

Florida Panther Habitat Loss and Potential Danger to Species Stability

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Lehmann, Stephen; Smith, Meredith; and Aiken, Ben, "Florida Panther Habitat Loss and Potential Danger to Species Stability" (2023). *Scholars Symposium*. 18.

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Florida Panther Social behavior in Regards to Habitat, Social or Secluded?

Stephen Lehmann, Meredith Smith, Benjamin Aiken

Introduction

The Florida Panther is an endangered species of panther that only inhabits southern sections of Florida primarily around the Everglades. Their habitat has been slowly degraded over decades to the point where their groupings are becoming more clustered. This can be problematic as their social behaviors are known to be solitary and territorial animals. This aggression could lead to even more Florida Panther destruction and endangerment. The purpose of this poster is to show the grouping and habitat loss of these creatures and take data from ther movements to see if their social interactions are being forced to happen more often or not.

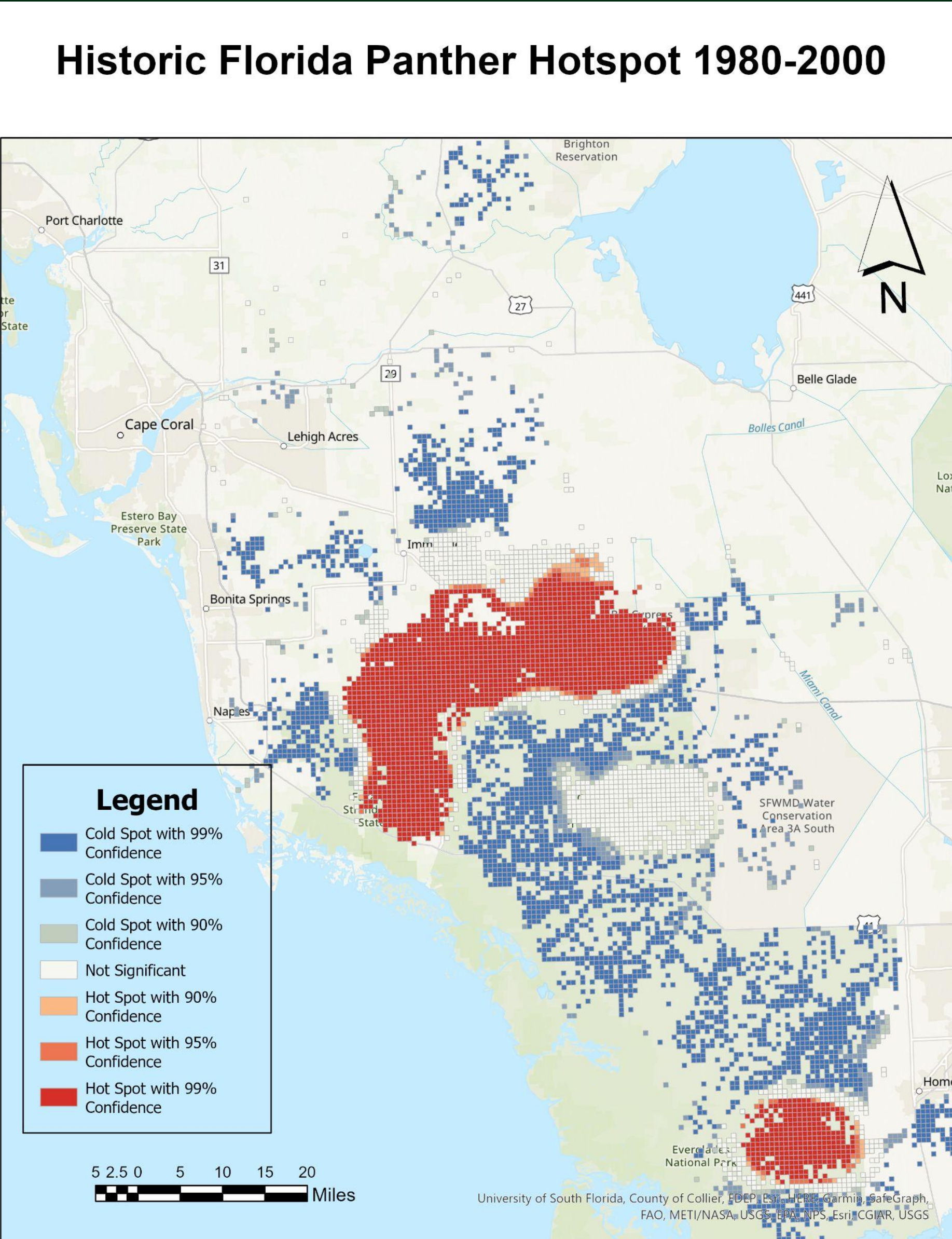
Objectives

The objective of this poster was to observe Florida Panther movement to see if their engagement levels from 2000-2022 have changed and if their interactions with one another have increased.

