

2022 ANNUAL MEETING OF THE  
TEXAS CHAPTER OF THE AMERICAN FISHERIES SOCIETY

May 17-19, 2022  
Mo- Ranch in Hunt, Texas



MEETING PROGRAM

## WELCOME TO HUNT!

Welcome to the 46<sup>th</sup> Annual Meeting of the Texas Chapter of the American Fisheries Society in Hunt, TX! As you crisscrossed the North Fork Guadalupe River in route to Mo-Ranch, I hope the crystalline waters, wildflowers, rolling hills, and limestone bluffs helped you breathe a little easier and set the tone for what is intended to be a relaxing and immersive experience in a truly picturesque natural setting. As usual, the program for our annual meeting is filled with an exciting lineup of technical presentations, but somewhat unique is the extensive offering of field trips, tours, panel discussions, seminars, trail run, fishing and paddling excursions, casting instruction, and other networking events intended to help us reconnect, build, and expand our professional networks. I encourage everyone to truly lean into this retreat-style experience and make the most of these learning and networking opportunities. I'm so glad you're here and I hope you leave this meeting feeling better connected, refreshed, reenergized, and inspired.



Sincerely,

Tim Birdsong  
President Elect, Texas Chapter of the American Fisheries Society

Greetings friends and colleagues. On behalf of the Texas Chapter of the American Fisheries Society, welcome to our 46th Annual Meeting at the beautiful Mo-Ranch on the headwaters of the Guadalupe River. During my presidency I've been inspired by the servant leadership exhibited by chapter members and particularly our volunteer officers and committee chairs. They are truly the foundation of our chapter. A special thanks to all of them especially our meeting planning committee on an outstanding job preparing for our meeting. Reconnecting through an in-person meeting is especially meaningful this year. I hope you will take full advantage of the fellowship and networking opportunities and explore everything Mo-Ranch has to offer.



Best,

Dakus Geeslin  
President, Texas Chapter of the American Fisheries Society



2021-2022 TEXAS CHAPTER OFFICERS AND COMMITTEE CHAIRS

**President**

Dakus Geeslin

**President Elect**

Tim Birdsong

**Past President**

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**Continuing Education**

Lynn Wright

**Editorial**

Alice Best

Dave Buzan

**Endowments**

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**History**

Michele Nations

**Internet**

Sarah Haas, Ph.D.

John Taylor, Ph.D.

**Issues**

Kevin Mayes

**Membership**

Michele Nations

**Newsletter**

Matthew Trioa, Ph.D.

**Nominating**

Greg Cummings

**Pond Management**

Greg Binion

**Publicity/Exhibits**

Shaun Donovan

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Jennifer Butler

**Student Outreach**

Joshuah Perkin, Ph.D.

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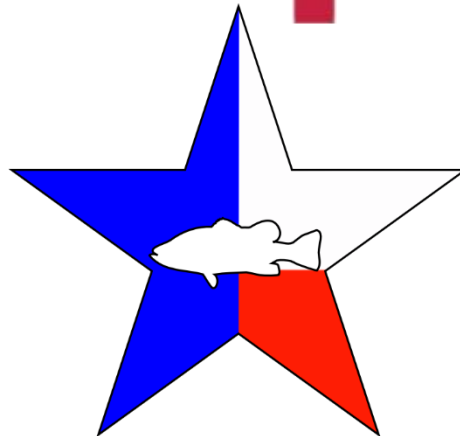
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## Schedule at a Glance

### Tuesday, May 17<sup>th</sup>

10:30 am – 5:15 pm	Attendee Check-In for Mo-Ranch Lodging TCAFS Conference Registration and Check-In Exhibits Set Up Conference Poster Set Up Oral Presentation Loading	Mabee Building Main Auditorium Horse Barn Westview Main Auditorium
12:00 pm – 1:00 pm	Lunch (King Dining Hall)	
1:00 pm – 3:00 pm	Continuing Education: "application of recreational side-scan sonar technology in aquatic conservation"	Main Auditorium
1:00 pm – 4:30 pm	Field Trip, Tour, And Networking Event: "careers in applied fisheries research and opportunities for collaboration between universities and state fisheries programs"	TPWD Heart of the Hills Fisheries Science Center
1:00 pm – 4:30 pm	Field Trip, Tour, And Networking Event: "watershed and ecosystem-scale management strategies"	TPWD Kerr Wildlife Management Area
3:00 pm – 5:15 pm	Networking Activities at Mo-Ranch: Inaugural TCAFS Spawning Run Snorkeling, Fishing, And Paddling on The North Fork Guadalupe River, Disc Golf, and Hiking	
5:15 pm – 6:30 pm	Poster Networking Event	Westview and Horse Barn
6:00 pm – 7:30 pm	Dinner	River Pavilion
7:30 pm – 9:30 pm	Networking Event: "Fly Fishing the Republic of Texas" seminar and short films	Main Auditorium



