

# Curriculum Vitae

Ashley E. McDonald

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## Education:

### **M.Sc. Student – Coastal Ecology**

**August 2018–Present**

Texas A&M University at Galveston, Galveston, TX

- Department of Marine Biology
- **Thesis:** Responses of Coastal wetland Primary Producers to a large-scale tidal diversion on the Texas Upper Coast
  - Advisor: Dr. Anna Armitage

### **Bachelor of Science – Marine Science (Biology Track); Minor – Italian**

**August 2014–May 2018**

Eckerd College, St. Petersburg, FL

**GPA 3.65**

- Graduated with Honors
- **Thesis:** Assessing development of differently-aged, created mangrove sites
  - Defended April 27, 2018
  - Advisor: Dr. Jeannine Lessmann

## Research Experience:

### **Coastal and Wetlands Ecology Lab – M.Sc. Student**

**August 2018 – Present**

Texas A&M University – Galveston, Galveston, TX

- Committee Chair: Dr. Anna Armitage
- Committee Members: Dr. Laura Jurgens, Dr. Jennifer Pollack, and Dr. Russell Feagin
- Researched the impacts the impact of a major tidal diversion on coastal wetland primary producers. Assisted in and collaborated on other projects focusing on the impacts of hurricanes, freezes, and climate change on coastal wetlands.

### **Assessing Mangrove Restoration Intern**

**September 2017 – December 2017**

Eckerd College, Galbraith Marine Science Laboratory, St. Petersburg, FL

- Committee Chair: Dr. Jeannine Lessmann
- Committee Members: Dr. William Szelistowski, Dr. Liza Conrad
- Assessed and monitored the development of mangrove restoration projects in Tampa Bay on the west coast of Florida through fieldwork and laboratory analysis.
- Assisted in the supervision and training of Freshman Research Associates (Eckerd College Program) and in preparation for fieldwork.

### **Research Intern**

**June 2017 – August 2017**

Louisiana Universities Marine Consortium (LUMCON), Cocodrie, LA

- Worked in Dr. Brian Roberts' Lab of Ecosystem Ecology and Biogeochemistry under the mentorship of him and Dr. Anthony Reitl on an individual research project as a Research Experience for Undergraduates (REU) summer intern.
- Project Title: The effects of *Geukensia granosissima* on *Spartina alterniflora* in a Louisiana Salt Marsh.

### **Soil Texture Processing & Analysis Intern**

**January 2017 – May 2017**

Eckerd College, Galbraith Marine Science Laboratory, St. Petersburg, FL

- Supervised by Dr. Jeannine Lessmann, Assistant Professor of Marine Science & Biology.
- Conducted analysis of soil texture composition in regards to percent sand, silt, clay, and organic matter from wetland restoration projects in order to assess the ecological trajectory of different restored wetland sites in Tampa Bay, FL.

### **Teaching/Work Experience and Pedagogical Training:**

#### **Galveston's Own Farmer's Market Young & Community Gardeners Program      April 2021 - Present**

- Assisted in educational initiatives for urban gardens located at local elementary schools and public parks. These gardens increase food availability and empower students and other community members to grow their own food.
- Maintained vegetable gardens and assured appropriate harvests and food distribution.

#### **Skype a Scientist      October 2018 - Present**

- Communicated with K-12 teachers and their students about science and being a scientist.
- Using video conferencing I discuss my research and overall scientific literacy with a diverse array of students.

#### **Teaching Assistant - Coastal Plant Ecology (MARB 430)      Fall 2019, 2020, 2021**

- Texas A&M University Galveston
- Department of Marine Biology
- Taught three laboratory sections for the course, involving field methods, plant identification, and general coastal plant ecology. Instructed students in appropriate planning and completion of field-based research projects. Worked to adapt the course to an effective virtual version to accommodate COVID-19 restrictions during 2020.

#### **Teaching Assistant - Comparative Physiology      January 2018 - May 2018**

Eckerd College, Natural Sciences Collegium, St. Petersburg, FL

- Supervised by Dr. Cory Krediet, Assistant Professor of Marine Science & Biology.
- Assisted in preparation and clean up of laboratory activities, grading of class materials, and assisted Dr. Krediet and students during lab.
- Summarized group data, collected necessary equipment, and graded lab reports as necessary.

