

## **JACE W. TUNNELL**

Texas A&M University – Corpus Christi  
Harte Research Institute for Gulf of Mexico Studies  
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## **EDUCATION**

M.S. Marine Biology, Texas A&M University – Corpus Christi, May 2001  
Teresa Heinz Scholars for Environmental Research Recipient  
B.S. Vertebrate Biology, Texas A&M University – Corpus Christi, May 1998  
Member of Biological Honor Society, Tri Beta

## **PROFESSIONAL EXPERIENCE**

August 2023 – present

### **Director of Community Engagement for the Harte Research Institute for Gulf of Mexico Studies at Texas A&M University-Corpus Christi**

- Strengths include science communication
- Leading the citizen science program Nurdle Patrol
- Leading the Beachcombing Program that produces weekly videos/photos about items washing up along the Gulf of Mexico and highlights HRI research

December 2014 – August 2023

### **Director for the Mission-Aransas National Estuarine Research Reserve at the University of Texas Marine Science Institute**

- Strengths include leadership, organization, efficiency, and communication
- Lead and manage a staff of 25 researchers and educators
- Manage an annual budget of \$1.7 million
- Since 2014, brought in as PI or Co-PI over \$20M worth of donations, research, education, hurricane repair, and operations grants
- Founded and manage the citizen science program called Nurdle Patrol, to help reduce plastics reaching the ocean through policy changes using science
- Work with Mexico research universities and organizations on reducing plastics in the ocean
- Coordinate and lead several large (150+ attendees) research meetings, including the Texas Plastic Pollution Symposium, Texas Bays and Estuaries Meeting, Microplastics Science Meeting, and the Plastic Pollution Mexico Conference
- Speak to media with over 350 newspaper and magazine articles, podcasts, documentaries, TV interviews, and radio shows given since 2014
- Present at national research meetings and public events with over 260 presentations given since 2014
- Work on plastic reduction policy related to preproduction plastics
- Maintain partnerships with the Reserve, including state, federal agencies, businesses, local governments, research institutions, and nonprofits. The Nurdle Patrol project includes over 230 partner organizations from 24 different countries
- Represent the university at national and international events, including annual Hill visits to Washington, D.C. during Estuaries Week
- Serving as President of the National Estuarine Research Reserve Association that advocates for funding from Congress for all 30 Research Reserves around the country
- Serving on over 15 boards and committees on advising for protection of habitats and clean water

- Conduct plastics research that can be applied to management decisions about plastics reaching the ocean
- Direct and produce an educational film series called “Beachcombing” about items washing up on area beaches with around 150 episodes produced

October 2006 – December 2014

**Director of Research and Planning for the Coastal Bend Bays & Estuaries Program**

- Built partnerships with agencies, industry, businesses, universities, nonprofits, and key stakeholders
- Wrote grants for restoration projects with receiving over \$2 million in funding
- Managed large scale, wetland restoration projects for the National Estuary Program
- Lead for the Water and Sediment Implementation Team that funds water quality projects within the Texas Coastal Bend

March 2003 – April 2006

**Project Manager for the South Florida Water Management District**

- Managed the Isolated Wetland Restoration Program with a \$1.4 million budget for improving water quality to the Everglades
- Worked closely with private landowners to restore wetlands on private lands for the betterment of the public

