

# Mary Holland Park Fisheries Improvement Project

The Florida Fish and Wildlife Conservation Commission (FWC) strives to create equal opportunities for fishing and recreation throughout the state. In 2021, FWC's Division of Freshwater Fisheries Management (DFFM) began a new partnership with the City of Bartow to create greater urban fishing opportunities in Polk County, Florida. Mary Holland Park is a suburban recreation area located in Bartow, FL. The park boasts four small lakes, a large walking trail, children's playground, and several youth soccer fields. Affectionately termed "The Gem of Bartow" by residents of the small city, the park provides multiuse recreational opportunities in an urban setting.

The lakes of Mary Holland Park are reclaimed phosphate pits, with steeply sloping shorelines and depths upwards of 25 ft. The residual phosphate left behind after the mining process provides a natural fertilizer in the ecosystem. The fertilizing effect creates a more productive waterbody, often with higher-than-average growth rates for the resident fish. The unique nature of phosphate lakes creates excellent fishing opportunities, limited only by the access to deeper sections of the lake. Due to the steep slope of the bank, limited submersed and emergent vegetation is able to establish in these systems. The lack of nearshore plant communities makes bank angling extremely challenging. Fish in these systems tend to congregate offshore in deeper waters outside of shoreline casting distance. To create better fishing opportunities and increase angler fishing success, funds provided by the Fish America Foundation (\$9,100) were used for fish attractor installation along the shoreline of two lakes at Mary Holland Park. Additional match funding provided by FWC (\$1,355) purchased regulatory buoys to mark fish attractor sites for ease of identification by the public. The installation of fish attractors will help create nearshore habitat that can congregate fish, provide structure and shelter, and improve angler success.

## Methods

Fish attractor construction and deployment was conducted by five FWC DFFM staff on September 13<sup>th</sup>, 2022. Fish attractors were purchased through Mossback Fish habitat and are made of %100 recycled Pvc which over-time, degrades slower than natural brush habitat. A combination of Root Wad and Safe Haven fish attractors were purchased to cover a range of depths (Root Wad 3-5ft, Safe Haven >5ft). Fish attractors were divided evenly amongst two lakes, 44 attractors in each lake, for a total of 88 fish attractors. Sites selected for fish attractor deployment are shown in the attached Mary Holland Fish attractor map (MHP\_FishAttractorMap). Given the challenges of varying bathometric conditions within the two lakes, two fish attractor configuration types were used during deployment: alternating parallel lines and random cluster design. The goal of these configurations was to create optimal habitat, and opportunities for colonization of new habitat, post-deployment. We will periodically monitor fish establishment and use of artificial habitat at these sites using boat-mounted electrofishing assessments.

## **Central Florida Aquatic Clean-up Day**

In September 2022, FWC collaborated with the Florida Chapter of the American Fisheries Society for Central Florida Aquatic Clean-Up Day. This annual event encourages volunteers to team-up with local municipalities to clean-up central Florida's lakes, rivers, streams, and coastal areas. FWC hosted the event at Mary Holland Park on September 17<sup>th</sup>, 2022. This is the second annual aquatic clean-up event to take place at the park. Biologists were able to highlight several habitat enhancements projects that have taken place over the course of the year, including the most recent deployment of fish attractors at Mary Holland Park. FWC provided a booth with information on all fisheries enhancement projects at Mary Holland Park, using the event as an opportunity to talk to members of the community about our work. Local businesses including Mike Dluzniewski State Farm and D'Lite's Emporium sponsored the event. The City of Bartow department of Parks and Recreation, Florida Youth Conservation Centers Network, City of Bartow Rotary Club, Interact Club and the Bartow Bass Club all participated in the event in addition to local volunteers. Following the clean-up, participants received bobbers, courtesy of Mike Dluzniewski State farm, and fishing poles as a thank you for their dedicated time. Event closing remarks were used to encourage exploration of the parks new and improved fishing opportunities.



Picture 1. Biologist Paolo Pecora constructing and deploying Mossback fish attractors at Mary Holland Park.



Picture 2. Young local angler fishing a Mary Holland Park fish attractor site (white buoy).



Picture 3. Young local angler catches fish at Mary Holland Park fish attractor site.



Picture 4. Biologist Adrian Stanfill deploying a Mossback fish attractor at Mary Holland Park.



Picture 5. Group gathers at fish attractor booth during the Central Florida Aquatic Clean-up event at Mary Holland Park.



Picture 6. Volunteers at the Central Florida Aquatic Clean-up event at Mary Holland Park.



Picture 7. Biologists (left to right) Sara Menendez, Paolo Pecora, Adrian Stanfill and Davis Todd constructing and deploying Mossback fish attractors at Mary Holland Park.



Picture 8. Biologist Davis Todd constructing a Mossback fish attractor for deployment at Mary Holland Park.



Picture 9. Group gathers for the Central Florida Aquatic Clean-up event at Mary Holland Park.



Picture 10. Fish attractor buoys to be deployed at Mary Holland Park.