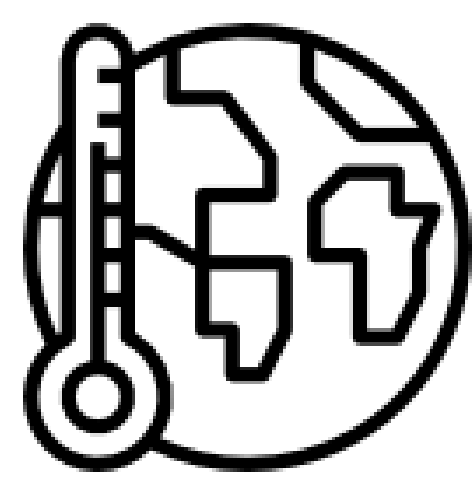


# RECORDS OF BLEACHING EVENTS IN BRAZILIAN REEF COMMUNITIES

Thomás N. S. Banha; Miguel Mies; Paulo Y. G. Sumida

Department of Biological Oceanography, Oceanographic Institute, University of São Paulo

[sotobanha@gmail.com](mailto:sotobanha@gmail.com)



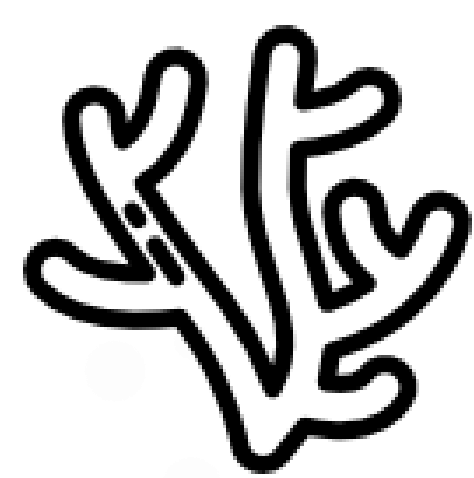
**BACKGROUND** The Western Atlantic Ocean reef communities underwent more **mass bleaching** events than any other area in the world. Monitoring such events is important to verify how the populations behave and respond to multiple bleaching and what are the **ecological**, **economical** and **social impacts** of these events



**DATA ACQUISITION** **Data mining**, searching for papers in ten **databases** (e.g. SciELO, SCOPUS, Web of Science); and by **“snowball”** searching in the **Lattes platform**, a online Brazilian curriculum vitae platform. Thus, we gather almost **fifty papers** from 1998 to 2017 that recorded and/or monitored bleaching events in Brazil.



**OVERVIEW** Short timeframes – Bleaching mostly by **temperature anomalies** – UV radiation, sedimentation, low salinity and anthropic: **direct or indirect causes** of bleaching – Limited range: more than half **not published in international journals**



**ORGANISMS** 21 species bleached, ***Siderastrea stellata*** Verrill, 1868 (Fig. 1) being the most affected. ***Montastraea cavernosa*** (Linnaeus, 1767) (Fig. 2) was the most resistant among the 25 species which were found unbleached.



Figure 1: *Siderastrea stellata*, the most recurrent bleached coral in Brazil. Source: Australian Institute of Marine Science.



Figure 2: *Montastraea cavernosa*, the most resistant Brazilian coral species. Source: Australian Institute of Marine Science



**TIME AND SPACE** Records date back to the early 1990's but the first peer-reviewed paper was published only in **1998**. Production intensify during the **2010's**, when **> 70%** of the bleaching records are found. **90% of the events** were recorded in the **Northeastern region**, where most coral reef Marine Protected Areas are found.



**FINAL CONSIDERATIONS** Most **bleaching records** are restricted to Brazilian science. Although being marginal reefs, Brazilian coral reefs do bleach and are still **poorly monitored**. A **Social Network Analysis** will be performed to investigate if the connection of the researchers can explain the lack of bleaching records.