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## President's Message

I don't know about you, but this winter seems to be dragging on forever. On the Great Plains, weather really shapes the landscape and the people who choose to live here. As winter stretches on... the quiet, cold and stillness is often interrupted by short bursts of extreme weather and activity, further driving home the message that change is just around the corner.

AFS is going through some changes as well. A new Executive Director, a new governing board structure and an overall shift to focusing more on member services and setting a new course for our profession. Doug Austen has really empowered his staff to focus on unit support. We receive frequent and updated membership lists, and any questions or emails are answered promptly. FMS has received assistance from Sarah Gilbert-Fox in migrating our webpage over to the Societies server, and has worked with webmaster Travis Neebling to make site upgrades and improvements. If you see things you like, have comments or just want to help out, let Travis know. Overall, I'm very happy with the support and service FMS is receiving from Bethesda

and look forward to growing this relationship.

Likewise, Megan Altenritter from the University of Maine has helped the Society and many units move our list serve management to email dodo, which aptly describes my level of proficiency and raises her efforts to those of a miracle worker. Thank you Megan!

Another recent change is the function of the AFS Governing Board (GB) and the Management Committee (MC). Instead of the entire GB considering most all business matters twice a year, the MC meets monthly via conference call to handle routine business. This frees up the GB to do the heavy lifting on serving our profession and membership. While being on the MC is a larger time investment for those GB members (FMS is currently represented as one of the four elected at-large seats of the MC), I think it pays off in allowing our elected leaders to concentrate on moving our profession and the science forward. At this year's mid-year GB meeting in Savannah in conjunction with the SDAFS meeting, AFS President Donna Parish focused on how to improve our communications strategy

within and external to AFS. And AFS Pres-Elect Ron Essig is planning to focus on the recommendations from the Special Committee on Educational Requirements in Portland at this year's Annual Meeting.

This year in FMS we are focusing on supporting the International Standard Sampling Symposium in Portland and continuing a number of the Young Professional Committees efforts already in motion. You will read about most of them here in this edition of the FMS Newsletter.

Finally, I need to thank Brian Graeb for his years of service to FMS, and for helping keep our ship afloat. We are fortunate to have a long list of dedicated past-presidents who have been great leaders and are always available for counsel. I'd also like to welcome Randy Schultz, Pres-elect and our new regional representatives: Jeff Koch, NCD; Mike Colvin, WD; Eileen O'Donnell, NE; and Jason Olive, SD. Geno, Travis, Quinten and I look forward to working with you in the upcoming years.

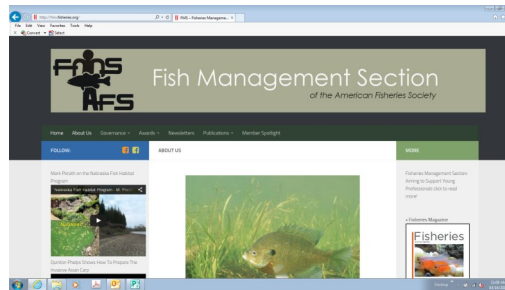
**Mark Porath**  
**Nebraska Game and Parks**



## New Website for the Fisheries Management Section

Thanks to the hard work of Sarah Gilbert Fox out of the Bethesda office, the Section has a new website. Sarah has been working with many of the AFS units to rebuild their websites in a way that better connects them back to the Society as well as to other relevant

units. We are still in the process of transferring content over from the old site, but the new site can be found here: <http://fms.fisheries.org/>



Hopefully everyone will find it easy to navigate. Additionally, you should expect to see expanded content both from the Society as well as work being done within the Section. If you have any question or comments, please contact the webmaster, Travis Neebling, at [Travis.Neebling@wyo.gov](mailto:Travis.Neebling@wyo.gov) or (307) 233-6410.

**Travis Neebling**  
Wyoming Game and Fish

## Fisheries Management Section

### 2014 Young Professional Exchange Award

The Fisheries Management Section of the American Fisheries Society (FMS) is currently accepting applications for the Young Professional Exchange Award for the 2015 Annual Meeting of the Institute of Fisheries Management (IFM) in the United Kingdom. This inaugural award was established to promote the attendance of a young professional who has made substantial contributions to the field through continued education, outreach and AFS service. The award provides up to \$2,500 in travel support to attend the IFM Annual Meeting in 2015. Preference will be given to those individuals who are actively involved in AFS and fisheries management, have demonstrated expertise in new management methods or techniques, and can effectively communicate with international fisheries resource professionals. All AFS young professionals (within 5 years post-graduation) who are members of FMS are encouraged to apply. The award winner is encouraged to attend the Fisheries Management Section business meeting at the Annual AFS Meeting in Portland and to host the IFM young professional award recipient. The winner will also be required to provide a presentation at the IFM Annual Meeting and tell the story of their exchange experience.

