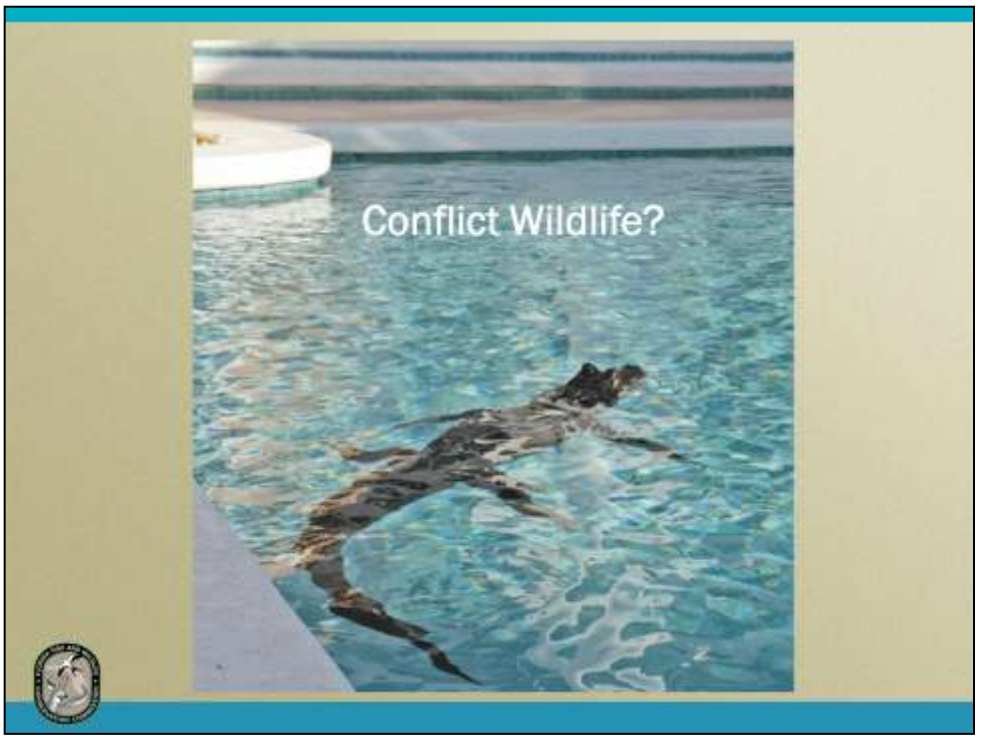
Human Wildlife Interactions
Conflict to Coexistence

April 15, 2014

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



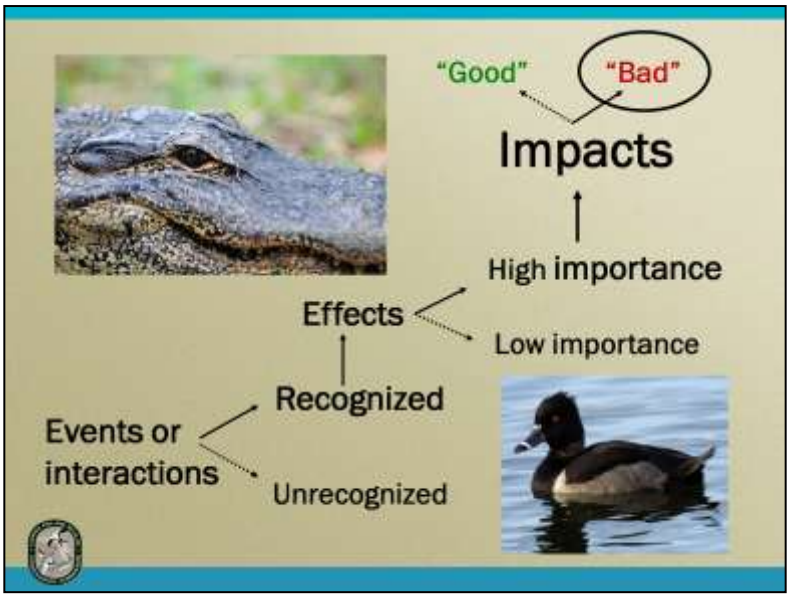
Conflict wildlife – those individual animals that cause direct, negative impact as perceived by people

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.



Impacts are the significant beneficial and detrimental effects of people's interactions with fish and wildlife, defined and weighted by human values. These impacts help determine priorities for management.

An example:

- Alligators take water birds as food items. That is a biological event or interaction of interest.

- Scientists recognize that as an effect. Some duck hunters and bird enthusiasts know about this scientific fact and think that it is an effect and that it is important. On the other hand, many citizens are not even aware of that particular effect.

- Some duck hunters and people who watch and value the birdlife on their neighborhood pond may feel the effect is important—to them it's an impact they'd like to see managed. But others who recognize the effect of alligators on birds do not find it important.

