大気降下物の起源および蓄積量をコケのストロンチウムおよび鉛同位体比から推定する試み
An attempt to estimate the source and accumulation of atmospheric deposition Sr and Pb isotope ratios in the bryophyte

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Recently, excessive input of heavy metals and other pollutions into the surface of environment have been developed through consumption of fossil fuels and yellow sand. Although there are many monitoring sites for atmospheric deposition in Japan, the studies that estimated the amounts of fall in forest ecosystem are very few due to difficulty of installation of sampler. In this study, we focused on relationship between atmospheric deposition and bryophyte. Since some kind of bryophyte obtains almost their nutrients from atmospheric deposition, and metallic elements are penetrated into their tissue. Therefore, we considered isotope ratios and heavy metal concentration of bryophyte tissue might provide a useful index of source and accumulation of atmospheric deposition. We collected bryophyte, soil and leaf in many part of Akita, Nagano Miyazaki prefecture, and analyzed heavy metal concentration and isotope ratios (Sr and Pb). Sr and Pb isotope ratios of the some bryophyte samples differed to the soil and leaf sample. This means bryophyte contain metals supplied from atmospheric deposition. In the future, we plant to analyze bryophyte collected another sites such as the Sea of Japan side. And because the uptake rates of heavy metal vary among bryophyte species, we have to select indicator species for estimate of atmospheric deposition.

キーワード：Bryophyte、heavy metal、lead isotope ratio
Keywords: Fossil fuel, strontium isotope ratio , atmospheric deposition

