



Internship Projects 2020

Project Title:	Coral larval settlement and juvenile growth studies
Mentor:	Dr. Samantha de Putron (samantha.deputron@bios.edu)
Lab or Group name:	Coral Reef Ecology and Resilience
Preferred start date:	June 1
Prerequisite courses:	Introductory Biology and Ecology
Skills (required):	Working outside
Skills (beneficial):	

Project Title:	Environmental drivers of daily to seasonal changes in coral pigmentation
Mentor:	Dr. Eric Hochberg (eric.hochberg@bios.edu)
Lab or Group name:	Coral Reef Ecology and Optics Lab
Preferred start date:	August onwards
Prerequisite courses:	Please contact mentor for Prerequisites and Skills
Skills (required):	
Skills (beneficial):	

Project Title:	Characterizing water clarity for coral reef ecology and remote sensing
Mentor:	Dr. Eric Hochberg (eric.hochberg@bios.edu)
Lab or Group name:	Coral Reef Ecology and Optics Lab
Preferred start date:	August onwards
Prerequisite courses:	Please contact mentor for Prerequisites and Skills
Skills (required):	
Skills (beneficial):	

Project Title:	Functional ecology of coral communities in the lab and on the reef
Mentor:	Dr. Eric Hochberg (eric.hochberg@bios.edu)
Lab or Group name:	Coral Reef Ecology and Optics Lab
Preferred start date:	August onwards
Prerequisite courses:	Please contact mentor for Prerequisites and Skills
Skills (required):	
Skills (beneficial):	

Project Title:	Coral reef mapping using high-resolution satellite imagery
Mentor:	Dr. Eric Hochberg (eric.hochberg@bios.edu)
Lab or Group name:	Coral Reef Ecology and Optics Lab
Preferred start date:	August onwards
Prerequisite courses:	Please contact mentor for Prerequisites and Skills
Skills (required):	
Skills (beneficial):	

Project Title:	Automatic analysis of underwater photographs for coral reef communities
Mentor:	Dr. Eric Hochberg (eric.hochberg@bios.edu)
Lab or Group name:	Coral Reef Ecology and Optics Lab
Preferred start date:	August onwards
Prerequisite courses:	Please contact mentor for Prerequisites and Skills
Skills (required):	
Skills (beneficial):	

Project Title:	Assessing energy and carbon budgets of corals (and seagrass) using advanced <i>in-situ</i> incubation chambers
Mentor:	Dr. Yvonne Sawall (yvonne.sawall@bios.edu)
Lab or Group name:	Coral Reef Ecology
Preferred start date:	May / June 2020
Prerequisite courses:	Basics in (marine) ecology, botany (photosynthesis), (marine) invertebrate biology
Skills (required):	Good swimmer / snorkeler
Skills (beneficial):	AAUS-certified diver, first-aid and oxygen provider

Project Title:	Testing and adapting the oxygen stable isotope approach to measure coral gross production <i>in-situ</i>
Mentor:	Dr. Yvonne Sawall (yvonne.sawall@bios.edu)
Lab or Group name:	Coral Reef Ecology
Preferred start date:	August 2020
Prerequisite courses:	Basics in botany (photosynthesis), chemistry, (marine) invertebrate biology, math
Skills (required):	Able to handle delicate work, good swimmer / snorkeler
Skills (beneficial):	AAUS-certified diver, first-aid and oxygen provider

Project Title:	Testing the efficiency of pulsed artificial upwelling of deep water in preventing coral bleaching during times of thermal stress
Mentor:	Dr. Yvonne Sawall (yvonne.sawall@bios.edu)
Lab or Group name:	Coral Reef Ecology
Preferred start date:	July / August 2020
Prerequisite courses:	Basics in (marine) ecology, botany (photosynthesis), (marine) invertebrate biology
Skills (required):	Being reliable in following experimental schedules, good record keeper, work outdoors in a hot climate
Skills (beneficial):	Experience with keeping animals in aquaria

Project Title:	Dynamics of nutrient and carbon cycling observed with underwater gliders
Mentor:	Ruth Curry (ruth.curry@bios.edu)
Lab or Group name:	MAGIC Lab
Preferred start date:	Anytime in 2020
Prerequisite courses:	College level math, physics, biology, chemistry
Skills (required):	Strong analytic capabilities using Matlab tools
Skills (beneficial):	Good writing and communication skills

Project Title:	Marine nitrogen cycling (e.g. redox, N ₂ O production)
Mentor:	Dr. Damian Grundle (damian.grundle@bios.edu)
Lab or Group name:	Grundle Lab
Preferred start date:	Anytime
Prerequisite courses:	TBD
Skills (required):	
Skills (beneficial):	

Project Title:	Employing environmental DNA (eDNA) to monitor biodiversity responses to natural and anthropogenic change
Mentor:	Tim Noyes (tim.noyes@bios.edu)
Lab or Group name:	
Preferred start date:	Beginning of June
Prerequisite courses:	Molecular Biology, Chemistry
Skills (required):	DNA extractions, PCR, gel electrophoresis, R programming
Skills (beneficial):	Bioinformatics, biostatistics, programming experience (e.g. Python)

Project Title:	Modeling reef fish communities
Mentor:	Tim Noyes (tim.noyes@bios.edu)
Lab or Group name:	
Preferred start date:	End of May, beginning of June
Prerequisite courses:	Calculus II
Skills (required):	R programming
Skills (beneficial):	Biostatistics, Programming experience (e.g. Python), Fish identification