

Dr. Rebecca Johns, Current Research Projects.

### 1. The Role of Local Parks in Building Environmental Literacy: Challenges and Opportunities.

Parks are recognized as key sites for non-formal environmental education for people of all ages. However, not much work has to been done to better understand how environmental education at local parks might help increase American environmental literacy among adults, a neglected population. Much of the research on environmental education has focused on the K-1 arena. Given the low level of environmental literacy among American adults, increasing and improving park programs is important. Florida has a wealth of local, state and national parks, yet educational programs at the parks are little understood and unregulated. This paper, which is part of a larger study across the state, shares results from an in-depth analysis of three case studies of parks in southwest Florida over 12 months and highlights both the positive aspects of what parks provide and the areas where improvement is needed.

### 2. Building Environmental Literacy Through Non-Formal Environmental Education: Challenges And Opportunities

Environmental literacy among Americans remains shockingly low, despite four decades of active environmental education programming. Most adult Americans are familiar with common environmental problems, but unable to think critically or analytically about them. Systemic thinking about large scale processes that produce lasting environmental crises, such as an economic system that encourages mass consumption, the reliance on fossil fuels for energy, and lack of true democracy in decision-making, is the most important, and notably absent, environmental literacy skill in the U.S. Most environmental education programs have focused on the first, lower levels of environmental literacy, which entail encouraging aesthetic outdoor connections with nature (based on the belief that “one fights to protect what one loves,”) and fundamental scientific understanding. Rarely have EE programs moved beyond this basic level. Indeed, as scholars and practitioners, we have not conceptualized very clearly how one gets from an immersive experience in nature to a higher level of understanding of individual and collective action necessary to make significant changes in our relationship to the environment. This project collects data from environmental education programs in Florida to assess their target audience, methods of learning, strategies of outreach, and the topics most often covered, as well as the level of environmental literacy being promoted through the program. Using survey data primarily, an inventory of the types of adult, non-formal environmental education available in the state is created, and an assessment of its strengths and weaknesses is conducted.

### 3. Creating Diversity in Environmental Education In Florida

Lack of diversity in participation in environmental advocacy and in the population visiting local and national parks is a well-established problem throughout the United States. While reasons for lack of a minority presence at parks and in environmental organizations have been much studied, less has been written about efforts to remedy the problem. Furthermore, the role of diversity in environmental education as a related arena has not been examined closely. This project review the literature on minorities and nature, then examines, through qualitative research methods, the rate of minority participation in outdoor programs and educational activities at parks and non-profits throughout the state. Then, through case studies of local parks and interviews with experts in key minority organizations, a deeper analysis of how the lack of minority presence might be remedied is discussed.

### 4. Permanent Educational Exhibits: Contributions To Environmental Literacy

While museums as educational spaces have been heavily studied, not much work has looked specifically at how permanent exhibits and self-guided learning experiences in environmental education centers might impact environmental literacy in the U.S. This study examines the type, emphasis and role of permanent exhibits at parks throughout Florida in environmental education. Specifically, the messages and level of environmental learning provided by such exhibits is analyzed through visual and textual content analysis. Each exhibit is interrogated for the level of eco-literacy it attempts to cultivate. Of the five levels of environmental literacy in my model, most environmental education in Florida operates at the lower levels. This project specifically examines how permanent exhibits fit in that schematic and makes suggestions for improvement.

### 5. The Lack of Training Standards and Resulting Variability in Non-formal Environmental Education in Florida

Among its regional neighbors, the state of Florida stands out as one state without any state government support for environmental literacy, and no state standards for training of environmental educators, outside the K-12 realm. Environmental education in the state exists in the K-12 arena primarily through mandated 4<sup>th</sup> and 7<sup>th</sup> grade programs which are embedded in STEM sciences. For adults, there is little guidance specifically for programs in Florida, other than the national guidelines provided by the North American Association of Environmental Educators. Adult environmental education requires no specific training or education, nor certification of any kind. In a qualitative study of adult environmental education in Florida, lack of training standards, certification and state support for the field emerged as troubling problems identified by educators. This work examines the current state of training for EE in Florida within the regional and national context, and makes suggestions for improvement.

6. Comparing Active and Passive Pedagogy in Effectiveness of Adult Environmental Education, Kelly McKenna (graduate student).

Master's student Kelly McKenna is working with Dr. Johns on an evaluation of pedagogical approaches to increasing environmental literacy and commitment among the adult population of the Tampa Bay region. Adult environmental education is a little-studied field, especially compared to the significant work that has been done on K-12 environmental education in the state and at the national scale. This project advances our understanding of adult non-formal environmental education provided by NGOs and local parks by analyzing passive and active forms of education at a variety of sites.