CHAD WESLEY HARGRAVE

Curriculum Vitae

Office of Research & Sponsored Programs Sam Houston State University Huntsville, Texas 77341

EDUCATION

PH.D. ZOOLOGY - University of Oklahoma, Norman, Oklahoma.

May 2005

Advisor: William J. Matthews

DISSERTATION: Effects of Fish Density, Identity, and Diversity

on Stream Ecosystems.

M.S. ZOOLOGY - University of Oklahoma, Norman, Oklahoma.

May 2000

Advisor: William J. Matthews

THESIS: Spatial and Temporal Variation in Fish Assemblages of the

Upper Red River After a Summer Drought.

B.S. BIOLOGY *Cum Laude* - University of Arkansas, Fayetteville, Arkansas.

May 1998

Honors Thesis Advisor: James E. Johnson

THESIS: Status of the Arkansas Darter (Etheostoma cragini) and

Least Darter (Etheostoma microperca) in Arkansas.

ACADEMIC EMPLOYMENT

ADMINISTRATIVE APPOINTMENTS

Vice President for Research and Strategic Partnerships, Chief Research Officer Office of Research and Sponsored Programs, Sam Houston State University, Huntsville, TX. September 2023 – Present.

Associate Provost for Research and Sponsored Programs, Chief Research Officer Office of Research and Sponsored Programs, Sam Houston State University, Huntsville, TX. September 2021 – September 2023.

Associate Vice President for Research and Sponsored Programs, Chief Research Officer Office of Research and Sponsored Programs, Sam Houston State University, Huntsville, TX. January 2018 – September 2021.

Interim Associate Vice President for Research and Sponsored Programs, Chief Research Officer Office of Research and Sponsored Programs, Sam Houston State University, Huntsville, TX. January 2016 – December 2017.

Department Chair

Department of Biological Sciences, Sam Houston State University, Huntsville, TX. September 2012 – September 2017.

FACULTY APPOINTMENTS

Professor, Department of Biological Sciences, Sam Houston State University, Huntsville, TX. September 2018 – Present.

Associate Professor, Department of Biological Sciences, Sam Houston State University, Huntsville, TX. September 2012 – August 2018.

Assistant Professor, Department of Biological Sciences, Sam Houston State University, Huntsville, TX. September 2006 - August 2012.

POST-DOCTORAL APPOINTMENT

Post-Doctoral Research Fellow, University of Oklahoma Biological Station, Kingston, OK. 2005-2006.

LEADERSHIP DEVELOPMENT

Transformational Change – Leading from Within Growth Edge Coaching; Virtual Program. 4 Week Program, 2021

Navigating Disruption – Advanced Leadership Development for the Public Sector Uncharted Leadership; Austin, Texas. 3 Week Program, 2019

Governor's Executive Development Program

Lydon B. Johnson School of Public Affairs, The University of Texas at Austin & Office of the Governor, State of Texas. 4 Week Program, 2018

ADMINISTRATIVE EXPERIENCE

LEADERSHIP STYLE AND GUIDING PRINCIPLES

Transparent, honest, inclusive, shared governance, efficient, fiscally judicious, strategic, datadriven, calculated risk-taker, entrepreneurial and growth mindset, committed to growing culture, talent, and diversity of perspective.

VICE PRESIDENT/ASSOCIATE PROVOST/ASSOCIATE VICE PRESIDENT & CHIEF RESEARCH OFFICER

As Associate Provost/Associate Vice President and Chief Research Officer, I oversaw all preaward grant activity, intellectual property, core research facilities, and axillary analytical laboratory services at Sam Houston State University. Pre-award grant activity involves faculty development, grant budgeting and proposal submissions, contractual negotiation, research ethics

and compliance, and the university-wide core infrastructure which includes a vivarium and major instrumentation. With respect to intellectual property, I oversee the university patent portfolio, patent review, patent submission and maintenance, and technology transfer. My duties include the management of axillary analytical laboratory services at the Texas Research Institute for Environmental Studies (TRIES), which involves expanding laboratory-based services to private individuals, small companies, municipalities, state agencies, and large corporations. Finally, the office of research to includes student research engagement, and, in this capacity, I oversaw strategic the operations and services of the Center for Enhancing Undergraduate Research Experiences and Creative Activities.

I was responsible for setting the strategic research vision for the campus, aligning goals and initiatives within this vision, and monitoring and reporting performance indicators. During my tenure as AP/AVP for research and CRO, I launched a number of campus-wide initiatives to increase externally funded scholarship/research, which resulted in the elevation of SHSU to the Carnegie R2 designation over a 4-year time period. In addition to increasing government funding, I expanded our network of private companies and expanded the SHSU funding portfolio with private sector money. I also modernized our submissions and awards platforms, and oversaw the expansion of research compliance programs and provided new assurances necessary for federal funding of biomedical research at the SHSU College of Osteopathic Medicine. I launched initiatives to expand the patent portfolio at SHSU and increase the revenue generated from technology transfer. I have expanded the client-base of the TRIES analytical lab, growing external revenue by 50%. I oversaw the integration of the Center for Undergraduate Engagement into the Office of Research and set a vision for this integration, and established an overarching goal of increasing the number of faculty-student mentorships and student engagement with high impact practices at SHSU. These efforts have increased the percent of grant fund budgeted for undergraduates by 25%. The AP/AVP position at SHSU has given me the opportunity to understand the unique needs and resources across all eight colleges at SHSU, and, as a result, The Office of Research, under my leadership, helped enhance the scholarly enterprise and associated opportunities for students across all disciplines at SHSU.

Reporting Units:

Faculty development, Submissions, Awards and Contracts, Compliance, Intellectual Property, Ethics and Compliance, Student Engagement, Core Facilities and Research Centers.

Direct Reports:

Director of ORSP, Director of Budget & Awards, Director of Innovative and Collaborative Initiatives, Coordinator for Student Engagement, Coordinator of Research Compliance, Coordinator for External Partnerships, Coordinator for Faculty Development, Director of TRIES, Executive Assistant to CRO

Strategic Initiatives & Milestones

- Designed and implemented strategic vision and aligned goals to
 - o increase externally funded grant activity at SHSU
 - o modernize the budget development and submission process

- o strengthen SHSU research ethics and compliance
- o communicate SHSU research successes
- o improve university awareness and perception of office
- o grow SHSU patent portfolio
- o increase partnerships with private sector
- o increase student involvement in SHSU research enterprise
- o contribute to university-wide effort to emerge as an HSI/MSI and expand funding for related initiatives
- achieved Carnegie Classification of R-2 (High Research Activity) resulting from a 3-fold increase in total R&D from 2015-2020 per HERD data.
- oversaw 55% increase in grant submissions and 92% increase in grant funding requested during tenure.
- oversaw 66% increase in grants awarded and 250% increase in funding awarded
- oversaw 34% increase in active awards and 126% increase in grant expenditures
- oversaw 38% increase in number of grant active faculty
- oversaw 25% increase in patent portfolio and 25% increase in patent applications.
- oversaw 5-fold increase in partnerships with SHSU faculty and private sector
- Modernized research compliance review and training (IRB, IACUC, IBC, UAS, Export Controls)
- Enhanced/upgraded animal facility for OLAW assurance
- Built/upgraded service laboratories to enhance/establish industry partnerships

