

Feb 14th, 1:40 PM

Assessing the Impact of Mercury Bioaccumulation in Mammoth Cave National Park

Cahtleen Webb

Western Kentucky University

Follow this and additional works at: http://digitalcommons.wku.edu/mc_reserch_symp



Part of the [Animal Sciences Commons](#), [Forest Sciences Commons](#), [Geology Commons](#), [Hydrology Commons](#), [Other Earth Sciences Commons](#), and the [Plant Sciences Commons](#)

Recommended Citation

Cahtleen Webb, "Assessing the Impact of Mercury Bioaccumulation in Mammoth Cave National Park" (February 14, 2013). *Mammoth Cave Research Symposia*. Paper 12.

http://digitalcommons.wku.edu/mc_reserch_symp/10th_Research_Symposium_2013/Day_one/12

This is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Mammoth Cave Research Symposia by an authorized administrator of TopSCHOLAR®. For more information, please contact topscholar@wku.edu.

Assessing the Impact of Mercury Bioaccumulation in Mammoth Cave National Park

Cathleen Webb¹

¹ Chemistry Department, Western Kentucky University

Abstract

This project will examine the fate and transport of mercury in Mammoth Cave National Park, which has an extensive karst ecosystem. Contaminant transport in karst systems (limestone based surface geology) is rapid and extensive. Mercury's mobility in surface and ground water is of great concern due to its toxicity and ability to bio-magnify within food chains. However, mercury interacts with limestone, thus impairing its mobility. A number of federally listed species are declining in the parks. Further, Kentucky has issued a statewide mercury fish consumption advisory. With eight new coal-fired power plant applications under consideration in Kentucky, the potential exists for increased mercury deposition. Acquiring an understanding of mercury's bio-magnification through the food-chain, with an emphasis on federally listed species, will enhance NPS's ability to obtain emission reductions.