The application should consist of the following:

- Letter of interest
- Statement of service to the Society, Sections, Divisions, or Chapters and why you want to attend the meeting
- Statement of demonstrated expertise
- Current resume, degree(s), list of publications, honors and awards, and presentations
- Title and abstract of contributed paper to be presented at the IFM Annual meeting

*Applications should be submitted in electronic format (a single PDF preferred) to Mark Porath [mark.porath@nebraska.gov](mailto:mark.porath@nebraska.gov) and must be received by March 31<sup>st</sup>, 2015. The recipient will be notified by May 1<sup>st</sup>, 2015.*

**Mark Porath**  
Nebraska Game and Parks

**“Applications must  
be received by  
March 31, 2015.”**



## Young Professional Committee Wants Your Input Now!

The Young Professional Committee of the Fish Management Section ("FMS" or "Section") is working to assist those who are transitioning from being a student to a professional in fisheries science, conservation and management. In 2015, the FMS dues for young professional members of the American Fisheries Society were reduced from \$5 to \$0. Furthermore, the AFS governing board will be voting on extending the term for the young professional status from 3 to 5 years in an effort to recruit and sustain young professionals.



Recognizing that dues are not the only factor(s) inhibiting fisheries professionals from membership and participation in the AFS, the Young Professional Committee is seeking your assistance in providing input into the reasons that may or may not have influenced your decision to become a member of the AFS. In addition, we hope to determine the various facets of AFS that are important for fisheries professionals and identify specific areas that the society can enhance to better serve its members. Please participate in a short survey by clicking the following link and encourage your colleagues (especially non-AFS members) to fill out the survey as well. A summary of the survey results will be distributed via the FMS listserve and to all non-AFS participants who leave contact information (email address).

Survey: <http://goo.gl/forms/1RPnIHZSBw>

On behalf of the Young Professional Committee and the FMS Excom, we thank you for your continued participation and dedication to the stewardship of our global aquatic resources.

Sincerely,

The Young Professional Committee of the Fish Management Section

<b><i>Martin Hamel</i></b>	<b><i>Quinton Phelps</i></b>
<b><i>Landon Pierce</i></b>	<b><i>Travis Neebling</i></b>
<b><i>Rebecca Krogman</i></b>	<b><i>Tyler Stubbs</i></b>
<b><i>Tom Lang</i></b>	<b><i>Jesse Fischer</i></b>
<b><i>Mark Fincel</i></b>	<b><i>Kyle Bales</i></b>
<b><i>Hilary Meyer</i></b>	<b><i>Ryan Hupfeld</i></b>
	<b><i>Mark Porath</i></b>



*“You know a welder from upstate New York?”*

## The Legacy of Missouri Mike Colvin

It all began when I started my Ph.D. at Iowa State University in 2007. My first instance of mistaken identity occurred after a workshop on bioenergetics at the Midwest Fish and Wildlife Conference up in Madison, Wisconsin where the instructor noted that I was not the Mike Colvin from Missouri. These bits of “you’re not Mike Colvin from Missouri” or “you’re not Mike Colvin” happened off and on throughout my stay in Iowa and travels around the Midwest. To the point that when in conversation with the late Dr. Dave Willis, he noted I should say hi to my father, to which I replied “you know a welder from upstate New York?” Obviously, he was working under the assumption that I was related to Missouri Mike Colvin.

There are certainly worse folks to be associated with. While I never met my elusive namesake during my travels in the Midwest, I certainly looked over his very productive body of work. Missouri Mike Colvin published many papers on crappie and is a renowned and well respected fishery biologist, so being confused for him was not necessarily a bad thing, but it did get old always having to qualify that I was not Missouri Mike Colvin. I left the legacy of Missouri Mike Colvin behind when I began my postdoc at Oregon State University. Fast forward 2 years and I happen to land an academic job at Mississippi State University and Missouri Mike Colvin was the furthest thing from my mind—until I was soliciting applicants for a master’s assistantship with myself and Dr. Miranda. In particular, one applicant happened to note that his advisor had worked with me way back when and hoped I was doing well. Well I guess that even in the Deep South I am still going to have to deal with the Legacy of Missouri Mike Colvin.

For over 7 years, I have had to qualify that I was not Missouri Mike Colvin, but I had yet to meet the fella. I assumed he was retired, given some of the dates of his early publications, so I figured I could chalk up the probability of meeting him to be about the same as sighting a Sasquatch or unicorn. On January 30<sup>th</sup>, 2015 it finally happened. I was attending the Southern Division AFS meeting in Savannah, Georgia when somebody pointed out to me that the real Mike Colvin was at the meeting too. I had missed meeting him at the welcome social and figured that was that.



