**Florida Wildlife Corridor: How conservation contributes to Florida’s resilience**

Amelie Brazelton

Writing Intensive, Eckerd College

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Dr. Maddox

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Despite Florida being known as one of the more republican states in the U.S., it has put the most money into conservation efforts. For decades the state has been putting money into protecting the natural beauty that is the different ecosystems in Florida. From the everglades to the beaches to the forests, each ecosystem is essential to the natural health of the state overall. The Florida Wildlife Corridor is one of the conservation efforts that Florida has focused on recently. It encompasses 17.7 million acres of Florida, including 10 million in conservation lands. The other 7.7 million is made up of pastures and ranches that are maintained by ranchers that agree to specific guidelines that align with the Florida Wildlife Corridor’s conservation requirements. The connected land of the Florida Wildlife corridor sustains Florida’s resilience by improving species adaptive capacity, protecting land from being developed, and maintains Florida’s tourism economy by protecting natural resources.

 Maintaining Florida’s biodiversity is important as the population continues to increase, pushing the need for further development. In an article published by the United States Census Bureau and written by government employees Mark Perry, Luke Rogers and Kristie Wilder, “Florida's percentage gains since 1946 have been impressive: its 2022 population is just over 9 times its 1946 population of 2,440,000” (Rogers, etc. 2022). This is a drastic change in such a short amount of time, especially in comparison to other states. It has been in the top ten fastest growing states for decades, only beaten by Nevada where their population is a shocking twenty two times the size it was in 1946. These statistics emphasize the need for conservation in Florida, as lawmakers have seen throughout the past decades. As of 2022, Florida has earned the spot of fastest growing state, for the first time since 1957.

While Florida has been working on its conservation for a long time, the Florida Wildlife Corridor originally started with the “Vote Yes on 1” act in 2014, Clay Henderson, environmental lawyer and conservationist informed the audience of a Florida Wildlife Corridor event. This was the largest conservation finance program in the history of the country, putting $23 billion into conservation in Florida. It also put Florida at a huge advantage in conservation, giving it the resources to protect the land and combat the development of Florida that is a result of the rising population rate. But even before this was the Preservation 2000 Act. It spanned from 1990 to 2008, eventually turning into the Florida Forever program. The Preservation 2000 Act put 300 million dollars a year into Florida conservation and protecting the natural biodiversity there. As more people are moving to Florida and few are moving out, there is a need to build more homes and develop land in order to keep up with the rising population, prompting further conservation efforts to be taken in relation to the Florida Wildlife Corridor.

The most recent legislation around the corridor was signed into law in April of 2023 and went into effect in July of the same year. It put 200 million dollars into connecting the different sections of the corridor, creating a long stretch of protected land that benefits the wide range species of Florida such as the Florida panther and black bear. This is especially essential for the panther population, as the Florida Fish & Wildlife Service public affairs specialist Renee Bodine emphasizes, “Hunting nearly eliminated them; genetic defects affected their health and survival” (2022). The panther has made a historic comeback in the past several years. There were only 10 panthers remaining in the country when they were placed on the endangered species list in 1967, whereas now there are almost 200 (Bodine, 2022). The legislation connected the corridor to the trail system as well, allowing visitors to appreciate the natural beauty of Florida in a low impact way. The point of this is to decrease habitat fragmentation, which then increases biodiversity that ultimately benefits Florida. While the intention here was to encourage more residents and tourists to appreciate Florida’s natural beauty, it also encourages them to be more emotionally invested if they are engaging with it on a regular basis. This gets residents to care about Florida’s resilience and adaptive capacity in a way that they wouldn’t have if they weren’t a part of the natural world too.

In order to bring adaptive capacity and resilience into the conversation, they must be defined. According to *Advances in Ecological Research* by David A. Bohan and Alex J. Dumbrell, adaptive capacity is the “Latent potential of an ecosystem to alter resilience in response to change” (7). Essentially, it is the ability of the ecosystem to increase its resilience when something in the ecosystem is changed. It is the specific regime of the state of the ecosystem in response to disturbances, including components of ecological memory, cross-scale interactions, ecological functioning, and rare species.

These concepts are integral in discussing the Florida Wildlife Corridor because the connection between the different sections of the corridor create increased adaptive capacity by making space for species to interact with each other instead of separating into different gene pools. This is especially important for panthers, Carlton Ward, conservationist and wildlife photographer, emphasizes in an article written by Isaac Eger, “A single male panther ‘needs 200 square miles of habitat, so the only way to save the species is multiple adjacent lands working together as one connected habitat’ says Ward” (2023, Eger). If these 200 square miles were separated it would cause the species to die off, and for others to specialize, which can be dangerous because if an illness comes through the population or there is habitat loss. If there is only one species that is doing its role in the ecosystem, then if it is wiped out there is no way for the ecosystem to be able to recover. If there are more species doing the same job, this is less likely to occur. This separation and specialization can also lead to lack of biodiversity. For example, because panthers naturally have a smaller population it is important to maintain it to keep their genetics strong. The fewer panthers there are to reproduce, the less variety there is in their genetics because they’re drawing from the same gene pool over and over, lowering their adaptive capacity. This is the danger with habitat fragmentation that comes from separation through highways and properties, protecting the biodiversity of the various species can only be done by connecting the corridor.

