

# SAFL SEMINAR SERIES

WEDNESDAY, SEPTEMBER 21, 3:30PM

ST. ANTHONY FALLS LABORATORY ~ AUDITORIUM

## The Perilous Life of Planktonic Copepods: Overcoming Hydrodynamic Constraints

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### *Abstract:*

Copepods are found in virtually all marine environments. They provide a key link in marine food webs between photosynthetic algae and higher trophic levels. As a result copepods have evolved a powerful escape behavior at all stages of development, in response to hydrodynamic stimuli created by an approaching predator. Young copepods are strongly influenced by viscous forces and may be at a disadvantage when exposed to larger predators at cold temperatures. Results show that the nauplius exhibits a compensatory mechanism to maximize escape performance across its thermal range. Some species have developed unique mechanisms to avoid predation such as breaking the water surface and making aerial escapes to avoid predators while in other cases, the predator has developed unique morphology in order to reduce the amount of hydrodynamic disturbance in the water which improves capture success of copepods.