

**Florida Fish & Wildlife Conservation Commission (FWC)  
Division of Freshwater Fisheries Management (DFFM)  
Annual Progress Report to be viewed by our constituency  
(Fish Orlando section)  
July 1, 2020 – June 30, 2021**

**Fish Orlando Overview:**

Fish Orlando is a program that was developed in 1998 to “Bring Quality Fishing to Families”. Research has shown that families are usually the ones that recruit new fishers. Goals of the program are to provide and promote water bodies in the greater Orlando area that are managed for quality fishing and are “family friendly” i.e. have good bank access, safe locations, etc. Because Orlando is the number one tourist destination in the world, Fish Orlando also provides information on the program that can be easily accessed by those visiting from out of state. Some of the ways we do this is through our web page ([myfwc.com/fishorlando](http://myfwc.com/fishorlando)), app, and fishing maps. These maps can be requested via [fishorlando@myfwc.com](mailto:fishorlando@myfwc.com) or picked up in the kiosk at Bass Pro Shops Orlando located just minutes from Disney, Sea World, and Universal Studios. To date well over a quarter million maps have been distributed including to fishers visiting from over 40 different states and 13 countries.



This report is not necessarily designed to be read “cover to cover”. Rather, it is a reference tool for anglers. It is broken down by the following Fish Orlando categories:

## BIG WATER BODIES

- Butler Chain (pages 3-4)
- Conway Chain (pages 5-7)
- Johns Lake (pages 7-10)
- Winter Park Chain (pages 10-12)

## FAB FIVE

- Clear Lake (pages 13-14)
- Lake Ivanhoe (page 14-16)
- Starke Lake (pages 16-18)
- Turkey Lake (pages 18-20)
- Lake Underhill (page 21)

## FANTASTIC FISHING DAYS units

- Canoe Creek Pond (pages 22-23)
- Central Winds Park Pond (pages 23-24)
- Cornerstone Pond (pages 24-26)
- St. Cloud Barrow Pit (pages 27-28)
- Toho Marine Pond (page 28)

## OTHER WATER BODIES

- Lake Baldwin (page 29)
- Bithlo Park Pond (page 29)
- Blanchard Park (page 30)
- Lake Lawne (pages 30-31)
- Lake Lorna Doone (page 31)
- Shadow Bay Park (pages 31-32)
- Trotwood Park Pond (page 32)
- The Ranch at St. Cloud (pages 32-33)

URBAN PONDS: Barnett Park Frog Pond, Bear Creek Park, MLK Jr Park Pond, and Lake Santiago in Demetree Park (pages 33-35).

OTHER PROMOTIONAL ACTIVITIES (pages 35-36)

## FISH ORLANDO BIG WATER BODIES

**Overview:** These are the larger waters managed in the Fish Orlando program. They became actively involved in our work plans in 2006 and include the **Butler Chain** (Orange County), **Conway Chain** (Orange County), **Johns Lake** (Lake County), and the **Winter Park Chain** (city of Winter Park). The management goal of the BIG WATER BODIES is to **preserve, protect,** and in some cases, **enhance** the aquatic habitat. These do not have bank fishing access except for the docks associated with the boat ramps.

### Butler Chain of Lakes (4,720 acres)

#### **Background information:**

The Butler Chain is primarily a Largemouth Bass fishery. It also has the rare distinction of being an “**Outstanding Florida Waterbody**” which gives it extra protection when it comes to preserving its water quality and habitat. Located just minutes from Disney World, Universal Studios, and SeaWorld, it has 11 lakes in the chain: **Down** (872 acres), **Wauseon Bay** (138 acres), **Butler** (1,655), **Louisa** (145 acres), **Islesworth** (100 acres), **Tibet** (1,798 acres), **Blanche** (121 acres), **Chase** (135 acres), **Sheen** (565 acres), **Pocket** (125 acres) and **Fish** (30 acres).

The upper part of the Chain (Down – Islesworth) has deep (> 20 feet) clear water that you can often see a quarter in 10-12 feet of water. The lower part (Tibet – Fish) also has 20-foot holes but is more brownish in color from the tannin pigment caused from natural run off passing through stands of cypress and pine trees. Because the tannin color does not allow for light to grow microscopic plants and animals, the lower end does not have as many fish per acre.

In 2006-2008 the fisheries on the Butler Chain was studied intensely. Part of this was an angler survey done from Lake Down to Tibet from January – April in 2008. It showed that the chain was used extensively by guides and out of state visitors. The average Largemouth Bass catch rate was 0.58 bass per person per hour (**state average is around 0.30**). The bass anglers on the chain only harvested 4% of the legal largemouth bass caught (legal at that time was  $\geq 14$  inches). The bass fishers were evenly split when asked whether they would prefer to catch big bass or high numbers of bass, and 25% said they were pretournament or tournament fishing. Over 90% of all the anglers said they were “satisfied” or “very satisfied” with their fishing experience.

A Largemouth Bass electrofishing survey was done on the same lakes as the creel. An electrofishing survey uses a rig to stun fish temporarily with electricity, leaving the fish unharmed. It is primarily only effective in water less than 6 feet and usually does not work well when the water is clear because the fish can see you coming. Because of this, it is not surprising that we found the electrofishing results on the upper end of the Butler Chain to be relatively inaccurate in assessing the chain’s bass fishery.

Some bass were also sacrificed to check on their age and growth. Because Florida has no winter, the only way to check growth is to take out the fish’s otoliths, located behind the brain. The fish lay a ring down on the otoliths each year, similar to the trunk in a tree. The results showed a significant increase in largemouth growth when compared to data 20 years before. Historically it took 5-6 years to grow a 14 inch bass; in 2007 it took 3-4 years.

The increase in growth rates was most likely because in the past three decades houses were built around nearly the entire chain. This caused increases in fertilizer run off and production of plankton. Plankton is the base of the food chain, so more plankton means more

food and faster fish growth. The relatively more restrictive code requirements for a Florida Outstanding Waterbody allows for leaving cypress trees, aquatic vegetation, and protection of the watershed, but does not eliminate yard runoff after a rain.

Currently our primary goal on the Butler Chain is to make sure there are adequate amounts (30-70%) of submersed **native** aquatic plants, i.e. plants that do not grow above the water level. When these plants are present in healthy portions, the good bass fishing follows. Examples of these types of plants are eelgrass, peppergrass, coontail and carpet grass.

An annual vegetation survey is done (usually in the fall), to see if the native aquatic vegetation is meeting the fishery's needs. We also comment on the proposed annual plant treatments overseen by the FWC's Invasive Plant Section as well as work with them throughout the year if problems arise. In addition to the aquatic plant evaluation, the Fish Orlando staff contacts fishing guides and local anglers, as well as checks tournament results, to keep a current "pulse beat" on the bass fishing.

**Current information:**

Our annual vegetation survey was done in September 2020. The chain had adequate amounts of submersed native aquatic plants to produce high quality Largemouth Bass fishing. Submersed aquatic plants were found as deep as 8-15' depending on the lake in the chain. Peppergrass dominated with eelgrass as the secondary plant. For the second consecutive annual survey, visibility in the north end of the chain was around 10 feet which was better than the two surveys following hurricane Irma in September 2017.

Those guides that fished the chain had excellent action for bass in the 2-3lb range and consistently caught bass between 4 and 6 lbs. Seven TrophyCatch bass were accepted in the TrophyCatch program in FY 2020/2021 compared to only one in the last two fiscal years.



Butler Chain picture submitted by guide Christian "Goggles" Bellamo who in addition to being a past Fish Orlando volunteer, also enjoys taking families fishing.

## Conway Chain of Lakes (1,800 acres)

### **Background information:**

Like the Butler Chain, the Conway Chain is primarily a Largemouth Bass fishery. It is characterized by its deep (> 20 feet), clear water, where during winter months; you can sometimes see a quarter in 15 feet of water! It has an east and west north lobe, a middle lobe, and a southern lobe. Its “claim to fame” is the fishing action for schooling bass that chase Threadfin Shad on the surface of the water.

An angler survey was conducted in **2011**. The average Largemouth Bass catch rate was 0.88 bass per person per hour (**state average is around 0.30**) and bass anglers only kept 10% of the legal sized bass (during the survey the statewide regulation was a 14 inch minimum size). The fishers were evenly split when asked whether they would prefer to catch big bass or high numbers of bass. Although the lake is entirely rimmed with houses, 72% of those fishing the chain did not live on the lake. When asked to rank the chain where 1 was the worst and 5 the best, 77% of all the anglers ranked the chain as a 4 or 5.

Guides did use the chain, but it was limited to when extremely cold weather “balled” up the shad pods on the shallow submersed vegetation and they used cast nets to capture live threadfin shad. Circular live wells kept the shad alive and scoops of shad were used to “chum” bass to an anchored boat where a single shad was nose hooked and allowed to free line into the chum. Catches of over 100 bass in half day fishing were common.

A Largemouth Bass electrofishing survey was also done in 2011. Like the results on the Butler Chain, the clear water of the Conway Chain did not allow for accurate assessment of the bass population using electrofishing.

In February 2016, the FWC Invasive Plant Section stocked 2,500 Grass Carp to address complaints of excessive “peppergrass” (i.e. Illinois pondweed) around homeowner’s docks in the north lobes. Grass Carp are a sterile fish from Asia that will eat the exotic plant hydrilla before eating other native plants. The Conway Chain was the first water body in Florida to successfully use grass carp to control hydrilla and still maintain healthy amounts of native plants with a good bass fishery. Successful aquatic plant management using Grass Carp has been done on the Conway Chain for over 3 decades.

