

MATTHEW K. STREICH

Assistant Research Scientist
Center for Sportfish Science and Conservation
Harte Research Institute for Gulf of Mexico Studies
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412
(404) 429-4101
matthew.streich@tamucc.edu

Education:

2016	Ph.D., Marine Biology	Texas A&M University. Corpus Christi, TX
2012	M.S., Fisheries and Aquaculture	University of Georgia. Athens, GA
2010	B.S., Fisheries and Aquaculture	University of Georgia. Athens, GA

Current Position:

2017 – present	Assistant Research Scientist, Center for Sportfish Science and Conservation, Harte Research Institute for Gulf of Mexico Studies, Texas A&M University-Corpus Christi.
----------------	--

Professional Experience:

2016 – 2017	Postdoctoral Research Associate, Center for Sportfish Science and Conservation, Harte Research Institute for Gulf of Mexico Studies, Texas A&M University-Corpus Christi.
2013 – 2016	Graduate Research Assistant, Harte Research Institute for Gulf of Mexico Studies, Texas A&M University-Corpus Christi. <i>Dissertation:</i> Ecology of Red Snapper in the western Gulf of Mexico: comparisons among artificial and natural habitats <i>Advisor:</i> Dr. Greg Stunz, Professor and Endowed Chair for Fisheries and Ocean Health, Director of the Center of Sportfish Science and Conservation
2012 – 2013	Graduate Teaching Assistant, Texas A&M University-Corpus Christi.
2010 – 2012	Graduate Research Assistant, Warnell School of Forestry and Natural Resources, University of Georgia. <i>Thesis:</i> Estuarine residence, habitat use, and movements of Tripletail (<i>Lobotes surinamensis</i>) in the Ossabaw Sound Estuary, Georgia <i>Advisor:</i> Dr. Doug Peterson, Professor of Fisheries Research

- 2010 – 2011 Graduate Teaching Assistant, Warnell School of Forestry and Natural Resources, University of Georgia.
- 2008 – 2009 Fisheries Research Technician, Sturgeon Population Dynamics and Ecology Project, Warnell School of Forestry and Natural Resources, University of Georgia.

Research Grants:

- 2018 – 2020 Evaluating the relative habitat value of intertidal and subtidal oyster reefs to improve restoration methods. **National Oceanic and Atmospheric Administration – Sea Grant**. J. Pollack (PI), M. Streich (Co-PI), G. Stunz (Co-PI), J. Curtis (Co-PI) - \$336,794
- 2018 – 2019 Recovering the acoustic array at the Corpus Christi Nearshore Reef in the aftermath of Hurricane Harvey. **National Academies of Sciences, Engineering, and Medicine – Gulf Research Program**. J. Curtis (PI), M. Streich (Co-PI) - \$49,657
- 2018 – 2019 Impacts of Hurricane Harvey on Cedar Bayou: a post-disturbance assessment of sportfish use of essential fish habitat. **Harvey Weil Sportsman Conservationist Trust**. J. Curtis (PI), M. Streich (Co-PI), G. Stunz (Co-PI) - \$6000
- 2017 – 2019 Estimating the absolute abundance of Red Snapper in the U.S. Gulf of Mexico. **National Oceanic and Atmospheric Administration – Sea Grant**. G. Stunz (PI), W. Patterson (Co-PI), S. Powers (Co-PI), J. Rooker (Co-PI), J. Hoenig (Co-PI), R. Ahrens (Co-PI), M. Streich (Co-I), and 17 others - \$12,000,024 *role included proposal preparation and field sampling with ROV and acoustics in western Gulf
- 2014 – 2015 Assessing the impact of a newly constructed artificial reef off Port Aransas, Texas: what are we missing? **Texas Sea Grant Grants-in-Aid of Graduate Research**. M. Streich (PI) - \$2000
- 2013 – 2014 Artificial reef structure and function: effects on Red Snapper recruitment in the western Gulf of Mexico. **Texas Sea Grant Grants-in-Aid of Graduate Research**. M. Streich (PI) - \$2000

Peer Reviewed Publications:

- Streich, M. K., J. J. Wetz, M. J. Ajemian, and G. W. Stunz. (In Prep).** Baited video a valuable addition to fish trap surveys for indexing reef fish presence and abundance at a newly constructed artificial reef in the western Gulf of Mexico. Fisheries Research.
- Downey, C. H., M. J. Ajemian, M. K. **Streich**, R. A. Brewton, J. J. Wetz, and G. W. Stunz. 2018. Habitat-specific reproductive potential of Red Snapper: A comparison of artificial and natural reefs in the western Gulf of Mexico. Transactions of the American Fisheries Society. DOI: 10.1002/tafs.10104.

