

Blue Gums in California:
What's all the Fuss?

By Sarah Garvey

Eucalyptus trees have an interesting and controversial history in California. This paper focuses on the much-debated *Eucalyptus globulus* (blue gum or Tasmanian blue gum), one of the many eucalypts that has been introduced to the California landscape from Australia, where the diverse genus consists of more than 600 species. Blue gums have inspired art as well as op-ed pieces. They are lauded for their beauty, functionality and historical legacy. They also are criticized as being fire-starting, native plant and bird killing invasive giant weeds.

Introduction to California

“The gum tree has a pale ragged beauty,” writes Australian author Murray Bail in his novel *Eucalyptus*. “A single species can dominate an entire Australian hill...It is trees which compose a landscape.”¹

But it was economics and not beauty that landed the blue gum in the United States over a century ago. Noting the fast-growing quality of the tree in its native environment and use in construction of Australian sailing ships, California businessmen brought blue gum seeds to California in the mid-1800's to establish what they hoped would be profitable timber and hardwood plantations. Once they discovered that the harvested varieties were not as durable as the indigenous ones (which came from virgin forests) and were not appropriate even for railroad ties without special treatment, the plantations were closed and blue gums were thereafter used primarily as ornamentals and windbreaks.

¹ Bail, Murray. *Eucalyptus*, 15.

These uses continue to this day, and lofty 150-foot blue gums overhang roadways and shelter agricultural plots throughout the state. The species is especially suited for its role as windbreak (and, near the ocean, as sandbreak) because of its extensive root system, flexible trunk and canopy that redirects wind upwards.²

About 150 *Eucalyptus* species exist in California today. According to *Sunset's Western Garden*, eucalypts are the most extensively planted non-native tree in California and of those, according to *Audubon's Field Guide*, the blue gum is the most common.³

Biological Features

Eucalyptus globulus is a member of the *Eucalyptus* genus and *Myrtaceae* family. The trees are tall, slender and evergreen. They grow very quickly, especially in the early years, with 60% to 70% of total growth occurring in the first ten years. The trees can resprout from stumps.

A “gum tree” is one of six bark-based *Eucalyptus* classifications, noteworthy for having smooth bark that peels off in colorful ribbon-like strips. The result for blue gums is an attractive patchwork of blue, gray and brown with rougher bark near the trunk base.⁴ The resin-like substance produced by blue gums is called “kino.”

² *Eucalyptus* trees also were used for firewood and still are used in aromatherapies, antiseptics and decongestant/expectorant-related medicines. At one time Californians thought the trees could cure malaria, but it turned out what the trees actually were doing was sucking away pools of mosquito-attracting standing water. Blue gums are still grown commercially in Australia for hardwood and, in China and Brazil, for pulpwood.

³ The statuesque blue gum located near the Los Angeles State and County Arboretum's Queen Anne Cottage, the “Wolfskill” eucalyptus, was planted in the mid to late 1800's, probably by William Wolfskill or E.J. Baldwin.

⁴ The other five bark-based classifications are: bloodwood, ironbark, stringybark, peppermint and box. They range in texture from thick and coarse to stringy and fibrous. *Eucalyptus* trees generally are identified by bark type, anther shape and leaf pattern.

Leaves are simple and entire. They contain pungent oil with a camphor scent and change shape as the tree matures, from opposite and ovate to alternate and long, narrow and often sickle-shaped (4-12” long and 1-2” wide) .

Eucalypts get their name from the Greek words meaning “well” and “covered” and the flower buds of blue gums remain covered by a warty operculum until pollen release. Once open, the flowers are whitish and have a brush-like quality formed by stamens fanning out from the calyx. Flowers are pollinated by insects and hummingbirds. They bloom in winter and spring and eventually the seed-filled capsules dry out and fall to the ground.

Fire

“Well covered” might also describe the ground around a blue gum, rendering it a potential fire danger. As a “dirty” tree, the blue gum continually sheds leaves, bark and unneeded branches. If left unchecked, this litter – made more volatile by the oil in the leaves – produces fodder for fire.

In his California-focused book *Firescaping*, Douglas Kent lists blue gums as “flammable plants” and characterizes them as “high in fuels,” highly ignitable” and “invading, aggressive.”⁵

Blue gums have been blamed for the 1991 East Bay fire and in a *Salon.com* column called “Taming the Australian Weed,” Andrew Leonard cautions against possible wide-spread use of eucalypts for bio-fuel. He writes that: “It is awfully tempting to look at the oily gum tree and think, how pleasant would it be to get my transportation fuel

⁵ Kent, Douglas. *Firescaping*, 95.

needs from a graceful forest. But when the tree blows up in your face and sets fire to your house, your opinion can change in a hurry.”⁶

Invasiveness

The ground underneath a blue gum also is well covered, by an extensive root system. This root system, together with toxins emitted by the blue gum, can make it difficult for other plants to grow nearby. For this reason, native plant enthusiasts are not enthusiastic about the species.

