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A Texas Aquatic Plant Management Society Publication

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Texas Aquatic Plant Management Society Newsletter

the Water

President's Update Kelly Duffie-Helena Chemical

TAPMS was well represented during the 2013 APMS appointed by the President to a newly created (nonconference in San Antonio. members and 5 students attended the joint-conference. The Westin Riverwalk Hotel was complimented by some I wish to recognize several of our board members who unusually pleasant July Texas weather to provide a near made significant contributions toward the success of the perfect setting for a conference full of informative joint-conference. presentations and social interaction. Congratulations to the APMS officers and board members for organizing and Thanks to Matt Ward (2013 President-Elect) for his executing such a well coordinated event.

conjunction with the conference, during which the 2014 speaker-lineup was excellent. TAPMS officers were elected and several amendments to speaker; the By-Laws were passed.

that David Sauer is voluntarily stepping down as TAPMS vegetation undoubtedly appreciated many aspects of Treasurer. We certainly appreciate David's long-term Clint's presentation. contributions to the TAPMS and fully understand his need to focus on a growing list of responsibilities at GCWA.

Dave Bass (LCRA) has graciously accepted the several proposed amendments to the TAPMS By-Laws; President's appointment to fulfill the Treasurer's seat for which were ultimately adopted by the membership during the remainder of this year - which will continue through our annual business meeting. The amendments focused 2014 as a result of his subsequent election. Jordan on clarifications concerning TAPMS membership levels Austin (SJRA) is the 2014 President-Elect, and two board and privileges, and also facilitated the future election of seats were filled by David Sidney and Steven Barden, non-resident TAPMS members to board positions. The effective January 1, 2014. Elizabeth Edgerton was revised By-Laws may be viewed on the TAPMS website.

In total, 51 TAPMS voting) student representative position on the board.

tenacious effort to assemble and coordinate the "Texas Session" portion of the conference. Matt encountered The TAPMS annual business meeting was held in several challenges during the process, but the resulting One particular guest-"The Clint Snake Man" Pusteiovskv (TexasSnakes.com) presented a rather unusual topic for APMS conference attendees. However, anyone who It was announced during the annual business meeting regularly walks, wades or navigates through aquatic

I also want to thank Matt for authoring and presenting

Continued on Page 3





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Cnitinued from Page 1

Session", which ultimately provided twenty-five TAPMS members with their TDA CEUs for 2014 their license-

all TAPMS members who words, if you were unable to attend the APMS conference,

utilize TAPMS's resources to enhance the general public's or ideas for fulfilling this facet of our organization's mission.



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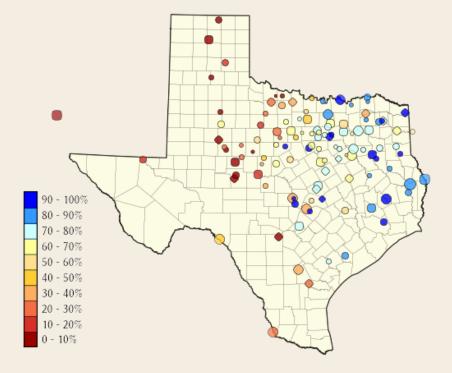
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adjuvants • dyes/wetting agents • fertilizers • fungicides • herbicides • insecticides • micronutrients • seed treatments WinField is a trademark of Winfield Solutions, LLC. © 2012 Winfield Solutions, LLC Lake Levels Across the State of Texas as of 8-19-2013

- Lake Buchanan: -30.59' (37.2%)
- Caddo Lake: -1.04' (53.8%)
- Coleto Creek: -2.87' (78.1%)
- Lake Conroe: -3.25' (85.4%)
- Lake Fork: -5.54' (77.6%)
- Lake Houston: -2.84' (99.7%)
- Lake Lewisville: -6.88' (69.9%)
- Lake Livingston: -1.34' (94.4%)
- Possum Kingdom: -11.15' (69.9%)
- Ray Hubbard: -5.03 (77.8%)
- Sam Rayburn: -5.22' (80.6%)
- Lake Somerville: -6.20' (59.9%)
- Toledo Bend: -4.02' (85.0%)
- Lake Travis: -58.57' (31.6%)

