
Obituary



Robert Lenthall Jefferies

1936–2009

Robert (Bob) Lenthall Jefferies, born 13 March 1936 in Trowbridge, England, died suddenly from a cerebral hemorrhage on 8 July 2009. He was an Emeritus Professor in the Department of Ecology and Evolutionary Biology at the University of Toronto, and one of the world's leading Arctic scientists and global change biologists. Bob received a Ph.D in plant ecology from the University of Bristol, after which he moved to the University of California at Davis for a postdoctoral fellowship with Emanuel Epstein, where he studied plant ion transport and mineral nutrition. Following his first professorship at the University of East Anglia, he accepted a position at the University of Toronto, where he began more than three decades of intensive research on the plant–soil–herbivore dynamics of salt-marsh ecosystems along the Hudson and James Bay coasts.

Bob is best known for his study of the impact of migratory waterfowl on these northern ecosystems. He was among the first to recognize the very rapid population growth of Lesser Snow Geese, and the dramatic and widespread degradation of their Arctic breeding grounds. He convincingly linked this goose population growth to agricultural intensification along the goose flyways and wintering grounds in the southern United States over the last half century, and he revealed how the rapid and severe transformation from salt-marsh vegetation to bare mudflats in their breeding grounds was driven by a positive feedback among goose feeding pressure, loss of vegetation cover, soil erosion, and hypersalinity.

Recently, he also played an important role in the growth of research on the dynamics of soil processes over winter. Bob's lifelong fascination with climate, coupled with his vast experience in northern systems, positioned him at the forefront of climate change research in the Arctic, and he was a member of the Intergovernmental Panel on Climate Change that received the 2007 Nobel Peace Prize. Just a few weeks before his death, he was still working in the field near Churchill, Manitoba.

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