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## Forest protection

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## Forest Protection

by

David L. Kulhavy and David B. Drummond

Insects and diseases are natural, integral components of the forest ecosystem. The forest ecosystem itself undergoes constant change and is subject to perturbations within long-term ecological cycles. As the dynamics of the forest change, so does the response of the organisms feeding (or living) within this system. One such organism in the South, responding rapidly to environmental changes, is the southern pine beetle, *Dendroctonus frontalis* Zimmermann. In the northeast, the gypsy moth (*Lymantria dispar* L.) responds in a similar fashion.

In Texas, populations of the southern pine beetle began to peak at the time wilderness areas were designated by the 98th Congress (October 1, 1984). In 1985, over 15,000 separate southern pine beetle spots (10 or more trees) were detected, many within the boundaries of the wilderness areas. Current management regimes include removing the infested trees from the site plus a strip of uninfested trees (cut and remove); cutting infested trees and a strip of uninfested trees and leaving them in place (cut and leave); or to do nothing (no action). Evidence of extensive activity (feeding) by southern pine beetles if no action is taken occurred both in the Four Notch area of the Raven District of the Sam Houston National Forest (USDA Forest Service) in Texas, and in The Big Sandy unit of the Big Thicket National Preserve administered by the National Park Service.

That something must be done to disrupt southern pine

beetle spots is apparent; the question is how to best do this. The "minimum tool" ethic espoused in the Wilderness Act dictates minimal disturbance of wilderness qualities and attributes. However, "measures may be taken as may be necessary in the control of fire, insects, and diseases..." This issue is being addressed by two concurrent lawsuits, currently in district court in Texas and Washington, D.C. An Environmental Impact Statement (EIS), pertaining to control of the southern pine beetle in wilderness areas, is due for public comment in early 1986. The outcome of the lawsuits and the content of the EIS will have far-reaching implications for management of wilderness and natural areas.

The draft EIS, released July 9, 1986, addresses six major issues: impact of proposed alternatives on Red-cockaded woodpecker, *Picoides borealis*; impact on wilderness areas; effectiveness of control techniques; application of control techniques; possible impacts of the southern pine beetle on lands next to wilderness boundaries; and nontraditional control tactics. These major issues will be reviewed with alternatives for control and a preferred alternative recommended.

Management, however, must be prudent, and administered and overseen by professional managers. Wilderness and natural areas must be viewed as a resource to be managed.



**WILDERNESS AND NATURAL  
AREAS IN THE EASTERN  
UNITED STATES:  
A MANAGEMENT  
CHALLENGE**

**Edited by:**

**David L. Kulhavy and Richard N. Conner**