CRIOBE – IRCP Seminar

Wenesday 26th of September 2018, 02:30pm

Meeting Room - CRIOBE

Holobiont biogeochemistry and relevance for ecosystem functioning

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There is now overwhelming evidence that aquatic organisms are not self-complete but rather the outcome of ever-changing interactions with microorganisms, which form with their hosts entities called holobionts. However, we still know little about the biogeochemical functions of host-microbe associations, despite our time sees profound modifications in the biogeochemistry of aquatic ecosystems being caused by human activities. In this context, I will start with an overview of what I consider as the main challenges ahead, and I will bring some examples from my work on the role of microorganisms in underpinning organismal physiology and ecosystem functioning. I will focus on the carbon and nitrogen cycles and on the physiology of two different model systems: the photosynthetic coral holobiont, and the chemosynthetic lucinid clam symbiosis.

Host-microbe associations underpin coral reef ecosystem functioning. Photo credit: U. Cardini.