General Operations

- Oversaw all pre-award grant activities and service centers (faculty development, submissions, contract negotiation, compliance, technology development and commercialization)
- Major organizational restructure, including 13 new hires
- Financial investments into 8 colleges
- Modernized grant submission platforms and data collection
- Established and revised university policy for research, patent and copyright, compliance
- Oversaw and managed budget of \$4M
- Supported 21 ORSP staff and funded their professional development
- Developed plan and encouraged upward mobility within the office
- Contributed to sell of IP to private sector

Advocacy and Support for SHSU faculty

• Advocated for SHSU to Federal Legislature and Federal Agencies

<u>Congressional Offices/Committees</u>: Will Hurd's Office, Kevin Brady's Office, John Cornyn's Office, Alcee Hasting's Office (pollinator caucus), House Agriculture Committee, Pete Sessions Office

<u>Federal Agencies</u>: U.S. Department of Homeland Security – Cyber Security Division & Science and Technology Directorate; Secret Service - Electronic Crimes Task Force; Office of Pest Management; Bee Research Lab – USDA; Wildlife Research Center – USGS.

Non-governmental Agencies: Global Security Innovative Strategies; Crop Life America

- Advocated for SHSU in State Legislature and Governing bodies
 Testified to agriculture committee for SHSU funding initiatives
 Testified to THECB for SHSU College of Osteopathic Medicine research support
- Represent and advocate SHSU faculty with system office (Chancellor and Vice Chancellors); coordinate system-wide research programs
- Initiated and supported several university-private sector partnerships
- Oversaw review and administration of internal grants programs
- Provided strategic support for faculty scholarly activities across 8 colleges
- Oversaw submission and aligned requests for federal appropriations

Partnerships with Government and Private Sectors

- Partnership Texas Department of State Health Services for COVID-related programs (contact tracing, after action reporting, state-wide vaccination education).
- Partnership with City of Huntsville, Huntsville Chamber of Commerce, Woodlands Area Economic Development Partnership, Conroe Economic Partnership, Greater Houston Partnership to align SHSU assets and promote Economic Development
- MOU with Revive LLC research and development, joint grant ventures
- MOU with IntegraShare Solutioneering Inc. research and development.
- Partnership with Signorelli Company working to establish a start-up incubator in life sciences.
- Partnership with Nova Biological research and analytical support
- Partnership with Ionization Laboratories research and development; joint grant ventures
- Partnership with Forward Edge AI Research and development; joint grant ventures
- Partnership with Steeley Lumber Co., Analytical services
- Partnership with Flores Farms Research and analytical services

• Project Management Institute of Houston – Scholarship agreement

Auxiliary Laboratory Services

- Enhanced laboratory infrastructure ~\$700,000 investment to expand analytical services to target sectors.
 - o Biofuel sector, quality control testing
 - ash deformation, calorimetry, durability, moisture, chemical analysis (ICMS)
 - Health and Human Services sector, BSL-2 Lab and eDNA capabilities for detection of viral and pathogenetic organisms
 - Hamilton robotic system, Biosafety Cabinets, qPCR
 - o Rare-earth elements for geologic sector and oil sector
 - X-ray fluorescence spectrophotometer
 - o Drinking and surface water quality for municipalities
 - Gas chromatography mass spectrometer
- Accreditations
 - o Clinical laboratory improvement amendments (CLIA)
 - o International Organization for Standardization (ISO) 17025
 - National Environmental Laboratory Accreditation Program (NELAP)
- Growth
 - Oversaw a 25% increase in accounts receivable in 0.5-year. Target growth of 250% in 5 years.

DEPARTMENT CHAIR

As Department Chair of Biological Sciences, I was responsible for the academic operations for ~650 undergraduate majors and 3 baccalaureate degrees, and ~20 graduate students and 2 master's degrees. Responsibilities included budgetary management and alignment, planning course offerings and scheduling room assignments, catalog updates and revisions, curriculum review and development, academic advising, student retention and completion. I oversaw strategic visioning for the department and performed annual assessment of key performance indicators. I provided university leadership with departmental reports, developed annual budgetary requests, and advocated for new departmental resources. I oversaw departmental outreach and recruiting efforts, led community engagement efforts, and created internship programs with the private sector. I oversaw departmental operations to facilitate the teaching, research, and service activities of 18 faculty.

Direct Reports:

Assistant Chair, Graduate Director, Assistant to the Chair, Program Coordinator for Non-Science Majors, Coordinator for Freshman Laboratories, Coordinator for Pre-nursing Courses, Coordinator for Laboratory Preparations, Field Station Manager

General Activities

- Secure funding for new hires, capital improvements and equipment
- Worked with building programmers, architects to design a new biology building (\$65 million budget)
- Internal review of graduate programs
- Provide support for developing programs at SHSU Nursing
- Cooperatively worked with Chairs of Science to allocate resources (hires and funding) among departments

Personnel

- Oversaw workload and managed compensation for 18 Tenure Track Faculty (~1.3 million in salaries)
- Prepared annual projections of revenue and expenses for departmental operating budget (~\$3M), and oversaw day-to-day budgetary management
- Hired 1 new tenure-track faculty, 1 administrative assistant, 1 laboratory prep technician, Manager for Biological Field Station, Coordinator for Pre-Nursing courses
- Oversaw the startup and integration of 3 new tenure-track faculty
- Created post-doctoral teaching/research program by reallocating funding; hired 5
 Teaching Post Doctoral Researchers
- Coordinated the retirement of 2 faculty members
- Conducted annual evaluation and reviews of 5 staff
- Oversaw annual merit review of faculty; Oversaw promotion of 2 faculty from Associate to Full Professor
- Oversaw the Tenure and Promotion of 3 faculty to Associate Professor
- Worked with Office of International Programs and Law firm to receive three H1
 Visas and 1 Green Card for 3 new hires
- Oversaw and managed day-to-day activities of two departmental assistants, undergraduate lab coordinator, laboratory preparatory staff member, and undergraduate student office assistants
- Developed a mentorship program from new, tenure-track Assistant Professors
- Devoted departmental funding for scholarship support (research and travel) and capital improvements

