Revision of the on-line
*Atlas of Vascular Plants of Utah*

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Old website:


http://www.nr.usu.edu/Geography-Department/utgeog/utvatlas/family/agav/agut.html
History of Original Atlas:

1980: Beverly Albee (Garrett Herbarium) and Leila Shultz (Intermountain Herbarium) begin critical identification of herbarium specimens

1982: Agreement with Univ. Utah for hard-copy production; Lois Arnow contributes her time.

1984: Sherel Goodrich agrees to map Cyperaceae, Juncaceae, Salicaceae

1980—1987: Critical examination and mapping of approx. 400,000 collections from Intermountain Herbarium (UTC), Brigham Young University (BRY), University of Utah (UT). Localities mapped to Township (c. 10 km²)

1988: Hard Copy publication of Atlas and archive of original maps at Univ. Utah (each location color-coded as to which herbarium houses the specimen)

- 2,438 distribution maps of individual species (approx. 77,000 location records)
- Appendix with additional 400 ‘rare’ species (known from one location)
- Bibliography of relevant floras, monographs, ecological works
- Index with synonyms of names in current use
Digital Version

1990: Doug Ramsey assigns task of digitizing species locations to 3 technicians

1992: Digitizing of approx. 77,000 unique localities completed


2004: Shultz obtains funding from BLM. Lindquist begins work on web-based version of ‘real time’ mapping that displays new records.
2004: Addition of species originally included in appendix

c. 400 species added using:
- Intermountain Herbarium records (UTC)
- Flora of Utah descriptions (Welsh et al.)
- Utah Heritage data (M. A. Franklin, R. Fitts)
- UVSC data (R. van Buren)
- Species described since 1988
Utah Heritage Data: approx. 6,000 new records
2005: New Records and Nomenclature

- Compared all 2835 records against the NRCS PLANTS database:
  - Name changes for 464 of 2835 species (16%)

- Added new voucher records:
  - Utah Valley State College--all (UVSC)
  - Great Basin Studies 1996--98/ Shultz
  - Grand Staircase Escalante NM – W. Fertig records
2005-06: Updated Database

- Corrections to our data
- Suggestions for changes sent to NRCS
- NRCS data incorporated into our tables:
  - Plant codes
  - Common names
  - Growth Habit
  - Native vs. Introduced
- Artemisia data?
Digital Atlas of the Vascular Plants of Utah

Select a species to view its distribution map:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

New Web Interface:
‘real-time’ mapping, active link to search engine, each location identified as to elevation where available.

http://earth.gis.usu.edu/plants
Using GIS to:

- Create species lists by floristic province
- Predict distributions from biogeoclimatic data (esp. rare plants)
- Track new introductions
- Identify “hot spots” of endemism
- Analyze floristic relationships
Demonstration

- GIS Interface
- Possibilities with Internet Map Server
- User Issues
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