



Forest W. Stearns
1918-1999

At a forest conference:

‘In addition to managing forests for long-term survival, economic gain and wood production, the Lake States have an enormous stake in recreational forest use and in the presence of forest wildlife. Recreational uses and wildlife are enhanced by variety in forest type and diversity in species and age composition.’

To his students:

“Sunrise in the Swamps!”

—Forest W. Stearns

Forest W. Stearns' credentials as a researcher, scholar, educator and internationally known ecologist are well-documented.

But the words of his former students and colleagues draw a more complete picture. To a person, they express high admiration for Forest Stearns the professional and the man.

Stearns was born Sept. 18, 1918, in Shorewood, Wisconsin, the son of a lawyer. He graduated from Shorewood High School and got his undergraduate education at Harvard University. He received a master's degree in 1940. World War II intervened, and Stearns served in the U.S. Air Force from 1942-46.

He quickly earned his doctorate at UW-Madison in 1947. His thesis was "The Hardwood Forests of Northern Wisconsin," a subject he would track for most of his life.

Stearns was an expert on the plant life of the Lakes States Region. He published numerous technical reports and papers, many of them pertaining to Wisconsin.

He preached species diversity and the need to recognize forests not as static entities, but as systems constantly undergoing and affected by change.

While at the University of Wisconsin-Milwaukee, he was among the nation's pioneers in the emergent field of urban ecology. He served as past president of the American Institute of Biological Sciences and the Ecological Society of America and was botanical editor for the official publication of the Ecological Society and for the Journal of Ecology.

Even after retirement, Stearns continued research at the U.S. Forest Service Northern Forest Research Station in Rhinelander, Wisconsin, working on wetland problems, ecology and forest diversity.

Stearns was also a longtime member of Wisconsin's Scientific Areas Preservation Council, which set aside thousands of acres of scientific areas in the state. The group's efforts led to the creation of a state bureau for protection of scientific areas and helped generate interest in organizations such as The Nature Conservancy, which today works to set aside sensitive areas in Wisconsin and other states.

He taught biology at Purdue University from 1947-57, then joined the U.S. Forest Service, first at the Southern Forest Experiment Station in Vicksburg, Mississippi. Stearns returned to Wisconsin in 1961, taking a research position at the Northern Forest Experiment Station in Rhinelander. He held that position until 1967. While there, his research focused on studying hardwood plots established in the 1930s and '40s.

Retired University of Wisconsin-Stevens Point Professor of Forestry Robert Engelhard recalls meeting Stearns in those years. Engelhard was working for Trees for Tomorrow in its Merrill office at the time.

In seeking to advance Trees for Tomorrow's mission of generating interest in forestry, the group, led by 1992 Conservation Hall of Fame inductee Melvin "Mully" Taylor, sought help wherever it could be found. The Rhinelander research station was a willing partner.

"I always considered Forest to be a superior individual," said Engelhard in a 2001 interview. "He was soft-spoken and very perceptive. He was also as fine an ecologist as there was." Years later, Stearns and Engelhard would serve together on the Scientific Areas Preservation Council, a group created in 1952 by the Legislature to set aside sensitive scientific areas in the state. Stearns was a member of the council from 1973-89 and its chair from 1975-89.

While the Legislature created the council, it provided little funding, so preservation efforts were difficult. The Council had to carefully consider each purchase, said Engelhard, a member for 15 years. Stearns' credentials served the council well when it made a recommendation. "People had the utmost respect for the man. The DNR didn't mess with him," Engelhard said, explaining that the council's recommendations were subject to Department of Natural Resources review.

Stearns recounted some history of the efforts to preserve scientific areas in a 1991 DNR publication he co-authored with Cliff Germain. "Natural Areas Preservation Council: A brief History and Record of Activity," noted that in the first 10 years of existence, the council, known first as the State Board for Preservation of Scientific Areas, established 33 scientific areas encompassing 3,200 acres. By 1977, there were 139 such areas, encompassing 19,000 acres. In 1991, their report notes, Wisconsin had 251 state natural areas, totaling more than 60,000 acres.

The council's early days of working to preserve important sites on a paltry budget set the stage for what was to come. The Wisconsin Chapter of the Nature Conservancy was formed in 1960 to help generate funds for preservation. The DNR's Bureau of Endangered Resources was formed in 1982, with staff assigned to scientific areas management.

Stearns' career as an educator in Milwaukee began in 1968. As Engelhard noted, Stearns was recruited by Dr. Ruth Walker, who had started a pre-forestry program at the old Milwaukee UW-Extension. When the Extension and Milwaukee Teachers College merged to become UW-Milwaukee, a full-fledged university, Walker sought out Stearns.