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

Destination: Sustainable Coexistence

Involvement, appreciation

Innovative Solutions

Outreach

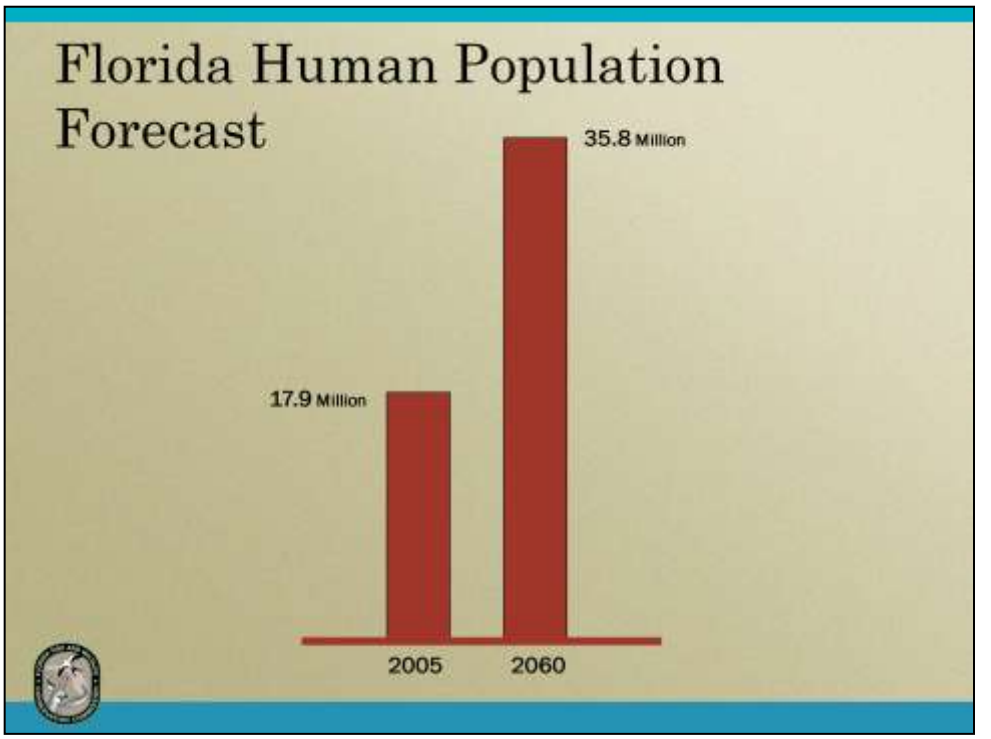
Science – Human, Wildlife

Partners & Resources

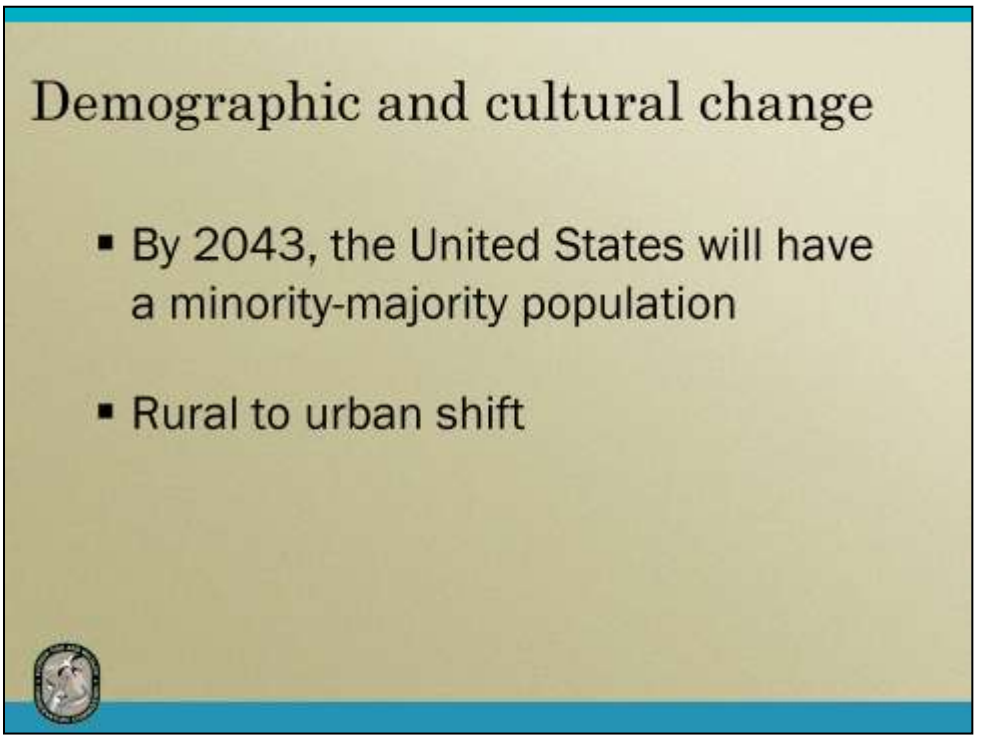
Note to Commissioners (not part of presentation)

- Diane Eggeman introduces guest speaker, Jim Sterba
- Jim Sterba's presentation follows here (not included)
- Following Mr. Sterba, the next slides will be presented by Thomas Eason

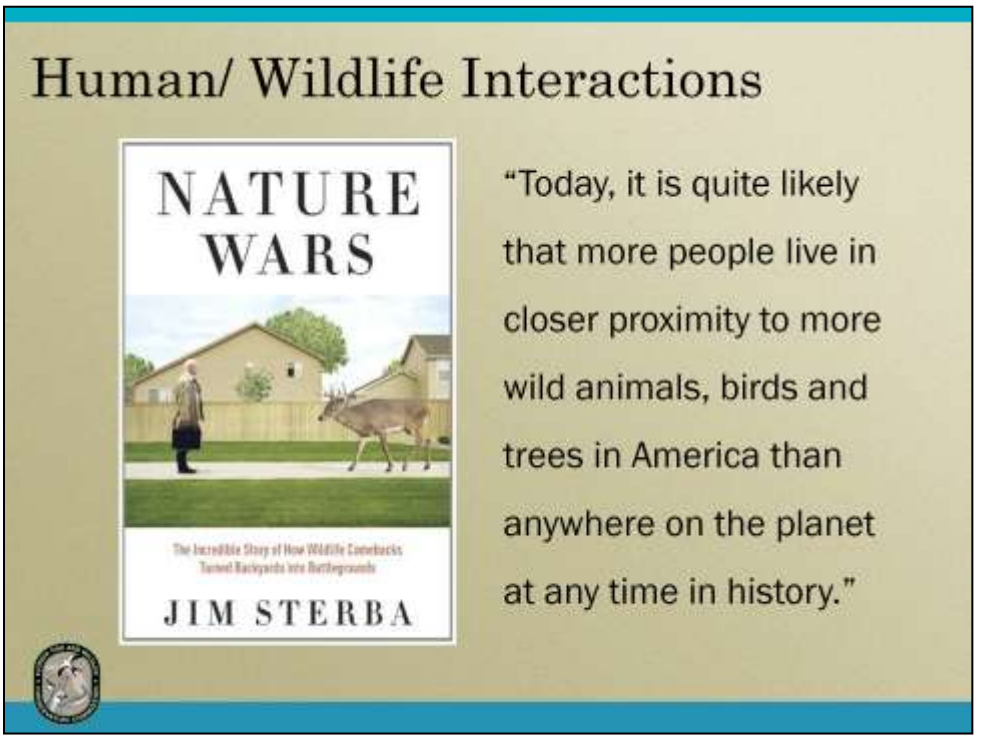
The following slides move from the national perspective that Jim Sterba presented to the more local perspective here in Florida.



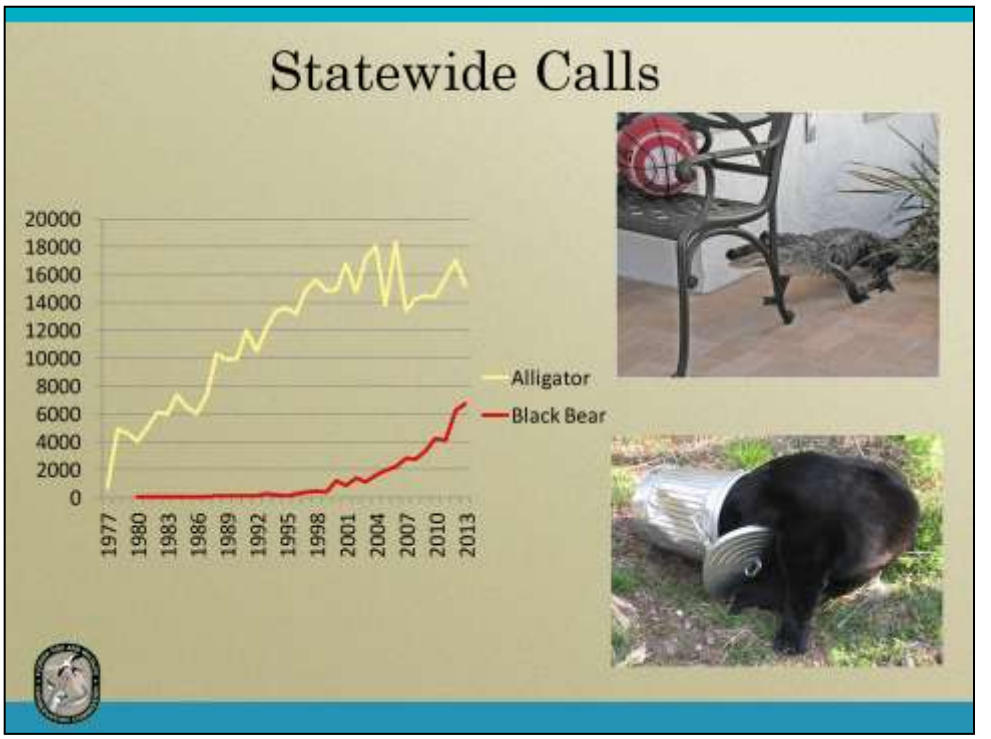
Florida is undergoing many changes that include an expanding human population. The human population in Florida is predicted to almost double from 2005 to 2060.



