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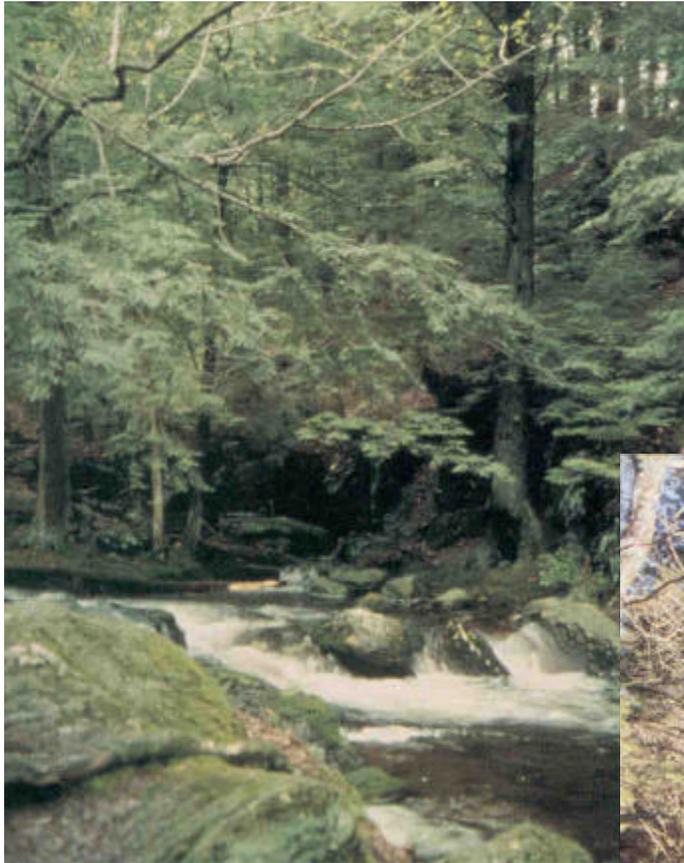
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Proceedings: Symposium on Sustainable Management of Hemlock Ecosystems in Eastern North America

June 22-24, 1999
Durham, New Hampshire



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Connecticut River, Devil's Hopyard State Park, Connecticut. Photographed by Roger T. Zerillo, U.S. Forest Service.

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Preface

Eastern hemlock (*Tsuga canadensis*) is remarkable because of its extreme tolerance to shade and its long life. Much like the fable of the tortoise and the hare, hemlock can outwait, and outlive, its more aggressive competitors. Although its wood is unremarkable as lumber or fiber compared to other species with which it competes, hemlock has important ecosystem values worth protecting, such as wildlife benefits and aesthetics. Although timber management and cutting practices in eastern North America generally have not favored hemlock reproduction, hemlock has maintained itself on suitable sites. The single most serious concern for the future of eastern hemlock is hemlock woolly adelgid (*Adelges tsugae*), an exotic insect that threatens to decimate eastern and Carolina hemlock over most of their natural range. Pollen records in lake sediments show that hemlock declined, possibly as a result of an insect pest, about 5,000 years ago, but recovered slowly over 1,000 years.

The purpose of this symposium was to bring together researchers and managers to exchange information and foster discussion on managing the extensive ecosystems in which hemlock occurs in eastern North America. The five themes addressed at the symposium included hemlock silviculture, ecology, forest health, wildlife relationships, and marketing and utilization. Thirty-one papers and 20 posters were presented and a field trip demonstrated silviculture, ecology, and wildlife principles and marketing of hemlock wood products. Many of the presentations dealt in some way with hemlock woolly adelgid or probable effects on the ecosystem of large-scale hemlock mortality.

The advances that have been made in understanding the biology of hemlock are rooted in the work of many individuals. Some met at this symposium to share that understanding. The message was not entirely optimistic, and it is hoped that more research will be stimulated as a result. The good news is that hemlock endured a similar decline once before and recovered. The bad news is that recovery took 1,000 years. We hope that the interaction between science and resource management will mitigate the potential effect of the hemlock woolly adelgid and maintain hemlock as a valuable component of the ecosystem.

