

Rare and Endangered Plant Spotlights

The U.S. Botanic Garden maintains more than 12,000 accessions, which equates to about 65,000 plants. These are used for exhibition, study, and exchange. The Garden's noteworthy collections include economic plants, medicinal plants, orchids, carnivorous plants, cacti and other succulents, aroids, plants of economic importance, bromeliads, cycads, and ferns. Historic specimens include several that date from the original 1842 founding of the collection.

While individual plants are the building blocks of exhibits, the plant collection as a whole reflects our institutional history and priorities and supports programs. The Garden has a noted collection of rare and endangered plants.

Explore a few visitor favorites from our rare and endangered collection:



Tree of life or *Lignum vitae*

Plant Botanical Name: *Guaiaacum officinale*

USBG Plant Location: Conservatory, Medicinal Plants house

Plant Threat Level: Endangered

Before polymers, alloys and composites, the wood of *Guaiaacum officinale*, also known as tree of life, was extremely important due to its combination of strength and density. The common name, *Lignum vitae* (tree of life or wood of life), comes from its historic medicinal use as a remedy for conditions from arthritis to toothaches. Overharvesting caused over harvesting, reducing native populations to the point that *Lignum vitae* is now listed as "Endangered" by IUCN (The World Conservation Union). The plant is native to the Caribbean (including Key West), a 'biodiversity hotspot' that supports exceptionally diverse ecosystems. Most of its native habitat has been devastated by development.



Onyanga (Desert Onion)

Plant Botanical Name: *Welwitschia mirabilis*

USBG Plant Location: Conservatory, World Deserts house

Plant Threat Level: Rare

Welwitschia mirabilis grows in isolated communities in the Namib Desert in central Namibia to southern Angola. The plants are seldom found far from the coast, which coincides with the fog belt. *Welwitschia* is still somewhat common in its habitat and shows variability, a sign that the species is not near extinction. Although endangered, it is protected by law. Rainfall in *Welwitschia*'s natural habitat is erratic and extremely low; often, there are years with no rainfall at all. *Welwitschia* is specialized and is adapted to grow under these arid conditions in areas that receive regular fog. *Welwitschia* leaves are formed so that it waters its own roots through fog condensation, and the leaf surfaces have numerous stomata (microscopic pores) through which condensation is absorbed. *Welwitschia* also has a long taproot that reaches water deep underground. Antelope and rhinoceros chew *Welwitschia* leaves for hydration during times of drought. The cone of the female plant was used as a food source in earlier times; it was eaten raw or baked in hot ashes. The plant's common name is onyanga, which means "onion of the desert."



Baseball plant

Plant Botanical Name: *Euphorbia obesa*

USBG Plant Location: Conservatory, World Deserts house

Plant Threat Level: Removed from Endangered list

Also known as the baseball plant, *Euphorbia obesa* is found only in the Great Karoo region of South Africa. Unsustainable harvesting by collectors and poachers resulted in the plant becoming extinct. As a result, national and international legislation have been enacted to protect the remaining populations. While *Euphorbia obesa* is endangered in its native habitat, it has become very common in cultivation. By growing large numbers of this plant, nurseries and botanical gardens have helped ensure that specimens being traded and sold among plant collectors are not obtained from the wild, thus protecting it for posterity.



Christmas heliconia

Plant Botanical Name: *Heliconia angusta*

USBG Plant Location: Conservatory

Plant Threat Level: Vulnerable

Heliconia angusta, known as Christmas heliconia, due to the red and white flowers that usually emerge during the holiday season. Native to southeastern Colombia, it is classified as vulnerable by IUCN because its natural habitats have been converted to agricultural purposes. However, the genetic diversity has been preserved through ex situ conservation. The popularity of *Heliconia angusta* as a tropical garden plant and horticultural specimen has encouraged widespread propagation of this species, making it readily available.



Koki'o ke'oke'o or Hawaiian white hibiscus

Plant Botanical Name: *Hibiscus waimeae*

USBG Plant Location: Conservatory, Hawaii house

Plant Threat Level: Subspecies *Hannerae* is federally listed as Endangered

Hibiscus waimeae is endemic to Kauai, occurring in two distinct and isolated populations on opposite sides of the island. Though separated by less than 30 miles, they have evolved to have unique flower and leaf characteristics that distinguish them from one another. Because *Hibiscus* species hybridize readily, the unique characteristics of *H. waimeae* are threatened by cross-pollination with non-native *Hibiscus* varieties that have been introduced to Kauai for ornamental use. By carefully hand-pollinating the flowers of *Hibiscus waimeae*, conservationists are able to collect, grow and store seeds that have not been cross-pollinated.



