The significance of recreation impacts: The importance of scale

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Abstract — Recreation managers often consider the ecological impacts of recreation to be serious problems that need to be mitigated. Conversely, protected area ecologists often consider such impacts to be trivial. Such differences of opinion result from applying divergent evaluative criteria to assessing the significance of recreation impacts. It reflects lack of attention to questions of significance and, in particular, inadequate exploration of scale issues in recreation ecology. Impacts might be considered significant if they represent a substantial loss of ecological integrity or if they are perceived by recreation users to be highly disagreeable. Although not mutually exclusive, impacts on ecological integrity and human perception provide different criteria for evaluating significance. Cole and Landres [1] propose that the ecological significance of an impact is a function of both impact and attribute characteristics. Significance increases with the areal extent, intensity and longevity of the impact and with the rarity and irreplaceability of the impacted attribute. To be significant, from the perspective of human perception, the impacts have to be noticeable. In addition, the most disagreeable impacts are one's that result from what is considered inappropriate behavior. Given these relevant criteria, this paper explores research that can help in assessing the significance of ecological impacts and suggests which impacts are likely to be most critically important. In particular, the paper reviews what is known about the spatial scale of impacts, since this is relevant to assessing both the areal extent of impacts and how noticeable impacts are. The impacts that are most significant perceptually are often quite different from the impacts that are ecologically most significant.

Index Terms — Recreation ecology, special scale, ecological impact

References

[1] Cole, DN and PB Landres. 1996. Threats to wilderness ecosystems: impacts and research needs. Ecological Applications 6:168-184)

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