## ...Colvin Continued.

But, during the banquet social another colleague noted that the real Mike Colvin was at the social and would go grab him. I waited in anticipation to finally witness Missouri Mike Colvin. Would he be a Grizzly Adams looking fella? A traditional fisheries biologist with a strong mustache? Well the picture below adequately describes the ensuing conversation about his career and legacy over a cold beverage. Thanks to AFS, I finally met the real Mike Colvin.

**- Not Missouri Mike Colvin  
Mississippi State University**



*Missouri Mike Colvin and Mike Colvin finally meeting at the SDAFS annual meeting in Savannah, Georgia (Photo courtesy of Mark Porath).*

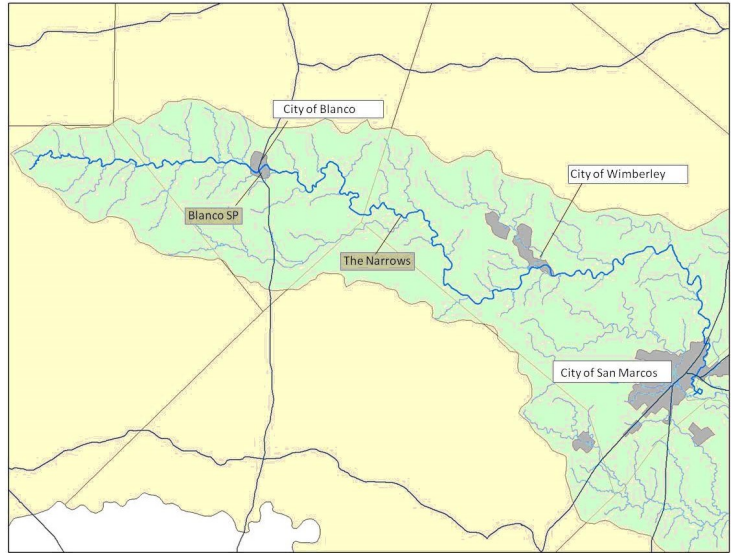
## Drought Offers a Rare Fish Conservation Opportunity in Texas



Very few positive things can be said about the record drought and heat that gripped Texas during summer 2011. Agriculture suffered, lawns died, streams and rivers dried up, wildfires burned, and even the hardiest species of trees and native plants perished. The drought did however provide a rare opportunity for fish conservation on the Blanco River near Blanco, Texas, which has potential for re-introduction of the state fish back into a river where it no longer exists.

The headwaters of the Blanco River bubble up from springs in the hills roughly 16 miles west of the city of Blanco, eventually flowing into the San Marcos River just east of the city of San Marcos. Historically this classic Hill Country river was home to a good population of the Texas state fish, the Guadalupe bass (*Micropterus treculii*). This endemic black bass species occurs nowhere else in the world except in Central Texas, with most of the populations located in small Hill Country streams within the Edwards Plateau ecoregion. This species evolved in small streams and is popular with anglers, who often refer to them as “Texas trout”.

Unfortunately, the stocking of non-native smallmouth bass in the 1970’s and 1980’s in the Blanco River and other Hill Country streams had unintended consequences. While stocked smallmouth bass were well suited to the rocky stream habitat of the Texas Hill Country they also hybridized with endemic Guadalupe bass. Soon it was difficult to tell one species from the other and extinction of Guadalupe bass became a real possibility. Smallmouth bass stockings were discontinued, but in many streams, restoration of genetically pure Guadalupe bass populations was thought to be nearly impossible.



Map of the Blanco River watershed from headwaters to its confluence with the San Marcos River near San Marcos, TX.



The Blanco River just below Blanco State Park in summer 2011. The riverbed in many places was dry due to historic drought conditions.



## Drought - Continued

A recent study by Texas State University looked at the genetic integrity of Guadalupe bass throughout their range and found no pure Guadalupe bass in the Blanco River. It was thought removing smallmouth bass and hybrids would likely be impossible and the Guadalupe bass population in the Blanco River would be lost forever. Then came the drought of 2011. Opportunity knocked, and a plan came together which provided some hope for reintroduction of the species in at least a portion of the river.

