



## July 2013 Accomplishment Report

### Leadership in Science and Technology

*Vegetation monitoring:* Max Canestorp received a final copy of the report: "Vegetation Monitoring at Pueblo Chemical Depot (PCD): 1999-2010" from the Colorado Natural Heritage Program. This report summarizes the results to date of a post-grazing habitat monitoring study that is being conducted at PCD.

*Native American tribal consultation:* Max Canestorp and Diane Strohm participated in a two-day tribal consultation field trip with members of the Zuni Tribe on the Air Force Academy (AFA). They looked at numerous sites of potential significance, working towards building a positive partnership with tribal members.

*Support for Science Program:* At the request of Larry Gamble, Fisheries Geographic Supervisor, Pam Sponholtz participated in review of the Support for Science Program proposals. This program funds USGS scientists to investigate important natural resource questions posed by Fish and Wildlife Service (FWS).

### Partnerships and Accountability

*Soil and Vegetative Study:* Most of the soil and vegetation occurring within unimproved areas on Buckley Air Force Base (BAFB) has been disturbed, the focus of this investigative research will make site-specific recommendations, synthesize literature, and answer question regarding native short grass prairie seed mixes, soil amendmets, and best

practices to stimulate native vegetative growth and maintenance. Krystal Phillips conducted a site visit on BAFB with Dr. Calvin Pearson to evaluate vegetation on identified sites visited during the winter month of March 2013. Discussions regarding current invasive species removal efforts, results of soil samples taken in March, and native seed mix recommendations were made during this visit.

*Black Forest Fire Fuels Mitigation Assessment:* Steve Wallace participated in a multi-agency monitoring project to assess effectiveness of fuels mitigation treatments within the Black Forest wildfire area which burned over 500 homes in June 2013.



*Post-construction noxious weed control:* Brian Mihlbachler is coordinating with the Colorado Department of Transportation (Maintenance Section) to have them perform post-construction noxious weed control on areas disturbed by the widening of Interstate 25 through the AFA.

*Sikes Act meeting:* Max Canestorp conducted the annual PCD Sikes Act meeting with representatives of PCD, FWS and Colorado Parks and Wildlife participating.

*National Funding Agreement with the Air Force (AF):* Pam Sponholtz worked with Air Force staff and Leslie Pokladnik, liason between the AF and FWS, to identify projects suitable for FWS. This agreement will fund natural resource management on AF bases throughout Region 6.

*Funding for natural and cultural resource work on PCD:* Pam Sponholtz and Max Canestorp worked with PCD personnel to identify budget needs for FY14.

*Registration for 2014 Western Division meeting:* Pam Sponholtz interviewed three event companies to handle registration for the 2014 meeting in Mazatlan Mexico.

*Landline Survey Partnership Project:* Diane Strohm met with a Bureau of Land Management (BLM) surveyor to begin work on a project to re-locate the western Academy boundary with the Pike National Forest. Project objective is to remedy several discrepancies between two previous surveys along this eight-mile boundary. The BLM crew will also re-survey the north and south Academy boundaries.

*COFWCO staff meeting:* Staff gathered at Bear Creek Park for a staff meeting to discuss the future of the Fisheries program and the national funding agreement with the AF. We also had a goodbye lunch for Laura Scieszka to wish her well as she enters Marshall Medical School in August.

*Fuel hazard mitigation:* Diane Strohm coordinated a joint partnership between the Academy and Colorado Springs Fire Departments to cut brush and tree limbs and chip woody debris along the southern

boundary of the Academy, in direct proximity to the Thunderbird Estates. Most residents had performed fuels reduction on their side of the fence, and were concerned about a fire heading their direction across the Academy.

Conversely, a recent wildfire that started on private land south of the Academy border burned nearly ten acres on the installation.



Air Force Academy and CO Springs Fire Departments work together to reduce fuel hazard along the south Academy border

*Upper Monument Creek Landscape Restoration Initiative:* Diane Strohm participated in an Upper Monument Creek planning workshop in July, to evaluate collaborative management recommendations for areas of the Pike NF, west of the Academy. The U.S. Forest Service will consider the group's proposal in its upcoming environmental analysis of this area.