- Streich, M. K., M. J. Ajemian, J. J. Wetz, and G. W. Stunz.** 2018. Habitat-specific performance of vertical line gear in the western Gulf of Mexico: A comparison between artificial and natural habitats using a paired video approach. *Fisheries Research* 204:16–25. DOI: 10.1016/j.fishres.2018.01.018.
- Streich, M. K., M. J. Ajemian, J. J. Wetz, J. D. Shively, J. B. Shipley, and G. W. Stunz.** 2017. Effects of a new artificial reef complex on Red Snapper and the associated fish community: An evaluation using a before-after control-impact approach. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 9:404–418. DOI: 10.1080/19425120.2017.1347116.
- Streich, M. K., M. J. Ajemian, J. J. Wetz, J. A. Williams, J. B. Shipley, G. W. Stunz.** 2017. A comparison of size structure, age, and growth of Red Snapper from artificial and natural habitats in the western Gulf of Mexico. *Transactions of the American Fisheries Society* 146:762–777. DOI: 10.1080/00028487.2017.1308884.
- Streich, M. K., M. J. Ajemian, J. J. Wetz, and G. W. Stunz.** 2017. A comparison of fish community structure at mesophotic artificial reefs and natural banks in the western Gulf of Mexico. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 9:170–189. DOI: 10.1080/19425120.2017.1282897.
- Streich, M. K., C. A. Kalinowsky, and D. L. Peterson.** 2013. Residence, habitat use, and movement patterns of Atlantic Tripletail in the Ossabaw Sound Estuary, Georgia. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 5:291–302. DOI: 10.1080/19425120.2013.829144.
- Streich, M. K., and D. L. Peterson.** 2011. Evidence of a Bull Shark nursery in the Altamaha River Estuary, Georgia. *Proceedings of the Annual Conference of the Southeastern Association of Fish and Wildlife Agencies* 65:92–97.

Technical Reports:

- Stunz, G. W., M. J. Ajemian, M. K. **Streich**, R. Brewton, C. Downey, and Q. Hall. 2016. Investigation of the relative habitat value of oil/gas platforms and natural banks in enhancing stock building of reef fish in the western Gulf of Mexico. NOAA Marine Fisheries Initiative Grant NA14NMF4330219 Final Report. National Marine Fisheries Service, St. Petersburg, Florida.

Presentations:

- | | |
|------|---|
| 2018 | M. K. Streich , and T. S. Topping. Overview of the Center for Sportfish Science and Conservation. Invited Seminar, TPWD International Affairs. Corpus Christi, TX. |
| 2017 | M. K. Streich . Artificial reefs as fish habitat in the western Gulf of Mexico: potential impacts of Rigs-to-Reefs. Flower Garden Banks National Marine Sanctuary Advisory Council Quarterly Meeting. Galveston, TX. |
| 2017 | M. K. Streich . Artificial reefs as fish habitat in the western Gulf of Mexico: potential impacts of Rigs-to-Reefs. Petroleum Institute of Thailand Meeting. New Orleans, LA. |

- 2017 Rodriguez, J., M. K. **Streich**, and G. W. Stunz. Across-shelf comparison of Red Snapper size and age structure at artificial reefs in the western Gulf of Mexico. Society for Advancement of Chicanos/Hispanics and Native Americans in Science STEM Conference. Salt Lake City, UT.
- 2017 **Streich**, M. K., M. J. Ajemian, J. J. Wetz, and G. W. Stunz. Impacts of a new artificial reef on Red Snapper and the associated fish community: evidence of enhanced production. American Fisheries Society Annual Meeting. Tampa, FL.
- 2017 **Streich**, M. K., M. J. Ajemian, J. J. Wetz, and G. W. Stunz. A comparison of fish community structure at mesophotic artificial reefs and natural banks in the western Gulf of Mexico. American Fisheries Society Annual Meeting. Tampa, FL.
- 2017 Ajemian, M. J., M. K. **Streich**, J. J. Wetz, R. A. Brewton, and G. W. Stunz. Rigs-to-Reefs in the Gulf of Mexico. American Fisheries Society Annual Meeting. Tampa, FL.
- 2017 Rodriguez, J., M. K. **Streich**, and G. W. Stunz. Across-shelf comparison of Red Snapper size and age structure at artificial reefs in the western Gulf of Mexico. Louis Stokes Alliance for Minority Participation Symposium. San Antonio, TX.
- 2017 **Streich**, M. K., M. J. Ajemian, J. J. Wetz, and G. W. Stunz. A comparison of fish community structure at mesophotic artificial reefs and natural banks in the western Gulf of Mexico. Texas Parks and Wildlife Department Artificial Reef Program 4th Annual Science and Research Consortium. Corpus Christi, TX.
- 2017 **Streich**, M. K., M. J. Ajemian, J. J. Wetz, and G. W. Stunz. Enhanced production of Red Snapper (*Lutjanus campechanus*) at a newly constructed artificial reef in the western Gulf of Mexico. Texas Chapter of the American Fisheries Society Annual Meeting. Corpus Christi, TX.
- 2016 Ajemian, M. J., M. K. **Streich**, R. A. Brewton, C. H. Downey, J. J. Wetz, and G. W. Stunz. The role of “Rigs-to-Reefs” habitats in Red Snapper stock recovery in the northwestern Gulf of Mexico. Benthic Ecology Meeting. Portland, ME.
- 2016 **Streich**, M. K., J. J. Wetz, M. J. Ajemian, and G. W. Stunz. Relative abundance, age, and growth of Red Snapper: A comparison between artificial and natural habitats in the western Gulf of Mexico. Southern Division of the American Fisheries Society Annual Meeting. Wheeling, WV.
- 2016 Cummins, A., A. Fox, C. A. Kalinowsky, R. Chandler, M. K. **Streich**, and D. L. Peterson. Seasonal movements and annual mortality rates of tripletail *Lobotes surinamensis* in the Southeast. Southern Division of the American Fisheries Society Annual Meeting. Wheeling, WV.
- 2016 **Streich**, M. K., J. J. Wetz, M. J. Ajemian, and G. W. Stunz. Relative abundance, age, and growth of Red Snapper: A comparison between artificial and natural habitats in the western Gulf of Mexico. Texas Parks and Wildlife Department Artificial Reef Program 3rd Annual Science and Research Consortium. Corpus Christi, TX.
- 2015 **Streich**, M. K., J. J. Wetz, M. J. Ajemian, and G. W. Stunz. Construction of the Corpus Christi Nearshore Reef: effects on Red Snapper and the associated community. Texas Sea Grant Reception. Corpus Christi, TX.
- 2015 Walker, L. M., M. K. **Streich**, J. J. Wetz, and G. W. Stunz. Colonization of the Corpus Christi Nearshore Reef: a comparison of underwater video and traditional

