



CHALLENGES OF COMPETING INTERESTS, LOGISTICS, AND PAYOFFS IN TWO DIFFERENT RESTORATION PROJECTS IN SOUTHWEST FLORIDA

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ABSTRACT

Southwest Florida has been experiencing rapid population growth for several decades. Along with that development come intense habitat alterations including hydrological modifications and suppression of fire. I am working on two habitat restoration projects, with the help of Service-learning students from Florida Gulf Coast University (FGCU). Similar challenges exist with both projects, including: balancing competing interests, funding, need for education of humans, and logistics of working in a highly altered habitats surrounded by residences.



The mission of the San Carlos Park/Mulloch Creek Restoration Initiative is to restore, maintain and beautify the East Mulloch Drainage District (EMDD) in San Carlos Park.

The community, in the greater Everglades, was developed beginning in the 1960's during the ditch and drain mentality years. The restoration project began in 2007 with the creation of a "Florida Friendly" demonstration yard in a local community center. We also have a demonstration shoreline stabilization project underway, and have just installed another butterfly garden at another community park.

- 3,046 acres of land
- over 8,000 homes, most on ¼ acre lots and using septic tanks
- approximately 21 miles of canals, 20 retention ponds, and 9 drainage structures.
- proliferation of invasive exotic plants brought on by the hydrological alterations
- Cumulative impacts has led to eutrophication and sedimentation nearly a meter deep in some areas.

Challenges

Funding for drainage district

- Currently about \$7.00/home site (\$70K/year)
- estimated cost to maintain \$140K/yr after restoration (\$4M)
- Need act of state government to increase maintenance fee
- Elected officials unwilling to consider 'tax' increase



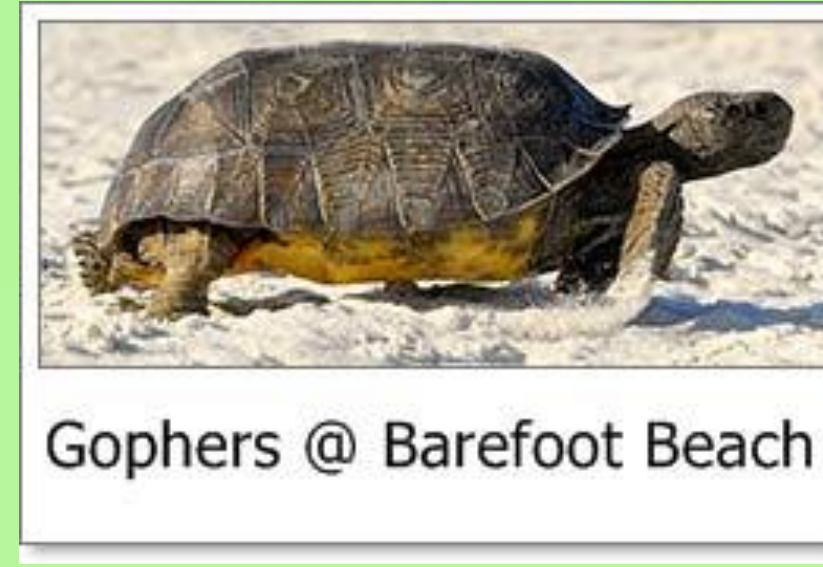
Logistics

- Access between and behind homes limited by fences, sheds, decks. makes big equipment and removal of exotics challenging

Education

- Cycle of spraying to kill vegetation, lawncare exacerbating eutrophication
- Lack of education on septic, invasive exotics, funding mechanism etc.
- Fear of stinging insects and wildlife

<https://blogs.fgcu.edu/mullochcreek/>



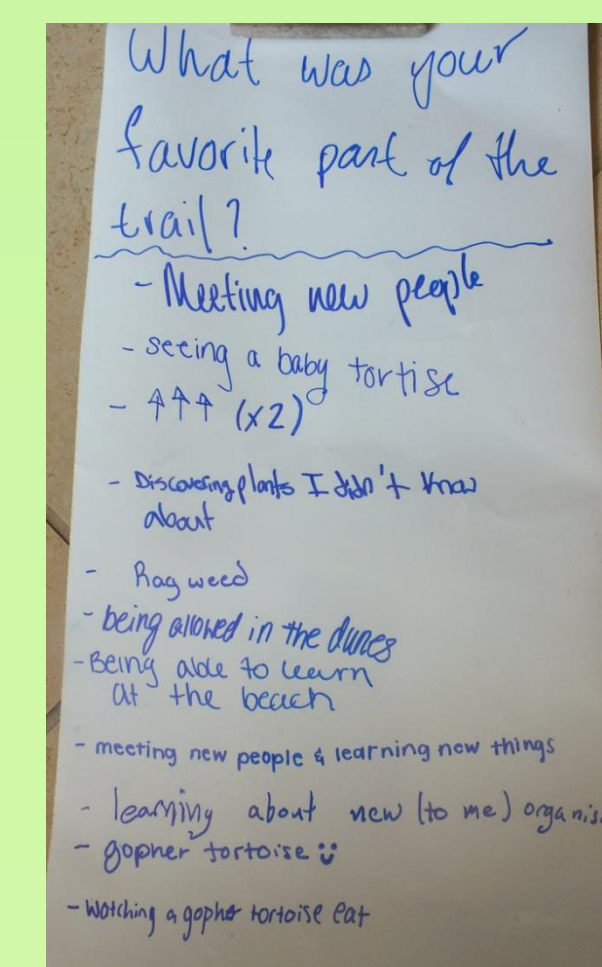
The mission of the Gophers@Barefoot project is to restore and enhance habitat for Gopher tortoises at Barefoot Beach Preserve



Barefoot Beach Preserve is a small coastal strand habitat is located just south of multi-million dollar homes on a barrier Island. We accomplish our mission by simulating fire, conducting research, and preparing educational material and resources for beach visitors to understand and value the role of fire, and Gopher tortoises, in supporting a healthy ecosystem.

Competing interests:

- Barefoot Beach Preserve is routinely on Dr. Beach's top 10 list.
- Visitors want access to beach, parking on gopher forage areas.
- Gate fee is \$8.00/car/day. Great income property for the county coffers
- Sea Grapes protect dunes. Leaves catch sand and wind during hurricanes.
- Sea grapes blanket landscape and prevent growth of herbaceous forage plants.
- Multimillion-dollar homes adjacent to preserve prevents ability to use controlled burns.



Dozens of University students from all majors have learned more about these challenges collectively donated hundreds of hours of service equivalent to over \$100,000 and climbing ever-increasing partnerships, sponsors and educated persons engaged in the successful habitat restoration project



Partners and sponsors:

