

Siberian Peashrub

Caragana arborescens
Lam.

Alternate Names

pea shrub, pea tree

Description

Siberian peashrub is a shrub to small tree reaching up to 20 feet in height under favorable growing conditions, with yellow-green bark on young twigs and gray to olive-green bark on mature branches and trunks. It is typically multistemmed with erect to spreading branches originating from a dense, spreading root system. Leaves are alternate or whorled, 2–4 inches long, and pinnately compound with 8–12 leaflets in pairs. The leaflets are about ½–1 inch long, entire, and elliptic to broadly oblanceolate with a short point at the top; they are short, silky, and hairy when young and later almost hairless. The stipules are narrow and often persist as spines. Flowers are borne singly or in small groups; they are long-stalked, yellow, and about 1 inch long. Pods are ½–2½ inches long and about ⅛ of an inch wide. They are linear-lanceolate, green, and strongly flattened, becoming more cylindrical and brownish at maturity. The pods disperse seeds by opening explosively.



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photo by Jamie Snyder



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Similar Species

This is the only yellow-flowered, pinnately leaved shrub in the pea family in Alaska, except for other *Caragana* species that are occasionally grown as ornamental plants.

Ecological Impact

Siberian peashrub has recently been observed moving into natural areas in Alaska, particularly forests and riparian areas, with the potential for alteration of plant community structure and species composition. It has a symbiotic relationship with nitrogen-fixing bacteria and can therefore alter soil nutrient levels (GRIN 2004), which could also affect native plant species.

Biology and Invasive Potential

Siberian peashrub produces 4 to 6 seeds per pod and many pods per plant. It can also be propagated by bare roots, root cuttings, and layering (Duke 1983, GRIN 2004). The seeds are large and do not have any apparent adaptations for long-distance dispersal. Siberian peashrub is cultivated as an ornamental and food plant (Welsh 1974). It is widely planted in the United States and Canada for windbreaks, hedges, and outdoor screening, and in arctic and subarctic regions it has also been used as supplementary fodder for reindeer herds (Duke 1983). Cold-stratification is required for germination, which takes 2 to 3 weeks (Plants for a Future 2002). Siberian peashrub can grow in all soil textures with pH levels ranging from 5.0 to 8.5. It is highly tolerant of nutrient-poor soils, drought, and cold temperatures and prefers full sun and light, sandy, dry soils. Siberian peashrub favors continental climates with long summers and cold, fairly dry winters (Plants for a Future 2002).



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Distribution and Abundance

Siberian peashrub is cultivated in the northern United States and Canada, including introductions to arctic regions (Isely 1993, Duke 1983). It is known as an invader

of forested areas in Wisconsin (WDNR 2003). It is native to Siberia, Kazakhstan, Mongolia, and China. Now its range extends across Europe and North America as well (GRIN 2004). In Alaska, it has been grown in Anchorage, Fairbanks, Seward, and the remote community of Iditarod (ALA 2004).

Management

Control options have not been investigated. Siberian peashrub can resprout after cutting (GRIN 2004), suggesting that a combination of mechanical and chemical methods may be necessary for effective control of this species.

Notes

Siberian peasants reportedly overwintered their chicken flocks by feeding them the seeds of this plant. The leaves yield an azure dye.