**Rubén de la Torre Cerro**

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**Bio**

I have always been interested in studying biodiversity, the anthropogenic stressors disturbing it and how to mitigate them. The last few years my research has focussed on studying phenology and how fine spatiotemporal scale climate change drivers affect phenological events, with a particular focus on synchrony between interlinked species. Phenological synchrony is vital to maintain the trophic network as well as ecosystem functions and structure.

Corals have always fascinated me, they are a diverse group of animals and the ecosystem engineers of coral reefs. Despite corals playing a crucial role in maintaining coral reef ecosystems and providing many services (i.e., food, coastal protection, tourism) there are still many things to find out about them. Synchrony is particularly important for coral reproduction, given that many species and populations rely on mass broadcast spawning events that can occur once a year during a short period of time.

**Research Questions**

In my Ph.D. research project, I am investigating the environmental cues that influence reproductive phenology and synchrony of scleractinian corals. My research also focusses on the use of different spatiotemporal scale climate change drivers to determine possible reproductive asynchronies in coral reefs of several ecoregions. In order to address these research questions my project involves the use of different approaches such as ecological modelling, manipulative aquarium experiments and field work. This is a multidisciplinary project within the marine ecology field binding with phenology, biostatistics, reef ecology, climate change and ecological modelling.

**Supervisors**

* **James Guest**, CORALASSIST, Newcastle University, UK
* **Aileen Mill**, School of Natural & Environmental Sciences, Newcastle University, UK
* **Holly East**, Department of Geography and Environmental Sciences, Northumbria University, UK
* **Jamie Craggs**, Horniman Museum and Gardens, London, UK

**Peer-reviewed Publications**

de la Torre Cerro, R. and Holloway, P., 2021. A review of the methods for studying biotic interactions in phenological analyses. Methods in Ecology and Evolution, 12(2), pp.227-244.

O’Mahony, J., de la Torre Cerro, R. and Holloway, P., 2021. Modelling the Distribution of the Red Macroalgae Asparagopsis to Support Sustainable Aquaculture Development. AgriEngineering, 3(2), pp.251-265.