Departmental Operations, Strategic Plan & Budget

- Held first Departmental Strategic Visioning retreat in 10 years; will begin a new recurring 4-year cycle
- Developed annual strategic plans and aligned budget requests to promote curriculum development and scholarship in the biological sciences
- Prepared annual projections of revenue and expenses for departmental operating budget (~\$300,000; not including salaries), and oversaw day-to-day budgetary accounting

Programs & Curriculum

- Oversaw scheduling, annual review and assessment of 5 programs in the department of Biological Sciences B.A. Biology, B.S. Biology, B.S. Biomedical Sciences, M.A. Biology and M.S. Biology
- Expanded Online offerings from one class (1 section per year) to 6 classes with labs (~10 sections per year)
- Revised rotation of course offerings for a 4-year window
- Managed course offerings and scheduling to accommodate program growth of about 2% annually
- Oversaw maintenance and edits of course descriptions
- Developed & recommended plan of studies for degree programs
- Worked to maintain articulation agreements with regional colleges and community colleges
- Oversaw application and acceptance of 7 courses in Biological Sciences into the State-Designated Core Curriculum
- Oversaw implementation and growth of a new Biomedical Sciences Curriculum

Program Assessment

- Established departmental assessment to measure knowledge of graduating seniors in core fields of biology
- Conducted annual assessment of progress toward departmental goals and vision per the strategic plan
- Conducted annual assessment of goals established for each program in Biological Sciences

Student Recruitment/Retention & Support

- Directed marketing efforts in the Department of Biological Sciences for recruitment and retention of majors
- Advised student for efficient course completion and retention within the Biological Sciences

- Enhanced department-level funding for scholarship for faculty to support student research and research-related travel
- Oversaw annual banquet for graduating seniors and student awards ceremony

RESEARCH INTERESTS

Fish Ecology; Fish Conservation; Human Interactions with Aquatic Ecosystems; Ecosystem Ecology; Community Ecology; Population Ecology; Physiological Ecology

RESEARCH FUNDING

EXTRAMURAL PROJECTS FUNDED (\$4,504,033)

16. Texas Department of State Health Services (2020-2021)

Amount: \$3,725,811

Title: Texas State University System - Contact Tracing Program

PIs: Lee Miller; Amanda Scarbrough; Chad W. Hargrave

15. Houston-Galveston Area Council (2016-present)

Amount: \$60,000

Title: Clean Rivers Program: Water Quality Monitoring in East Fork San Jacinto River

and Winter Bayou.

PI: Chad W. Hargrave; Co-PIs: Kaitlen Gary & Rachelle Smith

14. Texas Military Department (2017-2018)

Amount: \$41,020

Title: Aquatic Herpetofaunal Survey on Camp Bowie Training Center in Brownwood,

Texas

PI: Kaitlen P. Gary; Co-PIs: Chad W. Hargrave, William I. Lutterschmidt

13. Texas Military Department (2016-2018)

Amount: \$20,866

Title: Invertebrate Planning Level Survey at a Texas Army National Guard Rotary –

Wing Military Facility: Martindale Army Airfield, San Antonio, Texas

PI: Kaitlen P. Gary; Co-PIs: Jerry L. Cook, Chad W. Hargrave, John B. Pascarella

12. Texas Military Department (2016-2018)

Amount: \$72,281

Title: Habitat Drivers of Aquatic and Terrestrial Invertebrate Assemblages at Camp

Bowie and Eagle Mountain Maneuver Site

PI: Kaitlen P. Gary; Co-PI: Jerry Cook, <u>Chad Hargrave</u>, and John Pascarella

11. Texas Office of the Comptroller – Endangered Species Research (2015-2018)

Amount: \$107,544

Title: Current Status, Critical Habitat and General Ecology of the Bluehead Shiner

(Pteronotropis hubbsi) in Texas

PI: Chad Hargrave; Co-PI: Kaitlen P. Gary

10. U.S. Fish and Wildlife Service (2013-2017)

Amount: \$115,789

Title: Developing a predictive habitat model for the Comanche Springs Pupfish

(Cyprinodon elegans) to be used in species recovery.

PI: Chad Hargrave; Co-PI: Gary Garrett (TPWD) & David Riskind (TPWD)

9. Unites States Bureau of Reclamation (2010-2013)

Amount: \$150,000

Title: Conservation of Fish Species in Phantom Spring Lake

PI: Chad Hargrave

8. Unites States Department of Agriculture, Sustainable Agriculture Water Conservation, Rio

Grande Basin Initiative (2010-2011)

Amount: \$49,800

Title: Aquatic Habitat Quality in the Trans Pecos (Big Bend) Ecoregion, Southwest

Texas

PI: Chad Hargrave

7. Texas Parks and Wildlife Department (2010-2011)

Amount: \$23,884

Title: Long-term monitoring of the Endangered Pecos Gambusia and Comanche Springs

Pupfish.

PI: Chad Hargrave, Co-PI: P. Raelynn Deaton (St. Edwards University)

6. U.S. Fish and Wildlife Service (2009-2011)

Amount: \$61,152

Title: Conservation Status of Comanche Springs pupfish (Cyprinodon elegans) and Pecos gambusia (Gambusia nobilis) in the ciénegas of Balmorhea State Park, Texas

PI: Chad Hargrave, Co-PI: P. Raelynn Deaton (St. Edwards University),

Co-PI: Gary Garrett (TPWD)

5. United States Department of Agriculture, Sustainable Agriculture Water Conservation

Research (2009-2011)

Amount: \$50,376

Title: Local processes driving fish assemblages in the Rio Grande Basin

PI: Chad Hargrave

4. Texas Parks and Wildlife Department (2008-2009)

Amount: \$2,200

Title: Baseline Data: Ecosystem-level Conservation of the Endangered Pecos Gambusia

and Comanche Springs Pupfish

PI: Chad Hargrave, Co-PI: P. Raelynn Deaton (St. Edwards University)

3. Big Thicket Association (2008-2010)

Amount: \$15,330

Title: Local, Regional, and Temporal Drivers of Fish Communities in the Big Thicket

National Preserve PI: Chad Hargrave

2. National Science Foundation, Doctoral Dissertation Improvement Grant (2003-2004)

Amount: \$6,980

A Mechanistic Test of Consumer-Mediated Regulation of Primary Production

PI: William J. Matthews (advisor, University of Oklahoma), Co-PI: Chad Hargrave

1. McCarley Student Research, Southwestern Association of Naturalists (2003-2004)

Amount: \$1,000

Title: A Mechanistic Test of Consumer-Mediated Regulation of Primary Production

PI: Chad Hargrave

INTRAMURAL PROJECTS FUNDED (\$50,475)

7. Sam Houston State University, Competitive Undergraduate Research (2016-2017)

Amount: \$8,000

Title: *Effects of experimental warming on tadpole excretion and metamorphosis rates*

