



中央研究院生物多樣性研究中心

Biodiversity Research Center, Academia Sinica

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02-2789-9621



10:00~11:00

## The Dark Side of Cleaning Symbiosis

**Dr. Pauline Narvaez**

Postdoc, University of Paris Sciences and Letters, France

11:00~12:00

## Animal Biomass on Earth's Ecosystems: Are Coral Reefs Any Special?

**Dr. Renato Morais**

Postdoctoral Researcher

University of Paris Sciences and Letters, France

Time: 2023. 06. 14 Wed.

Venue: Lounge C102, 1st Floor,

Interdisciplinary Research Building

跨領域科技研究大樓1樓C102交誼廳

Host: Dr. Tzu-Hao Lin 林子皓助研究員

Marine Biodiversity and Ecosystems





## Introduce

### Dr. Pauline Narvaez

My work aims to understand how marine interactions work, mostly mutualism and parasitism, using ecological, biological, experimental and molecular tools. Most of my work have been focused on fish interspecific interactions and fish parasite ecology in both tropical and temperate environments. I am a challenge-driven ecologist and I often seek to investigate novel perspectives of well-established paradigms. For example, I recently investigated the costs associated with cleaning symbiosis, which are often characterised as being beneficial only. In the last couple of years, I also focused on how habitat degradation impact fish/parasite interactions. Finally, I also use molecular tool such as DNA metabarcoding to explore the diet and microbiome of fish.

In brief, generally, I'm interested in:

- Fish biology and ecology
- Cleaning symbiosis ecology and biology
- Dynamic between fish and parasites
- Impact of climate change on marine interactions
- Use of molecular tools to investigate diet and microbiome of fish

### Dr. Renato Morais

Renato's research explores the role of the surrounding seascape in shaping the productivity of tropical reefs. His research explicitly incorporates space into resource assessments on tropical reefs, quantifying the 'energetic footprint' of animal biomass, links with non-reef habitats on the broader seascape, and determining mechanisms that maintain these links. His project advances the notion that a complete understanding of reef productivity should contemplate interacting internal and external pathways that connect photosynthesis to biomass production. His research focuses on a more 'outward concept' of tropical reef systems, combining methods from landscape, movement and reef ecology with mechanistic models from oceanography, food web and meta-ecosystems theory. These newly established links will hopefully pave the way to develop a predictive theory of biomass production on tropical reefs. Solving the ecosystem puzzle behind the production of biomass on tropical reefs has is critical at a time of global changes that threaten the very capacity of natural ecosystems to keep providing fisheries and other resources to humans. Ultimately, Renato hopes his research can contribute fundamental, but tangible, knowledge that may help to navigate tropical fisheries through the challenges of an ever-changing world.