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

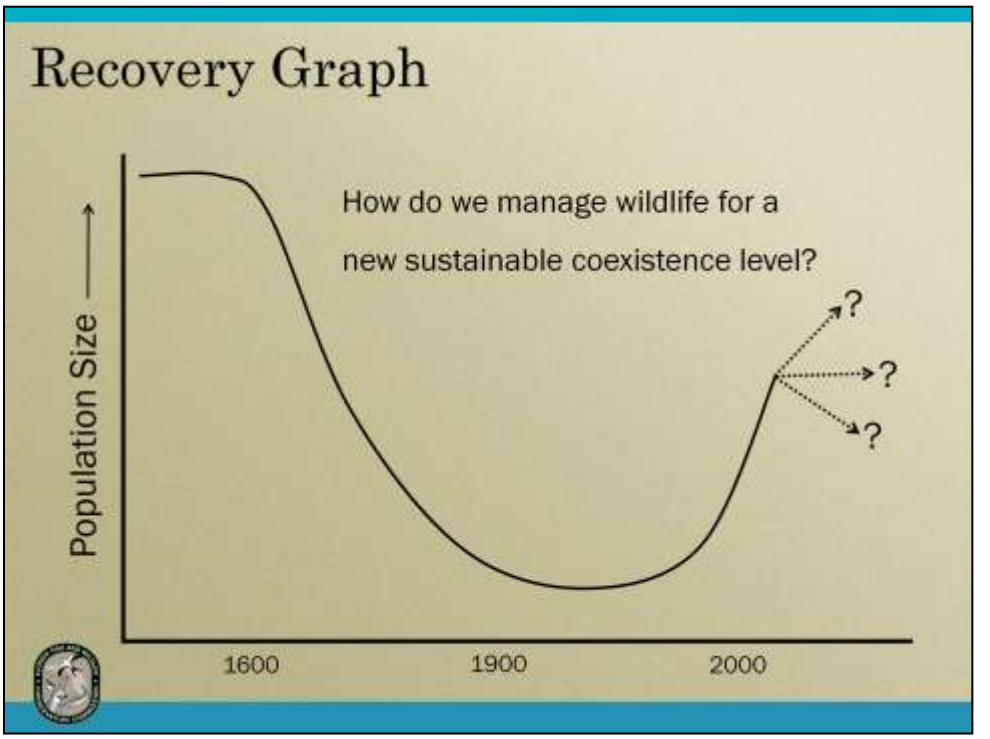


Also, as Jim Sterba described, more people live in the exurban environment and encounter wildlife more than ever before.

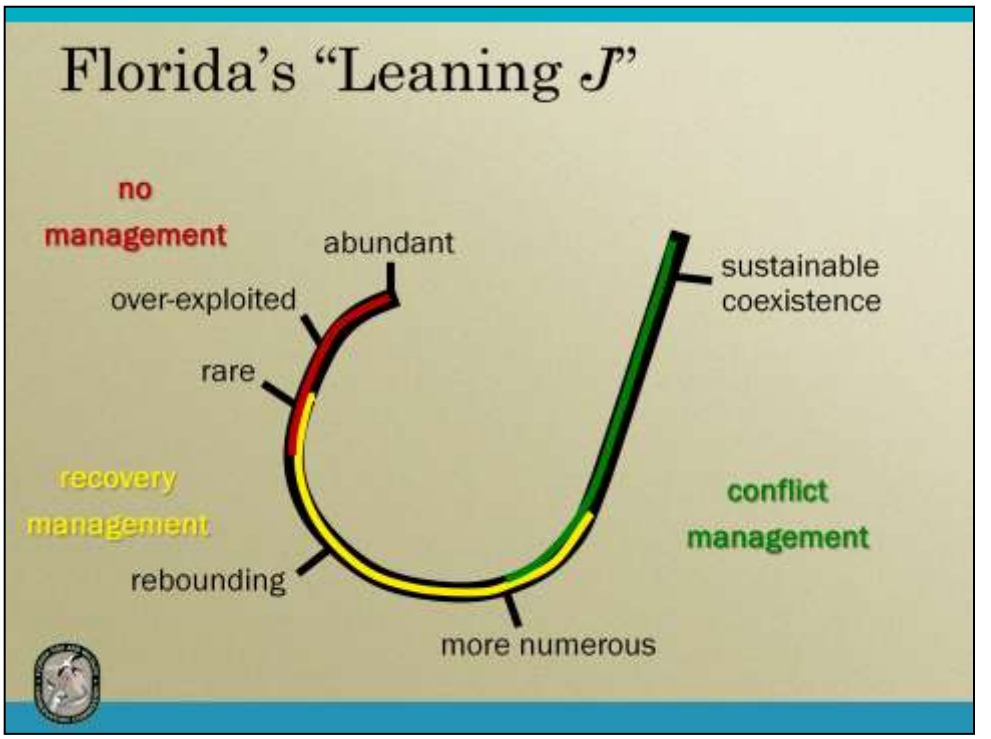


In Florida, as nationally, these trends have led to more people coming into contact with wildlife and calling the FWC to report sightings or nuisance situations. Alligator and bear calls are good examples of these increasing interactions.

