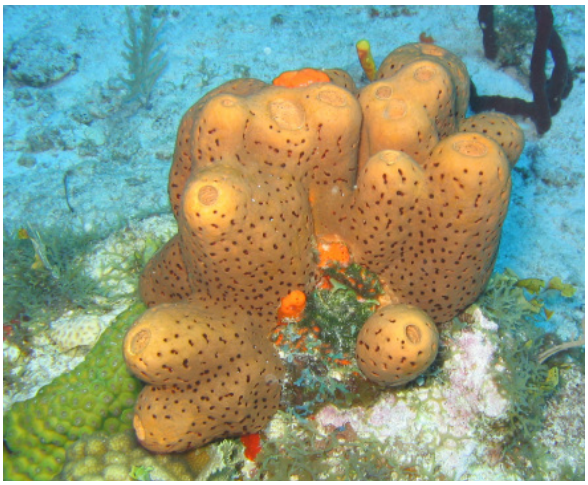
LIVING WORLD LECTURE

Friday, October 21st

7:30PM – ESS 001



Professor Bob Thacker

Department of Ecology and Evolution

Ecological Complexity of Sponge-Microbe Interactions

Recent research reveals that sponge-microbe interactions are host-specific, highly nuanced, and provide diverse nutritional benefits to the host sponge. This talk will examine how contemporary work has challenged early hypotheses about the nature of sponge-microbe interactions, focusing on the diversity and specificity of sponge microbiomes and their contributions to host fitness.

Abstract

Marine sponges have successfully expanded across diverse ecological niches around the globe. Pioneering work attributed this success to both a well-developed aquiferous system that allowed for efficient filter feeding on suspended organic matter and the presence of microbial symbionts that can supplement host feeding with products of photosynthesis or uptake of dissolved organic carbon. Recent research reveals that sponge-microbe interactions are host-specific, highly nuanced, and provide diverse nutritional benefits to the host sponge. Despite these advances in the field, many current hypotheses pertaining to the evolution of these interactions are overly generalized; these over-simplifications limit our understanding of the evolutionary processes shaping these symbioses and how they contribute to the ecological success of sponges. This talk will examine how contemporary work has challenged early hypotheses about the nature of sponge-microbe interactions, focusing on the diversity and specificity of sponge microbiomes and their contributions to host fitness.

About Professor Thacker

Bob Thacker is a Professor in the Department of Ecology & Evolution. Bob completed his BS (in Zoology) at Duke University. After completing his PhD (in Biology) at the University of Michigan Ann Arbor, he worked as a postdoctoral researcher at the University of Guam and the University of Hawaii. Bob was a faculty member of the University of Alabama at Birmingham from 2000 to 2015. He joined Stony Brook University in 2015. Courses taught at Stony Brook include Ecology, Statistics, and Molecular Diversity. Bob's research program focuses on the ecology, evolution, and systematics of sponges and their symbionts.