

## Youngil Cho, Ph.D. Student



### Biographic Information:

- ▶ B.S. Environmental Science, 1994, Yonsei University, South Korea
- ▶ M.S. Environmental Science, 1996, Yonsei University, South Korea
- ▶ M.S. Urban Planning and Engineering, 2001, Yonsei University, South Korea

### Research Interests/Activities:

▶ My current research is part of an interdisciplinary initiative examining the role of calcium supply in the structure and function of base-poor northern forests in New Hampshire. I have been investigating the response of a watershed ecosystem at the Hubbard Brook Experimental Forest (HBEF) to an experimental manipulation of the supply of calcium by the addition of a readily-weatherable calcium-silicate mineral, wollastonite. This study includes the long-term response of soil water and stream water chemistry in watershed 1 at the HBEF to the changes in  $\text{Ca}^{2+}$  availability and consequent changes in pH, acid neutralizing capacity (ANC), cations, anions,  $\text{H}_4\text{SiO}_4$ ,  $\text{NH}_4^+$ , total nitrogen (TN), dissolved inorganic carbon (DIC), and dissolved organic carbon (DOC). I have also studied the effects of soil properties and the changes of spatial patterns on the Ca application, measuring exchangeable acidity, exchangeable cations, cation exchange capacity (CEC), and base saturation (BS), and using geostatistical models. My research interests are the area of environmental chemistry and biogeochemistry, soil chemistry, hydrology, and environmental geostatistical modeling.