

***Holodiscus discolor* (Pursh) Maxim.**  
ROSACEAE

creambush oceanspray

Synonyms: *Spiraea discolor* Pursh  
*Spiraea ariaefolia* Smith in Rees  
*Schizonotus discolor* Raf.  
*Sericotheca discolor* Rydb.

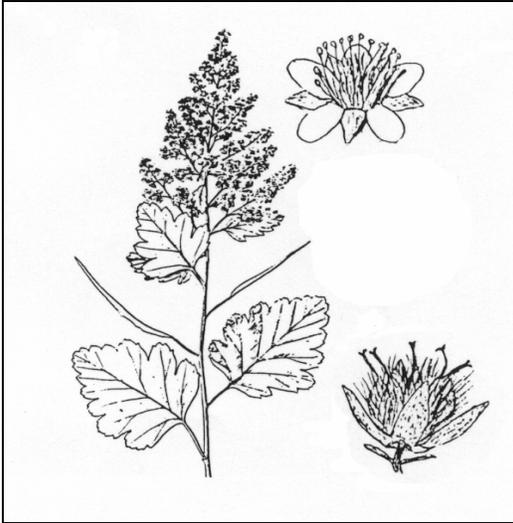


Illustration credits: Hitchcock and others 1961 and E.G. Hurd

**General Description.**—Creambush oceanspray, also known as arrowwood, hardhack, rock-spiraea, and mountain spray, is a usually erect, deciduous shrub with multiple arching branches. Plants range from 1 to 3 (6) m in height. Large tree-like forms grow in coastal areas. Young twigs are finely hairy; bark on older stems is gray to deep grayish red. Leaves are alternate, 2 to 10 cm long, and ovate to ovate-lanceolate with lobed to doubly toothed edges and prominent veins. Upper surfaces are hirsute; lower surfaces are lanate and sometimes glandular. The common name derives from the showy, diffuse, drooping panicles that are 10 to 17 (30) cm long with numerous, tiny, white to pink flowers. Dried flowers and panicle branches turn brown and persist into winter (Hitchcock and others 1961).

**Range.**—Creambush oceanspray grows at elevations from sea level to 2,150 m. It is most abundant in coastal forests from British Columbia to southwestern California. It occurs eastward to Montana in drier conifer types of the interior Pacific Northwest. It is also common in riparian areas and on rocky talus slopes with shallow sandy to clay

loam soils. Remnant stands are found on higher peaks of Great Basin mountain ranges (Hitchcock and others 1961, Stark 1966, USDA Forest Service 1937).

**Ecology.**—Creambush oceanspray is a prolific root sprouter, capable of recovering from fire, grazing, or mechanical damage. Regeneration from seed following burns is often limited, and seedlings develop slowly (Wright and others 1979). However, regeneration from seed may be important following extremely hot fires (Morgen and Neuenschwander 1988). The species is a host for vesicular-arbuscular mycorrhizae (Berch and others 1988) and *Orobanche pinorum* Geyer ex Hook. (Harrington and others 1999). It is shade tolerant and disease resistant.

**Reproduction.**—Flowers appear from late spring to mid summer and are insect-pollinated. Fruits ripen in late summer (Hitchcock and others 1961); seed is wind dispersed. Fruits are hand harvested and conditioned by air drying and screening larger material with a fanning mill. Number of cleaned seed/kg exceeds 11 million (King 1947, Link 1993), but few seeds are generally sound. Seed supplies are rare and costly. Moist prechilling at 1 to 2 °C for 120 days relieves dormancy (Marchant and Sherlock 1984). Natural germination may be enhanced by a heat pretreatment or microsite conditions provided by exposed mineral soils (Morgan and Neuenschwander 1988). Seed may be broadcast over a rough seedbed and covered by natural soil sloughing. It should be planted separately or included in seed mixes of other native species, particularly if broadcast seeded. It should not be seeded with competitive introduced species (Shaw and others 2001). Bareroot and container stock are easily propagated (Everett 1957). Achenes should be fall sown or artificially prechilled and spring sown in the bareroot nursery. Creambush oceanspray wildings and layers have also been used successfully (Kruckeberg 1982). Plants can be grown from cuttings, but rooting varies widely among clones, cutting type, and propagation

technique (Antieau 1987, Link 1993).

**Growth and Management.**—Seedlings develop slowly, producing spreading, fibrous root systems (Wright and others 1979). Growth rate is moderate and protection from introduced grass and forb competition is required for one or two growing seasons. Excessive browsing is rarely a threat to developing seedlings, but they may be girdled by rodents or trampled by big game or livestock. Brush fields may be rejuvenated by prescribed burning at 10 to 15 year intervals (Orme and Leege 1980).

**Benefits.**—Creambush oceanspray provides habitat for a wide variety of organisms. Its palatability and forage value vary geographically but are generally low for big game and domestic livestock. Use may be greater in winter when other forage is limited. Palatability may be improved following fire. Creambush oceanspray offers considerable potential for revegetating disturbed areas. Populations capable of growing on dry, rocky, well-drained sites or exhibiting low palatability may be particularly valuable. It has been recommended for use in highway plantings, riparian areas, windbreaks, erosion control, wildlife habitat improvement, conservation plantings, and low maintenance landscaping (Antieau 1987). Native Americans ate the seeds and made digging sticks and arrow shafts from the hard, straight branches.

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