

An aerial photograph of the Mt. Ord mountains in Central Arizona. The landscape is characterized by rolling hills and valleys covered in dense green vegetation, likely oak and pine forests. The mountains in the background are rugged and brownish, indicating a semi-arid climate. The sky is clear and blue. The text is overlaid on the image in a bold, yellow font with a black outline.

Flora of Mt. Ord, Central Arizona

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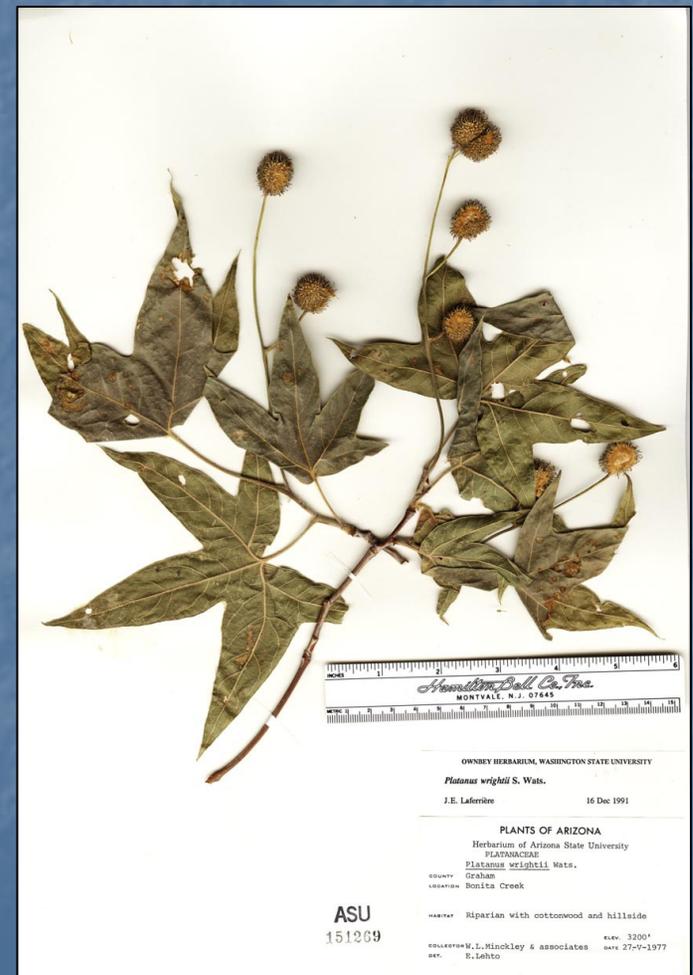
Tempe, AZ

Goals of the Flora

- To document the vascular flora of the study area, provide baseline information
 - Range of variation of taxa
 - Distribution of taxa
- Identify presence of invasive or noxious weeds
- Describe general floristic composition

What is a Flora?

