

Melanie Szulczewski

Associate Professor of Earth and Environmental Sciences at University of Mary Washington
Fredericksburg, VA, US

Dr. Szulczewski's research focuses on soil science and environmental toxicology.

Biography

Playing with dirt isn't just for kids. Melanie Szulczewski can tell you about the effects of acid mine drainage on the sediments and surrounding soils of Contrary Creek in Louisa County, Va. As an environmental scientist, Dr. Szulczewski believes it is important to see the connections between all the diverse disciplines required to create a sustainable, healthy world. The state and treatment of our soil affects many different environmental problems, including food production, pollution issues, and biodiversity. She believes learning more about the soil will create more knowledgeable citizens no matter what their discipline. An authoritative source on environmental issues, climate change and solar cooking, she has investigated contaminated and degraded soils in the Chesapeake Bay watershed, the mid-West, the Everglades and southern Florida, and the Sahel region of Africa. Dr. Szulczewski's research interests include studying soils and streams contaminated with heavy metals, as well as environments degraded due to excessive nutrients (nitrogen or phosphorus), desertification, and other forms of human interference. With experience in international and local extension work, Dr. Szulczewski also examines the effects of human behavior on the environment, both as a cause and potential solution, through sustainability projects and initiatives. She received a prestigious Fulbright U.S. Scholar grant in 2015-2016 at the University of Agriculture in Krakow, Poland, where she studied ecosystem restoration on former mining sites with Marcin Pietrzykowski, professor and researcher of forest ecology. Dr. Szulczewski's articles have been published in several journals, including Environmental Science and Technology, Journal of Environmental Quality and Geoderma. She has presented her research at conferences such as the Soil Science Society of America, the Geological Society of America, the Ecological Society of America, and the Science Education for New Civic Engagements and Responsibilities Summer Institute (SENCER). She is a member of the Soil Science Society of America, American Chemical Society, the Geological Society of America, and the Society of Environmental Toxicology and Chemistry.

Industry Expertise

Research, Training and Development, Education/Learning, Laboratory Services, Environmental Services

Areas of Expertise

Earth and Environmental Studies, Environmental Issues, Climate Change, Solar Cooking, Soil Science, Environmental Toxicology

Affiliations

American Chemical Society : Member, Geological Society of America, Union of Concerned Scientists, Soil Science Society of America: Member, Society of Environmental Toxicology and Chemistry: Member

Education

University of Wisconsin at Madison

Ph.D. Soil Science

University of Wisconsin at Madison

M.Sc. Soil Science

Cornell University

B.A. Chemistry and French Literature

Accomplishments

Fulbright U.S. Scholar Grant

2015 The Fulbright Program is the U.S. government's flagship international exchange program, sponsored by the U.S. Department of State's Bureau of Educational and Cultural Affairs. The scholarship program gives professors the opportunity to conduct research and network with other professors from around the world.

Outstanding Young Faculty Member Award

2013 Awarded by the University of Mary Washington in recognition for her interactive ways of engaging students and her innovative teaching methods. Szulczewski spearheaded groundbreaking programs for the Department of Earth and Environmental Sciences, including a global inquiry course, the department's first fully online course; its first field study course to be offered outside of Virginia and its first international course.

[Please click here to view the full profile.](#)

This profile was created by [Expertfile.](#)