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…

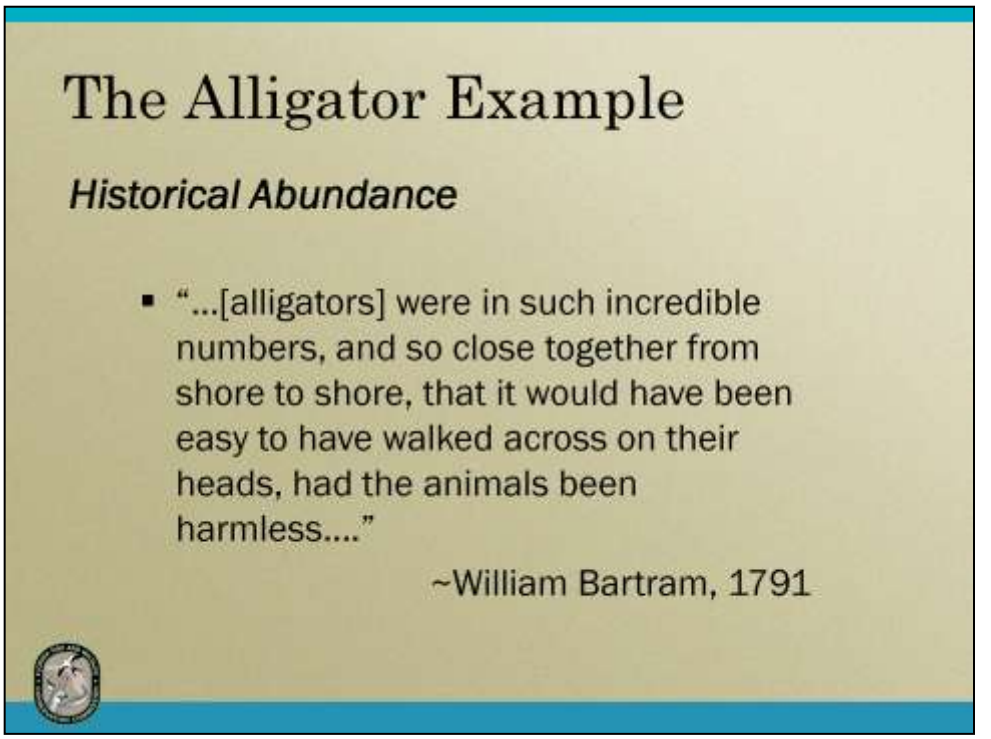


One way to think about these encounters is from an historical perspective. Jim Sterba described these dynamics well. Historically abundant species were nearly driven to extinction by overharvest and unregulated taking. Conservation actions were taken and proved successful for many of these species. We 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?

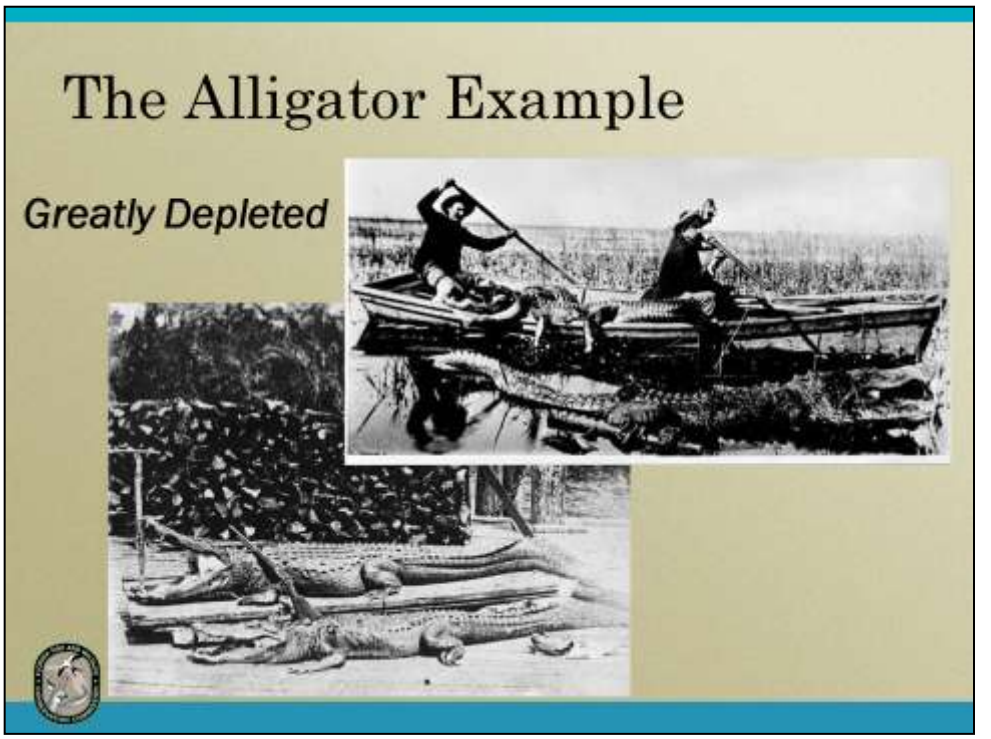


Another way to conceptualize these dynamics is to think about a "leaning J" shape to illustrate a common platform that these species and their management share. While there are many differences at the individual action level, overall they can be grouped into six areas: 1) historically abundant, 2) over-exploited, 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.

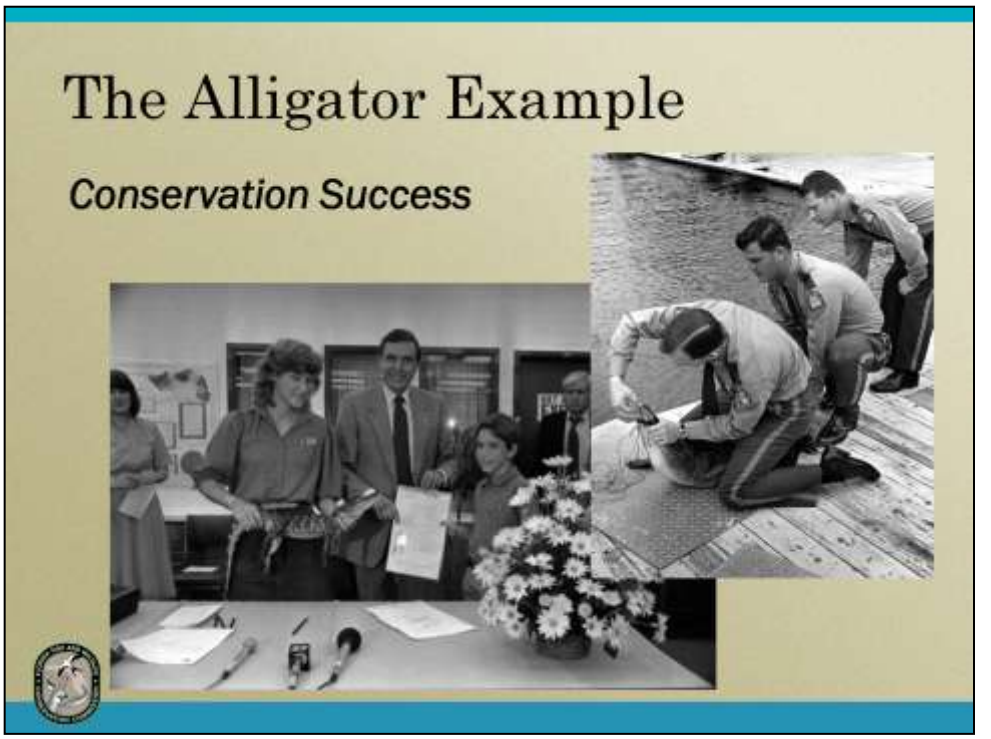
The American alligator is our best example of a wildlife species in Florida that has traversed all of these areas and now mostly is at sustainable coexistence levels with humans.



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



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.