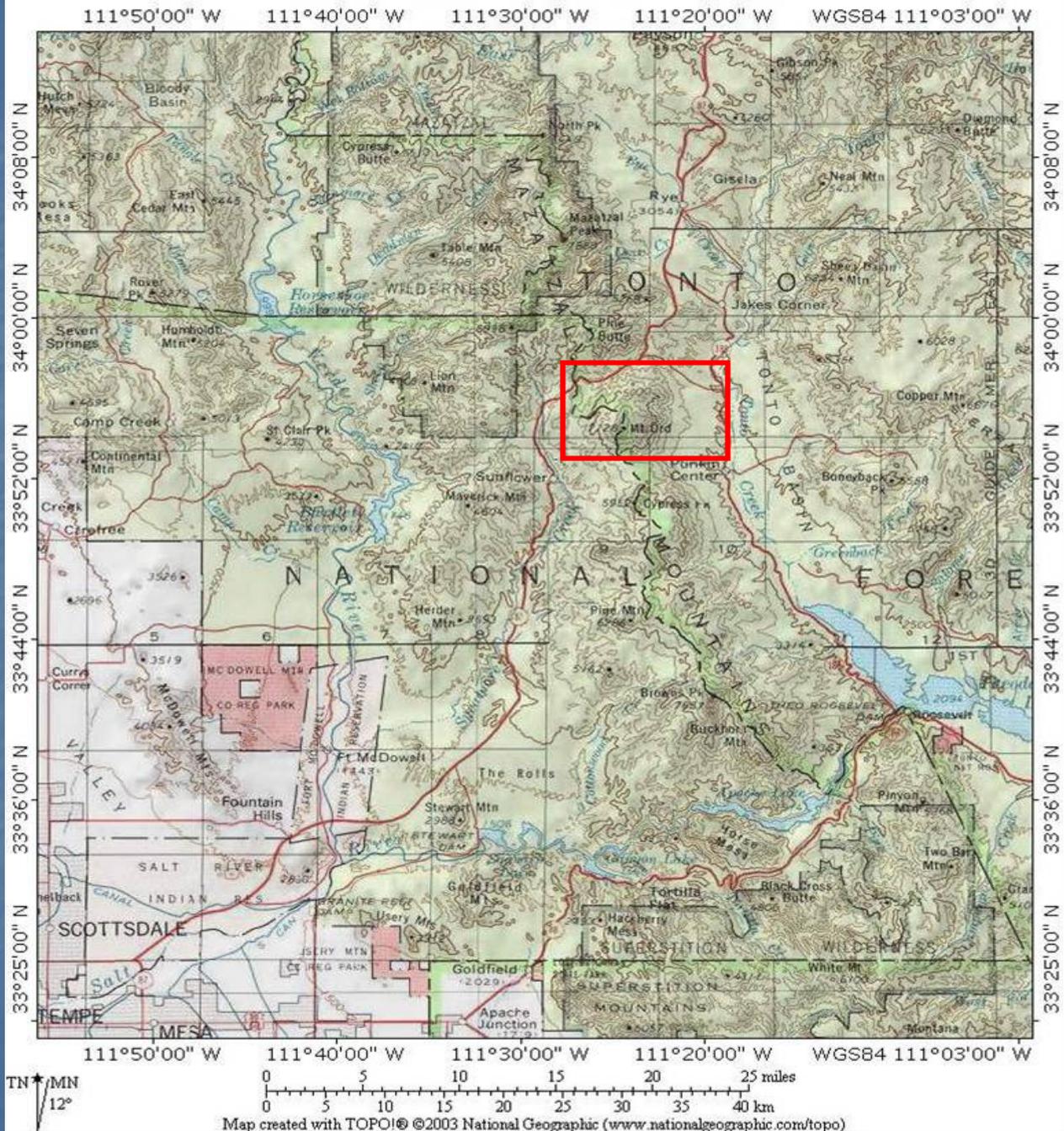
- Descriptive study of vascular flora and vegetation types of an area.
- List of species in area and relative abundance
- Voucher specimens deposited at herbaria for documentation



