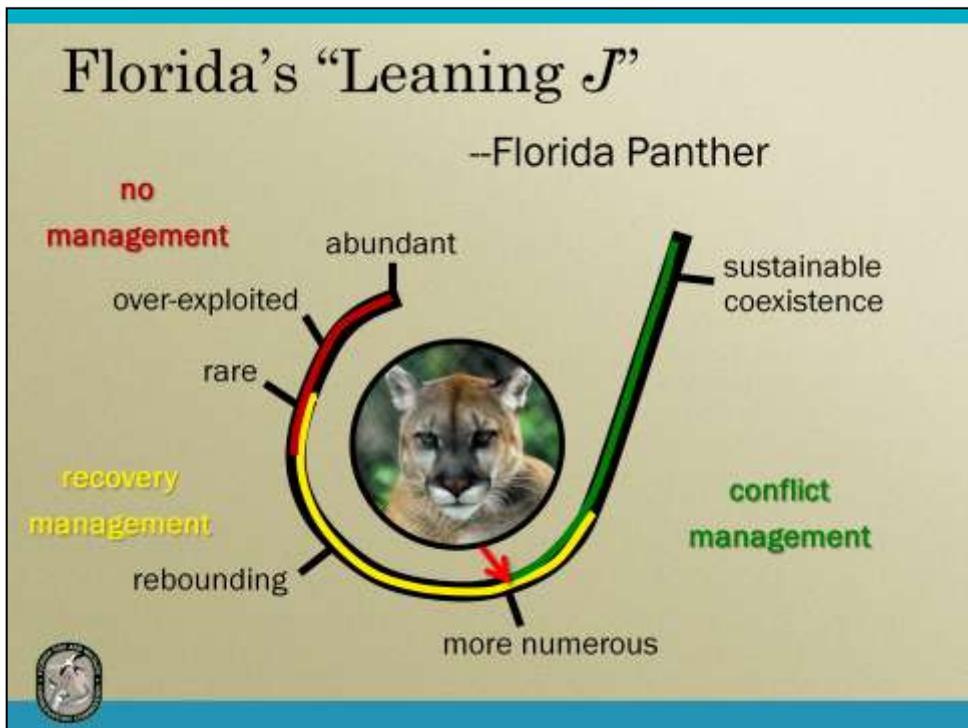
The Florida black bear is a good example of a wildlife species less fully around the "leaning J" than alligators.



The coyote is a relative new comer to Florida and arguably is even further back on the "leaning J" platform.



The goliath grouper is a good example of a wildlife species that is even further back on the "leaning J" platform.



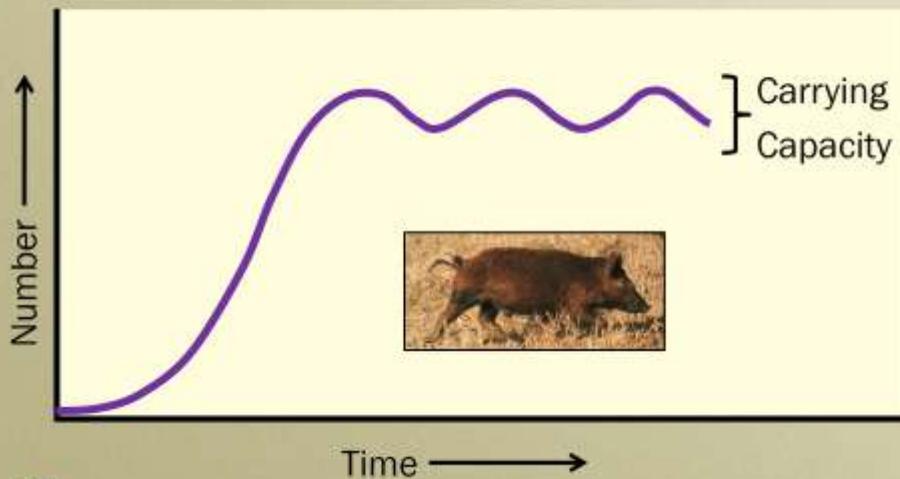
Lastly, the Florida panther is a good example of a wildlife species at the transition between full recovery management and conflict management.

