

# Clifford E. Germain Biography

## Early Years

Mr. Germain was born in 1924 in Merrill, Wisconsin, and raised with his three siblings, two brothers and a sister, in the north woods of Wisconsin. “He comes from a culture of men who hunted and fished and liked to be out-of-doors” (P. Germain, personal communication). Apart from his time in the U.S. Army during the 1940s, he has been a lifelong resident of the state, and he devoted his 37-year professional career to public service in Wisconsin.

He enrolled at the University of Wisconsin-Madison, and received a Bachelor of Science degree in Zoology in 1949. Although he originally started his university studies in an engineering program, he decided that he did not want to be tied down to a desk job and, given his love for the outdoors, he ended up studying the natural sciences with such Wisconsin conservation icons as Aldo Leopold, Joseph Hickey, Norman Fassett, and John Thomson. He also studied with John Curtis, who wrote *The Vegetation of Wisconsin: An Ordination of Natural Communities*, the first scientific classification of natural plant communities in Wisconsin. This book and Leopold’s *A Sand County Almanac* were ever-present touchstones for Mr. Germain, representing both his knowledge and his love for Wisconsin’s natural history.

Mr. Germain brought this knowledge, love, and experience to the WCD when he was hired in 1949 to study and manage white-tailed deer populations in northern Wisconsin. He was promoted to a Game Manager position in Woodruff, where he served for five years, and then to a position as Wildlife Manager in Waterford. While in the southeastern part of the state, he inventoried and purchased thousands of acres of wetlands on behalf of the state, including some that would become State Wildlife Areas including New Munster, Karcher, and Tichigan. It was while he was here that he began working in partnership with a growing statewide land trust, The Nature Conservancy (TNC), on nature preserve protection. Paul Olson, the first chairman of TNC, asked him to look at a remnant swell and swale prairie south of Kenosha along Lake Michigan that was slated for residential development. This biologically diverse prairie was eventually protected by TNC and other partners as the famous Chiwaukee Prairie Preserve. This marked Mr. Germain's first foray into natural area protection.

### **First Leader of Scientific Areas Program**

In 1966 he was hired to be the first staff person, an ecologist, for the WCD's Scientific Areas Program to conserve Wisconsin's rich natural heritage of plants and animals. This program was the first of its kind in the nation and was created by law in 1951 with the passage of a bill drafted by Joseph Hickey to establish the State Board for the Preservation of Scientific Areas. Wisconsin conservationists as far back as John Muir were concerned about the loss of natural communities in the latter half of the 1800s and early 1900s, but it wasn't until 1945 that the Wisconsin Conservation Commission established a Natural Areas Committee on a motion by Aldo Leopold. The legislation to create a formal board followed six years later. After 15 years of work by the Board to protect natural communities on state-owned land, and following a report to the governor in 1965 detailing needs of the natural areas program, the state budget finally contained some funds for natural area staff and support, and Mr. Germain was hired. He could now work on ideas he learned first-hand from Leopold, Hickey, Fassett, Thomson, and Curtis, who had all worked to lay the foundation for the Scientific Areas Program. Seventeen years after graduating from the university, Mr. Germain returned to Madison to embark on the defining period of his career.

### **Development of County Inventory System**

Mr. Germain began his work as the first Scientific Areas Program ecologist by evaluating the huge backlog of sites that had been recommended as Scientific Areas and by developing a method to identify potential new Scientific Areas before they were lost forever. What had, to date, been an arbitrary approach to assessing and prioritizing Wisconsin's natural areas needed structure and organization. This analysis and inventory work had to be done systematically to meet the program's objective of protecting examples of all the types of natural communities that had been identified and defined by Curtis in *The Vegetation of Wisconsin*. Mr. Germain originated the idea of doing natural area inventories by county and this led to the development of protocols for a county-by-county inventory of Wisconsin. Conducted between 1969 and 1986, this was the first statewide inventory for natural communities in the country and was used as a model by other states as they began to develop their own natural area protection programs. All of the data collected and the analyses by Mr. Germain and his employees were used by the

Scientific Areas Preservation Council and its succeeding council, the Natural Areas Preservation Council, to identify the best examples of each community type and facilitate the protection of these. These data later formed the basis of the natural community portion of the Wisconsin Natural Heritage Inventory Database, Wisconsin's part of a nationwide system that houses information on locations of rare plants, rare animals, and natural communities.

### **Development of Natural Area Protection Strategies**

As sites were identified and assessed as important for natural area protection, Mr. Germain faced the issue of how to protect them. Many sites were already owned by the state, imbedded within state parks, wildlife areas, and state forests. During the 1970s, master planning of these areas was a high priority for the Department of Natural Resources (DNR, WCD's successor agency) and, as part of that planning, Mr. Germain proposed scientific area designation for those sites of high ecological quality. While these proposals were not always warmly received by the programs on whose land they were found, the master planning and environmental analysis processes helped to recognize the importance and rarity of natural plant and animal community sites in the state, and Mr. Germain's strong advocacy led to the designation of many sites on state-owned properties. This intra-agency cooperation among DNR land-holding programs was somewhat unusual at that time, but has since been accepted as the norm.