The panther species has experienced the dangers of that lack of connection before, and has been on the brink of extinction several times. Typically reclusive creatures, panthers are rarely seen and when they are it is often in the middle of the Florida wilderness. But when they are seen, it is often dead on the side of the road. The majority of their deaths are caused by road deaths. In a recent article by the Tampa Bay Times, Max Chesnes wrote “Twelve panthers have now died so far this year (2023), all from vehicle strikes. That compares to 27 panther deaths last year (of which 92% died from vehicle strikes) and 27 in 2020 (77% dead from vehicles)” (Chesnes, 2023). For a species with a population ranging between 150-250, even a couple of dozen panthers being killed by road deaths can be a huge hit to the population. The specific population number is unknown because they are seen so rarely. The vulnerability of many species in Florida necessitates keeping the corridor connected and not broken into pieces by highways and personal properties.

When looking at the 17.7 million acres that make up the Florida Wildlife Corridor, what happens with the 7.7 million acres that aren’t conservation land? Most of that land are ranches and pastures, owned by private landowners that work on their pasturelands with trees and streamlined habitat. The ranchers are encouraged to be a part of the Florida Wildlife Corridor with easements, but are determined whether to be accepted or not by a thorough vetting process and extensive evaluations of the natural resources to see if they’re managed to the FWC’s standards. Douglas Main, writer for National Geographic, wrote explaining that, “Under the terms of the purchase, the owner agrees to certain management conditions in perpetuity, usually designed to maintain the ecological health of the landscape” (Main, 2023). This process ensures that the land is managed in a way that is beneficial to all parties, ranchers, animals, and the future of the Florida Wildlife Corridor.

Though the easements create a loss of profit for the state of Florida, it will ultimately benefit the area as a whole. Encouraging the ranchers to take part in the surrounding natural community creates an emotional investment in the area that applies to tourists as well that travel along Florida’s trails. These components are essential for the health of Florida, as it guides people to care more about conservation. And while Florida is making strides towards protecting the natural world, it still needs to protect 40% of its land within the next ten years to protect its biodiversity. Otherwise, it could spell a dismal future for all Florida residents.

A more successful environment means a more successful Florida, which is especially important for a state that relies heavily on tourism from its beautiful beaches and clear waters. In a study done by Catherine Macdonald and other researchers looking into the relationship between the environment and Florida, they claimed that “Environmental changes associated with climate change have begun to impact tourism attitudes, destination choices, and spending, including new concerns about increased tropical storm frequency…” (MacDonald, etc, 2022). This emphasizes the importance of conservation now as climate change impacts tropical storm frequency, therefore affecting the tourism industry. While the proposals may require a seemingly unrealistic amount of money, on top of the $300 million that has already been put into the Florida Wildlife Corridor, it is ultimately worth it for the future health of Florida’s environment. Taking into consideration the number of people moving to Florida, the Wildlife Corridor avoids more populated areas like Tampa, Miami and Orlando. The conservation planning group determines what areas are most essential for animal populations. Tom Hoctor commented in a National Geographic article, “That data, which includes animal movements, ecological measurements, habitat type, water availability, and many other factors, helps determine what areas are most needed for wildlife to thrive” (Main, 2022). These cities are already so heavily populated and developed that it would be difficult to take back that land for conservation purposes, especially if it is not necessary for the health of the species. While this may go against the main goals of the Florida Wildlife Corridor, it makes space for the people who do live here and protects major waterways, such as the Kissimmee River and the Everglades.

Despite the amount of money and effort it takes from the surrounding communities, the Florida Wildlife Corridor is ultimately beneficial to the overall health and biodiversity of Florida. As Clay Henderson deduced, “My lesson is that we have done great things here but we’re not finished, we have the means to not only with the legislature and involved but with the people in this room (at the Foundation conference)” (Henderson, 2023). He is stating that the work done has made a difference in the health of Florida, but that it could continue to do so given the opportunity to expand. The corridor creates a safe space for the wild to grow and maintain its biodiversity instead of falling victim to habitat fragmentation. And with the continually rising population, it is more important than ever. While the various stakeholders of the development in Florida may dislike the missed opportunities to grow the cities, without the conserved land Florida’s natural resources would fall apart, causing profit to go down anyway from investors moving away. The Florida Wildlife Corridor contributes to Florida’s resilience in a way that cannot be done with other methods, making it essential to the future biodiversity of the state.

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