

STUDENT WORK SECTION

R. HOWARD – Section Editor
The University of Tulsa, Tulsa, OK 74104-3189

Students in *Environmental Science* (one of the freshmen level courses included within the Virginia Collaborative for Excellence in Teacher Preparation program) are given the opportunity to socialize the material presented in large lectures by attending smaller guided recitation sections. In recitation, active learning is promoted through the use of role-playing, debates, and writing assignments. The following student paper is an example of such an assignment; it accounted for 2.5% of the course grade. The author is a freshman Pre-Nursing major who clearly demonstrated that she had integrated the concepts associated with acid deposition into the larger ecological picture and into her daily experiences. The work was supervised by Professor Bonnie Brown from the Department of Biology.

THE EFFECTS OF ACID DEPOSITION

B. PROFFITT
Virginia Commonwealth University, Richmond, VA 23284

We are surrounded in a sea of gases. These gases in the atmosphere and certain chemicals mix with water to result in the deposition of a mixture of acidified compounds. Acid deposition is a global environmental threat. From lakes without fish to the ruin of human health, acid deposition has numerous harmful effects. Acid rain, sleet, snow, and other precipitants form when pollutants mix with droplets of water vapor in the atmosphere. The pollutants change the clean, fresh water to droplets of acid. Finally, these acids fall to Earth as various forms of acidic precipitation. However, rain is normally slightly acidic because of the carbon dioxide in air. Normal rain has a pH of 5.6. This is not considered to be a problem because natural systems are slightly buffered. Yet, when other anthropogenic gases are emitted into the atmosphere, then the precipitation becomes even more concentrated with hydrogen ions (acidic). This causes the pH to range from 3.4 to 4.5 [1]. Let's look at the numerous pollutants that cause acid rain and deposition.