

SOUTHEAST AQUATIC RESOURCES PARTNERSHIP

**SARP**



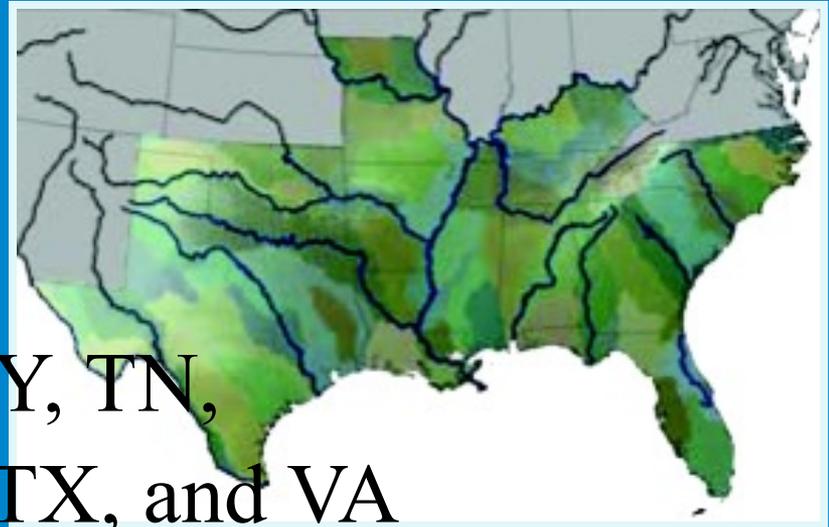
# Landscape Scale Conservation for Fish

National LCC Conference  
March 2012

# SARP Steering Committee

## **Federal and State agencies with management authority over fisheries**

- 14 State Resource Agencies
  - FL, SC, NC, GA, AL, KY, TN, MS, LA, AR, MO, OK, TX, and VA
- U.S. Fish & Wildlife Service
- National Marine Fisheries Service
- Coastal Commissions/Councils
- U.S. Geological Survey (science only, no management authority)

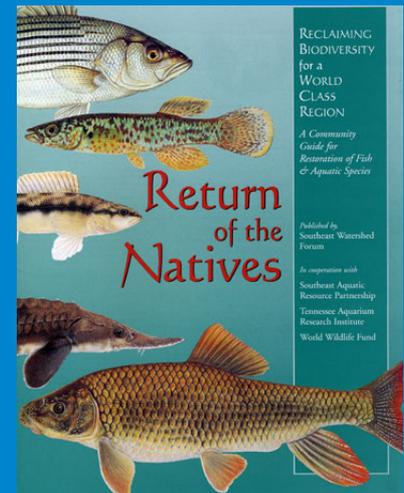


# Partners

- EPA Gulf of Mexico Program
- Georgia Power Company
- SEAFWA
- US Army Corps of Engineers
- National Park Service
- The Nature Conservancy
- Southern Company
- Southeast Watershed Forum
- Bass Pro Shops
- World Wildlife Fund

# About Us

- Conservation planning activities
- Facilitate local projects through funding opportunities, partnerships, networking, prioritization
- Web site – [www.southeastaquatics.net](http://www.southeastaquatics.net)
- Quarterly electronic newsletter, regular electronic news update, and Facebook page
- Habitat assessment
- Publications
- Training – Southern Instream
- Flow Network (SIFN), Southeast Watershed Forum



# Southeast Aquatic Habitat Plan

## Key Elements

- Healthy Watersheds
- Functional Riparian Areas
- Watershed Connectivity
- Natural Fluvial Processes
- Natural Flow Regimes
- Intact Food Webs

*Conserving our Southeastern Aquatic Habitat:*

### THE SOUTHEAST AQUATIC HABITAT PLAN

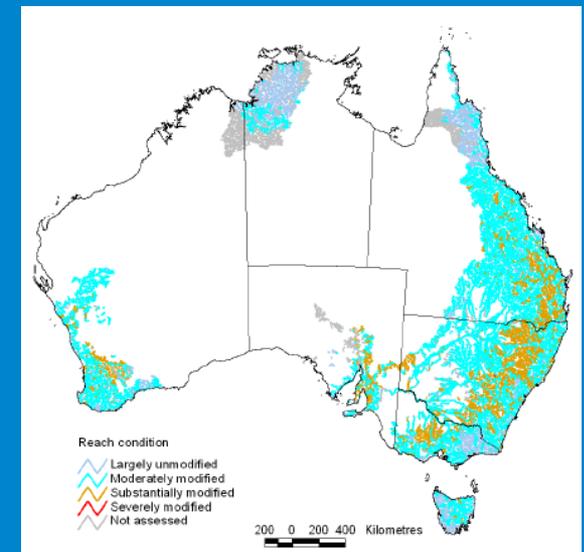
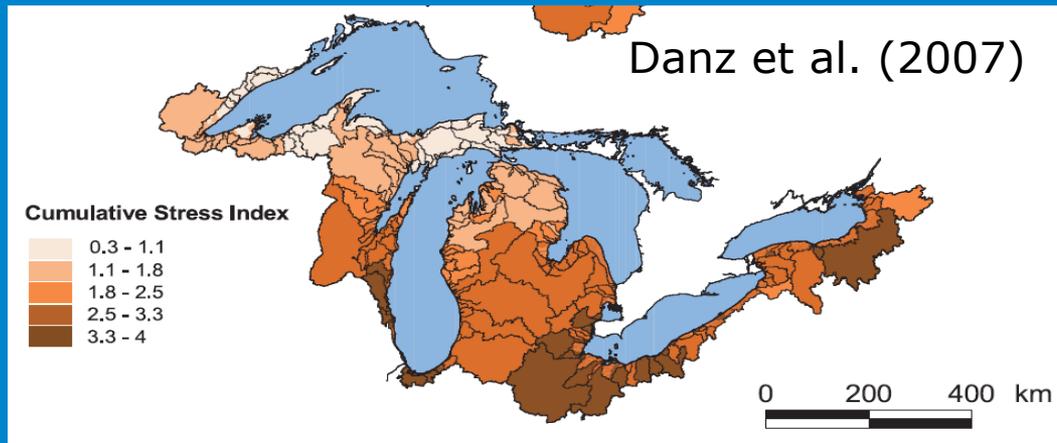