We need a new approach. . .



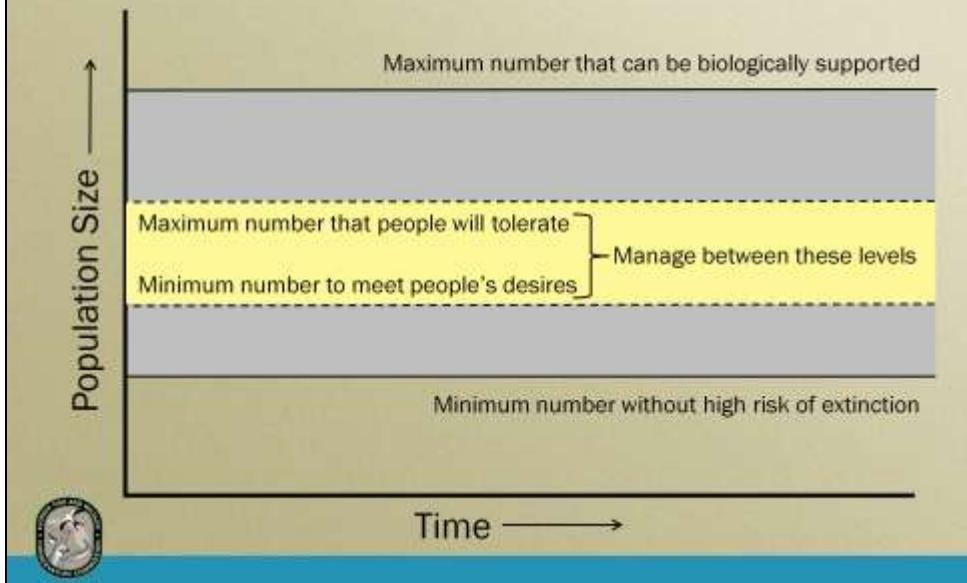
For decades we have managed our natural resources, including fish and wildlife, to restore historical conditions that existed prior to European settlers arriving in North America. This is akin to driving a car by looking in the rearview mirror. As long as the road is long and straight it can work. However, if there are changes ahead, it likely will lead to problems. We need a new approach to our management of species that fall onto the “leaning J” platform.

Biological Carrying Capacity



A key concept in how wildlife biologists conceptualize and manage fish and wildlife species is biological carrying capacity. Simply put, the biological carrying capacity is the number of individuals that a given area can support without damage to the natural resources that support them.

Social Carrying Capacity



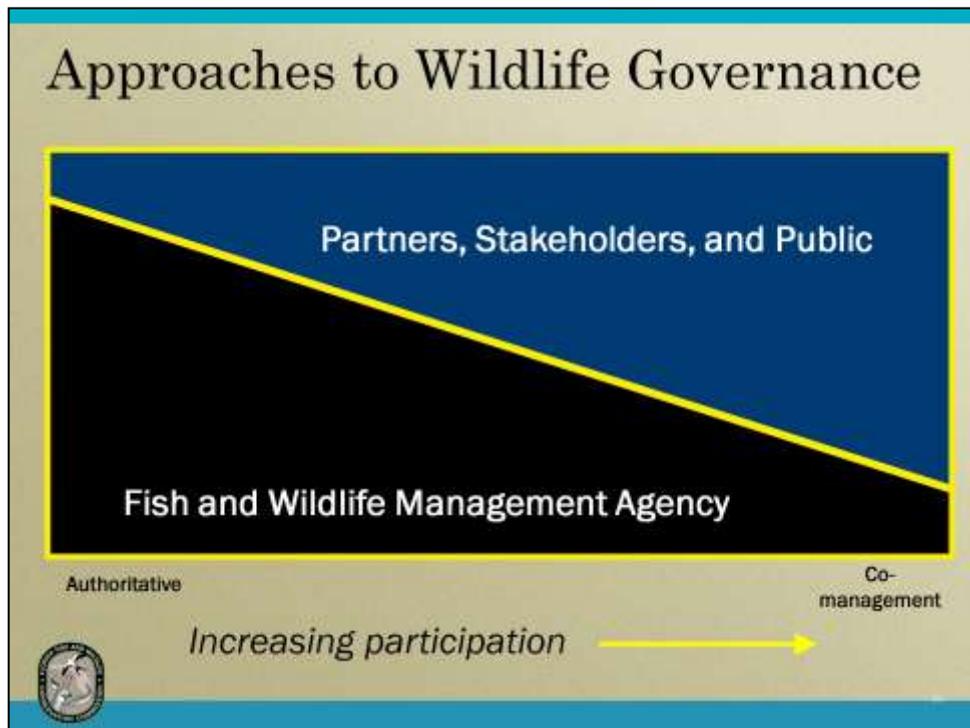
A corollary to biological carrying capacity is social carrying capacity. This is the number of individuals of a species that humans want or can tolerate. Although it can be challenging to achieve, ideally social carrying capacity (yellow zone) lies within the biological carrying capacity of an area (grey zone). Unfortunately, this is not always the case.

