



FORT WORTH BOTANIC GARDEN

Applied Geospatial Horticulture Internship:

Are you a GIS whiz? Do you love helping to conserve sensitive plant species across the world? If you answered yes, then this paid internship is for you! The goal of this project is to utilize existing datasets for analysis and to create maps that will be used to plan future conservation and collections at the FWBG.

Interested applicants please submit your CV and a Cover Letter to shamby@fwbg.org by April 30th at 5:00pm.

Project Area: Living Collections

Project Title: Applied Geospatial Horticulture Internship

Earliest Start Date: 19 May 2025

Latest End Date: 19 August 2025

Reports to: Seth Hamby, Director of Living Collections (primary); Benjamin Durrington, Plant Records Coordinator (secondary)

Overview

Every internship at Fort Worth Botanic Garden (FWBG) is important to the organization's success and contributes to the accomplishment of the strategic goals and, ultimately, achievement of its vision for the future.

The purpose of this internship is to provide real-world experience working in a public garden for a graduate student or upperclassman interested in Geographic Information Systems, Horticulture, Botany, and Plant Records. The intern will be responsible for completing a predetermined project using GIS, Maxent, and other analytic software.

Project Summary: Applied Geospatial Horticulture Internship

The project will use Koppen-Geiger climate classification data and Global Biodiversity Information Facility (GBIF) datasets to determine locations around the world with growing conditions comparable to those at the Fort Worth Botanic Garden. International Union for Conservation of Nature (IUCN) Red-List data will be used to identify Species of Greatest Conservation Need (SGCN) occurring in those regions in order to create desiderata and to inform conservation decisions in the future. The intern will conduct a gap analysis using this SGCN data and comparing it to our IrisBG living collections database and our Symbiota Portal preserved collections database. We will use data from Botanic Garden Conservation International (BGCI) to determine which institutions are closest in proximity to the regions we have identified to begin developing conservation partnerships and productive relationships.

Intern Responsibilities

- Work with Director of Living Collections, Plant Records Coordinator, and the Director of the Herbarium to determine the best course of action for planning, implementing, and disseminating the deliverables of the project.
- Research, analyze, and interpret geospatial datasets.

- Utilize other scientific datasets to answer research questions.
- Deliver detailed report of project outcomes, including protocols, maps, recommendations, and constructive feedback.
- Work productively with volunteers and staff.
- Perform other horticulture-related duties as assigned.
- Keep detailed, organized records and maintain open communication with supervisors.

Supervisor Responsibilities

Project supervisors will train and instruct interns on all project guidelines, data entry, and other project-related tasks. Interns may also be trained by other FWBG staff for related tasks (e.g., collections curation). Supervisors will assist with these duties where necessary and as time allows. The supervisors will recognize all participant efforts through acknowledgments in publications, presentations, and web-based reports.

Time Commitment & Schedule

FWBG Living Collections interns during the summer session are asked to commit to a minimum of 200 hours. This internship position is best suited to a fixed weekly schedule, although there is room for some flexibility throughout the summer. Project tasks intended to be completed on-site at FWBG are restricted to normal business hours of 9:00 a.m. – 5:00 p.m., Monday – Friday. For all internships, a mutually agreed upon schedule will be confirmed in writing. Expected absences (e.g., vacations) must be discussed in advance.

Skills & Background Requirements

- Current or former student in GIS (must have at least intermediate skills).
- Data collection and analysis experience.
- Basic knowledge of plant identification and taxonomy.
- Computer literacy: spreadsheets, generating reports, PowerPoint, email attachments, files/data organization.
- Internet and library literacy relating to research (searching primary literature, etc.)
- Independent thinking and ability to work both alone and as an assistant.
- Must be able to work outdoors for extended periods in the Texas climate.
- Must be at least 18 years old with a clean record; background checks are done by FWBG for all interns; will need to be trained for safe interactions around minors.

Intern benefits include learning and growing skills in the following:

- GIS and data analysis
- Collections curation
- Project management
- Time management
- Research, data processing, and analysis
- Interaction and networking with professional horticulturists and scientists

Measure of Success

Interns will be given verbal feedback throughout the internship. Where appropriate, results from this project will be submitted for publication in peer-reviewed academic journals and presented at scientific conferences by FWBG staff and associates. Project participants are encouraged to contribute to publications where possible and to also make public presentations of the data as time, interests, and skill level allow. All student interns are required to create a minimum of one product (e.g., poster, report, annotated dataset, infographic) and one project reflection piece (e.g., an essay, blog post, drawing, video) which will be shared with the public via FWBG's website and social media. Additional contributions beyond these products are encouraged.

Project Goal

To utilize existing datasets for analysis and to create maps that will be used to plan future conservation and collections at the FWBG.

Project Timeline

Begins: 19 May 2025- Orientation

Progress Report Due: 18 July 2025

Final Deliverables Due: 19 August 2025

Presentation: 11-15 August 2025