BLUE, T.E.<sup>1</sup>, W.B. WORTHEN<sup>1</sup>, C. CUDDY<sup>1</sup>, D.C. HANEY<sup>1</sup>, C.B. ANDERSEN<sup>2</sup>, AND J. WHEELER<sup>3</sup>. <sup>1</sup>Biology Dept., <sup>2</sup>Earth and Environmental Sciences Dept., and <sup>3</sup>Chemistry Dept., Furman University, Greenville, SC 29613 - The abundance of *Boyeria* vinosa larvae in comparison to the physical and chemical properties of the Enoree River of South Carolina.

The fawn darner, Boyeria vinosa (Odonata: Aeshnidae), is a common dragonfly of South Carolina streams. Here, we report on the relationships between the physical and chemical properties of streams and the abundance of *Boyeria vinosa* larvae in five piedmont creeks feeding the Enoree River of South Carolina. Streams varied significantly with respect to many chemical parameters, including temperature, dissolved oxygen, salts (Na<sup>+</sup>, Ca<sup>2+</sup>, K<sup>+</sup>, Mg<sup>2+</sup>, Cl<sup>-</sup>), metals (zinc, manganese, aluminum, iron), nitrate, carbonate and silicates, with associated differences in conductivity and alkalinity. The abundance of *Boyeria* also varied among these streams, but only covaried with dissolved oxygen and metal content. Boyeria was more abundant in streams with higher dissolved oxygen and lower metal concentrations. In addition, Boyeria was found to be more abundant at sites characterized by sandy bottoms rather than rocky bottoms. Apparently, *Boyeria* is a tolerant species with broad chemical niche parameters.