

Eminent Ecologist Award



The Eminent Ecologist Award is given in recognition of an outstanding body of ecological work or of sustained contributions of extraordinary merit. It is the highest honor bestowed by the Ecological Society of America.

The 2010 Eminent Ecologist Award is given to Professor Simon Levin of Princeton University.

Professor Levin has made many distinguished and durable contributions to the science and practice of ecology over his illustrious career. He has published over 400 papers, many highly cited, and edited and authored a number of books; only a few of his contributions can be highlighted in this short summary. His early papers from the 1970s on species coexistence, genetic feedbacks, and patch dynamics in

the intertidal include many classic examples of elegant ecological theory addressing fundamental questions, presaging for instance more recent and current work on how food web interactions influence the maintenance of biodiversity, how evolution in real time modulates population dynamics, and how transient and nonequilibrium dynamics can alter our understanding of ecological systems.

Some of Dr. Levin's most important and far-reaching contributions have been via his multifaceted development of the spatial dimension of ecology. His 1974 paper in *The American Naturalist* on dispersion and population interactions, followed by his 1976 *Annual Review* on population dynamics in heterogeneous environments, and a 1977 *TPB* article with Robert Whittaker on mosaic phenomena in ecology, illustrate a continuing theme in this work up to and beyond his very widely cited paper on pattern and scale in ecology (published in the journal *Ecology*). His efforts have helped catalyze interest in how spatial processes can alter the outcome of competition between species, as well as many other ecological processes. Working with outstanding mathematicians and a wide range of biologists, Simon Levin has developed fundamental theory on issues such as scaling from individuals to populations, stochastic aspects of spatial ecology, and the ecology and evolution of dispersal. More broadly, he has been an articulate champion for a wide range of research at the interface of mathematics and ecology. He has also articulated a vision of ecological systems as complex adaptive systems, in effect extending his earlier work on coevolution and genetic feedbacks to encompass many aspects of ecosystem resilience.

Dr. Levin has not only made many contributions to theoretical ecology, but also to the application of theory to critical societal problems, with influential publications on ecotoxicology, infectious disease ecology, resource harvesting and management, environmental impact assessment, the release of genetically engineered organisms, and the sustainability of coupled ecological-economic systems. It is difficult to think of any other scientist who has made such a mark across such a wide swath of our discipline.

Beyond his many research contributions, Simon Levin has been a superb mentor to many students and postdocs, and has faithfully served the Ecological Society of America and more broadly the discipline of ecology in many ways, including founding the journal *Ecological Applications*. He has been the worthy recipient of many other awards, including the recently announced Ramon Margalef prize in Ecology. In sum, Dr. Levin is indeed a most eminent ecologist!