



**Comunicação oral - Quarta Sessão: Ecologia e conservação**

**Temperature-driven secondary competence windows may increase the dispersal potential of invasive sun corals**

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Invasive sun corals exhibit outstanding development plasticity during early ontogenesis, which may greatly affect the pelagic duration of propagules and hence their dispersal potential. Remarkably, a small proportion of larvae may not directly settle on the benthic habitat, but metamorphose to planktonic polyps. We show the latter may settle successfully, eventually opening a secondary competence window (SCW). Based on local conditions (Southeast Brazil), delayed SCWs were confirmed at average summer (26°C) and, especially, at heat-wave (30°C) temperature, allowing an escape response from habitats where larval mortality rates are high and mass-mortality events of colonies, later on, more likely. Despite a higher frequency of pelagic metamorphosis, no SCWs were observed at average winter (22°C) and cold-front (19°C) conditions. Climate change may thus favor large-scale dispersal of competent pelagic polyps and further promote range extensions to subtropical and warm-temperate regions where temperature conditions (ca. 22°C) for propagule survival and settlement success are best.

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