

The Effects of Sudden Oak Death on Wildlife-Can Anything Be Learned From the American Chestnut Blight?¹

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Abstract

American chestnut (*Castanea dentata*) was largely removed from eastern North American forests by chestnut blight, a disease caused by the introduced fungus *Cryphonectria parasitica*. In 1900, American chestnut comprised nearly 25 percent of eastern deciduous forests in the United States. From 1910 until 1950, chestnut blight spread over 81 million ha of forestland, profoundly affecting the ecology and economy of eastern forests, especially in the Appalachian area. In 1995, Sudden Oak Death (SOD) was identified near Mill Valley, California. Caused by the fungus *Phytophthora ramorum*, the disease has since spread to 14 coastal California counties, killing thousands of tanoak (*Lithocarpus densiflorus*) and coast live oak (*Quercus agrifolia*) trees. SOD threatens coastal woodlands throughout California and Oregon, as well as some eastern U.S. and European hardwood forests. Present-day issues in the conservation and management of California oak woodlands are disturbingly reminiscent of the widespread concern for the future of chestnut in the early 1900s. Insight into chestnut blight's effects on wildlife, however, comes from only a few newspaper reports and study of the few remaining mature trees. The profound changes in forest composition and structure unquestionably reduced the eastern forest's carrying capacity for many species of wildlife. Hopefully we can anticipate and shape the future, so that the high diversity and abundances of wildlife in California coastal oak woodlands will persist.

Key words: American chestnut blight, *Cryphonectria parasitica*, sudden oak death, *Phytophthora ramorum*, wildlife

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