**GRANTS RECEIVED**

- \$200,000 – June 2023: Matagorda Bay Mitigation Trust. Nurdle Patrol Education and Outreach.
- \$336,213 – January 2023: Natural Resource Trustees. Sea Turtle Stranding, Nesting, and Rehabilitation at the Amos Rehabilitation Keep.
- \$780,000 – September 2022: National Oceanic and Atmospheric Administration. Mission-Aransas NERR Operations Grant.
- \$200,000 – June 2022: Matagorda Bay Mitigation Trust. Nurdle Patrol Education and Outreach.
- \$434,713 – January 2022: Natural Resource Trustees. Sea Turtle Stranding, Nesting, and Rehabilitation at the Amos Rehabilitation Keep.
- \$758,125 – September 2021: National Oceanic and Atmospheric Administration. Mission-Aransas NERR Operations Grant.
- \$401,347 – September 2021: NOAA Marine Debris Program. Expanding Nurdle Patrol throughout Mexico.
- \$200,000 – June 2021: Matagorda Bay Mitigation Trust. Nurdle Patrol Education and Outreach.
- \$40,000 – January 2021: HDR Engineering. Turtle tank construction at ARK.
- \$362,831 – January 2021: Natural Resource Trustees. Sea Turtle Stranding, Nesting, and Rehabilitation at the Amos Rehabilitation Keep.
- \$728,214 – September 2020: National Oceanic and Atmospheric Administration. Mission-Aransas NERR Operations Grant.
- \$78,000 – September 2020: Coastal Bend Bays & Estuaries Program. Mapping chemical absorption of plastic pellets in the Coastal Bend of Texas.
- \$75,000 – August 2020: 11<sup>th</sup> Hour Racing. Plastic Pellet Batch Numbers per Sample using Chemical Analysis.
- \$200,000 – June 2020: Matagorda Bay Mitigation Trust. Nurdle Patrol Education and Outreach.
- \$301,827 – January 2020: Natural Resource Trustees. Sea Turtle Stranding, Nesting, and Rehabilitation at the Amos Rehabilitation Keep.

- \$724,500 – September 2019: National Oceanic and Atmospheric Administration. Mission-Aransas NERR Operations Grant.
- \$11,720,000 – September 2019: NOAA Hurricane Harvey Recovery Funding.
- \$10,000 – May 2019: 11<sup>th</sup> Hour Racing for Nurdle Patrol expansion.
- \$860,000 – April 2019: NOAA Marine Debris Program. Marine debris removal related to Hurricane Harvey.
- \$8,618 – January 2019: Harte Research Institute for Gulf of Mexico Studies. Oyster shell recycling, restoration resources, and reef resilience.
- \$243,145 – January 2019: Natural Resource Trustees. Sea Turtle Stranding, Nesting, and Rehabilitation at the Amos Rehabilitation Keep.
- \$690,000 – September 2018: National Oceanic and Atmospheric Administration. Mission-Aransas NERR Operations Grant.
- \$194,592 – April 2018: National Fish and Wildlife Foundation. Hurricane Harvey Disaster Funding for Wildlife at the ARK.
- \$287,020 – January 2018: Natural Resource Trustees. Sea Turtle Stranding, Nesting, and Rehabilitation at the Amos Rehabilitation Keep.
- \$22,500 – January 2018: Coastal Bend Bays & Estuaries Program. Satellite Transmitters for SWMP.
- \$30,000 – January 2018: Sea World. ARK Medical Supplies and Turtle Tank Repair.
- \$633,000 – September 2017: National Oceanic and Atmospheric Administration. Mission-Aransas NERR Operations Grant.
- \$38,500 – April 2017: Coastal Bend Bays & Estuaries Program. Amos Rehabilitation Keep Public Access for Education and Outreach.
- \$30,000 – February 2017: Coastal Bend Bays & Estuaries Program. Coastal Bend Bays Foundation Education and Outreach.
- \$72,993 – November 2016: National Fish and Wildlife Foundation. South Texas Marine Debris Education Campaign.
- \$619,322 – September 2016: National Oceanic and Atmospheric Administration. Mission-Aransas NERR Operations Grant.
- \$46,000 – March 2016: Coastal Bend Bays & Estuaries Program. Dunescape Construction at the University of Texas Marine Science Institute.
- \$23,275 – January 2016: Coastal Bend Bays & Estuaries Program. Egery Flats Vegetation and Salinity Monitoring.
- \$5,175 – September 2015: NOAA RESTORE Science Program. Ecosystem Services Evaluation.
- \$10,000 – September 2015: US Fish and Wildlife Service. Fennessey Ranch culvert replacement.
- \$645,150 – September 2015: National Oceanic and Atmospheric Administration. Mission-Aransas NERR Operations Grant.