#### **Teaching Assistant - Principles of Ecology      September 2017 - December 2017**

Eckerd College, Natural Sciences Collegium, St. Petersburg, FL

- Supervised by Dr. William Szelistowski, Associate Professor of Marine Science & Biology.
- Assisted in preparation and clean up of laboratory activities, as well as assisting Dr. Szelistowski and students in lab.
- Summarized group data, collected necessary equipment, and graded lab reports as necessary.

#### **Swim Coach/Lifeguard      May 2016 - August 2016**

Silver Lake Country Club, Silver Lake, OH

- Lifeguard and swim coach/instructor. I was an assistant swim coach for the youth team (4-18) and taught both private and group swim lessons.
- Duties included ensuring safety of all guests, leading swimming instruction, pool maintenance, housekeeping, and customer service.

#### **Docent      September 2016 - April 2017**

Mote Marine Laboratory & Aquarium, Sarasota, FL

- Educated the public about aquatic life exhibits and the environmental issues pertaining to those systems.

#### **Tutor      September 2015 - May 2016**

University Preparatory Academy/Girls Inc., St. Petersburg, FL

- Assisted underprivileged students with their daily homework as well as instructing them in additional lessons and about resources in math, science, and reading.

#### **Summer Camp Staff      Summer 2013, 2014, & 2015**

## YMCA Camp Fitch, North Springfield, PA

- Lifeguard/Swim Instructor
  - Ensured camper safety in both pools and open water. Performed basic pool and beach maintenance to ensure safety and performance.
  - Taught swim lessons for campers, including those with no prior swimming experience.
- Camp Counselor
  - Supervised children from ages 6-15, ensuring that all campers had fun and stayed safe. I led a variety of age appropriate activities throughout the summers.
- Dish Crew
  - Maintained the camp dining hall as part of a team, ensuring cleanliness, safety, and efficient food service.

## **Publications:**

Gilby, B., Weinstein, M. P., Baker, R., Cebrian, J., Alford, S. B., Chelsky, A., Colombano, D., Connolly, R. M., Currin, C. A., Feller, I. C., Frank, A., Goeke, J. A., Goodridge Gaines, L. A., Hardcastle, F. E., Henderson, C. J., Martin, C. W., **McDonald, A. E.**, Morrison, B. H.; Olds, A. D., Rehage, J. S., Waltham, N. J., Ziegler, S. L. (September 2020). *Human actions alter tidal marsh seascapes and the provision of ecosystem services*. Estuaries and Coasts.

Baker, R., Taylor, M. D., Able, K. W., Beck, M. W., Cebrian, J., Colombano, D. D., Connolly, R. M., Currin, C., Deegan, L. A., Feller, I. C., Gilby, B. L., Kimball, M. E., Minello, T. J., Rozas, L. P., Simenstad, C., Turner, R. E., Waltham, N. J., Weinstein, M. P., Ziegler, S. L., Zu Ermgassen, P. S. E., Alcott, C., Alford, S. B., Barbeau, M. A., Crosby, S. C., Dodds, K., Frank, A., Goeke, J., Goodridge Gaines, L. A., Hardcastle, F. E., Henderson, C. J., James, W. R., Kenworthy, M. D., Lesser, J., Mallick, D., Martin, C. W., **McDonald, A. E.**, McLuckie, C., Morrison, B. H., Nelson, J. A., Norris, G. S., Ollerhead, J., Pahl, J. W., Ramsden, S., Rehage, J. S., Reinhardt, J. F., Rezek, R. J., Risse, L. M., Smith, J. A. M., Sparks, E. L., Staver, L. W. (November 2020). *Fisheries Rely on Threatened Salt Marshes*. Science.

Colombano, D. D., Litvin, S. Y., Ziegler, S. L., Alford, S. B., Baker, R., Barbeau, M. A., Cebrian, J., Connolly, R. M., Currin, C. A., Deegan, L. A., Lesser, J. S., Martin, C. L., **McDonald, A. E.**, McLuckie, C., Morrison, B. H., Pahl, J. W., Risse, L. M., Smith, J. A. M., Staver, L. W., Turner, R. E., Waltham, N. J. (January 2021). Climate change implications for tidal marshes and food web linkages to estuarine and coastal nekton. Estuaries and Coasts.

**McDonald, A. E.**, Ebinger, K., Logarbo, J., Chelsky, A., Rietl, A., Roberts, B. J. (In Prep). *Gulfribbed mussels (*Geukensia granosissima*) influence cordgrass (*Spartina alterniflora*) productivity and nitrogen cycling in a Louisiana salt marsh*.

