

**Research Faculty & Project Managers**

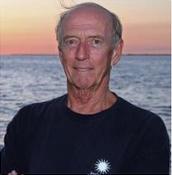
Last	First	Degree		Research Area	Focus
Adams 	Aaron	Ph.D.	Senior Scientist	Aquaculture & Stock Enhancement	<ul style="list-style-type: none"> <li>• Researches the habitat ecology of coastal marine fishes, fish behavior and movement, with a focus on economically important species; works to apply this knowledge to conservation and education</li> <li>• Applies information on fish habitat ecology to aquaculture processes and to stocking experimentation</li> </ul>
Ajemian 	Matthew	Ph.D.	Assistant Research Professor	Marine Ecosystem Health (Fish Ecology & Conservation)	Studies the behavior, feeding dynamics and migration of elasmobranchs (i.e., sharks and rays) and fish populations, including coastal and offshore reef fish and sportfish
Beckler 	Jordon	Ph.D.	Assistant Research Professor Joint hire between I-Sense & HBOI.	Geochemistry & Geochemical Sensing	Developing and applying autonomous biogeochemical sensing technologies to constrain fundamental elemental cycling mechanisms and rates in redox environments
Burton 	Steve	M.S.	Marine Mammal Stranding & Volunteer Manager	Marine Mammals	<ul style="list-style-type: none"> <li>• Manages Marine Mammal Rescue Team; primary first responder, logistics, operations and communication with National Marine Fisheries Service</li> <li>• Trains and manages volunteers to support Marine Mammal Rescue Team in stranding response</li> </ul>

<p>Chaves Fonnegra</p> 	Andia	Ph.D.	<p>Assistant Research Professor</p> <p>Joint hire between College and Harbor Branch</p>	<p>Biology</p> <p>Marine Ecologist</p>	<p>Research focuses on understanding the mechanisms that underlie changes in community structure by studying ecological dynamics and conservation biology of coral reefs.</p>
<p>Chérubin</p> 	Laurent	Ph.D.	<p>Associate Research Professor</p>	<p>Ocean Dynamics &amp; Modeling</p>	<p>Studies water movement in marine environments, including the forces that influence it and the ways it affects the proliferation of sea life (e.g., spawning, early life history) and planetary processes</p>
<p>Davis</p> 	Megan	Ph.D.	<p>Research Professor</p>	<p>Aquaculture &amp; Stock Enhancement</p>	<ul style="list-style-type: none"> <li>• Specializes in queen conch biology, culture and restoration in the Caribbean</li> <li>• Uses culinary demonstrations to inform the public on safe and healthy seafood choices and the biology of the species</li> </ul>
<p>Dickens</p> 	Nick	Ph.D.	<p>Associate Research Professor</p>	<p>Bioinformatics</p>	<p>Researches genome biology, the interaction of populations and the application of machine learning and bioinformatics to understand the evolution and operation of the genome</p>
<p>Guzmán</p> 	Esther	Ph.D.	<p>Associate Research Professor</p>	<p>Marine Biomedicine &amp; Biotechnology</p>	<ul style="list-style-type: none"> <li>• Leads the Cancer Cell Biology Group, which works to identify marine natural products with the potential to treat, prevent, or further current understanding of, pancreatic cancer</li> <li>• Once a useful compound is identified, conducts studies to more fully characterize its potential as a therapeutic agent</li> </ul>

