2008 William Skinner Cooper Award

Campbell Webb
and co-authors David Ackerly, Mark McPeek, and Michael Donaghue

The William Skinner Cooper Award is given to honor an outstanding contributor to the fields of geobotany, physiographic ecology, plant succession, or the distribution of plants along environmental gradients. The award is for a single contribution in a scientific publication (single or multiple authored). Nominees need not be ESA members and can be of any nationality. This year’s recipient is Campbell Webb and colleagues for the paper “Phylogenies and community ecology” (2002, Annual Review of Ecology and Systematics 33: 475-505). This work is clearly salient in light of the 2006 special issue of Ecology: Phylogenetic Approaches to Community Ecology, which showcased the proliferation of these techniques and included works led by Webb and Ackerly, and co-authored works by Donaghue. The issue was edited by Campbell Webb and Jonathan Losos.

The lead author on the paper, Campbell Webb, is a leading young ecologist focusing on plant distributional ecology in the tropics. He has already published in Science, Ecology, Evolution, and the American Naturalist, among other leading journals. He is currently a Senior Research Scientist at the Arnold Arboretum of Harvard University and The Center for Tropical Forest Science. His co-authors are also distinguished ecologists. David D. Ackerly is a leading figure in community analysis that integrates plant functional traits and evolutionary history. Mark A. McPeek is a well-known ecologist working on species interactions and evolution in aquatic communities. Michael Donaghue is an eminent plant systematist and a member of the U.S. National Academy of Sciences.

The paper represents an important contribution that fits the spirit and letter of the Cooper Award. One of William S. Cooper’s fundamental research concerns was understanding how plant community composition and structure were governed, and Dr. Webb’s work focuses on this central question in a novel way by marrying plant ecology to evolution through the incorporation of modern phylogenetic techniques.

Understanding what determines the distribution and abundance of species and species ranges and how that translates into species diversity in ecological communities is a central goal of ecology. Dr. Webb and colleagues demonstrated methods for explicitly integrating evolutionary histories into the studies of ecological communities, specifically in the phylogenetic structure of community assemblages and the phylogenetic basis of community niche structure. Their paper adds a community context to studies of trait evolution and biogeography.