Geophysical Research Abstracts
Vol. 16, EGU2014-6401, 2014
EGU General Assembly 2014

Influences on 87Sr/86Sr in the British biosphere beyond bedrock.

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Strontium enters the biosphere thought the uptake of the element by plants through their roots. Where the soil is derived by the erosion of underlying bedrock there is a relationship between the isotope compositions of the biosphere and the bedrock. This makes it possible to estimate biosphere Sr in places where the relationship exists and the isotope properties of the underlying rock are understood. Direct mapping, however, of the biosphere is preferable and increasingly undertaken and this is particularly important when non bedrock influences exist. For example, a layer of peat that detaches the isotope domain of the biosphere from the underlying rocks. This poster presents studies on the effect of altitude, sea and rainwater influences, superficial deposits such as peat, glacial till and dust, in order to refine the understanding of factors influencing biosphere Sr values and show how we are trying to develop the online British biosphere dataset (http://www.bgs.ac.uk/nigl/SBA_Maps.htm).