

Conservation Connections

Newsletter of Plateau Restoration from Moab, Utah

Fall 2012

Service, Science, Education and Exploration since 1995



Participants on a Geotour program enjoy a hike in Arches National Park.

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Plateau Restoration's camp at Split Mountain campground in Dinosaur National Monument, in northern Utah, during a 3-week service program in Fall, 2011.

Wildlife Habitat is the Focus

Our efforts at Jackson Bottom are to improve the wildlife habitat. Once invaded by Tamarisk, we started this project in 2010, and have begun to see some steady improvement in wildlife numbers and diversity at the 67 acre site, owned by Intrepid Potash Inc.

During this time the site has seen an extreme high water, in 2011, that drowned most of the vegetation, followed by severe drought conditions in 2012. However, the seeding and transplanting at the site last year, just

as the high water receded, has shown distinct success. The high water also brought out many previously unseen native species. Seed may have lain dormant for years just waiting for appropriate conditions. So, even in the drought year many areas supported native grasses and shrubs. PRI staff continued watering right through the heat to keep these important additions going until cooler temperatures and greater chance of rainfall. Now, many of those plants that sprang up from seed and plants we

planted are producing their own seed source at the site.

Wildlife that was observed during our field monitoring included a bobcat cutting down to the river through one of the new clearings, and marked increase in rodent populations that has led to an increase in the sightings of birds of prey, such as Northern Harrier. Lizard populations have slowly grown each year and the number of birds has increased, but to this point no real change has been noted in the diversity. More major planting will continue this fall and spring 2013.



An egret poses by a pond in the heart of Jackson Bottom, after high water of 2011



Sunflowers prevailed after high water; tumbleweed in the foreground has since been removed and replaced by native grasses.

4th Annual Moab River Rendezvous

Our annual celebration and fund raiser for service learning programs, The Moab River Rendezvous is held this year in the heart of Moab at the Moab Arts and Recreation Center. This event continues to feature some of the finest educators, authors and adventurers in the Inter-mountain West.

This year the gathering is

four days in length. Featured are a service project day, a winter float on the Colorado River, dinner and history slide show, evening film festivals, a full day on Saturday with presentations, displays, lunch and a raffle, and a field trip to rock art, arches and riparian zones in Arches National Park on the last day.



Participants examine pot-holes during last year's River Rendezvous to Dead Horse State Park

A Spring-full of Alternative Break Programs

Spring is one of our busiest times of the year, hosting Alternative Spring Break (ASB) programs, during which students from all over the country spend their break working on projects. In Spring 2012, university students from Slippery Rock, PA, Colorado State Univ.,

Central College, IA and Univ. of Montana participated in a massive planting effort on BLM lands. Target areas included Hittle Bottom, Goose Island and Spring Canyon campgrounds, along with areas in Negro Bill Canyon. The BLM purchased thousands of native trees, shrubs and grasses for this effort, the final stage of Tamarisk removal projects at these sites.

Sedona, AZ, in November, 2012.

The big success this year was pole plantings of willows, in which we hand-drilled holes, up to 8 feet deep, and planted long willow cuttings. All of these have grown substantially.



Brian Keating, BLM Fuels Manager (left) talks to students about BLM's riparian restoration projects.

Our groups installed all the plants in a few days, but necessary follow-up watering was laborious and time-consuming, as rain evaded the region well into summer. Most of the surviving plants have since been put on irrigation and are thriving. Drought conditions continue, but weeds have greatly declined at all sites, partly thanks to efforts by PRI staff and volunteers and BLM staff over the last two years. Winter seeding started with the help of Verde Valley High School from



Students from Colorado State Univ. plant willow poles along the banks of the Colorado River

Fast Facts

Bison

Type: Mammal
Diet: Herbivore
Avg. life span: 12 to 20 yrs
Size: 7 to 11.5 ft.
Did you know?
 The Bison's thick, shaggy coat is so insulated that snow can settle on its back without melting.

Turkey

Type: Bird
Diet: Omnivore
Avg. life span: 3 to 4 years
Size: wingspan, 4.1 to 4.8 ft.
Group name:
 Flock
Did you know?
 The turkey was Benjamin Franklin's choice for the U.S. national bird.

Cicada

Type: Bug
Diet: Herbivore
Avg. life span: Up to 17 yrs.
Size: 0.75 to 2.25 inches
Group name:
 Cloud or Plague
Did you know?
 Cicada's produce loud, noisy calls that can be heard up to a mile away.

Beaver

Type: Mammal
Diet: Herbivore
Avg. life span: Up to 24 years
Size: 30 to 52 inches
Weight: Up to 60 lbs.
Did you know?
 Beavers are second only to man in their ability to alter their environment.
Source: nationalgeographic.com

Geotours - PRI's custom education program

Moab Geotours, the custom educational outreach program for Plateau Restoration, has seen a steady increase in sign-ups since it began two years ago. "There are so many visitors coming to Moab that may not be interested in a service program, but are eager to learn more science-based information from seasoned guides and educators from the Moab area" says PRI founder, Michael Dean Smith. "We all come to Moab, initially, because of the geologic scenery, and that is the primary educational focus of these tours". PRI offers beginner-to advanced-level custom programs which are ideal for couples or

families with academically-inclined children. Content also covers native plants, wildlife, noxious weeds, land-use issues, threats and much more.

"Everyone can walk away with a better appreciation of the landscape and understanding of how they can be part of long-term care for the area into the future", Smith further stated. "We often find that many of the participants of a Geotour return to engage in service work at some point in the future. A formal understanding of the land builds interest and caring for the place. And when you love a place you might want to give something back".

