

Siberian peashrub

Caragana arborescens Lam.

Synonyms: *Caragana arborescens* Lam. var. *pendula* Carriere, *C. fruticosa* (Pall.) Besser

Other common names: None

Family: Fabaceae

Description

Siberian peashrub is a deciduous shrub to small tree, reaching 12 feet in height. It is typically multistemmed with erect to spreading branches, from a dense, spreading root system. Leaves are alternate or whorled, 2 to 4 inches long, pinnately compound with 8 to 12 leaflets in pairs. The leaflets are about 1/2 to 1 inch long, entire, elliptic to broadly oblanceolate with a short point at the top, short-silky-hairy when young, later almost hairless. Stipules are narrow, often persisting as spines. Flowers are borne singly or in small groups; they are long-stalked, yellow, and about 1 inch long. Pods are 1/2 to 2 1/2 inches long and about 3 mm wide. They are linear-lanceolate, green, and strongly flattened, becoming more cylindrical and brownish at maturity, opening explosively (Welsh 1974).



Siberian peashrub flowering stem

This is the only yellow-flowered pinnately leaved shrub in the pea family in Alaska.

Ecological Impact

Impact on community composition, structure, and interactions: Siberian peashrub decreases light availability and reduces tree and shrub regeneration (I. Lapina – pers. obs., O. Baranova – pers. com.). Plants have been extensively damaged by browsing deer (Duke 1983).

Impact on ecosystem process: As a nitrogen-fixer, it likely alters soil conditions (USDA 2002).

Biology and Invasive Potential

Reproductive potential: Seeds produced in large abundance (4-6 seeds per pod and many pods/plant). Also propagated by bare roots, root cuttings, and layering (Duke 1983, USDA 2002).

Role of disturbance in establishment: Unknown.

Potential for long-distance dispersal: The seeds are large and do not have any apparent adaptations for long-distance dispersal.

Potential to be spread by human activity: Siberian peashrub is cultivated as an ornamental and food plant (Welsh 1974). It is widely planted in the US and Canada for windbreaks, hedges, and outdoor screening. In the arctic and subarctic it is used as supplementary fodder for reindeer herds (Duke 1983). Variety of cultivars has been developed (MSU Extension 1999, USDA 2002).

Germination requirements: Cold stratification is required for germination. For horticultural purposes seeds should to be pre-soaked for about 24 hours in warm water and then be sown during a cold period in the spring. Germination takes 2-3 weeks (Plants for a future 2002).

Growth requirements: This species succeeds in all soil textures with pH levels ranging from 5 to 8.5. It is highly CaCO₃, drought, and cold tolerant. It can tolerate poor soils and temperatures down to -38°F. This plant requires 150 frost-free days for successful growth and reproduction (USDA 2002). It 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).

Cogeneric weed: none.

Listing: *Caragana arborencens* is not considered noxious in North America (Invaders Database System 2003, USDA 2002).

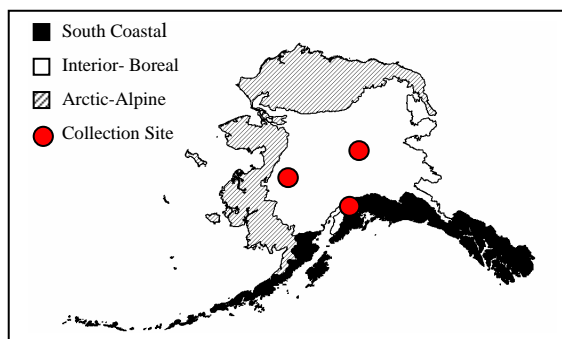
Distribution and Abundance

Siberian peashrub is cultivated in Canada and northern states of the United States (Isely 1993). It has been introduced in arctic regions (Duke 1983). It is known as an invader in forests in Wisconsin (WDNR 2003).

Native and current distribution: It is native to Siberia, Kazakhstan, Mongolia, and China. Now, it extends over Europe and North America (USDA, ARS 2004).

Management

Control options have not been investigated. Siberian peashrub can resprout after cutting (USDA 2002).



Distribution of Siberian peashrub in Alaska

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Alaska Natural Heritage Program
Environment and Natural Resources Institute
University of Alaska Anchorage
707 A Street, Anchorage, Alaska 99501
Phone (907) 257-2780 Fax (907) 257-2789

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