The William Skinner Cooper Award is given to honor an outstanding recent contribution in geobotany, physiographic ecology, plant succession, or the distribution of organisms along environmental gradients. The 2001 Award goes to Thomas Swetnam and Julio Betancourt for their paper “Mesoscale disturbance and ecological response to decadal climate variability in the American Southwest,” published in 1998 in Journal of Climate. Both Swetnam, who is currently Director of the Laboratory of Tree-Ring Research at the University of Arizona, and Betancourt, who is a scientist with the USGS at the Desert Laboratory in Tucson, have worked extensively on questions of long-term variability in climate and disturbance in the western United States. This paper represents a synthesis of considerable material, both original and from other sources, combined with new data and analyses.

Swetnam and Betancourt present data on fire history, insect outbreaks, and climate variation over the last 400 years in the Southwest. They have demonstrated the relationship of regional wildfire patterns to the Southern Oscillation Index (SOI), and how relative strength or weakness of the SOI can govern the degree of regional synchronicity and intensity of fire disturbances. They have moved beyond presenting simple correlations of climate and fire, instead showing that the relationship between regional climate and fire dynamics is complex and temporally variable. They have demonstrated, for example, the importance of oscillating wet and dry, El Niño–La Niña regimes for building fuel, then drying and igniting it over large areas of the West.

They also document the large-scale role of interannual and interdecadal climate variability in regional drought episodes and insect outbreaks. Previous work has emphasized the role of drought as a trigger for insect outbreaks (the “stress hypothesis”). Swetnam and Betancourt conclude that although the drought-stress hypothesis is supported for bark-feeding insects, large-scale outbreaks of foliage-feeding insects in the western U.S. are triggered by wet conditions, and the corresponding increase in plant growth (and thus food availability for insect herbivores). Finally, they present evidence that, in addition to its role in disturbance regimes, climate can also have persistent, large-scale, direct impacts on ecosystem structure and function. The paper ends with a “call to arms” for other ecologists to begin considering how ecological processes play out on large (regional) spatial scales and long (decadal or greater) temporal scales. Lamenting the lack of research that has accompanied well-documented climate shifts in the last few decades, Swetnam and Betancourt say these “missed opportunities suggest that ecologists should pay more attention to mesoscale responses of ecosystems to climate variability, and specific climatic events, such as drought.”

There may be no other work that captures the overriding climatic controls on ecosystem dynamics over both short and long time scales as well as this paper does; for this quality it has earned the 2001 W. S. Cooper Award.

Cooper Award Subcommittee: Andrea Lloyd (Chair), Mark Bush, Roger Del Moral, Marie Josée-Fortin, Ronald Neilson, Ricardo Villalba, Susan Will-Wolf

The Corporate Award of the ESA is made to recognize and honor a company for accomplishments incorporating sound ecological concepts, knowledge, and practices. It is given in one of six categories. The award in 2001 is for stewardship of land resources. The winner of the 2001 Corporate Award is Weyerhaeuser Corporation British Columbia Coastal Group

Glen Dunsworth (left) and William J. Beese (right), Weyerhaeuser Corporation British Columbia Coastal Group

The Corporate Award of the ESA is made to recognize and honor a company for accomplishments incorporating sound ecological concepts, knowledge, and practices. It is given in one of six categories. The award in 2001 is for stewardship of land resources. The winner of the 2001 Corporate Award is Weyerhaeuser Corporation British Columbia Coastal Group.
In 1990s, originated this new approach to ecosystem management in 1997. The Forest Project planning and stewardship approach, led by the same individuals, has persisted through the purchase of MacMillan Bloedel by Weyerhaeuser in 1999. The Forest Project allocates the land resource base into three zones, each with a unique mix of management objectives and techniques: Timber, Habitat, and Old Growth. Even in the Timber zone, clear-cutting has been eliminated and each zone is managed with a distinct mix of partial cutting systems. The shift from clear-cutting to the silvicultural system of Variable Retention (based on recommendations from a scientific panel on sustainable forestry practices) is being accomplished with an emphasis on employee safety and a corporate objective focused on economic margin rather than absolute harvest volume. The Forest Project Team has developed formal mechanisms for adaptive management and for seeking feedback and input from the scientific community, including the organization of annual reviews by a panel of external evaluators from the scientific, environmental, and corporate communities. The Forest Project has also formed notable partnerships, such as the creation of a new company, Lisaak Forest Resources, with five First Nations in the local area.

The Ecological Society of America is very pleased to recognize these efforts by presenting Glen Dunsworth, Forest Renewal and Biodiversity Program Leader, and Bill Beece, Forest Ecologist, with the Corporate Award for 2001.

Corporate Award Subcommittee: Laura Foster Huenneke (Chair), Gregory Aplet, Joan Ehrenfeld, Susan Galatowitsch, Carolyn Hunsaker, Kate Lajtha

HONORARY MEMBERSHIP AWARD

Madhav Gadgil

Honorary membership in the Ecological Society of America is awarded to individuals who have made outstanding contributions to the field of ecology and who live and work outside of the U.S., Canada, and Mexico. The 2001 Honorary ESA Member is Dr. Madhav Gadgil, one of the best and most prominent ecologists of our time. He is arguably the most distinguished ecologist in India, and is among the finest ecologists in Asia. Both his research and conservation interests successfully blend community ecology and human sociology as an unbroken continuum. He has had a profound effect on conservation in India, not only through his own work, but also by training many outstanding young ecologists.

Madhav Gadgil is totally committed to solving environmental problems in the Third World by analyzing issues carefully and applying ecological theory. These themes are discussed in two books, This Fissured Land: An Ecological History of India, and Ecology and Equity: Use and Abuse of Nature in Contemporary India. These books are among the best expressions of the dilemmas of the equitable and sustainable use of natural resources.

Originally a fish biologist when he went to Harvard for his Ph.D, Gadgil became interested in issues of life history evolution and the role of dispersal in population dynamics. He co-authored an influential book (M. Gadgil and W. H. Bossert. 1970, Life History Consequences of Natural Selection), and papers on selection of optimal life histories for plants, and on r and K theory.

After returning to India, he established the Center for Ecological Sciences at the Indian Institute of Science, which is the premier ecological research group in India. Research through CES embraces an enormous spectrum of topics, with students and faculty working on nonlinear dynamics, conservation biology, native plant restoration, insect ecology, forest ecology, elephant behavior, and ecology of native tribes. He has published on conservation, animal ecology, plant ecology, human ecology, and economics of resources, agriculture, and property rights. To each problem studied, Gadgil brings a fresh and usually novel insight, firmly rooted in ecological theory.

No ecologist in India has as much influence as Madhav Gadgil, both through his voluminous writing and his service as special counsel to the Indian government. His membership in several Academies of Science, and his active participation in international organizations and committees on ecology and conservation, also document his international stature and recognition.

Honorary Member Award Subcommittee: Laurel R. Fox (Chair), Edith Allen, James Coleman, Denise Dearing, Richard Ostfeld, Sandra Tartowski, Sally Woodin

Corporate Award Subcommittee: Laurel R. Fox (Chair), Edith Allen, James Coleman, Denise Dearing, Richard Ostfeld, Sandra Tartowski, Sally Woodin