Another way to protect sites was to work with partner organizations to recognize and preserve high-quality natural areas on lands in private ownership. After working successfully with TNC at Chiwaukee Prairie earlier in his career, he began to work more and more with them in his new position as the Scientific Areas Program ecologist. TNC had essentially the same goals as did the DNR's program to protect natural areas, and working together allowed both programs to be successful over the years. TNC provided both public support for the DNR's program as well as financial backing for land acquisition. For example, in 1975, Mr. Germain had brought to the attention of the DNR a Shawano County site worthy of protection because of its old-growth hemlock-beech forest. The DNR, given Mr. Germain's concern that the site was soon to be auctioned off and the huge trees harvested, was convinced to buy the property but recognized it would be unable to receive authorization to do so in time. Unwilling to concede, Mr. Germain arranged to provide TNC with a letter from the DNR indicating its intent to purchase the area, hoping TNC would be able to purchase it on the state's behalf. TNC was willing and able, and quickly secured a loan and bought the site at auction. This site is now known as the Jung Hemlock-Beech Forest State Natural Area, named after the family that had taken care of the forest for many years. The Department applied for and received Land and Water Conservation Funds which matched state funds that were then used to purchase the tract from TNC. If it had not been for Mr. Germain's partnership with TNC and TNC's ability to move quickly, this old-growth forest would not be available for research, education, and public enjoyment today.

A third protection strategy was, of course, state acquisition by the DNR. When Mr. Germain joined the Scientific Areas Program in 1966, there were no funds dedicated specifically to the purchase of natural areas. Scientific Areas (now known as State

Natural Areas (SNA)) were designated on existing state lands or on partner organization properties. For years, Mr. Germain lobbied diligently for a budget to buy ecologically sensitive lands that other entities couldn't – or wouldn't – purchase. Finally, in 1972, Governor Patrick Lucey approved a request by the DNR for a recurring allocation of funds for Scientific Area acquisition from the Wisconsin Outdoor Recreation Act Program. Although the initial budget was small--\$50,000--it marked the first time state money was devoted expressly for the purchase of natural areas. It also provided Mr. Germain the freedom to acquire the highest priority sites identified by the county natural areas inventories before they were lost. At Mr. Germain's urging, subsequent funding sources, such as the federal Land and Water Conservation Fund and the Natural Heritage Match Grant Program, provided even greater capital for natural area purchases.

Under Mr. Germain's guidance, the program grew steadily and with purpose, from 48 sites comprising 10,000 acres in 1966 to 211 natural areas totaling more than 50,000 acres upon his retirement. Many of Wisconsin's most treasured nature preserves were established during his tenure, some through designation, and others through direct purchase. Among the natural area acquisitions he made possible are the following sites: Moose Lake and its majestic stands of old-growth forest, Port Wing Boreal Forest along the shores of Lake Superior, New Hope Pines in Portage County, the prairie bluffs of Rush Creek along the Mississippi River, and the pristine wetlands surrounding Lulu Lake in Walworth County. Mr. Germain also succeeded in securing natural area designations on the properties of a number of cooperative program partners, including the Chequamegon-Nicolet National Forest (e.g., Giant White Pine Grove), county forest departments (e.g., Powers Bluff Maple Woods), The Nature Conservancy (e.g., Spring Green Preserve, Baxter's Hollow, and others), and private colleges (e.g., Beloit College's Newark Road Prairie). The cooperation he received from land-holding programs within the DNR such as State Parks, Wildlife Management, and State Forests, resulted in the establishment of scores of natural areas on Department lands, among them Avoca Prairie, Wyalusing Walnut Forest, Kohler Park Dunes, Point Beach Ridges, Sterling Barrens, and the Dalles of the St. Croix River.

Mr. Germain's legacy lives on in the current State Natural Areas Program, which continues to thrive and is the largest in the nation. The program now protects 653 SNAs encompassing more than 350,000 acres of outstanding examples of Wisconsin's native landscape of natural communities, significant geological formations, and archaeological sites. These places preserve Wisconsin's biological and genetic diversity, are valuable for research and educational use, and provide public access for nature-based recreation.

### **Founding of the Natural Areas Association**

By the 1970s there were other states and private organizations that were protecting nature preserves, especially in the Midwest and the mid-South. However, there was no federal program to help fund their efforts, nor was there a clearinghouse for information and ideas about protecting or managing nature preserves. Mr. Germain and George Fell, his Illinois counterpart, along with others, decided that they should meet to discuss their efforts to preserve natural areas and exchange ideas.