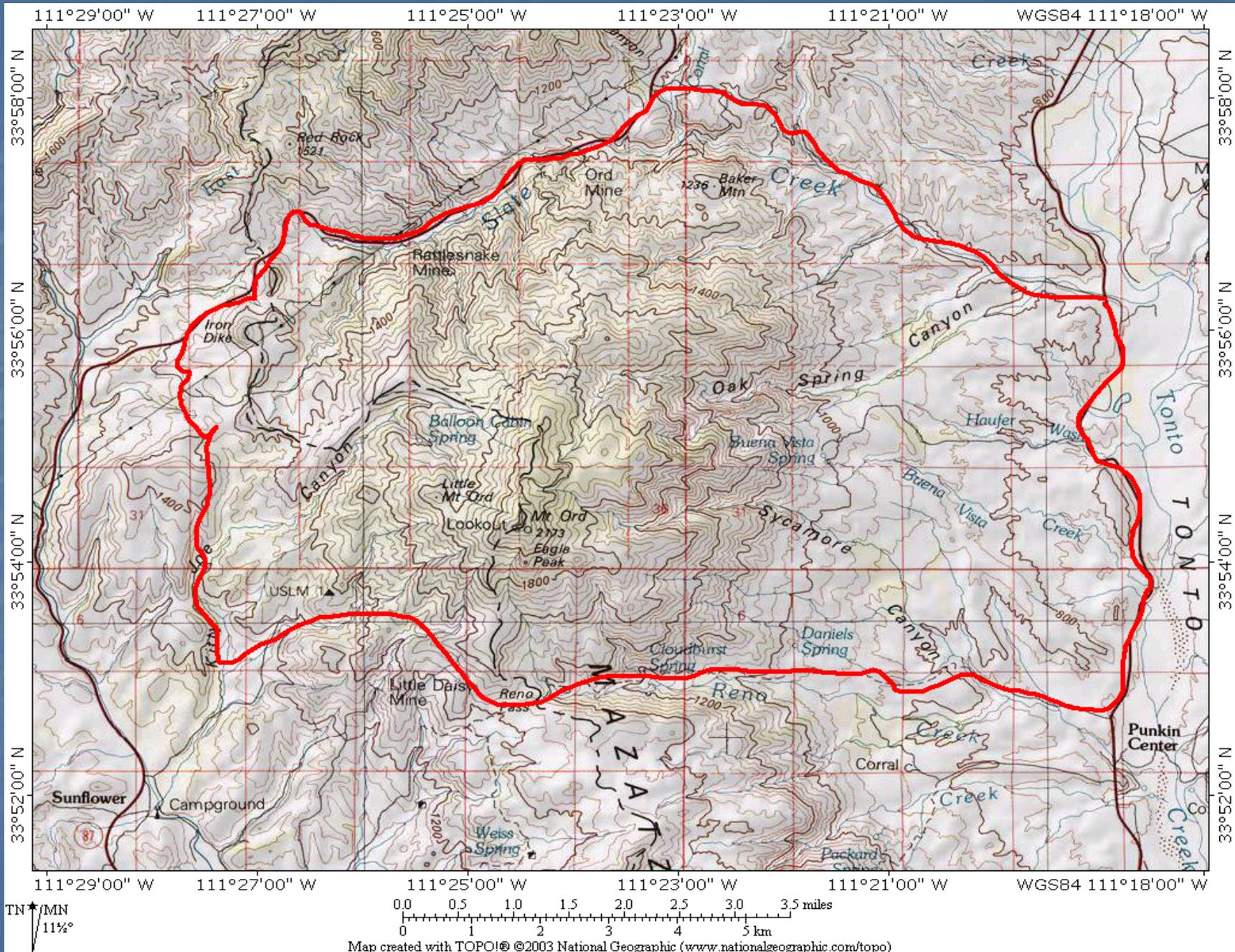
Study Site

- Southern peak of Mazatzal Mountains
- 75 miles north of Phoenix, 25 miles south of Payson
- Tonto National Forest Service
- Maricopa and Gila Counties

TOPO! map printed on 04/18/05 from "Untitled.tpo"



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)



Mt. Ord

- Research area approximately 35 square miles
- Elevation range: 2,350 - 7,108 ft
- Steep ridges with deep drainages