PI: Chad Hargrave & Carmen Montaña (Postdoctoral Research/Teaching Fellow)

6. Sam Houston State University Competitive Intramural Research (2016-2017)

Amount: \$5,000

Title: Food web connectivity in a tropical floodplain river

PI: Chad Hargrave & Carmen Montaña (Postdoctoral Research/Teaching Fellow)

5. Sam Houston State University Competitive Intramural Research (2012-2013)

Amount: \$15,000

Title: Effects of Global Warming on Stream Ecosystems

PI: Chad Hargrave

4. Sam Houston State University Competitive Intramural Research (2007-2008)

Amount: \$5,000

Title: *Effects of Elevated Atmospheric CO*² *on Stream Ecosystems*

PI: Chad Hargrave

3. University of Oklahoma Competitive Intramural Research (2002-2003)

Amount: \$6,975

Title: Effects of Fish Species Richness on stream ecosystems

PI: Chad Hargrave

2. Sam Noble Oklahoma Museum of Natural History, Hoving Ph.D. Fellowship (2001-2005)

Amount: \$10,000

Title: Effects of Fish Density, Identity and Diversity on Stream Ecosystems

PI: Chad Hargrave

1. University of Arkansas Competitive Intramural Research (1997-1998)

Amount: \$500

Title Status of the Arkansas Darter and Least Darter in Arkansas

PI: Chad Hargrave

EXTRAMURAL PROJECTS PENDING

None

EXTRAMURAL PROJECTS NOT FUNDED (\$7,152,933 – REPEAT SUBMISSIONS EXCLUDED)

18. Economic Development Agency (2019 & 2020).

Amount: \$4,479,496

Title: Sam Houston State University – Workforce Training and Innovation Plaza.

PI: Chad Hargrave

17. US Fish and Wildlife Service through Texas Parks and Wildlife (2018 – 2021)

Amount: \$132,142

Title: Genetic Conservation of the Endangered Pecos Gambusia (G. nobilis): Hybridization dynamics with alien congeners in Texas and New Mexico G. nobilis populations.

PI: Chad Hargrave; Co-PI: Chris Randle

16. Texas Military Department (2018 – 2020)

Amount: \$99,258

Title: Aquatic Fauna Surveys on Camp Swift Training Center in Bastrop, Texas

PI: Kaitlen P. Gary; Co-PIs: Jerry L. Cook, Chad W. Hargrave, William Lutterschmidt

15. Texas Military Department (2018 – 2020)

Amount: \$72,296

Title: Aquatic Fauna Surveys on Fort Wolters Training Center in Mineral Wells, Texas PI: Kaitlen P. Gary; Co-PIs: Jerry L. Cook, Chad W. Hargrave, William Lutterschmidt

14. Texas Military Department (2017 – 2019)

Amount: \$76,797

Title: Invertebrate Planning Level Survey at two Texas Army National Guard Training

Sites: Camp Bowie & Eagle Mountain Lake Maneuver (Extension)

PI: Kaitlen P. Gary; Co-PIs: Jerry L. Cook, Chad W. Hargrave, John B. Pascarella

13. United States Department of Agriculture, NIFA (2017 – 2022)

Amount: \$1,000,000

Title: Effects of Floral and Hydrocarbon VOCs on Native Pollinator Community

Structure and Habitat Preference

PI: Chad W. Hargrave; Co-PIs: Jerry L. Cook, Kaitlen P. Gary, John B. Pascarella, Jay

Olaguer (HARC)

12. Texas Military Department (2016 – 2018)

Amount: \$65,495

Title: Aquatic Herpetofaunal and Macroinvertebrate Survey of two Recreational-Use

Ponds at Camp Mabry in Austin, Tx

PI: Kaitlen P. Gary; Co-PIs: Chad W. Hargrave and William I. Lutterschmidt

11. Texas Military Department (2016 – 2018)

Amount: \$65,495

Title: Aquatic Herpetofaunal and Macroinvertebrate Survey of two Recreational-Use

Ponds at Camp Maxev in Powderly, Tx

PI: Kaitlen P. Gary; Co-PIs: Chad W. Hargrave and William I. Lutterschmidt

10. Southeastern Association of Fish and Wildlife Agencies (2016 – 2017)

Amount: \$48,623

Title: Current Status and Habitat of the Bluehead Shiner (Pteronotropis hubbsi)

PI: Chad W. Hargrave; Co-PI: Kaitlen P. Gary

9. U. S. Fish and Wildlife Service – Aquatic Nuisance Species (2016 – 2017)

Amount: \$24, 609

Title: Giant Salvinia (Salvinia molesta) effects on pelagic and littoral ecosystem

processes

PI: Chad W. Hargrave; Co-PI: Kaitlen P. Gary

8. U. S. Fish and Wildlife Service - Aquatic Nuisance Species (2015 - 2016)

Amount: \$28,600

Title: Parasite Infection Dynamics and Implications for Conservation of the Endangered Pecos Gambusia (Gambusia nobilis) and Comanche Springs Pupfish (Cyprinidon elegans)

PI: Autumn J. Smith-Herron (TISI); Co-PIs: Kaitlen P. Gary and Chad W. Hargrave

7. National Science Foundation (2013 - 2016)

Amount: N/A

Title: Preliminary Proposal: RUI: Consumer roles in a changing climate - interactions between elevated temperature and consumer regulation of ecosystem structure and function

PI: Chad W. Hargrave

6. National Science Foundation (2012 - 2015)

Amount: N/A

Title: DEB: Preliminary Proposal: RUI: Consumer roles in a changing climate - interactions between elevated temperature and consumer regulation of ecosystem

structure and function PI: Chad W. Hargrave

5. U.S. Fish and Wildlife Service (2011-2014)

Amount: \$61,152

Title: Genetic confirmation and geographic extent of possible hybridization between the invasive Gambusia geiseri and endangered G. nobilis in West Texas

PI: Chad Hargrave, Co-PI: Chris Randle, Gary Garrett (TPWD)

4. National Science Foundation (2010 - 2013)

Amount: \$396,684

Title: RUI: Consumer roles in a changing climate: the interactions between elevated atmospheric carbon dioxide and consumer-mediated effects on ecosystem properties and functions

PI: Chad Hargrave

3. U.S. Fish and Wildlife Service, (2010-2013)

Amount: \$104,230

Title: Genetic analysis of putative hybrids between the invasive Gambusia geiseri and endangered G. nobilis and the relative threat of hybridization for long-term conservation of this endangered fish

PI: Chad Hargrave, Co-PI: Chris Randle, Gary Garrett (TPWD)

2. National Science Foundation (2009 - 2012)

Amount: \$396,684

Title: RUI: Consumer roles in a changing climate: the interactions between elevated atmospheric carbon dioxide and consumer-mediated effects on ecosystem properties and functions