The drought of 2011 was so severe that much of the Blanco River was dry, with only a limited number of small pools existing in a 15-mile reach of river between Blanco State Park and The Narrows (a series of drops in the river that form a natural physical barrier limiting upstream movement of fishes). Fish which had survived the drought were confined to these pools and it was thought smallmouth bass and hybridized Guadalupe bass might be effectively removed. If these were removed, pure Guadalupe bass could be re-introduced and a population might be re-established in at least a portion of the river. One unknown, which threatened initiation of the project, was that the 16-mile reach of river upstream of Blanco State Park to the headwaters harbored a series of small impoundments. These impoundments retained large amounts of water even during the severe drought. If these impoundments contained smallmouth or hybridized Guadalupe bass it was thought re-introduction efforts would be futile, as these fish could easily move downstream into the restoration area below the park.



*TPWD staff prepare to barge electrofish a small pool on the Blanco River in summer 2011.*



*The same pool as shown above in spring 2012 after rains returned to central Texas. Photo courtesy of Rachael Ranft, Texas Nature Conservancy.*

In summer 2011, Texas Parks and Wildlife (TPWD) and Texas Nature Conservancy staffs contacted landowners on the river above Blanco State Park and began the process of sampling upstream impoundments to look specifically for smallmouth and hybridized Guadalupe bass. A genetic analysis of individuals captured in the impoundments by the

## Drought - Continued



A.E. Wood State Fish Hatchery Analytical Lab found neither. Work then began on removing smallmouth bass in the isolated pools downstream of Blanco State Park to The Narrows. Georeferenced aerial imagery of the remaining pools was first collected using the Texas State River Systems Institute unmanned aerial vehicle (UAV). The imagery was extremely useful as it ensured all remaining water could be accounted for, and plans for efficiently accessing the pools from private property or road crossings could be made.



*The same pool in spring 2012 after rains returned to central Texas. Photo courtesy of Rachael Ranft, Texas Nature Conservancy.*

Crews from the Texas State University Aquatic Biology Department, Texas Tech University Department of Natural Resources Management, TPWD River Studies Program, TPWD Watershed Conservation Program, TPWD San Marcos Fisheries Management Office and the Texas Nature Conservancy then used a combination of seining and electrofishing gear to remove smallmouth bass and Guadalupe bass hybrids. Approximately 40 pools identified by the UAV were sampled and a relatively small number ( $N = 26$ ) of smallmouth bass and hybrids were identified and removed. Large numbers of other species of fish taking refuge in the pools were collected and released, which likely meant seining and electrofishing were effective removal techniques.

Rains returned to most of Texas in spring 2012 and the Blanco River once again began flowing, connecting the once isolated pools. In spring 2012 and 2013, 322,000 pure Guadalupe bass produced by the TPWD A.E. Wood State Fish Hatchery in San Marcos were stocked throughout the Blanco River, with the long-term goal of establishing a self-sustaining, pure Guadalupe bass population in the upper 31 miles of the river.

