

Makenzie Kerr

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EDUCATION

Master of Science

May 2019

University of South Florida College of Marine Science

- 3.79 GPA
- Thesis: DNA Barcoding of Fish Eggs
- Major Advisor: Dr. Mya Breitbart

Bachelor of Science in Biology

May 2017

University of South Florida St. Petersburg (USFSP)

- 3.75 GPA - Magna cum laude

TEACHING EXPERIENCE

Oceanography Camp for Girls

May-June 2018, 2020

- Taught ocean sciences to girls going into 9th grade
- Mentored and inspiring young minds
- Led field experiments and educational simulations

Biology I Lab

Spring 2020

University of South Florida St. Petersburg

- This course teaches the core concepts of biology using worksheets, computer simulations, and hands on activities.

Freshman Honors Biology Seminar

Fall 2019

University of South Florida St. Petersburg

- This course was designed to introduce students to various aspects of academic research, with the goal of preparing them for an undergraduate research position

Girls Inc.

July 2017-August 2019

- Summer 2019: Organized weekly activities and lessons about marine organisms in Tampa Bay, from microbes to marine mammals (25 middle school aged girls)
- July 2018: Organized and taught a plankton activity to 50 girls
- July 2017: Organized 80 school aged girls to complete marine science activities all around campus

NOAA Gulf of Mexico BWET program

July 2018-June 2019

Elementary Students & Teachers Exploring the Watershed

- Lead field experiments to teach elementary teachers how to teach their students
- Lead fish seining and mangrove lessons during school field trips
- Taught 5th and 3rd graders how to take atmospheric and hydrology measurements

PROFESSIONAL EXPERIENCE

Lab Manager & Outreach Coordinator

May 2019-Present

University of South Florida College of Marine Science

- Creating outreach activities for Dr. Mya Breitbart's lab
- Transitioning lab spaces
- Organizing lab equipment and starting new lab ordering procedure
- DNA barcoding of fish eggs (developing new metabarcoding method)

Oceanography Camp for Girls Intern

January 2020-Present

- Organizing and distributing camp materials
- Developing social media posts and campaigns
- Planning camp activities and training

Genomics Lab Technician

January 2017-May 2019

University of South Florida College of Marine Science

- Advised and trained interns
- Managed equipment and supply ordering

Genomics Lab Intern

September 2015-January 2017

Dr. Mya Breitbart

University of South Florida College of Marine Science

- Performed PCR, gel electrophoresis, cloning, DNA extractions, agarose gel extractions, cleaned PCR products, designed PCR primers, etc.
- Project: Sequenced genomes of the chelonid fibropapillomatosis-associated herpesvirus (CFPHV)

Harborside Activities Board

November 2014-May 2017

University of South Florida St. Petersburg

- Lead and assisted Directors with event planning
- Organized meetings, conflict management, communicated with vendors & volunteers
- Managed over \$100,000 budget
- Member recruitment and retention

Campus Recreation Member Services Team Leader

May 2015-May 2016

University of South Florida St. Petersburg

- Managed a team of 15 students
- Trained staff in customer service and Fusion software
- Adaptability to customers, staff and unpredictable situations

Media Relations Intern

June 2013-September 2016

New York-Penn League - Minor League, Class A Short Season

- Communication reaching 14 baseball managers
- Managed social media pages

- Created a Media Guide and Community Benefit Report using Adobe Indesign and Photoshop for 4 consecutive years

OUTREACH & VOLUNTEER EXPERIENCE

Skype a Scientist

2019-Present

Speaker

- Talking to elementary, middle and high school classrooms via video chat about science

Taste of Science

November 2018-Present

St. Petersburg Chapter

- Event coordinating
- Creating flyers and advertising materials

Shine on CMS - Art Committee

September 2018-Present

University of South Florida College of Marine Science

- Started committee to bring art to beautify the campus, including a mural

Marine Science Advisory Committee

July 2017-June 2019

First Year Representative & Social Chair

University of South Florida College of Marine Science

- Organized college wide activities (TGIFs, art night, movie night, recruitment, etc.)
- Ran beach cleanups

Graduate Student Symposium Committee

November 2017-January 2019

University of South Florida College of Marine Science

- Planning college wide symposium
- Gathering donations for raffles and prizes

Graduate Student Panel Participant

June 2018

REU students visiting USF

Vembu Cup Donations & Event Coordinator

May 2018-May 2019

University of South Florida College of Marine Science

St. Petersburg Science Festival

2015, 2016, 2017

University of South Florida College of Marine Science

- Ran Phage Heroes activity to teach children about bacteriophage infecting harmful bacteria in food, coral, and human skin

Week of Welcome Marketing Chair

July-August 2016

University of South Florida St. Petersburg

- Marketing for one of the largest weeks on campus
- Assisting with planning and running events
- Ordering promotional items

SCUBAnauts International

November 2012-December 2014

St. Petersburg Chapter

- Planned SCUBA diving trips
- Assisted and participated in diving and data collection techniques
- Presented marine science studies to 25 students
- Aided in CPR, First Aid, AED, and oxygen administration training

Science National Honors Society

August 2012-June 2013

Inaugural Secretary & President

Seminole High School, FL

- Worked with Tampa Bay Watch seagrass restoration
- Ran meetings for 30 students
- Organized workshops with local science presenters

PRESENTATIONS

September 2019 (oral)

Guest Lecture, Hillsborough Community College

“DNA barcoding of fish eggs in the Gulf of Mexico,”