#### **AWARDS**

- 2021 – Coastal Community Award for Nurdle Patrol from the Coastal Bend Bays Foundation.
- 2020 – Texas Sea Grant Coastal Icon.
- 2019 - NOAA's Digital Coast National Estuaries Week Photo Contest Winner.
- 2018 – NOAA's Digital Coast National Estuaries Week Photo Contest Winner.
- 2017 – Conservationist of the Year Award from the Coastal Conservation Association.
- 2017 – 2<sup>nd</sup> Place Award at the Harte of the Gulf Film Festival for “Legacy” film.
- 2016 – Legacy Award from the National Estuarine Research Reserve System for a film about Tony Amos.
- 2016 – Making Waves Award from BLUE On Tour Gulf Films

- 2015 - Conservation & Environmental Stewardship Award (Coastal Steward) from the Coastal Bend Bays Foundation
- 2015 – Secchi Film Festival Award (Head of Tide Award) from the National Estuarine Research Reserve System
- 2014 – Champion of the Estuary Award from Coastal Bend Bays & Estuaries Program
- 1991 – Eagle Scout Award from Boy Scouts of America

#### **PROFESSIONAL BOARDS/COMMITTEES**

- Harvey Weil Conservationist Award Steering Committee, Member, 2018 – present.
- Wintering Whooping Crane Working Group, Member, 2016 – present.
- Coastal Bend Bays Foundation, Trustee, 2010 – present.
- Gulf of Mexico Alliance Marine Debris Committee Member, 2015 – present.
- Nueces River and Corpus Christi and Baffin Bays Basin and Bay Expert Science Team, Member, 2011 – present.
- Nueces Estuary Advisory Committee, Member, 2006 – present.
- Seagrass Monitoring Workgroup, Member and Co-Chair for developing the updated Seagrass Conservation Plan for Texas, 2006 – present.
- National Estuarine Research Reserve Association, President, 2022-2023.
- National Estuarine Research Reserve Association, Vice President, 2020-2022.
- Coastal Estuarine Research Federation Film Fest Committee, Co-Chair, 2018-2021.
- Port Aransas Nature Preserve Advisory Committee, Member, 2017 – 2022.
- NOAA’s Center for Coastal and Marine Ecosystems Community Stakeholders Advisory Board, Member, 2017 – 2023.
- Gulf of Mexico Alliance’s Embrace the Gulf Campaign Committee, Member, 2017 – 2021.
- National Estuarine Research Reserve Association Fundraising Committee, Member, 2016 – 2023.
- National Estuarine Research Reserve System National Product Committee, Member, 2016 – 2023.
- National Estuarine Research Reserve Annual Meeting Auction Committee, Member, 2016 – 2023.
- National Estuarine Research Reserve Film Fest Committee, Co-Chair, 2016 – 2023.
- Coastal Bend Bays Foundation, President, 2016 – 2018.
- Coastal Bend Bays Foundation, Board Member, 2016 – 2020.
- Texas Sea Grant Advisory Committee, Member, 2016 – 2020.
- Guadalupe and San Antonio Basin and Bays Area Stakeholder Committee, Member, 2015 – 2023.
- Baffin Bay Study Group, Chairman, 2012 – 2015.
- Regional Water Planning Group – Region N, Board Member, 2011 – 2022.
- Nueces River and Corpus Christi and Baffin Bays Basin Area Stakeholder Committee, Member Alternate and Chairman for development of the Work Plan, 2009 – present.
- South Texas Environmental Professionals, Steering Committee Member and Events Coordinator, 2013 – 2015.
- Cole and Ropes Parks Bacteria Reduction Implementation Plan Coordination Committee, Committee Member and Chairman for the Science & Technology Workgroup and Chair of the Editorial Committee, 2012 – 2014.
- CBBEP Water and Sediment Quality Implementation Team, Coordinator and Facilitator, 2008 – 2014.
- CBBEP Maritime Commerce and Dredging Implementation Team, Coordinator and Facilitator, 2006 – 2009.