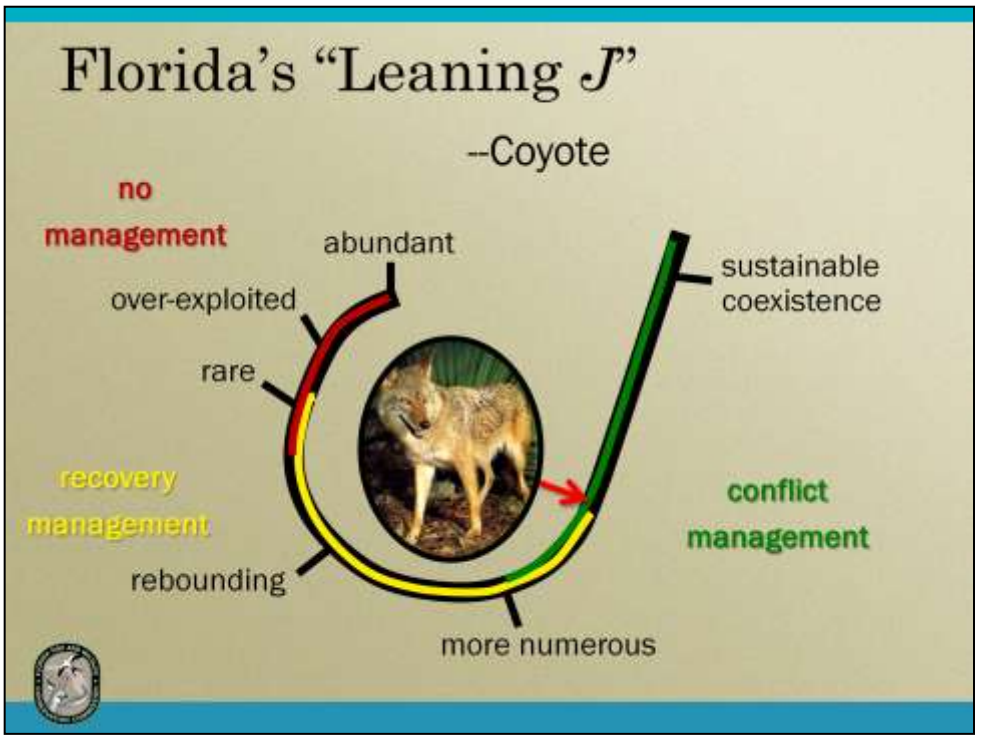


As alligator populations reached their low point, conservation efforts began and had great positive impact on alligator population levels.

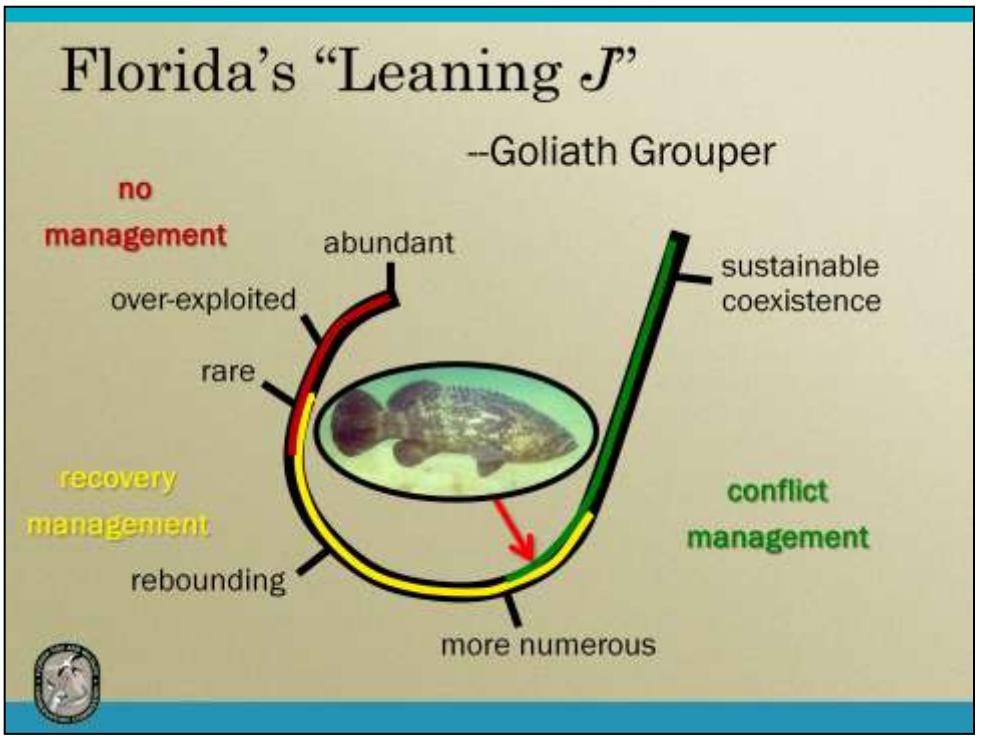
As alligator numbers have increased, the frequency of contact with people over the last several decades has risen sharply. Our management response has evolved to deal with these increased interactions to limit negative impacts from alligators on people. FWC currently works with a broad array of partners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

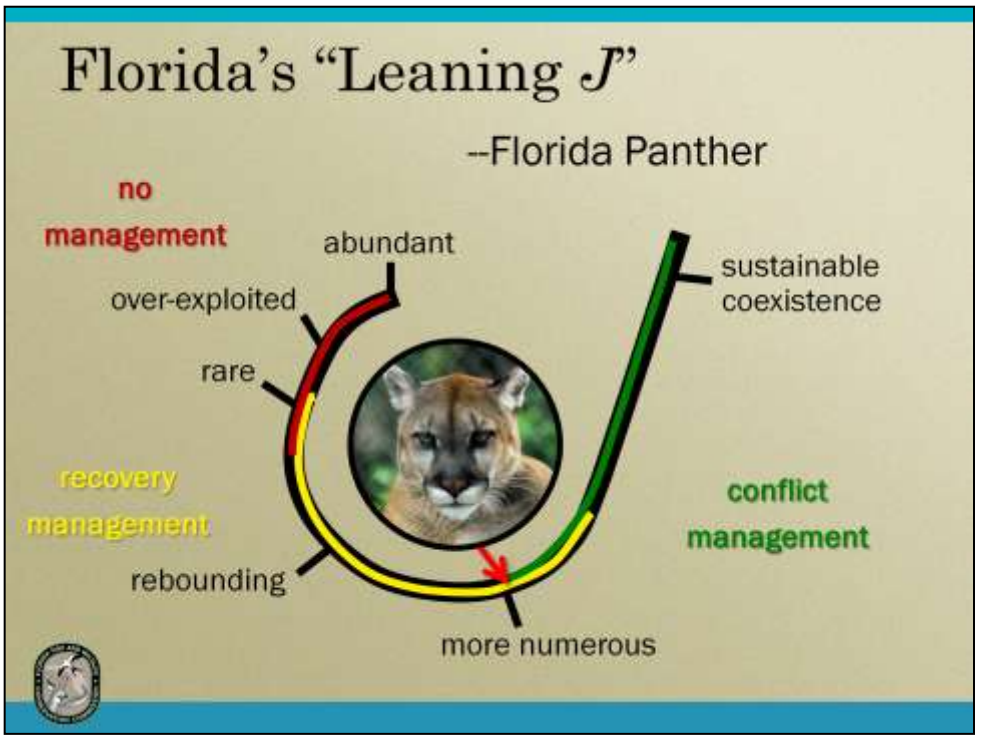
The Florida black bear is a good example of a wildlife species less fully around the "leaning J" than alligators.