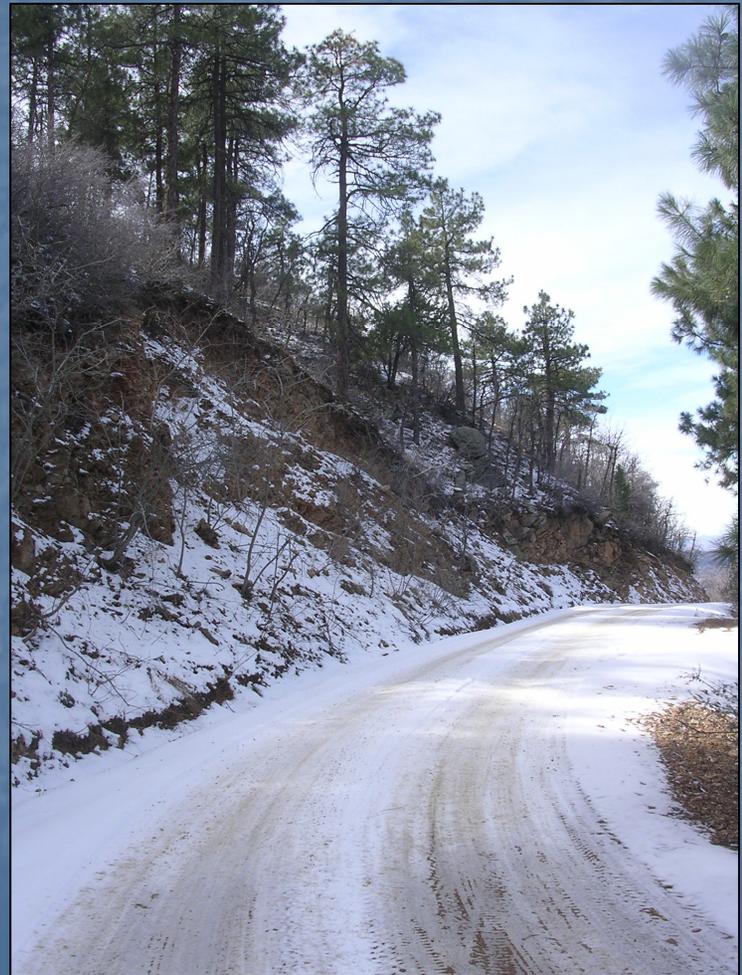
History of Land Use

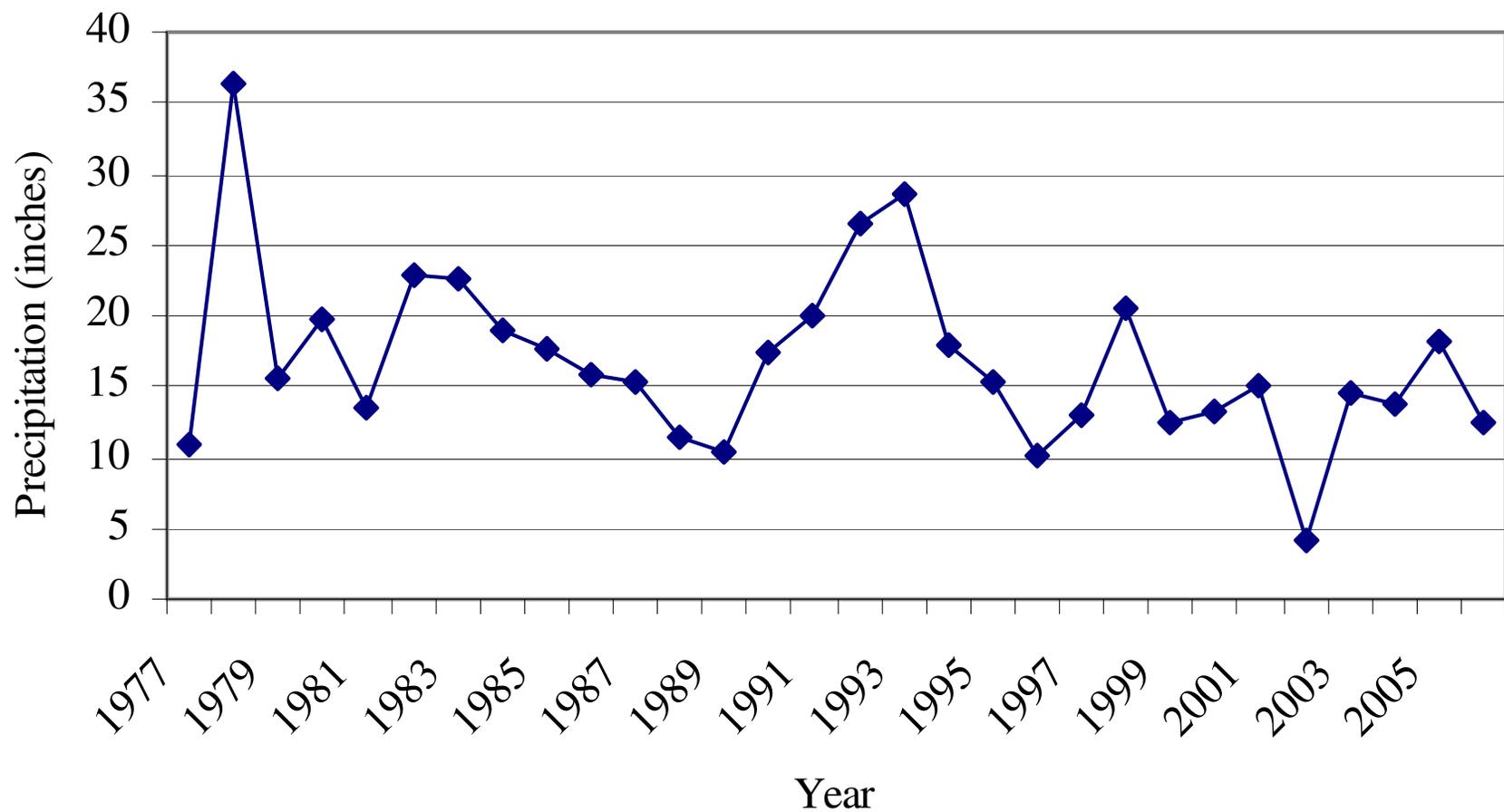
- Hohokam, Salado, and Apache cultures
- U.S. Army (Fort Reno) and CCC
- Active grazing allotments
- Past mining for mercury, uranium
- Edge Complex Fire 2005



Climate

- Precipitation primarily in winter (October-March)
 - July-October wettest months
- Average 17" at base, 32" est. near peak