- sampling gears for monitoring reef fish presence and abundance. Texas Sea Grant Reception. Corpus Christi, TX.
- 2015 **Streich**, M. K., J. J. Wetz, M. J. Ajemian, and G. W. Stunz. Artificial reefs as surrogate habitats for Red Snapper in the northwestern Gulf of Mexico: a fishery-independent comparison of artificial and natural habitats. American Fisheries Society Annual Meeting. Portland, OR.
- 2015 **Streich**, M. K. Fisheries research in the Texas Coastal Bend. Invited Seminar, Texas A&M University-Kingsville. Kingsville, TX.
- 2015 Walker, L. M., M. K. **Streich**, J. J. Wetz, and G. W. Stunz. Colonization of the Corpus Christi Nearshore Reef: a comparison of underwater video and traditional sampling gears for monitoring reef fish presence and abundance. Texas Bays and Estuaries Annual Meeting. Port Aransas, TX.
- 2015 **Streich**, M. K., M. J. Ajemian, J. J. Wetz, and G. W. Stunz. Effects on Red Snapper and the associated community following construction of the Corpus Christi Nearshore Reef. Texas Parks and Wildlife Artificial Reef Program 2nd Annual Science and Research Consortium. Corpus Christi, TX.
- 2015 Wetz, J. J., M. K. **Streich**, M. J. Ajemian, and G. W. Stunz. Using vertical longlines to assess Red Snapper among various habitats in the Texas Coastal Bend region. Texas Parks and Wildlife Department Artificial Reef Program 2nd Annual Science and Research Consortium. Corpus Christi, TX.
- 2014 Ajemian, M. J., J. J. Wetz, M. K. **Streich**, and G. W. Stunz. Fish community assessment on artificial reefs of the western Gulf of Mexico: Potential impacts of 'Rigs-to-reefs' programs. Invited Seminar, University of Alicante. Alicante, SPA.
- 2014 **Streich**, M. K., M. J. Ajemian, J. J. Wetz, and G. W. Stunz. Assessing the fishery resources of the Corpus Christi Nearshore Reef. Center for Sportfish Science and Conservation Board Meeting. Corpus Christi, TX.
- 2014 **Streich**, M. K., M. J. Ajemian, and G. W. Stunz. Abundance and size structure of Red Snapper among natural and artificial habitats in the northwestern Gulf of Mexico. Texas Chapter of the American Fisheries Society Annual Meeting. Pottsboro, TX.
- 2014 **Streich**, M. K., M. J. Ajemian, J. J. Wetz, and G. W. Stunz. Assessing the fishery resources of TPWD artificial reefs offshore Port Aransas, TX. Texas Parks and Wildlife Department Artificial Reef Program Annual Science and Research Consortium. Corpus Christi, TX.
- 2013 **Streich**, M. K., M. J. Ajemian, J. J. Wetz, and G. W. Stunz. Relative abundance and size structure of Red Snapper, *Lutjanus campechanus*, at natural and artificial habitats in the northwestern Gulf of Mexico. Gulf and Caribbean Fisheries Institute Annual Meeting. Corpus Christi, TX.
- 2012 **Streich**, M. K., C. Kalinowsky, and D. L. Peterson. Estuarine residence and movements of Tripletail within the Ogeechee River-Ossabaw Sound Estuary, Georgia. Georgia Chapter of the American Fisheries Society Annual Meeting. Macon, GA.
- 2012 **Streich**, M. K., C. Kalinowsky, and D. L. Peterson. Estuarine residence and movements of Tripletail within the Ogeechee River-Ossabaw Sound Estuary, Georgia. Southern Division of the American Fisheries Society Annual Meeting. Biloxi, MS.

