Department of Wildlife Ecology and Conservation
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**Title: PhD student position – Ecological modeling and decision analysis to inform decision making for coastal marine ecosystem restoration projects**

**Location:     Department of Wildlife Ecology and Conservation (WEC)**
**Institute of Food and Agricultural Sciences (IFAS)**
**University of Florida**
**Gainesville, Florida**

Position Description: We are seeking a graduate student to work on coastal marine ecosystem restoration projects (starting Spring semester 2020). The student would join a team of scientists from the University of Florida (WEC, Nature Coast Biological Station, https://ncbs.ifas.ufl.edu/, and the School of Natural Resources and Environment) and US Geological Survey (Wetland and Aquatic Research Center, St Petersburg Coastal and Marine Science Center and Southeast Climate Adaptation Science Center) who are working on a project to provide decision support to managers (e.g., US Fish and Wildlife Service) for coastal marine ecosystem restoration, characterized by complex dynamics that interact among multiple system processes, and for which stakeholder values and benefits are not always explicitly identified. The team will be using two ongoing restoration projects at Lone Cabbage Oyster Reef (LCOR, https://lcroysterproject.github.io/oysterproject/) and Lower Suwannee National Wildlife Refuge (LSNWR) as primary case studies, working with managers to carefully frame their decision contexts. They will synthesize information across these projects and develop analytic tools to inform restoration activities that best achieve management objectives, while recognizing risk. These projects are being implemented in adjacent, integrated coastal habitats, and both focus on maintaining productive estuarine conditions within Suwannee Sound, through restoration of freshwater hydrologic sheet flow across LSNWR, and of the LCOR oyster reef network, which acts as a "leaky dam" retaining these flows. The main products of this work will be:
• Formal analysis that predicts the expected value (in units of ecosystem services such as fishing opportunities) of restoration investments, considering costs and risk, conditional on future uncertainty and budget constraints.
• Decision support tools developed in collaboration with managers to identify areas to prioritize for restoration and to evaluate consequences of alternative management scenarios on ecosystem services (e.g., fisheries, coastal protection from erosion).

The student will focus on the development of ecological models and decision analysis. Our team includes experts in ecology, fisheries, food web modeling, statistics and decision analysis, thus it would be a great learning opportunity for an ambitious student.

Qualifications: Applicants must hold a MSc degree (or a combination of education and experience equivalent to a MSc degree) in ecology, fisheries, natural resource management, oceanography, natural resource economics, applied mathematics, statistics, operations research, or related field. Experience with programs such as R or Matlab is desirable. The best qualified applicants will also have good reasoning and analytical skills, some familiarity with ecological systems, demonstrable communication skills, and the ability to function well both on their own and in teams. The selected candidate must be able to meet eligibility requirements for work in the United States at the time appointment is scheduled to begin and continue working legally for the proposed term of the appointment.

Stipend and benefits: The student will receive a competitive stipend, tuition, and health insurance package.

How to apply: Applicants should submit a cover letter, resume (or curriculum vitae), copy of transcripts, and the contact information of three professional references to Dr. Bill Pine at oysterproject@ifas.ufl.edu. Consideration of applications will begin September 20, 2019 and will continue until the position is filled.

You may submit an unofficial copy of the transcripts; however, if you are selected, you will be required to provide official transcripts to the hiring department upon hire.