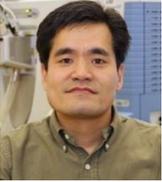
<p>Hanisak</p> 	<p>Dennis</p>	<p>Ph.D.</p>	<ul style="list-style-type: none"> <li>• Research Professor</li> <li>• Director of Education</li> </ul>	<ul style="list-style-type: none"> <li>• Marine Botany</li> <li>• Robertson Coral Reef Research &amp; Conservation Program</li> </ul>	<ul style="list-style-type: none"> <li>• Studies marine plants, especially seagrasses and seaweeds, and coral reef ecology</li> <li>• Leads the Indian River Lagoon Observatory program, which includes a network of monitoring stations that continuously collect water-quality information and post it on the Internet</li> </ul>
<p>Jiang</p> 	<p>Mingshun</p>	<p>Ph.D.</p>	<p>Associate Research Professor</p>	<p>Ocean Dynamics &amp; Modeling</p>	<p>Studies water movement in marine environments, the associated transport of nutrients (e.g., iron, nitrogen) and carbon, and the responses of biological components (e.g., plankton, corals), as well as the interactions between these things under global warming and increasing atmospheric CO<sub>2</sub>; these processes are central to the health and functioning of marine ecosystems</p>
<p>Lapointe</p> 	<p>Brian</p>	<p>Ph.D.</p>	<p>Research Professor</p>	<p>Marine Ecosystem Health (Harmful Algal Blooms)</p>	<ul style="list-style-type: none"> <li>• Researches the causes and consequences of excessive nutrients and algal growth in freshwater and marine environments, using techniques that identify the nutrient(s) fueling the growth, which aids identification of sources and solutions</li> <li>• Studies the macroalgae <i>Sargassum</i> and the complex ecosystem it hosts in the Gulf of Mexico, Sargasso Sea and Caribbean region</li> </ul>
<p>Laramore</p> 	<p>Susan</p>	<p>Ph.D.</p>	<p>Associate Research Professor</p>	<p>Aquaculture &amp; Stock Enhancement</p>	<ul style="list-style-type: none"> <li>• Researches health issues of aquacultured species including how the environment and nutrition affect disease prevalence and intensity and reproductive capabilities</li> <li>• Provides diagnostic services to the aquaculture industry to enable the industry to distribute aquacultured products globally</li> </ul>

<p>Masterson</p> 	<p>Jim</p>	<p>Ph.D.</p>	<ul style="list-style-type: none"> <li>• Assistant Research Professor</li> <li>• Education and Outreach Project Manager</li> </ul>	<p>Informal and Formal Education</p>	<p>Teaches marine ecology and aquaculture college courses and leads ocean literacy outreach via K-12 STEM programming and the NOAA CIOERT Exploration Command Center at Harbor Branch</p>
<p>McCarthy</p> 	<p>Peter</p>	<p>Ph.D.</p>	<ul style="list-style-type: none"> <li>• Research Professor</li> <li>• Associate Director for Education</li> </ul>	<ul style="list-style-type: none"> <li>• Marine Biomedicine &amp; Biotechnology</li> <li>• Microbial Ecology</li> </ul>	<p>Leads the Microbiology team, which is focused on the discovery of natural products produced by microbes that may be useful to treat human disease, and on understanding the microbial populations of the Indian River Lagoon and their impact on human health</p>
<p>Mincer</p> 	<p>Tracy</p>	<p>Ph.D.</p>	<p>Assistant Research Professor</p> <p>Joint hire between College and Harbor Branch</p>	<p>Biology / Biogeochemistry</p>	<p><i>"This Section Under Construction"</i></p>
<p>Nayak</p> 	<p>Aditya</p>	<p>Ph.D.</p>	<p>Assistant Research Professor</p> <p>Joint hire between College of Engineering, Dept. of Ocean &amp; Mechanical Engineering and Harbor Branch</p>	<p>Ocean Engineering &amp; Technology</p>	<ul style="list-style-type: none"> <li>• Oceanic optical and acoustic instrumentation, experimental fluid dynamics, small-scale turbulence, coastal ocean boundary layer flow, and biophysical interactions</li> <li>• Use of digital holography to study marine particle dynamics and biophysical interactions in the coastal ocean</li> </ul>
<p>O'Corry-Crowe</p>	<p>Greg</p>	<p>Ph.D.</p>	<p>Research Professor</p>	<p>Population Biology &amp;</p>	<p>Leads the PBBE group, which studies dolphins, whales and other marine predators in Florida and polar</p>