Mr. Germain offered to organize and host the meeting at Wyalusing State Park, overlooking the confluence of the Wisconsin and Mississippi rivers. In October 1974, nature preserve workers from eight states (Wisconsin, Illinois, Ohio, Indiana, Minnesota, Iowa, Missouri, and Arkansas) and from several land trusts met, marking the first gathering of nature preserve professionals in the nation. The workshop was so successful that Mr. Germain and his counterparts continued to meet over the next few years, with ever-increasing numbers, until they decided that there was enough interest to merit the formation of a national association. Mr. Germain's hope was that a national organization would bring more strength to the natural area protection movement and provide a strong voice for more funding, especially at the federal level. With Mr. Germain as a founding member and driving force behind its establishment, the Natural Areas Association (NAA) was formed in 1978 as a national organization. Since then it has grown to be an international professional association that serves as an exchange of information about protecting and managing natural areas. NAA publishes the peer-reviewed *Natural Areas Journal* and hosts an annual scientific conference for its 2,100 members.

### **Development of Natural Divisions Map of Wisconsin and Other Publications**

During these years it also became apparent to Mr. Germain and to University of Wisconsin-Madison soil scientist Francis Hole that a map delineating the natural divisions of Wisconsin based on soils, bedrock, climate, and pre-settlement vegetation was needed. For natural area conservationists it would provide a foundation for ecological classification, inventory, assessment, and organization of the native plant and animal communities across the state. It also would allow conservation planners to protect a sufficient number of natural communities of the type expected in each natural division. For others, such as foresters, soil conservationists, and land managers in general, it would help to better define forest and soil types and provide distinguishing characteristics (geography and vegetation) for similar forests and soils that evolved under different circumstances. It would also help managers to better evaluate land capability, assess ecological conditions, and measure responses to management. In 1994, the DNR published the *Natural Divisions of Wisconsin* map by Germain and Hole based on their many years of experience in soils, geology, and natural communities.

The *Natural Divisions of Wisconsin* map influenced the development of maps and classifications at both the state and federal levels. Dennis Albert used the Wisconsin map and comments from Mr. Germain and Mr. Hole in development of *The Regional Landscape Ecosystems of Michigan, Minnesota, and Wisconsin: A Working Map and Classification* for the U.S.D.A. Forest Service. The Wisconsin DNR used it to develop the Wisconsin Ecological Landscapes map for ecosystem management planning. William Hargrove and Robert J. Luxmoore used the map and several other maps of Wisconsin to test their computer-generated U.S. ecoregion map. And it was used through the Albert work to influence the development of the National Hierarchical Framework of Ecological Units (Cleland et al. 1997) for the U.S.D.A. Forest Service.

Under Mr. Germain's leadership, several other major publications and plans were completed. These include *Endangered and Threatened Vascular Plants in Wisconsin* by Bill Tans in 1976, *Wisconsin Scientific Areas—1977: Preserving Native Diversity*, and

*Scientific Areas Long-Range Plan* in 1983. The latter publication was important in that it set the stage for the future of the program. By this time Mr. Germain had built the foundation of the program and developed the primary methods of protection. It was time to add more components to the program--a management program, more research and educational use of sites, and the development of baseline data.

### **Recognition**

Given Mr. Germain's many accomplishments it is not surprising that he has been recognized by several organizations that he has served. In 1987 he received the first George B. Fell Award from the Natural Areas Association as the "founding member of the Natural Areas Association and the driving force behind Wisconsin's Scientific Areas Program, the first state natural areas program in the U.S." The Fell award is NAA's lifetime achievement award, presented at the association's annual conference to individuals who have made a major contribution to the preservation of natural areas. Despite having retired more than 25 years ago, Mr. Germain remains a member of NAA and sits on the Association's Council of Advisors. Additionally, Mr. Germain served on TNC's Advisory Council beginning in 1972 and served on TNC's Board of Trustees for ten years from 1974 to 1984, working on both the Acquisitions Committee and the Stewardship Committee. In 2002, in recognition of the State Natural Area Program's 50th Anniversary and to honor Mr. Germain's contributions to its success, the DNR dedicated an 88-acre Oneida County nature preserve in his honor. An old-growth hemlock forest (one of Mr. Germain's favorite natural communities) was named the Germain Hemlocks State Natural Area, and today serves as a living testament to his work. In 2008, Madison Audubon Society recognized the work of Mr. Germain by establishing the annual "Cliff Germain Award for Excellence in Community-Based Restoration." The purpose of this award is to acknowledge a public or private individual or organization that has dedicated their skills and efforts toward ecological restoration for habitat conservation and species preservation .

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