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Department of Marine Sciences
Presents a Seminar By

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Hiding and Communicating with Polarized light— insights from open ocean and freshwater fish

In order to communicate or hide in any environment, animals need to selectively reflect, absorb or alter the incoming light field for their intended purpose. For aquatic organisms, this light field can often include a large portion that is highly polarized. For animals that need to hide in an underwater light field, polarization camouflage can be challenging because the polarized light field properties change throughout the day with the angle of the sun. Yet, some open ocean carangid fish have evolved mechanisms to adjust for this continually changing environment, and show peak polarocrypsis from viewing angles associated with predation. Meanwhile, freshwater northern swordtails, *Xiphophorus nigrensis*, evolved sexually dimorphic polarized reflectance that is used for communication. Female swordtails associate with males with greater polarization ornamentation more than males without polarized ornamentation. Males, unlike females, differentially increase their polarization contrast in the presence of conspecifics relative to asocial conditions. These early investigations suggest that polarization signaling has the potential to provide dynamic, private communication.

Host: Heidi Dierssen

Time & Date: 11:00 am, Friday, March 11, 2016

Place: Marine Sciences Building, Seminar Room 103

Please see this [page](#) for cancelations and additional seminar information, email marinesciences@uconn.edu, or call 860-405-9152 or 860-405-9151