

Final call for abstracts (late submission deadline January 26, 2022, 13:00 CET)

New conference date: May, 23-27, 2022

New format: All presentations will be short orals that can be delivered and viewed both in-person in Vienna or online (from everywhere)

Session BG 1.7 “Mercury cycling in the environment – sources, processes, impacts, and archives from local to global scales”



Session Conveners: Jan G. Wiederhold (Federal Institute of Hydrology BfG, Koblenz, Germany)
Sofi Jonsson (Stockholm University, Sweden)
Sophia V. Hansson (LEFE, CNRS, Université de Toulouse, France)

Mercury (Hg) is a toxic global pollutant of great environmental concern. Anthropogenic activities have altered the global Hg cycle to a great extent and many ecosystems are threatened by exposure to elevated levels of Hg and its different species. For instance, neurotoxic and bioaccumulating methyl-Hg is formed under the influence of anaerobic microorganisms in a variety of natural systems but the controls on this key process are still far from being understood. Further active Hg research areas include exchange processes at the atmosphere-soil-plant interface and their importance for understanding atmospheric Hg deposition, the behavior and long-term fate of Hg at contaminated sites, as well as global cycling models assessing the evolution of historic Hg fluxes from different natural and anthropogenic sources. Recently, a number of novel research tools based on microbiological, spectroscopic, isotopic, and modelling techniques have been developed to improve our understanding of Hg cycling in the environment. This session presents new contributions on present-day Hg cycling in the environment using field-based, experimental, and/or modelling approaches on local to global scales, as well as contributions focusing on long- and short-term reconstruction of Hg as a pollutant over time using natural archives such as ice-cores, tree-rings, lake sediments and peat bogs. We particularly welcome research addressing the effects of global change on Hg cycling as well as the implementation of the Minamata convention on mercury levels in the environment and new approaches to assess its effectiveness.

Questions about the session may be directed to wiederhold@bafg.de. Late abstracts can still be submitted for the regular fee: https://egu22.eu/abstracts_and_programme/how_to_submit_an_abstract.html#late