## Schedule at a Glance

### Wednesday, May 18<sup>th</sup>

6:30 am – 7:30 am	TCAFS Past-Presidents Breakfast	King Dining Hall
<b>6:30 am – 8:00 am</b>	<b>Breakfast</b> <b>Presentation loading in the Main Auditorium</b>	<b>King Dining Hall</b>
8:00 am – 5:00 pm	TCAFS Conference Registration and Check-In	Main Auditorium
8:00 am – 8:15 am	Welcome	Main Auditorium
8:15 am – 9:30 am	Opening Plenary Session: "Angling For Conservation"	
9:30 am - 10:15 am	Technical Presentations	Main Auditorium
<b>10:15 am – 10:45 am</b>	<b>Refreshments</b> <b>Presentation loading in the Main Auditorium</b>	<b>Horse Barn and Westview</b>
10:30 am – 5:15 pm	Attendee Check-In for Mo-Ranch Lodging	Mabee Building
10:45 am – 12:00 pm	Technical Presentations	Main Auditorium
<b>12:00 pm – 1:15 pm</b>	<b>Lunch</b> <b>Presentation loading in the Main Auditorium</b>	<b>River Pavilion</b>
<b>12:00 pm – 1:15 pm</b>	<b>Student-Mentor Lunch</b>	<b>River Pavilion, reserved sect</b>
1:15 pm – 3:15 pm	Technical Presentations	Main Auditorium
<b>3:15 pm – 3:45 pm</b>	<b>Refreshments</b> <b>Presentation loading in the Main Auditorium</b>	<b>Horse Barn and Westview</b>
3:45 pm – 5:00 pm	Technical Presentations	Main Auditorium
5:00 pm – 6:00 pm	Networking Event	Horse Barn and Westview
<b>6:00 pm – 7:30 pm</b>	<b>Dinner</b>	<b>River Pavilion</b>
7:30 pm – 9:30 pm	Awards Banquet and Fundraiser	River Pavilion

### Thursday May 19<sup>th</sup>

6:30 am – 8:00 am	<b>Breakfast</b>	King Dining Hall
8:00 am – 11:00 am	Technical Presentations	Main Auditorium
11:00 am – 12:00 pm	TCAFS Business Meeting	Main Auditorium
<b>12:00 pm</b>	<b>Adjourn</b>	



## Poster Presentations

**Tuesday May 17<sup>th</sup> 5:00 pm – 6:30 pm**  
**(Mo-Ranch Westview and Horse Barn)**

- Poster 01      The effect of hard freezes on the CPUE of three recreational game fish in the Matagorda Bay System  
*Corey Waddell, Texas Parks & Wildlife Department*
- Poster 02      Effective methods of cold-stunned sea turtle response, retrieval, and processing  
*Katie Zghaib, Texas Parks and Wildlife Department*
- Poster 03      Geological influences on stream fish communities within the upper Nueces River basin  
*Lauren Chappell, Texas State University*
- Poster 04      Effects of flow variability on fish communities within impounded waters  
*Joshua Tivin, Texas State University*
- Poster 05      The Influence of Depth and Season on the Nearshore Community of the Texas Gulf of Mexico  
*Jeremy McCulloch, Texas Parks and Wildlife Department*
- Poster 06      Effects of a catastrophic flood event on macroinvertebrate communities and Guadalupe Bass recruitment from two central Texas rivers  
*Archis Grubh, Texas Parks and Wildlife Department*
- Poster 07      Methods for establishing flow-ecology relationships useful for validating environmental flow standards for Texas rivers  
*Kirk Winemiller, Texas A&M University*
- Poster 08      A 70-year regional perspective of an east Texas urban fishery  
*David Peterson, Stephen F. Austin University*
- Poster 09      Integrating Habitat and Fisheries-Independent Data to Describe the Effect of Sediment Type on Marine Communities in Texas Estuaries  
*Ethan Getz, Texas Parks and Wildlife Department*
- Poster 10      Taxonomic and morphological diversity of fish assemblages in the Big Cypress Creek, Texas.  
*Juan Lara, Stephen F. Austin State University*
- Poster 11      Does spatial location matter when estimating stream fish richness? A test of spatially constrained rarefaction in the Colorado River Basin, Texas  
*Rebecca Mangold, Texas A&M University*
- Poster 12      Intra-specific habitat and morphological variation of three sympatric shiners: the Blacktail (*Cyprinella venusta*), Blackspot (*Notropis atrocaudalis*) and Sabine (*N. sabiniae*), in Texas Streams  
*Carmen G. Montana, Stephen F. Austin State University*



