



IN MEMORIAM

Constant Collin Delwiche
Professor of Soil Biogeochemistry, Emeritus
Davis
1917–2001

Constant (Connie) Delwiche, professor emeritus in the Department of Land, Air and Water Resources succumbed to the effects of kidney and heart disease on September 22, 2001. Professor Delwiche retired from UC Davis in 1990 but remained active in scholarly activities until he died, including service as the interim head of the National Institute on Global Environmental Change (NIGEC). Connie was raised on a dairy farm near Green Bay, Wisconsin. He received his B.S. degree in biochemistry in 1939 at the University of Wisconsin. He came to California in 1940 to study for a Ph.D. in biochemistry at Berkeley in the laboratory of Professor Dennis Hoagland, the father of plant nutrition. Connie's studies were interrupted by the war. He served for more than four years as an officer and airborne infantry commander. He left the army as a Major but continued in the reserves and attained the rank of Major General. He completed his degree at Berkeley in 1949 and took a position as assistant professor of biochemistry there. He moved to Davis in 1963 as part of the Kearney Foundation of Soil Science and also the Department of Soils and Plant Nutrition. He moved through the ranks to professor and served 4 years as department chair.

Connie was a man of extraordinary breadth of knowledge and interests. Connie was a highly respected biochemist and soil scientist, but more than that he was what you might say a "jack of all trades" scientist and a broad thinker. He started his career at a time when a scientist needed to know not only basic biology and chemistry, but physics, electronics, machining, woodworking, and other skills that were required to build instruments and apparatus in order to get the research done. Connie was a master of all these skills. Connie started his research work at the end of World War II, in 1946, when stable isotopes of physiologically important elements, and radioactive isotopes, were becoming available for biological research. His pioneering research dealt with bacterial nitrogen metabolism. He embarked on the formidable task of building a mass spectrometer for N-15 analysis from scratch, which he then used in his dissertation research.

Connie was one of our first great earth systems scientists and an early founder of the fields of biogeochemistry and global science. Long before the thousands of scientists currently working on constructing global scale budgets for carbon and nitrogen, Connie was going after it alone, drawing from his "magic notebook" and from his keen insights into how the grand system operated. One colleague remarked, "His notebook was a three- ring binder, not much larger than pocket sized, that he always kept within reach. In the middle of a discussion out would come the notebook. I came to believe it held the sum total of all human knowledge. In this small collection of notes, formulae, chemical constants and conversion factors, "Dr. D" found the pieces to make a calculation on the spot or to constrain his argument." In 1970 he published the first complete global nitrogen cycle and it is amazing how little has changed, so complete and on target was his work. He published many excellent papers throughout his career. One example is a paper published in 1954 that is still highly quoted by the scientific community.

Connie had a phenomenal breadth and depth of knowledge about many scientific subjects, and always remained an independent thinker. He taught his students through discussions and by example, harnessing his personal attributes of integrity, humor and curiosity. He was a revered mentor to his graduate students and postdocs, and a valued colleague. He had a great willingness to listen to problems and propose solutions, be it scientific or personal in nature. Connie was actively reading and analyzing scientific issues even after his

retirement. The Department, the College, and the University have lost an innovative, productive scientist, and his fellow workers have lost a splendid colleague. We are comforted, however, by the comment of a colleague, Emanuel Epstein, who remarked “Connie managed to pack two lifetimes into one!”

Connie is survived by his wife of 58 years, Alice K. Delwiche of Davis; and his sons, Norman, Mark, Joseph, James, Richard, and Charles. Six grandchildren also survive him. He is buried at Arlington National Cemetery, Arlington, VA.

Kate M. Scow
Dennis E. Rolston