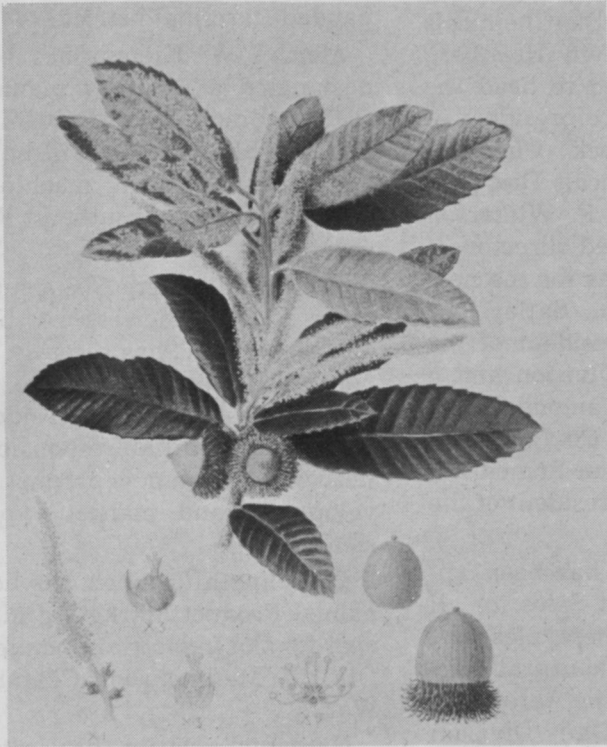


## TANOAK

(*Lithocarpus densiflora*)



Picture from: Murman Slide Collection, Library,  
University of California at Los Angeles.

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Although tanoak (*Lithocarpus densiflora*) is not a *Quercus*, it is closely related to and has been included in the genus in the past. There is only a single species in western North America, but there are about 300 of them in eastern and southeastern Asia and Indomalaysia. In California a dwarf variety (*L. densiflora* var. *echinoides*) also occurs. Both tanoak and members of the genus *Quercus* belong to the beech family (*Fagaceae*).

Confined to the Pacific Coast states, tanoak occurs in both coastal mountains and in the Cascades

and Sierra Nevadas. It is an evergreen tree 60 to 150 feet high with a conical crown and thick fissured bark. The oblong, leathery leaves are 1½ to 5 inches long and 1 to 1¼ inches wide with petioles approximately ½ inch long. Light-colored when young, they become almost glabrous with age. Flowers are in erect catkins 2 to 4 inches long; acorns are from 1 to 1½ inches long and are surrounded at their bases by a shallow bur-like cup with slender recurving scales. They mature the second year.

Tanoak is a common constituent of the Douglas-fir and redwood forests of the Pacific Coast. Following forest fires or logging the tanoak recovers rapidly due to its ability to develop basal sprouts. This recovery works to the disadvantage of Douglas-fir, whose young seedlings have difficulty competing against dense stands of sprouting tanoak. In the past, tanoak had been used to a small extent for lumber and its bark for tannin. Today the bark is no longer used for tannin and future prospects of using the tree for lumber are limited. The problem, then, is to control this species sufficiently to prevent the present pattern of conversion of valuable Douglas-fir forests into low-value tanoak forests by logging.

Tanoak is not only of limited value as a forest tree but also as browse for domestic livestock or big game. There is some interest in converting tanoak covered areas into range, but control of the species is difficult. However, there are methods in which herbicides can be used in forested areas for tipping the ecological balance in favor of Douglas-fir and some other coniferous species.

On sites where there is an understory of Douglas-fir, a brush killer mixture of 2,4-D and 2,4,5-T (or 2,4,5-T alone) can be sprayed by helicopter in March or April, using about 3 pounds of acid equivalent per acre. The main point is to make the applications prior to the growth of the conifers so they will not be injured. Reapplication should be planned in about 2 years and again, perhaps, after a lapse of 2 or 3 more years. In this manner, the tanoak can be suppressed, giving the conifers an opportunity to out-compete them.

It is also possible to make several types of applications with ground equipment. The understory tanoak can be sprayed with a mist blower and the larger stemmed trees can be treated with 2,4-D amine applied to cuts in the stems in winter or early spring.