- 2011 **Streich, M. K., and D. L. Peterson.** Evidence of a Bull Shark nursery in the Altamaha River Estuary, Georgia. Southeastern Association of Fish and Wildlife Agencies Annual Meeting. Nashville, TN.

Journal Reviewer:

- 2018 – present *Bulletin of Marine Science*
 2017 – present *AFS Symposium Series*
 2017 – present *ICES Journal of Marine Science*
 2016 – present *Gulf of Mexico Science*
 2012 – present *Southeastern Naturalist*

Honors and Awards:

- 2016 Coastal Conservation Association Texas Graduate Scholarship (\$5000)
 2015 Carl R. Beaver Memorial Scholarship (\$1200)
 2014 Carl R. Beaver Memorial Scholarship (\$1500)
 2013 – 2016 Texas A&M Univ.-Corpus Christi Graduate Research Assistantship (\$24,000/yr)
 2012 – 2013 Texas A&M Univ.-Corpus Christi Graduate Teaching Assistantship (\$24,000)
 2010 – 2012 Warnell School Graduate Student Assistantship (\$17,000/yr)
 2010, 2012 Magna cum laude, University of Georgia
 2009 Gordie J. Yancey Scholarship recipient (\$1800)
 2008 Trout Unlimited Scholarship recipient (\$1200)
 2008 – 2009 Presidential Scholar, University of Georgia
 2007 – 2010 Dean's List, University of Georgia

Professional Workshops:

- 2018 Echoview Software Training. Echoview Software Pty. Ltd., Halifax, Nova Scotia, Canada.
 2017 Advanced GIS for Fisheries Scientists. American Fisheries Society, Tampa, Florida.
 2017 Otolith Microchemistry 101: An Introduction for Fisheries Scientists. Texas Chapter of the American Fisheries Society, Corpus Christi, Texas.
 2016 Data Wrangling in R and R Studio. Southern Division of the American Fisheries Society, Wheeling, West Virginia.
 2016 Data Visualization in R using ggplot2. Southern Division of the American Fisheries Society, Wheeling, West Virginia.
 2016 Advanced Workshop (Conversion of PRIMER 6 to PRIMER 7) on Multivariate Analysis in Ecology and Other Sciences using PRIMER v7. PRIMER-E, Corpus Christi, Texas.

2015 Age and Growth Analysis with R. American Fisheries Society, Portland, Oregon.

Professional Organizations:

2011 – present American Fisheries Society (parent and state chapters)

University Organizations and Activities:

2016 *Science Judge*, Marine Science Graduate Student Organization Annual Research Forum, Corpus Christi, TX

2013 *Student Coordinator*, Gulf and Caribbean Fisheries Institute Poster Session, Corpus Christi, TX

2012 – 2016 *Member*, Marine Science Graduate Student Organization, Texas A&M- Corpus Christi

2011 – 2012 *Treasurer*, Student Chapter of the American Fisheries Society, University of Georgia

2009 – 2010 *Student Ambassador*, Warnell School of Forestry and Natural Resources Student Ambassadors, University of Georgia

2009 – 2010 *Associate Forester*, Xi Sigma Pi, University of Georgia

2007 – 2012 *Member*, Student Chapter of the American Fisheries Society, University of Georgia

Other Organizations:

2012 – present Coastal Conservation Association

2014 – present Ducks Unlimited

Skills and Certifications:

- ASHI first aid, O₂, and Heartsaver® CPR, AED
- DAN Diving Emergency Management Provider
- Boat safety (USCG approved), operation (up to 36'), trailering, and basic maintenance
- Field sampling: gill nets, trammel nets, drift nets, angling, seines, small trawls, cast nets, epibenthic sled, remotely operated vehicle (ROV), fisheries acoustics, vertical line, fish traps, visual census, acoustic telemetry (passive and active), radio telemetry, satellite telemetry
- SCUBA (AAUS scientific diver; ~ 110 dives)
- Microsoft Office (Word, Excel, Powerpoint, Access)
- Data management
- Statistical software: SAS, R, MARK, PRIMER
- GIS: ArcMap, ArcScene