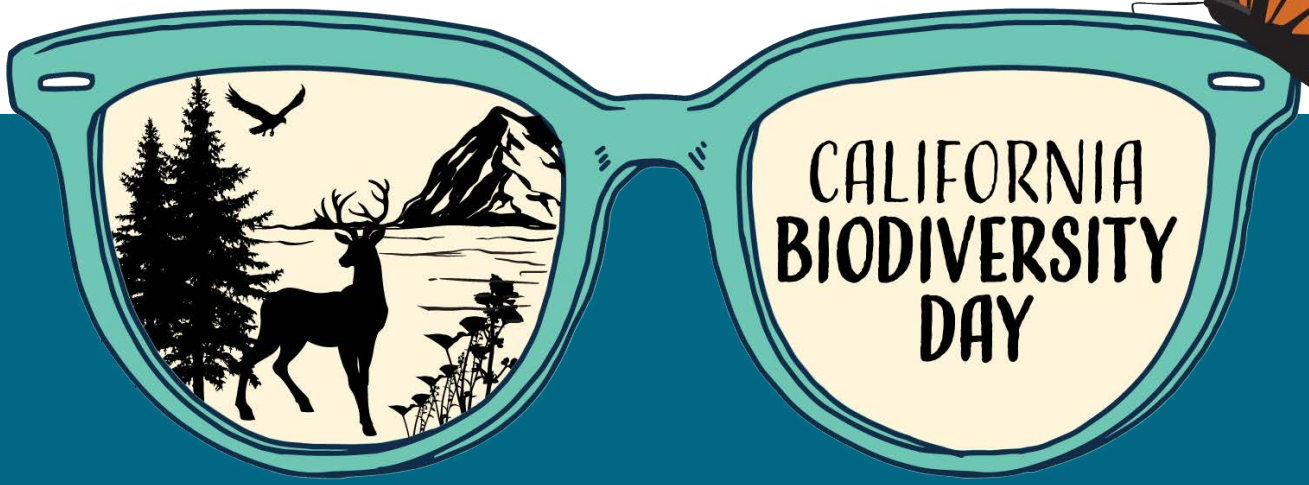

In 2018, Governor Brown launched the California Biodiversity Initiative with the goal of securing the future of California's biodiversity and integrating biodiversity protection into the state's environmental and economic goals and efforts. He also designated California Biodiversity Day as September 7th of every year, to celebrate and encourage actions to protect the state's exceptional biodiversity.

The term biodiversity (from "biological diversity") refers to the variety of life in a particular place. Though often measured as the number of species, it can be applied at various scales from genes to species to ecosystems. Think of our varied iconic landscapes in California and the multiple ecosystems within each type. Then imagine all the plants and animals that each ecosystem supports, with each population containing a diverse gene pool.

Of any state in the U.S., California has both the highest total number of species and the highest number of endemic species (i.e., those that occur nowhere else). We also have the most rare and imperiled species of any state with more than 30% of California's species threatened with extinction! California is one of the most biodiverse regions in the world and one of 36 Global Biodiversity Hotspots designated by Conservation International. These are areas containing exceptional concentrations of plant and animal endemism, but also experiencing high rates of habitat loss.

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BIODIVERSITY FACTS AT A GLANCE

CALIFORNIA BIODIVERSITY NUMBERS:

- Over 30% of all plant & vertebrate species in the U.S. occur in California.
- 1000+ species of vertebrates (65% occur only in California): 650 birds, 220 mammals, 100 reptiles, 75 amphibians, 70 freshwater fish, 100 marine fish and mammals
- 6,500+ types of plants (2000+ endemic to California)
- 30,000+ species of insects including 1,600 species of native bees

In addition to these species numbers, the state has extraordinary diversity at all levels - from genes up to ecosystems and everything in between. For example, no other state or comparably-sized region in the world contains as much diversity of conifers (cone-bearing plants in various families and genera). California has 52 types of conifers, with 14 that grow here and nowhere else (i.e., endemic). (By comparison, the next highest is Oregon with only 32.)

Why is California so biologically diverse? Most scientists agree that it is a combination of our rare Mediterranean climate (only found in 4 other regions of the world) with our complex geography and geology.

California is large, spanning more than 158,000 square miles over 180 degrees of latitude with 1,100 miles of coastline.

The state also has some of the most complex and active geology in the world with the greatest range of latitude and elevation of any state in the continental U.S. (with the lowest and highest points occurring at Badwater in Death Valley at -282 feet and Mt. Whitney at 14,505 ft). The geology has also created the greatest diversity of soil types in the U.S. Many plants are restricted to specific soil types, another factor in our high plant diversity.

Our mountainous topography gives rise to numerous microclimates within the overall Mediterranean climate type of mild wet winters and hot dry summers. When temperatures are suitable for plant growth, water is lacking, so plants must adapt to annual summer drought.