Despite the amazing bass fishing action on Conway, one of the complaints for over a decade has been the lack of bass  $\geq 20$  inches (this was confirmed in the 2011 creel). Historically back in the 1990’s, the schooling action was good but catches of these quality bass was more common.

One reason for the decline could be reduced number of nutrients going into the chain. There have been several projects on lakes that flow into the chain, where local government has worked with lakefront homeowners to reduce the amount of nutrients in their lake. A reduction in nutrients means less fish growth. Another reason could be that less people are harvesting bass. This would cause crowding and slower growth.

Presently, our goals and yearly activities on the Conway Chain are the same as the Butler Chain i.e., work with plant managers to provide good habitat and keep in touch with our stakeholders to assess the bass fishery. Additionally, however, we also work with the weekly Wednesday night tournament to encourage harvest of the smaller (< 14-inch) bass with the goal of improving the numbers of 4lb+ bass. This is possible, because the statewide Largemouth Bass regulation introduced in July 2016, allows for a daily bag limit of 5 bass < 16 inches. Since August 2017, tournament organizers modified their rules to encourage harvest of bass < 14

inches by changing the self-imposed tournament minimum size limit from 14 to 10 inches. Additionally, as part of their long-standing rules, they do not apply for an FWC exemption that allows them to bring in more than 1 bass per person  $\geq$  16 inches. The winning weights are based on the best 5 bass caught by the 2-person “team”, and the tournaments are usually held only during daylight savings time in March - October. To their credit they donate the smaller bass to a local charity that uses them for food.

### **Current information:**

All the lobes in the chain were surveyed for submersed vegetation in December 2020. Like the Butler Chain survey, the watercolor had improved slightly when compared to the years immediately following hurricane Irma in 2017. There were adequate amounts of submersed aquatic native vegetation in all areas of the chain out to 17 feet. Eelgrass and pondweed were the dominate plants. Large shad schools were seen on the sonar.

In fall 2020, catches of bass  $\geq$  20 inches caught on the Conway Chain appeared to take a step back with weekly Wednesday Night results returning to what they were before selective removal of the small bass. However, when tournaments resumed following the November 2020 – January 2021, break, catches of bass  $\geq$  20 inches resumed and average tournament weights went back to being 2-3 lbs higher than weights before selective removal. This indicates that the fall 2020 down-turn was most likely due to a short-term difficulty in being able to catch these “memorable” bass rather than a reduction in their numbers.



From July 2020 – November 2020 the Wednesday Night tournament removed approximately 1,260 bass (18 weeks x approx. 70 bass removed per tournament). From February 2021 – June 2021 they removed approximately 1,540 bass (22 x 70). The total number of small bass removed since August 2017 to date, is approximately 8,090. Since there is still room for improvement, the Fish Orlando project leader is encouraging these anglers to remove even more smaller bass. The idea of holding a couple of larger charity tournaments in addition to the weekly Wednesday night tournaments never materialized in FY 20/21, in part to COVID challenges. The large charity tournaments would be held using the same rules as the weekly tournaments.

It is important to realize that while the tournament may be helping “trim” some of the smaller bass allowing some individuals to grow bigger, the numbers removed are still a small percentage of the total stock of fish in this very productive bass fishery. Their removal has not impacted overall catch rates.



Dan Fay, Fish Orlando “Super-Volunteer” and Tick Tock phenomenon (Faymous\_Fisherman), has been an MVP in regard to getting the Wednesday Night Tournament to remove smaller bass on the Conway Chain. He is seen here with a tournament winning stringer that includes one of those big bass that the selective removal is trying to create.

## **Johns Lake (2,424 acres)**

### **Background information:**

The lake is primarily a bass fishery; however, unlike the Butler and Conway Chains, at times there are a decent number of fishermen that fish for the lake’s Black Crappie (speck), Bluegill, and Redear Sunfish (shellcracker). Most of Johns Lake also has deep holes (15–20 feet), but it is not nearly as clear as Butler and Conway. During clear water episodes you may be able to see a quarter as deep as 6 feet. The eastern end of the lake near the Florida Turnpike is much shallower than the rest of the lake (< 8 feet), and it sometimes has a darker tannin color from the water it receives from Black Lake.

Johns Lake is driven by naturally fluctuating water levels, which during low water periods, expose sections of lake bottom that in turn grow non-aquatic or terrestrial plants. When the lake levels come back up, these terrestrial plants help produce increased numbers of insects and small fish that graze on the algae that covers these plants. In 2001, during an extreme drought, the lake dried up enough to where you could drive a car off the boat ramp and across the lake bottom. In 2003, it refilled, and our region restocked the lake with 250,000 fingerling bass. Although only a small percentage of bass stocked ever survive beyond a year, what does survive is enough to become the brood stock to repopulate the lake.

Year classes were produced following this drought that resulted in peak quality bass fishing from approximately 2007–2012. Following 2012, most of the terrestrial vegetation that had grown on the lake bottom during the drought had decomposed.

Because rainfall patterns do not always provide enough water level fluctuations on Johns Lake to provide high quality fishing, in October 2014, we worked with the local FWC Invasive Plant Section biologist, duck biologist, and Lake County aquatic plant manager, to incorporate a hydrilla management plan. The plan involved leaving the hydrilla grow in sections of the lake

that did not have houses along the shoreline. It also involved stocking low numbers of grass carp to complement the small, but more frequent, herbicide treatments. This allowed the hydrilla to provide beneficial habitat for the fish without taking over the lake. The plan is still in place today.

In April 2017, Fish Orlando staff toured Johns Lake with an FWC Habitat and Species biologist to see if associated marshes around the turnpike could be enhanced to increase their fishery value. On May 2, 2018, sites in the northeast side of the lake were picked for a vegetation shredding project. At the end of May 2018, a company was hired to open areas that had previously been too dense for fish habitat. The contractor used “barge-like” boats driven by paddle wheels. Attached to the boats were large metal circular “cookie cutter” blades that chopped the vegetation into fine particles that could be quickly broken down by bacteria. A total of 36 acres (at a cost of \$38,365) were restored to good fisheries habitat, which combined with the 15 acres removed by hurricane Irma prior to the project, opened 51 acres in the northeast corner of the lake.

Johns Lake is part of the Long-Term Monitoring Study conducted by our FWC research division (Fish and Wildlife Research Institute). As part of the standardized format associated with the Study, we conduct angler surveys every three to five years. The survey in **2011** showed a world class bass fishery that had approximately 800 trophy bass (i.e.  $\geq 24$  inches) caught in a four-month period (January – April)!

During the same 2011 survey, only 4% of the legal sized bass were harvested by Largemouth Bass fishermen (legal sized bass were  $\geq 14$  inches at the time of the survey). Of those bass fishing, 41% were either tournament or pretournament fishing. Over 60% of the bass fishermen preferred to catch big bass instead of numbers of bass, which is not surprising considering the number of big bass being caught in 2011. What is surprising, however, is that despite world class bass fishing, almost no guides were using Johns Lake in 2011. All anglers were asked to rank the lake from 1–5, with 5 being the best; 82% ranked it a 4 or 5. Approximately 92% of the anglers fishing the lake did not live on it.

The survey in **2016** showed Largemouth Bass catch rates that were one bass per man hour i.e. the same as 2011 (**state average is around 0.30**). However, there was a significant reduction in quality bass (less than 100 trophy bass caught January – April). As mentioned above, this was most likely due to the breakdown and elimination of flooded terrestrial vegetation from the 2001 drought, and the natural deaths of the strong Largemouth bass year classes produced the years following the refill and restocking of the lake.

The survey in **2019** showed that the hydrilla management plan and habitat work had improved the bass quality. Approximately 400 trophy bass were caught between January – April! Unlike 2011, there were several guides taking advantage of the quality bass fishing.

Additional information obtained in the 2019 survey showed that 71% of the bass anglers were aware of the 2016 statewide bass regulation. Around 64% of the bass anglers were aware of the TrophyCatch program. The bass anglers still primarily practiced voluntary catch and release as only 7% of the  $< 16$ -inch bass caught were harvested; almost no bass were kept  $\geq 16$  inches.





Fish Orlando volunteer, Rick Spence with a trophy bass caught on Johns Lake in spring 2021.

In addition to angler surveys every 3-5 years, being part of the Long-Term Monitoring Study requires that we use an electrofishing rig to sample the bait and rough fish (Gar, Mudfish and Chain Pickerel) in the fall, and the Largemouth Bass in the spring. We started the fall electrofishing in 2013 and the spring electrofishing in 2011.

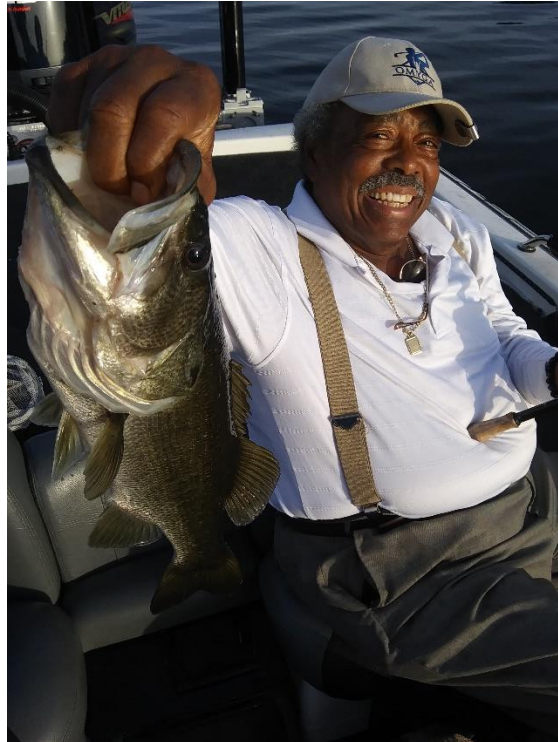
### **Current information:**



Fall 2020 electrofishing showed no major changes in baitfish or rough fish populations since 2013. However, the improvement in Largemouth Bass quality appears to be “holding serve” following implementation of hydrilla management in 2014, and habitat enhancement conducted in 2018. Based on electrofishing, from 2013 – 2017, 20-inch plus bass composed around 2% of the adult bass population. In the winter/spring 2021 largemouth bass electrofishing survey, a record 10% of the adult bass sampled were 20 inches or bigger! Overall numbers shocked was around the standard John’s Lake historic average of 60 bass per hour of electrofishing.