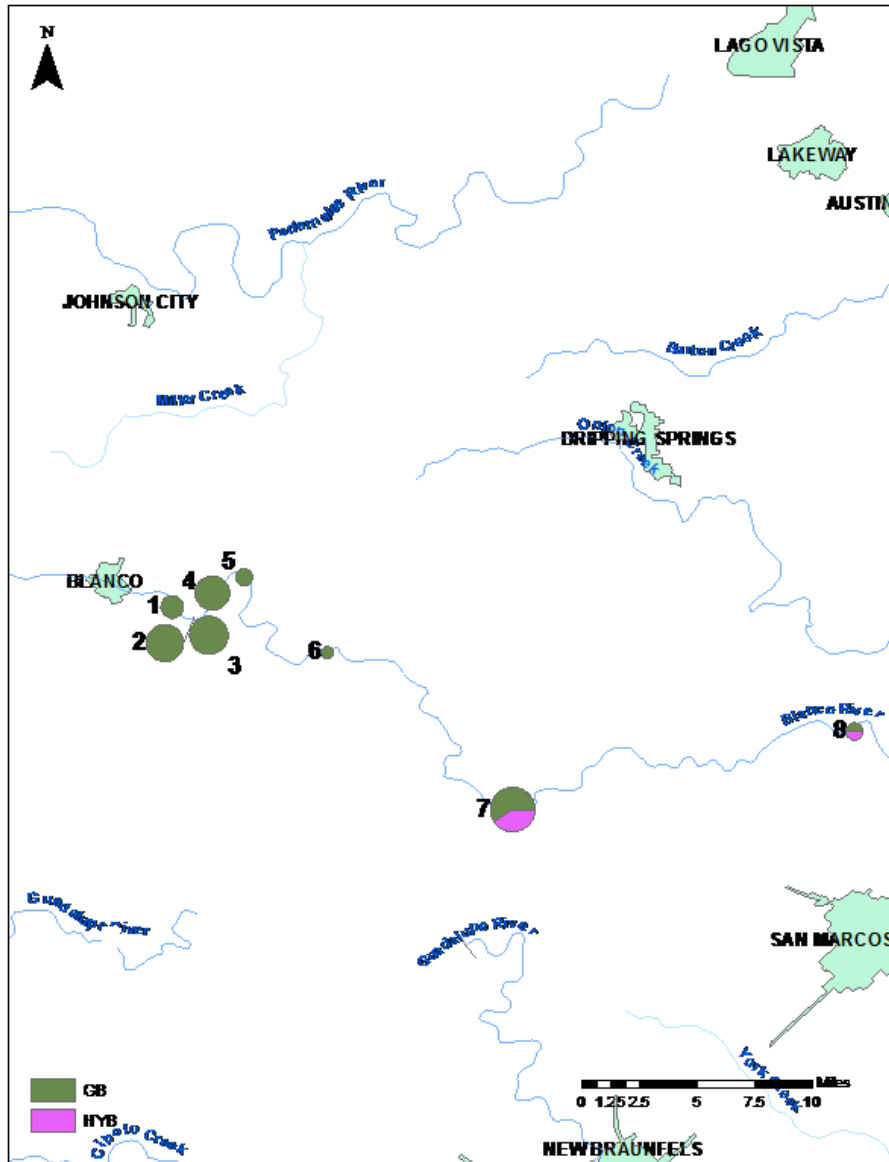




# Drought - Continued

## Early Results Encouraging

Fish sampling was conducted in August 2014. Fingerlings stocked in 2012 should have been sexually mature by 2014 and we hoped to find young-of-the-year Guadalupe bass that were spawned during the spring. Ninety-nine fish identified in the field as pure Guadalupe bass or hybrids were collected for genetic analysis. These were collected inside and outside of the restoration area.

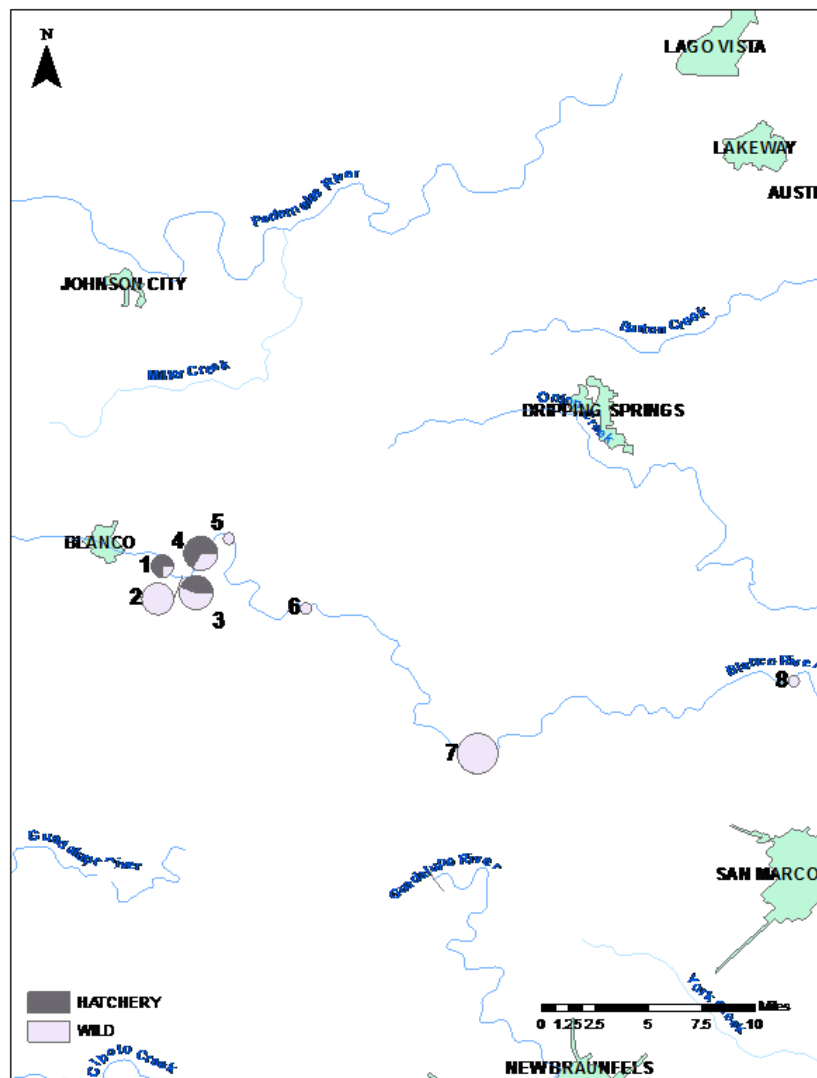


Proportion of Guadalupe bass (GB) and hybrid (HYB) genotypes recovered at each sample site (total n = 99). Pie graphs are scaled to sample size. Sites 1 through 6 were in the area where smallmouth bass were removed from enduring pools. Figure courtesy of Dijar Lutz-Carrillo, A.E. Wood State Fish Hatchery Analytical Services Lab.



