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# SOCIETY ACTIONS

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## Awards

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### EMINENT ECOLOGIST AWARD



**F. Herbert Bormann  
and Gene E. Likens**

The Eminent Ecologist Award is presented annually to a member of the Ecological Society of America in recognition of an outstanding body of ecological work or of sustained contributions of extraordinary merit. The award this year goes to F. H. Bormann and G. E. Likens, whose collaborative work in the Hubbard Brook Ecosystem Study has helped define the field of ecosystem science. They pioneered the use of watershed ecosystems to study patterns and control of energy flow and biogeochemical cycling in the biosphere. The careful, exacting studies of Bormann, Likens, and their colleagues have revealed the intricate interactions among atmospheric processes, forest dynamics, and the streams and lakes embedded in complex landscapes. Their studies provide a model for wise, sustainable management of our natural resources.

It is particularly fitting that we have honored them at an ESA meeting whose theme is the transdisciplinary nature of ecology. Their research has exemplified this theme

over three decades. One was educated as a plant ecologist; the other as a limnologist. That unique combination of skills and insights enabled them to transcend disciplines and make lasting contributions to ecology.

Their collaboration began over 34 years ago, when Gene Likens spent a semester as an Instructor at Dartmouth College, where Herb Bormann was on the faculty. Herb received his Ph.D. from Duke University in plant ecology and then taught at Emory University for a couple of years before going to Dartmouth. In 1954 he received ESA's Mercer Award for the first paper he published, which was on plant succession in the North Carolina Piedmont. In 1966 Herb became Oastler Professor of Forest Ecology at Yale University, where he remained until his retirement in 1992. Gene Likens received his Ph.D. in limnology from the University of Wisconsin, Madison. Gene was on the faculty at Dartmouth College for 8 years before joining the faculty of Cornell University, where he taught for 14 years. In 1983, he became Director of the newly formed Institute of Ecosystem Studies at the Mary Flagler Cary Arboretum in Millbrook, New York. He is currently President of the Institute, which under his leadership has become a preeminent institution for research on ecosystems.

Both have been President of ESA (Herb in 1970-1971, Gene in 1981-1982) and have received many awards, including election to the National Academy of Sciences. They jointly received the Tyler Prize for Environmental Achievement in 1993.

Their collaboration has been extremely productive. They have jointly written three books and over 70 papers. Their first co-authored paper was published in *Science* in 1967. In it they presented their concept of watershed ecosystems, in which whole-ecosystem function was assessed by determining the net balance between precipitation inputs and streamwater exports of elements. They soon used this concept to assess the response of watersheds to forest practices such as clear-cutting and demonstrated large losses of nitrogen. This was the first of many studies done at Hubbard Brook providing scientific information that was essential to resolve questions in both basic and applied ecology.

Their work at Hubbard Brook and elsewhere in the Northeast identified acid deposition as a problem in eastern North America, and additional research addressed regional impacts of air pollution on forested ecosystems. They pioneered the use of whole-ecosystem experimentation to understand the structure, function, and biogeochemistry of forested ecosystems.

Throughout it all, they have remained friends and colleagues. Theirs is truly a model of collaborative research worthy of recognition and emulation.

### Eminent Ecologist Subcommittee

Frances James (Chair)  
F. Stuart Chapin III  
Frank P. Day  
Nancy B. Grimm  
G. David Tilman  
Earl E. Werner