The same trends in improved Largemouth Bass quality were also noticed in last years and this year’s guide reports, angler reports, and Wednesday night weekly tournament results. However, only 3 TrophyCatch bass were approved in FY 20/21 compared to 20 in FY 19/20.

The FWC's Invasive Plant Section did a December 2020 hydrilla treatment that focused on areas in front of the houses and inside the grass lines. The results were outstanding, allowing good native plant coverage inside the emergent grass lines, and some deep water hydrilla in areas where there were fewer houses. The treatment also allowed abundant hydrilla in the eastern marsh area.



Johns Lake winter/spring 2021 largemouth bass electrofishing samples indicated 10% of the adult bass were 20 inches or more!  
Here is an example of one of those fish in a picture submitted by guide Tim Bagwell with "Get Hooked Bait & Tackle"

### **Winter Park Chain (969 acres)**

#### **Background information:**

The Winter Park Chain is also primarily a Largemouth Bass fishery. There are 6 lakes in the chain: **Virginia** (224 acres), **Mitzell** (60 acres), **Osceola** (136 acres), **Maitland** (451 acres), **Nina** (<10 acres) and **Minnehaha** (98 acres). It is characterized by deep (> 20 feet) holes and abundant submersed native aquatic vegetation. On Virginia and Mitzell the water is very clear, and you can see a quarter in 10 feet of water. The water color from Osceola to Minnehaha ranges from extremely green to slightly green depending on the weather and wind.

An angler survey was conducted in **2012**. The average Largemouth Bass catch rate was 1.7 bass per person per hour which was the highest ever recorded in central Florida (**state average is around 0.30**)! There were more bass  $\geq$  20 inches in the Winter Park Chain creel than in the 2011 Conway Chain creel, but less than the 2008 Butler Chain creel and the Johns Lake creels (2011, 2016, and 2019). Bass anglers harvested a "mere" 2% of the legal size bass caught, which at the time were bass  $\geq$  14 inches. It had no guide presence and very few out of state fishers. The fishers were evenly split when asked whether they would prefer to catch big bass or

high numbers of bass. While almost entirely rimmed with houses like Butler and Conway, 95% of those fishing the chain did not live on the lake. When asked to rank the chain where 1 was the worst and 5 the best, 76% of the anglers ranked the chain as a 4 or 5.

A Largemouth Bass electrofishing survey was done during the same year and time period as the angler survey. Because the water is not as clear as the Butler and Conway chains, the electrofishing did accurately depict the bass population with an average of 117 bass shocked per hour (60 per hour is decent on deep water lakes like the Winter Park Chain).

Both the creel and electrofishing data were summarized for the city of Winter Park lakes managers for use in their lakefront homeowner's newsletter. Despite very few homeowner's fishing the chain, they were interested in knowing about the fishing.

In response to fishermen complaints in late 2013/early 2014, spring 2015 electrofishing was conducted on Lake Virginia. Electrofishing catch rates in 2015 were 70 bass/hr versus 117 bass/hr in 2012. However, the disparity was primarily due to bass < 12 inches and catch rates were still good. Given the good habitat available in most lakes in the chain and the fact that fishermen complaints subsided in 2015, it is our conclusion that the 2012 surveys were on the high end of "normal" for this chain.

Our current goals and yearly activities are the same as the Butler and Conway Chains. In other words, coordinate with aquatic plant managers and keep a "pulse" on the bass fishery.

#### **Current information:**

The aquatic vegetation was surveyed in September 2020. Like the Butler and Conway Chains, clarity was a bit better than the years directly following hurricane Irma. Also, like Butler and Conway, there were adequate amounts of submersed aquatic native vegetation in all areas of the chain. Winter Park lakes management was moved from public works to parks and recreation in FY 20/21. The sign at the Dinky Dock boat ramp on Lake Virginia was then changed so boaters would have the correct site for obtaining a daily boaters pass ([https://cityofwinterpark.org/departments/parks and recreation/lakes/boating](https://cityofwinterpark.org/departments/parks%20and%20recreation/lakes/boating)).

Bass angler reports have been good, including for fish in the 4-5lb range. Schooling bass have also been a consistent occurrence allowing for even fly fishers to take advantage of the abundant bass in the chain.



Fish Orlando “super volunteer” Chris Caldwell with one of his three identical triplet brothers (Jeff) enjoying the good bass fishing action on the Winter Park Chain.

## FISH ORLANDO FAB FIVE

### Overview:

The FAB FIVE are 5 water bodies managed for a unique and/or quality fishing experience. They are **Clear Lake** (city of Orlando), **Lake Ivanhoe** (city of Orlando), **Starke Lake** (city of Ocoee), **Turkey Lake** (city of Orlando), and **Lake Underhill** (city of Orlando). They were picked in 1999 based on potential and support from city and county partners. In April 2006, Lake Ivanhoe replaced Kirkman Pond as a FAB FIVE. In May 2007, Lake Underhill replaced Shadow Bay Park as a FAB FIVE. Both Kirkman Pond and Shadow Bay Park were dropped due to increases in vandalism and poaching in the Metro West area. While each water body has its own unique management plan, cast nets are not allowed on any of the FAB FIVE in order to protect the vegetation and to make it easier for our FWC wildlife officers to keep people from illegally netting sport fish.

## **Clear Lake (319 acres)**

### **Background information:**

Clear Lake is managed for neighborhood residents as a quality put-grow-take Hybrid Striped Bass fishery from November – March, and a quality Channel Catfish fishery from April – October. Since its inception as a FAB FIVE, two fishing piers (making a total of 3) and 2 kiosks have been built.

The Hybrid Striped Bass is created in our hatcheries. It is a cross between a White Bass and a Striped Bass; it is sterile. In Clear Lake, and many other Florida lakes, the fishery is composed of age 1 and 2 fish. Hybrids 3 years or older require cold water (low 70's) to make it through the summer.

The Clear Lake management goal is to maintain Hybrid Striped Bass catch rates in experimental gill nets at or above 0.25 fish/net hour, with average size age 2 fish being 12-14 inches. Based on our angler survey in winter 2004, this gill net catch rate is equivalent to fishing action that is slightly less than one Hybrid Striped Bass caught per angler per hour.

This goal is accomplished by stocking approximately 15,000 phase 1 (less than an inch) Hybrid Striped Bass each March/April, and working with the city of Orlando and the FWC Invasive Plant Section to keep hydrilla levels at less than 10% so plankton and Threadfin Shad are abundant for the hybrids. When we were developing the stocking science necessary to achieve our goals, we would do the hybrid striped bass surveys every winter. Now they are done every four years. The Hybrid Striped Bass survey in winter 2018 indicated we exceeded all our management goals. The next survey is scheduled for winter 2022.

At the request of Fish Orlando staff, Richloam Hatchery stocked 15,650 phase II (approx. 8 inch) Channel Catfish in October 2018. This brings the total stocked since 2016 to over 30,000 Channel Catfish. Fish Orlando's management strategy is to stock approximately 30,000 phase II Channel Catfish every 4-5 years. This relatively low stocking density spaced several years apart creates fairly abundant Channel Catfish in the 2–10lb range. The Channel Catfish require cavities to spawn, and because there is almost no Channel Catfish spawning habitat in Clear Lake, the number we stock is what will be out there minus stocking mortality and angler harvest.

### **Current information:**

A vegetation survey was done in September 2020. No hydrilla was sampled in any of the transects and there was a good algae bloom in the deep water, which should have created good conditions for Threadfin Shad, the primary food for the Hybrid Striped Bass. However, the FWC Invasive Plant Survey in June 2021 noticed some hydrilla in their transects for the first time in several years. Depending on the results of the September 2021 vegetation survey, another hydrilla treatment/grass carp stocking may be necessary in 2021/2022.

At the request of Fish Orlando staff, Richloam hatchery stocked 16,000 phase 1 Hybrid Strippers in April 2021. These should be big enough to catch by fall 2020/winter 2022. There were no angler reports on the winter 2021 hybrid fishery and in January/February 2022, a hook and line sample will be conducted to see if management objectives are being met (i.e., 1 hybrid striped bass per person per hour; 2 year old fish averaging over 12 inches).

The summertime Channel Catfish fishery should be peaking. It will be interesting to see if any are caught as by-catch in the winter 2022 hybrid survey. When the channel catfish fishery is strong, they usually are caught with some regularity while fishing for hybrid stripers.

The Fish Orlando kiosks at George Barker Park and Clear Lake Park were refurbished in 2021. This included such action items as replacing kiosk glass, wood, and materials, as well as painting where needed. In addition to refurbishing the kiosks, the Fish Orlando team updated the Clear Lake topographical map available via email request ([fishorlando@myfwc.com](mailto:fishorlando@myfwc.com)).

