

Chapter 11.2: Arsenic and Selenium.

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Arsenic (As) and selenium (Se) have become increasingly important in environmental geochemistry because of their significance to human health. Their concentrations vary markedly in the environment, partly in relation to geology and partly as a result of human activity. Some of the contamination evident today probably dates back to the first settled civilizations that used metals. This chapter outlines the main effects of arsenic and selenium on human and animal health, their abundance and distribution in the environment, sampling and analysis, and the main factors controlling their speciation and cycling. Such information should help to identify aquifers, water resources, and soils at risk from high concentrations of arsenic and selenium, and areas of selenium deficiency. Human activity has had, and is likely to continue to have, a major role in releasing arsenic and selenium from the geosphere and in perturbing the natural distribution of these and other elements over the Earth's surface.