RESERVOIR FISHERIES HABITAT PARTNERSHIP

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Inside This Issue

1 Annual Meeting Announcement

2 Featured *Friends of Reservoirs* Chapters: Lake Fork Sportsman's Association and Central Oregon Bass Club

5 Featured Program: Oklahoma Department of Wildlife Conservation

7 Featured Project: Lake Palestine-Texas Parks and Wildlife Department

"Partnering with conservation-minded users of aquatic resources is vital to maintaining quality habitat for generations to come"

Third Annual RFHP Meeting- Table Rock Lake, Missouri

The Reservoir Fisheries Habitat Partnership is inviting its partners and all interested parties to attend its 3rd Annual Membership Meeting at Big Cedar Lodge (http://www.bigcedar.com/default.aspx) on Table Rock Lake, near Branson, Missouri. This meeting will build on the momentum from the last two years' meetings held at Lake Conroe, Texas and Lake Havasu, Arizona. This year's meeting will be held in conjunction with the fall meeting of the National Fish Habitat Partnership (NFHP) giving attendees an opportunity to hear discussions about aquatic habitat issues on a national scale. The NFHP Board will meet all day on October 16 and until noon on the 17th. A field trip is scheduled for 1:00 p.m. on October 17 to view habitat restoration activities in and around Table Rock Lake. This project was named one of NFHP's 2012 "Ten Waters to Watch" (http://www.fishhabitat.org/index.php?option=com_content&view=category&layout=blog&id=49&Itemid=76) giving partners an opportunity to visit one of the leading aquatic habitat restoration efforts in the country. The Reservoir Fisheries Habitat Partnership will meet on October 18 with a final report on the reservoir habitat assessment and 2013 project selection highlighting the agenda.

Accommodations

Individuals should make reservations directly with Big Cedar at 1-800-225-6343 or 1-417-335-2777. A block of rooms has been reserved at the government rate of $77/night. When making your reservation please mention that you'd like to reserve a room in the Reservoir Fisheries Habitat Partnership block.

Transportation from/to airport

Air travel should be booked to the Springfield airport. Big Cedar is approximately 45 minutes from the airport. Rental cars are available at the airport. If you are interested in sharing a ride to and/or from the airport to Big Cedar contact Jeff Boxrucker at jboxrucker@sbcglobal.net with your travel plans and we will try to coordinate rides with other attendees.

Featured *Friends of Reservoirs* Chapters-Lake Fork Sportsman's Association

by Dick Walker and Arlen Jaeger

Lake Fork, located in east Texas, has proven itself to be a bass fishery of legendary proportions, attracting anglers from across the country and around the world. As a result, Lake Fork is a vital economic engine for this region, creating a tremendous amount of local interest in the quality of the fishery. Texas Parks and Wildlife Department (TPWD) has been managing the bass fishery using a slot length limit to promote the development of a trophy fishery. This management plan came under fire in 1999 when a substantial fish kill caused by largemouth bass virus occurred. Reports spread quickly of fish dying off in large numbers and fishing pressure declined precipitously. The impact on the local economy was dramatic and many businesses were suddenly facing very real financial jeopardy. Merchants organized in an effort to find ways to help promote more fishing-related tourism and called upon TPWD as well as politicians for economic help. The quick and easy solution put forth was to remove the slot limit, thereby attracting additional fishing tournaments. Major tournaments tend to avoid lakes with slot length limits because it reduces the number and size of fish that can be weighed-in at large media events. The merchants organized and quickly began asserting political pressure on TPWD to remove the slot limit.

Lake Fork Sportman's Association's Live Release Boat.

The Lake Fork Sportsman's Association (LFSA) was formed to provide an organized front to counter the call for the slot limit removal. LFSA met with TPWD staff to discuss the merits of the slot regulation. The debate centered on what the impact would be to slot fish during the weigh-in process. There were no scientific data available to settle this issue. A summertime angling mortality study was conducted which indicated higher mortality rates than expected. Armed with the scientific data, TPWD had the needed information to withstand the political pressure and retain the slot limit, thereby preserving the quality of the fishery. The LFSA now had the support to move onto other projects to positively influence the Lake Fork fishery.