### **Lake Ivanhoe (125 acres)**

#### **Background information:**

The goal of Lake Ivanhoe is to manage it as a quality Largemouth Bass fishery for greater Orlando residents. It has three lobes separated by two bridges with an information kiosk at the boat ramp, and an aeration system (to keep high oxygen levels) in the most western of the 3 lobes.

We like to see electrofishing catch rates of 60 largemouths per hour with at least 30% of the adult bass 14 inches or greater. This is very “doable” when we partner with the city of Orlando and the FWC Invasive Plant Section to maintain submersed native vegetation levels at 30% – 70%. Small stockings of Grass Carp along with small hydrilla treatments using herbicide has allowed us to be successful in keeping “lush” submersed aquatic native vegetation and strong bass populations.

We do a winter/spring Largemouth Bass electrofishing sample every two years to see if Fish Orlando management objectives are being met, and so the FWC’s Fish & Wildlife Research Institute have the data they need to evaluate the 2016 statewide bass regulations. We also do a vegetation survey every year.

Electrofishing objectives have been met every sample since the lake became a FAB FIVE in 2007. In fact, the winter 2019 electrofishing survey showed 7 bass per hour were sampled that were 20 inches or more. This was the highest value recorded in the history of electrofishing the lake.

After becoming a FAB FIVE it took some time to “dial in” the right ratio of grass carp and herbicide treatments. However, we have met management objectives for aquatic plant coverage since 2014.

#### **Current information:**

The January 2021 largemouth bass electrofishing survey showed an extraordinarily strong bass population with 127 bass shocked per hour and 6% of the adult population greater than or equal to 20 inches. A hook and line survey in June 2021 confirmed the high quality bass population, although many of the schooling bass observed were difficult to catch.



The January 2021 largemouth bass electrofishing survey showed an extraordinarily strong bass population with 127 bass shocked per hour and 6% of the adult population greater than or equal to 20 inches.

The vegetation observations during the electrofishing survey indicated continued good submersed aquatic plant habitat with little to no hydrilla. Unfortunately, by the time of the June hook and line survey, hydrilla had expanded under the I-4 bridge area in the middle lobe and replaced the coontail in the 3<sup>rd</sup> lobe located in the most western portion of the lake.

During January 2021, the watercolor was tinged green in the eastern lobe and extremely poor in the middle lobe's SE corner near the I-4 expansion project work area despite intact turbidity barriers. However, the western portion of the middle lobe and the 3<sup>rd</sup> lobe in far west

area of the lake were clear enough for night fishing. By the time of the hook and line survey in June, all 3 lobes were green, although the SE corner of the middle lobe had improved slightly.

The I-4 expansion project is wrapping up around the lake, but Fish Orlando biologists are concerned with water quality trends. If they continue to go in a negative direction, the peaking bass fishery could crash quickly. In February 2021, Orlando Streets & Storm Water was approached by Fish Orlando regarding doing an Alum treatment to alleviate the nutrient lode. In response they planned one for summer 2021. Fish Orlando will need to follow up on its implementation and results. Until the water color and I-4 expansion work stabilizes, there is no point in addressing the hydrilla expansion.

The Fish Orlando kiosk at the Gaston-Edwards boat ramp was refurbished. This included replacing the glass, redoing the wooden backs, giving it a fresh coat of paint, and installing new informative promotional materials.

### **Starke Lake (225 acres)**

#### **Background information:**

Starke is managed as a quality Largemouth Bass fishery for greater Orlando residents. Located right next to Ocoee's city hall, it is the "pride and joy" of the city. Management actions that the Fish Orlando team has accomplished since Starke became a FAB FIVE include: (1) building a fishing pier (2) enhancing the shoreline on Lakeshore Drive by removing nuisance vegetation and replanting with beneficial native vegetation (3) constructing "fishing lanes" along this enhanced shoreline (4) deploying 3 fish attractors marked with "Fish Attractor" buoys (5) establishing lake chubsuckers as a baitfish to grow bigger bass and (6) building two informational kiosks located at the boat ramp and pier.

The management goals are (1) to be able to shock 100 bass per hour with 20% of the adult bass 14 inches or bigger and (2) maintain nuisance and exotic vegetation in the enhanced shoreline on Lakeshore Drive below 10% coverage, and keep the area around the pier and fishing lanes open. The project does a Largemouth Bass electrofishing sample every winter/spring as well as works with the city of Ocoee and the FWC Invasive Plant Section to accomplish vegetation goals. Additionally, we provide feed for the volunteer that hand feeds from the pier and do a monthly check of the fish attractor buoys and kiosks.

From the time Starke was made a FAB FIVE until 2012, fisheries management goals were achieved. However, in winter 2012 an experimental herbicide was used in a hydrilla treatment that "wiped out" all the submersed aquatic vegetation. The lake turned greenish brown, and even though the submersed vegetation has since recovered, there have been problems with undesirable blue green algae. The city of Ocoee has done two studies to determine the extent of the blue green algae problem and paid a contractor who found that the problem is coming from the prima vista lobe in the southwest portion of the lake. Currently, they are evaluating action steps to rectify the problem.

Lastly, Starke Lake is the only known water body in Florida that has a large population of Koi Carp. First discovered while electrofishing in 2008, their numbers swelled in 2017 to the point that pier anglers targeted them using feed flies. A total of 42 Koi were removed via electrofishing (39) and cast netting (3) through March 2019. Anglers have removed another 40.



### **Current information:**

For the ninth consecutive year, we did not meet our management goal in our winter/spring Largemouth Bass electrofishing survey. Although we did not reach our target value of 100 bass per hour, for the fifth straight year we shocked a respectable approx. 80 bass per hour and achieved our quality goal of having 20% of the adult fish be  $\geq 14$  inches.

Fish Orlando continued to provide fish feed for volunteer, Wayne Hook, who feeds the fish at the pier in the morning and evening. He reports that fishing has improved some with decent catches of bass and catfish at times. A diver was hired in August 2020 to remove some old rock attractor frame that got re-exposed due to wind/wave action.

In a November 2020 meeting with Ocoee Public Works, the Fish Orlando project leader was told the city of Ocoee was planning for 9 million dollars in water quality improvements over the next couple years. Ocoee Public Works then did an outstanding job clearing the fishing lanes and the vegetation around the pier in December 2020.

In November 2020, the Fish Orlando project leader and his family refurbished the 3 fish attractors. COVID restrictions at the time did not allow the FWC to use volunteers. Each attractor received 25 Mossback fishing trees for a total cost of approximately \$8,000. These artificial trees have been scientifically proven to catch fish at the same rate as natural brush. The fish attractor buoy along Lakeshore Drive was replaced just prior to the refurbishment.

Until the water quality improvements result in a return to meeting the management objectives for largemouth bass, Fish Orlando is stocking hybrid striped bass which will feed on the abundant threadfin shad. In April 2021, Richloom Hatchery stocked 10,000 Hybrid Striped Bass into Starke Lake. They should be catchable by November 2021.

In January 2021, we removed 1 Koi while electrofishing for largemouth bass. This brings the total removed by the FWC and anglers to 86. Numbers of Koi Carp have dwindled to the point where Wayne says he rarely sees Koi eating the feed around the pier.





Volunteer Wayne Hook routinely baits the Starke fishing pier to make the action better for anglers.

The two Fish Orlando kiosks were refurbished in 2021. Both received a fresh coat of paint, had the glass and wood replaced, and got new kiosk promotional literature.

Due to COVID, in October 2020, the Ocoee Founder's Day 20<sup>th</sup> Annual FAB FIVE Family Fishing Event was cancelled. The 21<sup>st</sup> annual event is also cancelled for 2021 but will be rescheduled for March/April 2022. Founder's Day is changing its name to the Ocoee Music Festival, and the city of Ocoee plans to permanently change the event to the spring.

### **Turkey Lake (339 acres)**

#### **Background information:**

Turkey Lake is located just minutes from the Orlando attractions near International Drive. Public access is possible through the city of Orlando's Bill Frederick Park. It is managed as a quality Largemouth Bass and Black Crappie (speck) fishery for both Florida residents and visitors from out of state.

When the park was built there was a deed restriction that did not allow for a public boat ramp, therefore, a partnership between the city of Orlando, Bass Pro Shops Orlando, and FWC was established to provide a boat loaner program. Four aluminum Bass Pro Shops Grizzly Jon boats are rented (407-246-4486) through the city of Orlando for four hours, Thursday-Sunday. While bank fishing has unlimited hours, boat fishing hours are restricted to limit effort and maintain a quality fishery. The quality is also maintained by a Largemouth Bass catch and release regulation, a prohibition of gas motors, and our city of Orlando partner spending thousands of dollars to maintain good fisheries vegetation.

In addition to the above-mentioned work, since Turkey Lake became a FAB FIVE, the Fish Orlando team has built 3 fishing piers (4 total), installed 3 fish attractors marked with fish attractor buoys, conducted two habitat enhancement projects that removed nuisance native vegetation and replanted beneficial plants, and installed four informative kiosks.

Considered the “crown jewel” of the Fish Orlando program, the work on Turkey Lake has not gone unnoticed. It has been featured in numerous magazines such as Bassmaster and Florida Sportsman, as well TV shows on TNN and ESPN. Families from over 40 states and 13 countries have taken advantage of the boat loaner program.