Conflict Management

- Social science inquiry and data
- Responsiveness and proactive outreach
- Individual animal management
- Population management and control
- Community co-management and wildlife proofing



There are many elements to conflict management that stretch current capabilities or demand new expertise and techniques. These range from utilizing social science to better understand the attitudes and behaviors of people to new ways of sharing management responsibility with local communities.



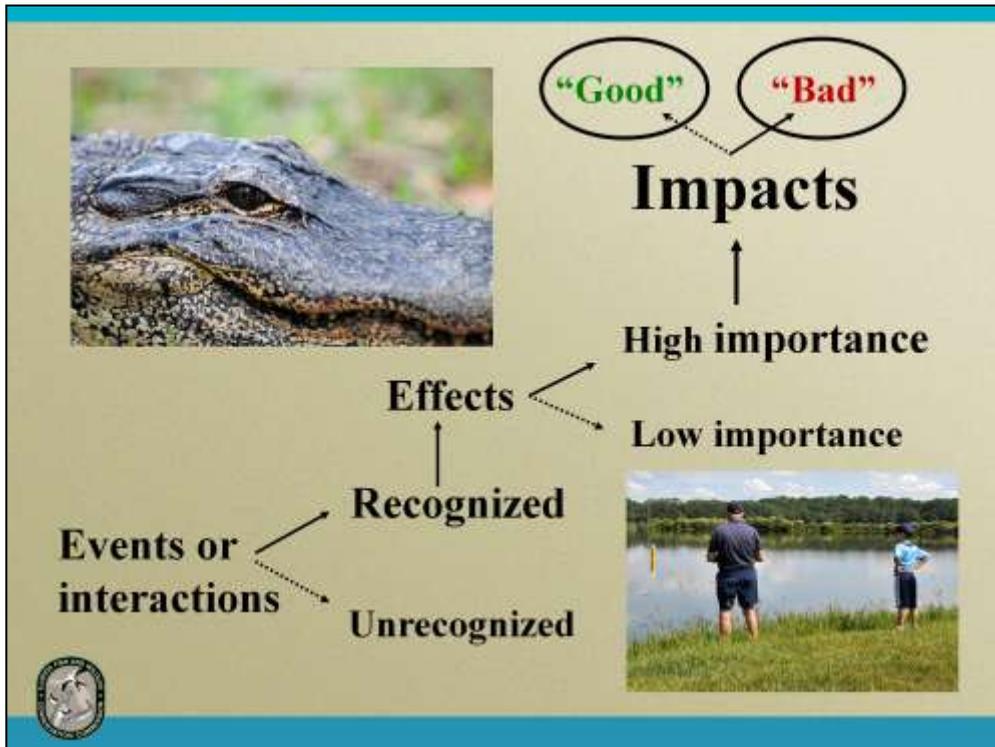
One aspect of our management that we can do differently is to include more viewpoints and people in our decision making and conservation efforts. Historically, most agencies have been authoritative in doing management. To be successful in a changing world, we need to partner with local communities and others to develop and implement the management needed to reach sustainable coexistence.