- Poster 13 Using a bottom-up isotopic approach to establish baseline data on an estuarine food web system in Matagorda Bay, Texas  
*Emily N. Meese, Texas A&M University at Galveston*
- Poster 14 Applying effects of sub-lethal stress to fisheries management: a focus on coastal recreational species  
*Jacob Oster, Texas A&M University Corpus Christi*
- Poster 15 A trip up the tributary: Affluent streams provide floodplain access for Alligator Gar in a regulated river  
*Hayden Roberts, Texas A&M University*
- Poster 16 Population structure and demography of the Alligator Gar  
*Damon Williford, Texas Parks and Wildlife Department*
- Poster 17 Alligator Gar population connectivity and habitat use in the Trinity River National Wildlife Refuge  
*Wesley Holman, University of North Texas*
- Poster 18 Gar Species Assemblages and Abiotic Drivers in Galveston Bay and Sabine Lake  
*Anna DeMotte, Texas A&M University at Galveston*
- Poster 19 Texas Aquatic Bioblitz Initiative: Gap sampling to inform native fish conservation efforts in Texas  
*Stephen Curtis, Texas Parks & Wildlife Department*
- Poster 20 Assessing the restored Guadalupe Bass population in the Mission Reach, San Antonio  
*Mary Finucane, University of Texas at San Antonio*
- Poster 21 Mapping and initial characterization of east bank ridge, Gulf of Mexico, to determine current state, fish community, and impacts of illegal fishing practices  
*Marissa Lamb, University of Texas Rio Grande Valley*
- Poster 22 Design and implementation of Texas' Habitat and Angler Access Program  
*Michael Homer, Texas Parks and Wildlife Department*
- Poster 23 Environmental niche modelling and mapping of invasive virile crayfish in the Lower Colorado River Basin  
*Anthony Javiya, The University of Texas at San Antonio*
- Poster 24 Movement and mortality of invasive suckermouth armored catfish during a spearfishing control experiment  
*Christopher Riggins, Texas State University*
- Poster 25 Response of biological communities to invasive Giant Reed (*Arundo donax*) management in the Pedernales River headwaters  
*Kristen Eggers, Texas Parks & Wildlife Department*





- Poster 26 Ecological niche similarities between native (*Cyprinodon rubrofluviatilis* and *Fundulus zebrinus*) and invasive (*C. variegatus* and *F. grandis*) Cyprinodontids in Texas Streams: Evidence from Morphology, Diet, and Stable Isotope Analysis  
*Erin Shepta, Stephen F Austin State University*
- Poster 27 Characterizing the thermal niche of Mexican Tetras (*Astyanax mexicanus*) using physiological laboratory assays  
*Elizabeth Rosas, University of Texas at San Antonio*
- Poster 28 Genomic population structure of the Eastern Oysters (*Crassostrea virginica*) in the Gulf of Mexico  
*Polly Hajovsky, Texas Parks & Wildlife Department*
- Poster 29 Reconstructed environmental stress histories from geochemical records in oyster shells from subtropical estuarine systems.  
*Jessica Randall, Texas A&M University Corpus Christi*
- Poster 30 Freshwater mussel community composition and population demographics of ESA-candidate *Pleurobema riddellii* in an east Texas canal system  
*Brad Littrell, BIO-WEST, Inc.*
- Poster 31 A comparison of hydraulic tongs and dredges for monitoring oyster reefs in the Mission- Aransas Estuary  
*Margaret Wheat-Walsh, Texas Parks and Wildlife Department*
- Poster 32 Distribution and environmental preferences of the gulf stone crab (*Menippe adina*) in Texas, 1996-2021.  
*David Ushakow, Texas Parks and Wildlife Department*
- Poster 33 Mussel community and their habitat associations in the Sabine River (Texas and Louisiana)  
*Caitlin Schoeck, Texas State University*
- Poster 34 Mapping the Map Turtles of the Guadalupe  
*Jesse Meik, Tarleton State University*
- Poster 35 The duality of drought: Pelagic- and benthic-spawning stream fishes show opposing responses to drought in the southern Great Plains  
*Erin Nguyen, Texas A&M University*
- Poster 36 Advancing native fish conservation in Texas (2013-2025)  
*Megan Bean, Texas Parks and Wildlife Department*
- Poster 37 Phylogenetic relationships of four imperiled great plains cyprinids  
*Ryan Vazquez, Texas Tech University*



