
William S. Cooper Award Stephen P. Hubbell

Stephen P. Hubbell. 2001.
The Unified Neutral Theory of
Biodiversity and Biogeography.
Princeton University Press.



The **William S. Cooper Award** is given by the Society in honor of one of the founders of modern plant ecology, in recognition of an outstanding contribution in geobotany, physiographic ecology, plant succession, or the distribution of organisms along environmental gradients.

One of the central questions in ecology concerns the diversity and relative abundance of species in ecological communities. How do demographic processes, life history traits, and species interactions influence species richness? How do local ecological processes scale up to determine biodiversity patterns at biogeographic scales? For the past thirty-five years, Stephen Hubbell of the University of Georgia has focused on these questions with a series of empirical studies of tropical forests and accompanying theoretical studies. These studies reached a culmination in his provocative 2001 book, which presented a novel theoretical framework for understanding biodiversity in a biogeographical setting.

Hubbell's theory builds on classical island biogeography theory and explores its implications for community structure, incorporating elements of recent metapopulation theory, evolutionary biology, and paleobiology. Hubbell's book has reinvigorated the debate on plant diversity patterns and the mechanisms that govern them at local, regional, and global scales. His derivation of expected patterns of species diversity and abundance from simple assumptions and first principles has forced ecologists to reconsider long-held beliefs about the mechanisms governing species patterns. Hubbell's book is generating vigorous debate and led to a large number of papers in prominent journals during the past five years that either test its predictions or examine its conceptual underpinnings. Hubbell's book has had enormous impact not only on plant ecology, the root discipline that inspired the work, but throughout community ecology and biogeography.