ABSTRACT

The Ocean Health Index (OHI) is a scientific goal-oriented framework and tool for incorporating the best available scientific information into marine policy. First published in 2012, OHI global assessments have been repeated annually and have been used in nearly 20 governmental-management-academic collaborations around the world. It has been an indicator for the United Nations (Convention on Biological Diversity and likely Sustainable Development Goal 14) and included in United States policy as part of the first Ocean Plan in the Northeast. Some keys to these successes thus far are its inclusiveness — bringing people, teams, data, and knowledge together — and its flexibility and transparency as an assessment tool. And, it has been because we embraced data science and open practices and dramatically improved how we do science: we now work in a way that is more reproducible, transparent, collaborative, open, and with more emphasis on communication, documentation, training, and mentorship. Sharing our path to better science in less time (Lowndes et al. 2017) has encouraged others in the scientific community to do the same — and hatched Openscapes, a new program to help environmental scientists incrementally engage in open data science so that we can help uncover data-driven solutions faster.

BIO

Dr. Julia Stewart Lowndes is a marine ecologist, data scientist, and Mozilla Fellow at the National Center for Ecological Analysis and Synthesis (NCEAS). As founding director of Openscapes and science program lead of the Ocean Health Index, she empowers scientists with data science and open practices. She also leads trainings as a co-founder of Eco-Data-Science, R-Ladies Santa Barbara, and as an instructor with The Carpentries. She earned her PhD at Stanford University in 2012 studying drivers and impacts of Humboldt squid in a changing climate.

Web: julies32.github.io. GitHub: @jules32. Twitter: @juliesquid