The Lake Fork Sportsman's Association's most visible presence on the lake is a 24-foot Live-Release Boat (LRB). Purchased in 2000, the LRB is equipped with three 100-gallon aerated tanks. The water is medicated to help reduce stress on the fish during the release process. Survival using the LRB has been estimated at 99%. The LRB is provided to tournaments at no charge. LFSA members participate in training sessions, explaining the proper operation of the LRB. Experienced members explain the aeration system and monitoring equipment, along with proper fizzing techniques. This training markedly improves tournament handling survival.

In 2010, through the support of the Sabine River Authority, a fund was established to provide the financial resources necessary to spray water hyacinths. The water hyacinth problem had been building for the past several years. Mild winters permitted the plants to remain active, resulting in dense hyacinth stands. The SRA and TPWD provided $50,000 and $25,000, respectively to contract with professional sprayers. Recognizing the need for on-going spraying, the LFSA made a donation of $10,000 for the purchase of chemicals.

LFSA members making $10,000 donation to TPWD Representative Howard Elder.

TPWD and the LFSA have partnered on habitat restoration projects. In 2011 we jointly planted 1,000 button bush seedlings in various undeveloped areas around the lake. The objective of the project is to improve cover for bass fingerlings. Because of the severe drought, survival of these seedlings was compromised. TPWD found a supplier who could provide mature, potted button bush plants. TPWD again approached the LFSA and asked that we partner in another planting. LFSA members approved the purchase of 400 of these plants and planting took place in November, 2011. Since planting, several trips to observe these plants show that most are thriving. Plans are being formulated to continue the habitat restoration project with additional plantings in known spawning areas.

LFSA and TPWD established button bushes in the Glade Creek area of Lake Fork

The Lake Fork Sportsman's Association has grown to be an influential and respected service organization throughout the Lake Fork area. We plan to continue to look for opportunities to further the reputation of this great fishery. We will support our communities in endeavors that will provide for the economic and social well-being of our citizens. The future of our great outdoors lies in the hands of our young people. At every opportunity we will strive to provide guidance and support that encourages our young people to be responsible stewards of our outdoor resources. We will do this through the many outreach activities that have become a part of our association.

"The Lake Fork Sportsman's Association has grown to be an influential and respected service organization throughout the Lake Fork area."

In the near term the LFSA will be addressing a lake safety issue. With the help of TPWD, we have received approval from the Texas Department of Transportation, to post signs on all of the bridges that provide emergency response information.

The LFSA was born out of adversity, but survives today as an organization of dedicated sportsmen whose mission is to promote this great fishery, and stand ready to protect it if the need arises. The Lake Fork Sportsman's Association and Texas Parks and Wildlife Department have forged a strong partnership and are working together on projects for the betterment of Lake Fork.

Featured *Friends of Reservoirs* Chapter-Central Oregon Bass Club

by Charles Lang

Spider block construction in club member's garage

The Central Oregon Bass Club is a small club with about 40 members with focus on improving angling at Prineville Reservoir. Prineville Reservoir is a typical high desert reservoir in Oregon. Impounded in 1961, Prineville is 3,030 acres and is about 15 miles long and was created for irrigation and flood control. Prineville supports healthy populations of smallmouth bass and crappie. The rocky shoreline limits aquatic vegetation growth which along with fluctuating water levels limit largemouth bass habitat. The Oregon Department of Fish and Wildlife (ODFW) determined that largemouth bass population is limited by a lack of over-wintering habitat for age-0 bass making them vulnerable to predation during the winter draw-downs.

On-site spider block construction project; note the increased quantity of units from what was feasible in photo above.

