Bastrop State Park and the 500-year Recovery from Wildfire

Did you know the largest known population of the Houston Toad, an endangered species listed in 1970, was in Bastrop State Park? Did you know the unique ecological island called ‘The Lost Pines’ is the furthest south and west natural area of native loblolly pine forest in North America?

The Texas sized wildfires and prolonged drought of 2011 may have serious long-term impacts on the recovery of not only the 1500 homes that were destroyed, but the unique native plants and wildlife too.

“Texas Parks and Wildlife Department (TPWD) has been experiencing an outpouring of concern from citizens, conservationists and nature enthusiasts worried about the ecological impact on the park and the ecosystem it anchors,” said Todd McClanahan, park superintendent. “People have been offering money, trees, and wildflowers – even wildlife. We’d like to ask the public to be patient while we assess the impact of this disaster and determine what TPWD needs to do, but we have set up a system for the public to offer assistance.”

“There will be remarkable changes in the landscape,” Greg Creacy, Natural Resources and Regional Wildland Fire Coordinator for State Parks said. “TPWD staff and cooperating scientists are focusing on assessing and documenting these effects.”

The Lost Pines are among the more unique ecosystems in the nation and Bastrop and Buescher State Parks contain one of the best examples of the southwest-most extent of the loblolly pine.

“The genetics of these pines are unique,” said David Riskind, Director of Natural Resources for State Parks. “To provide for the long-term recovery and restoration of this plant community we need to use only the genetic stock from this area. Unfortunately no seedlings of this type are available at this moment so we do not want to introduce plants foreign to Bastrop. The same goes for grasses and wild flowers.” TPWD is choosing the precautionary do-no-harm approach favored by conservation biologists for the state parklands.

I have known David since the 1980’s. He is definitely a long-term supporter of our work with native seeds and ecological restoration. The first time we met was at Baylor University in Waco during a conference on the History and Cultures of the Blackland Prairie. His presentation shared an acute awareness regarding the finite associations of soils and native vegetation.

Look closely at minute 1:30+ in this video link: http://www.youtube.com/user/TexasParksWildlife#p/c/4/W8MdNlyPjvw
David Riskind clearly speaks how the Lost Pines are directly associated with the exact soil types in Bastrop the area. We must respect what people of this caliber know... and allow the scientists to try and reach an understanding about what will be the best way for them to go forward. These managers of Texas' natural resources are confronted with many serious long-term issues ranging from recent budget cuts to the nagging, perennial lack of public access to open space. The wildfire disaster has added to the very heavy load that David and his teams carry in their daily lives.

TPWD has decided not to plant anything at this time on Bastrop State Park. If it is determined that areas need reseeding, TPWD desires to wait until native seeds from local soils can be harvested. The outlook for local harvest of native grasses in fall of 2011 is not good. This lack of productive local resources may delay any significant reseeding of warm season grasses until spring of 2013... or beyond. Native American Seed is committed to help TPWD with expertise in harvesting, processing, and planting native prairie remnants. Native American Seed will prioritize any harvests that become available in the impacted region of the Lost Pines.

Native American Seed staff will do its part to raise public awareness to the absolute dangers of reseeding on scorched soils... especially those that may have lost all traces of the original plant life. It is in these situations that decisions related to what species are appropriate for re-introduction should not be taken lightly.

The people at US and Texas Forest Service agencies have a wealth of experience in fire ecology. Generally, wildfire is seen as a natural phenomenon where in most cases the land is left to recover on its own. The Forest Service does make special note when fire takes over lands covered in thick juniper. This year's exceptional drought conditions in Texas have produced some of the driest, hottest, most intensive fires on record. Sharing data with USDA-NRCS, we have discovered on two separate fires in west central Texas where steep Hill Country lands covered in cedar/juniper burned so hot that no dormant seeds could survive in the scorched soils. After both fires, soil samples were taken and placed in controlled locations with regular watering. Soils from these steep juniper covered slopes showed near 100% mortality. Soils from mesquite flats and bottomlands showed germination of numerous dormant seeds.

At this time, no tests have been initiated to test the Bastrop soils for germination of dormant seeds.

Not all burned areas need re-seeding. Most areas will likely recover on their own with time. But landowners with steep slopes that were covered with juniper/cedar before the fires may benefit by protecting their land resource from eroding. Many tactics can be employed to slow water and reduce run-off on hilly, exposed lands.
For private landowners in the Lost Pines wildfire areas with steep unprotected slopes subject to eroding, we offer a base mixture of native seeds harvested from a little bluestem/paspalum sandy prairie remnant 60 miles east of Bastrop. This seed mixture may not be the perfect match, but the respective soils and climate conditions are very closely related. So close that, in times gone by, buffalo clearly walked between them. Considering today’s reality, with the near extinction of almost every sizeable native prairie remnant, or the relentless invasion of exotic introduced species on highly fragmented native habitats; the Southeast Recovery Mix is the best seed available for those persons wanting to take action now.

*** In respect of our long partnership with TPWD and our shared concern for the management of Bastrop and Buescher State Parks, please consider maintaining appropriate buffers to all lands that are adjacent to the parks when introducing seeds or plants into the landscape. Also, please give appropriate consideration to those private lands sharing upstream drainages, creeks or areas where run-off to the parks could become an issue in future restoration efforts.

Thank for your interest in our work.
Bill Neiman
Co-Founder
Native American Seed

PS
We worked July through August to produce our newest 2011 Fall Catalog. The catalog includes a new ‘Scorched Earth Wildfire Recovery Mix’ assembled to address the steep rocky hills in west and central Texas. While the catalog was being printed over Labor Day weekend, the disastrous Bastrop and several south and east Texas fires broke out. For erodible slopes in these sandy regions visited by intense wildfire, we have responded to your many requests by offering the ‘Southeast Recovery Mix’.