



IN MEMORIAM

Jack Major
Professor of Botany, Emeritus
Davis
1917 — 2001

And on his grave some kindly person wrote,
Never did he jump on a bandwagon...
He preferred to walk.
---“Epitaph” by Paul Castelfranco (1991)

Jack Major, professor emeritus at the University of California, Davis, died 13 February 2001 at the age of 83. He had a profound impact on the direction of plant ecology in the United States during the second half of the 20th century.

Jack’s academic home for most of his career was the Department of Botany, where he taught from 1955 until retirement in 1981. His spiritual home, however, was in the mountains: Uinta Mountains of Utah, Sierra Nevada of California, Grand Tetons of Wyoming, Brooks Range and Juneau Ice Field of Alaska, and the Himalayas of Nepal. This was the environment that he most often shared with graduate students and those undergraduates fortunate enough to take his plant ecology classes. He was the ideal scientist described by Poincaré in *The Value of Science* as someone who "...does not study Nature because it is useful to do so [but] because he takes pleasure in it [and] because it is beautiful."

Jack was born 15 March 1917 in Salt Lake City, UT and completed high school there in 1935. He went on to Utah State Agricultural College (now Utah State University) and received a B.S. in range management in 1942. For the next several years he served in the Army’s 10th Mountain Division, the justifiably famous unit of 1000 skiers and alpinists who trained hard in the mountain west before participating in the Italian campaign of World War II. Afterwards, a number of men from the 10th went on to become conservationists, ecologists, and leaders in the promotion of recreational skiing. Between 1946 and 1953, Jack attended the University of California, Berkeley, obtaining a Ph.D. in soil science under the direction of Professor Hans Jenny. During this time he also met and married Mary Cecil, thanks to an introduction from brother Ted who had met Mary by chance on a rock climbing expedition in the Grand Tetons. She, too, had a love for the mountains.

Jack was then hired into a young weed science group in the Department of Botany. His strong interest in the ecology of undisturbed mountain vegetation, however, conflicted with the group’s focus on plants in agronomic, low- elevation settings. He gradually moved away from weed science, and a 1964 Fulbright Fellowship to Innsbruck, Austria was to cement a lifetime’s focus on vegetation science.

He had a driving curiosity that made him an extensive reader of and correspondent with scientists who specialized in a wide range of topics, including those who wrote in other languages. As a result, he was far ahead of his time and he often had to use his gentle leadership style to coax others to catch up. For example, we have correspondence in 1948 between Jack and Sewal Wright, a major contributor to the synthesis of Darwinism and Mendelism. Wright responded to Major’s query of how to determine the relative importance of multiple interacting factors that explain a plant community’s distribution, by describing his own original statistical method, path analysis. Path analysis has only been used regularly in the ecological literature for the past dozen years, but it was part of Jack’s education 40 years earlier. Another example: Inspired by his major

professor's 1941 book, *The Factors of Soil Formation*, Jack wrote a paper that proposed to use differential equations to describe vegetation- environment relationships for any given plant community. Not for another quarter of a century, however, did any ecologist actually begin to use differential equations in studies of terrestrial plant communities.

One measure of Professor Major's vision and impact is that several of his earliest papers are still cited today, in some cases more often than when they were first published. Four articles published between 1951 and 1966 – on topics that ranged from the theoretical to the descriptive – have collectively been cited 620 times in the past 25 years and continue to be described in textbooks published a half- century later.

Throughout his career, Dr. Major was as well- known for his reviews of ecological books written in other languages, as he was for his research. The American journal *Ecology* alone published 158 of his reviews, most of them of books written in French, German, and Russian. These detailed reviews brought foreign news and ideas to the attention of otherwise ethnocentric and linguistically limited English- speaking ecologists. In 1975 the Ecological Society of America gave him its first Distinguished Service Citation, specifically for his reviewing activity, judged to be an outstanding service to Society members. According to then- President Richard Miller (1975), "Major's reviews have consistently pointed out gaps in our own knowledge of American ecosystems and have indicated directions for fruitful new research... [We] would be immeasurably poorer without his dedicated efforts."

He was a gentleman scholar: learned but soft- spoken and modest to the point of self- effacement. If presented, in conversation, with an opinion contrary to his own, he was sincerely quizzical and would quite innocently ask why one thought that way, rather than offering a defensive or challenging counter- statement. Even when he disagreed, his own contrary opinions were delivered so delicately and non- confrontationally that listeners might not realize their logic had been shredded until reflecting on it some days later.

His forte in teaching was with small groups because his low- key manner was not well suited to large lecture sections or busloads of field- trip students. His method of teaching was Socratic, inviting questions and asking questions back, usually including his stock phrase, "Is this alright?" He was mentor to more than 20 graduate students of his own and to many more via correspondence or by way of serving as a member on their thesis/ dissertation committees. Besides his immediate family – brother, Ted; wife, Mary; and sons Paul, John, and James – he left behind many students and colleagues who fondly remember his great academic gifts to them and who join the family in grief at his loss.

Michael Barbour
Paul Castelfranco
Marcel Rejmanek
Robert W. Pearcey