Challenges and Opportunities

- Shifting resources to common platforms
 - Communication methods
 - Expertise (WABs, call centers)
 - Human dimensions expertise
 - Partnership opportunities with animal control businesses
- Reconciling gap between biological goals and social carrying capacity
- Managing individual animals at local scales
- Environmental uncertainty



Several challenges and opportunities arise as we transition into a new way of doing business. These include the need to shift resources to address new issues, bridging the gap between biological and social issues, managing for individual animals and not an entire population or species, and working within large environmental uncertainty.



We started with the idea that it is interactions between individual people and wildlife that drives what we need to do to address conflict wildlife. We have focused on the “bad” side of the equation, but there are many more opportunities to build off of the “good” side.

Connecting with new constituents



Connecting with new constituents and other related topics will be explored more in the next set of presentations.

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Transition from Thomas Eason

to

Break (and then Jim Fowler)

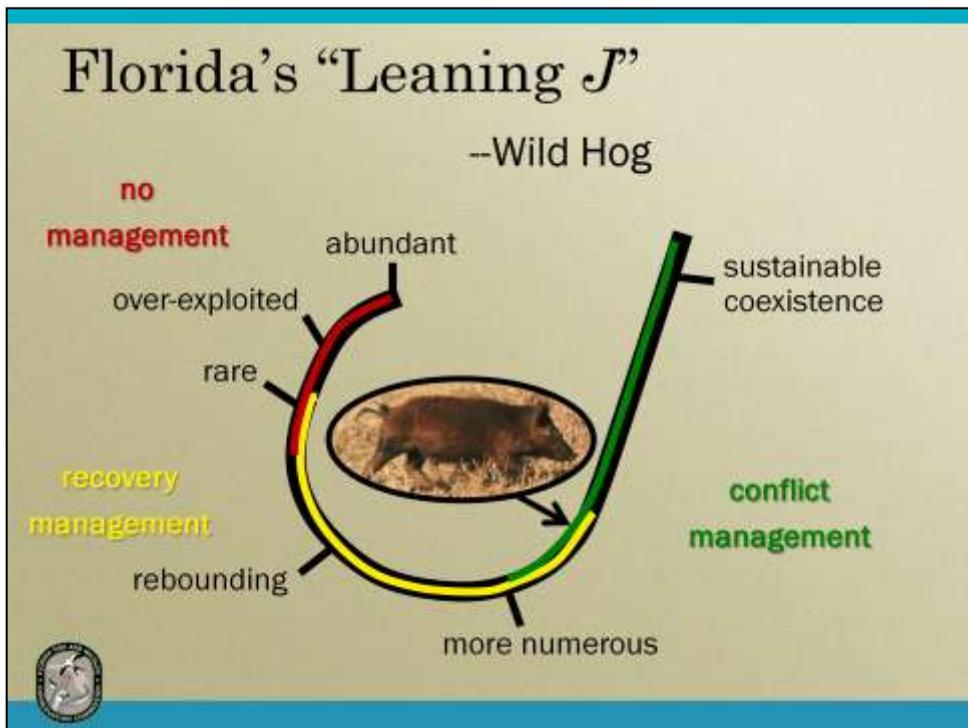


The following slides are considered
back up material and are not
anticipated to be part of the actual
presentation to the Commission