The management goals of the lake are to have bass fishers using the boat loaner program average a largemouth catch rate of 0.5 bass per hour and crappie fishers average a Black Crappie catch rate of 0.5 crappie per hour. We also would like the average crappie caught to be  $\geq 10$  inches. We are able to check and see if we are meeting our goals by having patron from each boat fill out a survey form where they record the length of every fish caught in the boat. We also do a monthly check of the vegetation, fish attractors, and kiosks to make sure they are “up to par”.

**Current information:**

As seen from the table below, families continued to enjoy the fishing at Turkey Lake from Tracker Grizzlies donated by Bass Pro Shops Orlando. Thanks to city of Orlando Parks & Recreation, new batteries were purchased for the boats in FY 20/21. The Fish Orlando technician and boat loaner concessionaires did a good job painting the motor cowlings and touching up the boats themselves. Fish Orlando plans to purchase new trolling motors and batteries in FY 21/22.

<i>Turkey Lake stat</i>	<i>This year's value</i>	<i>Total or Avg since 2001</i>
No. that used boats	838	16,425
% that were families	37%	31%

Management objectives were exceeded for Largemouth Bass (0.78 bass per man-hr) and Black Crappie (0.76 crappie per man-hr; 92%  $\geq 10$  inches). Despite COVID19, the boats were available to the public for the entire fiscal year (July 1, 2020 – June 30, 2021). Bass anglers were the majority of the fishing effort (2,619 hours), but Crappie anglers bounced back from a

record low of 40 hours in FY 19/20 to 272 hours of effort in FY 20/21, the highest since FY 14/15.



Trophy bass ( $\geq 24$  inches) were well represented in the creel. In FY 20/21, 16 were caught by anglers using the boat loaner program, second only to FY 2017/2018 where 23 were caught. One of the bass reported was most likely a 13lb plus bass based on the picture. However, no official weight was taken due to a temporary malfunction of the TrophyCatch scale in the angler's boat.

The crappie anglers caught 20 fish that were  $\geq 14$  inches. This is the most since FY 08/09 when 38 were caught.

Two of the three fish attractor buoys were replaced in summer 2020, and the 3 Fish Orlando kiosks were refurbished in 2021. A June 2021 survey of the 3 fish attractors showed that each buoy was still accurately marking the 25 Mossback fish attractor trees installed April 2020. During the same survey, a hook and line sample was also done by Fish Orlando biologists. A total of 34 bass were caught in a 5 hour trip with 33 of them  $\geq 14$  inches and one being 24 inches. Anglers using the Turkey Lake boat loaner program are encouraged to fish these 3 attractors, particularly in the warmer months (May – September). The Turkey Lake topographical map listing the fish attractor sites was also updated this fiscal year. They are available to all that use the Tracker boats.

## Lake Underhill (147 acres)

### **Background information:**

This circular “bass factory” is divided down the middle by the 408 Toll Road, and bordered to its north, by the Orlando Executive Airport. It is managed as a high quality Largemouth Bass fishery for greater Orlando residents. Success is achieved two ways: (1) a Largemouth Bass catch and release regulation, and (2) a hydrilla management program that allows for deep water hydrilla (12-17’) and shallow (< 8’) native submersed plants. We partner with the city of Orlando and the FWC Invasive Plant section to use grass carp and small herbicide treatments to achieve the balance. A kiosk at the boat ramp informs anglers of the largemouth bass catch and release regulation as well as other Fish Orlando information.

The management goal is to shock 60 bass per hour with 40% of the adult bass 14 inches or greater. While a goal with this high a quality may seem ambitious, thanks to good teamwork with the FWC Invasive Plant Section and the city of Orlando; this goal is very realistic. Angler reports are usually positive, and to put it in perspective, when B.A.S.S. had its headquarters in Celebration Florida, they would take their VIP’s to Underhill to show them good Florida bass fishing.

While we do our Largemouth Bass electrofishing survey every four years, we annually survey the vegetation and work closely with our two partners mentioned above, to plan treatments and Grass Carp stockings. Additionally, we contact anglers that routinely fish the lake to get the latest feedback on the bass fishery.

### **Current information:**

Vegetation was surveyed twice (August 2020; June 2021). Following the first survey, 100 grass carp were stocked in November 2020, and in December 2020 the FWC Invasive Plant Section treated approximately 30 acres of hydrilla that included both the north and south lobes. Hydrilla in the second survey showed moderate control by the carp but the vegetation edges were still too deep (17 – 18 feet) for optimal production. Treatments will be discussed at the end of summer 2021.

Underhill bass fishing pressure that was so high during the peak of COVID, slowed down in 2021. Good catches were reported in the fiscal year but a reduction in bass caught over 20 inches was noted by some anglers.



In November 2020, Richloam Fish Hatchery stocked 100 grass carp into Lake Underhill. By stocking low numbers of carp and doing frequent small herbicide treatments, the hydrilla remains at the right levels for good bass fishing.

## FISH ORLANDO FANTASTIC FISHING DAYS

### **Overview:**

FANTASTIC FISHING day units are smaller water bodies that are managed intensively but are only open to the public on a limited basis to keep the fishing pressure light and the fishing “FANTASTIC”. The units are an attempt to embrace the R-3 initiative by the American Sportfishing Association to recruit, retain, and reactivate anglers. The initial goal of this R-3 initiative was to increase fishing participation from 46 million anglers in 2017 to 60 million by 2021 (60 in 60). Target catch rates for FANTASTIC FISHING DAYS events are 2 fish per child as opposed to the URBAN PONDS where the target catch rate is 1 fish per child. For waters to be in the program there must be a way to control access via a fence, security, etc. In addition to controlling access, the partners buy Channel Catfish, hire vegetation contractors, and purchase fish feed. We give them advice on stocking and feeding rates and techniques, help stock the fish they purchase, provide expertise on vegetation management, and in some cases, do limited fisheries management actions with our staff (fish removal, wild fish stocking, electrofishing evaluation, etc.). In general, we recommend they establish fish feeding 3 times per week from 3 designated locations around the pond. We also try to attend one of the events when they open the fishery to the public.

### **Canoe Creek Pond (< 1 acre)**

#### **Background information:**

Canoe Creek Pond was stocked with 100 Channel Catfish in October 2012 and May 2017. It had to be stocked again in May 2018 with an additional 125 Channel Catfish because of poor survival of the May 2017 stocking.

A fish feeding program (50lb bag a month) was established in May 2018. In 2018 Canoe Creek Christian Church improved the access around the pond with a controlled burn and a bush hog, but the work was not maintained.

Events were held for the public in October 2012 and March 2018. Target catch rates were achieved in 2012. The 2018 event did not meet management objectives due to poor survival of the May 2017 stocking. An Easter fest event was held in April 2019 that reached 500 people. Target catch rates were achieved by the 50 plus families that fished the pond. Osceola Teen Anglers assisted the families.

In March 2020, the Fish Orlando project leader met with the leader in charge of the pond to further describe management objectives of a FANTASTIC FISHING DAY unit and come up with plans to treat and maintain the vegetation around the pond as well as tighten up fish feeding and limiting the frequency of fishing on the pond by the 2 home-school groups at the church property and pond.

#### **Current information:**

In November 2020, a volunteer treated the torpedo grass with glyphosate. In December 2020, the Fish Orlando project leader met with the maintenance supervisor and described what was necessary to remove and then control the torpedo grass in the pond. Fish feeding rates and

FANTASTIC FISHING DAY guidelines were also discussed. This information was followed with an email.

A few days after the early December 2020 meeting, the pond's torpedo grass was treated a second time with glyphosate by the maintenance supervisor. From January – May 2021, the Fish Orlando project leader, maintenance supervisor, and volunteers, spent a total of 40+ hours reciprocating and hand-pulling the “mostly” dead torpedo grass around the pond.

In May 2021, the Fish Orlando project leader reminded the maintenance supervisor that the exposed torpedo grass on the shoreline had to be regularly “browned” with glyphosate or it would come back when the water levels in the pond came up. The exposed torpedo grass was not treated, and it started to regrow when the rains brought the pond level up in June 2021.

Another meeting was conducted with the leader in charge of the pond, and a contract was written up with Aquatic Weed Control, Inc to treat the torpedo grass monthly. Plans were also made to hold an informative meeting in late summer/early fall, with the home schools that use the pond re: Canoe Creek Pond fishing techniques and frequency. The concept of volunteers being used to feed the fish, like the Cornerstone unit, were also discussed.

Unfortunately, the 2021 Easter fest event had to be cancelled due to COVID19. Plans are in the work to restock the pond with 100 channel catfish from Georgia Select in April 2022 before the next Easter fest event.

### **Central Winds Park Pond (Approximately 1 acre)**

#### **Background information:**

Central Winds Park Pond became part of the program in May 2017. The city of Winter Springs created good bank access, wired electricity, installed a fountain, and created a concrete stage next to the pond. The pond was stocked with 500 Channel Catfish in May 2017 from Georgia Select that were purchased by Winter Springs. An FWC alligator trapper was called in several times by the city of Winter Springs to remove alligators that were eating the catfish.

The first FANTASTIC FISHING DAY event (April 2018) at the park was a resounding success. In addition to city of Winter Springs and Fish Orlando staff, the Orange County Teen Sport Fishing Association helped approximately 30 children, accompanied by their parents; catch over 150 fish during the event! A fishing camp was held on two Saturdays following the event and was staffed exclusively by city of Winter Springs employees. The camp had equally good fishing action, and like the event, the parents/mentors were required to attend with the children.