PI: Chad Hargrave

1. Bureau of Reclamation (2008-2013)

Amount: \$101,372

Title: Continued Monitoring of Aquatic Biota in Flaming Gorge Tailwater, 2008-2013

PI: Chad Hargrave

MENTORSHIP

GRADUATE STUDENTS (6 TOTAL)

Cyrus Sadeghian (M.S. 2017); Jessica McWilliams (M.S. 2017); Victoria Rodriquez (M.S. 2017); Kelbi Delaune (M.S. 2015); Kaitlen P. Gary (M.S. 2014); Sanchez (M.S. 2013)

UNDERGRADUATE RESEARCH STUDENTS (37 TOTAL)

Jessica Wright (2017-2018); Kelsey Kralman (2017-2018); Briana Kelnhofer (2017-2018); Haley Cromwell (2017-2018); Chelsae Thron (2016-2017); Savanah Hamilton (2016-2018); Hanna Waters (2016-2017); Kathrine Chatum (2016-2017); Terry Ball (2015-2016); Anne Marie Bledsoe (2015-2016); Christian Poradek (2015- 2016); Alexandria Tromely (2014-2015); Emmaline Heckmann (2014-2015); Harmony Lorentzen (2014); Lakeith Henson (2013); Melanie Menchaca (2013); Meirha Bridges (2013); Stacie Gray (2012-2013); Daniel Traube (2012-2013); Jaqueline Lee (2012-2013); Jessica McWilliams (2011 – 2013); Krytal Ramsey (2011 – 2012); Nkenna Odom (2011 – 2012); Ashley Sequiera (2011 – 2012); Chad Cambell (2010 - 2011); Kelbi Deluane (2010 - 2011); Heather Otell (2009- 2010); Assumpta Nwaneri (REU 2010); Jessica Sanchez (2009 - 2010); Ivy McClellan (REU 2009), Samir K. Rosado (2008- 2009); Laura A. Gaides (2008- 2009); Kaitlen Gary (2007-2008); Landis Shoemaker (2006-2008); Andrea Heim (REU (2008); Samuel Hamontree (2006-2008); Hanna Turner (REU 2007)

PEER-REVIEWED PUBLICATIONS

- † indicates undergraduate in my lab when submitted.
- 22. <u>Chad W. Hargrave</u>. 2019. The Mosquitofishes, *Gambusia spp. In B.R.* Chapman and W.I. Lutterschmidt (eds). *Texans on The Brink Threatened and Endangered Animals*. Texas A&M University Press.
- 21. <u>Chad W. Hargrave</u>. 2019. The Pupfishes, *Cyprinodon spp. In* B.R. Chapman and W.I. Lutterschmidt (eds). *Texans on The Brink Threatened and Endangered Animals*. Texas A&M University Press. Texas A&M University Press.
- 20. Kaitlen P. Gary and <u>Chad W. Hargrave</u>. 2017. In-stream structure alters density dependent fish effects in stream ecosystems. *Ecology of Freshwater Fish*, 26:403-414.
- 19. <u>Chad W. Hargrave</u> and Kaitlen P. Gary. 2016 Historical Distribution of Bluehead shiner (*Pteronotropis hubbsi*). **Southeastern Naturalist**, 15:109-115.
- 18. <u>Chad W. Hargrave</u>. 2014. Least Darter, *Etheostoma microperca* Jordan and Gilbert 1888. *In* M. Eberle and F. Cross (eds). *Kansas Fishes*. Pp. 398-399. University of Kansas Press.

- 17. <u>Chad W. Hargrave</u>. 2014. River Redhorse, *Moxostoma carinatum* Cope 1870. *In* M. Eberle and F. Cross (eds). *Kansas Fishes*. Pp. 266-267. University of Kansas Press.
- 16. <u>Chad W. Hargrave</u>. 2014. Black Redhorse, *Moxostoma duquesnei* Lesuer 1817. *In* M. Eberle and F. Cross (eds). *Kansas Fishes*. Pp. 268-269. University of Kansas Press.
- 15. <u>Chad W. Hargrave</u>, K. David Hambright, and Lawrence J. Weider. 2011. Variation in resource consumption across a gradient of increasing intra- and inter-specific richness. *Ecology*, 92:1226-1235.
- 14. <u>Chad W. Hargrave</u>, Samuel Hamontree[†], and Kaitlen P. Gary. 2010. Direct and indirect food web regulation of microbial decomposers in headwater streams. *Oikos*, 119:1785-1795.
- 13. <u>Chad W. Hargrave</u> and Christopher M. Taylor. 2010. Spatial and temporal variation in fishes of the upper Red River drainage (Oklahoma-Texas). *The Southwestern Naturalist*, 55:149-159.
- 12. <u>Chad W. Hargrave</u>, Kaitlen P. Gary[†], Samir K. Rosado[†]. 2009. Potential effects of elevated atmospheric carbon dioxide on benthic autotrophs and consumers in stream ecosystems: a test using experimental stream mesocosms. *Global Change Biology*, 15:2779-2790.
- 11. Keith B. Gido and <u>Chad W. Hargrave</u>. 2009. Fish, Productivity. *In* Gene E. Likens (Ed.). *Encyclopedia of Inland Waters*, vol. 3, pp. 473-481 Oxford: Elsevier.
- 10. <u>Chad W. Hargrave</u>. 2009. Effects of fish species richness and assemblage composition on stream ecosystem function. *Ecology of Freshwater Fish* 18:24-32.
- 9. <u>Chad W. Hargrave</u>. 2006. A test of three alternative pathways for consumer regulation of primary productivity. *Oecologia* 149:123-132.
- 8. <u>Chad W. Hargrave</u>, Raul Ramirez, Melody Brooks, Michael A. Eggleton, Katherine Sutherland, Raelynn Deaton, and Heather Galbraith. 2006. Indirect food web interactions increase growth of an algivorous stream fish. *Freshwater Biology* 51:1901-1910.
- 7. <u>Chad W. Hargrave</u>, Katherine Sutherland, Edie Marsh-Matthews, and William J. Matthews. 2005. Multiple interacting factors affect pH in museum storage fluids. *Collection Forum* 19:23-31.
- 6. Michael A. Eggleton, Raul Ramirez, <u>Chad W. Hargrave</u>, Keith B. Gido, Jason R. Masoner, Gary D. Schnell, William J. Matthews. 2005. Predictability of littoral-zone fish communities through ontogeny in Lake Texoma, Oklahoma-Texas, USA. *Environmental Biology of Fishes* 73:21-36.
- 5. <u>Chad W. Hargrave</u> and Keith B. Gido. 2004. Evidence of reproduction by exotic grass carp in the Red and Washita Rivers (Oklahoma). *Southwestern Naturalist* 49:89-93.