- Poster 38 Natural history and conservation assessment of the Red River Shiner (*Notropis bairdi*, Hubbs and Ortenburger)  
*David Ruppel, US Corps of Engineers*
- Poster 39 Seasonal abundance and diversity of pipefishes and seahorses from estuarine habitats In Matagorda Bay, Texas  
*Kayla Hawn, Texas A&M University at Galveston*
- Poster 40 Survival and growth in multiple size classes of hatchery-released red drum (*Sciaenops ocellatus*) over three seasons in Matagorda Bay, Texas  
*Jillian Swinford, Texas Parks and Wildlife Department*
- Poster 41 Rio Grande Valley reef artificial structures: Its longevity and characterization  
*Kathrene Lo, University of Texas Rio Grande Valley*
- Poster 42 Utilizing biological monitoring to guide implementation of an aquatic plant restoration project for the Fountain Darter (*Etheostoma fonticola*)  
*Casey Williams, BIO-WEST*
- Poster 43 Piercing and patching the armor: Assessment of abdominal incision closure and healing during transmitter insertion on invasive suckermouth armored catfish  
*Yeyetzi Rodriguez, Texas State University*
- Poster 44 Fisheries creel surveys as a tool for assessing waterfowl harvest trends on the Texas Coast: A potential collaboration between fish and wildlife professionals  
*Stephen Hale, Texas Parks & Wildlife Department*
- Poster 45 Dwarf Seahorse (*Hippocampus zosterae*) distribution, abundance, and sampling gear catch efficacy in Texas  
*Story Leshner, Environmental Institute of Houston*
- Poster 46 Testing for sexual dimorphism in an invasive population of Suckermouth Armored Catfish  
*Wesley Arend, Texas A&M University*
- Poster 47 Overview of acoustic telemetry array installation in the Sabine Lake System, Texas/Louisiana, USA  
*Carey Gelpi, Texas Parks & Wildlife Department*
- Poster 48 Sample preparation methods for stable isotope analysis: Implications for trophic ecology studies  
*Alexandra Prouse, Texas A&M University at Galveston*



## Technical Session Schedule

### Oral Presentations

#### Wednesday, May 18<sup>th</sup>

- 8:00 AM Opening plenary session: "Angling for Conservation"
- 9:30 AM Species distribution modeling and Native Fish Conservation Area prioritization to guide landscape-level conservation  
*Jane Rogosch, U.S. Geological Survey and Texas Tech University*
- 9:45 AM Native fish conservation within the Texas Native Fish Conservation Areas Network  
*Gary Garrett, University of Texas at Austin*
- 10:00 AM Guadalupe Bass (*Micropterus treculii*) movement is predictable: Implications for conservation  
*Jacob Wolff, Texas A&M University*
- 10:15-10:45 AM Refreshments (Mo-Ranch Horse Barn and Westview)**
- 10:45 AM Assessment of mussel and fish communities in a Northern Chihuahua desert stream  
*Melissa Wolter, Texas State University*
- 11:00 AM Ecological influences on the occurrence and density of Fountain Darters (*Etheostoma fonticola*) in two spring-fed ecosystems of central Texas  
*Kyle Sullivan, Bio-West, Inc.*
- 11:15 AM Flow-recruitment relationships for Shoal Chub (*Macrhybopsis hyostoma*) and implications for managing environmental flows  
*Josh Perkin, Texas A&M University*
- 11:30 AM Seasonal flow dynamics exacerbate overlap between artisanal fisheries and imperiled Ganges River dolphins  
*Shambhu Paudel, Texas Parks and Wildlife Department*
- 11:45 AM Population structure, habitat use, and ecological aspects of an imperiled Cyprinid the Sabine Shiner (*Notropis sabiniae*) in East Texas streams: A 20-year perspective  
*Zachary Hutchens, Stephen F. Austin State University*
- 12:00-1:15 PM Lunch & Student-Mentor Lunch (Mo-Ranch River Pavilion)**
- 1:15 PM Considering microplastics in fisheries management  
*Sean Kinney, Louisiana Department of Wildlife and Fisheries*