The California Invasive Plant Council recommends against planting blue gums in Southern California. The species is listed on the organization’s “Don’t Plant a Pest” website page, which warns that the blue gum is “Most invasive in coastal locations. Easily invades native plant communities, causing declines in native plant and animal populations.”⁷

In a 2002 *Audubon* article titled “America’s Largest Weed,” author Ted Williams claims that blue gums kill birds. “To deal with the sticky gum,” Williams writes, “Australian honeyeaters and leaf gleaners have evolved long bills. North American leaf gleaners such as kinglets, vireos, and wood warblers have not; so the gum clogs their faces, bills, and nares, eventually suffocating them or causing them to starve.”⁸

But eucalypts have their advocates, too. In his thorough work on California’s eucalypts, California State University, Stanislaus, Librarian/Archivist Robert L. Santos writes: “One has only to drive along the coastal foothills of this state to become immediately aware of the dark forests of eucalyptus hugging the hills and gullies. As the

⁶ Leonard, Andrew. “Taming the Australian Weed,” available at <http://www.salon.com/tech/htww/2006/11/13/eucalyptus/index.html>.

⁷ See <http://cal-ipc.org/landscaping/dpp/plantpage.php?region=socal&type=Trees>.

⁸ Williams, Ted. “America’s largest Weed,” available at <http://magazine.audubon.org/incite/incite0201.html>.

eye sweeps across those images, there is a stirring inside finding expression in aesthetic pleasure and a recognition that those forests belong here.”⁹

A group called POET (Preserve Our Eucalyptus Trees) has waged battles on behalf of the trees in the Bay Area and the trees served as a focal point for members of the “Eucalyptus School,” a cadre of early twentieth-century California artists who painted impressionist-like landscapes.

Pests and Diseases

The blue gum is susceptible to a number of pests, including the blue gum psyllid (*Ctenarytaina eucalypti*), long-horned borers (*Phoracantha semipunctata* and probably the similar *P. recurva*) and the tortoise beetle (*Trachymela sloanei*).

The blue gum psyllid is a phloem-sucking insect which in its nymph stage shelters itself under shell-like “lerps” on leaves. The insect is native to Australia and was first discovered in California in Monterey County in 1991. It has been largely controlled through introduction of an Australian predator wasp named *Psyllaephagus pilosus*. The blue gum psyllid can defoliate a tree, causing stress and rendering it vulnerable to attack by other insects.

The long-horned borer, for example, is particularly attracted to gum trees with fresh pruning cuts and trees suffering from stress such as drought or psyllid infestation. According to the University of California, Davis, Integrated Pest Management website, in heavily borer-infested trees, “the scraping sounds made by the developing larvae chewing into the cambium are clearly audible from a distance of several feet.”¹⁰

⁹ Santos, Robert L. *The Eucalyptus in California* (Section Two: Physical Properties and Uses), 22.

¹⁰ See <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7425.html?printpage>.

The bark-cambium-xylem interface damage caused by borers can girdle and kill a blue gum within a few weeks. As in the case of the blue gum psyllid, an introduced predator wasp, as well as the cultural practices discussed below, is used for control of borers.

Blue gums also are susceptible to tortoise beetles, which causes stress but less commonly death, and diseases such as root rot.

Planting, Pruning and Care Considerations

Blue gums generally are planted from seed. They need sun and water, especially in the early years, and do best in loamy, well-drained soil in moderate environments with consistent temperatures. The trees become hardier and more drought-tolerant with age, but even in the mature years should be watered deeply but infrequently (perhaps once a month) to stave off infestations. Water should be applied under the canopy as opposed to beside the trunk and while the trees need moisture, water-logging can lead to chlorosis.

Nitrogen is generally not needed or advised with blue gums, as resulting shoot growth is attractive to female blue gum psyllids. Pruning should be kept to a minimum, but if necessary, the trees should be pruned in December or January, when beetles are least active.

To prevent fire and borer infestations, litter removal should be part of regularly scheduled maintenance, as well as quick drying out of blue gum fire logs and incineration of infested wood.

Landscaping Considerations and Conclusions

Blue gums are interesting trees with a place in California history and landscaping. They are not appropriate for the typical residential situation, given fire and invasiveness

issues, the potential for roots to interfere with sewers and sidewalks, and because they can grow over 100 feet tall. But blue gums can be used to reduce wind, noise and soil erosion along California roadways and agricultural lands. They make unique and attractive ornamentals in appropriate circumstances.

As we have seen, eucalypts can compose a controversy as well as a landscape. Blue gums will no doubt continue to stimulate criticism even as they capture our imagination.