



***Baja California's
Sonoran Desert***

Debra Valov

ISSI, August 2015

Objectives



- Define “desert”
- Explore Baja’s desert
- Learn how plants and animals survive







Central Gulf Coast, BCS

 Erg Awbari Oasis, Libya



<http://inlinethumb54.webshots.com/9141/2350366490102347975S600x600Q85.jpg>

What is a Desert?

- Dry
 - Low rainfall ($P < 10''$)
 - High evaporation ($E > P$)
 - Dessicating winds
 - Poor soils
- Hot or cold (below 0° to over 140°)
- Below sea level to more than 8,000 ft

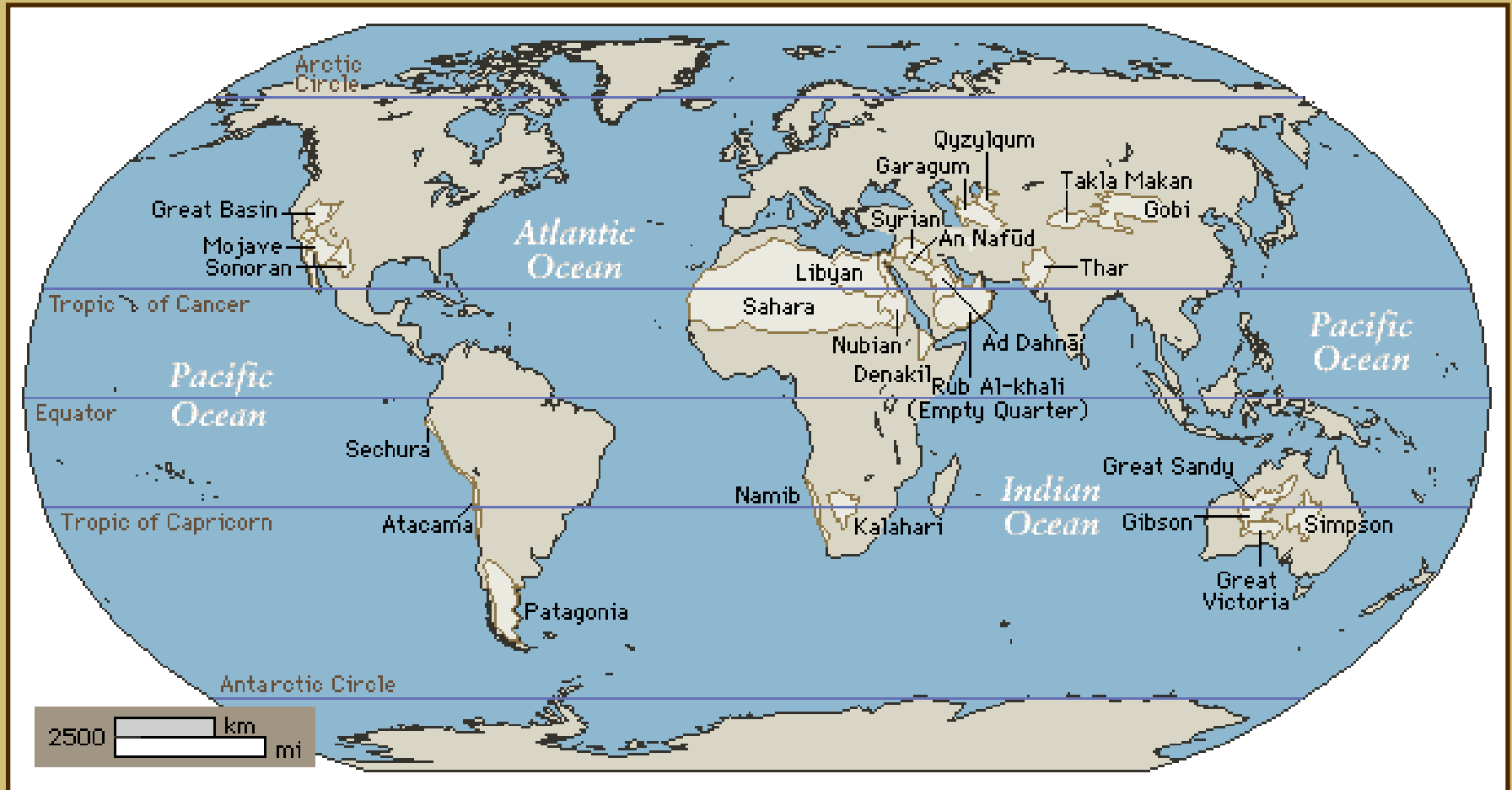


What is a Desert?

A place where water is severely limiting to life most of the time, where the plants and animals are adapted to chronic aridity and the arid conditions are necessary to maintain the community's structure.