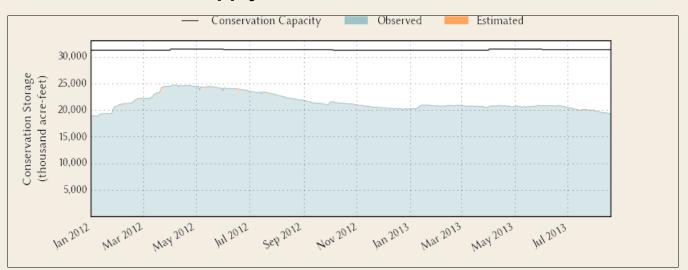
Texas Reservoirs

Date	Percent Full	Reservoir Storage (acre-ft)	Conservation Capacity (acre-ft)
Today 2013-08-19	61.6	23,525,410	31,492,242
Yesterday 2013-08-18	61.7	23,550,170	31,492,242
1 week ago 2013-08-12	62.2	23,683,705	31,492,242
1 month ago 2013-07-19	64.3	24,311,536	31,492,242
3 months ago 2013-05-19	65.8	24,644,709	31,492,242
6 months ago 2012-01-19	66.9	25,210,543	31,492,242
1 year ago 2012-08-19	708	26,672,850	31,492,242



*Information from Water Data for Texas Website

Monitored Water Supply Reservoirs are 61.6% full on 2013-08-19



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Texas Commission on Environmental Quality

News Release Lake Conroe Habitat Improvement Project Coalition

Wins State's Top Énvironmental Honor

FOR IMMEDIATE RELEASE Monday, April 22, 2013

Monday, April 22, 2013 Media Contact: Lisa Wheeler

Phone: 512-239-5003 / Pager: 512-606-3681

A Conroe multi-organizational coalition is being recognized with the state's highest environmental honor, the 2013 Texas Environmental Excellence Award in the Civic/Community category. Lake Conroe Habitat Improvement Project Coalition will be one of 10 winners honored by the Texas Commission on Environmental Quality, at its annual banquet, to be held in Austin, May 1.

Formed in 2006, the coalition, which includes public and private organizations, local businesses, community residents, and government, began looking for a more holistic approach to not just invasive control but a balanced aquatic ecosystem. The group teamed up to manage invasive species while simultaneously expanding biodiversity through native plant introduction.

To control an early infestation of water hydrilla, a problem since the 1980's, more than 250,000 grass carp were introduced. While the carp caused total removal of hydrilla, they also greatly reduced native vegetation. Natural die-off of the carp eventually led to reinfestation of invasive plants. Organizers, including individual members of angler associations, worked to build consensus in the community for restoration projects. Anglers with local fishing clubs, as well as conservation groups became some of the biggest proponents of restoration efforts at Lake Conroe.

Since 2010, the groups have restored five miles of shoreline at Lake Conroe through the addition of native plant colonies, contributing to an increase of fish and wildlife along the shoreline. Reefs designed to attract fish, which also prove to be fishing hot spots for anglers, have also been constructed to enhance current habitats and help stimulate higher fish production.

All TCEQ news releases are available at <u>http://www.tceq.texas.gov</u>. To receive news releases and other newly posted information automatically, visit the Sign up for E-mail Updates on the TCEQ home page.

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An Ounce of Prevention.... Jordan Austin-SJRA



Texas has been fighting the spread of Zebra Mussels since their first discovery in Lake Texoma in 2009. As these invasive freshwater mussels continue to move West and South across the United States, agencies in Texas like the San Jacinto River Authority (SJRA) and Texas Parks and Wildlife (TPWD) are diligently trying to prevent their spread into un-infested waters. Thankfully, several Conroe-area marina owners have also committed themselves to preventing infestation into Lake Conroe.

