



Photograph by Jean McIntosh, May 24, 1948.

**WILLIAM SKINNER COOPER
(1884–1978)**

Professor of Botany William S. Cooper of the University of Minnesota (1915–1951) died at Boulder, Colorado, October 8, 1978 at the age of 94. Born in Detroit, August 25, 1884, he attended Alma College, Michigan, where he was introduced to ecological concepts by Edgar Transeau. Beginning in 1904 he spent many summers in the Colorado Rockies, and his first published paper was on the "Alpine vegetation in the vicinity of Long's Peak, Colorado." He began a graduate program particularly in botany, ecology, and glacial geomorphology at The Johns Hopkins University in 1906, and continued at The University of Chicago in 1907, under Professor Henry Chandler Cowles; there he received his Ph.D. magna cum laude in 1911. His doctoral thesis on the development of vegetation on Isle Royale in Lake Superior is a classical study of its type.

He spent the next four years in California studying the Redwood forest and the chaparral and related vegetation and de-

veloped a long-term interest in the strand and dune flora of the Pacific Coast region. He also studied the geomorphology of the dunes themselves in California and Oregon. He taught ecology one year at Stanford. He joined the faculty of the University of Minnesota Department of Botany as Instructor in the autumn of 1915.

In the summer of 1914 Cooper visited the Canadian Rockies and studied vegetation development on deglaciated terrain in the vicinity of Mount Robson, British Columbia. That same summer he made a trip to Alaska exploring for sites where glacial recession and development of vegetation from bare ground to forest would be proceeding so rapidly that one could expect to follow the whole process in a single lifetime. He found that in Glacier Bay, and in the summer of 1916 he returned on his first scientific expedition to that region. There, he was able to study plant succession from the earliest seedling stages of willows and cottonwoods, through Dryas mat and willow-alder thicket stages to spruce forest. He was also intrigued with the fossil forests he found and surmised the importance they must have in working out history of past glaciations and changes in climate. After his marriage in 1920 to Dorothy Shearer of Minneapolis, he made return trips to the same areas in 1921, 1929, and 1935. His first oral report on the Glacier Bay studies was made to the Ecological Society of America at its annual meeting in December 1922. His paper was received with enthusiasm and he was later elected Vice President of the Society in 1927 and its President in 1936. Also, the site of his Alaska studies at Glacier Bay was recognized at once as one that deserved protection on its scenic and scientific merits in the form of a National Monument or National Park, and he was chosen to chair a committee of the Society to explore the feasibility. With approval of the proposal the following year, a campaign was mounted, but there was scepticism in the U.S. Congress. Nevertheless, the campaign had been so vigorous and effective that President Coolidge proclaimed Glacier Bay as a National Monument on Feb. 26, 1925, under the American Antiquities act, but the area was very much smaller than that recommended by the Ecological Society. Mining was strictly prohibited. However, commercial interests

continued to be so antagonistic to the anti-prospecting provision that in 1936, with the blessing of President F. D. Roosevelt, Congress passed a bill opening the Monument to mining. Fortunately the regulations for use were kept strict by the National Park Service, and little damage was done. Subsequently over the decades the Monument was enlarged to 4,400 square miles, providing boundaries that were essentially those originally recommended by the Society. The area has now been extended again by President Carter, and it is a candidate for National Park status.

Cooper was taken as guest to Glacier Bay in 1956 on the occasion of the 40th anniversary of his first expedition, and again in 1966 to celebrate the 50th anniversary of the establishment of the National Park Service, and for the dedication of the new guest lodge near the mouth of the Bay. A plan was developed about that time to name a fine peak in the Monument in his honor, and progress toward that end is now being made.

Cooper's major efforts in Minnesota were devoted to his teaching and to research on the geological history and changes in physiography, climate, soils, and vegetation of the State, in Pleistocene and Post-Pleistocene time, especially of the Anoka Sand Plain, which lies immediately north of the Twin Cities of Minneapolis and St. Paul. In this he was eminently successful. He was perhaps the first ecologist to make use of aerial reconnaissance and photography to work out the history of the landscape. In that process he discovered Cedar Bog Lake and swamp, which has subsequently been preserved as the Cedar Creek Natural History Area.

Cooper's first teaching duties at the University of Minnesota in 1915 were as assistant to F. E. Clements, then Head of Botany, but service in the World War I effort interrupted that. He returned to Minnesota as Assistant Professor after Clements had left, and began to develop his own teaching program which became very popular, especially in the training of students in the applied fields of agriculture, forestry, wildlife management, and education. Cooper was advanced to Associate Professor in 1927 and to Professor in 1929. His field course and seminars most excited the students and stimulated their intellectual growth; Murray and Helen Buell, and Ray-

mond Lindeman, though not his advisees, were frequent attendants and were greatly influenced by him. Thirteen of Cooper's students were awarded the doctorate and 24 the masters. He published no textbooks, but five of his students did: R. F. Daubenmire, H. J. Oosting, J. Kittredge, P. C. Lemon, and F. E. Egler. The names of some of his other degree advisees who have helped build ecology and other scholarly disciplines to their present stature are: W. A. Egler, L. Ellison, R. R. Humphrey, J. H. Langenheim, P. C. Lemon, J. W. Marr, E. W. Tisdale, H. George Barclay, W. E. Gordon, M. L. Grant, P. J. Rand, L. A. Spetzman, E. P. Thatcher, and R. T. Ward. John Marr has assisted him faithfully during his many years at Boulder.

In addition to his work in plant ecology and glacial geology, Cooper had many other interests; music, drama, art, literature, mountains, photography, and history, especially of the Civil War, were among his keen interests. His home in Minneapolis was a gathering place for distinguished figures in the arts and sciences.

In 1951, Cooper retired to Boulder, Colorado to be near his mountain property at the base of Long's Peak. He continued scientific work and interest in music. He was a founder of the Boulder Philharmonic, and a memorial fund in honor of Professor and Mrs. Cooper has been established for the Boulder Philharmonic Symphony Society, Box 826, Boulder, CO 80306.

Cooper received a number of awards, including honorary doctorates from Alma College and the University of Colorado, testimonials from the Minnesota Chapter of the Sigma Xi, from the Minnesota Academy of Science of which he was President in 1936-1937, the Botanical Society of America, the American Geographical Society, and the U.S. Department of the Interior.

Professor Cooper is survived by his son, David S. Cooper, of North Tarrytown, NY, his daughter, Elizabeth C. Maeck, of New York, NY, and five grandchildren.

A full biography is in preparation; this and a complete list of his publications will be sent on request.

Donald B. Lawrence, Prof. Emer.
Department of Botany
University of Minnesota
St Paul, MN 55108