



Department of Conservation Biology Monthly Report -- April 2008

Conservation on Private Lands on the Great Plains

Conservationists increasingly realize that protected areas alone will not conserve most of our planet's biological diversity. Indeed, most animals, including most endangered species, occur on privately owned land. Nowhere is this more evident than on the temperate grasslands of the world. Grasslands represent the world's most threatened biome and they are the least represented in protected areas. A fact that holds in the U.S. as well as globally (we have no national parks to protect the grasslands of the Great Plains, for example).

Denver Zoo has long focused on grasslands conservation globally and in the U.S. Indeed, Denver sits on the Great Plains (don't let all those planted trees and shrubs fool you!). Our activities in the Great Plains have included landscape planning for the northern and southern Great Plains; work with land trusts; research and conservation for black-tailed prairie dogs and the myriad species associated with them (like burrowing owls, ferruginous hawks, prairie rattlesnakes, and more); support for bison conservation; nesting raptor research; and work to promote biodiversity conservation on private lands. We conduct the latter work primarily with a non-profit organization called the Grasslands Foundation, based in Lincoln, NE. Rich Reading, Denver Zoo's Director of Conservation Biology, serves on the group's Advisory Board and was recently petitioned to join their Board of Directors.

Rich recently returned from Nebraska where he attended a lecture and joined a study trip of the state. About 97% of Nebraska remains in private hands, so it is an ideal state to explore private land conservation initiatives. In addition, the time is right, as the Great Plains (away from cities) is bleeding people and jobs at an alarming rate. We are exploring methods to conserve biodiversity on the Great Plains, while helping to retain the region's people and improve their livelihoods. Most of our effort focuses on convincing ranchers and others to diversify their operations to include ecotourism, something some folks have started. Other people are switching from cattle to bison to bolster the attractiveness of ecotourism, decrease management costs (bison are easier to manage), and return natural processes (the actions of bison differ significantly from those of cattle).



We visited cattle and bison ranches that earned extra income from hunting, fishing, bird and wildlife watching, and from dude ranching operations. Sandhill crane viewing already attracts over 60,000 people/year to the Platte River in March and early April to witness one of the Earth's last migration spectacles (see photos above), as over half a million cranes gather to fatten up on the corn fields of Nebraska before heading north to breed. Male greater prairie chickens (see left) and sharp-tailed grouses gather in groups called leks to strut their stuff or dance, respectively, in the hopes of winning over a hen! Guides are now leading birders from the cranes to see these leks and other birds.

In March 2009 we will hold a conference in Lincoln entitled “Grasslands of the World: Putting Northern Great Plains Conservation & Sustainable Rural Development in Perspective.” We are inviting conservationists from the U.S. and around the world to participate and are targeting local people, rural development folks, and conservationists. We will publish the proceedings in a special edition of the journal Great Plains Research to further get the word out. The process began this past March 25 with a talk by Chris Weaver of WWF-Namibia, who spoke about private land conservation in Namibia. We hope to include his work in the proceedings and build on the momentum created by the talk and subsequent round-table discussion.

Addressing the Amphibian Crisis in Peru

Amphibians are declining globally at an accelerating rate and scientists believe that an astounding one half of all amphibians are in danger of extinction today. Denver Zoo is initiating several projects to address this crisis. In one project, Conservation Education Coordinator Meghan Rubinstein, Outreach Manager Matt Herbert, and Tropical Discovery Keepers Tom Weaver and Derek Cossaboon recently traveled to Lima, Peru to



work on an amphibian project. Tom and Derek are working to establish an amphibian lab at Universidad Peruano Cayetano Heredia to house and study Lake Titicaca frogs. People are harvesting these highly endangered animals at an alarming rate for use in a sort of ‘frog shake’ that people believe successfully treats several ailments, including bronchitis, asthma, mental clarity, and virility.

While in Lima, the group met with local zoos, Parque Zoologico Huachipa and Parque de las Leyendas, to discuss their amphibian housing goals and amphibian crisis education programming. Both zoos maintain two species of amphibian on exhibit and neither zoo uses programs that focus on the amphibian crisis. However, both expressed interest in exhibiting Lake Titicaca frogs and developing programs that focus on how Peruvians can help save them. Meghan and Matt also traveled to Puno, Peru (the location of Lake Titicaca) to see the animals in the wild and determine how local people harvest them. They found that the local people do not consume the frogs, but that people from Lima come and offer high prices to fishers to collect them. The fishers believe that few frogs remain in the lake due to over-harvesting.

Derek and Tom plan to continue their work with the Lake Titicaca frog through the university. They recently established a temporary lab that now houses two confiscated frogs. In the meantime, the university began constructing a facility to house confiscated animals and studied the husbandry and propagation techniques for the species. Matt and Meghan will continue their work with this species, trying to educate residents of Lima on the importance of conserving rather than consuming these interesting, cold-water, high altitude adapted frogs and working with both zoos to incorporate amphibian crisis messaging in their exhibit graphics and educational programming.

