

Research shows climate change affects recreational behavior

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Whether it's casting a fishing line, launching a boat, or taking a dip to cool off, most people heading to a lake rarely think about how climate change is impacting their overall recreation experience. However, more

often than not, it does. Research at the University of New Hampshire shows that as unfavorable water quality conditions in lakes continue to rise, anglers, boaters and beach goers are using various coping mechanisms that can alter their behavior, from switching to a different location or activity to simply abandoning the experience altogether.

"Some of these people are driving two to three hundred miles to take a [lake](#) vacation, only to arrive to a sign that says the beach is closed because of E. coli," said Michael Ferguson, assistant professor of recreation management and policy. "Increasing [water](#) temperatures and fluctuating water levels, as a result of global climate change, are expected to intensify these adverse environmental conditions and researchers and natural resource managers need to better understand how it effects the behaviors and habits of recreationists so that they can educate the public and better prepare for future conditions."

In the study, researchers looked at the coping behavior of recreationists along the 77 miles of the Pennsylvania Lake Erie coastline. The popular destination for outdoor enthusiasts is home to a multitude of public parks and recreation facilities with beaches, fishing piers, and boat launches with over 4.2 million annual visitors each year. The concern by scientists and natural resource managers is that ongoing water quality issues such as harmful algal blooms and E. coli bacteria could impact the way visitors perceive the physical environment and effect their overall recreation experience. Researchers surveyed visitors in 13 publicly accessible coastal parks and protected areas and found that those aware of, and impacted by, water quality issues on any given day often altered their behavior to cope with the situation. In some cases, swimmers postponed their plunge until later in the day, anglers decided to travel further into deeper waters or headed to another inland lake, and some visitors ultimately decided to leave and were not likely to return.

"While this study took place in the Great Lakes, this is just a snapshot of

what is happening to many similar bodies of water across the country," said Ferguson. "This is a very real problem. From a recreational standpoint, these coping mechanisms could have a large impact on not only the public who are looking to enjoy the lakes, but also on the towns and surrounding areas that depend on the outdoor recreation and tourism economy."

According to the Outdoor Industry Association, consumers spend \$887 billion annually on outdoor [recreation](#) and the industry creates 7.6 million jobs. The pervasive presence of [global climate change](#) suggests the severity of environmental conditions will likely continue to increase. The researchers say along with trying to combat these environmental changes, more effective policies and procedures are needed to better educate the public and help them, and natural resource managers, cope and adapt to a changing environment.

More information: Michael D. Ferguson et al, Coping with Climate Change: A Study of Great Lakes Water-Based Recreationists, *The Journal of Park and Recreation Administration* (2018). [DOI: 10.18666/JPra-2018-V36-I2-8296](#)

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