The Club's long-term goal has been to add over-wintering cover for small bass. Spider blocks are being used for longevity, ease and stability of placement. We have been adding 50-53 spider blocks annually, but last year we were able to add 105. To date the club has placed 255 structures, utilizing 5 miles of ploy pipe. During the first 4 years of the project the structures were built during the winter months in a garage; 6 at a time each week to cure without freezing. Each spring after ice-out, we would transport the blocks to the ramp, load them on an ODFW sled and install them in the lake. Structures are placed at locations and depths pre-approved by the Bureau of Reclamation and their Native American archeological specialist. Our success and dedication has been rewarded by an increasing number of age-1 bass in ODFW's spring electrofishing surveys and by being granted beach access to construct the structures in late summer. The club has plans to continue the program until ODFW determines that overwinter survival is no longer the limiting factor.

Oklahoma Department of Wildlife Conservation's Aquatic Habitat Restoration Program

The Oklahoma Department of Wildlife Conservation (ODWC's) has been adding structural habitat to reservoirs on a small scale for years as part of on-going fisheries management efforts. The program received a needed boost in 1993 when the agency began receiving a percentage of State boat and motor registration fees. Funds received annually have averaged $158,000 over the past 20 years. These funds are then matched with Sport Fish Restoration dollars to make approximately $600,000 available for aquatic habitat enhancement projects statewide. These funds are used principally to purchase equipment, supplies and pay for staff time.

Each management district has its own barge for use in habitat work. In addition, BassPro Shops designed and donated a habitat barge with a hydraulic lift to make brush installation less labor intensive. The Oklahoma landscape is heavily populated with invasive eastern red cedar which have degraded habitat on many of ODWC's Wildlife Management Areas. Aquatic Habitat Program funds have been used to purchase skid steers for use by the Wildlife Division to cut and control eastern red cedar on their management units. Wildlife Division equipment is then used to haul cut cedars to a nearby reservoir where Fisheries Division personnel use their barges to install brush piles at locations that lack structural habitat.

BassPro Shops barge placing brush at predetermined locations on Thunderbird Reservoir.

Brush piles degrade over time, so ODWC is increasingly using spider blocks as part of their routine structural habitat enhancement efforts. Spider blocks consist of 6-12 foot lengths of poly pipe embedded in concrete. These structures are relatively permanent and are proven fish attractors. Spider block projects are also conducive to volunteer involvement.

Spider blocks placed on a dry lake bed

In 1996, ODWC began an intensive effort to restore native aquatic vegetation to its reservoirs. Working with U.S. Army Corps of Engineers staff from the Lewisville Aquatic Ecosystem Research Facility, ODWC began experimenting with propagation and planting techniques along with reservoir features which would be conducive to establishing native plants. To date, experimental plantings have been conducted at 20 reservoirs. Over the past 15 years, staff have learned more about was does not work than what has been successful. Currently, ODWC's staff operates under the following Best Management Practices when implementing an aquatic vegetation project:

ODWC's Aquatic Habitat Restoration Program-continued

Plant propagation cells at one of ODWC's regional offices.

Planting pondweed in an exclosure to prevent herbivory

- Select reservoirs with minimal annual water level fluctuations (< 6 feet);
- Select sites with low wave energy, proper sediment (clay/sand mix) and good water clarity;
- Protect plantings from herbivores (carp, turtles) using exclosures constructed of long-lived fencing materials that are resistant to damages during flood events;
- Extend exclosures to deeper water as water levels recede during drought periods and construct lids to prevent breeching during flood events;
- Saturate high-quality sites with plantings rather than scatter colonies over many sites;
- Concentrate on species of plants with proven success in locality:
  - Submergents: American pondweed, sago pondweed, coontail, eel grass
  - Emergents: pickerelweed, bulrush, white water lily
- Replant as needed; assume 5-7 years to develop seed bank and establish founder colonies.

ODWC received a grant from the Reservoir Fisheries Habitat Partnership in 2011 to establish native aquatic vegetation in Ft. Cobb Reservoir. This effort is part of a long-term project aimed at improving water quality in the reservoir.