				Behavioral Ecology	ecosystems; investigating behavior, ecology and evolution of these top predators using genetics, genomics, acoustics and satellite telemetry. The research has a strong applied focus, working with stakeholders on marine resource management, ecosystem health and climate change.
Ouyang 	Bing	Ph.D.	Assistant Research Professor	<ul style="list-style-type: none"> <li>• Ocean Engineering &amp; Technology</li> <li>• Ocean Optics</li> </ul>	Develops computer algorithms that enable and enhance the use of laser and other sensor systems in undersea environments to accomplish tasks such as providing visual representations of the ocean floor and detecting oil in the water
Page-Karjian 	Annie	DVM, Ph.D.	<ul style="list-style-type: none"> <li>• Assistant Research Professor</li> <li>• Clinical Veterinarian</li> </ul>	Marine Mammals	<ul style="list-style-type: none"> <li>• Studies the epidemiology, pathogenesis, eco-immunology and ecology of infectious diseases and neoplasia of marine mammals and turtles</li> <li>• Provides veterinary services for the Comparative Medicine program within the FAU Division of Research and is a member of the FAU Institutional Animal Care and Use Committee</li> </ul>
Pomponi 	Shirley	Ph.D.	• Research Professor	<ul style="list-style-type: none"> <li>• Ocean Exploration</li> <li>• Marine Biomedicine &amp; Biotechnology</li> </ul>	<ul style="list-style-type: none"> <li>• Studies sponge biology, systematics, and ecology to determine how and why sponges produce chemicals that have bioactive properties</li> <li>• Advocates for and engages in ocean exploration to advance understanding and conservation of ocean resources, as well as discovery of organisms that may lead to new treatments for human disease</li> </ul>
Reed	John	M.Sc.	• Research Professor	Ocean Exploration	• Leads the NOAA CIOERT Mesophotic and Deep-water Reef Research Program to discover, describe and

			<ul style="list-style-type: none"> <li>• Lead Principal Investigator, NOAA Cooperative Institute for Ocean Exploration, Research &amp; Technology (CIOERT)</li> </ul>		<p>conserve ecosystems off the southeastern U.S., Bahamas and Caribbean</p> <ul style="list-style-type: none"> <li>• His efforts have resulted in the implementation of the 600 sq. mile Oculina Coral Reef marine protected area off Florida, and the 23,000 sq. mile Lophelia Coral preserve from North Carolina to south Florida</li> </ul>
<p>Schaefer</p> 	Adam	MPH	<ul style="list-style-type: none"> <li>• Research Coordinator</li> <li>• Epidemiologist</li> </ul>	Marine Mammals	<ul style="list-style-type: none"> <li>• Leads the Wildlife Epidemiology and Population Health lab and marine mammal necropsy lab</li> <li>• Studies the relationships between marine mammal, human and environmental health, embodied by the idea that illness in dolphins can shed light on environmental problems that may affect other species including humans</li> </ul>
<p>Sullivan</p> 	Jim	Ph.D.	<ul style="list-style-type: none"> <li>• Executive Director</li> <li>• Research Professor</li> </ul>	<ul style="list-style-type: none"> <li>• Marine Ecosystem Health (Phytoplankton Dynamics)</li> <li>• Ocean Optics</li> </ul>	<ul style="list-style-type: none"> <li>• Studies oceanic phytoplankton, which are microscopic marine plants that feed a variety of animals from snails to whales, and can create harmful algal blooms</li> <li>• Develops instruments for oceanographic research that measure the interaction between light and particles in the water to extract information about the particles</li> </ul>
<p>Taylor</p> 	Larry	A.S.	Coordinator, Research Programs/Services	Ocean Engineering & Technology	<ul style="list-style-type: none"> <li>• Instrumentation for oceanographic research</li> <li>• Manatee protection systems for water control structures and navigation locks using piezoelectric contact sensors and non-contact acoustic blocked-beam sensors</li> </ul>

