



TRIP TO *Northern California*



Sonoma County vineyards and redwoods



Southern Mendocino County redwoods



Sonoma ridgetop redwoods



*Even aged second growth redwoods
and douglas fir*



In May of 2004 I was fortunate to visit Northern California and see the major forestry species growing in their natural environment. Understanding how the climate, soils, other vegetation and forest management interacts is important, when making comparison with New Zealand conditions.

Bill Libby has clarified usage of local names in California. Redwood refers to the coastal redwood, *Sequoia sempervirens*; and Sequoia to *Sequoiadendron giganteum* from the inland Sierra Nevada Range.

Arriving in San Francisco I drove north through vineyards in typical valleys of Sonoma country. Farmers were baling hay and cultivating dry dusty fields, rather like Nelson in January. Large redwoods were mainly on upper slopes and ridges rising to 1200 feet, with grapes and pasture on the lower slopes.

North of Boonville in Mendocino County the valleys give way to broken mountainous country, the highest peaks reaching to over 5000 feet. Redwood is the dominant species mixed well with Douglas fir and Hemlock. Closer to the coast where salt spray is a factor Sitka spruce, the blue form of *Pinus muricata*, planted *Radiata* pine and *macrocarpa* cypress predominate, the cypress aggressively naturalising.

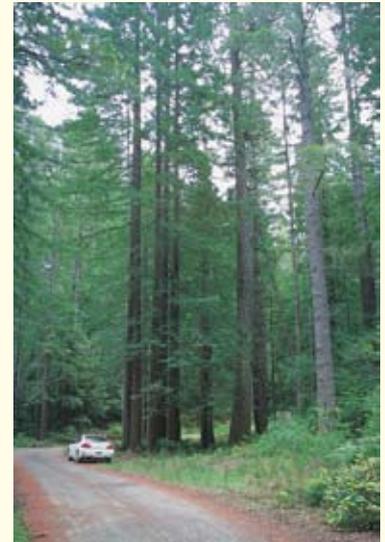
Fort Bragg was of special interest, given the importance of this Douglas fir provenance in N.Z. and the preferred seedlot in our nursery.

Seed was collected in 1957 by Egan Larsen, for F.R.I., Rotorua, along the old Casper Lumber Co. road at an altitude of 500 ft, in Jackson State Demonstration Forest. Eric, my father despatched this seed from the Central Seed Store to various Forest Service nurseries, and from 1957-60 supervised planting of provenance trials in Hanmer, Naseby, Berwick and Rankleburn.

I was able to visit the general collection area, the original Douglas fir having been logged and now predominantly in redwood. Further along the logging road there were areas of large Douglas fir. What surprised me was the dominance of redwood after logging due to its ability to coppice from the stumps.

I planned my visit to travel the roads bisecting the Coastal Ranges. State Highway 1 leaves the coast north of Rockport, climbing to an altitude of approximately 2000 feet, through relatively even second growth of redwood and Douglas fir, with the height and diameter reducing closer to the summit of the range. This area is the northern limit of the main central population of redwood.

Driving down the eastern side of the range, redwood had disappeared, replaced by evergreen oak, madrone and pine species among the Douglas fir.



Fort Braggs douglas fir and redwood



Redwood sprouts regrowing from logged and burnt stumps

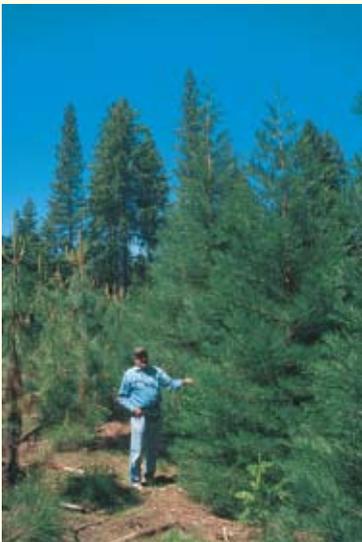
Travelling north down the Eel River the old highway passes through the Avenue of the Giants. If you really want to be humble before nature, this is the place to be. It is not a dark forest, and even with high overcast, I was relieved my slides captured the true grandeur of these *Sequoia sempervirens*. Having seen the largest, by comparison everything else seemed rather small.

