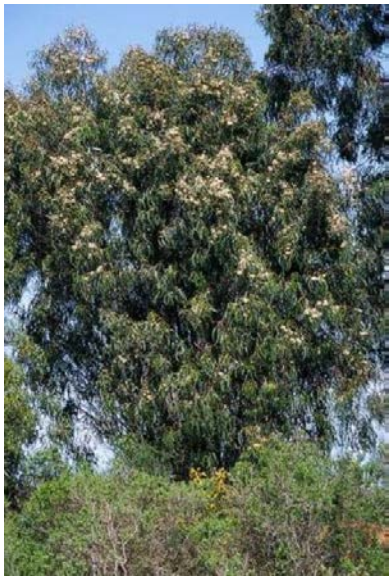
Eucalyptus globulus Labill.

Tasmanian blue gum



Family: Myrtaceae
Range: Throughout the coastal regions of California and Hawaii.
Habitat: Disturbed places, especially in riparian areas and coastal grasslands and forests. Groves can expand into intact adjacent scrub, woodlands, or grasslands. Grows best on deep, well-drained soils where roots can tap deep soil moisture or in areas that receive at least 21 inches of rain per year or moisture from additional sources, such as fog drip. Mature trees tolerate drought and short periods of temperatures as low as 17°F.
Origin: Native to southeastern Australia and Tasmania and introduced to the U.S. in the early 1850s as a landscape ornamental. Still widely planted.
Impacts: Mature Tasmanian blue gum trees create a safety hazard in public places because they tend to drop limbs. Leaves and branches decompose very slowly. Due to flammable plant compounds, dense growth of fine branches, and leaf and branch litter, groves are highly combustible and increase the risk of fire. Under drought conditions, trees tap into deep soil moisture and continue to transpire freely. The flowers are attractive to native hummingbirds, but the nectar has been implicated in clogging their beaks, causing the birds to starve. Frost dieback can exacerbate accumulation of dry, flammable leaves and branches making fire danger extremely high.
California Invasive Plant Council (Cal-IPC) Inventory: Moderate Invasiveness

Tasmanian blue gum is a fast-growing tree that can reach 150 to 180 ft tall and 4 to 7 ft in diameter. It has a straight trunk and well-developed crown with dark, rough persistent bark below and smooth, shedding, yellow-brown bark above. Leaves on older branches are 6 to 8 inches long, glossy, dark green, and leathery; they are narrowly lanceolate, often curved, alternate, and hang vertically. Juvenile leaves are opposite, sessile, broadly oblong, and covered with a gray, waxy bloom which is thicker on the bottom surface. Stems are usually square in cross-section and winged at the corners. Trees can resprout from the base when cut or damaged.

The flowers are white, sessile and solitary in the leaf axils. The fruit is a hard, woody capsule, broadly top-shaped, and often 4-angled. The fruit are 0.75 to 1 inch in diameter and 1 inch long or more, with a distinctive concave ring around the margin. Reproduction is by seed. Most seeds are released from capsules while still attached to the tree. Seeds typically fall within 300 ft from the parent plant, although some may disperse to greater distances with water, soil movement, animals, and human activities. Under favorable conditions, seeds germinate a few weeks after release from capsules, usually late fall through spring, but if conditions are dry, seeds may remain dormant for several years.

NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	Hand pulling can remove seedlings and small saplings. For larger saplings and small trees, a weed wrench or other woody weed extractor can be used. Care must be taken to extract the entire root or stump sprouting will occur. Best results are achieved when soil is moist. Cutting a tree at ground level before it flowers will reduce seed production and deplete the plant's energy reserves. Resprouts are common after treatment. Cutting back regrowth when shoots reach 6 to 7 ft tall for 4 years or more can eventually kill the tree. Covering cut stumps with black plastic and sealing the edges with soil to exclude sunlight also gives good control. Plastic must be kept in place for at least one year. Cutting can

	also be combined with an herbicide treatment.
Cultural	Grazing is not considered an effective control option as animals seldom browse on seedlings. Burning alone is not an effective method for controlling eucalyptus. Although burning can remove debris, in many cases it can increase the population as it removes competitive vegetation, releases nutrients into the soil, and stimulates the germination of seeds left in the soil. Burning is more effective when followed by an herbicide application, subsequent burnings, and/or revegetation using desirable species. It is important to employ a control strategy following a burn, otherwise the eucalyptus population may increase in subsequent years.
Biological	No biological control agents have been released for the control of eucalyptus. In 1998, the red gum lerp psyllid (*Glycaspis brimblecombei*), an insect native to Australia that causes foliar damage to many eucalyptus species, was found in California. Because eucalyptus is valued as an ornamental and as a commercial forest species, a biological control program was launched for the red gum lerp psyllid. In 2000, the parasitoid *Psyllaephagus bliteus* was widely released in California to control the red gum lerp psyllid.

