

***Rhododendron macrophyllum* D. Don ex G. Don**
ERICACEAE

Pacific rhododendron

Synonyms: *Hymenanthyes macrophyllum* (D. Don ex G. Don) H.F. Copel
Rhododendron californicum Hook.



General Description.—Pacific rhododendron, also known as coast rhododendron and California rosebay, is a coarse-branched evergreen shrub to 4 m tall. The alternate leathery ovate to obovate leaves are 7 to 15 cm long and 3 to 6 cm wide. Flowers are showy and bell shaped, about 4 cm long, with rose pink to purple corolla, five petals, five sepals, and 10 stamens (Wallace 1993).

Range.—Pacific rhododendron occurs near the Pacific coast from British Columbia south to Monterey, California, and in the coastal and Cascade mountain ranges of Oregon, Washington, and California (Hitchcock and others 1959, Wallace 1993). It occurs in redwood, Douglas fir, yellow pine, and mixed evergreen forests from sea level to over 1,000 m elevation (CalFlora 2000).

Ecology.—Pacific rhododendron grows in acidic (pH 5.5) to neutral fine textured soils (USDA 2002). Pacific rhododendron, like many others of the genus, is highly toxic to humans and animals. The poison is a neurotoxin, andromedotoxin, or grayanotoxin, which has occasionally caused large livestock losses (Kingsbury 1964). About 30 diterpine, polyhydroxylated cyclic hydrocarbons

are found in rhododendrons and related species (Harborne and Baxter 1993). Sucking nectar from flowers has caused illness in humans, as has consumption of rhododendron honey (Alberta Government 2002). The species has recently been identified as a host of the algae *Phytophthora ramorum* responsible for sudden oak death in California, but the effects are not yet known (University of California Cooperative Extension 2002). A variety of insect and fungi may attack rhododendrons, including several caterpillars such as cutworms, loopers, and leafrollers (Foss and Antonelli 1999).

Reproduction.—Pacific rhododendron flowers are insect pollinated. Fruits are oblong capsules that split along the sides to release minute seeds (4400 to 12,500/g) after ripening. Germination occurs with no pretreatment, but requires light (Young and Young 1992). Vegetative reproduction by crown sprouting is common after fire, logging, and other disturbance. Propagation is by seeds or cuttings.

Fire Effects.—Rhododendron has been classed as a residual shrub (rather than a colonizer) after fire (Dyrness 1973). It recovers well but slowly after fire, primarily from vegetative sprouting from root crowns and stem bases. Fire dramatically reduces it initially, and peak abundance is not reached until late in the fire recovery process (Halpern 1989). It is scarce after severe burns (Dyrness 1973).

Growth and Management.—Pacific rhododendron typically occupies drier sites within its range (Dyrness 1973). Like some other rhododendrons, it may have a mycorrhizal relationship that enables it to thrive on low-nutrient soils (USDA USFS 2002). The tendency to resprout from stem crowns has caused difficulty for conifer reforestation (Halverson and others 1986), so that spring spraying with triclopyr has been used for control in some areas (Burrill and others 1989). At California's Kruse Rhododendron State Reserve, Pacific rhododendron is considered to be an early seral stage after fire or logging, and

before tanoak, which is being thinned in order to set back the succession process and maintain the rhododendrons (California State Parks 2002).

Benefits.—Pacific rhododendron is widely available from commercial nurseries and is valued for native landscaping purposes. It has served as a source of genetic material for many ornamental cultural selections. It is also used in erosion control (Olson 1974). It has no other common uses (USDA 2002).

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