Matthew "Jake" Madewell
(512) 888-6389 • Matthewmadewell20@gmail.com

EMPLOYMENT

Research Specialist I August 2022 – Present
Coastal Ecology and Management Lab, Texas A&M University

- Formulate research questions in line with lab research goals.
- Design scientific experiments and sampling regimes.
- Utilize GIS software to provide project support to the research team.
- Identify collaborative opportunities to perform ecological restoration along the Middle Texas Coast.
- Develop efficient workflows to process large quantities of spatial and tabular data.
- Improve lab practices through professional development and literature review.
- Communicate research through conference presentations and publications.
- Educate and assist lab staff on GIS principles and best practices.

Research Associate January 2022 – August 2022
Coastal Ecology and Management Lab, Texas A&M University

- Conduct spatial analyses in support of coastal research.
- Deploy water monitoring sensors and analyze data collected.
- Prepare reports and presentations to communicate research findings.
- Develop research plans and coordinate data collection efforts.
- Oversee, assist, and mentor undergraduate technician during lab experiments.

Graduate Research Assistant May 2020 – December 2021
Coastal Ecology and Management Lab, Texas A&M University

- Analyzed hydrological data to model freshwater inflow.
- Investigated causes of salt marsh loss over time.
- Prepared technical writing for scientific publication and government reports.

Undergraduate Research Technician November 2017 – July 2020
Riverscape Ecology Lab, Texas A&M University

- Lead a small team of students for an undergraduate research project focusing on stream fish community structure and habitat change.
- Organized project volunteers and ensured safety of field crew.

Regional Park Operations Intern May 2019 – August 2019
Texas Parks & Wildlife Department

- Assisted regional staff in completing natural, cultural, or facility maintenance related projects, such as conducting invasive-ant baseline surveys, archaeological site surveys, and safety inspections.

EDUCATION

Texas A&M University December 2021
Master of Science, Ecology and Conservation Biology
Thesis Topic: *Informing environmental flows in the Big Boggy watershed*

Texas A&M University May 2020
Bachelor of Science, Spatial Sciences & Renewable Natural Resources
Certificate in Watershed Management
Undergraduate Research Topic: *Stream fish community structure and habitat variability*
Honors: Magna Cum Laude (GPA: 3.71)

SKILLS & CERTIFICATIONS

- GIS software: ArcMap, ArcGIS Pro, QGIS, ENVI
- Programming Languages: R, Python, SQL
- Proficient in Microsoft Word, Excel, PowerPoint, Adobe Illustrator
- Wetland Delineator Certification
- Certified ATV operator

COMMUNITY INVOLVEMENT

Appointed Member, Representing Natural Resources 2022 – 2025
Bicycle, Pedestrian, and Greenways Advisory Board, City of College Station

MANUSCRIPTS

Madewell, M.J., R. Feagin, T. Huff, and B. Balboa. 2022. Water, water everywhere and not a streamflow gauge in sight: Estimating freshwater inflows in an ungauged watershed at the Big Boggy National Wildlife Refuge, USA. (Under Review)

PRESENTATIONS

National level

Madewell, M.J., R. Feagin, T. Huff, and B. Balboa. 2021. Developing Hydrological Flow Standards to Support Saltwater Wetlands. Young Coastal Scientists and Engineers Conference – Americas, Myrtle Beach, South Carolina. (Oral)

Madewell, M.J., F. Chavez, and J.S. Perkin. 2018. A Riverscape Divided: Longitudinal Change in Fish Community Structure in White Creek, College Station, Texas. American Fisheries Society, Atlantic City, New Jersey. (Poster)

State and Regional level

Madewell, M.J., R. Feagin, T. Huff, and B. Balboa. 2022. High times and dry times in a salt marsh: Budgeting for supplemental freshwater needs at the Big Boggy National Wildlife Refuge, USA. Texas Chapter American Shore & Beach Preservation Association, Corpus Christi, Texas. (Oral)

Madewell, M.J., F. Chavez, and J.S. Perkin. 2020. Here Today, Gone Tomorrow? Assessing changes in stream fish assemblage structure in relation to habitat fluctuations. Texas Chapter American Fisheries Society, Waco, Texas. (Oral)

Madewell, M.J., F. Chavez, and J.S. Perkin. 2019. A Riverscape Divided: Longitudinal Change in Fish Community Structure in White Creek, College Station, Texas. Southern Division American Fisheries Society, Galveston, Texas. (Poster)

Madewell, M.J., F. Chavez, and J.S. Perkin. 2018. A Riverscape Divided: Longitudinal Change in Fish Community Structure in White Creek, College Station, Texas. Texas Chapter American Fisheries Society, College Station, Texas. (Poster)