- One of the original Fish Habitat Partnerships recognized by the National Fish Habitat Board
- SARP is continuing to recruit partners, educate, and build support for the National Fish Habitat Action Plan at the national and regional level

# National Fish Habitat Assessment

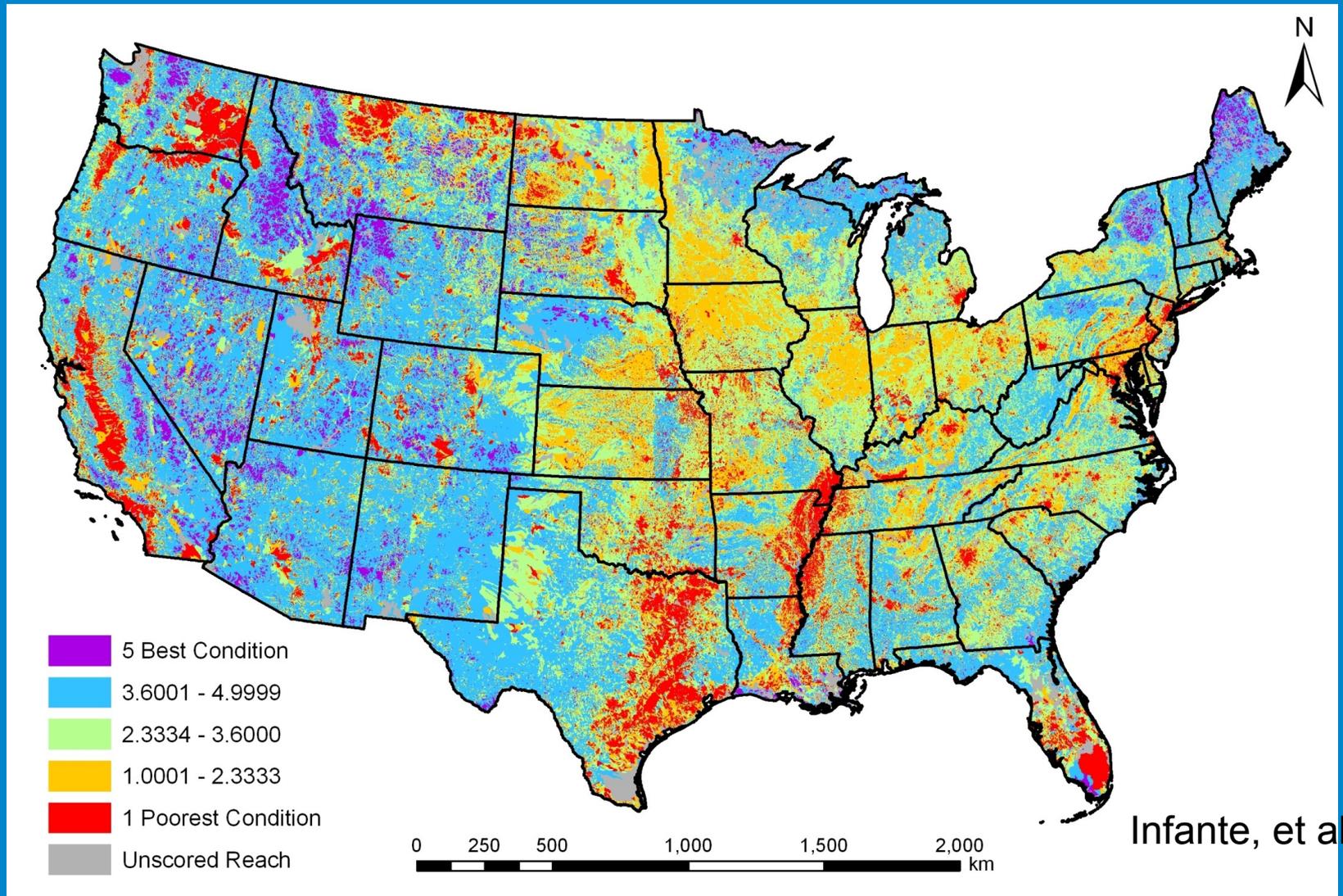
- Landscape metrics describing human activities in catchments are effective predictors of in-stream water chemistry, physical habitat, and biotic integrity (Gergel et al. 2002; Allan 2004)



- Intensity of anthropogenic activities relates to degree of local habitat degradation
- Landscape data useful for assessing large regions across which site-specific data may be unavailable or inconsistently collected