## PUBLICATIONS

- Jiang, X., Conner, N., Tunnell, J.W., Liu, Z. 2022. Occurrence, distribution, and associated pollutants of plastic pellets (nurdles) in coastal areas of South Texas. *Science of the Total Environment*. <https://doi.org/10.1016/j.scitotenv.2022.156826>
- Jiang, X., Lu, K., Tunnell, J.W., and Liu, Z. 2021. The impacts of weathering on concentration and bioaccessibility of organic pollutants associated with plastic pellets (nurdles) in coastal environments. *Marine Pollution Bulletin*. <https://doi.org/10.1016/j.marpolbul.2021.112592>
- Tunnell, J., Dunning, K., Swanson, K., and Scheef, L. 2020. Measuring plastic pellet (nurdle) abundance around the Gulf of Mexico using citizen scientists: establishing a platform for policy-relevant research. *Marine Pollution Bulletin*. <https://doi.org/10.1016/j.marpolbul.2019.110794>
- Harwell, M.A., Gentile, J.H., McKinney, L.D., Tunnell, J.W., Jr., Dennison, W.C., Kelsey, R.H., Stanzel, K.M., Stunz, G.W., Withers, K., and Tunnell, J. 2019. Framework for Assessing the Ecosystem Health of the Gulf of Mexico. 36 pp.
- Tunnell, J.W., Jr. and J.W. Tunnell. 2015. *Pioneering Archaeology in the Texas Coastal Bend: The Pape-Tunnell Collection*. Texas A&M University Press, College Station. 358 pp.
- Hill, E., J.W. Tunnell, and B. Nicolau. 2015. Spatial and Temporal Effects of the Rincon Bayou Pipeline on Hypersaline Conditions in the Lower Nueces Delta, Texas, USA. *Texas Water Journal*. 6:11-32 p.
- Hutchison, L., Montagna, P., Yoskowitz, D., Scholtz, D. and J. Tunnell. 2013. Stakeholder Perception of Coastal Habitat Ecosystem Services. *Estuaries and Coasts*. DOI: 10.1007/s12237-013-9647-7.
- L. Lloyd and Tunnell, J.W. 2013. Nueces Delta Salinity Effects from Pumping Freshwater into the Rincon Bayou: 2009 to 2013. Coastal Bend Bays & Estuaries Program. Corpus Christi, Texas. Project 1311, CBBEP-85.
- Onuf, C., Pulich, W., Dunton, K., Larkin, P., Hardegree, B., Carangelo, P., Tunnell, J. and K. Meador. 2012. Seagrass Conservation Plan for Texas: Ten-Year Review and Update – 2012. Texas Parks and Wildlife Department. Austin, Texas. 49 pp.
- Hill, E.M., J.W. Tunnell and L. Lloyd. 2012. Management and Spatial Effects of Rincon Bayou Pipeline Freshwater Inflows on Salinity in the Lower Nueces Delta, Texas. Final Report submitted to the Coastal Bend Bays & Estuaries Program for project number 1202, Coastal Bend Bays & Estuaries Program, Publication No. CBBEP-81.
- Tunnell, J.W. and L. Lloyd. 2011. Effects of Rincon Bayou Pipeline Inflows on Salinity Structure Within the Nueces Delta Texas. Final Report submitted to the Coastal Bend Bays & Estuaries Program for project number 1106, Coastal Bend Bays & Estuaries Program, Publication No. CBBEP-76.
- Nueces River and Corpus Christi and Baffin Bays Basin and Bay Expert Science Team (BBEST). 2011. Environmental Flows Recommendations Report. Final Submission to the Environmental Flows Advisory Group, Nueces River and Corpus Christi and Baffin Bays Basin and Bay Area Stakeholder Committee, and Texas Commission on Environmental Quality. 285 pp.
- Adams, J.S. and J.W. Tunnell. 2010. Rincon Bayou Salinity Monitoring. Final Report submitted to the Coastal Bend Bays & Estuaries Program for project number 0921, Coastal Bend Bays & Estuaries Program, Publication No. CBBEP-66.

- Tunnell, J.W. 2001. Abundance and community structure of juvenile fish using *Halodule beaudettei*, *Cymodocea filiformis* and unvegetated substrates in the upper Laguna Madre. Thesis. Texas A&M University – Corpus Christi.