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WETLANDS IN ENVIRONMENTAL EDUCATION*

Wetlands are one of the most useful resources the environmentally oriented educator has at his disposal. They are his best teaching facility. Most wetlands allow active use. They provide rapid and easy "direct contact" study of their components. Because one can get an overall perspective, it is often easier to observe the animal populations and to sample the plant communities. Whether the wetland is a wet cattail marsh, sedge meadow, woodland swamp or acid bog the student can see it, feel it and appreciate it as a reservoir for living things.

The wetland is not only easy to observe and comprehend but also provides an excellent opportunity to teach basic ecological principles and concepts, those of the ecosystem; of energy and the biogeochemical cycles; of limiting factors and of community and population organization. The wetland offers the opportunity to witness with relative simplicity the processes of orderly change we call succession. Wetlands illustrate the natural relationships of organisms to each other as well as how those organisms relate to their physical environment. Likewise, in wetlands all trophic levels from producer to carnivore are readily observed.

Wetlands have many values. Testimony has been presented regarding scientific, hydrologic and wildlife values of wetlands, to name a few. It is important that Wisconsin residents have the opportunity to appreciate these diverse

^{*}This paper is a summary of testimony presented at the State of Wisconsin Legislative Council hearings held on October 3, 1974, for the Natural Resources Committee – Subcommittee on Wetlands.

values. People concerned with the allocation of land or land management should know that bogs are responsible for ground water recharge, that they may serve as a source for a stream or river and protect its quality as well. Seasonally flooded basins or flats produce large volumes of waterfowl, and fresh meadows are waterfowl feeding grounds. Clearly the "services performed", include watershed protection, erosion control, wildlife production and esthetic appreciation.

Are wetlands now used in environmental education? One notes first that virtually all of the nature education centers in southeastern Wisconsin are associated with wetlands.

Riveredge Nature Center, located near Newburg, Wisconsin, conducts some 3300 4th through 6th grade children through a wetland studies program each year. Some 150 adults have active, intense contact with the vernal pond, marsh, swamp hardwood and bog habitats while an additional 400 adults have the opportunity to see, observe and become aware of these.

The University of Wisconsin-Milwaukee Field Station, adjacent to and part of the Cedarburg Bog State Scientific Area, conducts numerous field trips through its diverse wetlands. University classes spend approximately 3500 man hours annually in this outdoor laboratory. Many adults including professional biologists, garden club members, conservationists and others visit the Station. Special teacher workshops and in-service training courses, serving the Milwaukee metropolitan area, utilize the bog for a trainining area. A Milwaukee high school biology teacher regularly takes his class to a spruce bog, and a Brookfield High School class utilizes a marshy pond to teach ecological principles and concepts.

Human interest must come before learning. Wetlands fascinate all of us. Today this is evidenced in economic terms — many people are striving to purchase wetlands, not buying to fill for building, but for personal enjoyment as wet areas. Individuals are willing to pay \$300 per acre or more for their own wetland area. Some purchase for that "bit of wild area" at the back of their rural residential lot, some for buffer from neighbors, and others buy for wildlife and recreational purposes. Whatever the motive, their enjoyment and increased understanding speak of the educational values of wetlands.

Educational appreciation for wetlands communities exists in varying degrees of sophistication throughout the state. Manitowoc County maintains bog land for educational use by the public school systems; in Vilas County a private boardwalk through a bog is available to the public who, for years, have purchased tickets for the privilege; in Forest County, the Scott and Shelp Lake Bogs have been protected by the U.S. Forest Service as nature education areas; Horicon Marsh and Powell Marsh are traversed annually by thousands of people hoping to view the outstanding waterfowl populations, as are Crex Meadows in the northwest and the Neceeda National Wildlife Refuge and Central Wisconsin Wildlife Area in the sand plains region of the State. Finally, the Milwaukee Public Museum's wetland displays are viewed and studied by thousands each year.

Long-term preservation, conservation and wise use of wetlands depend upon informed and interested citizens. Degradation of wetlands must be halted. Consequently it is essential that educators and all facilities and agencies with educational capabilities strive to continue and expand programs in wetland education. With careful, planned and controlled usage of most areas all of these goals can be accomplished without undue disturbance.

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