Makenzie Kerr

October 2018 (oral)

Marcuba, Havana, Cuba

“DNA barcoding of fish eggs collected off Northwest Cuba and across the Florida Straits during May 2017,”

Makenzie Burrows, Jeremy Browning, Steve Murawski, Ernst Peebles, Mya Breitbart

January 2017 (oral)

USF College of Marine Science Graduate Student Symposium

“Egg DNA Barcoding to Support Gulf Reef-Fish Stock Assessment,”

Makenzie Burrows, Jeremy Browning, Ernst Peebles, Mya Breitbart

August 2017 (oral)

American Fisheries Society Annual Meeting, Tampa, FL

“Egg and Larval DNA Barcoding to Support Gulf Reef-Fish Stock Assessment,”

Makenzie Burrows, Jeremy Browning, Ernst Peebles, Mya Breitbart

October 2016 (oral)

Florida Branch of the American Society of Microbiology Conference, Miami, FL

“Genomic Variation of the Chelonid Fibropapillomatosis- Associated Herpesvirus,”

Makenzie Burrows, Elizabeth Fahsbender, Mya Breitbart

Spring 2016 (poster)

USFSP Undergraduate Research Symposium

“Genomic Variation of the Fibropapillomatosis-Associated Turtle Herpesvirus,”
Makenzie Burrows, Elizabeth Fahsbender, Cheryl Morrison, Mya Breitbart

PUBLICATIONS

Kerr, M., Browning, J., Bonnelycke, E., Zhang, Y., Hu, C., Armenteros, M., Murawski, S., Peebles, E., Breitbart, M. DNA barcoding of fish eggs collected off northwestern Cuba and across the Florida Straits identifies the significance of egg transport by mesoscale eddies. *Fisheries Oceanography*. In review.

Hollister, A., **Kerr, M.**, Malki, K., Muhlbach, E., Robert, M., Tilney, C. L., Breitbart, M., Hubbard, K. A., Buck, K. N. Regeneration of macronutrients and trace metals during phytoplankton decay: an experimental study. *Limnology and Oceanography*. February, 2020

Burrows, M., Browning, J. S., Breitbart, M., Murawski, S. A., & Peebles, E. B. DNA barcoding reveals clear delineation between spawning sites for neritic versus oceanic fishes in the Gulf of Mexico. *Fisheries Oceanography*. October, 2018

AWARDS

- **Vembu Subramanian MSAC Award (USF)**, 2019 (\$1,000)
- **William T. Hogarth Fellowship in Marine Mammals (USF)**, 2018-2019 (\$10,000)
- **Women in Leadership and Philanthropy/Dorothy L. Morgan Endowed Scholarship in Marine Science (USF)**, 2018-2019 (\$2,000)
- **Third Place Oral Presentation** - USF CMS Graduate Student Symposium, 2018
- **Women in Leadership and Philanthropy/Dorothy L. Morgan Endowed Scholarship in Marine Science (USF)**, 2017-2018 (\$1,000)
- **Dedication & Devotion Award** - USFSP Harborside Activities Board, Spring 2017
- **Senior Student Leader of the Year** - USFSP Rocky Awards, 2016-2017
- **First Place Undergraduate Oral Presentation** - FL ASM Conference, October 2016
- **Junior Student Leader of the Year** - USFSP Rocky Awards, 2015-2016
- **Outstanding Poster Award** - USFSP Undergraduate Research Symposium, Spring 2016
- **Employee of the Year** - USFSP Campus Recreation, 2015-2016
- **Team Leader of the Summer** - USFSP Campus Recreation, 2015

CRUISE EXPERIENCE

- **Spawning Habitat & Early-life Linkages to Fisheries (SHELF) Cruise**, West Florida Shelf
 - RV Hogarth, FIO vessel
 - 5 day cruise doing plankton tows and CTD casts
- **Marine Biodiversity Observation Network (MBON) Cruises**, Miami, FL
 - RV Walton Smith, NOAA vessel

- One week cruise in July 2017 & June 2016 doing CTD casts and filtering water

SKILLS

- NAUI Open Water SCUBA certified
- Adobe Photoshop, Illustrator & InDesign
- Event planning & coordinating
- Photography
- Audacity

PRESS RELEASES

- WTSP (2017, May 24). USF researchers pioneering new way to protect fish. <http://www.wtsp.com/mobile/article/news/usf-researchers-pioneering-new-way-to-protect-fish/51-442629157>
- New, effective DNA method for discovering fish spawning grounds - USF College of Marine Science. (2017). <http://www.marine.usf.edu/news/new-effective-dna-method-for-discovering-fish-spawning-grounds>
- Believe in Bulls (2019) <http://news.usf.edu/article/templates/?a=8918&z=220>
- Makenzie Burrows for received the inaugural Vembu Subramanian MSAC Award (2019) <https://www.marine.usf.edu/student-awards-and-highlights/makenzie-burrows-for-received-the-inaugural-vembu-subramanian-msac-award/>

PROFESSIONAL DEVELOPMENT

- **USF Science Communication Workshop**, November 2018
- **Tools in Science Communication Course**, Fall 2018
- **Presentation Bootcamp**, August 2017
- **USFSP Recruitment Panel**, May, June 2017
- **National Association for Campus Activities - Disney Leadership Event**, Orlando, FL, June 2016
- **National Association for Campus Activities Conference**, Minneapolis, MN, Feb. 2015