- Average annual total precipitation (16.8 inches) for Roosevelt Lake weather station (Western Regional Climate Center, 2007)

Climate

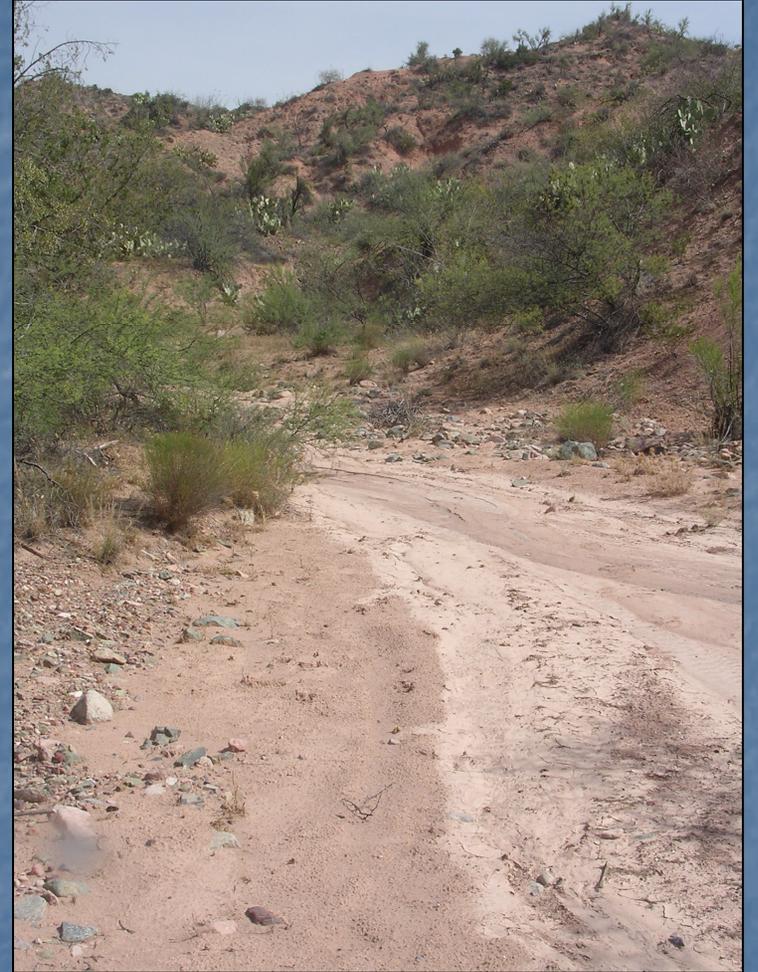
- Average July temperatures
 - Reno R.S.:
74.1 F (min)/ 104.3 F (max)
 - Sierra Ancha: 62.6 F/ 91.5 F
- Average January temperatures
 - Reno R.S.: 33.6 F/ 59.9 F
 - Sierra Ancha: 30.3 F/ 53 F



