Woods Hole Oceanographic Institution

Biology Department Seminar

Thursday, February 18, 2016
Redfield Auditorium – 12:00 Noon

Population genomics of the rapidly invading lionfish, *Pterois volitans*

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The genomic impacts of rapid range expansion have implications for evolution, ecology, and conservation. Rapid range expansion may be accompanied by local adaptation and selection at the range edge for invasion-enhancing traits, as well as strong genetic drift that is expected to decrease genetic diversity towards the range margins. Marine invasive species like the lionfish, *Pterois volitans,* represent potential models for understanding the impacts of rapid range expansions at a genomic level. The incursion of the Indo-Pacific lionfish into waters off the US Atlantic Coast, Gulf of Mexico, and Caribbean Sea is an unprecedented marine fish invasion in both rate of spread and collateral ecological damage. This seminar will focus on results from a restriction enzyme associated DNA sequencing (RAD-seq) investigation to characterize the genetic diversity of lionfish throughout the southern portion of their invaded range. Observed genomic patterns in an aggressive marine invader will be compared to those well characterized in a terrestrial invader, the bank vole *Myodes glareolus.*