

## Training Program Supports Students' Efforts to Initiate Community Outreach

**July 19, 2010.** *Capstone Students and Montana State University trainers will incorporate both western science and traditional ecological knowledge into a new education initiative at Stone Child College. Tashina Russette, Jonathan Four Colors, Nathaniel Windy Boy, and Curtis Windy Boy hope to serve teachers, parents, and community youth as mentors and trainers. The workshop was the first step to establish a mentor program and prepare for community outreach at Rocky Boy Reservation near Havre, Montana.*

*The outreach initiative will build community capacity to reduce impacts on human health and the environment associated with the spread of noxious weeds.*

### Work Group Leaders

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Mary R. St. Pierre, Stone Child College Extension  
Doug Crebs, Stone Child College Faculty

### Natural Resources Capstone Team

Tashina Russette  
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Nathaniel Windy Boy  
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### Cooperators

Larry Beneker, Bureau of Indian Affairs  
Bureau of Indian Affairs (BIA)  
Natural Resources  
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Ron Swan, Noxious Weed Supervisor  
Duane Gopher, Wetlands Coordinator  
Terry Turner, Hill County Weed Coordinator

### Trainer and Coordinator

Ciara Wolfe, Professional Trainer  
Carla Hoopes, Project Coordinator



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## Stone Child College initiates outreach program




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## Invasive Species Educational Research Program Will Involve Montana's Native American Students

The Statewide Noxious Weed Awareness and Education Campaign work group initiated an invasive species educational research program to involve Montana's Native American students. The research program will use an existing youth education program, *What's In Your World? Youth Naturalist - Weed Scientist*, and build on it to improve learning and teaching techniques that may be more effective in Native American communities.

The youth education program was designed for ages 8-14 by a collaboration between educators, scientists, government agencies, individuals, and stakeholders. The idea-exchange at Rocky Boy focused on Mentor skill sets and prepared research students to integrate noxious weed and biological control concepts in meaningful ways.



Natalie Flores  
Stone Child College  
Special Grants Coordinator

Stone Child College sponsored the mentor training workshop for Natural Resources Capstone Students.

*BELOW: Jonathon Four Colors surveys vegetation for noxious weeds--documenting his findings using GPS coordinates.*

## Background

The research program evolved from collaboration to develop *What's In Your World? Youth Naturalist - Weed Scientist* education program. The program focus is on skill sets such as mapping, inventory, monitoring, identification, and management. The concepts reinforce an integration of management tools to reduce the impacts of invasive species.

Using native and invasive plants and insects as the focal point, students become the scientist and investigate what's in the world around them. More than 300 scientists, educators, agency program managers, marketing specialists, outdoor science curriculum developers, teachers and students, and media communicators collaborated with the project development team.

The program was piloted in Gallatin National Forest in 2008. The National Forest Foundation, U.S. Fish and Wildlife Service, U.S.D.A. APHIS, Plant Protection and Quarantine, U.S. Forest Service Northern Region, State and Private Forestry, Bureau of Land Management, and Montana state agencies are active participants in the development of the education program.

## Adaptation for Native American Classrooms

Based on research, adaptations to the existing youth naturalist - weed scientist program is needed to address the needs of the Native American classroom. Tribal and first nation natural resource managers incorporate both western science and traditional ecological knowledge into their research, monitoring, and management activities. Because of their knowledge and unique land management/land use experience, tribal and first nation partners can often provide perspectives and data that add significant value to collaborative working groups. The initiative to adapt the program will begin by the forming of a focus group, and lead to a possible Phase II project. Phase II will further model the program, and adaptations could be instituted for this educational program in Tribal communities throughout the Mountain and Prairie regions. These relationships will continue to expand with collaboration.

## Benefit

Invasive species require control and management to occur at a landscape level. Therefore, it is important to provide effective communication that brings home the message to all partners within the landscape. This landscape based partnership project touches on the intent of the Strategic Habitat Conservation Initiative. Tribal communities involved with this project: Salish Kootenai Tribes; Chippewa-Cree; and Blackfoot Nation, are within the National Wildlife Refuge System Wetland Management Districts' and priority landscapes. This project addresses invasive species management and strengthens partnerships with nonprofit organizations.

Tribal members and teachers will collaborate on a focus group to assist with this project. Another partnership in place to assist with these efforts include the Rocky Mountain Front Weed Roundtable, which is a cooperative effort of 26 agencies and organizations, including the Blackfoot Tribe, to address noxious weed concerns along Montana's Rocky Mountain Front. The Salish Kootenai Tribe and U.S. Fish and Wildlife Service have collaborated on invasive plant management on the National Bison Range Complex lands.

## Purpose

The primary purpose of this educational research project is to collaborate and learn valuable insights from Tribal leaders and educators in the development and implementation of meaningful programs for Second to Seventh Grade Native American students. The secondary purpose is to increase the audience and effectiveness of one existing invasive species science youth education program focusing on shared knowledge between Native and non-Native American researchers and educators. These dialogues could form the foundation for further collaboration beyond the project scope.

Montana's Statewide Noxious Weed Awareness and Education Campaign provided teacher guides and student resources. Resources support Capstone Students' efforts to initiate a community outreach program. Two teacher guides provide more than one hundred activities for youth ages 8-14. The guides help students learn many ways to manage weeds so they can reduce human health and environmental risk associated with noxious weed management.

*RIGHT: Students learned weed identification, GPS, bio-agent collection and release techniques, mapping and monitoring, and ecosystem-level integrated management principles.*



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Natural Resources Capstone Students practice activities to engage children in acting out the web of life and how to be a stream.

*BELOW: Nathaniel Windy Boy and Tashina Russette use their bodies to reflect the level of the stream bank. Notice that Nathaniel's stream bank is lower than Tashina's because noxious weeds caused erosion and he lost his ability to hold up the water. Notice that the willows and cottonwoods (other students) that once grew on his bank have moved away because there is no soil for them to make home.*

*"If our children don't understand how a stream works or the food chain, how can we expect them to understand how noxious weeds and invasive species may harm our health or the environment?"*



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# Invasive Species Resources

Capstone Students received scientific grade tool kits to use for children's activities and a National Invasive Species Library for the classroom. The library contains posters, pamphlets, maps, and scientific-level weed biology and ecology.

The training is part of *What's In Your World? Youth Naturalist - Weed Scientist* program.

The program purpose is to learn valuable insights from tribal leaders and educators in the

development of meaningful programs for 2nd to 7th Grade Native American Students.

You can learn more about the program by contacting Carla Hoopes by email at [choopes@montana.edu](mailto:choopes@montana.edu). The program is a collaborative effort of Federal, State, and Tribal agencies, landowners, individuals, teachers, volunteer organizations, and Montana's communities.

*LEFT: Curtis Windy Boy demonstrates the scientific tool kit provided for youth naturalist-weed scientist activities.*

*ABOVE: Plastic replicas of noxious weeds relevant to Rocky Boy Reservation were provided to the Capstone Students.*

*BELOW: Hands-on activities included weed identification using vegetation guides and a National Invasive Species Library.*



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## Statewide Noxious Weed Awareness and Education Campaign

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