

Who We Are

Donated in 1933 by Michigan-Cal Lumber Company, Blodgett Forest has been actively managed by the University of California, Berkeley since the mid 1950's. The main tract of Blodgett is around 2,900 acres of very productive (high site) forest land. The forest is managed with the objectives of facilitating research to improve the understanding and management of forests, protecting and enhancing beneficial resources, and demonstrating responsible forest management. At the most basic level, the management framework is:

The Blodgett Experiment

1. Implement a wide variety of management alternatives

- a. 20% in "reserves"
(no management except possibly prescribed fire)
- b. 40% in multi-aged
(group selection and single tree selection)
- c. 40% in even-aged
(shelterwood, intensive and non-intensive plantation)

2. Replicate each treatment at the **stand level** (10-50 acres)
(an acre is a little smaller than a football field without the end zones)

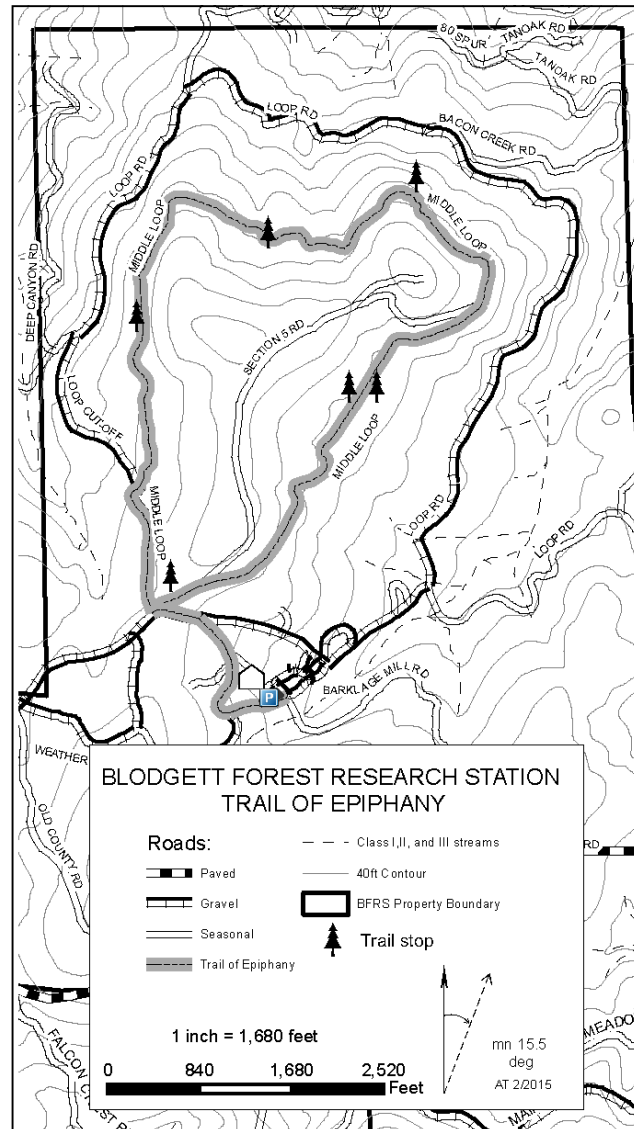
3. Monitor effects over time using long-term permanent plots

The result of this experiment has been a very productive research forest when measured by scientific publications, and has also resulted in heavy use for public and professional education. In addition to research, we have been a productive forest in terms of timber products, annual harvests have made the forest nearly self-sustaining for over 50 years.



Trail of Epiphany

Interested in exploring Blodgett Forest on your own? Well look no further! The 3 mile Trail of Epiphany will take you on a self guided tour through the various management alternatives and research done at Blodgett Forest and beyond. Just follow the map below and enjoying a relaxing walk through the world of forestry!



Blodgett Forest Research Station



University of
California, Berkeley
College of Natural Resources

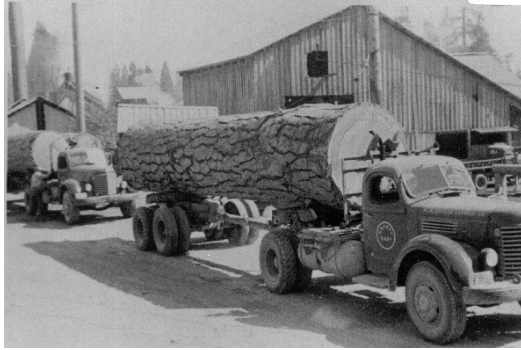
4501 Blodgett Forest Rd.
Georgetown, CA 95634

Main office is open from 7:30 to 4:00pm Monday-Friday during summer months.