## **Presentations, Symposia, & Conferences:**

**McDonald, A. E.**, Armitage, A. R. (2021, December). Past, present, and future: a decadal-scale case study of tidal alterations impact on coastal primary producers. Poster presentation at American Geophysical Union conference. \*submitted\*

**McDonald, A. E.**, Armitage, A. R. (2021, November). A decadal-scale case study of coastal primary producer responses to tidal restoration. Virtual poster presentation at Coastal and Estuarine Research Federation Biennial conference. \*virtual\*

Lessmann, J.M., Walsh, S., Biton, R., **McDonald, A. E.**, Ceballos, C. (2021, October). Soil bulk density and total organic matter change with increasing age of created mangrove forests in Tampa Bay, Florida. Presented at Bay Area Scientific Information Symposium in St. Petersburg, FL.

McNally, S., Lessmann, J. M., **McDonald, A. E.**, Duca, C. (2021, October). Created mangrove forest succession, pioneer species, and chronosequence assessment in Tampa Bay, Florida. Presented at Bay Area Scientific Information Symposium in St. Petersburg, FL.

- McDonald, A. E.,** Armitage, A. R., (2020, January). Synergistic impacts of changing conditions on coastal plant communities. Poster presentation at Texas A&M University MARB IDP Retreat and Graduate Symposium.
- McDonald, A. E.,** Glazner, R., (2019, March). What are wetlands and why are they important? Oral presentation given at Marathon Petroleum Refinery. Texas City, TX.
- McDonald, A. E.,** Lessmann, J. M. (2018, April). *Development of mangrove ecosystems assessed in differently-aged create sites.* Thesis Defense.
- McDonald, A. E.,** Lessmann, J. M. (2018, April). *Development of mangrove ecosystems assessed in differently-aged create sites.* Oral presentation for Eckerd College Marine Science Junior Seminar.
- McDonald, A. E.,** Lessmann, J. M. (2018, April). *Development of mangrove ecosystems assessed in differently-aged created sites.* Oral presentation at Eckerd College Student Research Symposium.
- McDonald, A. E.,** Ebinger, K., Chelsky, A., Reitl, A., Roberts, B. (2018, February). *The effects of Geukensia granosissima on Spartina alterniflora and nitrogen cycling in a Louisiana salt marsh.* Poster presentation at the Gulf of Mexico Oil Spill and Ecosystem Science Conference.
- Duca, C., Lessmann, J., **McDonald, A. E.** (2017, November). *Growth and succession of mangroves across three created Florida wetlands of varying age.* Poster presentation at the Coastal and Estuarine Research Federation Biennial Conference.
- McDonald, A. E.,** Reitl, A., Roberts, B. (2017, August). *The effects of Geukensia granosissima on Spartina alterniflora in a Louisiana Salt Marsh.* Oral presentation at LUMCON Summer Research Symposium.

### **Honors & Awards:**

- Seaspaces End MARS Graduate Scholarship, \$4000 (September 2020 – May 2021)
- Texas Sea Grant Grants-in-Aid of Graduate Research Program, \$2500 (Spring 2020). Used to support thesis research C:N analysis costs.
- Galveston Graduate Student Association Mini-Grant, \$500 (Fall 2019). Used to attend the Coastal and Estuarine Research Federation Biennial Conference in Mobile, AL.
- Seaspaces End MARS Graduate Scholarship, \$4000 (September 2019 – May 2020)
- Texas A&M University Marine Biology IDP Competitive Award (September 2018 – August 2019).
  - Merit award which covered all tuition and fees.
- Gulf of Mexico Oil Spill and Ecosystem Science Conference Student Presenter Award, \$150 (2018, February).
- Eckerd College Organization of Students Academic Conference Grant, \$200 (2017, November).
  - Used to attend the Coastal and Estuarine Research Federation Biennial Conference in Providence, RI.
- Eckerd College Organization of Students Independent and Collaborative Ventures Fund, \$1,234 (2017, November).
  - Used to attend the Coastal and Estuarine Research Federation Biennial Conference in Providence, RI.
- Eckerd College Marine Science Club – Key Member of the Year (2015 – 2016).
- Trustee Merit Scholarship, Eckerd College (August 2014 – May 2018).

### **Professional Memberships:**

- America Geophysical Union (2021 – Present)

- Gulf Estuarine Research Society (2018 – Present)
- Galveston Graduate Student Association (2018 – Present)
- Coastal and Estuarine Research Federation (2017 – Present)
- Society for Women in Marine Science (2017 – Present)
- Eckerd College Marine Science Club (2014 – 2018)