Giant Sequoia

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Sequoias Elsewhere

With the giant sequoia's discovery, it was to be expected that people would want to grow specimens in their yards, gardens, and public parks for ornamentation and as scientific curiosities. This horticulture began just a year after Dowd discovered the Calaveras Grove when a John D. Matthew sent a packet of seeds to his father at Gourdie Hill, near Perth, in Scotland. The seeds arrived there on 28 August 1853, the first to be shipped from the New World, and they were quickly planted. Other seeds and seedlings arrived in Europe the same year. Many of the seeds had been collected from the "Mother of the Forest" in the Calaveras Grove following that tree's unfortunate divestment of bark.

The British, with their characteristic fervor for gardening, raised many of the seedlings in their nurseries. At the outset. one-year seedlings sold in England brought the handsome price of £10 each (about $50 at the 1850 exchange rate), so that for a time their use was rather restricted to the wealthy for planting on the larger estates. Saunders (1926) stated that no other species of tree ever introduced into England had caused such excitement or had been so costly. Today, Alan Mitchell of the Royal Forestry Commission makes the statement (personal communication) that there is scarcely a hilltop or mountain peak in Great Britain from which a sequoia cannot be seen. They grow rapidly in that country, especially in the more humid regions of Scotland. A handsome specimen of some 8.5 ft dbh and 150 ft tall. the largest tree in all Great Britain, grows at Leod Castle north of Inverness.

It is estimated that in Europe there are perhaps as many as 10,000 sequoia trees. They are abundant in France, Germany, Switzerland, and the Low Countries, and easily identified as the tallest trees projecting themselves above the general tree-crown canopy. The most northerly are in coastal Norway, where the Gulf Stream lowers winter temperatures and cold climate is not a limiting factor. On the north shore of the spectacular Sogne Fjord, in the yard of an ancient church in the town of Leikanger. at 61 11 N latitude is the northernmost specimen. Planted in the 1880s, it is now nearly 4.5 ft in diameter.

Progressing south and east across Europe, sequoias are increasingly fewer. Yet they grow well in Czechoslovakia, Hungary, Romania, Bulgaria, and along the Black Sea Coast of the USSR. They appear to be limited by continental cold air masses in Poland, northern USSR, Finland, and Sweden. Of the several that were introduced into Poland, only one has survived the frigid winter weather, a specimen growing near the city of Szezecin in the western part of the country.

In southern Europe, the seasonally arid Mediterranean climate inhibits growth unless summer watering is provided. Although there are several specimens in Yugoslavia, Italy, and Spain, the trees have not survived climatic conditions in Greece and Albania. In southern France, specimens are found more commonly at higher elevations where more mesic conditions prevail. By far the largest specimens in all of Europe are those in the palace grounds at La Granja, Spain, northwest of Madrid. In a warm climate and with regular lawn watering, the larger specimen is 13 ft dbh and 130 ft tall, while the smaller of the two is more than 10 ft dbh and 133 ft tall (Figure 30). These two specimens were planted in the late 1800s. Because they grow in the open, they have retained their branches down to the ground and display a form that is rarely seen in its native habitat.

Specimens are also known to be growing in Turkey, Egypt, Lebanon, Israel, Cyprus, Japan, South America, Australia, New Zealand, and in British Columbia, Canada. In the Southern

Hemisphere, they seem to be indifferent to the reversal of the seasons and grow vigorously, particularly in New Zealand.

The sequoia's successful existence in such diverse and widely scattered environments abroad has provoked many to ask why its natural range is so restricted. This logical question fails to take into account its nurture by man and the fact that nowhere outside of its native Sierra Nevada has the giant sequoia ever been known to re-seed itself by natural means. Yet even in the Sierra, wherever the necessary conditions for natural re-seeding are fulfilled, the early seedling stage is always the most vulnerable to environmental vicissitudes.

However unique the ecological relationships within the perimeters of' extant sequoia groves, probably the only plant exclusively found in these groves is the giant sequoia itself, and even the combinations of plants and animals associated with it vary from grove to grove, resulting in different biotic interrelations.