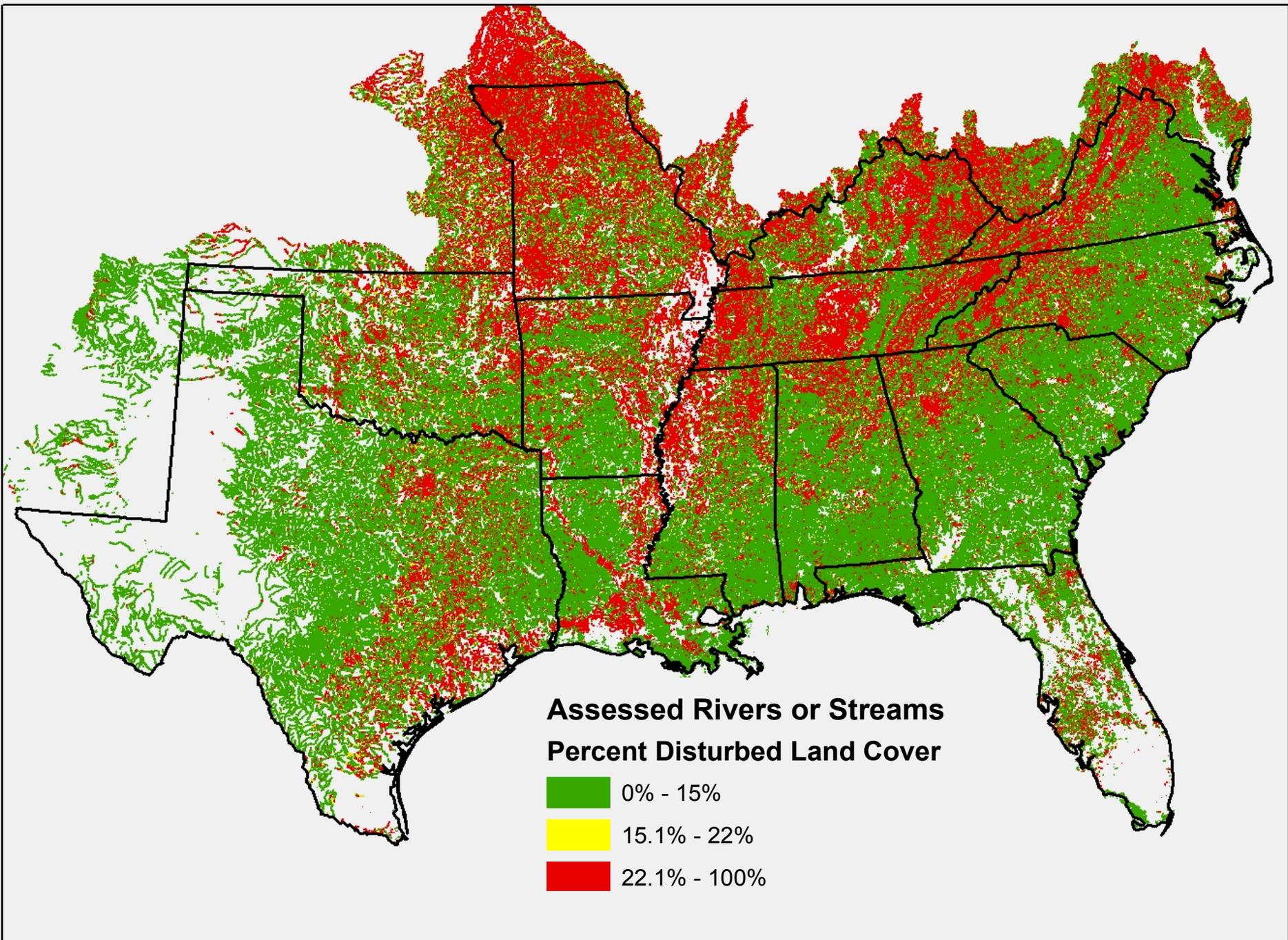
*Slide courtesy of NFHAP Science and Data Team*

# Results of lower-48 assessment

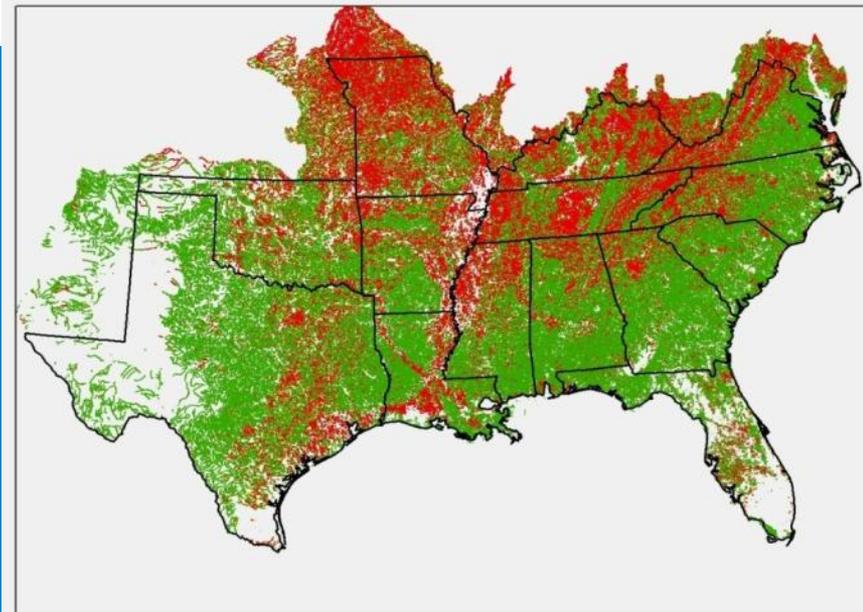
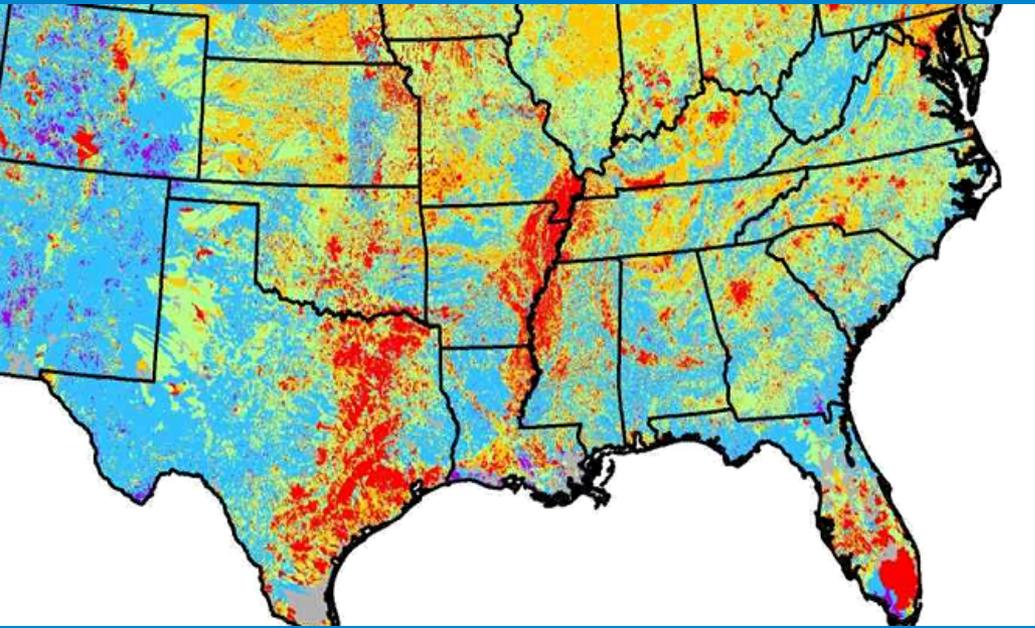


# Regional Habitat Assessment

- Provide a regional baseline of aquatic habitat condition
- Inform identification, development, and selection of habitat restoration projects
- Complements National Fish Habitat Assessment
  - Species of greatest conservation need
  - Watershed condition
  - Restoration potential
  - Specific characteristics of habitat
  - Improves existing or developing models



