Window of opportunity for restoring oaks small, new study finds

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Communities of Oregon white oak were once widespread in the Pacific Northwest's western lowlands, but, today, they are in decline. Fire suppression, conifer and invasive plant encroachment, and land use change have resulted in the loss of as much as 99 percent of the oak communities historically present in some areas of the region.

A new technical report titled "Evaluation of Landscape Alternatives for Managing Oak at Tenalquot Prairie, Washington" outlines the findings of a study aimed at determining the success of different management scenarios in restoring the region's oak communities. The study's findings indicated that if oaks are to be successfully restored, more aggressive management is needed within the next several decades.

"In areas where conifers have encroached into oak woodlands and savannas, about two-thirds of the remaining oaks were predicted to die over a 50-year period unless the conifers are removed," said Peter Gould, a research forester and lead author of the report.

Gould and his colleagues conducted a landscape-level analysis of a portion of Fort Lewis, Washington, that is the site of many of the Puget Sound's last remaining oak communities. Using geographic information system technology, a forest growth model, and landscape visualization software, the researchers simulated the effects of five different management scenarios on the extent and condition of oaks. The scenarios ranged from no management at all to restoration of the historical extent of oak prairies typical of 1853.

“Oaks were predicted to benefit most under the scenarios that included widespread conifer removal in stands where oak was already present,” Gould said.

Source: USDA Forest Service