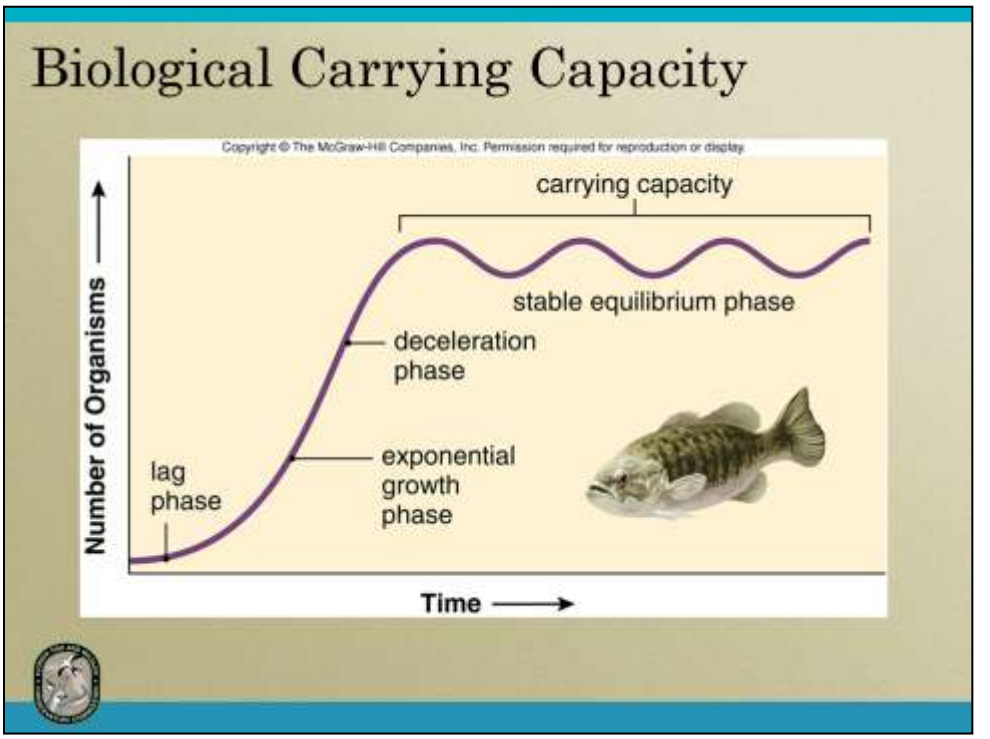
The coyote is a relative new comer to Florida and arguably is even further back on the "leaning J" platform.



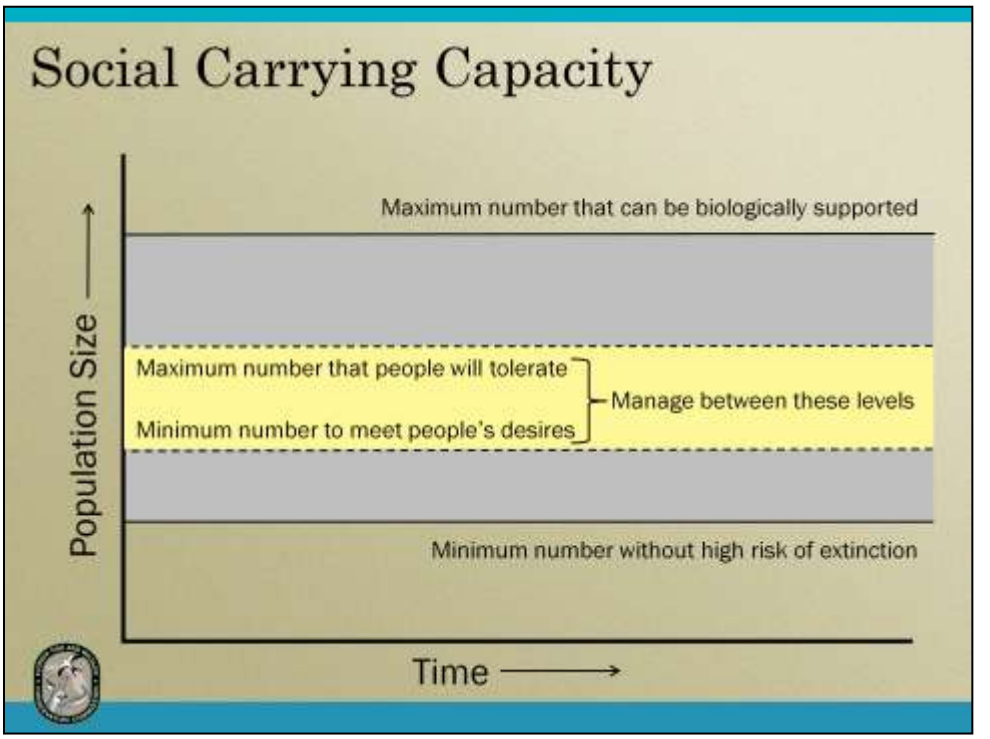
The goliath grouper is a good example of a wildlife species that is even further back on the "leaning J" platform.



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



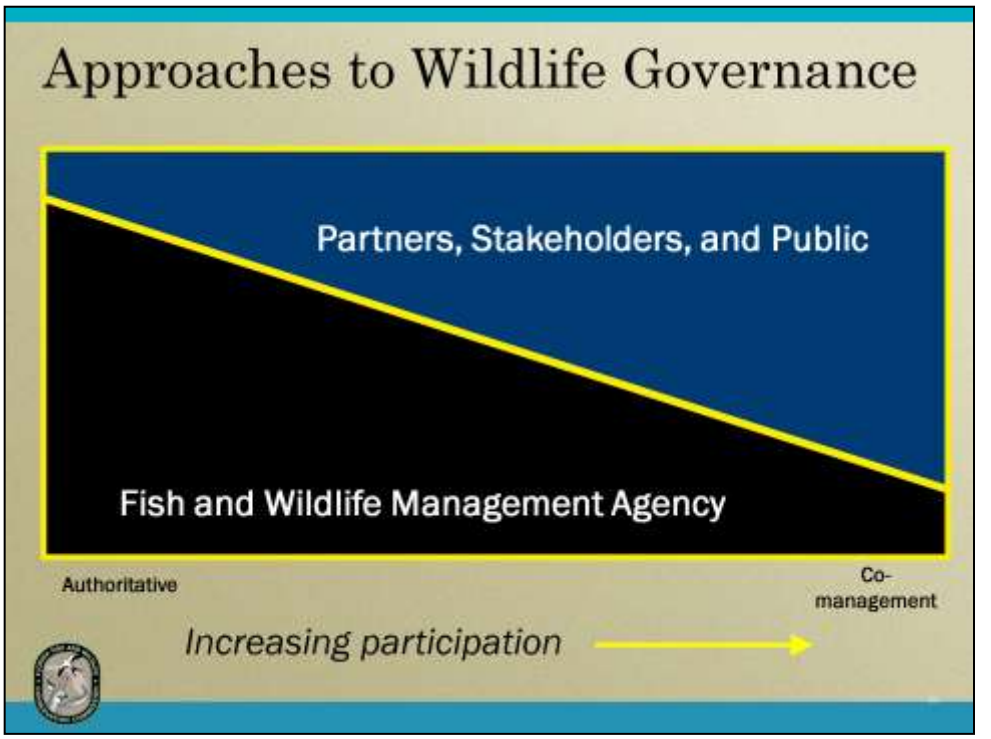
A key concept in how wildlife biologists conceptualize and manage fish and wildlife species is biological carrying capacity. Simply put, the biological carrying capacity is the number of individuals that a given area can support without damage to the natural resources that support them.



