

The Great Basin and the California Deserts

Purpose: To acquaint the student with the areas of California in which evaporation exceeds usable precipitation.

I. Location

- A. See the map in text p. 46, fig. 3.21.
- B. Two Parts. Basin and Range and deserts in general.

II. Basin and Range province

A. Physical Geography

1. That region which has interior drainage, with fault blocked (horst and graben) landforms. Only a small part of the basin and range province is within Cal. Most is in Nevada, Oregon.

2. One part in Ca. is Warner Range in the extreme north east

3. The largest part is the region to the south and east of the Sierra Nevada including Death Valley and the surrounding area. See text for an excellent discussion on Death Valley. SLIDES

4. Useful facts and terms: Fault blocked mtns., interior drainage, sink or playa, borax potash soda ash = playa lake dissolved minerals left behind by evaporation, alluvial fans, bajadas, pluvial lakes. Bad Water = 282' below sea level. Lake Manly = pluvial lake 600' deep 11,000 years ago. tufa = porous limestone or calcium carbonate. Pleistocene glaciers.

B. Cultural history: Native americans in Death Valley area = Nevares Spring People (pluvial times), later Shoshones related to Paiutes of Owens Valley. Mining for Borax 1870's, Chinese workers called cotton ball carriers (nodules of calcium and sodium borate minerals). 20 mule teams 165 miles to Mojave. Death Valley Days - R. Reagan. Mining in D.V. ended in 1933 when area became a National Monument. Now only tourists. 1970 govt. purchased Scotty's Castle (aka Death Valley Ranch) & Ubehebe Crater.

III. The Deserts - a place where evaporation exceeds usable ppt.

A. Physical Geography

1. Located in the water starved rainshadow of the Cascades, Sierras, Transverse Ranges and Penninsular Ranges. Almost 1000 miles long and continuing east to the Great Plains.

2. Desert Climates - briefly. Daily Range, precip. variability etc.

3. Xerophytic plant life

B. Cultural Geography

1. Thinly populated

2. Exceptions = Colorado R. and Palm Springs i.e. where there is some water available either naturally or imported.

3. Two major deserts in Cal. Mojave and Colorado Desert.

4. Mojave = Antelope Valley (Lancaster & Palmdale) 50,000 Rail lines, military basis, aerospace. In central Mojave = 20,000 mostly Palm Springs, Yucca Valley, Twenty-Nine Palms area. Eastern Mojave = 15,000 near Colorado R.

5. Colorado Desert - Coachella and Imperial Vallies. Mainly agricultural imported water form Colorado R. (Salton Sea - refer to lecture on native water) pop. Col. Desert about 75000.

Anza-Borego Desert = most beautiful in Cal. Imperial Valley has geothermal potential.

6. Other areas - High deserts - Owens Valley (refer to Ca. water lecture for L.A.'s drinking up of Owen's Valley) Mostly transient tourist area going to Reno, Tahoe, Mammoth to Ski, and eastern Sierras to fish hike etc. Major towns Lone Pine and Bishop. Plus other smaller tourist gas and food stops. Many old ghost towns in the mtns (Whites mtns. etc.) Esp. Bodie St. Pk. SHOW SLIDES

END