



An Online Resource for Plant Information, Nomenclature, Distribution and Herbarium Specimens

Program and Technical Summary



Atlas of Florida Plants



New York Flora Atlas



Alabama Plant Atlas



Indiana Plant Atlas



Flora of the Clarendon Parish Region, Jamaica

Project Overview

The Plant Atlas is an evolving partnership of herbaria, universities, conservation organizations, government agencies and information technology professionals. Project partners are united by a common need to manage and disseminate vascular and non-vascular plant information with colleagues and the public. The online Plant Atlas application, originally developed by the University of South Florida, is the tool these partners have chosen to meet their needs. Project partners share the development and maintenance costs and benefit from the ongoing improvements to the system.

Strategy for Sustainability

The Plant Atlas suite of websites has evolved and remained current since the launch of the first website, The Atlas of Florida Vascular Plants in the early 1990s. Project partners license the Plant Atlas website from the University of South Florida and work with the University to make improvements and upgrades, customizing the basic Plant Atlas framework to meet their unique needs. As website improvements are made, they are shared with existing partners. Long-term project sustainability is achieved by continually expanding the number of Plant Atlas partners who share in the costs to maintain and improve the technology.

Functionality

The Plant Atlas technology uses web-based software applications to manage and share plant information, including: distribution / checklist information, nomenclature, photographic

images, other plant information and herbarium specimen photos and label data (when applicable). Data are stored within secure database management systems and file servers maintained within the University of South Florida virtual server farm. Data and servers are backed up nightly and offsite. The Plant Atlas website incorporates standards-based data-driven internet technologies to disseminate plant information, images and distribution maps to the public. The websites are being converted to mobile and small screen responsive designs and a mobile app is planned.

The following is an abbreviated list of functionality available on the website:

- Plant species are searchable by scientific and common name, including synonyms; known presence within a county; nomenclature citation information; availability of a herbarium specimen image; and listing as threatened/endangered, native, endemic, invasive, wetland and other characteristics.
- Search results can be presented as a spreadsheet-style list of plant species or as a gallery of plant images along with summary information for the purpose of comparison.
- Search result pages provide options to improve usability, including: sort or group by family, genus or other columns; filter based on selected characteristics, such as presence of a photograph or specimen image; or create a printer-friendly checklist to take into the field. We are currently implementing a customizable data export option.
- Users can browse for a plant species by selecting a family; genus; common name; or county.
- Information is made available at the family, genus and species taxonomic classification levels, including distribution map and source information, synonymy, citations, and plant photographs.
- Each taxa web page is linked directly to herbarium specimen data and information. We are currently implementing targeted links from Plant Atlas species pages to specific species pages on external websites such as USDA Plants and Natureserve.
- Administrative users utilize a secure web-based editor to manage online content including customized pages about the project, herbarium or institute, external links, and news and announcements.
- Additional functionality is currently being implemented, including: improved performance and functionality of search tools; additional automated links to provide access to specimen data at multiple herbaria; data download tools for advanced users; and additional species information such as ecological, habitat, and phenology information.

Plant Attribute Information Summary

The Plant Atlas and specimen database have been purposefully designed to accommodate customization. Modification of the database and website is fairly easy in order to add or subtract (i.e. hide) plant data attributes based on the needs of the individual data partner. The herbarium specimen portion of the database was based on the NY Botanical Garden's Virtual Herbarium and contains a long list of attributes used by collection managers. The full database schema will be provided to those considering becoming a Plant Atlas Partner.

Plant Atlas Project Costs

The Plant Atlas is not simply a software application available for sale on the open-market. Potential project partners will be accepted based on the following criteria: 1) they must demonstrate a commitment in principle to the sustainability of the Plant Atlas; 2) they should be willing to exchange specimen and distribution information with other organizations for incorporation into the website; and 3) most or all of the website should be made available for free to the public.

Project costs can be summarized as follows:

1. Partners must pay a one-time software licensing fee to the University of South Florida for the use of the intellectual property originally developed by USF faculty.
2. The implementation and configuration of the Plant Atlas will be a collaborative effort between the Partner and the Plant Atlas Team. Tasks typically include modifications to the look and feel of the website to highlight the Partner, changes to informational web pages (e.g., About the Atlas, Herbarium, etc.), customization of plant information to be displayed and data migration. The cost of these services will depend on the level of effort required by USF staff.
3. An annual maintenance agreement (currently \$2,800) is required to support the web server infrastructure and the efforts by the Plant Atlas Team to maintain the websites and continue to make improvements in collaboration with Partners.

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