He would not disappoint Walker or countless students who learned botany, biology and forest science from Stearns. The Forest History Association of Wisconsin said this about Stearns: "...Forest mentored 11 Ph.D. students and was beloved by them." While at UW-Milwaukee as a faculty member and department chair in botany and biology, "he wrote many scientific papers, often on Wisconsin's hardwoods, and became an internationally known ecologist." In recognition of those accomplishments, Stearns was named a professor emeritus at the university.

The Association's report on Stearns added, "Forest Stearns was a hands-on educator during his 19 years at UW-Milwaukee. He believed the best way to learn about the natural environment was to be out in it. His courses required considerable field work, and he actively participated with his students in gathering samples, data, etc. He was a prolific writer, authoring or co-authoring over 90 papers in scientific journals – many pertaining to Wisconsin."

His writing is recorded as early as 1949, when he authored "Ninety Years Change in a Northern Hardwood Forest in Wisconsin." In 1951, he wrote, "The composition of the Sugar Maple-Hemlock-Yellow Birch Association in Northern Wisconsin." Both papers were published in "Ecology Journal." He was still writing in 1990, with a paper titled "Forest History and Management in the Northern Midwest."

Research shows that Stearns advocated looking at forests from an ecological perspective.

In a presentation delivered at the 1987 Great Lakes Governors' Conference on Forestry in Minneapolis, Minnesota, Stearns said this: "There has been much good work on methods of increasing forest productivity. Fewer studies have examined the interactions between forest species or the regeneration and maintenance of diverse forest stands. Ecologically-oriented research is limited, especially at the landscape level."

He went on to add that climatic change and other factors were acting on the northern forests and that tree species vary greatly in their ability to adapt to disturbances. "It would seem prudent to maintain or increase, rather than reduce, species and genetic diversity in these forests for future eventualities."

Obviously, Stearns could talk the talk when he was called on to speak to peers at conferences. He related to students in a more down-to-earth fashion.

"A quote of his that I will always remember was 'Sunrise in the Swamps!' It was usually said with much vigor and sometimes very early in the day, even before sunrise," recalled Thomas Schuck, one of Stearns' graduate students. Schuck, laboratory and greenhouse manager at UW-Milwaukee, helped the Forest History Association of Wisconsin prepare its report on Stearns.

That early-morning wakeup call "meant time to get going and get out in the field, the place where Forest was most at home. You could always count on a good day, regardless of the weather, when Forest was along," said Schuck in correspondence to the Conservation Hall of Fame. "It never ceases to amaze me how many things Forest was involved with and how far his influence has spread."

Fellow graduate student Nicholas Kobriger, who co-authored several scientific reports with Stearns, had similar recollections of the man.

"Forest lived life on an even keel, I never saw him frustrated or angry. If there was a problem, he sought the solution. His mind worked 24 hours a day, and he fought hard for anything he believed in," Kobriger said in correspondence to the Conservation Hall of Fame.

“I never saw Forest Stearns without his hand held microcassette recorder,” Kobriger recalled. “He was constantly talking into this little black box; on planes, in restaurants, walking down the sidewalk or the school halls, in woods; and out of that little black box came books, manuals, articles, proposals, etc. It was amazing!” Kobriger recalled.

Forest Stearns, second from right, stands next to his wife and among graduate students from UW-Milwaukee. The outing was a birthday party at Stearns' home in Shorewood. Nicholas Kobriger, quoted in this biography, is at far right. (Photo courtesy of Nicholas Kobriger)



“But, as hard as he worked, he always had time for anyone who needed his time. He was a true mentor, a wise sage,” Kobriger added. “The man had a wealth of knowledge, which he was more than willing to share. Coupling this knowledge with his sense of humor, he made learning fun, an adventure. Everyone associated with Forest, myself included, learned a lot about ecology and conservation, but more importantly about life itself. He was the consummate teacher. He influenced everyone around him, by word and example,” Kobriger said.

Like Schuck and others, Kobriger said Stearns was most at home in Wisconsin’s outdoors.

“On field trips, it was obvious he was in his element,” Kobriger said. “He could walk through a woods, prairie, wetland, and point out all the environmental aspects that made that ecosystem function or dysfunction, concepts that weren’t obvious to most. There was always a story, anecdote or historical event that he would associate with these concepts to add perspective. He also made sure that all his students had that ‘hands-on’ experience. Old clothes and dirty hands were the order of the day.”

Students also recalled that Stearns made sure that they met many of the scientists they read about in their texts, to learn about new ideas first-hand.

“Forest seemed to know everyone, and it was obvious they all respected him,” said Kobriger. “We traveled to other universities, national laboratories, symposiums, various government agencies, to have the chance to hear about the latest concepts, and to exchange ideas relative to our fields of study. This type of learning experience proved priceless.

Noting that Stearns’ resume in many areas speaks for itself, Kobriger focused on the professor’s understanding of the importance of natural systems in the urban community.

