

At-Risk Plants in the United States

Plants are the foundation of life on Earth. Plants capture energy from sunlight, regulate the atmosphere, and serve as the base of the food chain upon which we depend. North America is home to an incredible diversity of native plants that form unique ecological communities across the continent's varied terrains—from the Arctic tundra to the coastal plains of the Southeast, from the arid deserts of the Southwest to the lush Acadian forests of the Northeast, and everywhere in between. Like the animal species that depend on them, many plants are threatened by the conversion, degradation, and fragmentation of their habitat caused by human activities. These threats are exacerbated by ongoing climate change, putting many plants at risk of extinction.

Compared to animals, at-risk plants are less likely to receive legal protection, and fewer resources are directed toward their conservation and recovery. This could meaningfully change if the Recovering America's Wildlife Act were to pass. Plants are typically excluded from the term *wildlife* and many states have not included plants or invertebrates in their State Wildlife Action Plans in the past. This Act will increase funding to plants by providing additional funds to any states that include plants in their action plans. Therefore, much-needed conservation resources may soon be available to the thousands of plants at risk of extinction in the United States.

The ever-present need to preserve and protect endangered plants makes the decades-long efforts of the NatureServe Network to identify, monitor, and conserve native plant species even more important. The U.S. government looks to NatureServe data to understand which plants are most at risk, which threats they face, and how to protect them.

The map below illustrates some of the vascular plants that are at risk of extinction globally and that are particularly vulnerable in the indicated state or Tribal Nation. These species highlight the taxonomic and visual diversity of the plant kingdom, and they exemplify the breadth of the native biodiversity knowledge of the NatureServe Network. Nonetheless, the species illustrated here represent only a sliver of the many thousands of at-risk plants in the United States.



About NatureServe

For nearly 50 years, NatureServe has been the authoritative source for biodiversity data and the central coordinating organization for a network of over 60 member programs throughout North America. Together, NatureServe and the network of member programs are dedicated to developing, collecting, and analyzing biodiversity information to support informed decisions about managing, protecting, restoring, and conserving natural resources. NatureServe and the Network develop and manage data on over 100,000 species and ecosystems, answering fundamental questions about what exists, where it is found, and how it is doing.

Macfarlane's Four-O'clock

Macfarlane's four-o'clock is known from only nine locations in Idaho and four in adjacent Oregon, where it grows on rockslides, canyon walls, and sandy to gravelly talus slopes. Macfarlane's four-o'clock is one of the few plant species in Idaho that has been transplanted to another field site in an effort to increase its numbers. Major threats include livestock grazing and the invasion of exotic plants. Originally listed as endangered under the U.S. Endangered Species Act, the species was downlisted to threatened in 1996 after successful recovery efforts and the discovery of several new populations.



Photo by Michael Baird (iNaturalist.org).

