

Project Manager Qualifications

Clarence Lehman is an adjunct faculty member in the Department of Ecology, Evolution, and Behavior, College of Biological Sciences, at the University of Minnesota. For six years he served as Associate Director of Cedar Creek Natural History Area (now named Cedar Creek Ecosystem Science Reserve) and also holds the position of Resident Fellow at the Institute on the Environment.

His academic degrees are all from the University of Minnesota, with Masters and PhD received studying under Prof. David Tilman, one of the participants in this proposed project. Clarence Lehman's research covers theoretical, experimental, and computational ecology, renewable biofuel energy and the planet's future temperature trajectory, biodiversity and its ecosystem properties, connections between ecology and economics, and restoration of natural habitats. He has restored several areas of native prairies, savannas, and wetlands in northwestern Minnesota and maintains them through specialized experiments for adaptive management.

Clarence Lehman has experience designing a number of experiments related to the present proposed project, including the computerized aspects of the design and layout of Cedar Creek's two long-term biodiversity experiments and its long-term carbon dioxide enrichment experiment. He also has designed and managed three practical prairie experiments located in northwestern Minnesota to determine best establishment practices, seeding times, and burning frequencies for restored native prairies. He is the project manager on two LCCMR grants, one on bioenergy and water purification, another on bioenergy and wildlife conservation. He also designed and established a new prairie biofuel experiment located on the St. Paul Campus of the University of Minnesota, in partnership with David Tilman.

Scientific papers authored and coauthored cover topics such as biodiversity and the functioning of ecosystems, habitat destruction and extinction, competition among species, environmental change, long-term carbon cycling, bioenergy and wildlife, and ecological economics. He was a principle author of the prescribed burning plan for maintaining prairie areas at Cedar Creek and a co-author on the Science paper on carbon-negative biofuel (Tilman et al., Science 314:1598-1600, Dec. 8, 2006). He also has long-term experience in computer science and practical experience in the business world. Software development related to this project includes a computer system to select native prairie plants suited to a specified geographic location in Minnesota under specified soil, moisture, and sunlight conditions.

Organization Description

The University of Minnesota is the state's main research and graduate teaching institution. Our university has been repeatedly ranked number-one in the nation for Ecology/Environment, based on the citational influence of its scientific publications.