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.

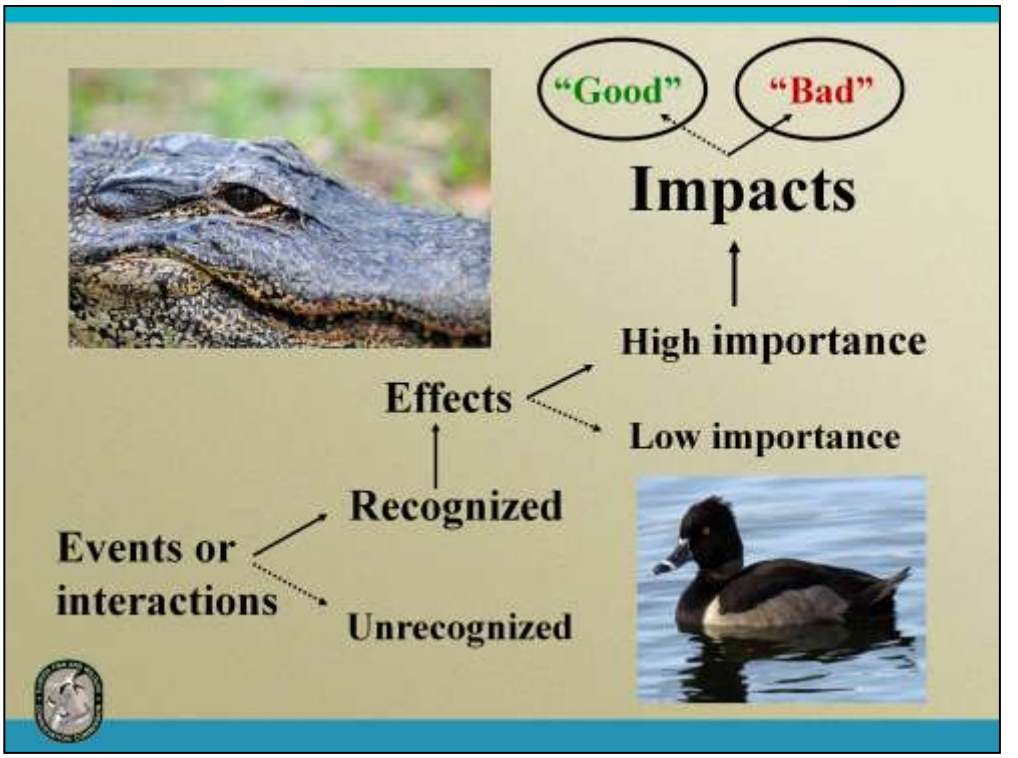
For decades we have managed our natural resources, including fish and wildlife, to restore historical conditions that existed prior to European settlers arriving in North America. This is akin to driving a car by looking in the rearview mirror. As long as the road is long and straight it can work. However, 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.

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.

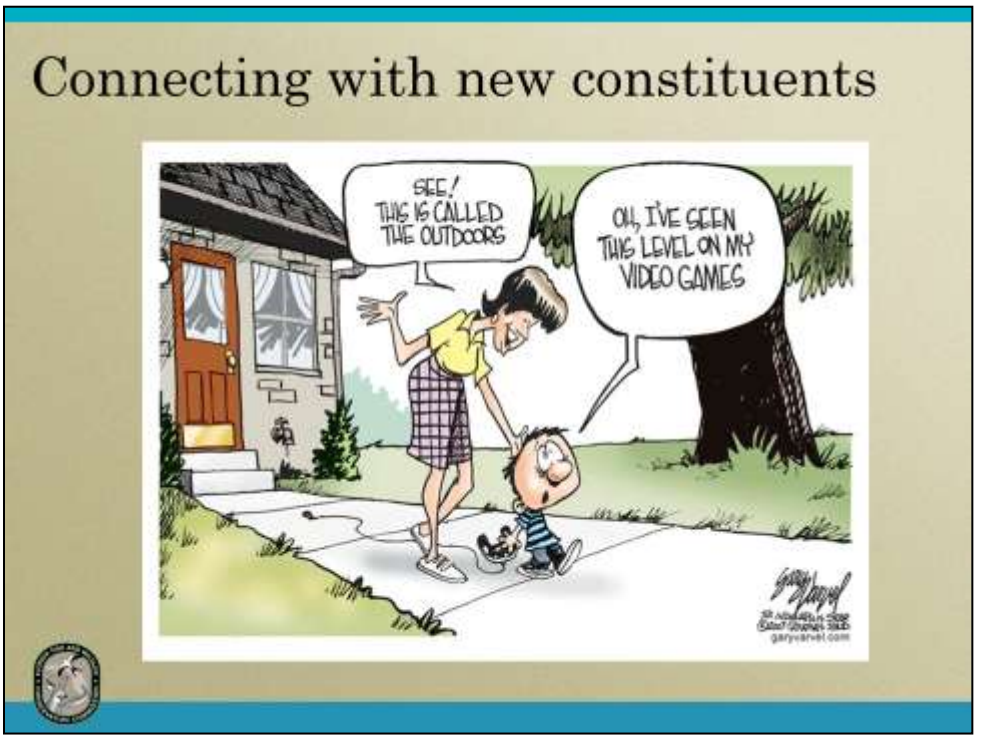


One aspect of our management that we can do differently is to include more viewpoints and people in our decision making and conservation efforts. Historically, most agencies have been authoritative in doing management. To be successful in a changing world, we need to partner with local communities and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

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 and other related topics will be explored more in the next set of presentations.