# Drought - Continued

Results indicate the project has thus far been a success, as only pure Guadalupe bass were collected in the 15-mile area targeted for restoration. Natural reproduction is taking place as wild fish contributed to the population of pure Guadalupe bass, not only in the restoration area, but also downstream beyond The Narrows, the lower extent of the targeted restoration area. Wild fingerlings probably represent the best chance for reducing genetic introgression in the entire river over the long-term. The restoration area and the river upstream to the headwaters, which has yet to be stocked, could potentially serve as a perpetual source of pure Guadalupe bass stock for downstream areas.



Proportion of hatchery and wild Guadalupe bass recovered at each of 8 sampled sites. Sites 1 through 6 were in the area where smallmouth bass were removed from enduring pools. Pie graphs are scaled to sample size. Only Guadalupe bass subjected to parentage analyses were considered (total n = 46). Figure courtesy of Dijar Lutz-Carrillo, A.E. Wood State Fish Hatchery Analytical Services Lab.



## Drought - Continued

Early results from this project are encouraging. While the drought of 2011 is something we likely want to forget, it did bring a rare opportunity for removing a non-native species. Without the drought this removal effort would not have been considered. Hopefully efforts put forth by collaborators on this project will be successful in bringing the state fish of Texas back to at least a portion of the Blanco River.



*Pure Guadalupe bass adult collected in summer 2014. This is likely a hatchery fish stocked in spring 2012. Photo courtesy of Rachael Ranft (Texas Nature Conservancy).*



*TPWD River Studies Program staff backpack electrofish a small pool remaining in the almost dry riverbed of the Blanco River in summer 2011. Surprisingly these small pools often harbored large numbers of fish.*

**Stephan Magnelia, Gordon Linam, and Ryan McGillicuddy**  
Texas Parks and Wildlife



## A Unique Approach to Sample Larval Fishes in Anthropogenically Modified Systems

Traditionally, fisheries managers and ecologists alike have treated reservoirs and rivers as separate ecological systems. However, it is becoming apparent that they are acting as a single ecological system and that the transition zone between a river and reservoir, the river-reservoir interface (RRI), is an important and dynamic part of an altered watershed. Recent studies have suggested that it may be the most species-rich and productive portions of an altered river system. The RRI may also potentially be acting as a surrogate nursery for riverine fishes as connectivity to natural backwater habitats diminishes.

I was particularly interested in the backwaters in an RRI with my research under Dr. Tim Grabowski with the Texas Cooperative Fish and Wildlife Research Unit at Texas Tech University and supported by Texas Parks and Wildlife. These RRI backwaters form from flooded tributaries or lower elevation areas isolated from the main channel by sediment deposition (Figure 1; RRI Sites, Figure 2). Physicochemical conditions in these RRI backwaters are at least superficially similar to natural riverine backwater habitats found on the floodplain that are typically used by fishes as nursery habitat. However, these backwater habitats regardless of whether they are naturally occurring on the floodplain or in the RRI tend to be difficult to sample for a couple of reasons. They typically have thick mud and silt substrates rendering the use of seines and other similar gear types ineffective. Furthermore, their shallow water and lack of access points makes deployment of pushnets and townets from a boat, difficult if not impossible.

