Assessing and Managing Trail Use and Endurance Activities in Grand Canyon National Park, USA

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Recent research at Grand Canyon National Park demonstrates that participation in endurance activities, including trail running, tends to be concentrated over a few weekends of the year (Pettengill 2017). When visitor use is concentrated like this, it can create or exacerbate impacts with potentially dramatic and lasting consequences. Impacts can be environmental (e.g., erosion, vegetation damage, contamination from human waste), social (e.g., crowding, conflict, degraded experiences), and administrative (e.g., exhausted employees, overtaxed facilities).

Multi-phase research authorized by Grand Canyon National Park explores relationships between visitor use and park environmental, social, and administrative conditions. The initial study considered implications of high-use events, many of them trail running- and endurance activity-related, for park policy and management (Pettengill 2015). As a result, park managers now emphasize minimum impact practices through social media during periods of peak use.

A current study builds upon the initial research. It will help refine estimations of visitor use during peak periods and tie visitor use levels and patterns to key environmental, social, and administrative conditions in the park, including: crowding and conflict among visitors; the relative impacts of trail running on experiential conditions in the canyon; wastewater treatment demands and capacities, and search and rescue demands and capacities.

This presentation considers this new information and highlights conceptual frameworks for addressing impacts associated with endurance activities and trail running along Grand Canyon's most used backcountry trails.

References

Pettengill, P. (2017). Understanding extended day use of corridor trails. *Park Science*, 33(1), pp. 84-90.

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