The spread of Zebra Mussels (as well as their close relative, Quagga Mussels) is accomplished primarily by the transfer of

equipment like boats and motors, from infested waters to un-infested waters. Though relatively small, these creatures multiply very rapidly and can have significant impacts upon the ecology and economy of the regions that they affect. With the ability to attach to just about any substrate, they have been found clustered on items ranging from shopping carts to tennis shoes. Removal of this hard "crust" comes at a significant cost. Most of the economic impact is encountered by utilities like Hydropower and Water Supply utilities where intake pump motors can be clogged and other mechanical equipment rendered useless. However, even individual boat owners will experience the economic fallout when it comes to keeping their boat hulls clean. According to the online National Atlas of the United States, "Once zebra mussels become established in a water body, they are impossible to eradicate with the technology currently available." Researchers are working on alternative treatment methodologies. However, the only proven way to deal with fully established, adult mussels is through physical removal.



Fig. 1 – Zebra Mussels found on an engine mount of a cabin cruiser before launching into Lake Conroe.

The SJRA has partnered with Texas Park's & Wildlife, marina owners, other participating businesses, and residents across the North-Houston region in an aggressive advertising campaign aimed at educating the public on how to prevent the spread of invasive plant and animal species. Clean, Drain, and Dry is the theme which can be found on radio and television spots, as well as on billboards, posters, and magazine articles throughout Texas.

Recently there have been a number of "close call" cases involving Zebra Mussels around Lake Conroe. David Hudgeons, owner and operator of Inland Discount Marine, and Ben Richardson of The Palms Marina, have both stopped the launching of contaminated vessels into the reservoir. By promptly notifying SJRA and Parks & Wildlife as soon as they become aware that a vessel is in transport to Lake Conroe from a contaminated lake or reservoir, these two businessmen start taking the necessary steps to avoid accidental contamination. Transporting Zebra Mussels is illegal and can be punishable up to a Class C misdemeanor with a fine up to \$500. This far, SJRA and TPWD Game Wardens have inspected several boats found to have adult Zebra Mussels attached to their hull and/or motors (see Fig. 1). Once a contaminated boat is confirmed, Texas Parks & Wildlife requires them to be professionally decontaminated, and kept out of the lake for a number of weeks before they are permitted to launch.



Fig. 2 – Pete Hilton, owner of Quality Marine Service, cleans and de-contaminates this vessel after Zebra Mussels were found on the engine mount.

We need your help to stop the spread of Zebra Mussels, not only into Lake Conroe, but all across Texas. Please make yourself aware of the detrimental effects that Zebra Mussels can have on our Lakes and reservoirs. You can find more information at http://www.texasinvasives.org/zebramussels/.



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CUTRINE

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Meet the First Student Representative/Board Member of TAPMS: Elizabeth Edgerton



Elizabeth is beginning her second year as a graduate student at Texas A&M University in College Station, TX, where she is working on her Master of Science in Wildlife and Fisheries Sciences. Elizabeth is also a research assistant at Texas Water Resources Institute, a division of

Texas A&M Agrilife Research. Her focus is aquatic invasive species, specifically developing a Risk Assessment Model for Aquatic Invasive Plants the state of Texas. Elizabeth earned her Bachelor of Arts degree in Environmental Studies from Baylor University in 2010 and worked for the Texas Commission on Environmental Quality before beginning her graduate studies. Elizabeth is from San Antonio and her hobbies include reading, working with horses, and skeet shooting.

Alligator Weed in Australia Chris Smith

During my travels to Australia, I came across this sign at Sydney Harbor National Park and felt compelled to share it with you all. Not only is this a species we contend with in Texas but is also a nuisance "Down Under". They have 3 agencies involved in their noxious weed management program: National Parks and Wildlife Service of New South Wales, Sydney Metropolitan Catchment Management Authority, and the National Heritage Trust.