A Redwood plantation at Scotia is planted in rows and pruned to 6 metres, this young stand was most impressive with a dark interior and no brushweeds present.

Agriculture occupied relatively small areas of river flats, there was a coastal fishing fleet, but forestry was the major economic force and employer.

Travelling north almost to the Oregon border, I visited Bill Ross who runs an open ground nursery similar to our own. As a trained forester he was able to answer my many questions regarding nursery practises and successful establishment in the forest.

Heading east from Eureka to Redding, the road climbs from the valley over a high pass, redwood giving way to Douglas fir, hemlock, grand and white fir with pine species further inland.



Bill Libby amongst mixed species trials

SIERRA NEVADA

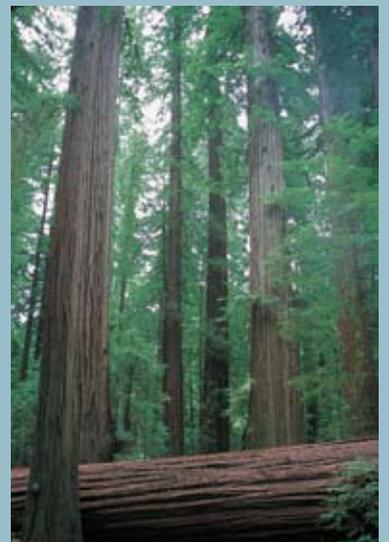
The dry rolling slopes of the Sierra are a real contrast to the coastal fog belt. I was fortunate enough to spend several days with Dr. Bill Libby visiting trial sites in Blodgett Forest at about 4000 feet, east of Sacramento on the west side of the Sierra, and later at Russell Reservation near Berkeley in the Coast Range. At Blodgett, 8000 acres of cut over railway land gifted to the University of California in 1933, is managed as a commercial and research forest. Bob Heald, Blodgett manager, has established trials interplanting *Sequoiadendron giganteum* with

Sierra provenance Abies concolor, Calocedrus decurrens, Pinus lambertiana, Pinus ponderosa and Pseudotsuga menziesii, compared with single species plantations. The growth rate and foliage colour of *Sequoiadendron* was superior in the five species mix.



Blodgett Forest, recently logged and replanted

Avenue of the Giants





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We finished the day as the sun was setting amongst huge sugar pines (*Pinus lambertiana*). While the rotation is longer, the diversity of species growing in a harsh environment is most impressive.

The next day we visited Bills' redwood Christmas tree project, using a selected clone, which we will have available in the future. Russell Reservation is a former corn, tomato and livestock farm, set in the foothills 20 miles east of San Francisco; it includes the Kuser *Sequoia sempervirens* collection. Replicated trials compare select clones with random clones from all parts of the redwood range.

One clone was from the controlled cross of the two tallest redwoods, both then a bit over 111m tall, a clone Bill describes as having royal lineage.

MONTEREY

I travelled south through the Ano Nuevo *Pinus radiata* provenance and on to Monterey to the largest natural area of *radiata* and home of *Cupressus macrocarpa*.

The town was formerly the Spanish capital of Alta California and a fishing port, but is now an upmarket tourist destination. Pebble Beach Golf Course and Estate has particularly good examples of windswept *macrocarpa* along its beach frontage.

The final tree-hunting destination was to seek out the southern range of *Sequoia sempervirens* where they become restricted to moist, very steep sided gullies.

An excellent tree reference with beautiful photographs is 'Conifers of California' by Ronald M Lanner.



Pinus lambertiana, Blodgett Forest



Kuser clonal trial, Russell Reservation



Dr Bill Libby with his Christmas tree clone
Kobel KT at his home in San Francisco



Pinus radiata in the wild acting as the
backdrop for Pebble Beach Golf Course



Windswept macrocarpa at Pebble Beach