- 4. <u>Chad W. Hargrave</u> and James E. Johnson. 2003. Status of Arkansas darter, *Etheostoma cragini*, and least darter, *E. microperca*, in Arkansas. *Southwestern Naturalist* 48:89-92.
- 3. Keith B. Gido, <u>Chad W. Hargrave</u>, William J. Matthews, Gary D. Schnell, and Darrell W. Poque. 2002. Structure of littoral-zone fish assemblages along physical and chemical gradients in a southern reservoir: local versus system-wide effects. *Environmental Biology of Fishes* 63:253-263.
- 2. Kerri E. Pratt, <u>Chad W. Hargrave</u>, and Keith B. Gido. 2002. Rediscovery of *Labidesthes sicculus* (Atherinidae) in Lake Texoma (Oklahoma-Texas). *Southwestern Naturalist* 47:112-118.
- 1. Thomas M. Buchanan, <u>Chad Hargrave</u>, Drew Wilson, Les. G. Claybrook, and Phillip W. Penny, Jr. 1996. First Arkansas records for bigscale logperch, *Percina macrolepida* Stevenson (Pisces: Percidae), with comments on habitat preference and distinctive characters. *Proceedings of the Arkansas Academy of Science* 50:28-35.

ARTICLES IN REVIEW OR REVISION

None

PRESENTATIONS

INVITED PUBLIC SEMINARS

Caddo Lake Institute, Karnak Texas, February 2018

Hosted by: Laura-Ashley Overdyke

Department of Biological Sciences, Sam Houston State University, February 2012

Hosted by: Departmental Tenure and Promotion Committee

Department of Biology, University of Texas at Tyler, September 2011

Hosted by: Dr. Lance Williams

Department of Biology, Trinity University, October 2010

Hosted by: Dr. Kelly Lyons

Department of Biology, Texas State University, September 2009

Hosted by: Dr. Michael Huston

Big Thicket Association, Big Thicket National Preserve, October 2009

Hosted by: Linda Brindle

Department of Earth and Environmental Sciences, University of New Orleans, November 2008 Hosted by: Dr. Martin O'Connell

Department of Ecology and Evolutionary Biology, Rice University, October 2007

Hosted by: Dr. Jennifer Rutgers

Department of Biological Sciences, University of Southern Mississippi, November 2006

Hosted by: Dr. Jacob Schaefer

Department of Wildlife and Fisheries Sciences, Texas A & M University, May 2006

Hosted by: Dr. Gil Rosenthal

Department of Zoology, University of Oklahoma, May 2004 Hosted by: Dr. Bill Matthews - Ph.D. Seminar

FIRST AUTHORED PRESENTATIONS ONLY

- 30. Strategies to Increase Grant Activity at a Regional Comprehensive University.
 - At: National Council of University Research Administrators, 2019
- 29. Fish community structure in the Big Cypress drainage (Texas) with special emphasis on the Bluehead Shiner (*Pteronotropis hubbis*).
 - At: Southwestern Association of Naturalists, 2017
- 28. Population Size and Dispersion Patterns of Bluehead Shiner within Iron Ore Lake and Pruitt Lake, Texas.
 - At: American Fisheries Society, Texas Chapter, 2017
- 27. Fish assemblage dynamics in a small stream within the Piney Woods of East Texas.
 - At: Big Thicket and Texas Piney Woods Science Conference, 2015
- 26. Historic Distribution of the Bluehead Shiner.
 - At: Southwestern Association of Naturalists, 2015
- 25. Effects of Experimental warming on fish growth.
 - At: Texas Chapter American Fisheries Society, 2015
- 24. Potential effects of global warming on stream ecosystem structure and function.
 - At: Texas Academy of Science, Southwestern Association of Naturalists, 2014
- 23. Long-Term population dynamics of the endangered *Gambusia nobilis* and *Cyprinodon elegans* and associated environmental correlates.
 - At: Texas Academy of Science, 2013
- 22. Regional land-use effects on fishes of the Big Thicket ecoregion.
 - At: American Fisheries Society Texas Chapter, Southwestern Association of Naturalists 2013
- 21. Local, regional and temporal processes affecting fish communities in Big Thicket Streams.
 - At: Texas Academy of Science, 2012
- 20. A preliminary analysis of potential hybridization between endangered *Gambusia nobilis* and invasive *G. geiseri* in a reconstructed desert wetland, San Solomon ciénega, Balmorhea State Park, TX.
 - At: Texas Invasive Plant and Pest Conference, 2011
- 19. Population dynamics, food web interactions and possible ecosystem management options for the endangered *Gambusia nobilis* and *Cyprinodon elegans* in San Solomon Cienéga, Balmorhea State Park, Texas.
 - At: Rio Grande Fishes Recovery Meeting, 2011
- 18. Local, regional and temporal processes affecting fish communities in Big Thicket Streams.
 - At: Big Thicket Science Conference, 2011
- 17. Potential hybridization between invasive Gambusia geiseri and endangered Gambusia nobilis.
 - At: Desert Fishes Council, 2010

16. Interactive effects of stream habitat complexity and consumers on stream ecosystem function (Invited).

At: North American Benthological Society, 2010

15. Regional patterns in environment and fishes of the Rio Grande Basin, Texas (Invited). At: Rio Grande Basin Initiative, 2010

14. On the Population and Community Ecology of Fishes in a small Second-order Stream Ecosystem.

At: Texas Academy of Science, 2009; Southwestern Association of Naturalists, 2009

13. Regional and Local variation in fishes of the Big Thicket National Preserve, Texas.

At: OK-TX Aquatics Research Group and Great Plains Limnology Conference, 2008

12. Mosquitofish ecology and a changing climate: the current and future ecological role of the *Gambusia affinis* in temperate streams.

At: 3rd European Poeciliid Biologists Conference, 2008

11. Global warming affects nutrient dynamics in small second order stream ecosystems.

At: Texas Academy of Sciences, 2008; Southwestern Association of Naturalists, 2008

10. Trophic and Functional effects of fishes in first- and second order perennial streams.

At: Southwestern Association of Naturalists, 2007.

9. Effects of Genetic Diversity on Ecosystem Function: Grazing Rates in Clonal and Non-Clonal Daphnia assemblages.

At: Southwestern Association of Naturalists, 2006; American Society of Limnology and Oceanography, 2006.

8. Interactive consumer effects on ecosystem properties and functions.

At: Joint meeting of the Oklahoma-Texas Aquatics Research Group and Texas River and Reservoir Management Society, 2005.

7. Fish effects on stream ecosystems: a mechanistic test.

At: North American Benthological Society, 2005; Southwestern Association of Naturalists, 2005.

6. Fish diversity enhances ecosystem function.

At: North American Benthological Society, 2003; Texas A&M Conservation Ecology Symposium, 2004.