CHEMICAL CONTROL

The following specific use information is based on published papers and reports by researchers and land managers. Other trade names may be available, and other compounds also are labeled for this weed. Directions for use may vary between brands; see label before use. Herbicides are listed by mode of action and then alphabetically. The order of herbicide listing is not reflective of the order of efficacy or preference.

GROWTH REGULATORS	
Picloram + 2,4-D *Tordon 101M*, *Tordon RTU* or *Pathway*	**Rate:** Cut stump treatment: undiluted or 50% *Tordon 101M* in water or undiluted *Tordon RTU*/*Pathway* (ready to use). Stem injection treatment: one cut per every 3 inches of stem diameter, and 0.5 ml of undiluted or 1 ml of diluted herbicide added to each cut. **Timing:** Best when used in late summer to early fall. **Remarks:** High rates can give long-term soil activity for broadleaves. Picloram is a restricted use herbicide, not registered for use in California. Applications are as described for triclopyr.
Triclopyr *Garlon 3A*, *Garlon 4 Ultra*, *Pathfinder II*	**Rate:** Foliar spot treatment: 2% v/v solution of *Garlon 4 Ultra* and water plus 0.5% v/v non-ionic surfactant to thoroughly wet all leaves. Basal cut stump treatment (treat the cut surface and the bark on the sides of the stump): 20 to 25% *Garlon 4 Ultra* in 75 to 80% oil carrier. Cut stump treatment (apply to cut surface only): 50% *Garlon 3A* in water. Basal bark treatment: 20 to 25% *Garlon 4 Ultra* in 75-80% oil carrier, or *Pathfinder II* (ready-to-use). Stem injection treatment: one cut per every 3 inches of stem diameter, and 1 ml of undiluted *Garlon 3A* added to each cut. **Timing:** Foliar treatments best when leaves are fully expanded. Stump and stem treatments can be used any time, but are best if not used when sap is rising in the early spring. **Remarks:** Broadleaf selective; will not damage desirable grasses growing nearby. Not as effective on eucalyptus as glyphosate. Foliar treatment should only be made on small trees or seedlings. For cut stump, cut stems horizontally near ground level and immediately apply *Garlon 3A* solution, covering the outer 20% of the cut surface. Suckering may occur after cutting, but the treatment should control most resprouts. For basal cut stump, applications can be made up to 2 weeks after cutting; treat to a height of 12 to 18 inches from the ground. For basal bark, spray the lower trunk, including the root collar, to 12-15 inches from the ground; the spray should wet the lower stem but not to the point of runoff. For stem injection, be sure that each cut goes well into the cambium layer; more effective on smaller trees. Trees should not be cut for at least one month after basal bark or stem injection treatments. A dye can be added to either product.
AROMATIC AMINO ACID INHIBITORS	
Glyphosate *Roundup*, *Accord XRT II*, and others	**Rate:** Foliar spot treatment: 2% v/v solution (*Roundup ProMax*) glyphosate and water plus 0.5% v/v non-ionic surfactant to thoroughly wet all leaves. Cut stump treatment: undiluted or 50% *Roundup* (or other trade name) in water. Stem injection treatment: one cut per every 3 inches of stem diameter, and 1 ml of undiluted herbicide added to each cut. **Timing:** Best when used in late summer to early fall. **Remarks:** Glyphosate is a nonselective systemic herbicide. Applications are made as described for triclopyr. Glyphosate is considered the most effective herbicide for control of eucalyptus.

BRANCHED-CHAIN AMINO ACID INHIBITORS	
Imazapyr *Arsenal*, *Habitat*, *Stalker*, *Chopper*, *Polaris*	**Rate:** Low volume/thinline treatment: 20% v/v solution of *Chopper* plus a 20% v/v ethylated crop oil in water. Cut stump treatment: 20% *Stalker* or *Chopper* formulation v/v in 80% oil carrier or 20% *Arsenal* or *Habitat* v/v in 80% water carrier. Stem injection treatment: one cut per every 3 inches of stem diameter, and 1 ml of undiluted herbicide (*Arsenal* or *Habitat*) added to each cut. Basal bark treatment: 20% *Stalker* or *Chopper* formulation v/v in 80% oil carrier. **Timing:** Best when used in late summer to early fall. **Remarks:** Soil residual herbicide; may result in bare ground around trees for some time after treatment. Applications are made as described for triclopyr. Only shown to be effective on smaller eucalyptus trees.

RECOMMENDED CITATION: DiTomaso, J.M., G.B. Kyser et al. 2013. *Weed Control in Natural Areas in the Western United States*. Weed Research and Information Center, University of California. 544 pp.