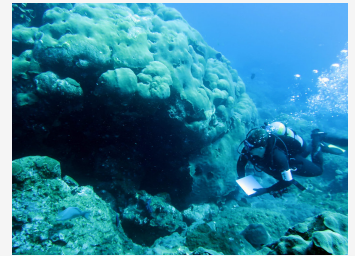


IAN R. COMBS

Structure-from-Motion photogrammetry, coral restoration, coral reef ecology



EDUCATION

- M.Sc. in Biological Sciences**
Florida Atlantic University
Boca Raton, FL
Thesis: Characterizing the impacts of stony coral tissue loss disease on coral in southeast Florida using 3D photogrammetry
Advisor: Dr. Joshua Voss
2019
|
2017
- B.Sc. in Marine Science**
University of Delaware
Newark, DE
2014
|
2010

RESEARCH EXPERIENCE

- Coral Reef Ecosystems Biologist**
Mote Marine Laboratory
Coral Restoration Program
Supervisor: Dr. Erinn Muller
Summerland Key, FL
Present
|
2020
- Research Technician**
FAU, Harbor Branch Oceanographic Institute
Coral Reef Health and Molecular Ecology Lab
Supervisor: Dr. Joshua Voss
Ft. Pierce, FL
2020
|
2019
- Graduate Research Assistant**
FAU, Harbor Branch Oceanographic Institute
Coral Reef Health and Molecular Ecology Lab
Supervisor: Dr. Joshua Voss
Fort Pierce, FL
2019
|
2017
- Research Assistant**
University of Delaware
Team Benthic Habitat Mapping
Supervisor: Dr. Douglas Miller
Lewes, DE
2014

TEACHING EXPERIENCE

- Graduate Teaching Assistant**
FAU, Harbor Branch Oceanographic Institute
Marine Biodiversity
Fort Pierce, FL
2018
- Research-based After-school Program for Students**
Mote Marine Laboratory
Summerland Key, FL
2017
- Alumni Service Corps**
Gonzaga College High School
Washington, D.C.
2015
|
2014

CONTACT

24244 Overseas Hwy,
Summerland Key, FL 33042
+1 (301) 704-9605
combsi9892@gmail.com
ScleractinIan_
icombs2017
Ian R Combs

SKILLS

Structure-from-Motion
photogrammetry
Coral Restoration Ecology
Coral Reef Ecology
Coral Health and Disease
200+ Scientific Dives
Multivariate Data Analysis

LANGUAGE SKILLS

R
Bash
Python


STUDENTS MENTORED

- 2022 ● **Kamryn Blake**
Mote REU Intern
Assessing if Microfragmentation Promotes Accelerated Growth in Massive Stony Corals Using Structure-from-Motion Photogrammetry
- 2021 ● **Gabrielle D'Alonzo**
Coral Restoration Intern
Assessing coral restoration's impacts on herbivorous fish communities.
- 2021 ● **Ryan Rogers**
Mote REU Intern
Does microfragmentation enhance the tissue growth and skeletal deposition of brain corals?
- 2021 ● **Briana Matthews**
Coral Restoration Intern
Assessing changes in microfragmentation on skeletal deposition and tissue growth.
- 2020 ● **Ashley Carreiro**
Coral Reef Health and Ecology Lab
Determining stony coral tissue loss disease intervention success on *Montastraea cavernosa* using 3D photogrammetry
- 2019 ● **Mckenna Rayburn**
Link Fellowship Intern
Intervention methods and rate of tissue loss on stony coral tissue loss disease-affected *Montastraea cavernosa* in the Florida Reef Tract
- 2018 ● **Diana Perez**
Link Fellowship Intern
Zooxanthellae characterization and connectivity in *Montastraea cavernosa*

REFEREED PUBLICATIONS

- 2021 ● **2. Quantifying impacts of stony coral tissue loss disease on corals in Southeast Florida through surveys and 3D photogrammetry**
PLoS ONE (2021). [doi:10.1371/journal.pone.0252593](https://doi.org/10.1371/journal.pone.0252593)
Combs IR, Studivan MS, Eckert RJ, Voss JD
- 2021 ● **1. Assessing the effectiveness of two intervention methods for stony coral tissue loss disease on *Montastraea cavernosa***
Scientific Reports (2021). [doi:10.1038/s41598-021-86926-4](https://doi.org/10.1038/s41598-021-86926-4)
Shilling EN, Combs IR, Voss JD

PRESENTATIONS

- 2022 ● **Does microfragmentation accelerate the grow-out phase of asexually propagated brain corals?**
Reef Futures 2022  Key Largo, FL
Combs IR, Hamlyn SB, Matthews B, Rogers R, Muller EM
Oral Presentation

Citations: 52

h-index: 3

i10-index: 3

St. John's,
NL,
Canada

● **Characterizing impacts of scleractinian tissue loss disease on corals in southeast Florida with photogrammetry and 3D modeling**
48th Annual Benthic Ecology Meeting

2019

Combs IR, Beal J, Voss JD
Oral Presentation

2019

● **Characterizing the impacts of scleractinian tissue loss disease on corals in southeast Florida**
ASLO Aquatic Sciences Meeting
San Jaun, PR
Combs IR, Beal J, Voss JD
Poster Presentation

2019

● **Impacts of scleractinian tissue loss disease on corals in southeast Florida**
Indian River Lagoon Symposium
Ft. Pierce, FL
Combs IR, Beal J, Voss JD
Poster Presentation
Outstanding Presentation Award

2019

● **Undersatnding coral disease through 3D modeling**
HBOI Ocean Discovery Visitor Center Marine Science Fridays
Ft. Pierce, FL
Combs IR
Oral Presentation

2018

● **Eulogy for the St. Lucie Reef**
3MT-Three Minute Thesis Competition
Ft. Pierce, FL
Combs IR
OralPresentation
Heat 7 Runner-Up, 4th Place Overall

2018

● **White blotch disease impacts on corals in southeast Florida**
47th Annual Benthic Ecology Meeting
Corpus Christi, TX
Combs IR, Beal J, Voss JD
Poster Presentation

FUNDING

2019

● **Indian River Lagoon Graduate Research Fellowship**
\$7,947

|
2018

2019

● **FAU GPSA Travel Awards**
\$1,600

|
2018

CERTIFICATIONS

● **AAUS Scientific Diver**

● **PADI Enriched Nitrox Certification**

● **DAN Oxygen Delivery, First Aid, and CPR for SCUBA diving injuries**

- **USFWS Motorboat Operator Certification Course**

SKILLS

- **Field research planning, logistics, and execution**
- **Coral sampling, benthic surveys, photography, navigation and mapping**
- **Structure-from-Motion photogrammetry, 3D model generation using Agisoft Metashape, 3D model analysis using Rhinoceros 3D, Viscore, and TagLab**
- **Data visualization using R statistical software and R Markdown**
- **Multivariate statistical analyses**
- **Python**
- **Data management using GitHub**
- **Scientific SCUBA diving**

MEMBERSHIP AND SERVICE

Present
|
2018


- **Association for the Studies of Limnology and Oceanography**
Member


Present
|
2018

- **Benthic Ecology Meeting Society**
Member

REFERENCES

- **Dr. Erinn Muller**
Program Manager and Science Director of the Elizabeth Moore International Center for Coral Reef Research and Restoration

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- **Erich Bartels**
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Dr. Joshua Voss

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*This curriculum vitae was made
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