The second annual “Fish Winter Springs” family fishing event was held in April 2019 followed by a Friday night/Saturday morning fishing camp in May 2019. The catch rates were like the first event and camp. Orange County Teen Sport Fishing Association stepped up again to help the families at the event. In addition to the Channel Catfish action, a significant number of Tilapia was caught at both the event and camp. Tilapia eat the algae on the stems of plants, but in the presence of fish feed, which has plant material, they will eat the fish feed and then be “fooled” by pieces of worm that look like the feed.

#### **Current information:**

The long-standing Parks & Recreation Director with Winter Springs retired in March 2020. A meeting was held with the new director, but since he was the person the old director

had put in charge of the FANTASTIC FISHING DAYS unit, there was little to go over other than to reiterate that Fish Orlando would fully support the new leadership.

Due to COVID19, the official 3<sup>rd</sup> annual Fish Winter Springs event and fishing camp scheduled to be held in April/May 2020, had to be cancelled. However, Winter Springs did hold four other smaller family fishing events on the pond from June – September 2020 that practiced social distancing and had fewer participants (20). All the families experienced fishing that met management objectives. Two city of Winter Springs Commissioners attended the event. The Fish Orlando project leader was given permission by Tallahassee FWC leaders to help with the September 2020 event.

In October 2020, the Fish Orlando project leader worked with the new Parks & Recreation Director and his staff, to remove a total of 35 channel catfish between 3 and 9lbs. This was to make room for the October 17, 2020, re-stocking of the pond with 500 channel catfish (2 per pound) purchased by Winter Springs from Georgia Select Fisheries.

The 4<sup>th</sup> annual Fish Winter Springs event was held on April 24, 2021, using pre-registration to make sure the event had lower numbers (50 people: 20 kids). Winter Springs held another event on May 8, 2021, which Fish Orlando could not attend due to a scheduling conflict with the Cornerstone Fish-a-thon. However, Fish Orlando loaned fishing outfits for the May 8<sup>th</sup> event. Due to COVID concerns, no fishing camp was scheduled following the events. However, some fishing instruction occurred during both events, and participants were given a free rod/reel and tackle from the Fish Florida Grant. Catch rates met management objectives during both events.



The new Parks & Recreation Director resigned in May 2021, and a meeting was held with his replacement to discuss the importance of fish feeding, limiting unauthorized fishing, and removing predators that get into the pond. Given the popularity of the pond, this Parks & Recreation Director was tentatively planning for a couple fall family fishing events. The Fish Orlando project leader suggested Winter Springs partner with the nearby, recently developed, Orlando Fishing Academy for the camp and instructional portions of their program.

### **Cornerstone Pond (2 acres)**

#### **Background information:**

Cornerstone Pond remains the flag ship for the FANTASTIC FISHING DAYS concept. Prior to the pond being built, Fish Orlando staff worked with contractors to “sculpt” points and drop-offs in the pond.

In 2010, the men’s ministry at the church removed exotic torpedo grass from one shoreline. Following the vegetation removal, in July 2010, they conducted the first annual Cornerstone Fish-A-Thon using the existing Largemouth Bass/Bluegill population.



In 2012, at the advice of Fish Orlando staff, they had a contractor treat the remaining shoreline with 3 treatments of rodeo around Thanksgiving. Once the torpedo grass died, a volunteer from the church removed the rest of the torpedo grass with a Bobcat. An aquatic plant contractor was hired to keep the torpedo grass out but did a poor job. Several work days were required to pull out torpedo grass manually because the contractor was ineffective. After two years of giving the contractor a chance, Cornerstone hired Aquatic Weed Control, Inc. The pond has had 100% bank access with no aquatic vegetation problems since 2014.

In March 2013, cormorants discovered the pond just prior to the 4<sup>th</sup> Annual Fish-A-Thon, where they ate the majority of the Bluegill as documented by an electrofishing survey. In response, Cornerstone purchased 500 Channel Catfish (approx 1-2 lbs each) from Florida Fish Farms in April 2013.

In May 2013, Cornerstone worked with Fish Florida to start a fishing camp that spanned the next 3 Saturdays after the event. Parents or mentors were required to attend the camp with the children. Participants were taught how to tie knots, cast, identify fish, etc. Each day before the camp they were allowed to fish the pond. The camp has been conducted each year since 2013, except for 2020 and 2021 which were cancelled due to COVID19.

In summer 2013, Fish Orlando staff stocked 150 ( $\geq$  8 inches) Bluegill from an area lake and used an electrofishing rig to obtain 500 Bluegill ( $<$  3 inches) as forage for the Bass in response to the cormorant devastation. A 50 lb per week feed program was instituted, and by the April 2014 event, the pond had abundant big Bluegill to go along with the catfish. In over 20 years of doing small pond management, the Fish Orlando project leader had never seen such a quick response to a management action. Local residents walking their big dogs around the pond has kept cormorants from becoming a problem to date. The feeding program of 50 lbs of feed per week has continued since 2013.

In December 2016 through March 2017, volunteers used hook and line to remove 225 catfish because they were getting too big (3-9lbs) for youth events (broken lines, poles pulled in, etc.). The pond was restocked in May 2017 with 500 (10 inch – 12 inch) Channel Catfish Cornerstone purchased from Georgia Select.

In January 2020, Fish Orlando staff and church volunteers removed a large brush pile that was left over from when the pond was originally going to be a trophy largemouth bass pond. The brush pile had been a constant source of “hang-ups” for those families fishing the pond in that area. Unfortunately for the first time since it’s inception in 2010, the 11<sup>th</sup> annual Fish-a-thon in May 2020 was cancelled due to COVID19.

Although the 11<sup>th</sup> annual Fish-a-thon was cancelled in 2020, the Fish Orlando project leader was able to help facilitate a “Dad for a Day” event. One of Fish Orlando’s “super volunteers” (Dan Fay i.e., Faymous\_Fisherman) posted an emotional video that involved a young boy asking him to take him fishing. The video received over 7 million views which resulted in Dan being asked by “thousands” of kids to take them fishing. As a response, Dan arranged for 20 kids and several volunteers, to go fishing on Cornerstone Pond in June 2020. All experienced FANTASTIC FISHING that is so typical of Cornerstone Pond.

In addition to conducting an annual Fish-A-Thon and fishing camp, Cornerstone has allowed fishing on their pond to Scout groups, Home School kids and their parents, as well as the Osceola County High School Fishing Program.

All events, camps, and other user groups have achieved target fish catch rates through 2020. The one exception was the May 2019 Fish-a-thon, where post-front conditions created tough fishing.

**Current information:**

From November 2019 – April 2021, Fish Orlando staff and volunteers used hook and line to remove approximately 170 Channel Catfish (2 – 10lbs), in order to make room for the 570 stocked in May 2021 by Georgia Select. While removing the big catfish in April 2021, it was discovered that unusually high winds had blown brush and whole trees in the pond. A diver was hired to remove the snags prior to the Fish-a-thon.

On May 8, 2021, the 12<sup>th</sup> Annual 2021 Fish-a-thon was conducted using a few modifications to accommodate the COVID issue. Three tents were placed equidistance apart around the pond with coolers holding a cup of nightcrawlers and boxes of hooks and weights on a table for each social group. Two Fish Orlando staff were available at each tent to rerig rods and answer questions 6 feet apart and wearing masks. The rods were pre-rigged and placed around the entire pond prior to the event in order to keep people from “bunching up”. For this event, no prizes were given for the most fish caught so no fish had to be checked in. A knot-tying and Fish ID tent were available for one social group at a time because no fishing camp was held. The fishing action was outstanding and management objectives were achieved. Additionally, video footage taken from the event was used by In-Fisherman Magazine in a video spot they did for the Recreational Boating & Fishing Foundation Bank Fishing “How to” video.



The fishing action was outstanding and management objectives were achieved at the 12<sup>th</sup> annual Cornerstone Fish-a-thon FANTASTIC FISHING DAY event.

## **St. Cloud Barrow Pit Pond (Approximately 30+ acres)**

### **Background information:**

The St. Cloud Barrow Pit Pond was stocked in January 2015 with 500 Channel Catfish from Florida Fish Farms and purchased using Fish Orlando Wildlife Foundation Funds under the condition that future stockings be purchased using St. Cloud funds. The city of St. Cloud began a feeding program where the fish were fed a 50 lb bag of feed per week, and hired contractors to mechanically remove nuisance torpedo grass that made landing fish difficult. The shoreline has been maintained by aquatic plant contractors. The feed and vegetation program remain in effect to date.

An event in March 2015 achieved target fish catch rates with well over 150 people attending. During summer 2015 the kids in summer camp fished the barrow pit each week. Unfortunately, the spring event in April 2016 was preceded by a rare cold front and the event in April 2017 was held at 9 am in the blazing sun. Despite decent attendance (100 people per event), less than 50 catfish were caught on each occasion. The city of St. Cloud Parks & Recreation also held public family fishing events in the fall of 2015 – 2017 but catch rates and attendance were not documented as Fish Orlando staff was not able to attend due to other work duties.

In April 2018, Fish Orlando staff investigated reports that an otter was in the pit, but no otter signs were found. Fish Orlando staff observed a fish feeding to make sure the catfish were still viable.

An additional 500 catfish were stocked from Georgia Select Hatchery in May 2018 to make up for natural and hooking mortality. During the stocking, Fish Orlando personnel documented a fish kill of Armored Suckermouth Catfish and Tilapia caused by a colder than normal April. The kill did not impact Channel Catfish abundance.

The event in August 2018 was held early in the morning and target catch rates were achieved by the approximately 75 participants assisted by Orange County Teen Sport Fishing Association teens. An alligator was noticed around the fish feeding areas, so FWC alligator trapper information was provided to the Park staff. The gator was removed. Due to change in park leadership, there was no event in 2019.

