Sustainability Science Award

The Sustainability Science Award is given to the authors of work published in the past five years that makes the greatest contribution to the emerging science of ecosystem and regional sustainability through the integration of ecological and social sciences. Unprecedented directional changes in climate, human population, technology, and social and economic institutions are altering the structure and functioning of current ecological and social systems. The Sustainability Science Award recognizes the role that science can contribute to addressing these challenges.

This year's award goes to Boris Worm, R. Hilborn, J. K. Baum, T. A. Branch, J. S. Collie, C. Costello, M. J. Fogarty, E. A. Fulton, J. A. Hutchings, S. Jennings, O. P. Jensen, H. K. Lotze, P. M. Mace, T. R. McClanahan, C. Minto, S. R. Palumbi, A. M. Parma, D. Ricard, A. A. Rosenberg, R. Watson, and D. Zeller for their 2009 paper, Rebuilding Global Fisheries, published in Science 325:578–585.

This paper results from a collaboration between scientists who initially had conflicting opinions about future scenarios for the sustainability of global fisheries and who came together as a working group at NCEAS (the National Center for Ecological Analysis and Synthesis) to resolve a long-standing issue in global food security, sustainability of global fisheries. This diverse group integrated their data, methods, and analyses of the situation to address controversies and form a consensual view.

The paper outlines two critical questions in the debate about sustainability in global fisheries: "(1) how do changes in exploitation rates impact fish populations, communities, and yields, and (2) which solutions have proven successful in rebuilding exploited marine ecosystems?" It identifies a series of "tools" that have been shown to be efficient in managing fisheries and thus provides empirical support for their use in guiding resource management policies.

The authors address the dire situation of many fisheries worldwide, evidence for the plausibility of mutual economic–biodiversity benefits, and the need to consider local socioeconomic and ecological contexts when analyzing management tools that have been shown to be successful at a broader scale. This intensive collective effort exemplifies how we can work across disciplines and stakeholders to resolve problems in sustainability science.