

# What is the West?

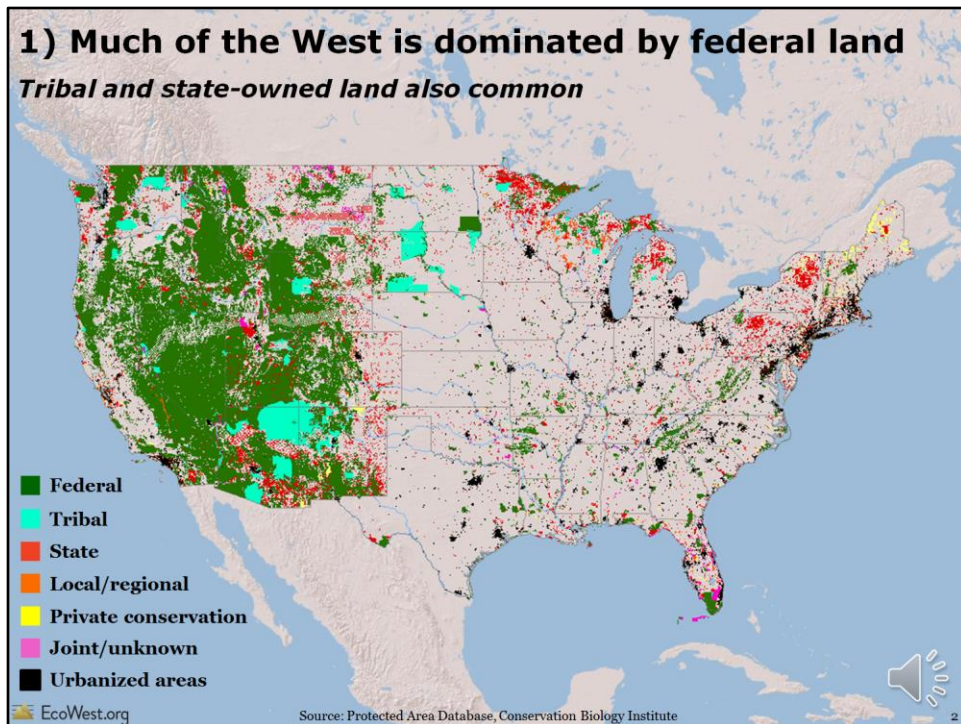
## Five factors that distinguish the region



