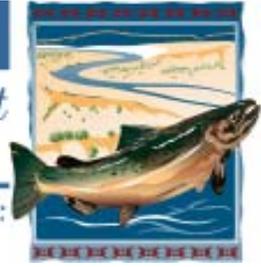


U.S. Fish & Wildlife Service

*Hanford Reach National Monument
Saddle Mountain National Wildlife Refuge*

... protecting the last of the free-flowing Columbia River.



May 18, 2005

Research-based Service Learning comes to the Monument

The Hanford Reach National Monument partnered with Pasco High School to offer an opportunity for students to conduct a research-based service learning project. The school recently earned the honor of being placed in the top 100 high schools in the nation. All students are required to complete a service learning project to benefit the community for their graduation requirements. The Monument was contacted by veteran teacher Jeff Dong inquiring about potential projects his students might participate in. Information and Education Specialist Ron Crouse saw an opportunity to create a program in which the students could learn about Monument resources while conducting habitat inventories. With the assistance of staff biologists, an age appropriate program was designed that could be conducted in the field.



The participants were comprised of two classes of 20 bilingual students that are considered “at-risk” due to poor English reading skills. This presented a special situation in respect to program design. Two in-school programs were presented, one to familiarize the students about Monument history, resources and management, and another to outline field trip protocols. During the day-long field session, each class conducted a terrestrial inventory or an aquatic survey in the morning and rotated in the afternoon.

Refuge Operations Specialist Jack Heisler had his terrestrial groups conduct a line-point indicator inventory in shrub-steppe habitat. The first area was recorded in undisturbed shrub-steppe habitat and the other in a disturbed site with heavy cheatgrass infestation. The goals achieved included an understanding of the composition of shrub-steppe habitat, annual cheatgrass versus perennial bunchgrass, plant diversity, disturbance and the interdependence of habitat species. Crouse organized the aquatic sampling inventory using juvenile fish and macroinvertebrates. The students, armed with kick nets and beach seines, swept the Columbia River and Spring Creek in search of life under the water. Following collections, students recorded their catch using identification manuals and dissecting scopes to record numbers of each species. The goals achieved for this unit were the comparison of species diversity and density between the river and the stream and to relate those figures to tolerance indices for pollution to determine a level of water quality for both habitats.



The project was a success with excellent feedback from both the students and instructors. Most enjoyable was an opportunity to study the unique plants of the shrub-steppe and strap on waders to catch their “salmon.” For Monument staff, it proved an enlightening experience to provide a chance to do scientific investigations with a group of “at-risk” students who would otherwise never experience the Monument from a biological perspective.