

Establishment of the Broward College Herbarium: Mission Goals & Timeline

Adam Pitcher¹, David Serrano^{1,2}, Elizabeth Lavelly¹, Chris Stauffer¹, Margaret Naylor¹

¹Broward College Environmental Science Bachelors Program, ²Associate Professor/Program Manager

Introduction

The Broward College Herbarium (BCH) was established in 2018 with the mission of inventorying & cataloging the plant diversity in what little remains of Broward County's natural areas. The BCH collection will serve as a long-term open access repository to aid the scientific community indefinitely. Broward County has received relatively little attention from local herbaria with many species either missing or not collected in decades. Specimens will be curated to museum standards so that they may have long term scientific value. All specimen data (including field data & notes) will be uploaded to iDigBio such that biogeography studies may be conducted at any time. Selected specimens will be digitally imaged so that worldwide experts may utilize data in taxonomic, systematic, & ecological studies. The inventory will also supply a baseline for environmental health, conservation & restoration assessments.

Goals

- Utilize data to help establish a baseline of plant diversity within Broward County.
- Gain an understanding of current or future restoration & conservation needs.
- Utilize specimens as part of the ongoing collection & research of the Broward College Herbarium
- Upload taxonomic data as possible to the Broward College Herbarium's digital database
- Initiate biodiversity analyses of the collected data
- Continue collections throughout Broward County

Collection & Long-Term Storage

Collection

Plant specimens representing diagnostic characters of species will be collected throughout Broward County with a focus on under-sampled or vulnerable plant communities. Specimens are pressed on-site utilizing a portable herbarium field-press, then transported back to the Environmental Science Lab at Broward College for drying. A suite of pertinent collection data is also recorded including GPS coordinates, surrounding vegetation/geological features, & pictures of plants in-situ.

Long-Term Storage

Once dried, specimens will be stored in one of our sealed herbarium cabinets inside a climate-controlled lab at Broward College. Specimens will be mounted to standard 16"X10" herbarium mounting sheets, separated in species folders, & organized by locality, plant class, & family

Broward College Herbarium Digital Database

All processed specimens will have all related collection data entered into our digital database for permanent online storage with on-site backup. Selected specimens will be digitally imaged so that worldwide experts may utilize data.

Targeting A Vulnerable Natural Area

Our focused, intensive inventory of Broward County's flora began at Hugh Taylor Birch State Park (HTBSP) in eastern Ft. Lauderdale under permit # 10101815 in October 2018. This particular natural area has important preservation implications both for its biological and historical significance to the county as well as its proximity to the coast, being imminently threatened by rising sea levels.

Identification of undetected exotic/invasive plant species will allow for timely containment strategies & protection of park resources.

Recently our survey efforts found an unknown stand of African Tulip Tree *Spathodea campanulata* (Lamiales: Bignoniaceae) within the park and subsequently the trees were removed 13 March 2019.

As HTBSP is near multiple major international ports of entry and has a subtropical climate, establishment of exotics is an ever-present threat.

HTBSP is primarily comprised of maritime hardwood hammock & estuarine tidal swamp.

The park also has established populations of multiple endangered species, many of which are rarely found elsewhere in Broward County. Since October 2018 our survey has vouchered 38 species not currently on the park's Unit Management Plan.



Collaborations

We are collaborating with Florida State Parks and the Florida Department of Agricultural and Consumer Services in an effort to assist with ongoing efforts to monitor the presence of invasive insects & forest pests during the course of our survey.

Collaboration requests & survey inquiries can be sent to dserrano@broward.edu

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