



## University of North Florida Jacksonville, Florida Habitat

### **SCHOOL**

University of North Florida (UNF), Public, 4-year, 16,368 students (Fall 2011 Enrollment), Jacksonville, Florida.

### **ABSTRACT**

The Campus Natural Asset Inventory (CNAI) is an ongoing project of the University of North Florida Environmental Center in collaboration with UNF Physical Facilities to establish a comprehensive database of all plant species within the campus boundaries. The initial goal of the CNAI was to identify all native, exotic, and invasive plants on campus, and as of June 2012, 575 species of terrestrial plants have been catalogued. Starting in Fall 2012, the CNAI will be expanded to include aquatic plant taxa and fish found in the numerous freshwater lakes within the UNF campus. Cataloguing and monitoring species abundance within the campus may provide insight to the potential effects of future construction efforts as the university continues to grow and serve as a valuable resource for ecological study on campus.

### **GOALS AND OUTCOMES**

#### **Goals**

From its inception, the purpose of the CNAI has been to create a comprehensive database of all plant species -- native, exotic, or invasive -- found within the University of North Florida campus. The University of South Florida Institute for Systematic Botany (ISB) maintains the Atlas of Florida Vascular Plants (AFVP), a database listing all vouchered plant species found within each county. The AFVP currently details 1,247 plant species found in Duval County, of which 575 have been identified on UNF campus. Given that only a portion of the ecosystem types found in Duval County are present on UNF campus, we conclude that the CNAI plant list is fairly complete. As the rate of finding new plant species levels off, we will begin expanding the CNAI to include aquatic plants and animals that inhabit the freshwater lakes on campus.

#### **Accomplishments and Outcomes**

Prior to starting the CNAI, the total number of plant species present on campus was unknown. The completeness of the plant list was assessed by determining the ratio of new plant species identified versus the total number of plant specimens collected within a given period of time. As the total number of plant species is approached, that ratio will continually decrease as fewer new plant species are identified and redundant specimens are collected. In the 4-month period of April to July 2012, 31 plant specimens were collected and identified, of which only 3 were new additions to the CNAI. This suggests that approximately 90% of the plant species present on the UNF campus have been catalogued in the CNAI.

#### **Challenges and Responses**

One of the largest challenges in compiling a comprehensive plant species list is that some areas are not easily accessible due to dense vegetation or other barriers. Because of this, fewer specimens were collected from these areas, which means that there could be multiple plant species in these areas that were excluded from the CNAI. Another issue is that the campus covers an area of approximately 1,300 acres, thus some areas are likely to be under-sampled. The effects of under-sampling or exclusion of some areas will hopefully be minimized as the project continues. Seasonal changes tend to affect the extent of foliar overgrowth, and many previously inaccessible areas may become accessible in winter.

### **Campus Climate Action: Your School's Carbon Footprint**

The CNAI project primary objective is to inventory species on campus all plant species -- native, exotic, or invasive -- found within the University of North Florida campus. Climate change is not specifically addressed; however, our hope is that the inventory will provide insight to the potential effects of future construction efforts as the university continues to grow and serve as a valuable resource for ecological study on campus.

### **Commentary and Reflection**

This project is particularly exciting, because the compiled inventory will be used on campus for years to come. The project is also a great opportunity for students to get hands on environmental research experience.

## **ENGAGEMENT AND SUPPORT**

### **Leaders and Supporters**

The CNAI project is a collaboration between the UNF Environmental Center and UNF Physical Facilities, with additional help from faculty members within the Department of Biology. Chuck Hubbuch, Curator of the Sawmill Slough Preserve and Assistant Director of Physical Facilities has been instrumental in getting the project on its feet. The Environmental Center has offered additional support by hiring student assistants who help collect and identify samples.

### **Funding and Resources**

The majority of funding for the CNAI project goes towards paying student research assistants to help collect and identify samples on the UNF campus. During the fiscal year 2011-12 \$15,000 was spent on student research assistants. An additional \$1,700 was spent on supplies, such as microscope, digital GPS cameras and a computer workstation. This project was primarily funded through the Cummer Family Foundation, with additional support being provided by the Environmental Center.

### **Education and Community Outreach**

To date there has been little educational outreach as a result of the CNAI project. A complete list of the 575 species located on the UNF campus can be found on both the Environmental Center and Physical Facilities websites. There has been discussion of expanding our educational outreach to students by using signage to identify plant species on campus, as well as developing an application for mobile devices.

## **CONTACT INFORMATION**

### **Contacts**

Mr. Chuck Hubbuch  
Physical Facilities

Assistant Director & Curator of Sawmill Slough Preserve  
904.620.1315  
chubbuch9@unf.edu

Dr. Radha Pyati  
Director  
Environmental Center  
904.620.1918  
Radha.pyati@unf.edu

Mr. Will Seemer  
Biology Graduate Student  
Student Research Assistant  
Environmental Center  
904.620.5806  
William.seemer@unf.edu

Mr. Jason McGregor  
Biology Graduate Student  
Student Research Assistant  
Environmental Center  
904.620.5806  
R22\_410@hotmail.com

**Case study submitted by:**

Mr. James Taylor  
Coordinator  
Environmental Center  
904.620.5804  
Tayj0016@unf.edu

**MORE ABOUT YOUR SCHOOL**

**Campus Sustainability History**

The Environmental Center at the University of North Florida fosters environmental research, both on and off the campus. In addition, the Environmental Center helps coordinate sustainability efforts on campus. In addition, UNF has a Sustainability Committee which has representatives from multiple departments around campus and whose mission is to increase environmental sustainability in all areas and aspects of campus life.