Visual obstruction of herb vegetation, defining standards for natural barriers

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As a result of the increasing impact of recreation on resources and visitor experiences, wilderness managers often want to control the spread of recreational use. However, most of the attempts to alter wilderness recreational use patterns, suffer from a lack of knowledge of visitors' behaviour they seek to influence. In general, behaviour in a natural environment is assumed to be influenced profoundly by a variety of environmental, social and managerial setting attributes. This study concentrated on the effects of herb and understorey vegetation on perceived obstruction to recreationists. The aim of the behavioural experiment was to define marginal values for the structure of natural barriers. In this way, standards can be defined for an adapted management of trail edges, based on repellence of vegetation towards recreationists. Ratings by participants (n=131) on a five-point scale, measured perceived obstruction. These ratings were linked to physical variables of the vegetation, like horizontal and vertical cover. Analyses indicated a significant linear effect between vertical cover and perceived obstruction. In this way, a marginal height of about 60 cm could be determined for which vegetation has obstructive features. Also the condition of the soil surface and the presence of irritating species seemed to influence visitors' judgement. Our results indicate that there are possibilities for a more intensive use of natural barriers, as it is a functional alternative with economical and aesthetical advantages.