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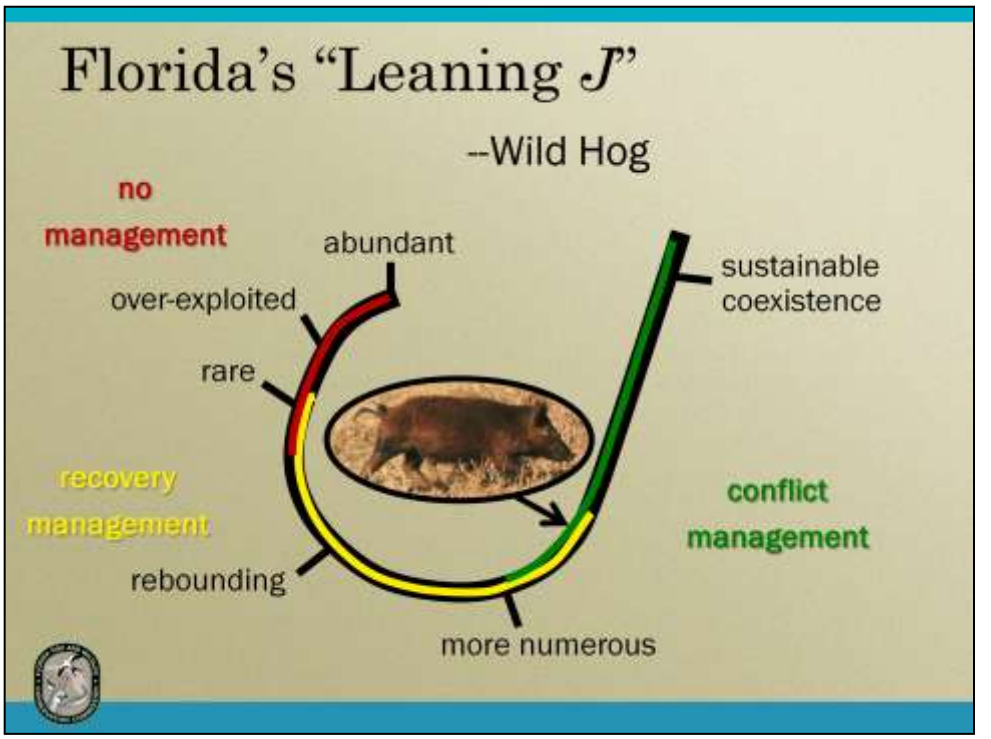
Transition from Thomas Eason

to

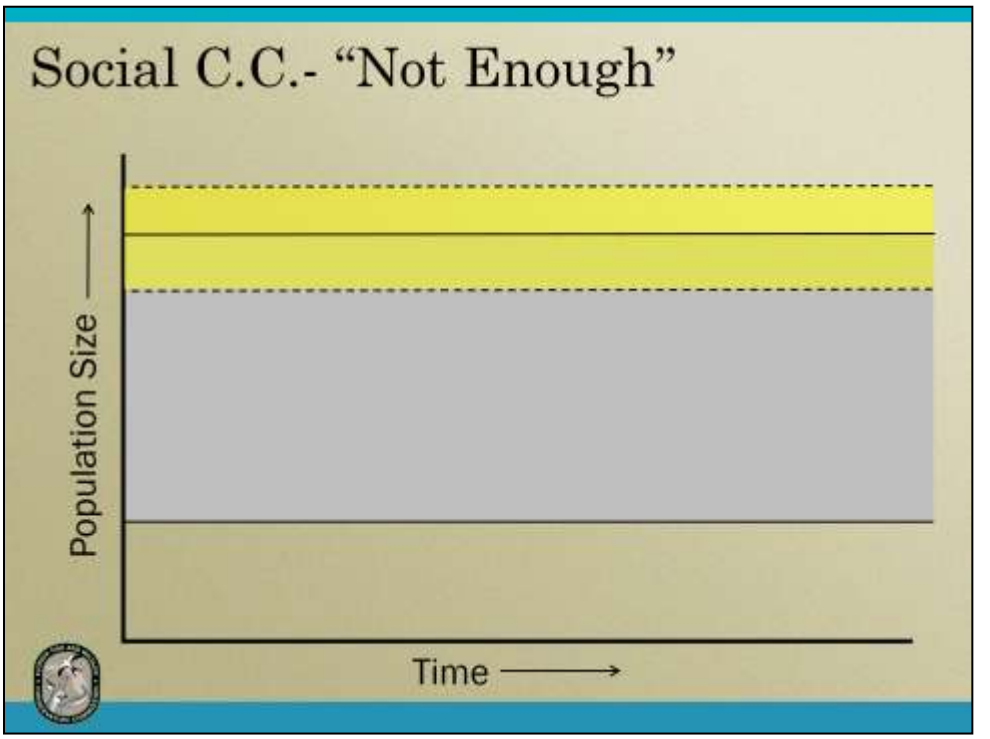
Break (and then Jim Fowler)

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

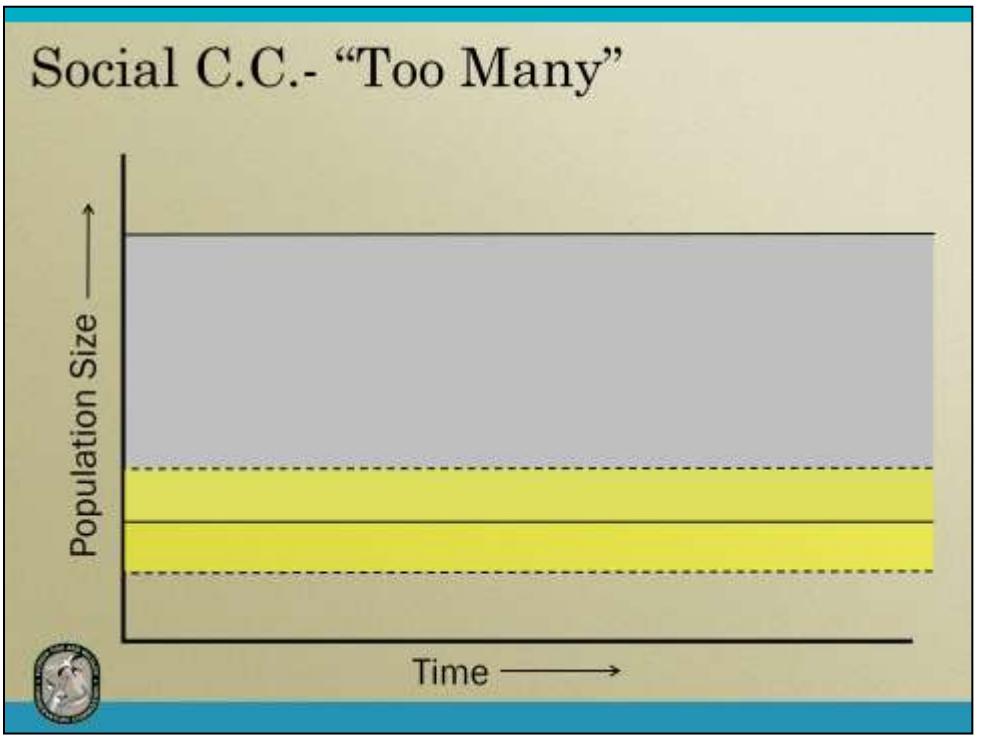
Deer Accident Likelihood 2012-13



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



Sometimes as managers we face the situation were 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.



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.