PRI at Dinosaur NM

Last Fall, PRI staff and 8 interns, from NC, ND, WI, WA, TX and UT, spent up to 3 weeks at Dinosaur National Monument, assisting with Tamarisk removal, Russian Olive control and native seed collection and dispersal at the new Visitors' Center. Conducted in collaboration with Northern Arizona University, this was a terrific job-training program for all.



Russian Olive Control- Frill Cut

Working in partnership with Utah Forestry, Fire and State Lands, Plateau Restoration has begun a habitat improvement project along the Colorado River, from the Moab Bridge to Potash boat ramp. The project includes protecting existing young cottonwood stands by clearing around them, wrapping trees with wire and seeding with native species, along with controlling Russian Olive control using the frill cut method.

Russian Olive (*Elaeagnus angustifolia*) is a small thorny tree that is native to Europe. It tends to create a monoculture, reducing vegetative diversity. It has become a serious problem along streams and rivers in the Southwest, creating formative blocks for wildlife in their access to water sources.

Frill cuts are made with an axe or hatchet in the lower trunk area of the tree. This is done by chopping through the bark, into the sap wood at a slight angle, so the frill cut will hold liquid herbicide (Glyphosate).

The frill cuts must go around the stem. However, care must be given to not girdle the tree. Girdling severs the phloem all around the stem and stops the flow of plant food from the leaves to the roots. Staggering frill cuts will allow the tree to continue to grow and move the active chemical, Glyphosate, through the system. The tree will take about a season to die and is left dead and standing for wildlife use, including migratory birds and mammals. This also allows roots to stay in place for stabilization during revegetation efforts.



A gloved hand applying Glyphosate, dyed red, with an eye-dropper, to a frill cut to a Russian Olive tree on the banks of the Colorado River.

Pando

- Pando (Latin for "I spread"), also known as "The Trembling Giant", is a clonal colony of a single male Quaking Aspen (*Populus tremuloides*), determined to be a single living organism, which possesses identical genetic markers and a single massive underground root system. The plant is estimated to weigh collectively 6600 tons, making it the heaviest known organism.

- The root system of Pando, at an estimated 80,000 years old, is amongst the oldest known living organisms.
- Pando is located in the Fishlake National Forest, at the Western edge of the Colorado Plateau in South-Central Utah.
- During intense fires, the organism survived underground with its root system sending up new stems in the aftermath of each wildfire.

- Pando is thought to have grown for much of its lifetime under ideal circumstances: frequent fires have prevented its main competitor, conifers, from colonizing the area, and a climate shift, from wet and humid to semi-arid conditions, has obstructed seedling establishment and the accompanying rivalry from younger aspens.

Farewell, Old Friend



Onyx enjoying another Westwater Canyon river trip with friends.

On December 14, 2011 we lost our wonderful friend and constant companion, Onyx, one month before his 14th birthday. He was with us on each and every adventure into the beauty of the Colorado Plateau. Onyx was a veteran river runner with numerous trips by raft, kayak and dog paddle through Westwater, Desolation and Upper Colorado canyons, and the Gunnison and the San Rafael Rivers. We climbed mountains in Utah and Colorado and he always beat us to the top. He scrambled through every possible side and slot canyon we could

find and only wanted more. We covered nearly every inch of Sand Flats Recreation Area near Moab.

His most endearing trait was his friendly greeting to everyone he encountered each and everyday. One of his favorite times of year was spring, when all the ASB students came and he would spend time with them all. Didn't want to miss anyone.

We've heard of a place just this side of heaven called the Rainbow Bridge where animal friends are reunited with all their special friends. Meet you at the gate, Buddy!

Americorps helps with native garden

Plateau Restoration partnered with Canyonlands Field Institute to host an Americorps Member, Sarah Dendy. Through this collaboration, Sarah was able to gain experience working with students at the Field Camp as well as make a significant contribution to our revegetation efforts.

Sarah helped with follow-up work at Jackson Bottom, Hittle Bottom and Negro Bill Canyon as well as enlarging Plateau Restoration's native garden for a large scale growing project for Jackson Bottom.



Americorps member, Sarah Dendy prepares soil for the fall garden.

To learn more about Plateau Restoration, become a member or contribute to our restoration efforts, please visit our website

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How we accomplish our mission

Plateau Restoration was founded in 1995 to provide meaningful, fun-filled outdoor adventure opportunities for students and the general public to participate in the preservation and rehabilitation of public lands through service and science-based adventure learning programs. Our focus is on building a connection with nature and to encourage an active role in long term conservation. Our goal is to enlighten, inspire and involve the public in our efforts to protect and restore the native wildlife habitats of the Colorado Plateau.

We raise funds through memberships, donations, grants and services we provide. Members of the public can learn more about the natural and cultural history of the area while helping support our mission by signing up for a Conservation Adventure or a Geotour (land and/or river-based education program).

We also provide native landscaping services to the Moab community. Our native plant nursery has staged plants for future planting on National Park Service, US Forest Service, BLM and private conservation lands, and we are now starting to propagate more wildflowers to support pollinators.



Krascheninnikovia lanata of the Goosefoot family planted along a dripline at Hittle Bottom. The common name, Winterfat, refers to the plant's use as an important winter forage for wildlife.

"Congratulations on all the good work for Grand County. Also, for the opportunity it offers for developing young folks who do it, plus being role models for them just by being you!" Jean, Moab, UT

Plateau Restoration, Inc.

A 501(c) (3) tax exempt non profit organization

Mission

To protect and restore native habitats of the Colorado Plateau through hands on education, landscape restoration, revegetation and research.