Mead's Milkweed

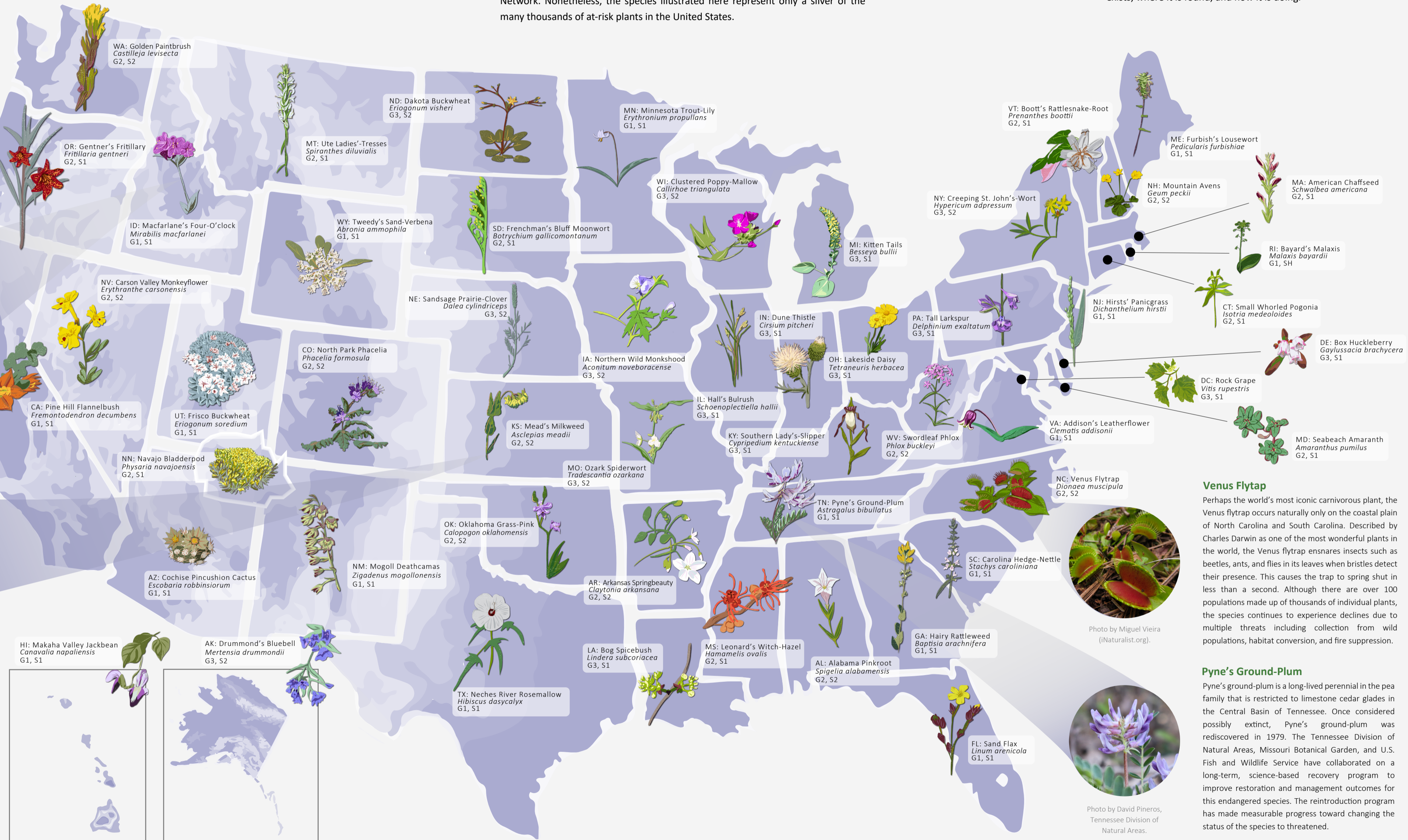
Found in the tallgrass prairies of the Midwest, Mead's milkweed is a slow-growing perennial. It can take 15 years or more for the plant to progress from germination to flowering, and it can ultimately live for decades. The species is federally listed as threatened due to habitat loss from land development and damage from invasive species. Despite these challenges, recovery efforts have reintroduced the species into two states where it had been previously extirpated.



Photo by Mark Fishbein (iNaturalist.org).

NatureServe Conservation Status Ranks

Global Status	State/Provincial Status
GX: Presumed Extinct	SX: Presumed Extinct
GH: Possibly Extinct	SH: Possibly Extinct
G1: Critically Imperiled	S1: Critically Imperiled
G2: Imperiled	S2: Imperiled
G3: Vulnerable	S3: Vulnerable
G4: Apparently Secure	S4: Apparently Secure
G5: Secure	S5: Secure



Venus Flytrap

Perhaps the world's most iconic carnivorous plant, the Venus flytrap occurs naturally only on the coastal plain of North Carolina and South Carolina. Described by Charles Darwin as one of the most wonderful plants in the world, the Venus flytrap ensnares insects such as beetles, ants, and flies in its leaves when bristles detect their presence. This causes the trap to spring shut in less than a second. Although there are over 100 populations made up of thousands of individual plants, the species continues to experience declines due to multiple threats including collection from wild populations, habitat conversion, and fire suppression.



Photo by Miguel Vieira (iNaturalist.org).

Pyne's Ground-Plum

Pyne's ground-plum is a long-lived perennial in the pea family that is restricted to limestone cedar glades in the Central Basin of Tennessee. Once considered possibly extinct, Pyne's ground-plum was rediscovered in 1979. The Tennessee Division of Natural Areas, Missouri Botanical Garden, and U.S. Fish and Wildlife Service have collaborated on a long-term, science-based recovery program to improve restoration and management outcomes for this endangered species. The reintroduction program has made measurable progress toward changing the status of the species to threatened.



Photo by David Pineros, Tennessee Division of Natural Areas.