2022 TCAFS ANNUAL MEETING

- 1:30 PM From the bottom to the top: Microplastics abundance and diversity in aquatic food webs of rural-urban streams in East Texas  
*Siena Stassi, Stephen F. Austin State University*
- 1:45 PM Air, land, and water variables and their association with the temporal onset and spatial distribution of toxic blooms of *Prymnesium parvum* in reservoirs of the Southern Great Plains, USA  
*Shisbeth Tábora-Sarmiento, Texas Tech University*
- 2:00 PM Tracking hypoxia exposure and consequences in the northern Gulf of Mexico with chemical proxies  
*Benjamin Walther, Texas A&M University Corpus Christi*
- 2:15 PM Use of a novel gear type (fyke net) to document elopomorph recruitment in Texas  
*Stephen Curtis, Texas Parks and Wildlife Department*
- 2:30 PM Variation in habitat use and trophic dynamics of catadromous fish (*Anguilla rostrata*) in sub-tropical Texas  
*Michael Curtis, University of North Texas*
- 2:45 PM A comparison of fish community assemblages at high- and low-profile artificial reefs in the western Gulf of Mexico using ROV surveys  
*Keegan Angerer, University of Texas Rio Grande Valley*
- 3:00 PM The storytelling of science: Improved communication techniques to convert science to action  
*Leslie Hartman, Texas Parks & Wildlife Department*

