

**Dean's Colloquium**  
**Dr. Carolina Bonin Lewallen, Assistant Professor**  
**Department of Marine and Environmental Sciences**



**When: Wednesday, April 19, 2023**

**Where: Turner 129**

**Time: 3:00 – 3:20 pm, Q&A: 5 min**

**Title: “Move, adapt, or die: Examining adaptive capacity in a Southern Ocean apex predator, the leopard seal”**

**Abstract:** Marine mammals are increasingly being impacted by human-induced climate change and many polar species may not be able to respond at the rate required for their long-term survival. Despite the drastic changes occurring in polar ecosystems, several conspicuous polar marine mammals remain among the least known mammals. This is the case of leopard seals, *Hydrurga leptonyx*. Direct observations of this species in traditional surveys across the Antarctic are hindered by its broad and remote geographical distribution, low population density, and the adverse weather conditions that are commonly encountered in their main breeding habitats. For this reason, this predator is often left out of ecosystem-based models, which are urgently needed to manage Antarctic marine living resources. This talk will summarize the goals and preliminary data/ findings for a recent award by NSF Polar Programs, which consists on the first global study of this iconic predator.



**Bio:** Dr. Carolina Lewallen received her Ph.D. in Marine Biology from the Scripps Institution of Oceanography University of California San Diego working on Antarctic fur seals in 2012, and joined Hampton University in 2017. She has been studying pinniped behavior, ecology and evolution for nearly 20 years. She was a researcher at the Polar Marine Mammal research group at NOAA Southwest Fisheries Science Center in La Jolla CA for five years. While there, she worked to generate data on population genetics of Arctic marine mammal. At Hampton University, Dr. Lewallen continues to study marine mammal genetics and has currently funded projects in leopard seals and bottlenose dolphins. She is section head editor for *Gene- Molecular Ecology* and associate editor for *C. Molecular Biology Reports*.