4/17/2013

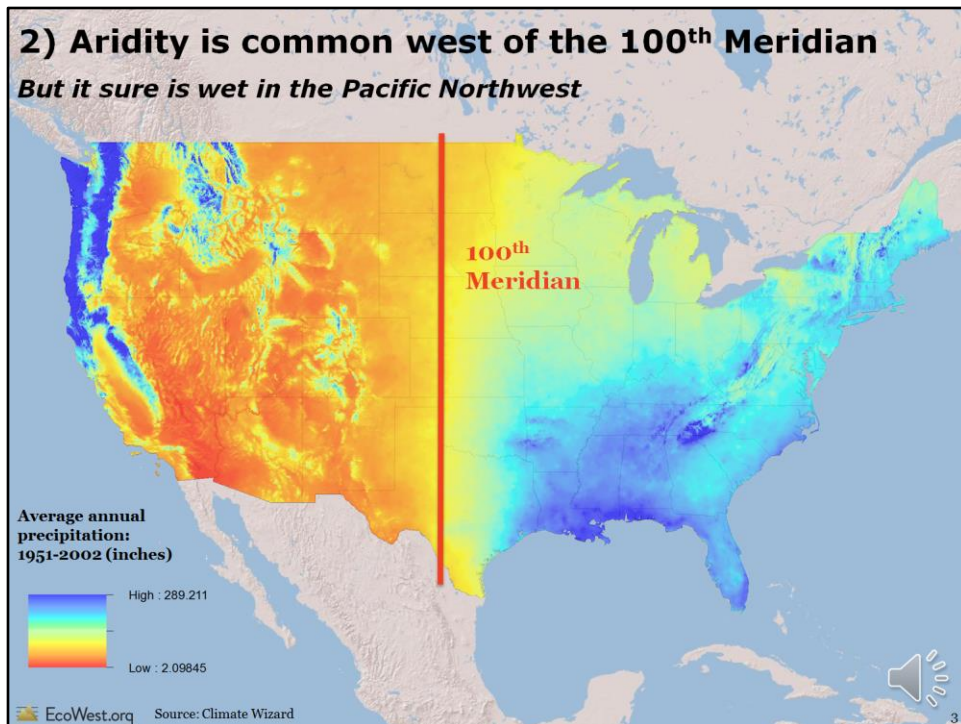


The “West” is as much a cultural invention as a geographical construct, so it’s a difficult place to define. In this set of slides, I discuss five characteristics that set the region apart



Narrative: The West’s prevalence of public land—most of it federal—has played a pivotal role in the region’s evolution. This pattern of land ownership explains why so much of the West has remained relatively wild. The Bureau of Land Management and Forest Service are the biggest landowners, but the West is also home to considerable tracts of tribal and state property. Public lands certainly aren’t immune to development pressures, especially because many are managed under the “multiple use” doctrine that allows grazing, mining, logging, energy development, motorized recreation, and other human activities. But all that public land is a major reason why so much of the West is unpopulated.

Source: Protected Area Database, Conservation Biology Institute  
 URL: <http://databasin.org/protected-center/features/PAD-US-CBI>  
 Notes:



Narrative: As you move west across the United States, the climate generally gets drier, with the notable exceptions of the Pacific Coast, Cascade Mountains, and Sierra Nevada Range. West of the 100<sup>th</sup> Meridian, irrigation is usually required to support agriculture and river flows tend to depend on melting snowpack from the mountains. Every Western state includes some very arid terrain that is far drier than anything back East, even Washington and Oregon, where the Cascade Mountains cast a stark rain shadow. Another striking feature of the West's climate is the spottiness of precipitation patterns and the close proximity of wet and dry areas.

