NEW BOOK CHAPTER:
FIRE IN EASTERN HARDWOOD FORESTS THROUGH 14,000 YEARS

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Abstract:
Fire helped shape the structure and species composition of hardwood forests of the eastern United States over the past 14,000 years. Periodic fires were common in much of this area prior to European settlement, and fire-resilient species proliferated. Early European settlers commonly adopted Native American techniques of applying fire to the landscape. As the demand for wood products increased, large cutover areas were burned, sometimes leading to catastrophic fires and subsequent early successional habitats. By the early 1900s, these catastrophic fires resulted in political pressure leading to policies that severely restricted the use of fire. Fire suppression continued through the twentieth century due to an emphasis on commodity production and under-appreciation of the ecological role of fire. Without fire, fire-sensitive species were able to successfully outcompete fire-adapted species such as oak and pine while early successional habitats matured into older and more homogeneous forests. In the late twentieth century, land managers began reintroducing fire for ecosystem restoration, wildlife habitat improvement, hazardous fuel reduction, and forest regeneration. Responsible use of -prescribed fire and other management tools in the region could help mitigate past actions by increasing the amount and distribution of early successional habitats, plant and animal diversity, and landscape heterogeneity.

Availability and Description:
This is chapter 4 in the textbook "Sustaining Young Forest Communities: Ecology and Management of Early Successional Habitats in the Central Hardwood Region, USA." The chapter is available at:

https://springerlink3.metapress.com/content/n8x831474k55204l/resource-secured/?target=fulltext.pdf&sid=a1tj2avnn3opqrpt0z0mj0qh&sh=www.springerlink.com

In this chapter, we divided fire history into three sections designated by the following time periods: (1) 14,000 years before present (BP) to 400 years BP, (2) 400 years BP to 1910 and (3) the past 100 years (1910–2010). These time periods are based on both the type of data available as evidence of fire and changes influencing fire regimes during each respective period. At the beginning of each section, we presented the types of data available as evidence of fire; we then synthesized evidence of fire for the respective time period. Our focus was on fire in hardwood forests throughout the eastern USA with emphasis on the Central Hardwood Region.

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