

NICOLE BESEMER

4301 Rickenbacker Causeway, Miami FL 33149

nicole.besemer@noaa.gov • 305.361.4374

EDUCATION

DECEMBER 2013

BACHELOR OF SCIENCE, EAST STROUDSBURG UNIVERSITY

Dual Major in Marine Science and Biology

DECEMBER 2017

MASTER OF PROFESSIONAL SCIENCE, UNIVERSITY OF MIAMI - RSMAS

Tropical Marine Ecosystem Management

EXPERIENCE

APRIL 2022 – PRESENT

OCEANOGRAPHER, NOAA ATLANTIC OCEANOGRAPHIC METEOROLOGICAL LAB

Caribbean Climate Operations Coordinator for the National Coral Reef Monitoring Program (NCRMP) Climate Pillar at NOAA's Atlantic Oceanographic Meteorological Laboratory in Miami, Florida.

AUGUST 2019 – APRIL 2022

SR RESEARCH ASSOCIATE I, UNIVERSITY OF MIAMI- CIMAS, NOAA/AOML

Caribbean Climate Operations Coordinator for the National Coral Reef Monitoring Program (NCRMP) Climate Pillar at NOAA's Atlantic Oceanographic Meteorological Laboratory in Miami, Florida.

- Plan and coordinate research trips in support of NCRMP long term climate monitoring throughout US Coral Reef Jurisdictions in the Atlantic and Caribbean.
- Trailering and operation of small boats as primary captain for local field operations at long term monitoring sites as well as working with partners and collaborators to support charters and supply gear and instrument needs
- Installation and removal of climate monitoring instruments including Seabird SBE 52 temperature sensors, SeaFET pH sensors, bioerosion monitoring units, calcification accretion units, Tiltmeter current sensors and EcoPar light sensors
- Implementation of climate monitoring survey methodologies including carbonate budget reef surveys and collection of landscape mosaics.
- Working knowledge of CT scanning and analysis of coral growth and erosion metrics using Thermo Scientific Amira software.
- Managing research budget and leveraging extra funds for marine research when needed

- Data entry and database management of a long-term dataset
- Coordination and implementation of training for new employees, graduate students and interns

JULY 2017 – AUGUST 2019

SR RESEARCH ASSOCIATE I, UNIVERSITY OF MIAMI – MBE, NOAA/SEFSC

Project coordinator for the lab of Dr. Joan Browder implementing the Integrated Biscayne Bay Ecological Assessment and Monitoring (IBBEAM) Epifauna sampling.

- Field and lab technician for bi-annual throw trap sampling to determine estuarine faunal abundance and species composition
- Plan and coordinate field work trips including trailering and operate small boats as primary captain for bi-season sampling and other field work requests
- Responsible for sample sorting and processing as well as identifying South Florida nearshore epifauna, including small fish, reef fish, Farfantepenaeid shrimp, caridean shrimp, crabs, and echinoderms, as well as seagrasses and macroalgae
- Data entry and database management of a long-term dataset spanning 15+years
- Coordination and implementation of training for temporary employees, graduate students and interns

JULY 2016 – JANUARY 2017

BIOLOGICAL SCIENCE TECHNICIAN, NATIONAL PARK SERVICE

Field Leader at Buck Island Reef National Monument in St. Croix for the 28th year of the Buck Island Sea Turtle Research Project.

- Worked as a member of the resource management team on marine and terrestrial field projects
- Managed a nocturnal schedule for 4 interns and myself working 12-hour nights in strenuous conditions collecting information on endangered nesting sea turtles
- Participated in annual terrestrial monitoring efforts including brown pelican nesting surveys, invasive plant removal, St Croix ground lizard surveys, annual rat trapping, trail maintenance, and habitat restoration
- Conducted maintenance, data upload, installation and recovery of 150-Vemco receiver acoustic array system within a marine protected area

JUNE 2015 – MAY 2016

BIOLOGICAL SCIENCE TECHNICIAN, NATIONAL PARK SERVICE

Intern for the Department of resource management at Biscayne National Park

- Removal of invasive lionfish and implementation of ongoing studies on the species
- Gave demonstrations to various sized audiences on lionfish information and dissections
- Removal and processing of otoliths for bony fish species
- Endangered species monitoring including sea turtles, shorebirds, and corals and demonstrated procedures to volunteers
- Water quality monitoring including maintenance and instrument installation and removal of YSI 6600 sondes at various locations in Biscayne Bay

SKILLS

- Proficient in Windows and MacOS operation systems including Microsoft Suite
- MOCC certified, seven years of experience captaining research vessels (ranging from 12 to 30ft) in open ocean and among shallow reefs and nearshore habitats
- Intermediate experience with R Studio and ArcGIS programming
- Research Scuba diver: conducted over 350 dives to retrieve instrumentation, remove invasive species and marine debris, fish surveys, seagrass surveys – NOAA Diver
- Divers Alert Network (DAN), Provider of First Aid for Professional Divers

AWARDS

- University of Miami CIMAS Awards Program for Field Work Completed during global pandemic – March 2021
- 2021 Hermes Creative Platinum Award for Outstanding TV Placements and Outstanding Overall Publicity Campaign from the Association of Marketing and Communication Professionals in recognition of the media impact of NOAA's Coral Reef Condition Status Report, with more than 521 million impressions with coverage in 46 states, plus Washington, DC, for the coral reef status report press event.

VOLUNTEER EXPERIENCE

- Volunteer with the Virginia Key Beach Nesting Sea Turtle Monitoring Program
- Assisted on Women in Science Day as a group leader where 12-year-old girls learned about opportunities in the science realm at the University of Miami
- Served as a diving assistant for the Coral Restoration lab of Dr. Diego Lirman (U Miami) performing coral gardening techniques including nursery maintenance and out planting.
- Assisted with 6 major fundraising events for The Billfish Foundation

PRESENTATIONS, REPORTS AND PUBLICATIONS

- Southeastern Ecology and Evolution Conference – October 2018
- Greater Everglades Ecosystem Restoration Conference – April 2019
- AOML Ocean Research Collaborative Series Virtual Speaker – October 2020
- AOML Open House Virtual Speaker – April 2021
- Afshar, M., Hillbrand, P., Code, T., **Besemer, N.**, Pollock, C., Hillis-Starr, Z. (2016). Buck Island Sea Turtle Research Program: Data Summary (distributed to USVI territorial government, USFWS, and USGS partners)
- **Besemer, N.I.**, Zink, I.C., Jobert, H., Browder, J.A., Lirman, D., Stabenau, E.R., *Immediate pre- and post- hurricane Irma impact on near shore epifauna communities and their habitat*. Manuscript in preparation.
- Donovan, C., Towle, E. K., Kelsey, H., Allen, M., Barkley, H., **Besemer, N.**, ... & Viehman, S. (2020). Coral reef condition: A status report for US coral reefs.
- Manzello, D. P., Kolodziej, G., Kirkland, A., **Besemer, N.**, & Enochs, I. C. (2021). Increasing coral calcification in *Orbicella faveolata* and *Pseudodiploria strigosa* at Flower Garden Banks, Gulf of Mexico. *Coral Reefs*, 1-15.