5. Evidence of natural grass carp reproduction in the Red and Washita rivers (Oklahoma).

At: American Fisheries Society, Oklahoma Chapter Annual Meeting, 2003.

4. Effects of fishes on stream ecosystem function.

At: Southwestern Association of Naturalists, 2002; Great Plains Limnology Conference, 2002.

3. Persistence and stability of fishes in a harsh prairie river system (upper Red River): Effects of scale.

At: North American Benthological Society - Invited landscape ecology session, 2000; Oklahoma Academy of Science, 2002; Southwestern Association of Naturalists, 2000.

2. Rediscovery of Labidesthes sicculus (Atherinidae) in Lake Texoma (Oklahoma-Texas).

At: Great Plains Limnology conference, 2000.

1. Current Status of Arkansas Darter (*Etheostoma cragini*) and Least Darter (*E. microperca*) in Arkansas.

At: Arkansas Academy of Science, 1998; Great Plains Limnology conference, 1998; Oklahoma Academy of Science, 1998.

NON-FIRST AUTHORED PRESENTATIONS BY TITLE AND PRESENTING COAUTHOR

28. Potential effects of global warming fish mediated nutrient dynamics in stream ecosystems.

At: Texas Chapter of American Fisheries Society, 2017

Presenter: Jessica McWilliams – Graduate student

27. Current Status of Bluehead Shiner (Pteronotropis hubbsi) in Texas.

At: Texas Chapter of American Fisheries Society, 2017

Presenter: Chelsea Thorn – Undergraduate

26. Fish Assemblages Structure Across a Habitat Gradient in the Big Cypress Drainage, Texas

At: Texas Chapter of American Fisheries Society, 2017.

Presenter: Kaitlen P. Gary

25. Invasive allochthonous input: the Chinese Tallow tree and stream food webs.

At: Southwestern Association of Naturalists, 2017.

Presenter: Cyrus Sadeghian – Graduate Student

24. The potential hybridization between the endangered pecos Gambusia and invasive large spring Gambusia.

At: Integrated Ecology Symposium, TX A&M, 2016.

Presenter: Victoria Rodriguez – Graduate Student

23. Comparative effects of low and high quality allochthonous input on stream food webs.

At: Joint Meeting of Ichthyologists and Herpetologists, 2016.

Presenter: Cyrus Sadeghian – Graduate Student

22. The Historic Distribution of Bluehead Shiner (Pteronotropis hubbsi).

At: Big Thicket and Texas Piney Woods Science Conference, 2015.

Presenter: Kaitlen P. Gary

Sciences.

21. Flow dependent competitive interactions between invasive *Gambusia geiseri* and endangered *G. nobilis*.

At: Texas Invasive Plant and Pest Council, 2014, Southwestern Association of Naturalists, 2015, Texas Chapter American Fisheries Society, 2015, Texas Academy of

Presenter: Kelbi Delaune – Graduate Student

20. Potential effects of global warming on fish effects on stream ecosystems.

At: Texas Academy of Sciences, Southwestern Association of Naturalists, 2013.

Presenter: Jaqueline Lee - Undergraduate

19. Competition between invasive *Gambusia geiseri* and endangered *G. nobilis* – implications For species conservation.

At: Desert Fishes Council, Southwestern Association of Naturalists, Texas Academy of Sciences, 2013.

Presenter: Kelbi Delaune – Graduate Student

18. Population dynamics, Food Web Structure and Potential Community-level interactions in a

reconstructed desert wetland, San Solomon Cienega, Balmorhea State Park, Texas;

At: Texas Academy of Science, 2012.

Presenter: Ashley Sequeria - Undergraduate

17. Potential hybridization between endangered *Gambusia nobilis* and invasive *G. geiseri* in a reconstructed desert wetland;

At: Texas Academy of Science, 2012.

Presenter: Kelbi Delaune - Graduate Student

16. Comparison of metabolic scope between the invasive *Gambusia geiseri* and endangered *G. nobilis*: potential importance of flow for endangered species management.

At: Texas Academy of Science, 2012.

Presenter: Krystal Ramsey - Undergraduate

15. Thermal minimum and maximum for three species of temperate Gambusia.

At: Texas Academy of Science, 2012.

Presenter: Nkenna Odom - Undergraduate

14. Population dynamics and possible competition between the endangered *Gambusia nobilis* and invasive *Gambusia geiseri*, San Solomon Ciénega, Balmorhea State Park, Texas At: Texas Invasive Pest and Plant Conference, 2011.

Presenter: Kelbi Delaune - Graduate Student

13. How riparian protection can affect ecosystem structure and function in streams.

At: Big Thicket Science Conference, 2011.

Presenter: Kaitlen Gary - Graduate Student

12. Gut contents, diet overlap and potential competitive interactions among fishes in a reconstructed desert wetland: implications for endangered species conservation.

At: Desert Fishes Council, 2010.

Presenter: Sam Hamontree - Graduate Student

11. Population dynamics of *Cyprinidon elegans* and *Gambusia nobilis* in two reconstructed desert wetlands.

At: Desert Fishes Council, 2010.

Presenter: Kelbi Delaune - Undergraduate

10. Population and community ecology of in San Solomon Cienega at Balmorhea State Park, Texas.

At: Texas Academy of Science, 2010.

Presenter: Kelbi Delaune - Undergraduate

9. Preliminary analysis of critical current speed between *Gambusia nobilis* and *G. geisier* in Balmorhea State Park, TX.

At: Texas Academy of Science, 2010.

Presenter: Sam Hamontree - Graduate Student

8. Regional and Local variation in fishes of the Big Thicket National Preserve, Texas.

At: Texas Academy of Science, 2009; Southwestern Association of Naturalists, 2009.

Presenter: Kaitlen Gary - Undergraduate

7. A context-dependent trophic cascade in a simple stream food web.

At: OK-TX Aquatics Research Group and Great Plains Limnology Conference, 2008; Texas Academy of Science, 2009; Southwestern Association of Naturalists, 2009. Presenter: Landis Shoemaker - Undergraduate

6. Fish mediated secondary production in stream ecosystems.

At: OK-TX Aquatics Research Group and Great Plains Limnology Conference, 2008; Texas Academy of Science, 2009; Southwestern Association of Naturalists, 2008. Presenter: Laura Gaddis - Undergraduate

5. Effects of elevated CO₂ on stream ecosystem properties and functions.

At: Texas Academy of Science 2008, Southwestern Association of Naturalists, 2008. Presenter: Kaitlen Gary – Undergraduate, Samir Rosado - Undergraduate

4. Direct and indirect effects of fish on leaf litter decomposition.

At: Texas Academy of Sciences, 2008; Southwestern Association of Naturalists, 2008. Presenter: Sam Hamontree - Undergraduate

3. Predator-induced phenotypic plasticity in the western mosquitofish (Gambusia affinis).

At: 3rd European Poeciliid Biologists Conference, 2008; Southwestern Association of Naturalists, 2008.

