

# HOLLYLEAF REDBERRY

## *Rhamnus ilicifolia* Kellogg

Plant Symbol = RHIL

*Common Names:* Evergreen buckthorn

*Scientific Names:* *Rhamnus crocea* ssp. *ilicifolia*

### Description

*General:* A perennial evergreen shrub in the buckthorn family (Rhamnaceae) and native to the western United States. The plant grows 4 – 12 ft. tall. The bark is grey, with the branches generally ascending and twigs are smooth to finely hairy. Alternately arranged leaves are ovate to round, smooth or hairy, the base is rounded, and the tip is blunt, the leaf margins may be smooth or prickly. The inflorescence is one to 6 flowered and generally smooth, flowers are inconspicuous with four sepals and no petals, typically unisexual (Montalvo et al., 2020; Sawyer, 2012). The bloom period is from April through June and fruit ripens from late July until fall, depending upon location. The 2-stoned fruits are red (Sawyer, 2012) and the chromosome number is  $2n = 24$  (Bolmgren & Oxelman, 2004). Plants have a specialized woody growth at the base, a lignotuber, that supports adventitious buds for regeneration after fire (Pratt et al., 2008).



Figure 1. Hollyleaf redberry foliage and fruit. Photo: Margaret Smither-Kopperl.

*Distribution:* Hollyleaf redberry is found in the Western US, distributed in California, southern Oregon, southern Nevada and Arizona at elevations below 8,000 feet (Calflora, 2021; Sawyer, 2012). For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

*Habitat:* Grows in a diversity of situations including canyon slopes and bottoms, open hillsides, roadsides, rock faces, sandstone ridges, serpentine slopes, and stream benches (Nesom & Sawyer, 2020). Plant communities include chaparral, chaparral/desert transition, coastal sage scrub, desert scrub, foothill woodland, meadows, montane forest plant communities, riparian areas and woodlands (Calflora, 2021; Nesom & Sawyer, 2020). In Southern California, hollyleaf redberry provides significant cover in coastal sage shrub, in mid-elevation xeric and mesic chaparral, and, at higher elevations 3,500- 6000 feet, in montane chaparral (Montalvo et al., 2020).

### Adaptation

Hollyleaf redberry grows on dry rocky slopes in ravines and a variety of soil types including, alkaline, sand, clay, and occasionally serpentine soils. They are present at a variety of elevations from sea level up to 8,000 feet. The plants tolerate shade and do well as an understory plant in lightly wooded areas, especially in drier regions (Calscape, 2021). The plant is found in areas with precipitation between 12 and 79 inches. Once established the plants are extremely drought tolerant, although they will tolerate occasional flooding. Drought resistance appears to be correlated with moderately deep rooting depth, allowing the plants to access reserves of water (Montalvo et al., 2020). The shrub is adapted to fire, resprouting from specialized lignotubers after fire events (Keeley, 1991; Pratt et al., 2008).

### Uses

*Wildlife:* An important plant for wildlife as the evergreen leaves provide cover for birds and small mammals. The berries which ripen in late summer and fall are consumed by birds and animals, including coyote, gray fox, and American black bear (Borchert & Tyler, 2010; Calscape, 2021; Montalvo et al., 2020). The flowers are visited by pollinators, including several species of moths and butterflies (Calscape, 2021).

*Erosion Control:* Useful for erosion control on dry rocky hillsides and for bank stabilization (Calscape, 2021; Montalvo et al., 2020).

*Ornamental:* Hollyleaf redberry is available as an ornamental as the evergreen green leaves contrast well with its red berries. It prefers partial shade and grows well close to oak trees and grey pine. The plant is drought tolerant, and easy to maintain as it is very slow growing, it may be pruned into hedges. Deer appear to find it less palatable than many other landscape plants (Calscape, 2021; Wilson, 2013).



Figure 2. Hollyleaf redberry in bloom. Photo: Margaret Smither-Kopperl.



Figure 3. Photo: Red berries of hollyleaf redberry. Photo: Margaret Smither-Kopperl.

### **Ethnobotany**

The Kawaiisu used decoctions of the bark and roots for medicinal purposes, including reports for healing coughs and colds and as a laxative (Zigmond, 1981). A medicinal use for the inner bark as “good medicine” was also reported for the Yuki (Chestnut, 1902). The Wintun reported using the wood for torches as it was dense and burned for a long time (Merriam, 1967).

### **Status**

Please consult the PLANTS Web site (<http://plants.usda.gov/>) and your state’s Department of Natural Resources for this plant’s current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

### **Planting Guidelines**

Freshly collected seed does not require stratification or a fire treatment, but stored seed must be cold stratified for 2 to 3 months prior to planting (Hubbard, 1974; Keeley, 1991). Seed should be planted to a depth of ¼ to ½ inch in fall or early spring. Container stock can be transplanted in fall, winter, or early spring, and receive water weekly initially and then monthly for the first summer. Once established the plant requires no further watering, although it will tolerate monthly summer watering in a garden (Calscape, 2021).

### **Management**

The plants are slow growing although, given a good location, a 1-gallon container plant can reach a height of 3 feet after 2 years (Calscape, 2021). Minimal pruning is helpful with young plants, which can become straggly and this will lead to a denser mature plant (Theodore Payne, 2021).

### **Pests and Potential Problems**

None

### **Environmental Concerns**

None

## Seeds and Plant Production

Fruits should be harvested 2 weeks before the seeds are fully ripe as there is frequent predation by birds (Hubbard, 1974). The fruits are stored to ripen, then run through a macerator with the pulp floated off. There is an average of 71,000 seeds/lb. Fresh seed requires no pre-germination treatment, while seed stored in sealed containers at 41F will need a cold stratification treatment of 2.5 – 3 months. Seed should be planted to a depth of ¼ to ½ inch in fall or spring. Everett (2012) harvested fruits for the first time from a nine-year-old plant; time for maturity is not well documented for this slow growing shrub.

## Cultivars, Improved, and Selected Materials (and area of origin)

No cultivars are reported. Cultivars should be selected based on the local climate, resistance to local pests, and intended use. Consult with your local land grant university, local extension or local USDA NRCS office for recommendations on adapted cultivars for use in your area.

## Literature Cited

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## Citation

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