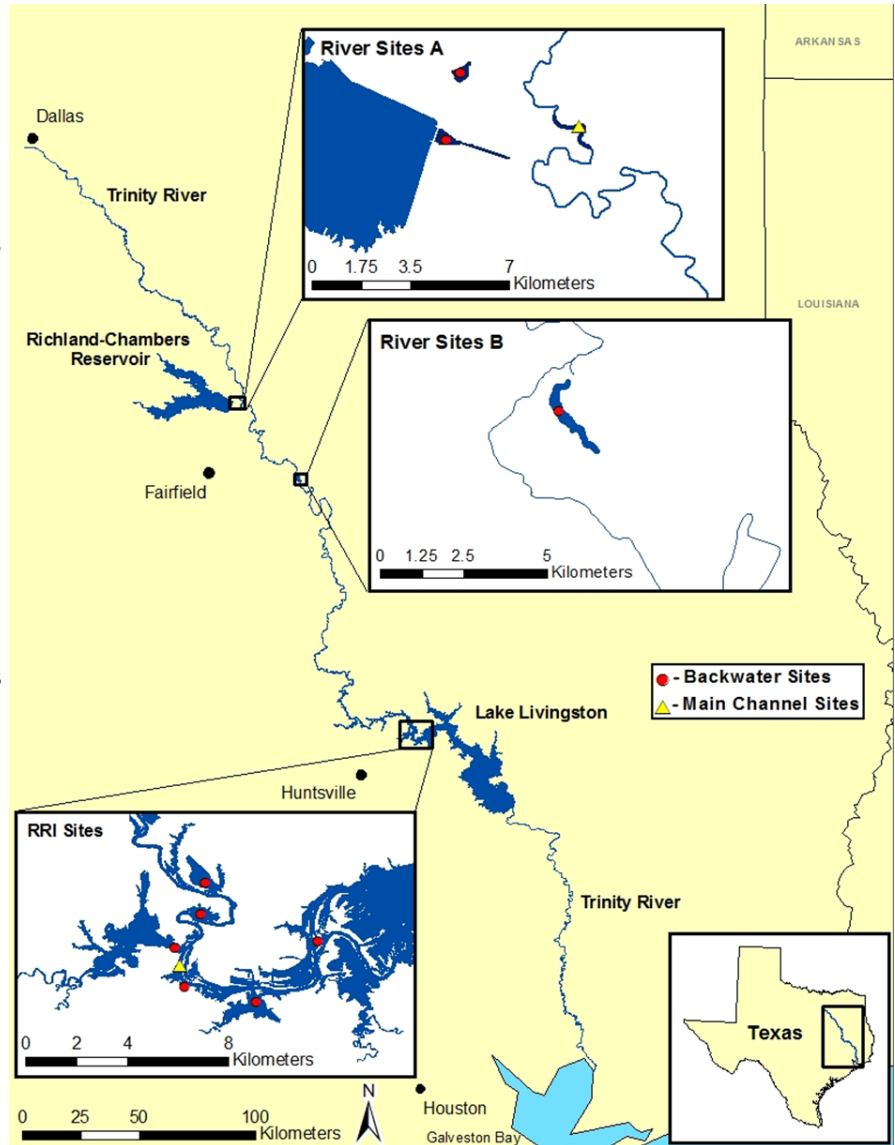


Figure 1. The Trinity River, located entirely in Texas, runs from Dallas-Ft. Worth metroplex and discharges into the Galveston Bay near Houston, Texas. The inset maps River Sites A & B were the sites chosen to represent our natural backwaters and the inset RRI Sites were our river-reservoir interface sites.





## Larval Fishes - Continued

This modified pushnet system seemed to be effective and enabled us to capture roughly 44,000 larvae over the course of a two-year study across sites in the Trinity River and the Lake Livingston-Trinity River RRI in eastern Texas. Approximately 85% of the larvae were captured from the RRI. In both 2013 and 2014 catch per unit of effort (CPUE) and Shannon's diversity index ( $H'$ ) were higher in RRI sites than riverine sites (Figure 1; River Sites A & B). However, I did not encounter representatives of floodplain dependent species in the RRI sites. Large reservoirs are likely to be a feature in riverine systems for the foreseeable future. However, our results suggest that RRI habitats may provide the biotic and abiotic factors necessary to serve as nursery habitats for riverine fishes. Though the RRI backwaters may not be the perfect substitute for connectivity to the main channel and more natural riverine backwaters, they may help to mitigate losses of abundance and diversity.



Figure 3. Paired pushnet setup and design used in the Trinity River, Texas to collect larval fish in the main channel and backwater habitats. A) Two jet-propelled kayakers connected with an aluminum bar and two modified pushnets hung from the center. B) Pushnet harness was designed so when in operation the wooden wedge would pinch against the aluminum bar and maintain their position in the water column. A metal pin (pictured) was used to keep the aluminum bar from sliding back during operation and a clamp (not pictured) was used to keep the bar from rotating on the gunwale. Additionally, a rope was connected to the gunwale and the top frame of the pushnet to reduce the chances of losing a net when debris was encountered. C) Modified pushnet built from 500- $\mu$ m netting and silicone to seal the seams. D) Paired pushnets deployed during a transect with flowmeters attached at the mouth of each net.

**Matthew Acre**  
Texas Tech University



## Once-Extirpated Fish Species Believed Discovered in Mississippi River

DES MOINES—State and national scientists are working to identify a fish found in the Mississippi River recently that, if proven to be what it is thought, would be the first time in more than 80 years the species has been confirmed in Iowa.

Iowa DNR fisheries staff collecting fish for a fishing clinic in early July captured what is believed by state and national authorities to be a longear sunfish.

