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Woods Hole Oceanographic Institution  
**Biology Department Seminar**



Thursday, August 24, 2023 – 12:00 Noon

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## **Periodicity in Reproduction Does Not Guarantee Periodicity in Settlement**

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The timing of species' life history events can have profound implications for marine ecosystems, especially those events that influence species dispersal and recruitment. In benthic invertebrates, the majority of dispersal occurs during the larval phase of life. Yet it is unclear the degree to which the timing of reproduction (the beginning of the larval phase) influences timing of settlement (the end of the larval phase). Here, we use long-term (2014-2019) daily and weekly data from La Jolla, California to look for lunar and seasonal cycles in reproduction and settlement timing of the acorn barnacle *Chthamalus fissus*, and we incorporate measurements of nearshore currents to examine the implications of reproduction timing on alongshore larval transport distances. We found evidence of lunar and seasonal cycles in reproduction, but only limited cyclicity in settlement. Our results demonstrate the complex nature of relationships between reproduction, larval transport, and settlement, which must be disentangled before accurate predictions can be made regarding the impacts of climate change on the population dynamics of marine species.

**HYBRID!** **In person:** Redfield Auditorium **Zoom:** <https://whoi-edu.zoom.us/j/91904290547> Meeting ID: 919 0429 0547 **By phone:** Find your local number: <https://whoi-edu.zoom.us/u/adM5Or7nyl>