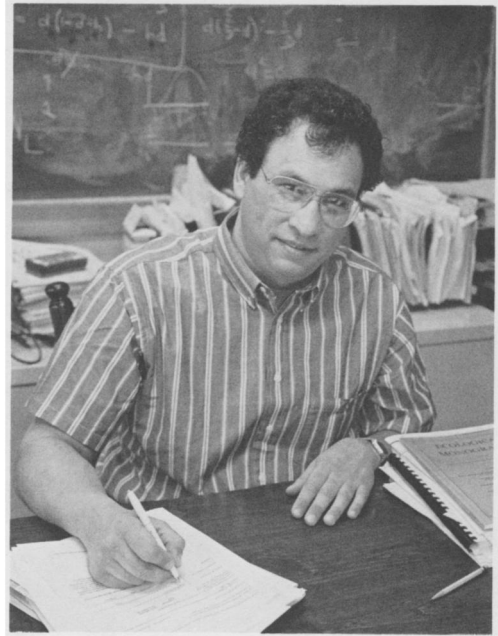


simon a. levin, president 1990–1991

In this year of the 75th Anniversary of the Ecological Society of America, ecologists are experiencing an unprecedented request from the public sector to contribute to the solution of pressing environmental concerns. World-wide ecosystems are being subjected to environmental stresses of historic proportion. Correcting these catastrophic imbalances will require extensive application of ecological principles, and the willingness of ecologists to extend their basic research into areas of immediate need. It is fitting that Simon Levin should preside over the Ecological Society during this important period. Few ecologists have as effectively contributed to "pure" ecology, while simultaneously extending ecological understanding into other areas of public policy and environmental management. Simon Levin stands as an example of the concerned ecologist whose efforts can improve the human condition.

Simon received his training in mathematics first at the Johns Hopkins University (B.A., 1961) and later at the University of Maryland (Ph.D., 1964). After completing his degree, he worked with George Dantzig (the father of linear programming) as a postdoctoral fellow at Berkeley. In 1965, he moved to Cornell as an assistant professor in the Department of Mathematics.

While pursuing his work in applied mathematics, Simon attended lectures in the introductory ecology course, where, with the encouragement and support of Robert Whittaker and Richard Root, he recognized the need for rigorous mathematical treatments of some general problems in ecological theory. His first venture into ecology (1970 in *The American Naturalist*) explored the consequences of genetic change and spatial structure on competitive interactions among species. These two important biological aspects of populations had been almost completely ignored in theory at that time, and they were to dominate much of Simon's interests over the next decade. In 1974 and 1976 Simon published two seminal papers on the problem of spatial heterogeneity and patchiness in population growth



models (1974 in *The American Naturalist* and 1976 in *Annual Review of Ecology and Systematics*). In this series of papers, Simon introduced the use of diffusion and reaction-diffusion equations as a means of modeling movement and growth in patchy environments. Not since the early efforts of Skellam had ecological theorists rigorously treated spatially dependent growth processes. Simon's work influenced a new generation of ecological modeling and spawned international collaboration and recognition.

Simon's interest in spatial structure led to an important collaboration with Robert Paine leading to the development of a general dynamical systems model of patch formation and maturation as a controlling influence on community structure in the rocky intertidal shore (Levin and Paine 1974 in *Proceedings of the National Academy of Sciences* and Paine and Levin 1981 in *Ecological Monographs*).

Simon's interests have expanded to embrace many problems in ecology both applied and pure. He has worked on problems in re-

source management, ecotoxicology, epidemiology, environmental risk assessment, and the ecological consequences of the release of genetically engineered organisms. His current research focuses on the problem of scale in ecological processes.

Simon has served on numerous national committees, including the Mercer Award, Nominating, and Public Affairs Committees of the ESA. He was (and remains) the first Editor-in-Chief of *Ecological Applications*, and currently serves on the steering committee of the ESA Research Agenda Committee. He has also served on the Commission of Life Sciences and the Board on Basic Biology for the National Academy of Science's working group on "Research Opportunities in Ecology." He is on the Board of Directors of the Hudson River Foundation and is a vice-chairman of the Committee of Concerned Scientists.

Simon's illustrious career has earned him many awards and distinctions. He has been a Guggenheim Fellow, a Visiting Fellow at All Souls College, Oxford, and a Visiting Fellow of the Japan Society for the Promotion of Science. In 1985 he became the Charles A. Alexander Professor of Biological Sciences at Cornell University and in 1988 he received the ESA's MacArthur Award. In April 1990 he received an honorary doctorate and gave the commencement address at Eastern Michigan University.

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