

Stewarding Peace & Darkness in our National Parks, with Dr. Zach Miller

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We all know that clean air and clean water are important resources to protect. Other resources we don't think about are Natural sounds and natural skies. You may not realize what kind of resources these are until you see the milky way or hear the natural sound you've been missing. But don't worry, plenty of scientists like Zach Miller are on the case.

Light not only affects what we can see in the night sky but can also affect the wildlife around us. Blue-hued lighting like on our florescent lightbulbs can attract insects and disrupt the sleep patterns of some animals. Blue light will even attract sea turtles and prevent them from nesting. The solution? Red hued light. Implementing these lighting changes not only improves the lives of the wildlife, but park visitors dint feel any less safe and are better able to experience the night sky.

Miller tells the story of camping in a certified dark sky area of northern Mexico. One night he stuck his head out of his tent to grab his rain fly, thinking he saw a cloud. Then he realized what he thought was a cloud was actually the milky way. He wants everyone to be able to have these experiences and to feel that sense of awe. We often forget that ancient cultures not only watched the skies for agricultural and navigational reasons but also because the stars were where the stories of their worlds were written. The pandemic has only made people realize how essential national parks and other outdoor recreation services are. Numbers in many national parks are double what they were at this time last year, despite fees and implementing systems like reservations. With this, parks have to work to reduce noise and keep people and wildlife safe. This has come in the form of education programs, restrictions, and sometimes simple signs that were effective enough in

reducing noise as if 20% of the people had been removed! Miller is also working with USU Moab to help establish ways (such as infrared counters) to get accurate numbers of how many people are hiking.

Listen to this episode of Instead to learn more about how sound travels over Utah's landscapes, how you can physically measure awe in a person, and what underrated parks Dr. Miller recommends.

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Dr. Zach Miller is a Wildlife and Society professor at Utah State University. He researches for the Institute of Outdoor Recreation and Tourism, as well as works with the Gateway and Natural Amenities Region Initiative (GNAR) from USU extension. Zach's research focuses on park and protected area management, where he uses social science concepts to inform the management of visitor use (e.g. visitor experiences related to crowding, alternative transportation, soundscapes, night skies, etc.), enhance strategic communications (e.g. Leave No Trace, environmental interpretation), and improve human-wildlife relationships. Zach also works on social-ecological projects, where he integrates social and ecological sciences to understand how humans and the environment affect and are affected by each other.



