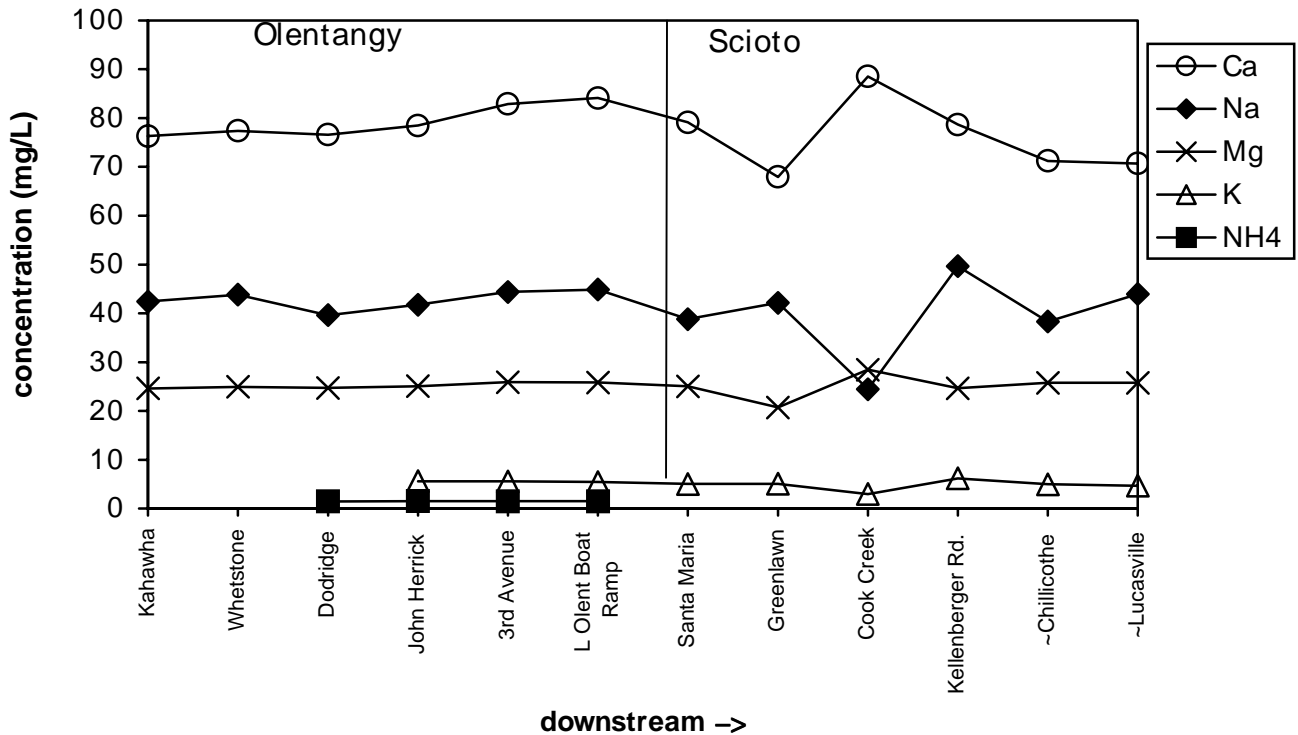


**Request for Supplemental Funds for the McMurdo Dry Valleys LTER  
(OPP-0096250)**

**Schoolyard Supplement:**

We are requesting supplemental support to continue our Schoolyard LTER program established in 1998. During this time we have involved three middle/high school programs in Schoolyard activities: Lakeside School, Seattle, WA., Tuscaloosa Academy, Tuscaloosa, AL., and Linworth Alternative High School, Worthington, OH. All three schools are collecting stream water quality and biological data in order to compare this information through time. In addition, site comparisons are being made by the students to the other two sites, as well as our stream sites in Taylor Valley, Antarctica. During the past year, Dr. Carol Landis' Linworth students have collected a series of water samples the length of the Olentangy/Scioto River system, as it flows through metro-Columbus, OH., some 145 km downstream to Lucasville, OH., just before the river enters the Ohio River proper. Although the major cation concentrations stay relatively constant through time, the influence of Columbus is clearly observed by the measurable ammonium concentrations (Figure 1). The anion analyses have not yet been run. We are currently working with Dr. Landis and her students to help them interpret their data.



**Figure 1.** Major cation distribution in the Olentangy/Scioto River System, November, 2000. Samples collected by students of Linworth Alternative School.

Our program has guided science students at all three schools in active and extended scientific inquiry. We continue to work with the teachers to enhance their science programs. Carmen Nezat, who coordinates the MCM-LTER Schoolyard Program, presented a talk at the LTER All Scientist Meeting in August, 2000, summarizing our work. (The title was "*Stream Monitoring by Students in Seattle, WA. And Tuscaloosa, AL. in Collaboration with the McMurdo Dry Valleys LTER*".) Although our Schoolyard effort has primarily focused on stream data collection, analysis and synthesis, we have also spoken with the teachers and students about the goals of LTER, and our overall research plan in Antarctica. This type of interaction will continue.

*Future goals.* We have a number of goals to accomplish with the funds from this supplement. They include the following. Firstly, we desire to continue to help facilitate the teachers involved in MCM-LTER by providing them with equipment and our personal experience. We plan to visit all three of our school sites this year, giving talks about LTER and Antarctica, as well as provide council to the teachers in their activities to interpret their own data sets. Secondly, we plan to get all three of our teachers together this year for 3-4 days at Byrd Polar Research Center to discuss present and future Schoolyard activities. Ms. Nezat will host and coordinate the meeting. We also hope to have Dr. McKnight (our stream PI on MCM-LTER and schoolyard coordinator for NWT-LTER) at this strategy session. Thirdly, Ms. Barb Shulz, our initial contact teacher at the Lakeside School, has recently become the Executive Director of the BioLab, a non-profit research laboratory for children in Seattle. She has expressed a strong desire to continue her interaction with Schoolyard LTER and we plan to examine ways that we might do this. She has included a write-up of the MCM-LTER-BioLab connection in a recent promotional document for BioLab (biolab.org). We see this as an important opportunity to expand our Schoolyard efforts to a larger audience, at least in the Seattle region. Finally, Dr. Lyons has become involved in the Center of Science and Industry (COSI) Academy program where he currently mentors five local high school students. It is our plan to develop potential formal collaborations with COSI in order to expand our Columbus area student base.

Because of the time commitment to the Schoolyard Program, we are asking for 1 month of Ms. Nezat's salary to be supported by our supplement this year. She will continue to function as the overseer of the MCM-LTER Schoolyard program.