A Pilot Project to Increase Species Diversity and Spatial Distribution of Submersed Native Aquatic Vegetation in Lake Palestine, Texas by Rick Ott

Aquatic plant communities may take hundreds or even thousands of years to develop in natural lakes. The average age of the 670+ reservoirs managed by the Corps of Engineers is just over 50 years. Reservoirs in Texas were constructed due to lack of natural lakes, and may be remote from populations of aquatic plants. Therefore, reservoir ecosystems can be inhospitable places for establishment of native macrophyte seedlings, particularly if exotic species are already established. Furthermore, excessive inorganic turbidity and water level fluctuation that is asynchronous with seasonal weather cycles produce disturbance patterns that may favor exotic pioneer species with efficient dispersal mechanisms. As a result, many reservoirs have no aquatic plant seed bank and receive only limited inputs of seed and other plant propagules from their watersheds or other sources. These reservoirs are often first colonized by nuisance exotic weeds, frequently a result of accidental introduction by boaters. Many exotic species are adapted for exploiting disturbed conditions, and may quickly spread to become problematic. Once established, exotic weeds can prevent establishment of beneficial native plants, regardless of subsequent propagule availability.

Dense stands of hydrilla provide poor fish habitat in addition to being nuisances for boaters and shoreline property owners.

In Lake Palestine submersed aquatic vegetation is limited to a relatively small area of shallow water separated from the rest of the reservoir by a causeway and bridge. Diversity of the species community north of the causeway is relatively impoverished and dominated by the invasive exotic species hydrilla *Hydrilla verticillata*. Although openings under bridges in this causeway allow flow of water similar to historical stream flow, the causeways themselves act as a barrier to dispersal of propagules to the main lake area south of the causeway. Furthermore, prevailing wind direction from the south during the growing season further limits unaided movement of propagules. Fortunately in the area of Lake Palestine proposed for this project it will not be necessary to first remove exotic aquatic plant populations so prevalent in many of the East Texas waterways and reservoirs.

Plant nursery at Texas Freshwater Fisheries Center

Native plant propagules will be obtained from the newly constructed East Texas Woods and Waters Foundation Aquatic Plant Nursery at the Texas Freshwater Fisheries Center in Athens. Species selected will be those previously evaluated in the TPWD FY 2000 Inland Fisheries Habitat Initiative that has shown the ability to persist in Texas reservoirs. All have a low probability of causing biological or sociological problems, and do not currently occur or only occur in limited spatial distribution within the reservoir. The proposed species are the emergent species Water willow *Justicia Americana* and the submersed species wild celery *Vallisneria Americana*, water star-grass *Heteranthera dubia*, and Illinois pondweed *Potamogetin Illinoensis*.

Palestine Lake, Texas Aquatic Vegetation Project-continued

If the listed species survive and spread from the exclosures, additional species may be introduced later to further improve species diversity. Robust potted propagules of all species will be planted in protective enclosures to reduce the effect of herbivory during the initial establishment phase.

TPWD staff and volunteers planting native vegetation in exclosures constructed on Palestine Lake

The areas selected for the project are 0.5 miles of shoreline on the east side and 0.2 miles on the west side approximately 1 mile north of the dam. These locations have the advantage of being highly visible to anglers and thus can be used as an educational tool to promote the use of native aquatic vegetation for reservoir habitat restoration. Furthermore these locations will serve as protected founder colonies that will allow the prevailing southerly wind during the growing season to distribute seed and fragments north toward biologically impoverished areas of the reservoir. These locations were specifically selected due to the lack of waterfront homes to reduce conflict with property owners.

Mature stands of native plants, established through introductions, provide excellent fish habitat and help combat the spread of invasive plants.

A total of 30 8’ x 16’x 5’ exclosures will be constructed (10 in each of three sites). Exclosures will be positioned perpendicular to the shoreline with the deep end in approximately three feet of water. This will allow the planted specimens to expand up or down gradient as water level changes. Each exclosure will be planted with five pots of one of the species of the submersed species listed above. Each structure will be marked with signage designating its function. Between the individual exclosures, water willow will be planted along the wetted shoreline to stabilize the shoreline, reduce erosion, sequester fine sediment, and promote expansion of the submersed species planted in the individual exclosures.

Success of native plant establishment will be evaluated using procedures outlined in the *Guide to Propagation and Establishment of Native Aquatic Plants in Reservoirs.* Exclosures will be monitored for damage and repaired as necessary.