# Comparison to Status of Fish Habitats



\* Map from national team

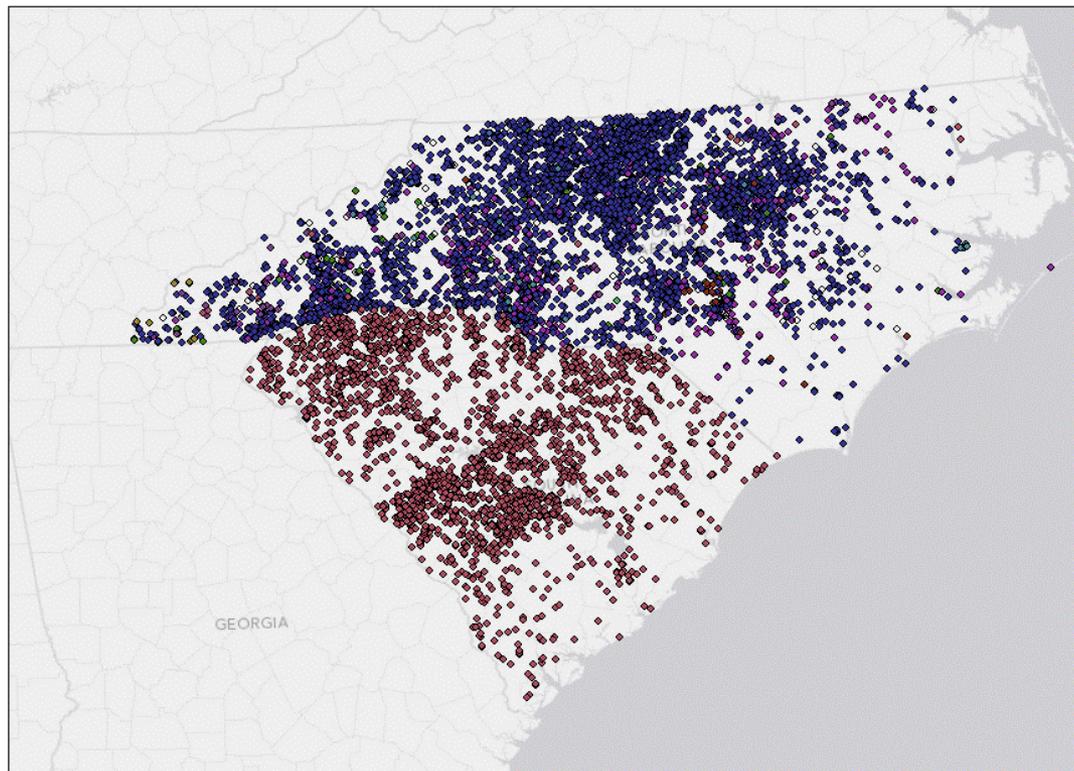
# Quantitative Targets

## **Objective 1. Riparian Areas**

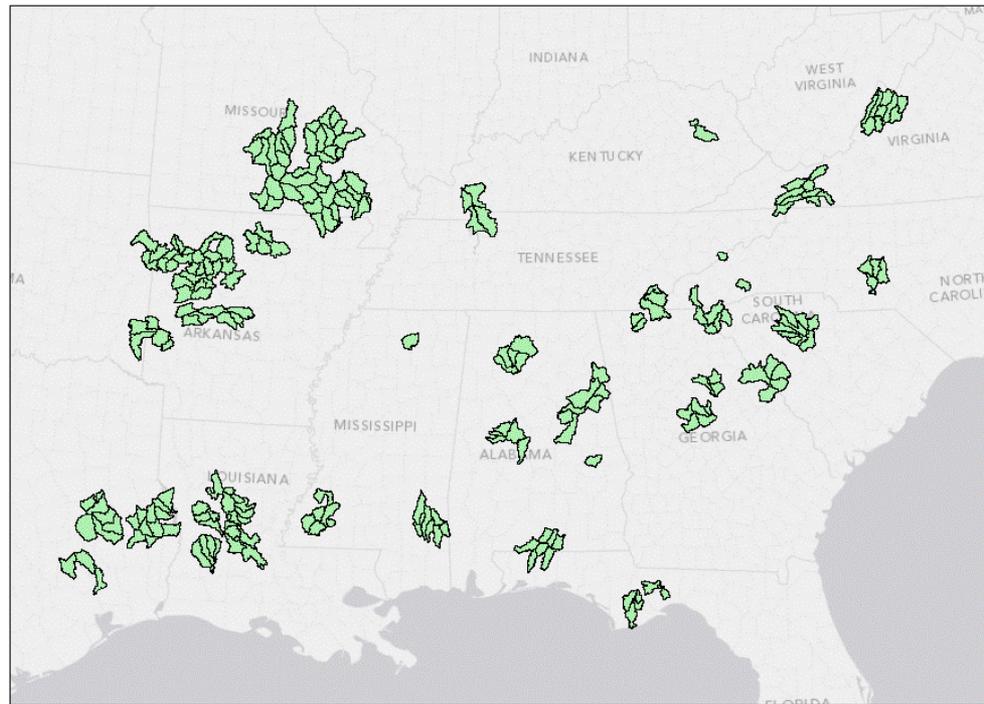
**Target 1A.** By 2022, Ensure non-urban/non-agricultural land cover on  $\geq 85\%$  of the riparian areas (100ft/30m) of all streams

- By 2012, at  $\geq 78\%$  adequate riparian buffers
- By 2017...etc.