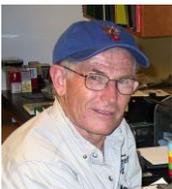
<p>Twardowski</p> 	<p>Michael</p>	<p>Ph.D.</p>	<p>Research Professor</p> <ul style="list-style-type: none"> <li>• Associate Executive Director, NOAA Cooperative Institute for Ocean Exploration, Research &amp; Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Ocean Optics</li> <li>• Ocean Engineering &amp; Technology</li> </ul>	<p>Uses in-water and remote optical sensing techniques to investigate oceanic, coastal and inland ecosystems; sediment dynamics; water quality, imaging and visibility, and oil spill detection and response. Sensor development and measurement/monitoring from autonomous vehicles and moored platforms are of special interest.</p>
<p>Verma</p> 	<p>Siddhartha</p>	<p>Ph.D.</p>	<p>Assistant Research Professor</p> <p>Joint hire between College of Engineering, Dept. of Ocean &amp; Mechanical Engineering and Harbor Branch</p>	<p>Ocean &amp; Mechanical Engineering</p>	<p>Machine Learning in Fluid Mechanics Turbulence Modelling and Large Eddy Simulation Fluid Mechanics of Collective Behavior Numerical Methods and high Performance Computing</p>
<p>Voss</p> 	<p>Joshua</p>	<p>Ph.D.</p>	<p>Assistant Research Professor</p> <ul style="list-style-type: none"> <li>• Executive Director, NOAA Cooperative Institute for Ocean Exploration, Research &amp; Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Marine Ecosystem Health</li> <li>• Robertson Coral Reef Research &amp; Conservation Program</li> </ul>	<ul style="list-style-type: none"> <li>• Combines technical scuba diving, undersea vehicles, in-water sensing and advanced molecular techniques to investigate coral reef ecosystems, coral health, coral-algal symbiosis and ecological connectivity</li> <li>• Works with ocean resource managers and government agencies to develop effective marine conservation strategies</li> </ul>

<p>Vuorenkoski Dagleish</p> 	<p>Anni</p>	<p>Ph.D.</p>	<p>Assistant Research Professor</p>	<ul style="list-style-type: none"> <li>• Ocean Engineering &amp; Technology</li> <li>• Ocean Optics</li> </ul>	<p>Uses information about the ways that light interacts with water and its contents – examples include sediment, microscopic life, and oil – to develop laser and other sensor systems to better explore, study and monitor the oceans</p>
<p>Wang</p> 	<p>Guojun</p>	<p>Ph.D.</p>	<p>Assistant Research Professor</p>	<p>Marine Biomedicine &amp; Biotechnology</p>	<ul style="list-style-type: none"> <li>• Uses omics and molecular microbiology approaches to identify biosynthetic pathways of marine natural products that have promise as medicines; develops sustainable supply for marine natural products by using genetic, biochemical and biotechnological methods</li> <li>• Identifies secondary metabolic genes from unique marine environment and habitats.</li> </ul>
<p>Wills</p> 	<p>Paul</p>	<p>Ph.D.</p>	<ul style="list-style-type: none"> <li>• Research Professor</li> <li>• Associate Director for Research</li> </ul>	<p>Aquaculture &amp; Stock Enhancement</p>	<ul style="list-style-type: none"> <li>• Researches aquaculture of finfish for food and stock enhancement and development of new fish species for aquaculture</li> <li>• Develops innovative aquaculture systems that reduce water, power and feed inputs and minimize waste outputs to make fish farming more sustainable</li> </ul>
<p>Wright</p> 	<p>Amy</p>	<p>Ph.D.</p>	<p>Research Professor</p>	<p>Marine Biomedicine &amp; Biotechnology</p>	<p>Research focuses on the investigation of natural products produced by marine organisms including sponges, ascidians, soft corals, bacteria and fungi for their use in the treatment of human diseases such as cancer, Alzheimer's disease, malaria, tuberculosis and pathogenic bacteria</p>