The city of St. Cloud Parks & Recreation and the Fish Orlando program held another St. Cloud Barrow Pit event on March 7, 2020. Bass Pro Shops Orlando provided the bait free of charge, and the Teen Sport Fishing Association supplied the volunteer help. Despite extremely cold weather (night temperatures were in the 40's), 70 kids caught 45 channel catfish.

In 2020, the Fish Orlando program tried to facilitate Osceola County High School Fishing Program using the Barrow Pit for some of their events. At the time they were told that because the pit is located at the site of the former St. Cloud City Dump, liability issues associated with holding events without City presence would keep the partnership from materializing.

### **Current information:**

In February 2021, St. Cloud parks leadership cancelled the April 17, 2021, Barrow Pit event because of rock crushing activities being conducted around the Pit at that time. In March 2021, Parks leadership agreed that going forward, they would schedule the annual Barrow Pit event on the third Saturday in April in order to have the event during optimal fishing weather. During the same month, instructional guidelines were provided to help them establish a St. Cloud Fishing Club including a letter of recommendation to Fish Florida so they could obtain free

rods/reels. In May 2021, Fish Orlando facilitated providing 40+ Fish Florida rods/reels from the Cornerstone Fishing Program until the St. Cloud Fishing Club could receive their shipment.

The Fish Orlando Family Fishing Coordinator found out from a teen that fished in the Osceola County High School Fishing Program that the Barrow Pit was one of the spring 2021 locations that had an event. They must have resolved the previous issue with liability, but unfortunately they had a bass event instead of a catfish event. They only caught 3 bass and shut down the event early.

### **Toho Marine Pond (< 1 acre)**

#### **Background information:**

The owner of Toho Marine approached the Fish Orlando project leader in 2018 with the desire to make the pond on their property into a Largemouth Bass/Bluegill FANTASTIC FISHING DAYS unit. An electrofishing survey was conducted in April 2019 which revealed low densities of resident Largemouth Bass/Bluegill in all size ranges, and a large number of stocked small Bluegill/Golden Shiners purchased by a private company. In June 2019, a rough work plan was drafted with step by step instructions on how to achieve what the owner desired.

In March 2020, 100+ large ( $\geq 8$  inch) bluegill were electrofished from an area lake and stocked into the pond. Additionally, during the same month, a fish feeding program was initiated (50lbs per month), as many intermediate ( $< 5$  inch) bluegill were removed as possible, and the dense torpedo grass surrounding the entire pond was treated with herbicide.

#### **Current information:**

Throughout the fiscal year, some correspondence occurred between the Fish Orlando project leader, the owner of the pond, and the Toho Marine worker in charge of feeding the fish. Reports were that the fish were feeding well and most of the bluegill were 8-inch plus.

In late spring 2021, the dead nuisance vegetation was removed mechanically from the pond's perimeter. With the torpedo grass gone, plans for FY 21/22 include observing a fish feeding and fishing for the bluegill, as well as stocking a few more 12 inch – 14 inch bass to control the intermediate bluegill. Additionally, the owner intends to build a small fishing pier and open the pond several times during the year for families to fish.

## **FISH ORLANDO OTHER WATER BODIES**

#### **Overview:**

Fish Orlando OTHER WATER BODIES receive some attention, but to a much lesser extent than the BIG WATERBODIES, FAB FIVE, FANTASTIC FISHING DAYS and URBAN PONDS. Some like Shadow Bay Park stay on the “radar” because they were a former FAB FIVE, while others get some priority due to requests from our partners.

### **Bithlo Park Pond (2 acres)**

#### **Background information:**

Bithlo Park Pond is part of our work due to a request from Orange County Parks. Richloam Hatchery stocks 2,000 Channel Catfish prior to their annual Bithlo Park “Fish for Fun” event which began in September 2013. Due to excessive workload in September, Fish Orlando staff is not able to attend the event, but in addition to providing stocked fish, they have also donated rods/reels.

#### **Current information:**

On September 22, 2020, Richloam hatchery stocked 2,000 channel catfish into the Bithlo Park Pond in anticipation of the 8<sup>th</sup> annual “Fish for Fun” event scheduled for September 29, 2020. Even though the fish were stocked the event was cancelled due to COVID.

### **Blanchard Park**

#### **Background information:**

Blanchard Park is located off Dean Road and the Little Econlockhatchee River runs through its property. Part of the river in the park is channelized and the part below the dam is natural. It is known for its excellent Redbreast Sunfish and Spotted Sunfish action in the tail waters right below the dam, and in the natural section of the river. Each year during the first Saturday in September, the Fish Orlando project helps Orange County Parks and Recreation host the Blanchard Park “Fish for Fun”; which may be the longest running fishing event in Florida.

#### **Current information:**

The 31<sup>st</sup> annual Orange County Parks “Fish for Fun” event scheduled for September 12, 2020, was cancelled due to COVID.

### **Lake Lawne (156 acres)**

#### **Background information:**

Lake Lawne is a very “green” water lake that has excellent crappie action. Historical management actions have included a crappie age/growth study that resulted in the removal of the 10 inch minimum crappie size limit, restoring adequate growth while still maintaining abundance. A Fish Orlando volunteer also runs cormorants off the lake when their numbers prove detrimental.



Lake Lawne is one of the best Black Crappie lakes in central Florida. Pictured here is a 16 inch, 2.2 lb fish caught in fall 2020.

**Current information:**

In FY 20/21, the Invasive Plant Section stocked 100 grass carp. The city of Orlando also plans on reducing available nutrients in the lake with an Alum treatment in FY 21/22.

**Lake Lorna Doone (14 acres)**

**Background information:**

Lake Lorna Doone was historically an URBAN POND prior to 2005. It was dropped due to a refinement of criteria that Fish Orlando leadership felt was necessary in order to have a successful water body for beginning fishers (i.e., smaller than 7-acres, in a safe area with other amenities, good bank access, etc.).

**Current information:**

In August 2020, the Fish Orlando project leader met with the city of Orlando Recreation leader to discuss improvements being planned for a multi-million dollar park project around Camping World Stadium. These included a splash pad, miniature golf course, playground, fishing pier, and recreation building. Several recommendations were made to improve Lorna Doone's fishery located within the park, which included a lake-wide hydrilla treatment, treating all the vegetation in front of the new concrete pier, installing an aeration system, and creating several other fishing lanes on a bank across from the pier.

In April 2021, the Fish Orlando project leader met with the site supervisor and the staff of the new Camping World Stadium Park to assist them with starting a youth fishing program. All of his recommendations discussed during the August 2020 meeting had been completed for

Lorna Doone. He further recommended “Baited Fishing Area” signs and baiting with hog feed at these locations. He also helped connect them with the Ocala Region Florida Youth Conservation Center Network coordinator in regard to getting fishing instruction curriculum and wrote a letter of recommendation for a Fish Florida grant. Channel catfish at 100 per acre will be requested in September 2021 for a fall 2022 stocking.

## **Shadow Bay Park**

### **Background information:**

Shadow Bay Park has 3 fishing ponds in the property, but the focus is Lupine Pond (7 acres). The pond’s Channel Catfish are protected by a 30inch minimum size one catfish bag limit. The park personnel purchase and feed the catfish 150lbs of feed per week with the goal of growing 500 catfish in the pond to an average of at least 4 lbs. The catch rate goal is one catfish per man-hr of fishing. An aeration system ensures that there is enough oxygen for the fish.

### **Current information:**

On September 2, 2020, a fish feeding was observed, and a hook and line survey was conducted. No catfish came up to feed, and only one 18-inch Channel Catfish was caught in 1.5 man-hrs.

On 9/23/20 Richloom stocked an addition 526 Channel Catfish (6 per pound) to try and improve the fishing. This followed a May 2, 2020, stocking where 500 channel catfish (1lb each) were stocked by Georgia Select Hatchery. A follow up in June 2020, indicated the catfish were feeding and not being poached. However, for some reason, they discontinued feeding in July 2020.

Another survey is scheduled for summer 2021. Hopefully, the fish will feed, and management objectives will be reached.

Park personnel refurbished the fish regulation sign. For the most part, the fishing bank has remained open thanks to an Aquatic Weed Control, Inc. contract with Parks.

## **Trotwood Park Pond (1 acre)**

### **Background information:**

In July 2020, the Fish Orlando project leader met with the current Winter Springs Parks & Recreation Director regarding improvements to Trotwood Park. He recommended stocking 500 channel catfish, having park personnel feed them, and installing the irrigation intake in such a way as to create some flow through within the pond.

### **Current information:**

On October 17, 2020, Winter Springs purchased 500 (2 per pound) Channel Catfish from Georgia Select Hatchery for Trotwood Park Pond. Park personnel did try and feed the fish, but the fish fed sporadically. The Fish Orlando project leader suggested including some sinking feed to draw the fish into a given area. Fishing reports indicated catfish were being caught.

Future work includes doing a hook and line sample to determine the Channel Catfish action in the pond. It will be interesting to see how long 500 Channel Catfish last in Winter

Springs without an exclusive catch and release policy like their FANTASTIC FISHING DAYS unit (i.e., Central Winds Park Pond).

### **The Ranch in St. Cloud**

#### **Background information:**

In December 2020, the Fish Orlando project leader was approached by the city of St. Cloud mayor and asked to evaluate the fisheries potential of a new piece of property off Jones Road. The property was purchased by the city of St. Cloud from Hastings Ranch using funds from Development Impact fees. Included on the property was a 50 acre man-made lake that was created during the process of Hastings Ranch selling fill dirt for the highly developed area around it.

