

Danielle DeChellis

Curriculum Vitae

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EDUCATION

Master of Science in Environmental Science | University of Houston-Clear Lake (UHCL) | **December 2024**

Specialization in Environmental Biology | 3.833 GPA

Research Project Title: “Influences Of Natural And Anthropogenic Factors On The Distribution And Habitat Associations Of The Western Chicken Turtle (*Deirochelys reticularia miaria*) In Texas”

Faculty Advisors: Dr. Cindy Howard & Dr. George Guillen

Bachelor of Science in Environmental Geoscience | Texas A&M University (TAMU) | **December 2019**

Minor in Wildlife and Fisheries Sciences | 3.683 GPA

PROFESSIONAL EXPERIENCE

Research Technician

May 2025 – Present

Environmental Institute of Houston (EIH), University of Houston-Clear Lake – *Houston, TX*

- Assists with multiple and diverse environmental and wildlife studies, upholding the highest standards of scientific integrity through each stage of research
- Performs similar duties to those completed during EIH graduate research assistantship (below)

Graduate Research Assistant

Sept 2020 – Dec 2024 (4 yrs + 4 mos)

Environmental Institute of Houston (EIH), University of Houston-Clear Lake – *Houston, TX*

- Assisted with multiple and diverse environmental and wildlife studies, upholding the highest standards of scientific integrity through each stage of research
- Completed graduate research project concurrently with work on contracted project deliverables for the “Distribution and Habitat Association of Western Chicken Turtles (*Deirochelys reticularia miaria*) in Texas,” funded by the Texas Comptroller of Public Accounts
 - Performed species distribution modeling for the Western Chicken Turtle using species occurrences, environmental covariates, and MaxEnt software for graduate research project
- Led crews of 3-5 people on single-day to week-length trips to field sites across the state of Texas to collect environmental and wildlife ecology data
- Operated 4WD vehicles (with trailers), ATVs, and small vessels to access field sites in variable conditions and remote areas
- Assisted with data management and processing, data entry and QC, and data analysis for multiple projects using statistical and geospatial software
- Coordinated and collaborated with EIH personnel (students, staff, and professors) and external entities (private landowners, government wildlife biologists, other universities) to accomplish research tasks effectively and safely
- Prepared, calibrated, and maintained various units of scientific equipment for research needs
- Assisted with writing technical reports provided to the funding entities of multiple studies

Undergraduate Volunteer

Oct 2019 – Dec 2019 (3 mos)

Biodiversity Assessment and Monitoring Lab, Department of Wildlife and Fisheries Sciences, Texas A&M University (TAMU) – *College Station, TX*

- Sorted wildlife photos from camera traps at the Condor Valley property in Salta Province, Argentina (for

biodiversity research and promotional media) and at high-elevation sites in Peru (for a TAMU graduate study)

- Identified various native mammal species from Argentina and Peru in camera trap footage

Coastal Fisheries Intern

May 2018 – Aug 2018 (4 mos)

Dickinson Marine Lab, Coastal Fisheries Division, Texas Parks and Wildlife Department – *Dickinson, TX*

- Fulfilled the summer internship requirement for the Applied Biodiversity Science Conservation Scholars Program at Texas A&M University
- Aided the different departments of the lab in a variety of their daily work and research in Galveston Bay
- Assisted fisheries staff in deploying, retrieving, and repairing fisheries sampling gear in the bay including gill nets, bay trawls, oyster dredges, and bag seines
- Identified and measured marine fish and invertebrate species of the bay captured during resource sampling and gill net trips and from fishermen catch during public boat ramp (creel) surveys

Undergraduate Intern

Nov 2017 – Oct 2018 (11 mos)

Applied Biodiversity Science Conservation Scholars Program, Department of Wildlife and Fisheries Sciences, Texas A&M University – *College Station, TX*

- Description: Applied science program funded by the National Fish and Wildlife Foundation for undergraduates to conduct research at TAMU and engage in a summer internship for hands-on experience in wildlife conservation, public outreach, policy, natural resource management, and energy development.
- Conducted undergraduate study in spring 2017 investigating changes in salt marsh grass assemblages of the Gulf Coast Chenier Plain at Anahuac National Wildlife Refuge (ANWR) since a 2010 study
 - Surveyed vegetation species composition of 15 salt marsh sites at ANWR
 - Performed hierarchical cluster analysis in R to identify marsh grass assemblages across sites
 - Wrote a final research report on process and findings for the program
 - Faculty advisor: Dr. David Cairns, TAMU Department of Geography

PUBLICATIONS

Hughes, N., Gordon, M.L., Bullard, S., Alvarez, A., Bontrager, D.R., Davidson, D., **DeChellis, D.**, Garcia, K., Giles, B.G., Gray, R., Kittle, J., Marzullo, I., McKenzie, T., Nagro, J., Puzon, A., et al. 2023. [Aquatic Turtle County Records from Trapping Surveys in East Texas, USA](#). *Herpetological Review* 54(1):84-86.