Vegetation Communities







Herbarium Searches

- Online through SEINET
- List of species previously collected
- Compare to species collected during this study
- Verify identification of all specimens
- Create complete species list of Mt. Ord



Results

- This study:
 - 84 families, 249 genera, 370 species
- Herbarium search:
 - 58 families, 148 genera, 216 species
- Documented species total:
 - 88 families, 272 genera, 437 species



Flora Composition

- Major families:
 - Asteraceae (44 genera/ 59 species)
 - Poaceae (28/ 47)
 - Fabaceae (19/ 38)
 - Scrophulariaceae (12/ 21)
 - Brassicaceae (13/ 20)



Photos: CalPhotos

Federally Protected Species

- Federally-listed Sensitive species
 - *Agave delamateri*
(Tonto Basin agave)
 - *Fremontodendron californicum*
(California flannelbush)



Selected Taxa of Interest

- *Fritillaria atropurpurea*
 - “Spotted fritillary”
 - Only one collection in Gila County
- *Fremontodendron californicum*
 - “California flannelbush”
 - Mazatzal Mts. center of distribution in Arizona



Introduced and Weedy Species

- Several areas within the site are heavily used-horses, camping, OHVs
- Not many weedy species found in these areas
 - Mostly *Erodium cicutarium*, *Bromus rubens* in these areas
 - No *Brassica tournefortii*, some *Salsola paulsenii*
- *Centaurea melitensis* not observed until summer 2008

AZ Noxious and Invasive Weeds

- Three species by Arizona Dept. of Agriculture Noxious and Invasive Weeds
 - *Medicago polymorpha*
 - *Pennisetum ciliare*
 - *Tribulus terrestris*
- Primarily agricultural pests



Photos: CalPhotos

Additional Weedy Species

- *Medicago sativa*, *Brassica nigra*, *Sisymbrium altissimum*, *S. irio*, *Eragrostis curvula*
- Other disturbances- grazing, burned areas, washes
 - *Heterotheca subaxillaris* throughout Slate Creek
 - 1 *Pennisetum ciliare* found-Fall 2007
- Indicators of disturbance





Discussion

- Provides vascular species present at Mt. Ord; general overview natural history, land use
- Weedy species not as predominant as expected based on disturbance in area
- Presents flora at this moment in time; species in area constantly changing

A scenic mountain landscape with a dirt path, sparse trees, and a clear blue sky. The text "Thank you!" is overlaid in the center. The foreground shows a dirt path with scattered rocks and some dry, leafless branches. In the middle ground, there are several trees, some with green needles and others bare. The background features a range of mountains under a clear blue sky.

Thank you!