Recognizing the 'sparsely settled forest': Multi-decade socioecological change dynamics and community exemplars

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Abstract

Sparsely settled forests (SSF) are poorly studied, coupled natural and human systems involving rural communities in forest ecosystems that are neither largely uninhabited wildland nor forests on the edges of urban areas. We developed and applied a multidisciplinary approach to define, map, and examine changes in the spatial extent and structure of both the landscapes and human populations of SSF in the United States. We estimated that the SSF in the contiguous United States, which are home to only 6–7% of the population, account for over 60% of all forested land and over 30% of all land. From 1990 to 2010 SSF declined in area by 16%, changing little overall but declining markedly in proximity to urban perimeters. A PCA ordination and cluster analysis of the human and landscape characteristics of SSF areas revealed complex and regionally variable patterns. Very broadly, SSF in the far northern and western states are less densely settled and more amenity driven, while the southeastern states north through Pennsylvania and Ohio are more densely settled and more agricultural. The socioeconomic characteristics of SSF are often quite variable at fine scales, especially in proximity to urban areas. Our improved multidisciplinary understanding of SSF raises important questions about regional differences in the dynamics, structure and future socioeconomic trajectories of these forests. To best manage these landscapes for the sake of both human and natural systems, SSF need to be considered a distinct land classification in their own right, not merely perceived as fuzzy boundaries around wild lands or urban areas.

Read the full paper in *Landscape and Urban Planning* [1]. [1]

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[2] https://www.sesync.umd.edu/rural-forest-communities-tipping-point-trends-and-actionable-research-opportunities
[3] https://www.sesync.umd.edu/users/bparmentier