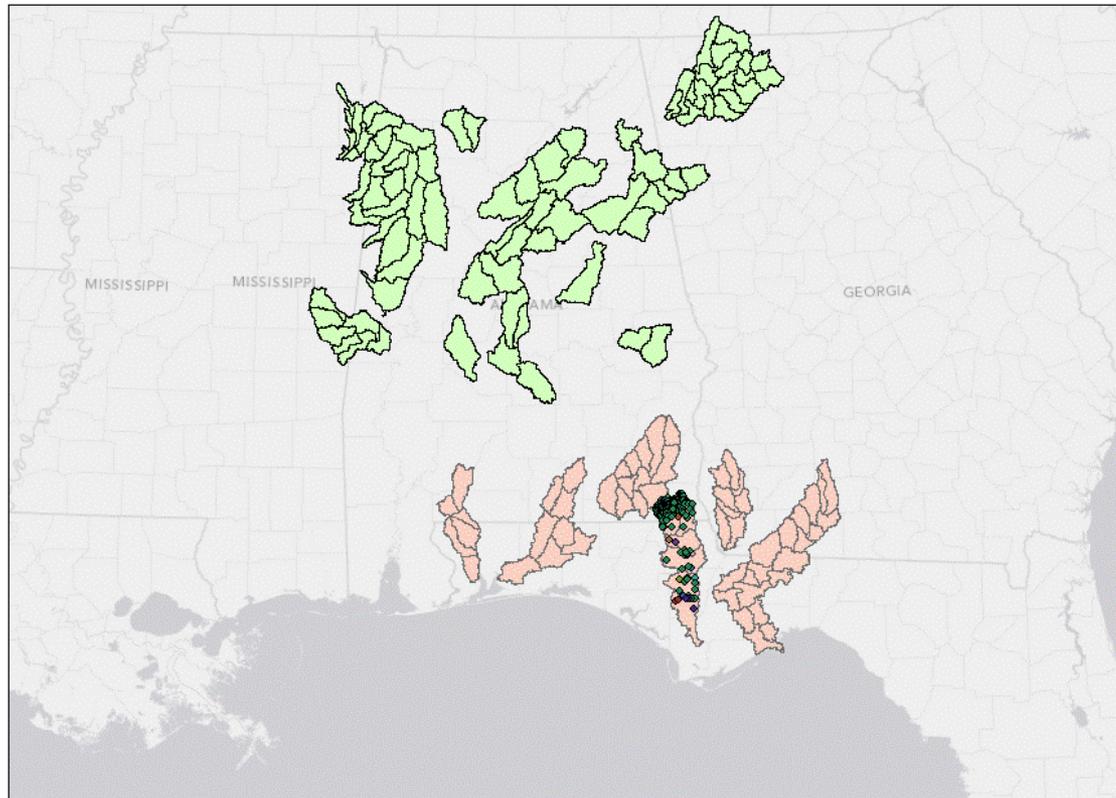
# Aquatic Connectivity Studies American Rivers/NOAA



# USFS Center for Aquatic Technology Transfer Surveys



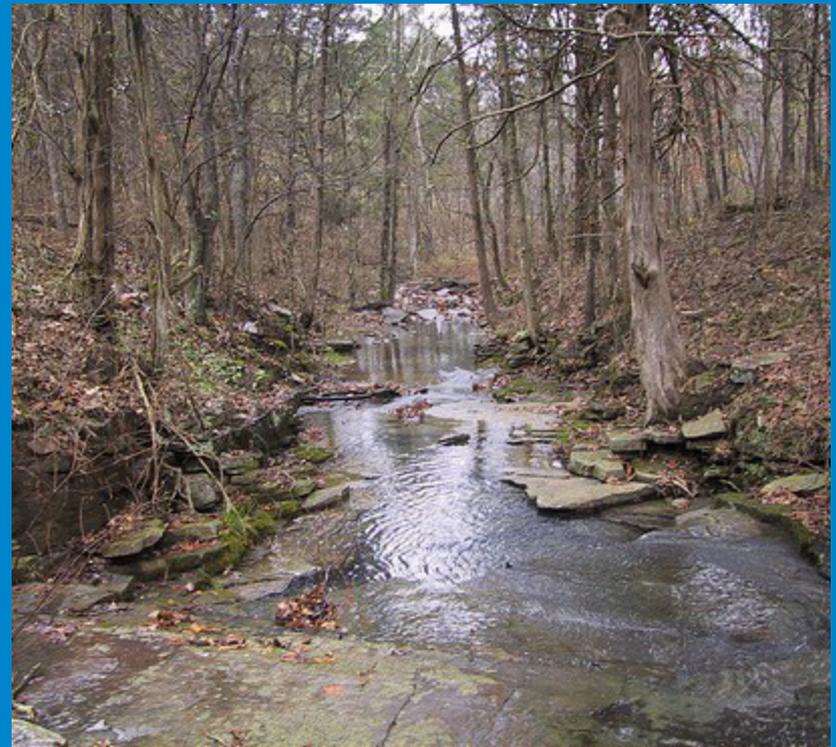
# Mobile River Basin Strategic Habitat Units - USFWS



# Hydrologic Alteration

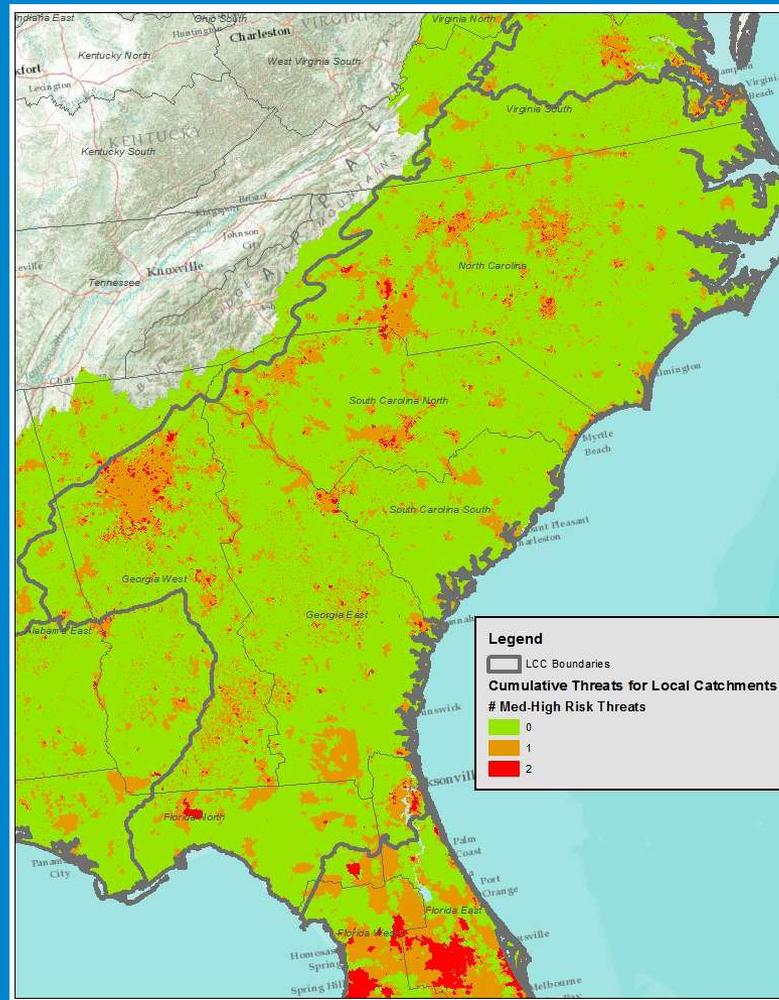
## The Southern Instream Flow Network

- Products of SIFN include a river classification system framework, hydrologic alteration risk assessment, a research agenda, an informational brand and associated educational materials.
- Funded in part by South Atlantic LCC in 2010-2012, Gulf Coast Prairie LCC in 2012 - 2014



