

**KATY R. BECKHAM**  
GIS Analyst/Biologist

During her professional career, Mrs. Beckham has written and/or assisted with ecological risk assessments, conducted Threatened and Endangered Species surveys, and completed stream assessments for industrial clients in the Southeastern US. Analysis was done both through site inspections, data compilation, calculations, as well as data analysis with ArcGIS ArcMap®. Mrs. Beckham has written or provided assistance with several Resource Conservation and Recovery Act (RCRA) Ground-Water and Surface-Water Quality Assessment Reports, developed and implemented appropriate statistical analyses for gathered data, managed project databases for all clients, participated in surface and groundwater quality sampling procedures, and has had experience with the preparation of site, potentiometric, isoconcentration, and geologic cross-sectional maps using Powercadd® and ArcGIS ArcMap® software.

For her thesis, Mrs. Beckham conducted small mammal and vegetation surveys situated in plots across the Great Smoky Mountains National Park, utilizing live trapping methodology, and included the sampling of bats, red-cockaded woodpeckers, and fish.

**EDUCATION:**

M.S., Forestry & Natural Resources, Clemson University, Clemson, S.C.

B.S., Aquaculture, Fisheries, & Wildlife Biology, Clemson University, Clemson, S.C.

**PROFESSIONAL EXPERIENCE:**

- January 2006 to present: GIS Analyst, Research Planning Inc., Columbia, S.C.
- July 2003-January 2006: Ecological Services Group Leader/Wildlife Biologist, Kubal-Furr & Associates, Simpsonville, S.C.
- July 2002-July 2003: Graduate Research Assistant at Clemson University

**FIELDS OF SPECIALIZATION:**

- Ecological Risk Assessments
- Threatened and Endangered Species Surveys
- Faunal and Habitat Analysis Surveys
- Stream Assessments
- ArcGIS® mapping
- Statistical Analysis Procedures
- Database Management
- Environmental Media Sampling Techniques and Procedures

## **SELECTED PROJECT EXPERIENCE:**

### **Screening Level Ecological Risk Assessment (SLERA), Spartanburg, S.C.**

Mrs. Beckham conducted a SLERA for the Duke Energy MGP site in Spartanburg, S.C. Responsibilities included report composition, preliminary soil screening calculations, habitat assessment, Threatened and Endangered Species survey, and stream assessment. Mrs. Beckham also produced the accompanying maps.

### **Baseline Risk Assessment (BRA), Augusta, G.A.**

Mrs. Beckham supported the Ecological and Human Health Risk Assessment of the RCRA-permitted Augusta Chemical Plant in Augusta, G.A. Responsibilities included the compilation and analysis of the extensive multi-media environmental database, conducting the site ecological habitat and Threatened and Endangered Species survey, and also assistance with the development of site Contaminants of Potential Concern (COPCs), Contaminants of Concern (COCs), and risk assessment report.

### **Groundwater/Surface Water Quality Monitoring, Greenville, S.C.**

Mrs. Beckham provided project support for the RCRA Post-Closure Care ground water and surface-water quality monitoring and reporting program at GE (Greenville) Gas Turbines' 410-acre manufacturing facility in Greenville, South Carolina. This program consisted the sampling of nearly 200 ground water monitoring and extraction wells as well as nine surface water locations. Responsibilities included maintenance of the client's database, preparing semiannual/annual reports for the client, field service support, and the development and implementation of appropriate statistical analysis procedures via an SPSS interface. Mrs. Beckham was also responsible for securing the aerial photography contractor to provide digital aerial imagery that she used in developing the entire ground-water reporting map set for the client.

### **Groundwater Quality Monitoring, Florence, S.C.**

Mrs. Beckham provided project support for the SCDHEC Industrial Waste permitted ground-water quality monitoring and reporting program at Smurfit-Stone Container Corporation's two on-site Industrial Solid Waste Landfills at their Florence, South Carolina, paper mill. Responsibilities included quarterly and semiannual sampling, database management, field service support, and reporting of water level and water quality data, as well as the development of annual statistical analysis of ground-water quality. Mrs. Beckham was also responsible for creating and maintaining site maps in ArcGIS ArcMap®.

## **PUBLICATIONS:**

Reeves, W.K., L.A. Durden, C. Ritzi, K.R. Beckham, P. Super, B.M. OConnor. Ectoparasites of vertebrates in the Great Smoky Mountains National Park, USA. Submitted to Zootaxa.

Riggins, K.D. 2004. Small Mammal-Forest Community Relationships of the Great Smoky Mountains National Park [thesis]. Clemson University: Clemson (SC). 60pp. Available from: Clemson University Library, Clemson, S.C.

## **SPECIALIZED TRAINING:**

- 24-hour OSHA HAZWOPER training, 8-hr refresher

- ESRI certified in ArcGIS 1
- ESRI: Introduction to ArcIMS Virtual Campus Training
- ESRI: ArcGIS 9: Editing Tips and Tricks Virtual Campus Training
- EPA Natural Resource Damage (NRD) Assessment Online Training