“His concept of Urban Ecology, which he fathered, still amazes me,” Kobriger said. “He demonstrated to people that intricate ecological systems existed not only in the pristine forest, prairie,

wetland, but also in the urban setting. This was a very innovative concept at the time, and initiated a whole new area of research.”

As the Forestry History Association of Wisconsin report notes, Stearns’ students thought so highly of him that upon his retirement from UW-Milwaukee, they endowed an award in his name at the Wisconsin Academy of Science, Arts and Letters.

FOREST W. STEARNS
1918-1999

BIRTH: Sept. 18, 1918, Shorewood, Wisconsin.

DEATH: Sept. 8, 1999, St. Germain, Wisconsin.

EDUCATION: Undergraduate degree from Harvard, 1939.
Master's Degree, UW-Madison, 1940.
Ph.D., UW-Madison, 1947.

MILITARY: U.S. Air Force, 1942-46

BIOGRAPHICAL HISTORY

AUTHOR

A prolific writer, Stearns authored more than 90 papers in scientific journals, many pertaining to Wisconsin.

As early as 1949, he wrote an article on "Ninety Years Change in a Northern Hardwood Forest in Wisconsin. In 1951, he wrote another article, "The Composition of the Sugar Maple-Hemlock-Yellow Birch Association in Northern Wisconsin." Both articles were published in "Ecology Journal."

Co-author with Nicholas Kobriger of "Environmental Status of the Lake Michigan Region, Vegetation of the Lake Michigan Drainage Basin," a regional reference report published in 1975 by the Argonne National Laboratory, Argonne, Illinois.

Co-author with Francis D. Hole and Jeffrey Klopatek of "Soils of the Lake Michigan Drainage Basin—An Overview," published by the Argonne National Laboratory, Argonne, Illinois.

Co-author with Diane Lindsley of "Natural Areas of the Lake Michigan Drainage Basin and Endangered or Threatened Plant and Animal Species," published in September 1977, by the Argonne National Laboratory, Argonne, Illinois.

Authored "Forest History and Management in the Northern Midwest," 1990.

Co-author with Cliff Germain of "Natural Areas Preservation Council, A Brief History and Record of Activity 1951-91."

EDITOR

Editor of Botanical Society of America, 1961-67.

Botanical editor of "Journal of Ecology," 1967-68.

Coordinating editor of American Institute of Biological Sciences, 1968-71; member of governing board and president elect, 1981.

PROFESSIONAL AFFILIATIONS

Member: American Association for the Advancement of Science, American Institute of Biological Science, Botanical Club of Wisconsin, Council of Biological Editors, Ecological Society of America, Wildlife Society, Wisconsin Academy of Science, Arts and Letters, Wisconsin Chapter Nature Conservancy, Forest History Association of Wisconsin.

Vice-president, Midwest Section of Wildlife Society.
President, Botanical Society of America, 1975-76.
Member, Governing Board, American Institute of Biological Sciences.
President-elect, American Institute of Biological Sciences.
Director, Forest History Association of Wisconsin.
Member, Wisconsin Scientific Areas Preservation Council, 1973-89.
Chair, Wisconsin Scientific Areas Preservation Council, 1975-89.

EDUCATOR

Taught biology at Purdue University, 1947-57.
Faculty member and department chair in botany and biology, UW-Milwaukee, 1968-87.
Professor Emeritus, UW-Milwaukee.

RESEARCHER

U.S. Forest Service Southern Forest Experiment Station, Vicksburg, MS, 1957-60.
U.S. Forest Service Northern Forest Experiment Station, Rhineland, WI, 1961-67.
Following retirement from UW-Milwaukee, continued research at Forest Service Rhineland Station, working on wetland problems, ecology and forest diversity.

AWARDS

Member, Wisconsin Forestry Hall of Fame.
American Institute of Biological Sciences Outstanding Leadership Award.
Wisconsin Department of Natural Resources Certificate of Appreciation, 1996.
Wisconsin Academy of Science, Arts and Letters Citation.
School of Natural Resources, UW-Madison, Wisconsin Idea Award, 1990.
U.S. Forest Service Scientific Roundtable Award.

BIBLIOGRAPHICAL NOTES

Assistance and information were provided by:

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Robert Engelhard, retired professor of forestry, UW-Stevens Point, Stevens Point, WI.

Nicholas Kobriger, former graduate student, Muskego, WI.

Thomas Schuck, former graduate student, Milwaukee, WI.

The first quote attributed to Stearns on the cover page of this biography is from “The Lake States Forests; A Resources Renaissance,” edited by William Shawls, 1988, published by The Conservation Foundation. The same book is the source of Stearns’ quotes on forest diversity on pages 4 and 5.

The second quote on the cover page is from the recollections of former graduate student Thomas Schuck, now laboratory and greenhouse manager at the University of Wisconsin-Milwaukee.

June 2001
Bill Berry