

## **Sydney Bell**

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### **Education**

- **M.S. in progress**, Biological Sciences
  - Florida Atlantic University - Harbor Branch Oceanographic Institute
- **B.S.**, Marine Vertebrate Biology
  - Stony Brook University (Class of 2021) - GPA 3.67
- **High School**
  - Perry High School (Class of 2018) - GPA 103.8

### **Honors**

- University Scholars Member (Top 3% of the Student Body)
- University Fellow and Teaching Assistant (2019-2021)
- Stony Brook University - Dean's List (2018-2021)
- Long Island Business News 30 Under 30 Honoree (2019)
- Friends of Letchworth State Park Honorary Member and Scholarship Recipient (2018)
- Recipient of the Bergman Family Award for Student Initiatives for Social Good (2019)
- Recipient of Most Likely to be an Entrepreneur Award (2019)
- Recipient of Stony Brook Alumni Association Entrepreneur Scholarship (2020)
- Recipient of Stony Brook Student Leadership Award (2020)
- Recipient of Senior Scholar of the Year (2021)

### **Experience**

*Coral Reproduction and Adaptation Intern at Mote Marine Laboratory Elizabeth Moore International Center for Coral Reef Research and Restoration (June 2020 - August 2020)*

- Controlled crosses of white band disease-resistant *Acropora cervicornis*
- Fertilization of *Orbicella faveolata* and *Acropora palmata* eggs and sperm
- Epigenetics study focused on the heritability of white band disease resistance
  - In charge of sample (larvae, gamete, adult tissues) collection and preservation
- Gamete collection during spawning, fertilization, and larval propagation
- Coral husbandry (parent colonies, larval settlement, and sexual recruit rearing)
- Microfragmentation of *Acropora cervicornis* recruits
- Dry lab work (fecundity analyses, sperm concentration using a hemacytometer, coral fragment dissections, health assessments)
- Harvesting and tagging of parent colonies while scuba diving

- Planning and constructing coral spawning mesocosms
- Experience using R for statistical computing

*Intern at the Central Caribbean Marine Institute (July 2019 - August 2019)*

- 20 research dives and 1 night dive
- Underwater research methods: benthic habitat monitoring and assessment, fish population and biodiversity surveys, measurement of staghorn colony branch width, length, height, color, and disease, underwater photography
- Microbial sampling of staghorn coral (*Acropora cervicornis*) mucus
- Individually recorded 100 wild and outplant staghorn colonies and created a digitized map of their location
- Use of Coral Point Count software to analyze percent coverage of benthic organisms
- Benthic ID of over 100 species of macroalgae, corals, gorgonians, and zoanthids
- Required to identify over 100 species of Caribbean fish species
- Created research presentation on the ideal benthic habitat for *Acropora cervicornis* nursery-reared outplants and presented to over 50 scientists and members of the public
- Excavated Loggerhead sea turtle nest and released Loggerhead and Green sea turtle hatchlings

*Founder, CEO, and Lead Designer for Tidal Tees Apparel (March 2018 - Present)*

- 100% of profits donated to ocean conservation non-profits (Sea Shepherd, Pristine Seas, Cousteau Society, The Ocean Cleanup, The Black Fish, Manta Trust, Coastal Steward Long Island, Bimini Sharklab)
- Design all logos and apparel
- Setup and manage social media pages and website, and outbound marketing
- Over \$12,000 in sales to date since launch 18 months ago
- Recruited and managed over 170 brand ambassadors from 17 countries and 29 states
- Partnered with Follett and Stony Brook FSA to sell Tidal Tees products in Stony Brook Shop Red Stores

*Research Internship with the Padilla Lab at Stony Brook University (September 2019 - January 2020)*

- Use and calibrate YSI and pH probe to record water quality and conditions (temperature, salinity, conductivity, pH, dissolved oxygen, weather conditions, tidal conditions)
- Independent sampling and recording of water quality twice a week
- Observing and collecting slipper shell larvae with a dissecting microscope
- Figure and data report making

*Internship with New York Marine Rescue Center (January 2020 - May 2021)*

- Assisting staff biologists and program volunteers with all response, treatments and releases of stranded marine mammals (dolphins and seals) & sea turtles found within

#### New York State

- All preparation and delivery of food to animals receiving care, enclosure cleaning and maintenance, facility cleaning and maintenance, water quality testing, assistance with medical and husbandry treatments (blood analysis, data entry) and general tank repairs and maintenance
- Level II cold stun sea turtle patroller and responder on Long Island beaches

#### *Founder and President of Stony Brook Marine Science Club (February 2019 - Present)*

- Organize lectures, field trips, opportunities, beach cleans, and public outreach for Stony Brook University students
- Completed all paperwork to comply with University policies, recruited two Faculty Advisors, and organized membership recruiting (200 current members)
- Created the first scuba certification program for club members (certified over 40 students)
- Created club shirts made from 100% post-consumer recycled material

#### *Volunteer work at The Karen Beasley Sea Turtle Rescue and Rehabilitation Center (July 2016)*

- Daily cleaning and feeding of Loggerhead, Green, and Hawksbill sea turtles
- Wound debridement and cleaning of injured Loggerhead carapace
- Cleaning of quarantine and holding tanks, and general facility
- Conducting public outreach programs, such as teaching the public about endangered marine life and the trade of illegal products from these species

#### *Marine Biology Adventure (July 2016)*

- Conducting water tests (pH, etc.) and cleaning up garbage in marshes in North Carolina
- Analysis of different marine ecosystems (salt marshes, marshes, ocean, and tide pools)
- Lessons on the anatomy of squid through dissection labs, and then teaching this information to the public during a public outreach
- Sea turtle nest walks and nest marking; beach cleanups
- Workshop participation (climate change, effects of pollution on marine life, impact of human waste)

#### **Certifications**

- Open Water Scuba Diving Certification (August 2018)
- Nitrox Scuba Diving Certification (January 2019)
- Bystander Intervention Training (Violence and Toxic Drinking Prevention) (2018 + 2019)
- Advanced Scuba Diving Certification (August 2020)
- First Aid, CPR, and Oxygen Administration (June 2020)
- Temporary AAUS Certification through Mote Marine Lab (June 2020)

#### **Other University Activities**

- The Torch Newsletter Editor (University Scholars newsletter for Stony Brook students and faculty)
- Environmental Club (beach cleanups, zero-waste workshops, promoting sustainable living)
- Outreach Committee (conducting community outreach around Stony Brook University such as nursing home visits and camp cleanups)
- Sustainability Committee Chair (works with University personnel to make campus more sustainable, creation of anti-plastic initiatives, public outreach)
- School of Marine and Atmospheric Sciences Discovery Day and Accepted Students Day speaker
- Stony Brook VIP Sustainability Dinner presenter