**3:15-3:45 PM Refreshments (Mo-Ranch Horse Barn and Westview)**

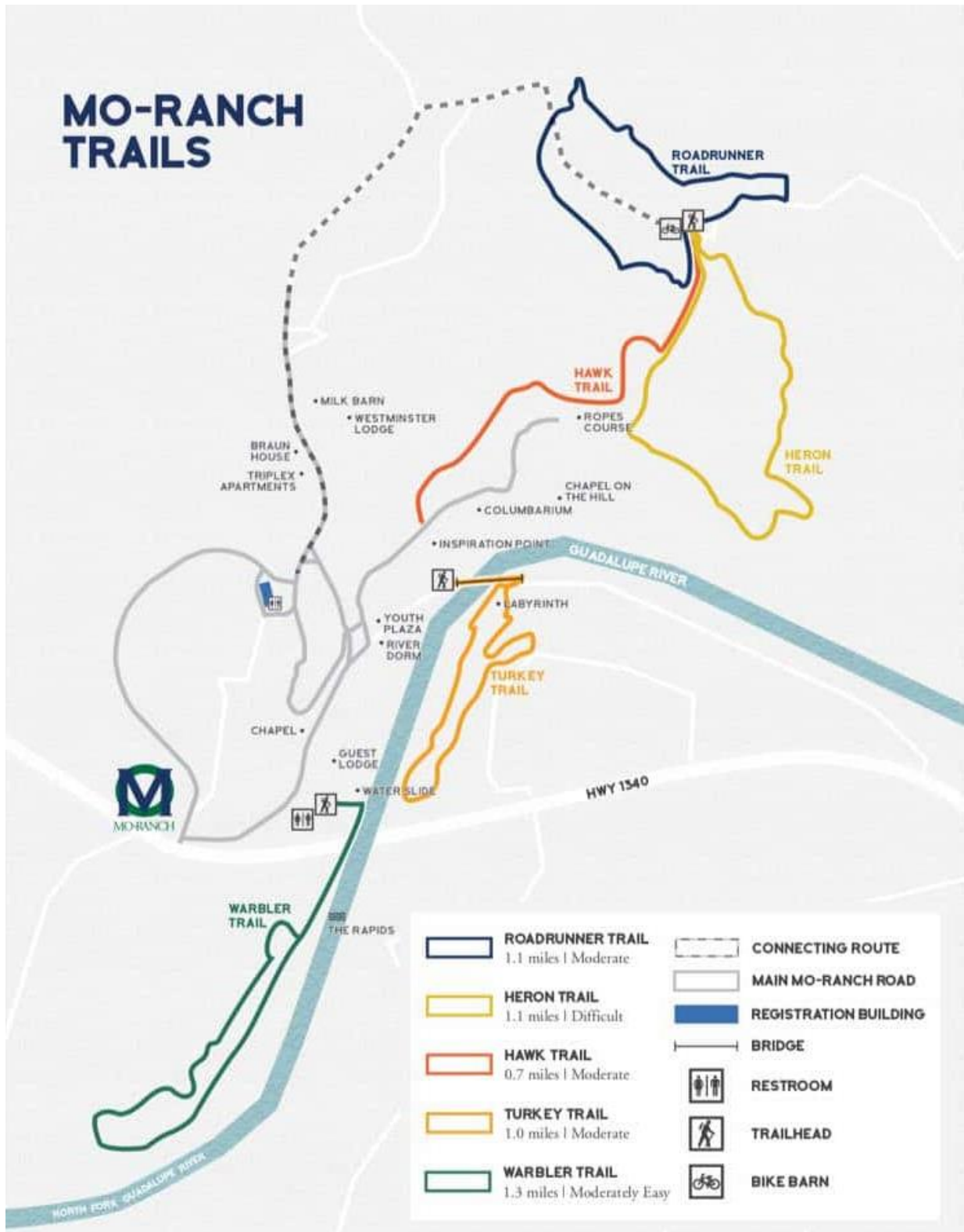
- 3:45 PM Drier and dire: Ecological forecasting and conservation contingency planning for imperiled Great Plains fishes in Texas  
*Erin Nguyen, Texas A&M University*
- 4:00 PM Assessing fish swimming performance to inform stream crossing design and barrier prioritization  
*Cameron Emadi, University of North Texas*
- 4:15 PM Delineating the fundamental versus realized niche of prairie chub  
*Zachary Steffensmeier, Texas A&M University*
- 4:30 PM Going the distance: Multiscale assessment of Conchos Pupfish (*Cyprinodon eximius*) abundance and distribution in West Texas  
*Lindsey Elkins, Texas A&M University*
- 4:45 PM Fishing for preferences: Angler-informed management of the Louisiana Spotted Seatrout fishery  
*David Smith, Texas Parks and Wildlife Department*