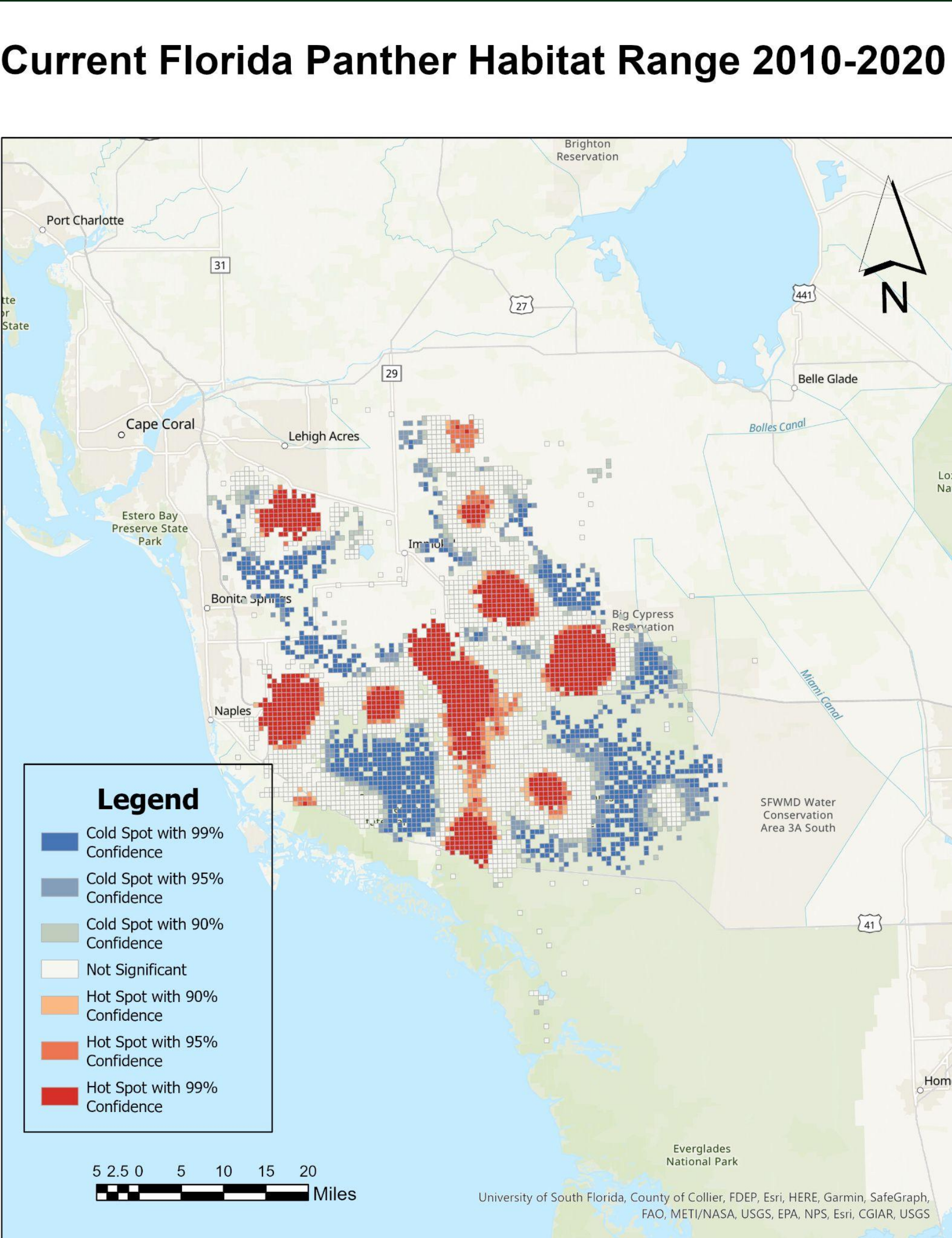
Methods

Taking Florida Panther telemetry data from the FWC individual panthers were isolated and labeled on a map in ARCGis. A hotspot analysis was then taken to determine where the highest concentrations of panthers occurred in the state of Florida. This data was used to analyze any potential cats that were outliers. Individual points from collars were pinged and collected from 2000-2020. From this data panthers habitats were determined and overlap was analyzed.