TECHNICAL REPORTS

Ricardez, V., Gordon, M., **DeChellis, D.**, Brown, G.J. and Franklin, C.J. 2025. [Sternotherus carinatus](#). The IUCN Red List of Threatened Species 2025: e.T170492A251779169.

Gordon, M., Mokrech, M., Reistle, W., McDermid, R., Hammerbach, G., **DeChellis, D.**, and Thurman, L. 2024. [Microplastic Distribution and Impacts to Diamond-backed Terrapin, Highlighting Public Education and Future Effects of Sea-Level Rise – Quarterly Progress Report FY24, Quarter 4](#). University of Houston-Clear Lake, Environmental Institute of Houston, Houston, Texas, USA. EIH Report #25-001. 8 pp.

Gordon, M., Nagro J., **DeChellis, D.**, Oakley, J.W., Apodaca, J.J., Collins, L., Speight, L., Mokrech, M., Bush, D., and Guillen, G. 2023. [Distribution and Habitat Association of Western Chicken Turtles \(*Deirochelys reticularia miaria*\) in Texas, Final Report](#). (Report No. EIH23-001). Prepared for the Texas Comptroller of Public Accounts (Contract 20-6997BG). 133 pages.

PRESENTATIONS

DeChellis, D., Mokrech, M., Gordon, M., and Guillen, G.J. 2023. [Species distribution modeling for the western chicken turtle \(*Deirochelys reticularia miaria*\) in Texas.](#) Houston Regional Ecology & Evolution Symposium, La Marque, TX. Oral Presentation.

DeChellis, D., Mokrech, M., Gordon, M., and Guillen, G. 2023. [Influence of ecological and anthropogenic factors on the distribution and habitat associations of western chicken turtles \(*Deirochelys reticularia miaria*\) in Texas.](#) Cypress and Sulphur Basin Clean Rivers Program Stakeholder Annual Meeting. Virtual Presentation.

DeChellis, D. 2023. Aquatics. Texas Envirothon, Houston, TX. Oral Presentation.

DeChellis, D., Guillen, G., and Gordon, M. 2022. [Preliminary analyses of landscape-scale impacts on western chicken turtles in Texas.](#) Texas Academy of Science, 125th Annual Meeting, Houston, TX. Oral Presentation.

DeChellis, D. 2019. Revisiting The Coastal Marsh Grass Assemblages Of Anahuac National Wildlife Refuge: An Investigation Of Changes In Marsh Structure. Ecological Integration Symposium, College Station, TX. Poster Presentation.

AWARDS AND SCHOLARSHIPS

2019 Medallion Scholars Bronze Award | *College of Geosciences, Texas A&M University*
Cum Laude Graduation Honors | *Texas A&M University*

2017 Applied Biodiversity Science Conservation Scholars Program | *Department of Wildlife and Fisheries Sciences, Texas A&M University*

TRAINING AND CERTIFICATIONS

2025 NOLS – Wilderness First Aid (*expires May 2027*)

2024 Texas State Office of Risk Management – Driver's Safety (*expires 2027*)

2024 CITI Program – Wildlife Research (*expires 2027*); Completed under requirements set by UHCL

2024 CITI Program – Working with the IACUC (*expires 2027*); Completed under requirements set by UHCL

2023 American Red Cross – Adult and Pediatric First Aid/CPR/AED (*expires May 2025*)

2018 Texas Parks and Wildlife – Boaters Education Certification

RELEVANT SKILLS

Software/Programs:

- **Microsoft Office:** Word, Excel, and PowerPoint (*Proficient*)
- **Geospatial:**
 - Google Earth Pro and Esri ArcGIS Pro (*Proficient*)
 - TerrSet IDRISI software (*Beginner*)
- **Statistical/Modeling:**
 - MaxEnt for species distribution modeling (*Moderate experience*)
 - R and R Studio for statistical analyses (*Beginner*)
 - MATLAB and Stella Professional (*Beginner*)
- **Data Extraction:** SonTek FlowTracker and RiverSurveyor LIVE (*Proficient*)

Environmental Field Sampling:

- Water quality measurements and water grab sampling (*Proficient*)
- Streamflow measurements with doppler equipment (*Proficient*)
- Environmental DNA (eDNA) water and soil sample collection (*Proficient*)
- Vegetation quadrat percent cover estimates through vertical structure (*Proficient*)
- Identification of coastal saltmarsh grass species along the Gulf Coast (*Proficient*)
- Substrate composition determined by texture (*Moderate experience*)

Wildlife Research:

- Herpetofauna trapping: baited hoop nets, drift fences, modified crab traps, basking traps, and camera traps (*Proficient*)
- Herpetofauna surveys: binocular-aided visual, walking transects, and road (*Proficient*)
- Morphometric data collection for turtle species (*Proficient*)
- PIT tagging and carapacial notching in small turtle species (*Proficient*)
- Sub-carapacial blood draws in small turtle species (*Minor experience*)
- Ultrasound examination on female turtles (*Minor experience*)
- Identification of herpetofauna species of east and coastal Texas (*Moderate experience*)
- Fisheries sampling with gill nets, bay trawls, oyster dredges, and bag seines (*Minor experience*)
- Boat, barge, and backpack-style electrofishing (*Minor experience*)
- Identification of estuarine/marine fish and invertebrate species in Galveston Bay (*Minor experience*)
- Identification of freshwater fish species of Texas (*Beginner*)

Scientific Equipment:

- Use, calibration, and maintenance of YSI multiparameter sondes (ProDSS, EXO2) (*Proficient*)
- Streamflow monitoring: SonTek FlowTracker, FlowTracker2, M9, and RS5 (*Proficient*)
- Orienteering/navigation: handheld Garmin GPS, compass, rangefinder, clinometer (*Proficient*)
- Vegetation: densiometer (*Proficient*), Cruz-All gauge (*Minor experience*)
- Other: Secchi tube, turbidimeter, Kestrel Environmental Meter, surveyor level and stadia rod (*Proficient*)
- Maintenance and mending of hoop trap nets, gill nets, and bag seines (*Proficient*)

Boating/Trailing:

- Operation and maintenance of outboard motor vessels (<20') in freshwater, estuarine, and marine environments (*Moderate experience*)
- Use of canoes and single/tandem kayaks in freshwater and estuarine areas (*Proficient*)
- Operation and maintenance of 4WD vehicles and trailering (*Proficient*)
- Operation and maintenance of 4x4 mules and ATVs (*Proficient*); ARGO amphibious vehicle (*Beginner*)

Laboratory Processes:

- Environmental DNA (eDNA) filtering at 3.0µm and 0.45µm pore size from ambient and suspended sediment water samples (*Proficient*)
- Turtle blood processing: hematocrit using card reader; serum level using refractometer (*Minor experience*)
- Sediment density separation in saline solution (*Beginner*)
- Organic digestion in sediment samples using hydrogen peroxide and Fenton's reagent (*Beginner*)

Other:

- Power tools: drill, circular and chop saw (*Proficient*)
- Spoken/written Spanish (*Beginner*)

ADDITIONAL EXPERIENCE

Graduate Research Assistant *(continued)*

Sept 2020 – Dec 2024 (4 yrs + 4 mos)

Environmental Institute of Houston (EIH), University of Houston-Clear Lake – *Houston, TX*

- See description of main responsibilities for this position on Page 1
- Breakdown of *estimated* proportional effort spent on EIH projects throughout assistantship:

<i>Percentage Effort</i>	<i>“Project Title” (Time Period)</i>	<i>Brief description of duties</i>
45%	“Distribution and Habitat Association of Western Chicken Turtles (<i>Deirochelys reticularia miaria</i>) in Texas” (Aug 2020 – April 2023)	Graduate research assistantship designation
15%	“Texas Clean Rivers Program” (Quarterly)	Field sampling, data entry/QC, gear prep
12%	“Critical Life History Parameters of the Texas Diamond-backed Terrapin, <i>Malaclemys terrapin littoralis</i>” (Early fall & late spring)	Field surveying, data entry/QC, gear prep
10%	“Microplastic Distribution and Impacts to Diamond-backed Terrapin, Highlighting Public Education and Future Effects of Sea-level Rise” (2023-2024)	Field surveying, data management, lab assistance, gear prep
10%	EPA National Aquatics Resource Surveys (summers 2021-24)	Field sampling, sample shipping
5%	“Baseline Study of Alligator Snapping Turtle (<i>Macrochelys temminckii</i>) Population Viability in Texas Watersheds” (2021-2023)	Field sampling, gear maintenance
3%	“Design, Construction, and Analysis of Floating Wetlands” (Intermittent) + “Galveston Bay Dolphin Research Program” (Intermittent) + “Targeted Bacteria Monitoring Project” (2023)	Field sampling/surveying

Chair

May 2018 – May 2019 (1 yr)

Environmental Issues Committee (EIC), Texas A&M University – *College Station, TX*

- Directed all activities, budget, communications, and schedule of EIC and monitored responsibilities of subcommittee directors
- Led bi-weekly meetings with announcements for up to 25 members
- Coordinated with directors and other organizations to host TAMU’s on-campus Earth Day Celebration

Summer Eco-Camp Counselor

2015 and 2016, June – Aug (6 mos total)

Armand Bayou Nature Center – *Pasadena, TX*

- Educated 10-30 children ages 4-13 about the ecology and wildlife of the nature center ecosystems; environmental issues; and natural resource conservation
- Performed reptile demonstrations for campers, including handling and discussing native kingsnakes, baby alligators, and box turtles