Bissell Creek, KY Photo credit: Shelly Morris, TNC

# Flow Alteration Assessment



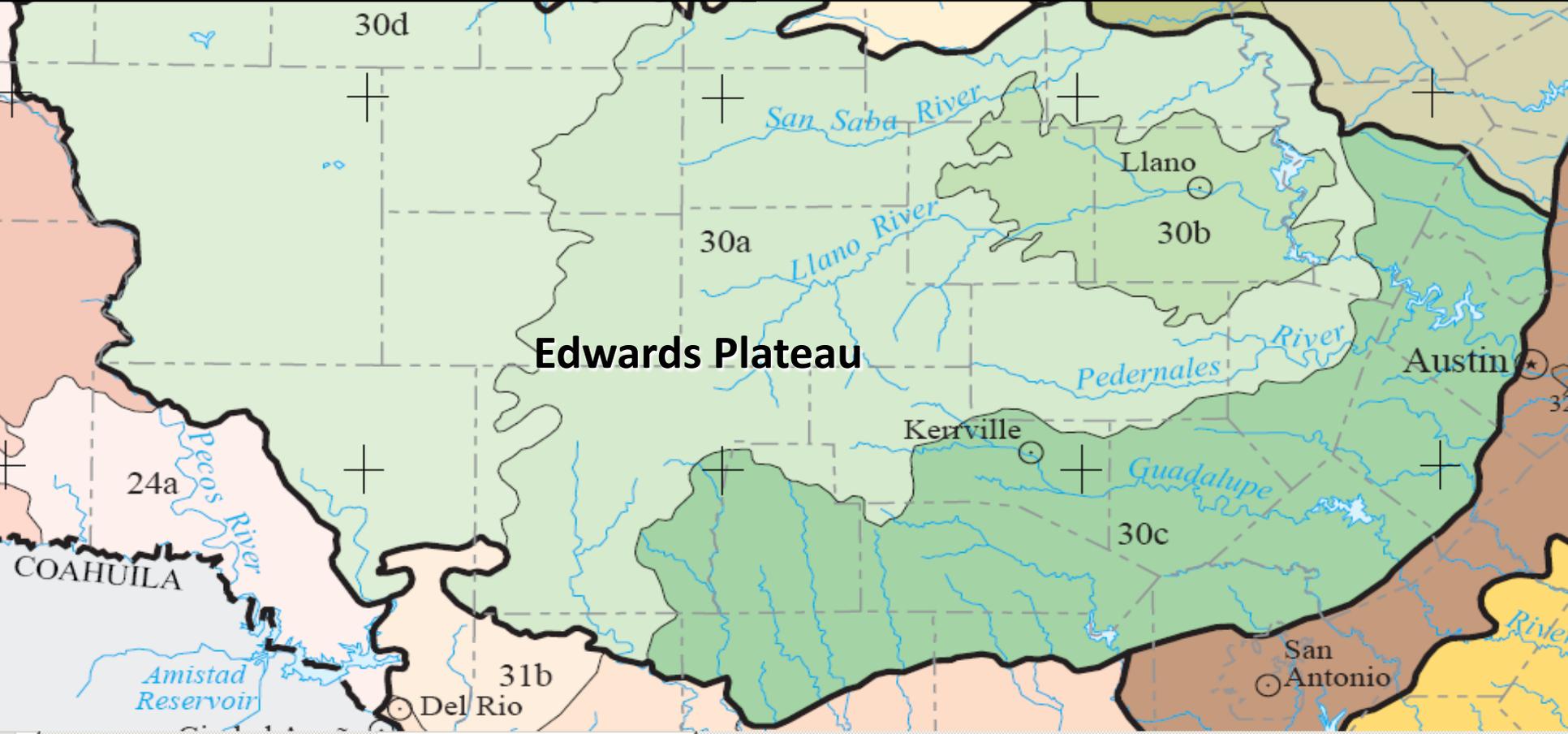
# Southeast Native Black Bass

- Formed in 2010 in partnership with the National Fish and Wildlife Foundation (NFWF) and others to protect and preserve native black bass species in the southeastern United States.

