



## **Uncovering reasons for oak regeneration failure: revisiting experimental sites eight years after controlled burns**

Oak is a critical “biodiversity carrier” in southern Swedish landscape. It hosts a large number of rare and endangered insects, numerous epiphytes, and associated species of birds. Oak abundance has declined over the last 200 years. Poor regeneration of oak in the modern landscape is a well-documented factor of this dynamics. Changes in disturbance regimes and darker forest environments likely limit oak regeneration. Forest fires, which have effectively disappeared in the today’s Sweden, may be a critical driver of oak regeneration dynamics. There are, however, little empirical data to evaluate impact of fires on oak regeneration. In northern Europe, the lack of relevant data is, in part, due to a long history of human exploitation that effectively eliminated legacies of natural disturbances in oak forests that would allow retrospective analyses of fire impact on oak population dynamics.

The current project explores effects of experimental fires on oak regeneration using a unique dataset from experimental sites. The sites experienced fire in 2015 and varied degrees of browsing pressure and light in the years that followed. The project will feature detailed inventory of these locations in visually appealing mixed oaks forests across Southern Sweden, moderate amount of work in the Dendrochronological lab ([www.dendrochronology.se](http://www.dendrochronology.se)), R-based statistical analyses, and writing of the project report (= Master theses).

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Relevant reading: <https://doi.org/10.1002/ece3.6092>

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