*Fish passage and western native trout agreements:* Pam Sponholtz submitted agreements for funding under the Fish Passage Program and the National Fish Habitat Action Plan. Some great projects were funded this year including habitat restoration for greenback cutthroat trout in Bear Creek and creating fish passage for flathead chub in Fountain Creek.

### **Species Conservation and Management**

*Burrowing owl surveys:* Burrowing owls (*Athene cunicularia*) are Colorado statelisted threatened

birds and are protected by the Migratory Bird Treaty Act. Krystal Phillips and Max Canestorp continued to monitor nest activity at one identified nest within BAFB's boundaries. Monitoring of nesting sites on Buckley is essential to maintaining military mission readiness and preventing the unintentional take of a burrowing owl during military training or facility maintenance activities.

*Amphibian surveys:* Max Canestorp assisted with amphibian surveys on the AFA, primarily looking for frogs in drainage systems. This was part of a program to test amphibians for chytridiomycosis disease.

*Cutthroat Trout Taxonomy Workshop:* Chris Kennedy and Pam Sponholtz participated in a workshop aimed to review recent evidence on cutthroat trout lineages. Chris prepared and gave a talk entitled "History of Cutthroat Trout Stocking in Colorado" at the workshop.

*Support to National Firefighting Program:* Diane Strohm completed an infrared interpreter (IRIN) assignment in Durango, CO. She mapped the South Fork Complex Fire and several other wildfires.

*Cutthroat trout eggs from Lake Nanita:* Chris Kennedy collected 22,752 Colorado River cutthroat trout eggs from Lake Nanita within Rocky Mountain National Park. These eggs were shipped to the Colorado Parks and Wildlife Glenwood Springs Hatchery to infuse some wild genetic material into their broodstock.



Colorado Parks and Wildlife Fisheries Biologist Jon Ewert collecting Colorado River cutthroat trout eggs at Lake Nanita

*Mark-recapture population estimates:* Chris Kennedy conducted mark-recapture population estimates at Timber and Adams Lakes within Rocky Mountain National Park (RMNP). Both lakes contain Colorado River cutthroat trout and the populations in both appeared low.



Volunteer Blake Towarnicki with Colorado River cutthroat trout from Adams Lake

### **Habitat Conservation and Management**

*Biocontrols:* Biocontrol agents targeted for specific plant species on BAFB are identified and utilized to eradicate state and federally listed invasive species. Krystal Phillips assisted the Texas Agrilife crew in locating sites of field bindweed (*Convolvulus arvensis*) with USDA approved mites (*Aceria malherbae*) in order to establish mowing footprints at each of the sites. Since populations of the mite can be slow to develop, mowing the bindweed plants with

mites can decrease the time it takes for dispersal thus increasing the efficacy for bindweed eradication.

*Leafy spurge monitoring:* Max Canestorp assisted Renée Rondeau of the Colorado Natural Heritage Program with a leafy spurge monitoring program on the AFA.

*Beetle tree reconnaissance:* Max Canestorp conducted reconnaissance for pine beetles on the AFA ponderosa pines. Several trees were identified as having beetles and were subsequently removed.

*Noxious weed control:* Max Canestorp assisted with noxious weed control efforts on the AFA. The primary species of concern with these efforts was Scotch thistle.

*Herbicide control of noxious weeds at Farish Recreation Area:* Brian Mihlbachler is directing the herbicide control of noxious weeds at Farish Recreation Area, which include leafy spurge, yellow toadflax, and musk and Canada thistle.

*Canada thistle and diffuse knapweed sites:* Brian Mihlbachler identified new Canada thistle and diffuse knapweed sites on the Academy for Texas AgriLife to release biocontrol insects.

*Jacks Valley Forest Thinning:* Steve Wallace and Diane Strohm are preparing 20 acres for forest thinning along Northgate Boulevard in south Jacks Valley. Forest health in this area has been compromised due to dense stocking, bark beetle attack and dwarf mistletoe infection.