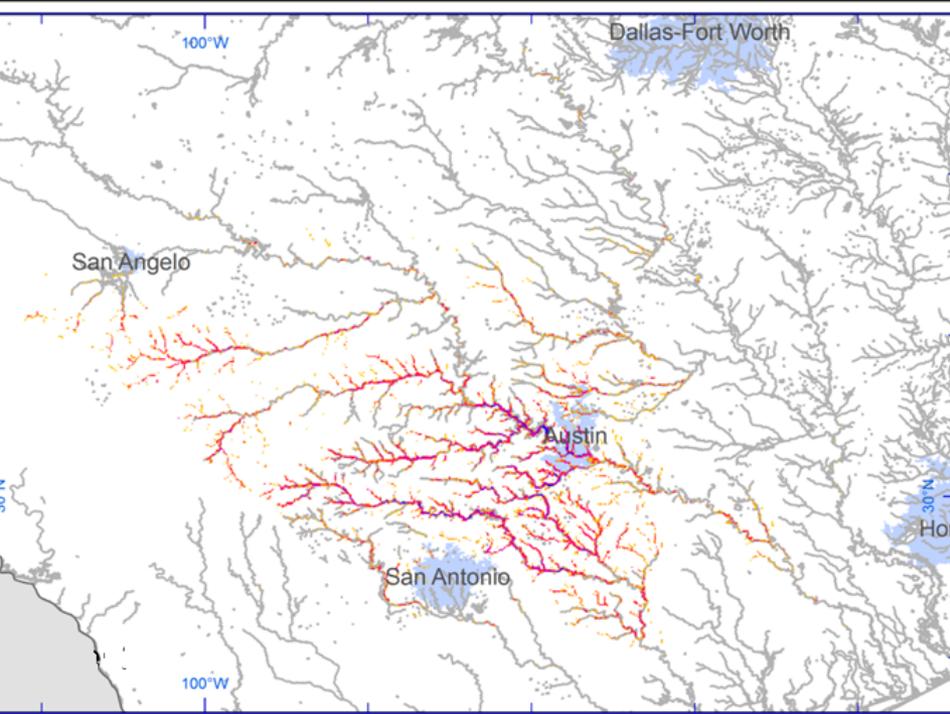
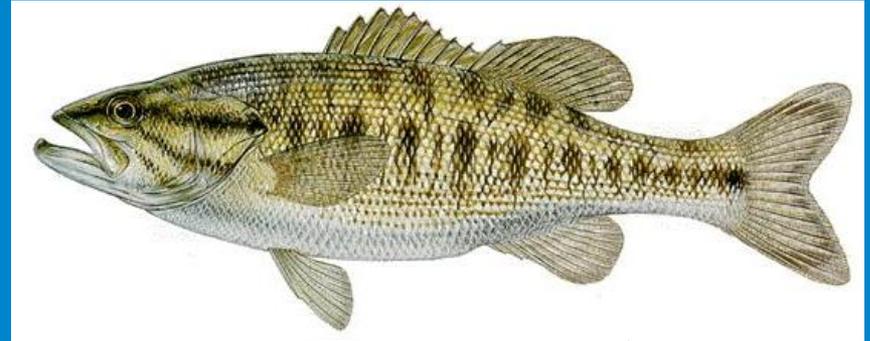


The Guadalupe River, TX

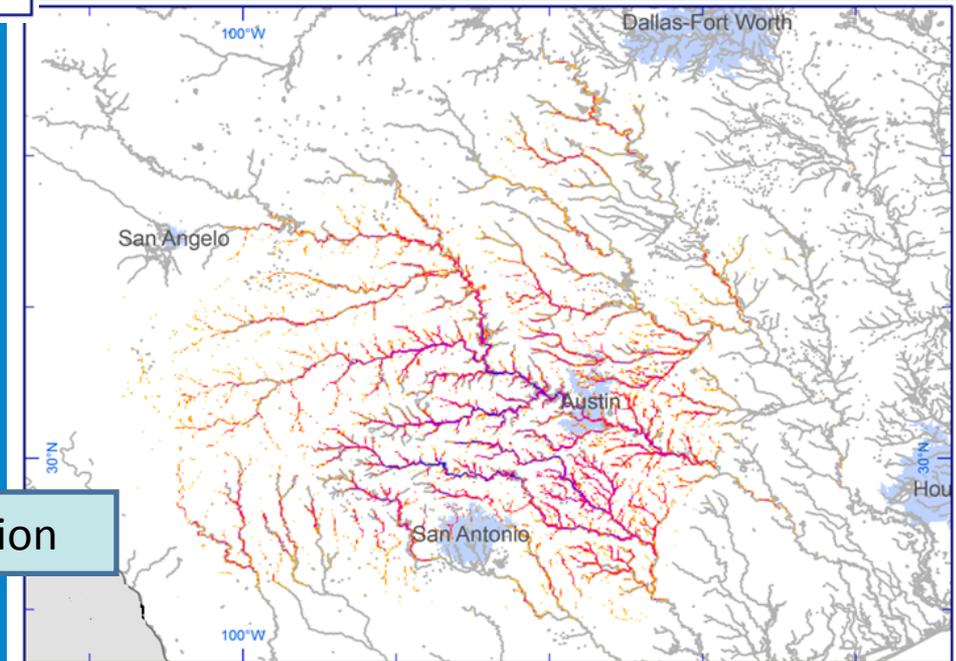
- Focused on addressing all species of native black bass in the southeast, with initial conservation actions focused on three species with critical conservation needs (Guadalupe bass, redeye bass and shoal bass).



# Guadalupe bass

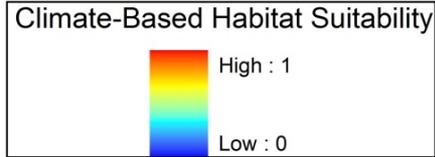
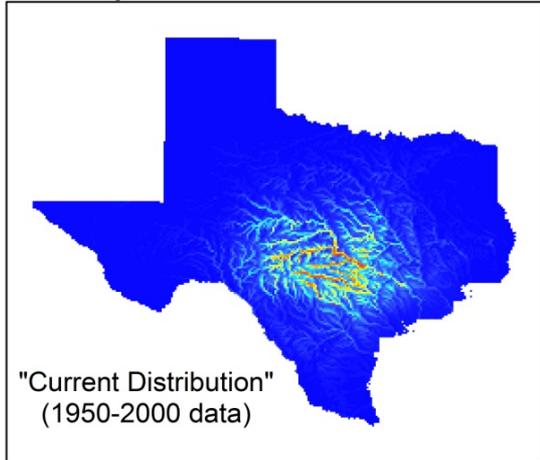


