



Identifying and mapping forest-based ecotourism areas in West Virginia – Incorporating visitors' preferences



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HIGHLIGHTS

- Integrates visitors' preferences with the physical settings to identify and map ecotourism areas.
- Visually displays the impact of visitors' preferences in the classification of ecotourism destinations.
- Incorporating visitors' preferences provide helpful information in terms of destination development, marketing, and promotion.

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ABSTRACT

This study identifies and maps forest-based ecotourism areas in West Virginia by incorporating visitors' preferences. Relative weights for ecotourism destination criteria were obtained using the Analytic Hierarchy Process based on a survey of 777 participants. The study classified the state into five levels of naturalness with areas under Class I being the least natural and Class V being the most natural. The presence of wildlife was found to be the most important criterion and slope was found to be the least. Results also showed significant variations in visitors' preferences. Areas under Class IV and Class V in both weighted and unweighted ecotourism maps covered more than half of the state's area, suggesting high prospects for promoting forest-based ecotourism in the state. The results further showed that each class changed in size when visitors' preferences were applied. The ecotourism maps created provide useful insights for visitors, destination managers, and decision makers.

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1. Introduction

The sector of ecotourism is growing at a fast pace with an estimated yearly growth rate of 20–34% since the 1990s (The International Ecotourism Society, 2006). In recent years, global ecotourism is estimated to generate as much as U.S. \$300 billion in revenues annually (Stronza & Durham, 2008). As a form of tourism that aims to minimize environmental impacts and contributes to economic development of local communities, ecotourism has shown prospects for successfully funding conservation and sustainable development programs (Drumm & Moore, 2002). Like any other form of tourism, the growth of ecotourism is dependent on the flow of visitors. Marketing tourism for a destination requires identifying various characteristics of the destination, desired visitor groups, and the best ways to reach and convince these groups to visit the destination. However, literature on ecotourism has been

primarily focused on identifying desired (lucrative) visitor groups and identifying ways of reaching them (Lundberg, 1990). Identification of destinations by incorporating visitors' preferences of destinations has received little attention.

Identification and evaluation of ecotourism destinations require setting standards (Ziffer, 1989) to help decision-makers consider the impacts of choice-alternatives that involve policy priorities, trade-offs, and uncertainties (Jankowski, 1995). It has also been suggested that assessing the quality of natural areas would be more effective than assessing tourist facilities from a long-term sustainability perspective (Font & Mihalic, 2002).

West Virginia (Fig. 1) is the third highest forested state (78%) (West Virginia Division of Forestry, 2006) and also the second most rural state in the United States (West Virginia Department of Health and Human Resources, 2013). The state's extensive vegetation cover and natural landscape is home to various species of wildlife. Though the state is rural, it is within 500 miles of 60% of the nation's population. In addition, West Virginia borders three of the top twelve states visited by U.S. tourists in 2009: Pennsylvania (7), Ohio (12), and Virginia (8) (U.S. Census Bureau, 2012).

