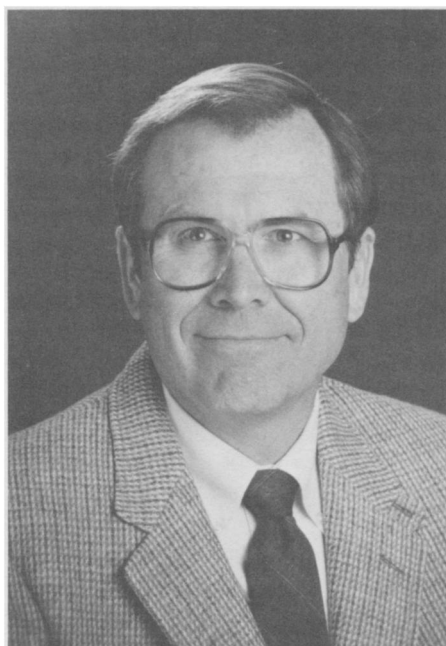


dennis knight, president

1989–1990

Dennis Knight, the new President of ESA, shares common roots with many past leaders of American ecology, having grown up with the stimulus of wildlands and wildlife of Midwestern prairies and the nurture of devoted teachers and friends. Born and raised in prairie pothole country of Clear Lake, South Dakota, he developed an early interest in lakes and marshes and the mystique of waterfowl migration along the central flyway. Later, Dennis found support for his early interests in ornithology and taxidermy from dedicated field biologists at Augustana College (South Dakota), and gathered inspiration from germinal books by Eugene Odum, Pierre Dansereau, and Fairfield Osborn. His field experiences were broadened by summers spent guiding canoe trips in the Quetico-Superior Wilderness Canoe Country of northern Minnesota and southern Ontario. These summer field experiences were given a scientific flavor when he assisted Cliff and Isabel Ahlgren in their research on fire in boreal coniferous forests—an experience that now seems to have foretold some of Dennis' current research and consulting involvements. These experiences in the Quetico were unquestionably influential in setting Dennis' subsequent research priorities and philosophy on preservation and management of wilderness areas.

In 1959, Dennis began graduate study in the Department of Botany at the University of Wisconsin–Madison. This was the "late-continuum" era of the 1960's—a time of great excitement and creativity. Working with John T. Curtis, Grant Cottam, and Orie Loucks, Dennis examined the relationships between plant adaptation and vegetation structure in prairies and forests of southern Wisconsin. This research provided an early link between physiological ecology and plant community ecology, a theme that has become so important today. While studying at Wisconsin, Dennis took an excursion to the tropics, working with herpetologists Owen Sexton and Harold Heatwole in the forests of Panama. This set the stage for the next phase of his career,



which almost preempted his later contributions to the Rocky Mountain region.

Dennis received his Ph.D. in 1964, and again adventure called. Prompted by a desire for further research opportunities in the tropics, and undoubtedly a good portion of altruism, he joined the Peace Corps, teaching botany and ecology at the University of Loja in Ecuador. While a Volunteer, Dennis led an Ecuadoran expedition to the Galapagos Islands and traveled widely in the Andes and along the Amazon. These activities led to an article on sustainable agriculture in tropical wet climates and a field guide for trips eastward from the Andes into the lowlands.

While Dennis has continued research in the tropics into the 1980s, an invitation from the Department of Botany at the University of Wyoming brought him to the Rocky Mountain region where he has served science, Wyoming, and ESA since 1966. During this period,

Dennis' research has ranged from leaf area dynamics at the IBP Grassland Biome's Pawnee site to the application of a hydrologic model that has permitted estimation of nutrient budgets in small plots of lodgepole pine forest. His work with Tim Fahey, John Pearson, Steve Running, Joe Yavitt, and others on lodgepole pine forests, so widespread in the Central Rockies, has made it the best known forest type of that region from an ecosystem point of view. Similarly, his work with Bill Romme on the fire-induced mosaic of Yellowstone forests later proved central in evaluating fire management policies from an ecological viewpoint. In fact, Dennis' earlier work on patch dynamics in the forests of Barro Colorado Island together with his work with Romme on the fire mosaic of Yellowstone presaged the currently invigorated area of landscape ecology. The Yellowstone mosaic work was perhaps one of the first attempts to use a modern landscape ecology perspective, emphasizing not only changes in landscape patterns but also ways of thinking about the effects of varying landscape mosaics on ecosystem processes of components other than vegetation itself. Dennis' penchant for being a forerunner of trends raises curiosity about what he is doing now. One of his current studies is an examination of "root gaps" in contradistinction to "canopy gaps." Will root gap investigation be a widespread topic in the next five years?

Dennis has been an exemplary "citizen" in his department, at the University, and in the State of Wyoming. Long a leader in terms of teaching and research at Wyoming, he is now the Head of the Department of Botany. Besides contributing to a plethora of University and State committees, Dennis was given a special, one-year assignment to the executive branch of Wyoming State government as Natural Resources Advisor. During that time, he evaluated the federal coal leasing policy for sensitivity to ecological concerns and helped develop guidelines for making decisions on land suitability for surface mining. Interest in

the application of ecological information to land management continued as the lodgepole pine research progressed, with considerable involvement in assessing U.S. Forest Service plans. In 1988, he was asked by the Governor to evaluate the highly controversial Bridger-Teton National Forest management plan. He also coordinated a large study, funded by the Bureau of Reclamation, on the potential ecological impacts of winter cloud seeding for augmentation of water supplies in Rocky Mountain watersheds.

Dennis has served science and society in numerous capacities, contributing to a variety of regional and national workshops sponsored by state and federal agencies. He has been a panelist for Fulbright and NSF programs, and a member of the AIBS Governing Board. In the wake of the Yellowstone fires of 1988, he was asked by the National Park Service to evaluate the effects of the fires and establish research priorities.

Throughout his career, Dennis has played numerous roles in ESA: Program Chairman (1980-1982), Vice President (1983-1984), Board of Editors of *Ecology* and *Ecological Monographs* (1984-1987), Public Affairs Committee (1987-1990), and now Board of Editors of our new journal, *Ecological Applications*, and President for the term 1989-1990.

It has been a long road from pumping gas at the family service station in Clear Lake, South Dakota, to the many important positions that Dennis has held or is presently holding. Hopelessly optimistic, irrepressibly cheerful and indefatigably energetic, Dennis continues to serve us all through his teaching, research, leadership and reliable character in the kinds of endeavors that drew most of us to ecology in the first place. He is the quintessential American ecologist who will lead and inspire us in the exciting and important years ahead.

William A. Reiners
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