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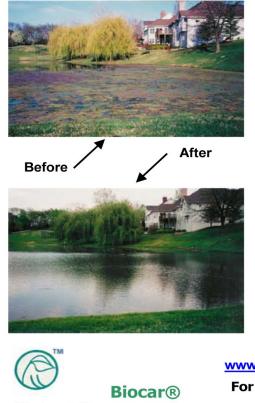
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"The Canes" by Casey Williams

"Cane" is a common term used in reference to several genera of tall (> 2m), rhizomatous, perennial grasses with worldwide distribution. The genera commonly included in the "Cane" group are *Arundo, Phragmites and Arundinaria*. While Canes are sometimes referred to as Bamboo they are not necessarily so. It is a "Bamboo are cane but not all cane are bamboo" kind of thing. Bamboo includes a specific group of grasses (*Phyllostachys, Bambusa, Arundinaria*) with persistent (evergreen) woody stems while the stem of Cane, when green, is flexible and herbaceous. Cane stems will usually die back annually or semi annually and new growth will emerge from the underground rhizomes.

Arundo donax – Also known as Giant Reed, the Reed of the Bible, is probably the most obvious and wide spread "Cane" in Texas. Arundo donax was introduced directly to California from the Mediterranean region in the 1800's for erosion control and as an ornamental. It has since spread across the warm riparian regions of the United States, where it is considered invasive, and has naturalized in more northern areas of the U.S. as well. Arundo donax is known to invade and displace native riparian plant communities such as willow, baccharis as well as grassland and arid plant communities which receive seasonal runoff or where the water table is near the soil surface. In Texas Arundo donax is distributed across the state. Arundo donax is not known to reproduce from seed.

Phragmites australis- Also known as Common Reed, is a species of wide global distribution including North and South America, Eurasia and Africa. *Phragmites australis* is known to occur in every state in the United States except Alaska. It is considered a genetically diverse species with multiple haplotypes native to North America and one haplotype introduced from Europe which is most common along the Atlantic Coast and Great Lakes Regions. *Phragmites australis* is considered a wetland or riparian grass and can produce large monospecific stands from stolon or rhizomes. In his book "A Visit to Texas" (1834) author Robert S. Gray commented on the expanse of what maybe assumed as *Phragmites australis* in the coastal region.

"Cane brakes are common in some parts of Texas. They are tracts of land low and often marshy overgrown with the long reeds which we know in the States as fishing rods. They are sometimes found as underbrush in woods and forests and are not intermingled with trees but form thick growth impenetrable when the cane is dry and hard. Our way led us the next day through one of the latter description and such a sight I never before witnessed. The frequent passage of men and horses keeps open a narrow path not wide enough for two mustangs to pass with convenience. The reeds grow to the height of about twenty feet and are so slender that having no support directly over the path they droop a little inward and so meet and intermingle their tops forming a complete covering overhead. We rode thus about a quarter of a mile along a singular avenue arched overhead and with the view of the sky shut out. The sight of a large tract covered with so rank a growth of an annual plant which rises to such a height decays and is renewed every twelvemonth affords a striking impression of the fertility of the soil."

In Texas *Phragmites australis* native distribution ranges from the Big Bend region, along the Coastal region into East Texas and North to the Panhandle.

Arundinaria gigantea- Giant cane, Southern cane or switch cane is a native of the United States and ranges from Texas to New York. In Texas Arundinaria gigantea is considered our only native Bamboo. Arundinaria gigantea is limited in its distribution to the eastern 1/3 of Texas where it makes up the understory communities of seasonally flooded forests. Arundinaria gigantea can be identified from Arundo donax and Phragmites australis by its upright growth habit. Leaves are much shorter and narrower shadow-ing its Bamboo relatives.

Key to "the Canes"

1.Stems woody, evergreen multiple branching at nodes, 2-5 sometimes 8 meters tall. Upper leaves to 25 cm long. Lower leaves sometimes smaller in size. Rarely blooming.......Arundinaria gigantean

2.Stems not woody. not branching. annual or semi-annual in warmer regions. 2-6 meters tall

3.Leaves long strap like, usually bending downward. White margin where leaf meets stem. Seed head held completely upright... *Arundo donax*

4.Leaves shorter, held upright. Seed head sometimes bending to the side or downward......Phragmites australis