“If this proves to be a longear sunfish it will be the first time since 1932 the species has been positively identified in Iowa,” said DNR fisheries technician Adam Thiese, who collected the fish. “How it got here and where it came from remains to be determined. For those that work in the fisheries field, both state and nationally, anytime an uncommon species can be documented, it’s an exciting discovery.”



*Longear sunfish.*

Leading national ichthyologists believe it is a longear sunfish. A fin clip has been collected to verify. Once listed as common in bayous around Muscatine, they have been extirpated from the state for more than eight decades. The fish is being held alive by the DNR until it can be positively identified.

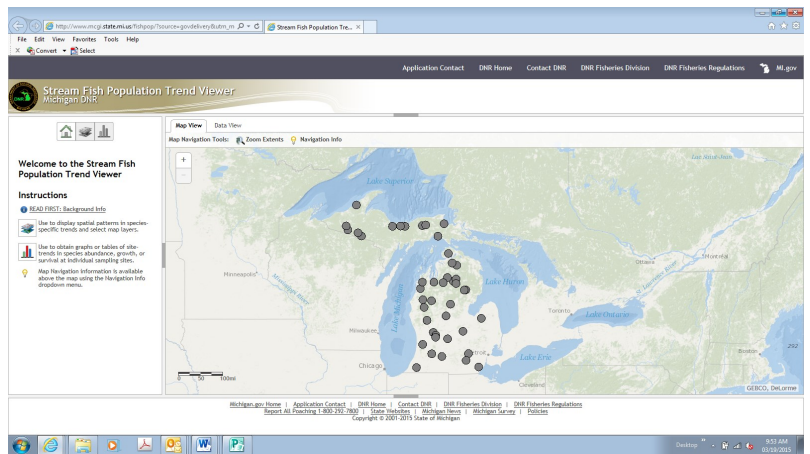
**Jeff Koch**  
Kansas Wildlife, Parks and Tourism

## New Website Application Shows Fish Population Trends Around Michigan



The Michigan Department of Natural Resources announced that a new Web application designed to educate anglers and fisheries professionals on local and regional trends in abundance, growth and survival of important fish populations in selected streams across Michigan is available for public use. The application was developed by the DNR's Fisheries Division and incorporates data collected from a network of fish population survey sites, with data for some sites going back to 1947.

"The new Stream Fish Population Trend Viewer features more than 40 streams that represent a range of conditions in terms of stream size, temperature and Great Lakes access," said Troy Zorn, DNR fisheries research biologist. "The focus is on streams with long-term data and naturally reproducing populations of trout, Great Lakes salmonids or smallmouth bass to provide users with information on self-sustaining fish populations around the state."



*New stream fish population trend viewer developed by the Michigan Department of Natural Resources.*

A clearer picture of fish population trends in an individual stream emerges when one repeatedly samples the same site over time. Such sites are often referred to as index or fixed sites. Since trends in stream fish populations are largely influenced by regional climate and flow conditions, users will be able to better understand population trends in different areas of the state by comparing trends at fixed sites in each region. The Trend Viewer was designed to integrate this type of information. For fishery managers, understanding regional trends is critical to determine the best course of management on these streams, as well as interpreting survey data on streams that are surveyed less frequently. Understanding these trends is equally important to anglers, watershed or conservation groups, and the public.

Anglers, fisheries professionals and the public will be able to look up a river and see what the most recent trends are in terms of abundance, growth and annual survival of selected fish species. Information can be viewed in map, graph or table formats. Approximately half of the sites are sampled each year, and the new data will be added annually to the Trend Viewer app prior to spring.

The app was developed in collaboration with the Michigan Department of Technology, Management and Budget and Michigan State University and funded by the Great Lakes Fishery Trust and Michigan DNR Fisheries Division.

The Stream Fish Population Trend Viewer app can be found at: <http://www.mcgi.state.mi.us/fishpop/>

**Jeff Koch**  
Kansas Wildlife, Parks and Tourism





**FISHERIES MANAGEMENT SECTION**  
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<http://fms.fisheries.org/>

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The Section is composed of people who wish to develop, apply, and evaluate effective management concepts or techniques as well as programs in education and information to solve fisheries management challenges. The Section promotes the exchange of fisheries management information and the results of applied research among professionals, students, user groups, resource management agencies, and the general public who share interest in fish and the habitats supporting them. The Section sponsors workshops, symposia, topical sessions at professional meetings, and special projects to examine fishery management challenges. Section membership provides a credible voice for a wide range of fisheries management issues. The Section continues active involvement with legislative initiatives as well as governmental and private-sector activities which affect the quality and extent of all fisheries. Selection of activities for Section involvement results from individual member initiative.

