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JOHN CHARLES FREMONT (JCF) TEDROW (1917–2014)

John Charles Fremont (JCF) Tedrow, Professor Emeritus, Rutgers University, died on 2 October 2014, age 97, at Brighton Gardens, Edison, New Jersey.

John was born in Rockwood, Pennsylvania, in 1917. He earned degrees in soil science at Penn State University (BS, 1939), Michigan State University (MS, 1940), and Rutgers University (PhD, 1950). He served in the U.S. Navy as an ensign and lieutenant from 1942 to 1946. In 1947, he became a faculty member at Rutgers University and retired as Distinguished Professor in 1984. He maintained regular office activities in his department at Rutgers until his recent illness. In addition to teaching numerous courses in soil science throughout his career, he authored and coauthored more than 100 refereed journal articles and books, served as editor-in-chief of the journal *Soil Science* (1968–79), and wrote extensively on the soils of New Jersey. He was major advisor to 17 PhD students and seven master's candidates. John encouraged both his undergraduate and graduate students to take courses in plant and animal ecology, thus ensuring a broad interdisciplinary approach to their future endeavors.

John began his Arctic and polar career in the early 1950s on the North Slope of Alaska as a member of the Air Force-sponsored Keys project (Tedrow, 2005). Throughout the 1950s and early 1960s, he followed his interest in the Alaskan Arctic through the Office of Naval Research program at the Arctic Institute of North America. He supervised five doctoral degrees related to the soils of the North Slope (J.V. Drew, D.E. Hill, L.A. Douglas, J. Brown, and E.E. MacNamara), as well as a master's (D.A. Rickert) and post-doctoral research (F. Ugolini). Following his Alaskan field endeavors, John's attention focused on the polar deserts of Canada and Greenland (with doctoral candidate G.F. Walton) and the Antarctic in 1961–62 (Tedrow, 1966).

John's comprehensive contributions to polar pedology developed from his initial field investigations on the Alaskan North Slope and through his intensive study of 19th and 20th century Russian soils literature. He and his students classified and mapped the permafrost-dominated soils of the North Slope, ranging from peaty bog to wet tundra to well-drained soils, according to their moisture and organic content. Furthermore, he concluded that the soil-forming processes of the well-drained soils, based primarily on weathering potential, weakened as one progressed northward into drier and colder climatic regimes. He recognized the unique influences that permafrost and seasonal frost action exert on soil properties, which include the burial of surface organic matter into the uppermost permafrost. These Alaskan observations and concepts were further developed as he explored the drier polar regions of both hemispheres. His 1977 book, *Soils of the Polar Landscapes*, is a synthesis of his extensive studies of polar soils, their properties and classification, and his intimate knowledge of the Russian pedological literature. The textbook is a tribute to his keen observations and scholarly approaches. In commemoration of John's 85th birthday, our Russian soils colleagues paid tribute to John in the English translation of *Pochvovedenie* (Editorial Board, 2004), which also included John's summary paper on polar desert soils (Tedrow, 2004).

J.C.F. Tedrow at his writing desk. (Photo provided by Vivian Tedrow.)

Many of Tedrow's publications are listed chronologically in his 1995 report *History of Soil Science at Rutgers University (1870–1990)*. With Kenneth A. Linell, he co-authored *Soils and Permafrost Surveys in the Arctic* (Linell and Tedrow, 1981). In addition to his research in the polar regions and in New Jersey (Tedrow, 1986), he was immersed in the field of forensic geology and was responsible for several books on the topic.

Among his many honors, John was a Fellow of the Soil Science Society of America, the American Society of Agronomy, the Arctic Institute of North America, past president of the Rutgers chapter of Sigma Xi, and a member of the American Geophysical Union, Alpha Zeta, and the International Society of Soil Science. He was a recipient of the U.S. National Science Foundation's Antarctic Science Medal and the Lindback Research Award of Rutgers University.

On a personal note, John was responsible for inviting me to Barrow as a Rutgers undergraduate in summer 1957 and subsequently supervising my dissertation on soils of the northeastern Brooks Range. Without those opportunities I would not have undertaken my life-long career in the Arctic. John, in his quiet and unassuming manner, influenced many careers such as mine, and we are all grateful for his encouragement, insight and friendship.

John was predeceased by his wife, Mary Jane Tedrow, in 1991 and by his son Thomas L. Tedrow in 1998. He is survived by his son John C.F. Tedrow, Jr. and his wife Jane of New Harbor, Maine, and his daughter-in-law Vivian Tedrow of Freehold, New Jersey.

REFERENCES

Editorial Board. 2004. On the 85th birthday of John Tedrow. Eurasian Soil Science 37(5):551–552.

Linell, K.A., and Tedrow, J.C.F. 1981. Soils and permafrost surveys in the Arctic. Oxford and New York: Clarendon Press.

Tedrow, J.C.F., ed. 1966. Antarctic soils and soil-forming processes. Antarctic Research Series, Vol. 8. Washington, D.C.: American Geophysical Union.

———. 1977. Soils of the polar landscapes. New Brunswick, New Jersey: Rutgers University Press. 638 p.

———. 1986. Soils of New Jersey. Melbourne, Florida: Krieger Publishing Co.

———. 1995. History of soil science at Rutgers University 1870–1990. New Brunswick, New Jersey: New Jersey Agricultural Research Station, Rutgers University.

———. 2004. Polar desert soils in perspective. Eurasian Soil Science 37(5):443–450.

———. 2005. The Keys Project in northern Alaska. Arctic 58(4):421–424.
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