Presenter: Samir Rosado - Undergraduate

2. A simple solution to a complex problem: a hypothesis based hierarchical approach for teaching general concepts in an ecology lab.

At: Texas Academy of Sciences, 2008; Southwestern Association of Naturalists, 2008. Presenter: Chris Felder - Undergraduate

1. Taxon-specific effects of microbial-mediated leaf litter decomposition in aquatic ecosystems. At: Texas Academy of Sciences, 2008; Southwestern Association of Naturalists, 2008.; Presenter: Landis Shoemaker - Undergraduate

TEACHING

UNDERGRADUATE COURSES

General Ecology & Lab (BIOL3409 -- SHSU); fall, spring 2006-2016; ~75 students/class Tropical Ecology in Costa Rica (BIOL4380); summer 2016; ~10 students Physiological Ecology (BIOL4481); spring 2016; ~25 students Aquatic Biology (BIOL4330 -- SHSU); spring 2007, 2014; fall 2017 ~20 students/class Environmental Science (BIOL1401-- SHSU); fall 2006; ~60 students Reservoir Fish Ecology (ZOO4970/5970 -- OU) summer 2005-2006; ~16 students/class

GRADUATE COURSES

Limnology (BIOL5390 -- SHSU); spring 2012, 2014; ~10 students Community Ecology (BIOL5394 -- SHSU); spring 2010, 2012; ~10 students Ichthyology (BIOL5382 -- SHSU); fall 2009, 2011, 2015; ~9 students/class Experimental Design (BIOL5320 -- SHSU); spring 2009, 2011; 2017 ~20/10 students Fish Ecology (BIOL5394 -- SHSU); fall 2010; ~6 students

Reservoir Fish Ecology (ZOO5970 -- OU) summer 2005-2006; ~16 students/class Microbial Ecology (BIOL5394 – SHSU); fall 2016; 15 students

AWARDS

2004 - Best Graduate Student Paper, Conservation Ecology Symposium, Texas A & M

2002 - Wilk's Award, Best Student Paper, Southwestern Association of Naturalists

2000 - James Thompson Award, Excellence in Graduate Teaching, Univ. of Oklahoma

1998 - 2nd Place, Best Undergraduate Paper, Arkansas Academy of Science

1998 - Samuel Dillenger Award: Outstanding Senior Zoologist, University of Arkansas

1995 - Outstanding Achievement in Biology, University of Arkansas Fort Smith

PROFESSIONAL SOCIETIES

American Association State Colleges and Universities; National Council of University Research Administrators

PROFESSIONAL SERVICE

MANUSCRIPTS REVIEWED FOR

(2) J. Comparative Parasitology
(2)

Canadian J. Fisheries & Aquatic Sciences Lakes and Reservoirs Research & Management

Copeia (2) North American Journal of Fisheries

Management

J. Fisheries & Aquatic Sciences Oecologia (7) Ecology (5) Oikos (4) Ecology of Freshwater Fish (16) Plos-One

Evolutionary Ecology Southwestern Association of Naturalists (7)
Freshwater Biology (2) Transactions American Fisheries Society (3)

Hydrobiologia (2)

GRANTS REVIEWED FOR

National Science Foundation; Southwestern Association of Naturalists (student grants); Big Thicket Association

ELECTED POSITIONS

Board of Trustees, Southwestern Association of Naturalists (2017-present). Science Committee for the Big Thicket National Preserve (2010 - 2018)

Chair of Fresh Water Science Section, Texas Academy of Sciences (2012-2015)

Vice President, Executive Council, Big Thicket Association (2010 - 2013)

Executive Council, Huntsville Senior Citizen Center (2010 - 2013)

Board of Governors Southwestern Association of Naturalists (2006-2009).

ORGANIZING COMMITTEES

- 2021 Co-host, Southwestern Association of Naturalists Annual Meeting, Sam Houston State University
- 2006 Co-host, Joint meeting of the Oklahoma Texas Aquatic Research Group and Texas Rivers and Reservoir Management Society, University of Oklahoma Biological Station

INSTITUTIONAL SERVICE

DEPARTMENTAL COMMITTEES

Departmental Events (2011 – 2017)

Departmental Budget (2008–2017)

Center for Biological Field Studies (2006 – 2017)

Department Merit Review (2010 - 2017)

Environmental Science Program (2010 – 2013)

Distance Learning (2010 – 2012)

Student Research Award (2008 – 2012)

Seminar Committee (Chair, 2007 – 2009)

Graduate Selections (2006 – 2008)

Anatomy and Physiology Coordinator Search (2014)

Functional Morphologist Search (2014)

Field Station Manager Search (2013)

Environmental Toxicology Search Committee (2012)

Wetland Ecologist Search (2012)

COLLEGE AND UNIVERSITY COMMITTEES

Strategic Planning Committee for HSI designation (2021-present)

University Promotion & Tenure policy review committee (chair; 2021-present)

Promotion and Tenure Committee Chair – College of Osteopathic Medicine (2018-present)

Academic Affairs Council (2012-present)

University Compliance Committee (2016-present)

Search Committee – Dean College of Osteopathic Medicine (2016)

Meta-Assessment Committee for Accreditation (2013-2015)

University Budget Focus Group (2014-2015)

SHSU Faculty Senate (2009-2012)

SHSU Faculty Research Council (2008-2011)

SHSU Capital Fund Campaign (2006-2009)

PUBLIC & OTHER SERVICE

2021	Review of Environmental Science Program for University of Central
	Arkansas
2013, 2015, 2018	Wetland Delineation Training Course
2013	Judge Student Posters at annual meetings of Texas Academy of Sciences
	and Southwestern Naturalists
2012	Lead Aquatic Biology Field Trip for Huntsville High school,
2011	Public Presentation, Fishes of the Big Thicket Ecoregion, Big Thicket
	Association
2011	Public Presentation- Understanding Human-Related Impacts to Aquatic
	Ecosystems in Texas, Big Thicket Association, Beaumont, TX,
2010	Fish collecting trip on Neches River, Big Thicket Association
2009	Fishes of the Big Thicket National Preserve, Identification Workshop, Big
	Thicket Association
2007	Public Presentation, Bats of Texas, Huntsville Downtown Association and
	Rotary Club
2005-06	Public Outreach Specialist, University of Oklahoma Biological Station
2005-07	Public presentation on Ecology of Lake Texoma, West End Association
2004-05	Instructor for Science Institute for Secondary and Elementary School
	Teachers, Sam Noble Oklahoma Museum of Natural History
2003	Various presentations at elementary schools on fish diversity and
	functional ecology