**Research Associates & Postdoctoral Investigators**

Last	First	Degree		Research Area	Focus
Barbarite 	Gabrielle	Ph.D.	Mission: Ocean Discovery Coordinator	Informal Education & Outreach	Communicates the research efforts of FAU Harbor Branch through the Mission: Ocean Discovery public outreach programs, including oversight of the Ocean Discovery Visitor's Center
McFarland 	Malcolm	Ph.D.	Postdoctoral Investigator	<ul style="list-style-type: none"> <li>• Marine Ecosystem Health (Phytoplankton Dynamics)</li> <li>• Ocean Optics</li> </ul>	<ul style="list-style-type: none"> <li>• Studies the dynamic processes that determine the distribution, abundance, and diversity of marine phytoplankton populations and communities</li> <li>• Develops and applies <i>in situ</i> optical methods to resolve phytoplankton characteristics over various spatial and temporal scales in the ocean</li> </ul>
Winder 	Priscilla	Ph.D.	Research Associate	Marine Biomedicine & Biotechnology	Works in the Marine Natural Products Chemistry group isolating and identifying compounds from sponges, bacteria, and other sea life for the treatment of human diseases such as cancer, malaria, and tuberculosis

**Affiliated Faculty**

Last	First	Degree	Research Area	Focus
Browdy 	Craig	Ph.D.	Aquaculture & Stock Enhancement	<ul style="list-style-type: none"> <li>• Directs research and development efforts of Zeigler Bros. Inc. including the collaborative research at HBOI</li> <li>• Research supports the continuing development of responsible aquaculture to produce more healthy seafood for growing world populations</li> </ul>
Coen 	Loren D.	Ph.D.	Marine Ecosystem Health	<ul style="list-style-type: none"> <li>• Oyster reef ecology, marine habitat restoration, their functioning and associated ecosystem services</li> <li>• Remote sensing of intertidal habitats, monitoring of intertidal oyster reefs</li> <li>• Benthic ecology, plant-animal interactions, landscape ecology, living shorelines</li> </ul>
Cook 	Clayton B.	Ph.D.	Marine Ecosystem Health	<ul style="list-style-type: none"> <li>• Cellular and physiological aspects of symbiosis</li> <li>• Biology of corals and other cnidarians</li> <li>• Marine invertebrate zoology</li> <li>• Impacts of climate on marine systems</li> <li>• Effects of oil and dispersants on marine organisms</li> </ul>
Diaz Ronda 	Maria Cristina	Ph.D.	Ocean Exploration	<ul style="list-style-type: none"> <li>• Studies the biodiversity of marine sponges with emphasis on morphology, metabolic pathways, and microbial symbionts to discern their evolution and their environmental roles</li> <li>• Describes new species and genera, participates in biodiscovery projects, and teaches the art of sponge science to early career scientists and environmental managers</li> </ul>

<p>Hargraves</p> 	<p>Paul</p>	<p>Ph.D.</p>	<p>Marine Ecosystem Health</p>	<ul style="list-style-type: none"> <li>• Taxonomy, life cycles, and ultrastructure of microalgae, especially diatoms</li> <li>• Biodiversity of the Indian River Lagoon</li> <li>• Harmful algal blooms</li> <li>• Phytoplankton ecology</li> </ul>
<p>Scarpa</p> 	<p>John</p>	<p>Ph.D.</p>	<p>Aquaculture &amp; Stock Enhancement</p>	<p>Bivalve aquaculture with a focus on hard clam culture and breeding in response to climate change; oyster stock enhancement and restoration ecology; crustacean aquaculture with a focus on marine shrimp in low-salinity systems for inland aquaculture; fish aquaculture with a focus on nutrition and its effects on fish health; tunicate culture with a focus on biomedical and bioremediation applications; integrated multi-trophic aquaculture</p>
<p>Smith</p> 	<p>Ned</p>	<p>Ph.D.</p>	<p>Shallow-water Physical Processes</p>	<ul style="list-style-type: none"> <li>• Investigated transport patterns in estuaries and over continental shelves</li> <li>• Gives lectures and teaches courses in physical oceanography, weather and climate, and earth science</li> </ul>
<p>Youngbluth</p> 	<p>Marsh</p>	<p>Ph.D.</p>		<ul style="list-style-type: none"> <li>• Biological oceanography, with particular focus on the ecology and behavior of deep-sea gelatinous zooplankton, especially research that involves <i>in situ</i> operations with undersea vehicles</li> <li>• Contributing editor <i>Marine Ecology Progress Series</i> (international journal), editor for <i>Journal of Oceanography, Research and Data</i> (French journal)</li> </ul>