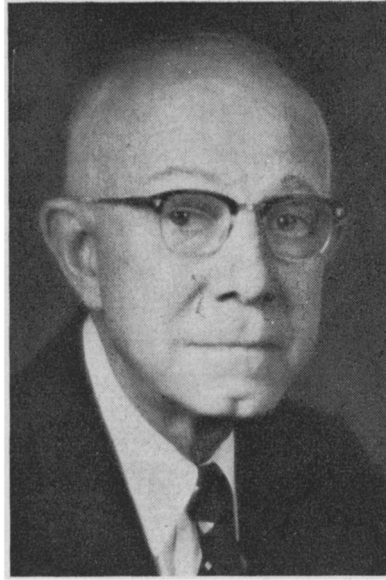


EMINENT ECOLOGIST FOR 1963



WILLIAM S. COOPER

There are few living ecologists who have made as long and sustained a contribution to ecology as Dr. William S. Cooper. His first paper, a study of alpine vegetation in the vicinity of Long's Peak, Colorado, was published in the *Botanical Gazette* in 1908, just short of 60 years ago, and he is still actively at work. His most recent publication appeared in 1958, a contribution to our knowledge of the dunes and associated vegetation of the coast of Oregon and Washington. Furthermore, he is presently at work on an extension of the dune study to the coast of California.

During his undergraduate years at Alma College he had already decided to be an ecologist. At Alma College he came under the influence of E. N. Transeau, then a young professor. For his graduate work in botany he was persuaded by Transeau to go to Johns Hopkins to get a thorough grounding in morphology, which was then the heart of botany, before going into ecology. Perhaps Transeau considered this a test of Cooper's interest in his chosen field, because the atmosphere at Johns Hopkins at the time was very hostile to ecology. Much of Cooper's time at Johns Hopkins was spent in the library working on the literature of glacial geology, and this interest is strongly reflected in his later research. From Hopkins he went to Chicago for his doctorate and studied under Dr. Henry C. Cowles, with whose work he had already become thoroughly familiar through Transeau. It was through his contact with Professor Rollin D. Salisbury, eminent geologist, disciplined scholar, and exacting teacher, that Chicago had the greatest influence on Cooper's work.

I believe one can place Dr. Cooper's work in four categories or somewhat overlapping epochs. The first of these resulted in his Ph.D. thesis,

a monographic study of Isle Royale, Michigan, a classic ecological treatment of the boreal forest. A second epoch was the Californian, which included a monographic study of the chaparral and broad-sclerophyll forest vegetation and in addition other research, such as relation of redwoods to fog. His interest in geology-vegetation relationships came out especially in his study of alluvial fans near Palo Alto. Then there is an Alaskan epoch which extended over a considerable period of Dr. Cooper's life, during which five expeditions were made. These resulted in a series of papers dealing with the revegetation of areas left free by receding glaciers, and other phenomena concerning the relation of glaciation and vegetation. Then his work in Minnesota constitutes another category, and interestingly enough his main contribution there was primarily in geomorphology — a study of the Anoka sand plain north of Minneapolis and St. Paul. This was a meticulously documented treatise in which he convincingly corrected the well-known glacial geologists Leverett and Sardeson. The work on the coastal dunes of Oregon and Washington, begun quite some time ago but only recently published, was predominantly on the geological side, although on those dunes geomorphology and vegetation can scarcely be divorced. It was published by the Geological Society of America as a memoir. Among Dr. Cooper's publications one finds a paper entitled "Fundamentals of vegetation change" that is perhaps one of his most important papers — an expression of a concept of vegetation dynamics that permeates much of his writings. The concept of the universality of vegetation change is so much taken for granted today that we forget it has not always been part of the pattern of ecological thinking.

In many ways aside from his contributions to ecological literature, Dr. Cooper has shown his unusual stature: — We owe him a debt of gratitude for his successful efforts to have Glacier Bay, Alaska, set aside as a National Monument. He has contributed his full share to the leadership and operation of the Ecological Society of America. He has been an unusually effective teacher of a procession of graduate students and through them his influence has reached successive generations of graduate students. Three of his students have written ecology texts in which Dr. Cooper's teachings and philosophy can be strongly detected, bringing his influence to an even larger circle of students.

Dr. Cooper has been awarded two honorary doctorates of science — one from Alma College in 1930 and one from the University of Colorado in 1961. He was among those awarded the Certificate of Merit by the Botanical Society of America upon its 50th anniversary in 1956.

Beyond his professional field, Dr. Cooper is a man of broad intellectual interests. These interests are especially strong in music. Dr. Cooper was for years a staunch supporter of the Minneapolis Symphony Orchestra. He has also written several plays and a libretto for an opera, and at the age of 70 he took up abstract painting.

For a long and sustained contribution to ecology in the borderland between vegetation and geology, where these disciplines are often inseparable, we cite Dr. Cooper for eminence. It is also as a great teacher and a man of intellectual stature that we also find him worthy of the designation of Eminent Ecologist of the year 1963. (By Murray F. Buell, Chm., Nominating Committee).

A Selected Bibliography of Publications by W. S. Cooper
1908. Alpine vegetation in the vicinity of Long's Peak, Colorado. *Bot. Gaz.* 45:319-337.

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1913. The climax forest of Isle Royale, Lake Superior, and its development. *Bot. Gaz.* 55:1-44, 115-140, 189-235.
1916. Plant successions in the Mt. Robson region, British Columbia. *Plant World* 19:211-238.
1917. Redwoods, rainfall, and fog. *Plant World* 20: 179-189.
1922. The ecological life history of certain species of *Ribes* and its application to the control of the white pine blister rust. *Ecology* 3:7-16.
1922. The broad-sclerophyll vegetation of California, an ecological study of the chaparral and its related communities. Carnegie Institution of Washington, Publication 319.
1923. The recent ecological history of Glacier Bay, Alaska. *Ecology* 4:83-128, 223-246, 355-365.
1926. Vegetational development upon alluvial fans in the vicinity of Palo Alto, California. *Ecology* 7:1-30.
1926. The fundamentals of vegetational change. *Ecology* 7:391-413.
1928. Seventeen years of successional change upon Isle Royale, Lake Superior. *Ecology* 9:1-5.
1931. A third expedition to Glacier Bay, Alaska. *Ecology* 12:61-95.
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1935. The history of the Upper Mississippi River in late Wisconsin and Post-Glacial time. *Minn. Geol. Surv. Bull.* 26. Univ. of Minn. Press. 116 pp.
1936. The strand and dune flora of the Pacific coast of North America: A geographic study. In: *Essays in Geo-botany in honor of W. A. Setchell*: 141-187. University of California Press.
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1956. A contribution to the history of Glacier Bay National Monument (Alaska). Published by the Department of Botany, University of Minnesota.
1958. Terminology of post-Valders time. *Geol. Soc. Amer. Bull.* 69:941-945.
1958. Coastal sand dunes of Oregon and Washington. *Geological Soc. America Memoir* 72:1-169.