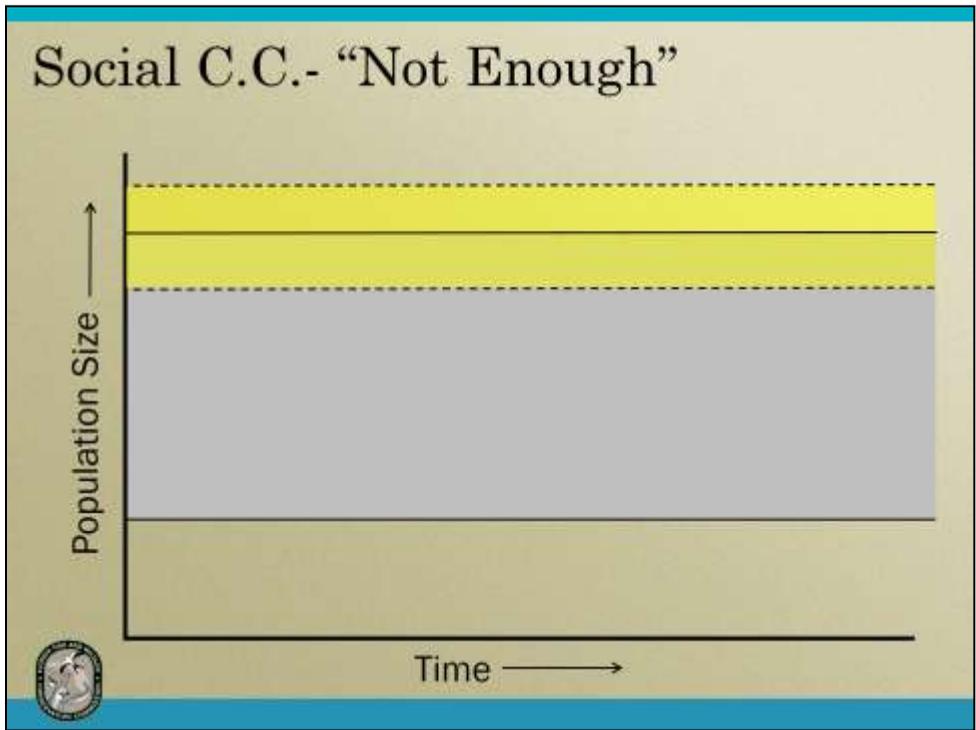


Deer Accident Likelihood 2012-13



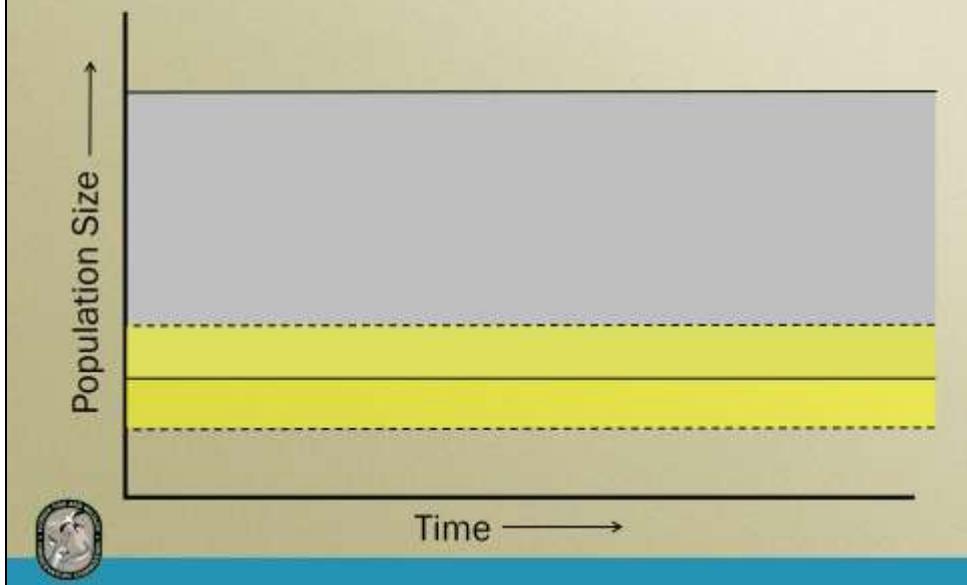


The wild hog is another example of a wildlife species that is further back on the "leaning J" platform.



Sometimes as managers we face the situation where people want more individuals of a species than can be biologically sustained. An example might be how most people who live in urban areas feel about panthers in South Florida. They want more to ensure their recovery from imperilment, yet the habitat in South Florida is at or above biological carrying capacity.

Social C.C.- “Too Many”



Other times as managers we face the situation where people want fewer individuals of a species than can be maintained without threat of extinction. An example might be how people who live in panther habitat in South Florida feel about them. Because of negative impacts to their lives and livelihood, they want fewer panthers.