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BIRDS AND SMALL MAMMALS OF STREAMSIDE MANAGEMENT ZONES IN ARKANSAS

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Abstract: Streamside management zones (SMZs) are strips of natural vegetation, usually mature forest, retained along streams and other waters to protect water quality and to provide wildlife habitat in managed forests. The objective of this study was to characterize bird and small mammal communities in SMZs of various widths (7 to 246 m), within loblolly pine plantations of various age and condition classes (young/open, closed canopy, older/thinned), in the Ouachita Mountains of Arkansas. Fifty-six streamside habitats, including 44 SMZs, 9 streamside pine plantations without SMZs, and 3 natural streamside forests, were sampled for 2 years each during 1989 to 1995. Preliminary findings indicate that abundance, species richness, and diversity of birds and small mammals in most SMZs and pine plantations were comparable to natural streamside forests. Increasing width of SMZs did not necessarily result in greater abundance, richness, or diversity. However, even when richness and diversity indices were similar among treatments, species composition frequently varied. Some species were associated with narrow SMZs and some with wide SMZs, which provide southern forest managers with opportunities to manage for diverse wildlife communities. An important consideration of SMZ practices for wildlife is to accommodate species associated with streams and flood plain habitats and species with high conservation priority.