Realized Distribution

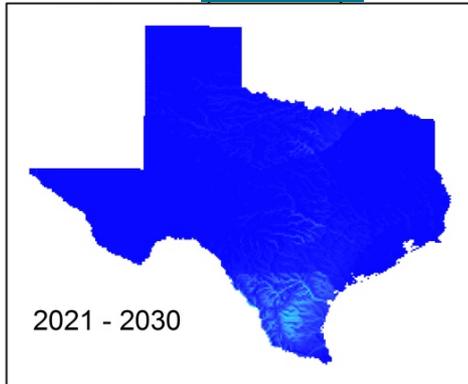


Potential Distribution

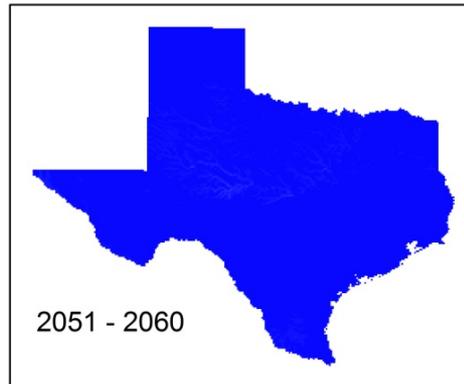
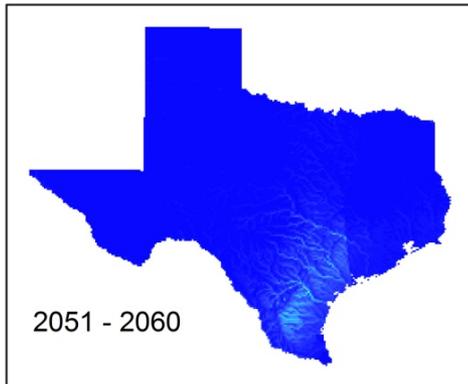
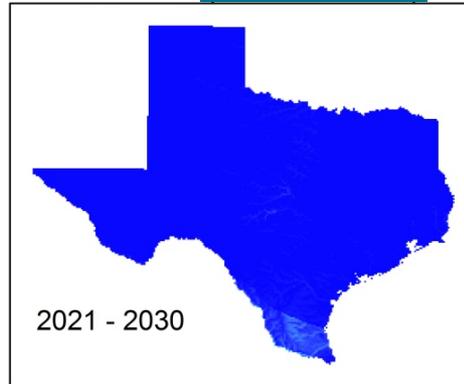
# *Micropterus treculii*



A2 scenario



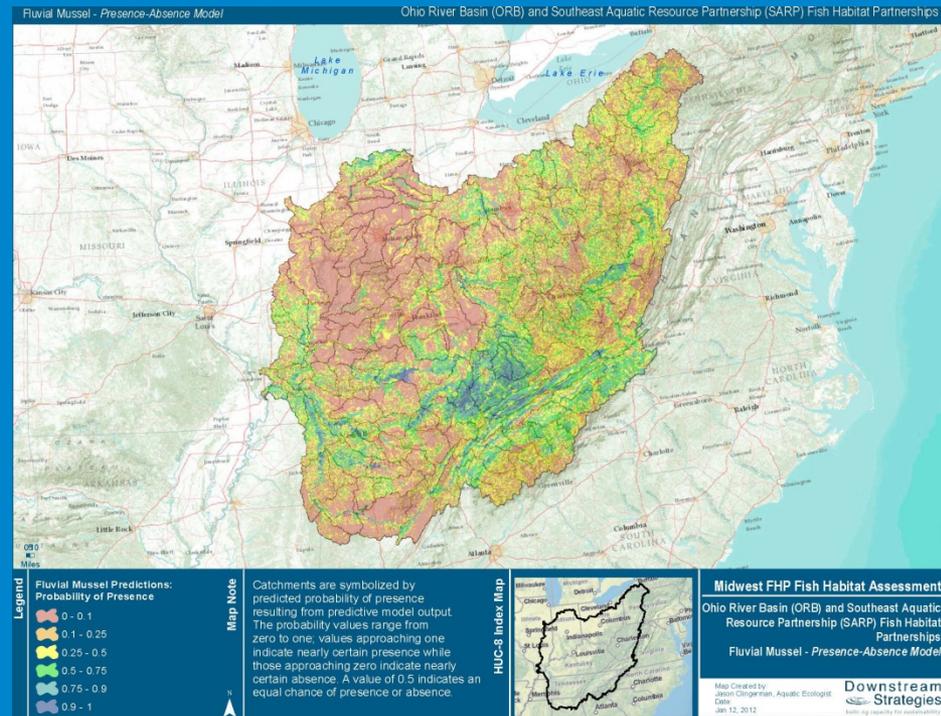
B1 scenario



*Guadalupe  
bass slides  
provided by  
Tim Birdsong,  
TX Parks and  
Wildlife Dept.*

# Tennessee and Cumberland River Habitat Assessment and Decision Support Tool

- Natural Habitat Quality Index
- Anthropogenic Stress Index
- Catchment Habitat Condition Map
- HUC 12 Habitat Condition Map
- Geodatabase
- Website
- Map books
- GIS Decision Support Tool



# Habitat Restoration

- 60 on-the-ground projects in the last five years
  - Located in VA, TX, TN, SC, NC, MS, MO, LA, KY, GA, FL, AR, AL
  - Funded through USFWS National Fish Habitat Action Plan and NOAA Community based Habitat Restoration

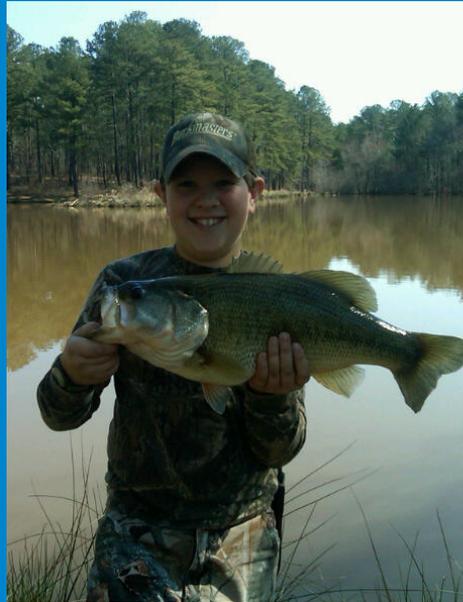


# What about LCCs?

- The preceding slides show some of the items and issues that SARP and other FHPs work on
- How can LCCs and FHPs work together so that both organizations are stronger and more effective



- FHPs receive dedicated funding for on-the-ground habitat restoration
- FHP capacity for science and habitat assessments is limited to our members and what we can obtain in grants
- FHPs have identified science needs for aquatics through extensive planning processes



- Water consistently shows up in public opinion polls as one of the top conservation concerns
- Clean water should include healthy, sustainable aquatic ecosystems

- It is time to take collaboration to the next level
- LCCs will not be successful if the mission of Fish Habitat Partnerships, Joint Ventures, and our member agencies and organizations is not advanced
- Roles of the organizations need to be better defined and commitments should be made. If we know what to expect, we can avoid duplication.



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