Deserts of the World



Source: http://encarta.msn.com/media_461530118/World_Desert_Regions.html



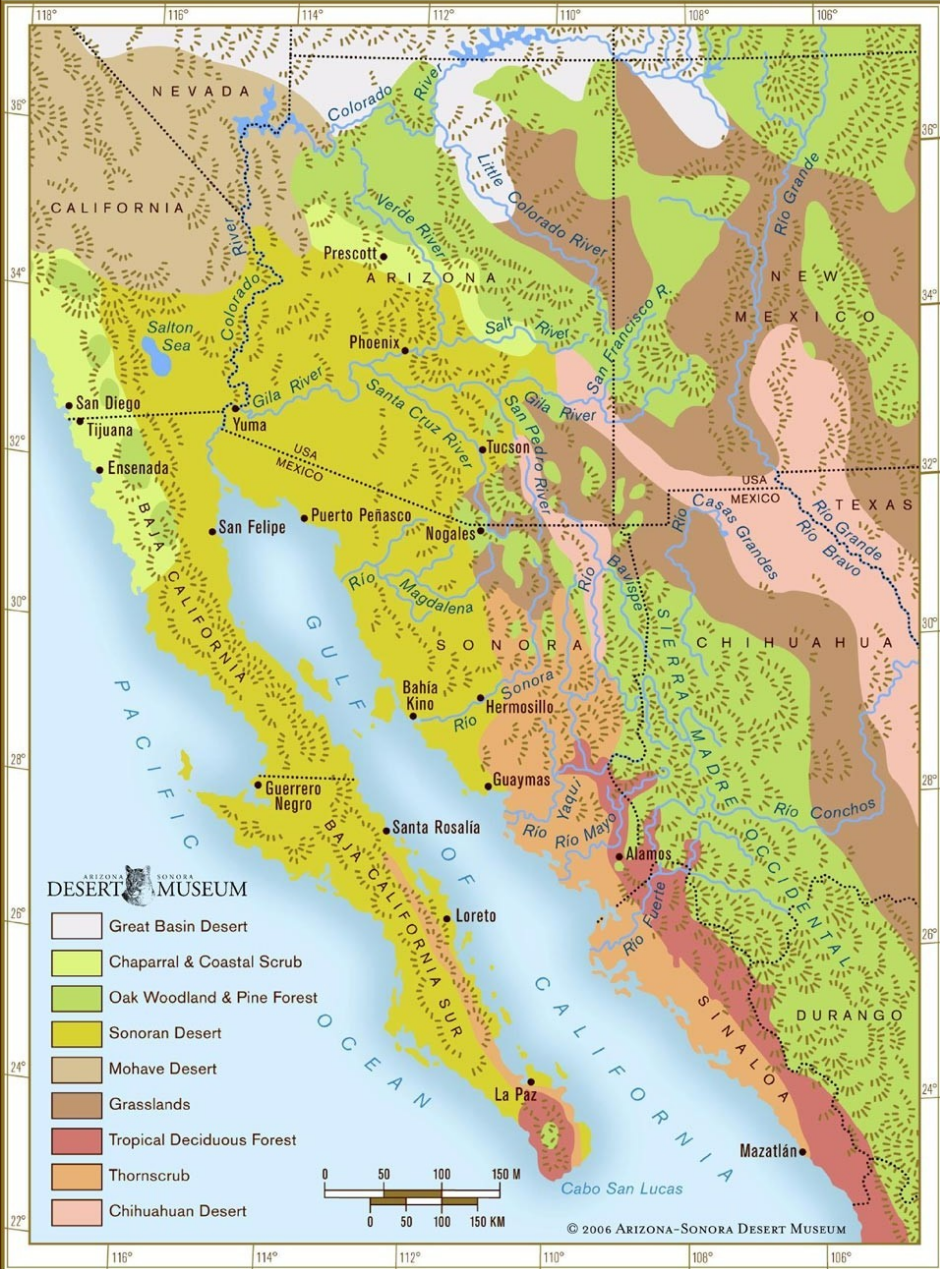
North American Deserts



Source: www.mbgnet.net/sets/desert/ofworld.htm

Sonoran Desert Region

The Sonoran Desert Region consists of the Sonoran Desert itself plus the surrounding biological communities, including the Sea of Cortez (Gulf of California) and its islands



The Sonoran Desert

- Binational (5 states)
- ±120, 000 sq. mi.
- 0 to 4500 feet
- 32° to >math>130^{\circ}</math>
- 3-15" avg. rainfall





Baja California Sur








 Central Baja California







Central Gulf Coast Baja California Sur

 “Air plants” (Bromeliads)



Pacific Coast Fog Zones



Lichens (fungi & algae symbiosis)



Central Vizcaino Desert, BCS



Vizcaino Desert – Pacific Coast, BCS



© Dennis Kamberg



© Don Getty



Mexican Tuttle Bat Conservation International



© 2010 Jaime Morales V,



© Christopher L. Christie

Mammals

- Bobcat and mountain lion
- Coyotes and foxes
- Bats and rodents
- Pronghorn antelope
- Bighorn sheep



Reptiles and Amphibians

- Horny toads & lizards
- Snakes
- Frogs & toads



Copyright © 2007 Joyce Gross



Gerald & Buff Corsi © California Academy of Sciences



© Mike Benard





Crawly Things

- Scorpions & spiders
- Beetles & bugs
- Ants, bees & wasps
- Caterpillars



Copyright © 2008 Lamphrophil
<http://bugguide.net/node/view/206296/bgimage>



Copyright © 2007 Gary MacDonald





© Steve Byland 2008

Birds

- Hummingbirds
- Raptors: hawks & owls
- Scavengers
- Perching birds



© J. Duran



Stephen Dowlan © 2007



© Tomyris95@flicker.com





Trees

Annual and Shrubs
Perennial herbs





Ouchy Things

- Many endemics
- Long-lived
- Slow growing
- Succulent





Yikes! That Sun is **Hot!**



© Jason P Thompson

Avoid this



Do this instead...

...or better yet...



nigraphic.com



Adaptations

- Coloration
- Water retention
- Heat reduction
- Protective covering
- Hibernation





Adaptations

- Small and deciduous leaves
- Green stems
- Thick trunks
- Reflective hairs
- Sticky glands, wax and sap
- OUCH!! SPINES!





Interdependence

- Pollinator-plant
- Larval food source
- Recycling (knee deep in poop)





Ocean Oasis

- Pyramid of Life
- Desert Life



¡Gracias!
¡Los veo en Baja!

This presentation is available at:
www.lasecomujeres.org