Front gate is locked at 4pm daily

(530) 333-4475
forestry.berkeley.edu

Blodgett Forest Research Station



A Little History

Pre– 1850: area managed by Native Americans who would have burned this forest every 10 to 20 years for many management goals including hunting and plant propagation.

1849: California gold rush and introduction of European immigrants to the area.

1890's: some areas logged by oxen

Early 1900's: Railroad logging; property that is now Blodgett went through multiple owners (American River Lumber Company, El Dorado Lumber Company, and C.D. Danaher Pine Company).

1918: John Blodgett formed Michigan-California Lumber Company, now owner of the property that became Blodgett.

1933: 2,700 acres donated to the University of California, Berkeley with the provision that it become an educational facility focusing on sustained timber production

1950's—current: As the forest began to recover from past logging, UC Berkeley started a program of active forest management while gradually acquiring additional property. This has included the construction of many buildings and roads, annual harvests since the 1960's, and an intensive monitoring program.



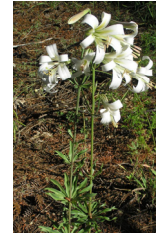
Blodgett receives around 60 inches of precipitation annually. Snow is common from December to April when the temperature ranges from 32 to 47 degrees Fahrenheit. In the summer months Blodgett is typically dry with temperatures ranging from 50 to 85 degrees Fahrenheit.

Flora and Fauna of the Forest

The Trees: Blodgett sits within the Sierran mixed conifer forest. The 5 main naturally occurring conifers are ponderosa pine, sugar pine, white fir, Douglas-fir, and incense cedar. You may also see some giant sequoia on the forest; while it isn't naturally occurring it has been planted and, as you will see, is thriving here. The main hardwood found is black oak, but you will also see madrone, tan oak, dogwood, and alder and maple near streams.

The Shrubs and Herbs: The most common genus of shrubs found on the forest is *Ceanothus* from which we have deer brush, white thorn, and mahala mat. *Ceanothus* play an important role in the forest as nitrogen-fixers. This means, with the help of bacteria friends, they convert nitrogen into a form usable by plants. Other common shrubs are manzanita, chinquapin, Sierra ground rose, and bear clover.

The Flowers: Blodgett in home to an array of beautiful flowers from spring to early summer. These include everything from the common Hartweg's iris to the majestic Washington lily and the illusive Indian paint brush.



The Mammals: Gray squirrels, Douglas' squirrels, ground squirrels, coyote, deer mouse, mule deer, and black bears are all found on Blodgett. Seen less often are the bobcat, ringtail, and mountain lion.



The Birds: Dark-eyed juncos, flickers, Stellar's jays, ravens, and mountain chickadees, just to name a few, are all commonly seen. Also seen are the red-tailed and Cooper's hawk. California spotted owls have even nested within Blodgett.

The Reptiles and Amphibians: Common reptiles are the rubber boa, rattle snake, northern alligator lizard, western fence lizard (blue belly), and western skink. Amphibians include the pacific tree frog and California newt.



The Insects: While over 3,000 species of insects, mites, and spiders have been collected on Blodgett there are a few of special concern. These are the western pine beetle, mountain pine beetle, red turpentine beetle, and pine/fir engraver which all have the potential to impact conifer trees if epidemic populations occur.

Historically, fires ignited by lightning or Native Americans would have burned this area every 10 to 20 years. This high frequency would have resulted in relatively low severity fires. The fire regime has changed greatly due to 150 years of fire exclusion and fuel buildup. This has resulted in low frequency, high severity fires such as the King fire. These fires tend to be large in size and highly destructive.



A Closer Look at Management Alternatives

Reserves

- ◆ *Ecological reserve*—**no management** action has occurred in these areas since harvest in the early 1900's. These areas are often used as control areas for research projects.
- ◆ *Young growth reserves*— following an even-age regeneration harvest, stands are replanted and allowed to develop with **no management** activities.

Multi-aged

- ◆ *Single tree selection*—individual trees of multiple species and size are selected for removal. Harvests occur on average every 10 years.
- ◆ *Group selection*—scattered groups (1/4 to 2 acres) of trees are removed over a given area. Resembles miniature clearcuts, but part of a larger stand that has many age groups thus an multi-aged stand.

Even-aged

- ◆ *Clearcut*—all merchantable trees in a given area (on average 10-15 acres) are removed in a single harvest. The area is then re-planted creating an even-aged stand.
- ◆ *Shelterwood*—removes all trees in an area with multiple harvests over a series of years. Initial cuttings improve stand vigor leaving large trees to drop seeds and to shade/protect seedlings. The final cut removes these large trees to allow the seedlings to develop just as those in a clearcut.