Source: Climate Wizard

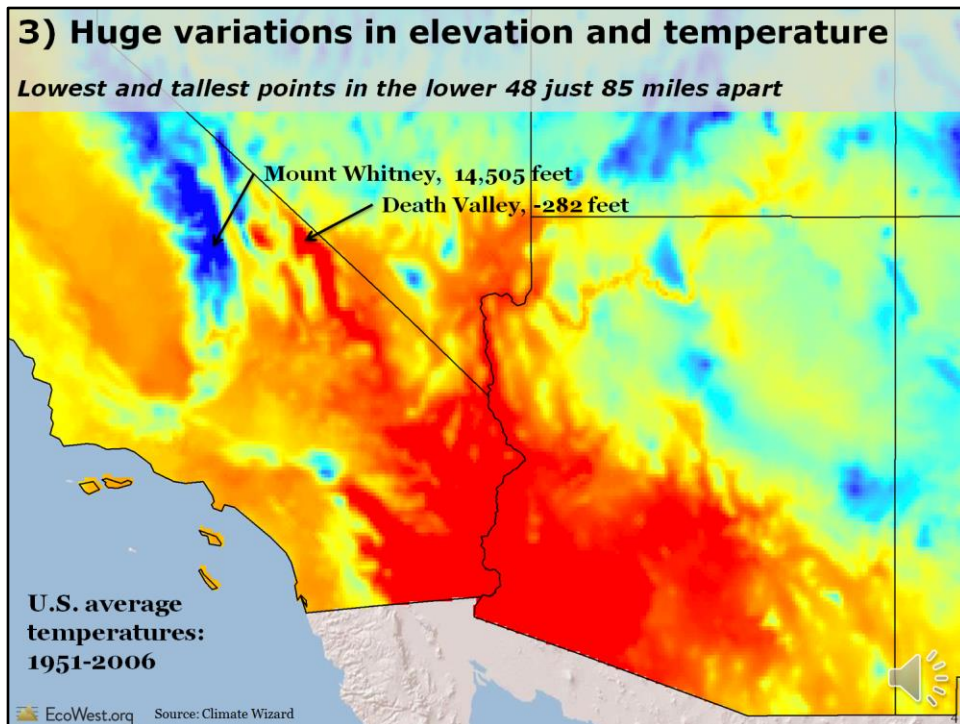
URL: <http://www.climatewizard.org/>

<http://www.plosone.org/article/info%3Adoi/10.1371/journal.pone.0008320>

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Notes: Climate Wizard is a collaboration between The Nature Conservancy, University of Washington, and University of Southern Mississippi. The first generation of this web-based program—which was recently launched at [www.climatewizard.org](http://www.climatewizard.org)—allows the user to choose a state or country and see both the climate change that has occurred to date and the climate change that is predicted to occur. Simply put, Climate Wizard can be used to assess how climate has changed over time and to project what future changes are likely to occur in a given area. Climate Wizard represents the first time ever the full range of climate history and impacts for a landscape have been brought together in a user-friendly format. See:

Girvetz EH, Zganjar C, Raber GT, Maurer EP, Kareiva P, et al. (2009) Applied Climate-Change Analysis: The Climate Wizard Tool. PLoS ONE 4(12): e8320



Narrative: Another notable feature of the West is its enormous variation in elevation, temperature, precipitation—and therefore ecosystems—that are found in a small area. The scorching desert of Death Valley, 282 feet below sea level and the lowest point on the continent, is only 85 miles away from the snow-capped peak of Mount Whitney, 14,505 feet above sea level and the tallest point in the contiguous 48 states.

Source: Climate Wizard

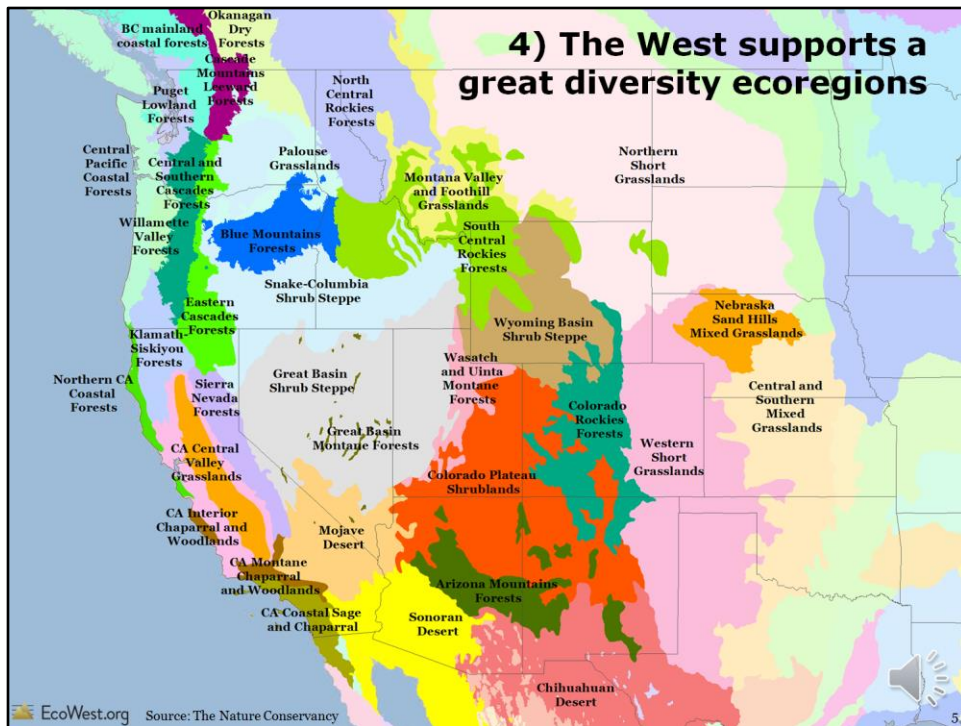
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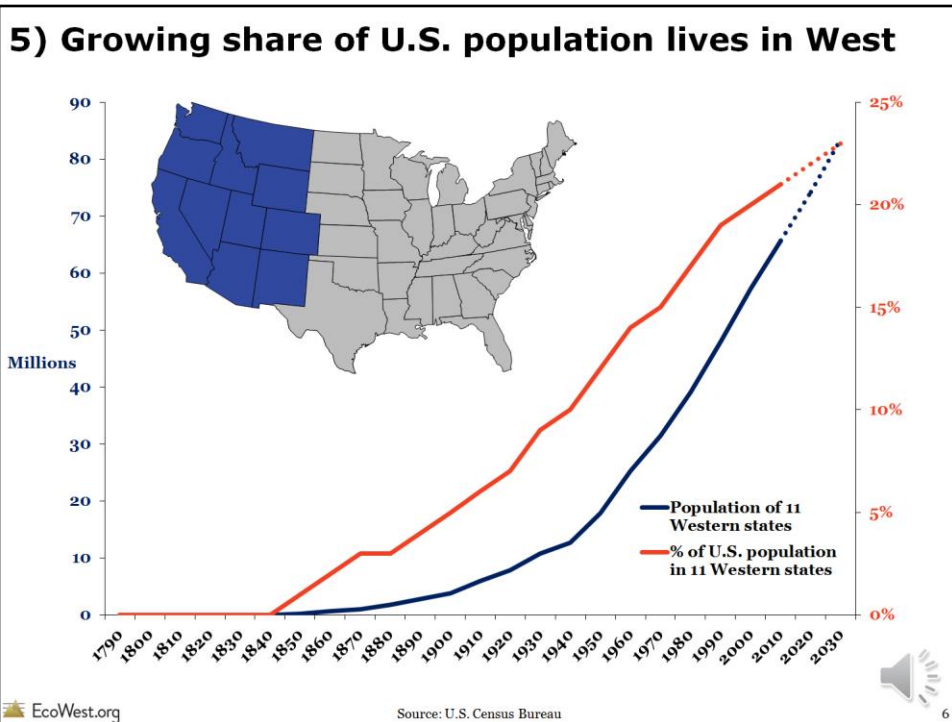


