

BioScience Devotes Issue To Holistic Handling Of Stressed Ecosystems

Of particular interest to *Park Science* readers is the July/August issue of *BioScience* (Vol. 35, No. 7), featuring five articles that grew out of the symposium "Holistic Approaches to Description and Management of Stressed Ecosystems," sponsored by the Ecological Society of America at the 1984 AIBS meeting in Fort Collins, Colo.

Peter H. Raven, immediate past president of the American Institute for Biological Sciences, introduces the summer issue with editorial comments on the proliferation of new and highly specialized fields of science that are springing into being. He acknowledges that "subdivision signals vigor," but warns that "fragmentation can become counterproductive," and he posits an AIBS role that "can knit biological concepts and interests together and represent them effectively at the national level."

The five authors and their works, which make up the main body of the issue, are Paul G. Risser, "Toward a Holistic Management Perspective;" Eugene P. Odum, "Trends Expected in Stressed Ecosystems;" Gary W. Barrett, "A Problem-Solving Approach to Resource Management;" Orin L. Loucks, "Looking for Surprise in Managing Stressed Ecosystems;" and Frank H. Bormann, "Air Pollution and Forests: An Ecological Perspective."

Barrett, who coordinated the July/August issue, takes an approach that may be of particular interest to managers. It recognizes socioeconomic as well as biological and physical factors in resource management and presents a 19-step algorithm as a help to applied ecologists in tackling management problems "holistically, objectively, and systematically." Barrett is with the Department of Zoology of Miami University, Oxford, Ohio.

Finally, the same issue of *BioScience* contains an Opinion piece by William R. Jordan III, editor of *Restoration Management Notes* at the University of Wisconsin Arboretum in Madison, and John D. Aber, U/WI professor of forestry. Jordan and Aber propose that "the emerging field of restoration ecology could provide a framework for . . . systematic study and reconstruction of communities and ecosystems."

They note that a recent symposium, sponsored by the U/WI Arboretum, drew scientists from a wide range of traditionally distinct disciplines to look for a common ground on which to build a holistic approach to restoration. The term "restoration ecology" was introduced there as a technique for basic research and as a way of altering the prevailing view that human activity always represents a negative impact on the landscape.

"While exploitation and preservation will continue in those areas that remain productive or pristine," they said, "a third approach — restoration — may become a viable option with important implications for both management and preservation."

Proceedings of the 1984 Madison symposium are slated for early 1986 publication.