***Prunus emarginata* (Dougl. ex Hook.) D. Dietr.** bitter cherry
ROSACEAE

Synonyms: None

General Description.—Bitter cherry ranges from a shrub to a tree of 10 m. It often forms dense thickets. Clustered, deciduous elliptic to obovate, crenate-serrate leaves 20 to 65 mm in length are on 3 to 12 mm petioles (Wilken 1993, Mozingo 1987). The leaves, stems, and flowers all have a very strong cyanide odor (bitter almond) when crushed.

Range.—Bitter cherry is found in cooler parts of Arizona, California, far western Nevada, Idaho, Utah, New Mexico and Montana and north to British Columbia (Mozingo 1987, Esser 1995).

Ecology.—Bitter cherry site dominance may not peak until three decades after disturbance, suggesting that it is not an obligate seed bank species (Oakley and Franklin 2001). However, in some cases following fire it may quickly dominate a site (personal. observation.). However, others (Morgan and Neuenschwander 1988) have considered it an obligate seed bank species. It may achieve major dominance of disturbed sites, which persists for a long time but does not occur until late in the post-disturbance seral progression. Seed dispersal is by animals (Halperin 1989, personal observation).

Reproduction.—Three to 12 five-petaled flowers on 3- to 12-mm pedicels occur in sometimes flat-topped racemes. The sepals and hypanthium are glabrous to puberulent. White petals are 4 to 8 mm long. Fruits are obvoid to round about 7 to 14 mm long, smooth, with a red to purple fleshy pulp (Wilken 1993). Seeds may at times undergo heavy predation and mortality while green, apparently from sawflies of the genus *Hoplocampa* (Weaks 2001). Rodents, including chipmunks, eat the seeds (John Francis and Maurice Beck, personal communication).

Fire Effects.—Although bitter cherry is a prolific sprouter after fire, Leege (1979) found that repeated fires eventually result in heavy plant mortality. However, in those cases, seedlings developed to replace mature plants lost to fire.

Growth and Management.—Bitter cherry has been effectively controlled on conifer planting sites by application of the herbicide 2,4,5-T (now banned in the United States) (Bock and others 1978). It may be heavily attacked by tent caterpillars and other insects at times.

Benefits.—Blue grouse and other birds are fond of the fruits of bitter cherry. They are also a preferred summer and fall food of black bears (Unsworth and others 1989). Leaves are browsed by sheep and cattle, despite their cyanogenic properties, which have caused reported stock poisonings (Mozingo 1987). In the Pacific Northwest, bitter cherry is eaten by deer and elk (Crouch 1968), although it is not a preferred forage (Leege 1979, Klebenow 1965). Native Americans used long fibrous strips of bark for twine and basketry, and used the roots for a variety of medicinal purposes but made little use of the bitter fruit (Turner and Bell 1973). Bitter cherry essence is marked by herbalists, who claim that it aids patience and short attention spans. Bitter cherry has also been used for mine and highway reclamation (Everett and others 1980 and personal observation).

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