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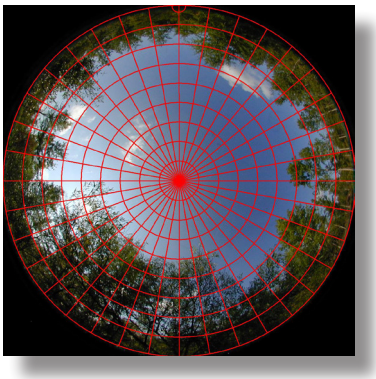
Patuxent Wildlife Research Center

Forest Structure Resulting from 'Wildlife Forestry Silviculture'

The Challenge: Management of bottomland forests using wildlife forestry silviculture is being undertaken to achieve desired forest conditions for priority silvicolous wildlife, such as Louisiana black bear, migratory birds, and resident game species. Wildlife forestry management results in forests that have more open canopies and increased understory vegetation yet exhibit heterogeneous structure with retained dominant trees and cavities. However, the capability of wildlife forestry management to maintain desired forest conditions without undesirable shifts in forest composition has yet to be evaluated



The Science: The physical structure within bottomland forests is being assessed and compared among managed and unmanaged forest stands. Temporal dynamics of forest structure and coarse woody debris are being measured. Survival of shade-intolerant trees regenerating within canopy gaps is being assessed and rates of canopy closure are being evaluated.

The Future: Assessments of changes in forest structure, rates of canopy gap closure, and survival of shade-intolerant tree species will provide a framework upon which to base the prognosis for perpetuation of desired forest conditions. Forest management to improve forest habitat for priority species will be evaluated and modified such that desired forest conditions may be achieved and maintained.

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