

For change to happen, sometimes continents must move

Did you know that many related plants grow on the North American and Eurasian continents?



Quercus garryana
Gary Oak
western North America

Many trees are found all over the northern hemisphere, such as maple, pine, oak, dogwood, alder, cherry, and hemlock. A diversity of shrubs, such as, kinnikinnick, rhododendron, elderberry and devil's club also grow on both continents. There

are also many herbs, like foam flower, lily, saxifrage, trillium, bleeding heart, ginger, bedstraw and skunk cabbage that grow across the northern hemisphere.



Quercus acuta
Japanese Evergreen Oak
Asia

Why do these plants share ancestry?

Roughly, 250 million years ago (mya), all the world's present day continents formed a super continent called Pangea. Roughly, 180 mya, Pangea split into a single northern continent Laurasia, and a southern continent Gondwana. During this time, ferns, conifers, cycads and ginkgos developed. Flowering plants appeared 130 mya. About 50 mya, Laurasia broke apart into the North American and Eurasian continents. Through geographic isolation, ancestral forms of ferns, conifers, cycads, and flowering plants evolved into a myriad of species

warmer periods, plants also spread across the Atlantic and Bering land bridges. Through evolution, plants adapted to changing environmental conditions. Maples probably evolved in China in the late Mesozoic. From China, they spread to Europe and North America between 67 mya and 48 mya. Today there are 250 species of maples worldwide, including northwest natives such as the big leaf maple and the vine maple. Plants adapt to new environments, and cultures adapt to plants. For example, indigenous North American and Eurasian peoples use acorns for food from oaks growing in their region.

In response to global climate change, plants moved across continents based on their necessary growing conditions. During



Quercus robur
English Oak
Eurasia



Quercus ilex
Holly Oak
Eurasia

Despite our differences, we are rooted to the same family tree.



Acer macrophyllum
Big Leaf Maple
western North America



Acer rubrum
Red Maple
ne North America



Acer palmatum
Coral Bark Japanese Maple
Asia



Acer platanoides
Norway Maple
Eurasia