

European Forest Decline Sparks Tree Death Interest

Are the trees in your park dying? Is this a natural dieback or caused by human-induced stress? Tree death is becoming an ecological research focal point, particularly with the widespread European "Waldsterben" and forest declines in other areas.

The September, 1987 issue of *Bioscience* contains seven articles dealing with the cause and consequences of tree death on ecosystem species composition, structure, and function. The articles include "Tree death as an ecological process," "Tree life tables," "Characteristics of trees predisposed to die," "Natural diebacks in forests," "Competition and tree death," "Dynamic ecosystem consequences of tree birth and death patterns," and "Modeling the climate dynamics of tree death." These articles demonstrate the importance of tree death in ecosystem dynamics. We may not always know why a tree dies, but we are beginning to understand its relevance.

The articles stress the interdependence of tree death and tree establishment at the level of the individual tree, the tree stand or community, and the landscape. So-called "gap models" have been used to simulate such interactions at small scale in a variety of temperate and tropical forests. From these articles, it is clear that landscape-level models will be a focus of future research.

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