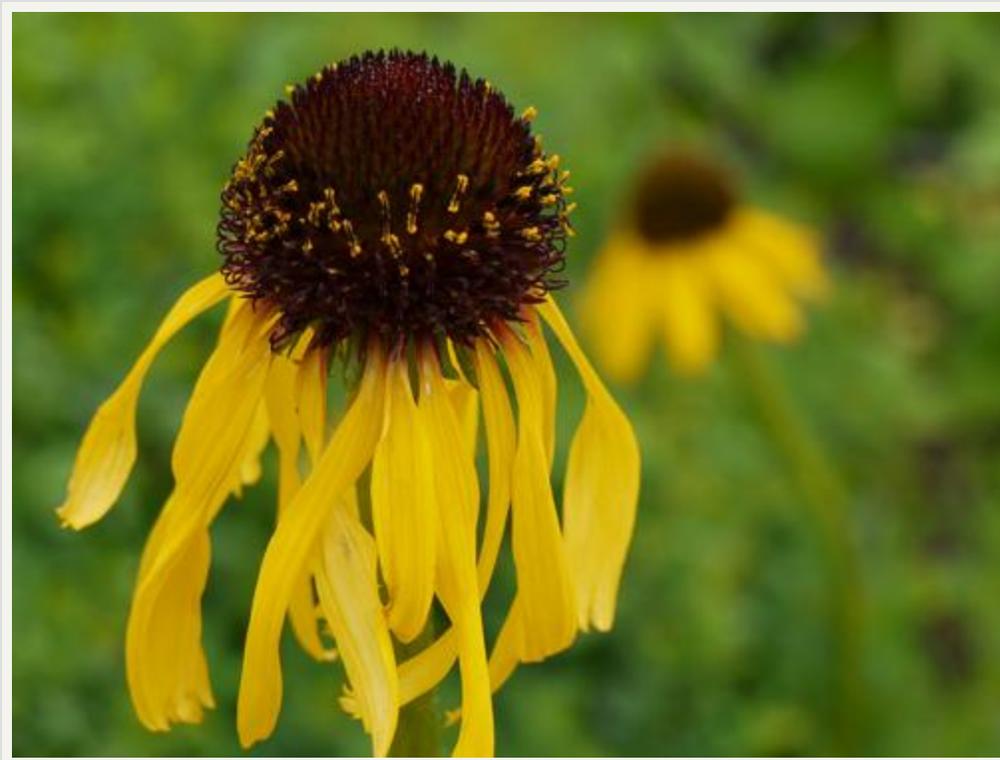
Florida yew

Plant Botanical Name: *Taxus floridana*

USBG Plant Location: Conservatory, Medicinal house

Plant Threat Level: Critically Endangered

Florida yew is one of the rarest trees in the world and occurs only in forested bluffs and ravines scattered along a 15-mile section on one side of the Apalachee River in Gadsden and Liberty counties. Many of the plants are found on privately owned land, and are vulnerable to destruction because endangered species laws prohibit the removal of endangered plants on private property. Like Pacific yew (*T. brevifolia*), the bark of Florida yew contains the promising cancer-fighting compound taxol. Scientists at Florida State University in Tallahassee were the first to synthesize taxol and the same year, scientists from Montana State University discovered that taxol is produced by a symbiotic association with yew trees. Taxol has been proven useful in treating breast cancer, ovarian cancer, some kinds of leukemia and certain kidney diseases. The medicinal and pharmaceutical uses of plants are an important reason for plant conservation efforts.



Yellow coneflower

Plant Botanical Name: *Echinacea paradoxa*

USBG Plant Location: gated outdoor gardens, Pollinator Garden

Sunlight: Full sun

Plant Soil Type: Adaptable to clay, shallow, rocky and dry soils

Plant Moisture Requirements: Low

Plant Threat Level: Vulnerable (NatureServe)

This yellow coneflower, native west of the Mississippi River from Missouri down to Texas, is easy to grow in most well drained garden sites. It typically reblooms after deadheading, although will self-seed when spent flowers are left in place. The erect seed heads are attractive and prove inviting to goldfinches and other birds.

Source URL: <https://www.usbg.gov/rare-and-endangered-plant-spotlights>