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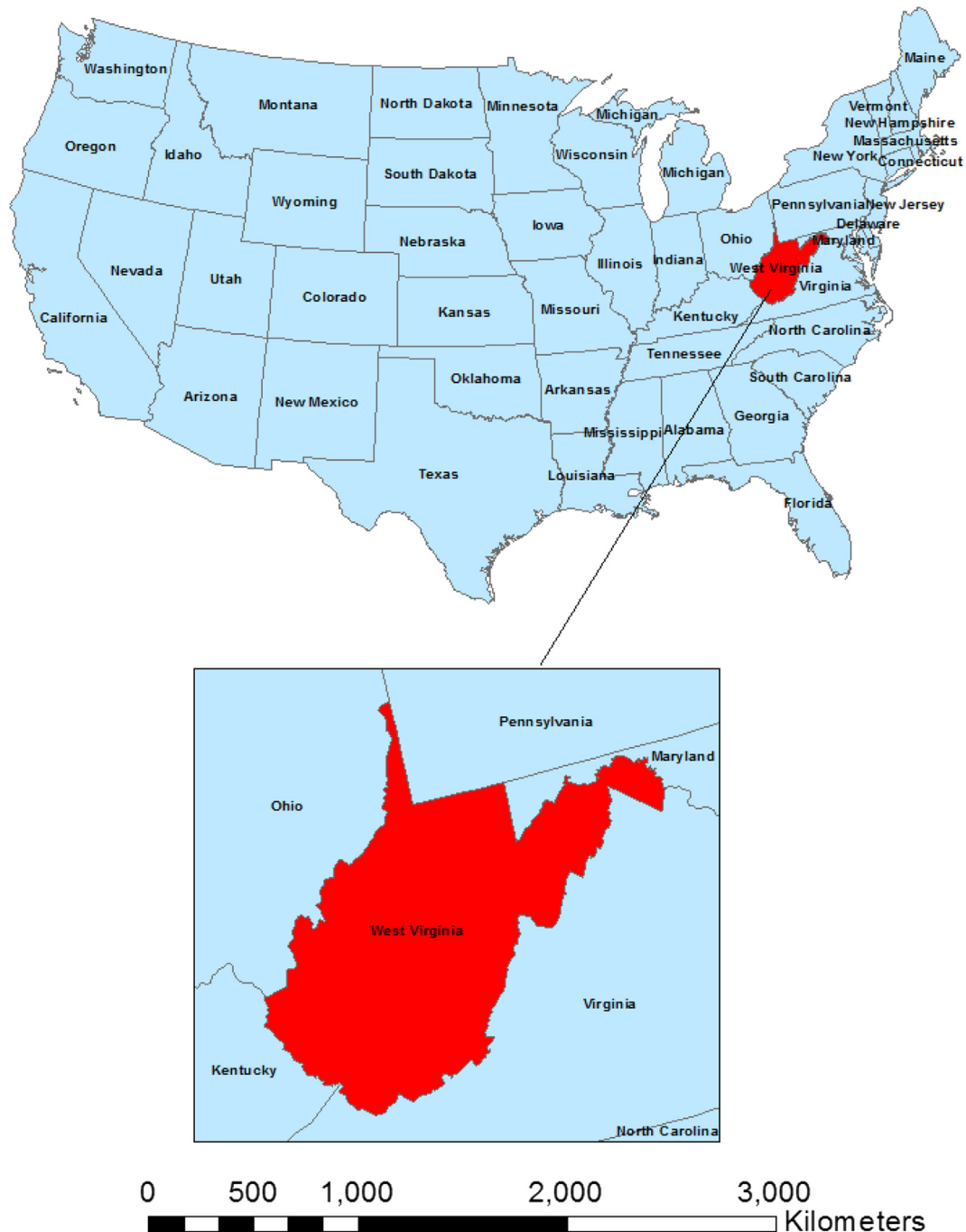


Fig. 1. West Virginia map and location.

Tourism is the second largest industry in West Virginia in terms of total economic impact and employment, second to coal mining and followed by forestry (West Virginia Division of Forestry, 2006). The 2010 annual report of the West Virginia Division of Tourism revealed that visitors preferred to visit national and state forests, national and state parks, and lakes and rivers during their trip, suggesting a great potential for ecotourism development in the state (West Virginia Division of Tourism, 2010).

Accordingly, this study identifies and maps ecotourism areas in the state by incorporating visitors' preferences. Since 78% of the state's land cover is forested, the study specifically considers forest-

based ecotourism areas in the state. The specific objectives are to: (i) create an unweighted ecotourism map based on the naturalness continuum, (ii) determine weights for forest-based ecotourism criteria from the visitors' perspective and use them to create a weighted ecotourism map, (iii) compare unweighted and weighted ecotourism maps, and (iv) determine differences in criteria weights among various visitor groups based on their demographics and travel characteristics. A weighted ecotourism map refers to an ecotourism suitability map where criteria weights derived from visitors' preferences were incorporated, while an unweighted ecotourism map is an ecotourism suitability map without the use of criteria weights.

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