## PEOPLE NATURE

Can we predict cultural ecosystem services, and are we measuring the right things? Laurence Jones, Marco Boeri, Mike Christie, Isabelle Durance, Karl L Evans, David Fletcher, Laura Harrison, Anna Jorgensen, Dario Masante, James McGinlay, Dave Paterson, Reto Schmucki, Chris Short, Natalie Small, Georgina Southon, Timothy Stojanovic, Ruth Waters

We get many different benefits from the natural world, termed 'ecosystem services'. It is relatively easy to measure the amount of timber or crops produced, or fish harvested (provisioning services). It is rather harder to measure the amount of carbon stored each year, pollution removed by plants or flood events that have been avoided (regulating services). However, the biggest challenge is how to measure cultural services, which include things like spiritual significance, aesthetic appreciation, sense of place as well as a few slightly easier ones such as recreation.

We set out to create a framework using a set of basic building blocks which can be put together in a way that allows us to create a transferable model for predicting and mapping cultural services. All cultural services come about through an interaction between people and the environment. They are shaped as much by the characteristics of the person as they are by the quality of the environment. For example, the importance people attach to a beautiful landscape might be influenced by their age or gender, or what they know about it (different types of human capital), their social networks (social capital) and their personal preferences or affinity for nature (which we call cultural capital).

We tested our cultural ecosystem service model for the service 'aesthetic appreciation', using urban wildflower meadows that varied in plant diversity and height. We explored whether rating scores given by visitors were influenced by their own characteristics as well as the biodiversity of the meadows. Our new model was an improvement on previous models, and drew attention to the importance of measuring cultural capital in people. More work is needed though to better understand the way in which an individual's characteristics influence why they interact with nature.



*Cultural ecosystem services model for* '*Aesthetic appreciation'. Photo credit: Laurence Jones* 

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