

## ARE THE WAVES WORTH IT? EXPLORING THE SOCIO-ECONOMIC LANDSCAPE OF SURFING IN THE GULF OF MAINE

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In this collaborative talk, we will share ongoing research initiatives that involve the surfing community in the Gulf of Maine, with an emphasis on understanding their knowledge and values in this dynamic social-ecological system. We begin with research that is part of a larger initiative through the New England Sustainability Consortium (NEST) exploring Safe Beaches & Shellfish in Maine and New Hampshire.

Surfers represent a population at risk for the consequences of impaired water quality given their increased exposure to water at times of increased impairment probability (storms, high rain fall events) and higher likelihood of ingesting pathogens. Yet, surfers remain a somewhat elusive beach going population that water quality managers and local decision makers know little about. This motivated us to explore the following questions: 1. To what extent are surfers in Maine and New Hampshire aware of the potential risk of pathogens and diminished water quality? 2. What are the attitudes and behaviors of this group towards perceived risk of harmful pathogens? How does knowledge of pathogens drive the decision to surf or not to surf during storm events? And, 3. Could heightened awareness of pathogens and water quality influence the decision to enter the water?

Through in-depth interviews with gatekeepers in the surfing community we were able to establish important themes around the issues of surfers, water quality, and decision-making related to risk. From there we developed a 5-minute intercept survey to administer on popular surf beaches in New Hampshire and Southern Maine. Since Spring 2015, we have been surveying surfers about their perceptions of risk, awareness of water quality issues, and interest in receiving information about beach advisories. To date, we have over 250 survey responses and while water quality is not a top risk surfers associate with surfing, it is a consideration in over 40% of respondents and a large majority would like to know more about the water quality at their local surf shop. Plans are already in the works to collaborate with other NEST researchers on communication methods for keeping Maine and NH's beaches safe and healthy for all users, including surfers. Additionally, this work spurred further discussions with other colleagues about the value of surfing to the Gulf of Maine economy. The growing field of surf economics attempts to understand surfing's economic contribution to local and regional communities. One potential piece of this contribution is the extent to which the value of a surf break, here considered an environmental asset, is capitalized into a home's price. Using the hedonic price method combined with data from coastal Maine and New Hampshire, we can test whether proximity to a surf break leads to higher home values.

Given the extent to which surf breaks increase property values, it is then possible to estimate how much surfing provides to local and state government through increased property tax revenue.

In concert, these two efforts provide insight into an often overlooked stakeholder

community and cultural ecosystem service benefit in the Gulf of Maine ecosystem.