

2004 Denver Annual Meeting (November 7–10, 2004)

**Paper No. 93-7**

**Presentation Time:** 8:00 AM-12:00 PM

## **TRANSCENDING DISCIPLINES AND SPACE: A BRIEF HISTORY OF THE RIVER BASINS RESEARCH INITIATIVE AT FURMAN UNIVERSITY**

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The River Basins Research Initiative (RBRI) at Furman University began with a small grant from the Environmental Protection Agency in 1996. The program has since grown to include eight "full time" and several "part time" faculty members from the departments of Biology, Chemistry, and Earth and Environmental Sciences. The field area has expanded to include approximately 7000 km<sup>2</sup> Enoree and Saluda River basins. The RBRI has been maintained by funding from private foundations, state agencies, and the National Science Foundation, which has required close collaboration of faculty from the three departments. The research program has evolved by expanding collaborative research topics into new and exciting fields. Examples include integrating biogeochemical and biodiversity research with land cover data derived from satellite image analysis, studies of the toxicity of zinc based on field and laboratory experiments, and examining how the discharge of wastewater treatment plant effluent affects stream biogeochemistry and biologic diversity.

In 2002, the River Basins Research Initiative began a relationship with Universidad Metropolitana (UMET) in San Juan, Puerto Rico. This relationship has grown from including students and faculty in our NSF-REU program to developing a collaborative watershed study in Puerto Rico focused on the Rio Grande Loiza. This watershed has fifteen U.S.G.S. gaging stations and a variety of land covers including agricultural, forested and urban. Furman University is providing chemical analyses of samples, and faculty are traveling to Puerto Rico to collaborate with UMET faculty on sampling design and analytical techniques.

Three major challenges have been identified over the years. First, maintaining interdisciplinary interaction requires constant searching for new fields of research. Second, increased success in funding has resulted expansion of the program beyond our capabilities, and resulting in a need for technician help. Third, expansion to an "overseas" collaboration has required the intense collaboration of two universities. The benefits are numerous, including tight interaction among the faculty, the development of new courses, the close collaboration with students from a variety of disciplines, and a constant influx of new and interesting ideas for research.

[2004 Denver Annual Meeting \(November 7–10, 2004\)](#)  
[General Information for this Meeting](#)

Session No. 93--Booth# 119

[Integrative Interdisciplinary Undergraduate Research in the Earth Sciences \(Posters\)](#)

Colorado Convention Center: Exhibit Hall

8:00 AM-12:00 PM, Monday, November 8, 2004

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