

Reed Canarygrass



Phalaris arundinacea L.

Alternate Names

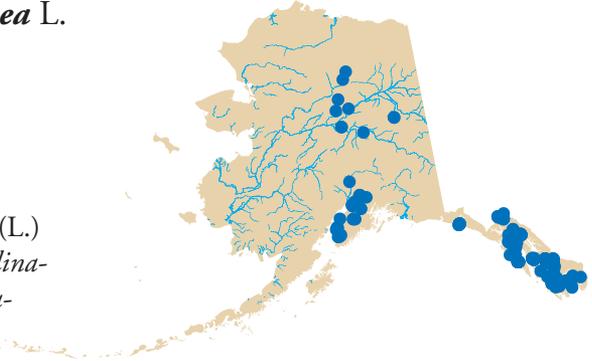
Canarygrass

Synonyms

Phalaroides arundinacea (L.)

Raeusch., *Phalaris arundinacea* L. var. *picta* L., *Phalaroides arundinacea* (L.)

Raeusch. var. *picta* (L.) Tzvelev



Description

Reed canarygrass is a robust, cool-season, sod-forming perennial plant that produces culms of ½–5 feet in height from creeping rhizomes. Leaf blades are rough, flat, 2–6 inches long, and ¼–½ of an inch wide. Flowers are arranged in dense, branched panicles that are 2¼–7 inches long. Spikelets occur in clusters on short, knobby branches. They are reddish to purplish at the base, become straw colored and compact at first, open at maturity, and become slightly spreading during full bloom. Reed canarygrass is morphologically variable, with more than 10 varieties described. It is unique in having a single flower per spikelet and an open, branched inflorescence rather than a narrow spike as in timothy.



USDA Forest Service photo by Michael Shephard

Similar Species

Both Eurasian and native ecotypes of reed canarygrass are thought to exist in the United States. The Eurasian variety is considered more aggressive, but no reliable method exists to tell the ecotypes apart in the field. The vast majority of reed canarygrass in Alaska is believed to be derived from the Eurasian ecotype. However, some northern populations

may be native genotypes. Reed canarygrass also resembles another exotic species, orchard grass (*Dactylis glomerata* L., included in this book), but can be distinguished by its wider blades, a narrower, more pointed inflorescence, and the lack of hairs on glumes and lemmas. The native bluejoint grass (*Calamagrostis canadensis* (Michx.) P. Beauv.) may be mistaken for reed canarygrass, especially in the spring, but the highly transparent ligule on reed canarygrass is helpful in distinguishing it from this and other species.

Ecological Impact

Reed canarygrass forms dense, persistent, monotypic stands in wetlands that exclude and displace other plants and may also slow stream flow, eliminating the scouring action needed to maintain the gravel river bottoms essential for salmon reproduction. Invasive populations of reed canarygrass are believed to be the result of crosses between cultivated varieties and native North American strains (Merigliano and Lesica 1998). Reed canarygrass grows too densely to provide adequate cover for small mammals and waterfowl. When in flower, it may cause hay fever and allergies. It promotes silt deposition and the consequent constriction of waterways and irrigation canals. Reed canarygrass may alter soil hydrology.



USDA Forest Service photo
by Michael Shephard

Biology and Invasive Potential

Reed canarygrass reproduces from seed and vegetatively by stout, creeping rhizomes. Invasion is promoted by disturbances such as ditching of wetlands, stream channelization, overgrazing, and alteration of water levels. Furthermore, reed canarygrass has been planted widely for forage and erosion control. Both rhizome fragments and seeds may wash downstream along streams and rivers. Seeds germinate more readily immediately following maturation. Mechanical damage or increased light or oxygen successfully breaks seed dormancy. Reed canarygrass is adapted to fine

and medium textured soils with pH levels ranging from 5.5 to 8.0. It is highly tolerant of anaerobic soils, is shade-intolerant, and no cold-stratification is required for germination. It withstands temperatures to -38°F , and requires 120 frost-free days. Reed canarygrass is listed as a noxious weed in Washington and as an invasive weed in Nebraska, Tennessee, and Wisconsin.

Distribution and Abundance

In the United States, the first agronomic trials of reed canarygrass probably began in the 1830s, and it is now widespread in North America. Reed canarygrass is common in stream banks, logging sites, margins of springs, and wet meadows in Alaska, southern Yukon, and northern British Columbia. Elsewhere it has shown the ability to invade and dominate sedge meadows and wet prairies (Henderson 1991). Reed canarygrass is still planted to stabilize soil along roadsides in Alaska. There is no consensus on the nativity of reed canarygrass in North America (Merigliano and Lesica 1998). According to Hultén (1968), it is native to Europe, but some authors view it as native to Asia and North America as well (Welsh 1974). Its present-day range extends throughout Eurasia and North America, where it is found primarily in northern latitudes.



USDA Forest Service photo by Tom Heutte

Variegated leaves of an ornamental cultivar of reed canarygrass.

Management

Mechanical control methods may be feasible, but the strategy will be quite labor-intensive and require a long-term time commitment. No herbicides are selective enough to be used in wetlands without the potential for injuring native species, although fire has been used, in combination with other treatments, to control reed canarygrass in wetlands. Plants reestablish quickly from seeds after control methods are used, so areas should be monitored for several years after control events. No biological control methods are known that are feasible for use in natural areas.

Family: Poaceae

Reed Canarygrass

Notes

Reed canarygrass has been used for roadside revegetation throughout southeast Alaska and appears to be naturalizing in many of the stream systems on various islands. A cultivar called ribbon grass is used by gardeners in Alaska and has green leaves striped with white.



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