#### **Current information:**

In June 2021, Fish Orlando staff evaluated the 50 acre lake using 3 hook and line samples. The lake was very deep (15 -25 feet) with several open water humps. It had slightly stained green water but a very narrow (< 10 feet) emergent vegetation zone with fairly low fisheries productivity. The bass action was good with average quality, but it had limited recruitment of small bass into the fishery and would not likely withstand much fishing pressure or harvest. Recommendations included a limited access bass fishery via boat and a limited bank fishery for channel catfish. Almost no bank access was available so it would have to be created and more channel catfish would have to be stocked. The survey estimated 20-30 Channel Catfish in the 2-10 lb range that were fairly old and left over from the stockings done by the Hastings Ranch.

## **FISH ORLANDO URBAN PONDS**

#### **Background information:**

The Fish Orlando URBAN PONDS are managed for beginning fishermen and those that wish to eat their catch. The four URBAN PONDS are **Barnett Park** (4.5 acres; Orange County), **Bear Creek** (7 acres; Orange County), **MLK Jr. Park**-formerly Lake Island Park (5.5 acres; city of Winter Park) and **Lake Santiago** (4.5 acres; city of Orlando).

They are primarily put and take fisheries that are stocked once to four times per year depending on fish availability and angler harvest. Channel Catfish are stocked in the fall and spring. Grow out (8 inch – 17 inch) domesticated feed trained Largemouth Bass are stocked in the fall, and sometimes in the winter. Multiple studies have shown that hatchery raised bass have poor long-term survival in the wild due to their inability to avoid predation, however, in the case of the URBAN PONDS, they provide one to two months of very good action before they succumb to birds or the “frying pan”.

Since becoming part of the Fish Orlando program, all four have undergone projects to create good bank access, install aeration systems, create two “Baited Fishing Areas” marked with



signs, and construct an informational kiosk summarizing regulations and Fish Orlando information. They are all located in safe parks where the young people have other activities to occupy them if they tire of fishing. Our partners pay for the maintenance/electrical bills associated with the aeration and the management of the aquatic vegetation. They are visited monthly by our Fish Orlando OPS staff to receive a bait block at each “Baited Fishing Area” sign, and make sure the vegetation, aeration systems, kiosks, etc. are all “in good shape”.

Over the years we have tried electrofishing, baited hoop nets, and hook and line sampling to do our pond’s fisheries evaluation. We found that the most accurate and cheapest way to do assessments was hook and line. For our fall stockings, thanks to Orange County Parks and Recreation and city of Winter Park Parks and Recreation, three of the four URBAN PONDS are the site of a fall Family Fishing Events (Barnett and Bear Creek “Fish for Fun” events; MLK Jr. Park “Test the Waters” event). We staff the events and record the number of fish caught and the total number kids fishing. For our spring stockings, good fishermen fish each pond with chicken liver for at least 2 hrs under ideal conditions. The fall goal is one fish caught per child. The spring goal is 3 channel catfish caught per hour per person.

**Current information:**

In 2020, the September family fishing events scheduled to be held at Barnett Park, and Bear Creek Park were cancelled due to COVID. MLK Jr. Park Pond was dry in September due to a library expansion project.

Barnett Park and Bear Creek were still stocked by the Richloam Hatchery with approximately 1,000 Channel Catfish/acre during September 2020. Bear Creek received an additional stocking in December 2020 (714 per acre) when it got the catfish slated for MLK Jr Park Pond. The second stocking was heavily utilized by the Orlando Fishing Academy and others. The catfish stocked in September are usually harvested or eaten by cormorants by the Holidays.

Additionally, at the request of Fish Orlando, in October 2020, Richloam Hatchery stocked grow-out largemouth bass in the Barnett Park Frog Pond (222 per acre) and Bear Creek Park Pond (100 per acre). The increased stocking rate at Barnett Park Frog Pond above the usual 100/acre was due to the fact that MLK Jr Park Pond was dry (see above), so Barnett received its bass.

Because the Barnett Park stocking rate was doubled, Fish Orlando followed up the stocking by either conducting or recruiting volunteers to do some hook and line sampling. Catch rates evaluating stocking 222 bass/acre were:



51 bass per man-hr one month after stocking, 23 bass per man-hr two months after stocking, 15 bass per man-hr four months after stocking, and 2 bass per man-hr 7 months after stocking.

For comparison, catch rates evaluating bass stocked in the Barnett Park Frog Pond in 2015 at 100/acre were: 33 bass per man-hr one month after stocking, 25 bass per man-hr 3 months after stocking, 7 bass per man-hr 5 months after stocking, and 3 per man-hr 6 months after stocking.

This year the Fish Orlando ponds did not receive an additional stocking of grow out bass from the Welaka Federal Fish Hatchery. Instead, other community ponds throughout the state were stocked so others could see the viability of this stocking product.

Thanks to the generosity of Orange County Parks & Recreation and the city of Orlando, three of the four URBAN PONDS received May 2021 stockings of Channel Catfish purchased from Georgia Select Hatchery. As mentioned above, MLK Jr Park Pond was not available due to the library expansion project. All URBAN PONDS that were stocked in May 2021, met management goals (3 catfish/man-hr) in the spring evaluation (see table below).

<i>Urban Pond</i>	<i>Effort (angler-hrs)</i>	<i>CCF Catch</i>	<i>Exp. Angling CPE</i>
Barnett Park	2	23	11.5
Bear Creek	5	20	4.0
MLK Jr. Park	Pond Dry	Pond Dry	Pond Dry
Santiago	2	21	10.5

All 4 URBAN POND kiosks were refurbished in 2021. Additionally, Santiago received new “Baited Fishing Area” signs complements of Orlando Parks. One “Baited Fishing Area” sign at Barnett had to be replaced because it was stolen.

In June 2021, the Orange County Sheriff’s department held a fishing event the Barnett Park Frog Pond for the Edgewater Children’s Ranch. Fish Orlando staff assisted the Sheriff’s department with event logistics, provided Fish Florida fishing books, a fish ID poster and easel, and lined up volunteers to help.

The library project adjacent to the MLK Jr Park Pond is finally over, and the pond has refilled. The city of Winter Park is working on treating the vegetation and reinstalling the electricity for the aeration system and fountain. When this is complete the pond will be restocked. Unfortunately, Winter Park had to cancel the 24<sup>th</sup> annual “Test the Waters” event on October 2, 2021, due to an upcoming Recreational Building Expansion Project.

## OTHER PROMOTIONAL ACTIVITIES

In addition to outreach related to Fish Orlando waters, the Fish Orlando project is involved in other promotional activities. It has helped coordinate and promote the statewide TrophyCatch program (TrophyCatch.com) which is currently finishing up its 9<sup>th</sup> season. Unfortunately, this fiscal year all outreach activities were cancelled due to COVID, including the 2020 ICAST show.

Bass Pro Shops Orlando is an integral sponsor and partner of Fish Orlando. They provide Tracker Grizzlies for the Turkey Lake boat loaner program. They also house a Fish Orlando kiosk that plays the Fish Orlando video and holds Fish Orlando Fishing Maps. In return, the Fish Orlando team helps stock the store's aquarium as requests are made. Additionally, the store sets up an in-store catch, and release pond associated with various promotional Bass Pro weekends where the Orange County Teen Sport Fishing Association volunteers helps families catch their first fish.

Unfortunately, due to COVID19, all the promotional activities that Fish Orlando normally assists with in the early part of the fiscal year had to be cancelled due to COVID. However, Fish Orlando did provide 300 Channel Catfish from the Richloam Fish Hatchery for the May 2021 "Go Outdoors" weekends.



The Fish Orlando goal is to provide and promote convenient quality fishing opportunities in the greater Orlando area. In addition to outreach events, we promote Fish Orlando through articles in magazines, appearances on TV, kiosks, fishing maps, videos, brochures, a Fish Orlando app, quarterly fishing forecasts, a Fish Orlando web page, presentations and displays, and lectures on top of the aquarium at Bass Pro Shops Orlando.

The FWC leadership recognized the hard work of the Fish Orlando team and featured some of its recent accomplishments in the Dec 2020 Executive Directors Report. The report was read at the December 2020 Commission Meeting.

In February 2021, some of the Fish Orlando work was mentioned in a Florida Sportsman article titled "Lines-In Orlando". The Fish Orlando brochure was updated in May 2020 and posted on the web page ([myfwc.com/fishorlando](http://myfwc.com/fishorlando)) in FY 20/21. The Fish Orlando app was reinstated in FY 20/21

when app sponsors helped upgrade the app from Internal Operating System (IOS) 11 to IOS 12 so it could be posted on iTunes. Lastly, the Fish Orlando team also finished up our latest documentary video which will soon be available via a link on our web page.

Sometimes promotional activities require funding sources above and beyond the budget. Gumbo Wars, Inc. was kind enough to donate \$2,000 to the Fish Orlando Wildlife Foundation Fund in January 2021. In addition to funding causes that promote recruitment of new anglers, Gumbo Wars, Inc. also conducts family fishing instructional clinics throughout central Florida.

The Fish Orlando team recognizes that we live in an era of social media. Therefore, we encourage you to find this fiscal year's Fish Orlando posts on the Division of Freshwater Fisheries Management's **TrophyCatch Face Book** page and Instagram site (**FishReelFlorida.com**). This fiscal year, the Fish Orlando program was also mentioned in the Orange County Parks Twitter, and Face Book pages featuring the spring 2021 Channel Catfish stocking of the Barnett Park Frog Pond and Bear Creek Park Pond.