

[From Summer 2002]

Environmental Education

What is environmental education? How does environmental education fit into a school's curriculum? What is the refuge system's role in teaching environmental education? I have struggled with these questions and more as a Recreation Assistant whose main responsibility is to prepare and conduct environmental education programs at Chincoteague National Wildlife Refuge.

To answer the first question, I looked for a definition and found one in the final report at the-world's first intergovernmental conference on environmental education where the Tbilisi Declaration was adopted. The declaration established three broad objectives:

- To foster clear awareness of and concern about economic, social, political, and ecological inter-dependence in urban and rural areas;
- To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment, and skills needed to protect and improve the environment;
- To create new patterns of behavior of individuals, groups, and society as a whole towards the environment.

With overcrowded schools, tight budgets, and mandated curriculum, how can we expect schools and teachers to squeeze in yet another subject? We may all agree that environmental literacy is important but is it more important than physical education, music, or art?

Throughout the nation, these "special" programs are being cut due to budgetary constraints. Where will the time and money come from to teach environmental education? Luckily, the answer to these questions is simple. Environmental education does not need to stand alone. There has been a push in the teaching community to integrate subjects. Environmental education can neatly fit into any one of the more traditional subjects.

For example, using the endangered Delmarva Peninsula fox squirrel as an environmental issue, teachers can cover: Science (learning about the animal, its habitat, its role in the environment, etc.), English (writing and presenting reports, poems, or short stories about the fox squirrel), Mathematics (learning how biologists obtain population estimates through the capture and recapture process and its associated mathematical equations), History (researching the history of the Delmarva Peninsula and speculating on reasons the fox squirrel became endangered), etc.

This interdisciplinary approach not only teaches environmental education, but also allows students to look at problems from many different angles, helping to foster critical thinking and solving skills.

Knowing what environmental education is and how it can be taught in the schools is one thing, but where does the U.S. Fish and Wildlife Service fit in?

- Environmental education is an important and effective management tool and should be resource-based to meet the Service mission and management goals and objectives.
- Environmental education services should be multidisciplinary and multi-cultural to meet the needs of all populations.
- Environmental education should aim to develop in people of all ages an understanding, appreciation, and support for fish and wildlife management and encourage active participation in resource protection.

How does Chincoteague National Wildlife Refuge's environmental education program measure up to these standards and expectations? This past spring Chincoteague Refuge completed yet another successful education season.

But how do we measure success? If we measure success merely by numbers, then Chincoteague Refuge did very well. We conducted 59 programs in a two-month time period for approximately 1200 students. The students learned first-hand about the aquatic food web, forest ecology, endangered species management, and various aspects of bird biology and conservation.

The big question is, "Did the students gain a better understanding and appreciation of the natural world and the Fish and Wildlife Service's efforts to conserve it?" Repeat attendance by particular schools and classroom teachers validate the quality of our programs. Teacher feedback and student letters indicate that we are succeeding in our goal but more evaluations need to be done.

Chincoteague NWR has successfully integrated, within the community, an environmental education program that meets the needs of both the school's curriculum and the Fish and Wildlife Service's management goals. But there is always room for improvement and the new educational and administrative center will provide us the opportunity to expand and enhance the refuge's educational goals.

Alison McGuire
Recreation Assistant, CNWR