Narrative: The broad spectrum of elevations, temperatures, and precipitation patterns explains why the West is home to such a varied set of ecosystems and species. In Southern Arizona, for instance, the valley bottoms are deserts filled with cacti, but the mountain ranges are two miles above sea level and support lush forests harboring moss and mushrooms. This map shows the West's various ecoregions, each of which is a unique ecological neighborhood that supports an impressive diversity of plants and animals, many of them found nowhere else on the planet.

Source: Hoekstra et al. *The Atlas Of Global Conservation: Changes, Challenges, and Opportunities to Make a Difference*. Berkeley: University of California Press. 2010

URL: <http://www.nature.org/ourscience/sciencefeatures/conservation-atlas.xml>

Notes: "Ecoregions divide the world into regions of similar habitat. Terrestrial ecoregions draw boundaries that approximate where one set of similar habitats blends with another. Each of the world's 825 terrestrial ecoregions bounds a natural area in which a unique collection of ecosystems, natural communities, and species is found."



Narrative: The preceding four factors are natural ones and are as true today as they were centuries or even millennia ago. But a final, human factor is also worth noting. The West’s population has been booming for decades. By 2030, the region is expected to be home to a quarter of all Americans, up from essentially 0 percent in 1830 and 9 percent in 1930. To be sure, other parts of the United States, such as the South, are also growing. But the steady influx of new residents in the West—and their growing demands on natural resources—is the fundamental challenge facing the region and a recurring theme in its environmental history.

Source: US Census Bureau  
 URL: <http://www.census.gov/population/www/projections/stproj.html>  
 Notes: Released in 2005, based on 2000 data. No update planned for 2010 census

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Anomalies  
2012

2012 was hottest year on record for U.S.  
No doubt about it: 2012 was hoasty. Today, the National Oceanic and Atmospheric Administration reported that 2012 was not only the warmest on record for the lower 48 since 1880, but also the second warmest on a measure known as the Climate Extremes Index, which includes factors such as temperature anomalies, drought patterns, and the [...]

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