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Paludology Pedagogy: Creating a Wetlands Environmental Academy for P-12 Educators

Paludology refers to the science of wetlands, and the John Bunker Sands (JBS) Wetland Center was established to educate the public and provide research opportunities relating to wetland systems and water conservation. To increase the capacity of environmental education and depth of research, a partnership was formed between the JBS Wetland Center and Baylor University faculty members with the result being the establishment of the JBS Wetland Center Environmental Academy. These wetlands are very unique and present an unprecidented oportunity for Baylor; they represent the largest water reuse project in the US. The Environmental Academy will provide on-site summer seminars focused on educating and training local and regional P-12 educators on specific environmental topics and solutions. The seminars will be conducted by Baylor science and science education faculty members with expertise in the sciences associated and wetlands content and content pedagogy. Moreover, it is with forethought and deliberate intent that the Environmental Academy is to be established and situated at the JBS Wetland Center, for while much of today's environmental education occurs within the classroom setting, researchers have determined that outdoor educational programs increase participants' positive attitudes towards the environment (Mittelsteadt, Sanker, & Vanderveer, 1999). These positive attitudes subsequently result in educators' recognition of the relevancy of environmental education and an increased emphasis on environmental education within their science classrooms (Ko & Lee, 2003). By creating the Environmental Academy in the manner described herein, full advantage can be taken of the unique opportunities afforded by the JBS Wetland Center as well as the expertise brought by each of the partners. The plans for this project are to gather information regarding educator participants' pre- and post- understanding of the content addressed during the environmental academy, to explore educator participants' pre- and post- attitudes towards environmental education and site-based education in general and the wetlands in particular, and to begin developing a Wetlands Environmental curriculum that can be utilized on-site and in classrooms.