San Diego County, with natural environments ranging from sea coast, up through foothills and mountains, and down to the desert, is a hotbed of botanical diversity. The Plant Atlas project is an intensive plant specimen collecting effort begun in 2003 employing dozens of volunteer plant enthusiasts and resulting in a very high density survey of the more than 2800 species found in the county. This web site presents the findings of that effort and provides users a variety of tools for researching those findings.

What can you do at this web site?

- Search the database of the San Diego Natural History Museum Herbarium
- Map the plant species of San Diego County by species or by locality or region
- Review the Checklist of species with links to other data sources
- Find plant names, common and scientific
- Find photographs of county plants
- View mounted specimen sheets
- Determine ownership of San Diego properties

Links to the commonly used tools are found on the left panel. All tools, including those used less often such as searching by user-drawn rectangle or polygon, can be found on the drop-down menus at the top of the page. You can also find the Types specimen images, Marine Algae specimen images, SD County place names search, and tools for creating and saving geographic entities for searching.

Search the Herbarium Database

The herbarium database holds the records for over 102,000 plants collected in San Diego county, many as early as the 1870’s. On the web site users can search by scientific name parts, collector’s name, locality, dates, and Atlas Square. The search results can be downloaded as Excel or Word files. Users with requirements for special searches may contact the Botany Department with a request.

Under the Database Search menu website users can find two geographic searching tools, rectangle and polygon. With these tools users can get a list of all the specimens collected within the area drawn on the map. Because these searches have the potential to produce a very large result...
set, they are limited to small areas. Users may request special geographic searches by providing the Botany Dept. with a defined area using a list of coordinates or an ESRI shapefile.

**Map Collected Specimens**

Web site users can map multiple collected species using a number of tools. The figure to the right shows Google map on which *Rhus integrifolia*, *Rhus ovata*, and *Larrea tridentata* have been sequentially mapped. The Berkeley Mapper is also provided as well as a Google map to map all the species of a single genus.

**Checklist**

The current list of species listed in the **Checklist of the Vascular Plants of San Diego County**, 5th Edition, 2014 by Jon P. Rebman, Curator of Botany, San Diego Natural History Museum and Michael G. Simpson, Professor of Biology, San Diego State University, are presented with links to internal and external sources of information. Users can select a family from a drop-down list to generate a list of all the San Diego species of that family. That list includes links to other information items: (a) scan of the mounted specimen voucher, (b) common name of the species, (c) the SDNHM photo collection of the species, (d) the CalPhotos photo collection of the species, (e) the Jepson eFlora treatment of the species, (f) the USDA coverage of the species, (g) a list of DB records from the herbarium, (h) a map of all the specimens of the species.

**Plant Names**

Users who need help in plant names can find it on the **Find a Plant Name** page. Users can enter just part of a family, scientific name, or common name and get a list of all the names that match. So, for example, a user who entered “wood” as part of a common name would receive a list of 37 plant names whose common name contains the sequence “wood”. A link to CalPhotos photographic collection helps the user to verify the sought after plant.
Plants of the Ecological Regions

Eighteen distinct ecological regions have been identified in San Diego County. Website users can see and download (as Excel) a list of the species collected in each of these regions. Clicking in a region on the map produces the list of species by Family and provides a button to download the list.

Plant Photographs

A web page provides a search of the SDNHM Botany Department’s collection of photographs of county plants. On that page is also a link to the CalPhotos web site for a larger collection of photos (although there is no guarantee that the CalPhotos plant photos are correctly or completely identified).

A search by plant name produces a number of pages of thumbnails which include data on each photo. Each individual photo can then be selected to view a full-page size image.
Mounted Specimen Sheets
Each species of the county checklist is represented by a mounted specimen voucher. These vouchers have all been scanned and are available to view on the website. Users search by family, genus, specific epithet, selecting either a list or small images of the specimen sheets. Clicking one of the thumbnails will bring up a full page display of the scanned voucher.

All the voucher sheets of the SDNHM synoptic collection are available as high resolution scans. Clicking on the link to the Hi-Res scan moves the user to another page that provides an image of the Hi-Res scan. The high resolution scans have been tiled to allow the presented scan to be zoomed and panned for a detail view of the specimen.

The page also provides a link to directly download the image so it can be handled on the client computer.
Property Ownership

When collecting plants it is important to know on whose property you may be needing access. To assist our collectors any anyone else wanting to examine an area shown by the mapping tools to be home to a particular species, the web site includes a property identification page. Users can simply click on any point on the map and a title box brings up the owner’s name and address and draws the property lines of the parcel. Data is from San Diego County Assessor.

Plant List by Atlas Squares on Google Earth

For an easy way to get a list of the plants that have been found in any one of the Atlas Squares, a web user can download a Google Earth overlay that shows the squares and presents a link to a list of plants from the square.

There are two downloadable Google Earth files that when added to the user’s Google Earth, provide the grid overlay and links to the lists.

Other Tools

- The Berkeley Mapper
- Geographic coordinate converter (UTM – Lat/Long – State Plane), Geographic distance calculator
- San Diego county Place names
- What Square am I in?
- Marine algae vouchers
- The Bird Atlas of San Diego