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Further Reading: Hynes, S., Ankamah-Yeboah, I., O'Neill, S., Needham, K., Bich Xuan, B. and Armstrong, C. (2021). The impact of nature documentaries on public environmental preferences and willingness to pay: Entropy balancing and the Blue Planet II effect. *Journal of Environmental Planning and Management*, 64 (8), 1428-1456.

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Nature documentaries, environmental preferences and willingness to pay: the Blue Planet II effect

The relationship between media and the environment has been studied from a wide range of perspectives within the field of mass communication for many decades. Nature documentaries are also now an increasingly used modality to communicate environmental issues in order to create awareness, change behaviours or perhaps motivate increased viewers' demand for environmental policy action. However, the role the viewing of nature documentaries has on the public's environmental preferences and willingness to pay has generally been ignored in the valuation literature. This research examines this issue by estimating choice models that test for the impact of having seen the BBC Blue Planet II (BPII) series on both marine management preferences and willingness to pay to support the delivery of deep-sea ecosystem services. It may be the case that those who have watched BPII have different characteristics (education levels, environmental awareness, etc.) from those that have not, resulting in the non-random selection into the subgroups of those who have versus have not watched the BPII series. The study therefore also examined the use of entropy balancing in discrete choice analysis to increase the reliability of comparisons between groups.

Research Findings

In this study, the discrete choice experiment approach was employed in a survey of the Scottish general public to analyse how respondents make trade-offs between blue growth potential and marine ecosystem service delivery associated with the Mingulay cold water reef complex off the west coast of Scotland in the Sea of the Hebrides. Whether or not respondents had seen the BBC Blue Planet II series was found to have a significant impact on people's preferences. Those who had seen the series displayed statistically higher preferences for management options that achieve the highest level of fish stock health, higher levels of area protected and lower levels of marine litter compared to those who have not seen any of the series. The BPII watchers did not appear to have any statistically different preferences when it came to the creation of additional ocean economy jobs however. Despite the observed difference in preferences across the groups, the estimated willingness to pay did not differ. The study also demonstrated how entropy weighting can be used as a robust estimator to examine the effect of a campaign or programme on preferences in a discrete choice setting.

Policy Implications

Sir David Attenborough's BPII series highlighted the importance of the ecosystem services provided by the marine environment. The results presented in this paper show that the series may also have had an impact on how the public form their preferences for the services that marine ecosystems, such as cold water corals, deliver. It may also have influenced people's choices about how such ecosystems should be managed in the future. This demonstrates that, as per the neoclassical theory of demand, preferences can adjust with changes in the available information. From a policy perspective, it may be the case that well-designed documentaries with targeted conservation messages can influence the viewer's attitudes but post-viewing strategies may be needed to further action in the form of long term funding for marine conservation efforts.