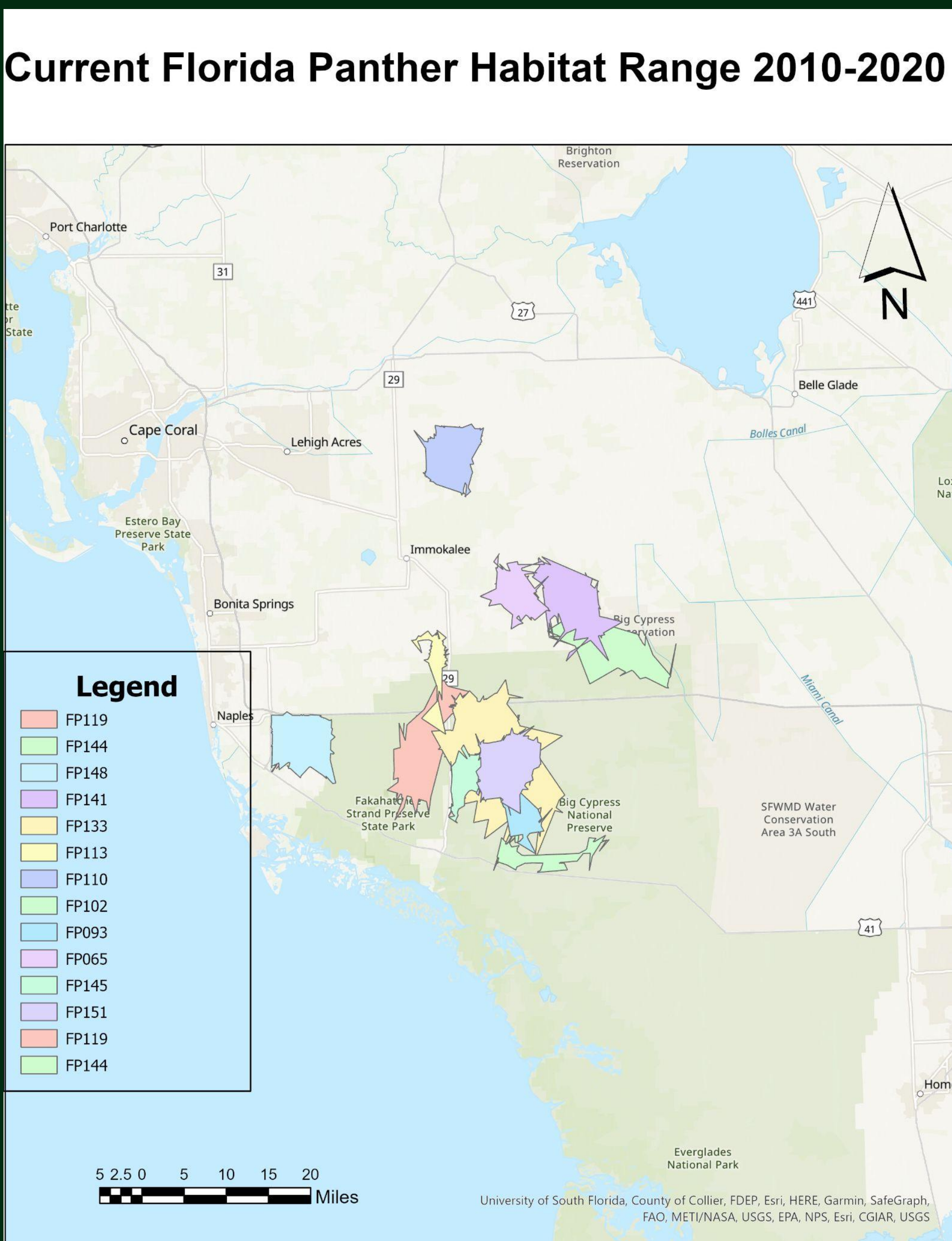
Results



The hotspot range in 1980-2000 has a total acreage of 1,269,142 while 2010-2020 the total acreage is only 809,721. 45,922 data points were used to make the 1980-2000 hotspot while approximately 23,059 data point were used to make the 2010-2020 results.



The current Florida panther habitat range depicts the overlap 12 Florida panthers experience. Out of the 12 Panthers selected, 10,704 data points were used to create the habitat range.



The only panthers who didn't experience overlap were A mistake is shown on the legend of the graph as FP119 and FP144 were shown twice, this does not disrupt any of the data presented. FP148 and FP110

Conclusion

The data provided shows the habitat loss experienced by the Florida panther. The hotspot maps created say 459,421 acres have become un-used by the Florida panther from 1980-2022. considering the Florida panther population in the early 1980s was only 30-50 adults while today they have a population of a little over 200, means this could become an issue. Male Florida panthers can have a habitat range of 200-250 square miles. These tight grouping and competition could lead to further endangerment and potential extinction of the Florida panther.