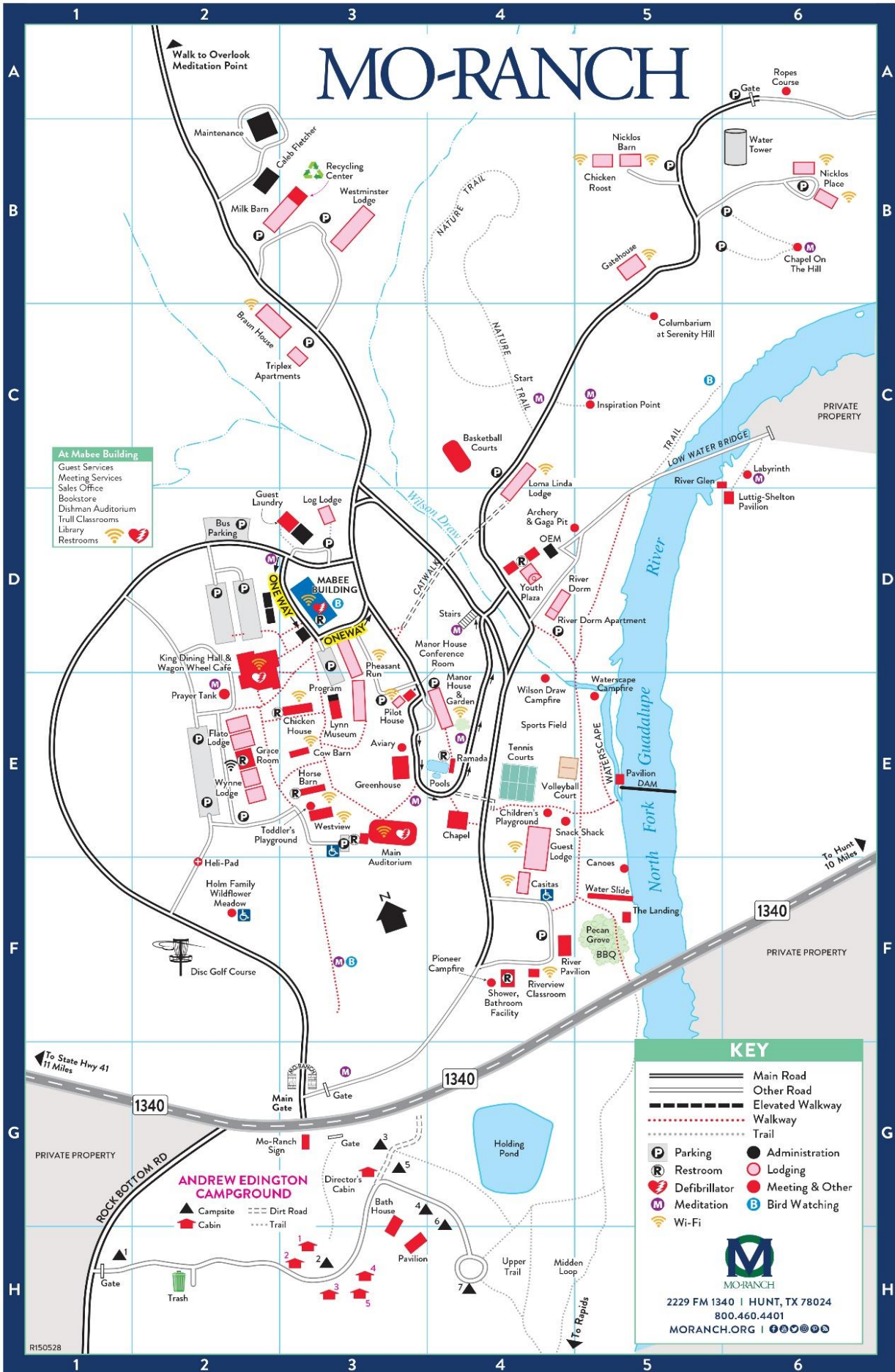
**Thursday, May 19th**

- 8:00 Multiscale movement and habitat associations for Alligator Gar (*Atractosteus spatula*)  
*Johnathan Ellard, Texas A&M University*
- 8:15 The Trinity River Alligator Gar guide tagging program: A win-win for management  
*Dan Daugherty, Texas Parks and Wildlife Department*
- 8:30 Black bass fisheries in Texas: An analysis of historic fishery-dependent data  
*David Smith, Texas Parks and Wildlife Department*
- 8:45 Time series modeling to detect population trends in spotted seatrout (*Cynoscion nebulosus*) along the Texas Coast  
*Hanna Bauer, Texas Parks and Wildlife Department*
- 9:00 Winter Storm Uri impacts to Spotted Seatrout in Texas  
*Dakus Geeslin, Texas Parks and Wildlife Department*
- 9:15 Regional assessment of inland fish mortalities associated with winter and cold-shock stresses  
*Steven Lopez, Texas State University*
- 9:30-9:45 Break**
- 9:45 Efforts to fill the mid-coast gap in the cold stunned turtle response  
*Kelley Kowal, Texas Parks and Wildlife Department*
- 10:00 A study design for evaluating the productivity of the Rio Grande Valley artificial reef using time lapse camera data  
*Greta Hayden-Pless, University of Texas Rio Grande Valley*
- 10:15 Characterization of triploid grass carp stockings in private waters of Texas  
*Robert McCartney, Texas State University*
- 10:30 Six years in the reeds: The Healthy Creeks Initiative to control *Arundo*, 2016-2021  
*Angela England, Texas Parks and Wildlife Department*
- 10:45 Assessing the Texas live bait industry as a pathway of introduction for two invasive cyprinodontids  
*Erin Shepta, Stephen F. Austin State University*
- 11:00 TCAFS Business Meeting





2022 TCAFS ANNUAL MEETING



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