*Fall 2013 stream restoration project:* Brian Mihlbachler is coordinating with Air Force Civil Engineer Center to implement a fall 2013 stream restoration project on upper Black Squirrel Creek to help control channel degradation, improve wetland and riparian areas, and preserve habitat for the threatened Preble's meadow jumping mouse.



Preble's meadow jumping mouse

*Forest Health surveys:* Steve Wallace continues to perform forest health surveys to locate beetle-infested trees, coordinating with contractors to have these trees cut and chipped or peeled immediately to minimize insect spread. Tree mortality from the Ips pine engraver beetle and twig beetles is now over 400 trees.



Blue-stain wood from Ips pine engraver beetle

*Farish Aspen Regeneration Project:* Steve Wallace did a field check of fencing around a series of aspen regeneration units in the Farish Recreation Area. Several sections of fence had been breached, resulting in damage to young aspen and very happy elk. Steve arranged to have the fence fixed, and will continue to monitor it for future breaches.

*Fuels reduction:* Steve Wallace reviewed recent fuels reduction treatments along the western boundary of the AFA with a U.S. Forest Service (USFS) Fire Management Officer. Complementary treatments on both ownerships are necessary to maximize fuel break continuity and effectiveness. Potential

treatments of the Pike National Forest will be incorporated into the Upper Monument Creek planning process.

*Forest Monitoring Cadet Study:* Steve Wallace coordinated with an AFA biology professor to prepare a series of forest management maps of potential study areas. Cadets will monitor growth response and new regeneration in areas that were thinned ten years ago. This information is helpful in understanding the effects and usefulness of forest management.

*Farish Recreation Area hazardous trees:* Steve Wallace performed a field check of numerous potentially hazardous trees, primarily along roads and in proximity to campsites. He arranged to have these trees removed by a contract logger. The Farish area has experienced significant mortality in spruce and aspen, due largely to drought.

### **Public Use and Recreation**

*Stocking rainbow trout:* Greg Speights stocked 9-11" rainbow trout in the AFA and Farish Recreation Area lakes.

*Hazardous trees on the Falcon Trail:* Greg Speights cut and removed hazardous trees that had fallen across the Falcon Trail on the AFA.

*Double-crested cormorants at Kettle Lakes:* Greg Speights and Brian Mihlbachler depredated several double-crested cormorants in accordance with the Migratory Bird Treaty Act at the Kettle Lakes to minimize the loss of stocked rainbow trout.

*Elk and deer roadkill salvage permits:* Brian Mihlbachler coordinated and advertised a public sign up period for the AFA elk and deer roadkill salvage permits. Up to 30 names will be taken to develop the list used by Security Forces to dispose of any salvageable wildlife killed by vehicle collisions.

*Water quality at diversion points on fishing lakes:* Greg Speights and Brian Mihlbachler continue to monitor the water quality at diversion points to the AFA fishing lakes to minimize ash and sediment from the Black Forest Fire and Waldo Canyon Fire. Brian provided the base newspaper with information for an article on the water quality impact of the fires.

### **Cultural Resources**

*Cultural Resources Management:* A construction project crew on BAFB discovered a twelve-inch bone fragment thirty feet down during excavation, which ceased work within a fifty foot radius of the finding. Per standard operating procedures, Krystal Phillips swiftly coordinated and assisted Air Force Registered Professional Archeologist Keith Waldron, and contracted Terra-graphics Archeologist Bret Hoffberger, onto the project site to identify the bone fragment within twenty-four hours of the discovery. Upon examination, it was determined the bone was of animal origin, most likely a large ungulate, and was discovered in old fill dirt used to cover electrical lines from a previous earth-moving project. Permission was then granted to the crew to commence working in the area in light of Keith's determination of the bone fragment. The collective efforts of all parties involved saved the Air Force time and money on the project due to quick bone identification and thus proved the thoroughness of the BAFB's operating procedures through the real world exercise of established procedures!

**Edited by: Emily R. Fausch**