

## WHO/WHERE WE ARE

**Lakewood, CO:** Pam Sponholtz, Project Leader; JoAnn Wise, Budget Admin

**Buckley Air Force Base, Aurora, CO:** Krystal Phillips, Wildlife Biologist, Dustin Casady, Fish and Wildlife Biologist

**Peterson, Schriever, Cheyenne Mtn Air Force Bases, Colorado Springs, CO:** Max Canestorp, Wildlife Biologist

**US Air Force Academy, Colorado Springs, CO:** Brian Mihlbachler, Biological Scientist; Diane Strohm, Biological Scientist; James Donahey, Forester; Melissa Whittingslow, Wildlife Biologist

**Rocky Mountain National Park, Estes Park, CO:** Chris Kennedy, Fish Biologist

**Warren Air Force Base, Cheyenne, WY:** Alex Schubert, Fish and Wildlife Biologist

**McConnell Air Force Base, Wichita, KS:** Laura Mendenhall, Fish and Wildlife Biologist

**Pueblo Chemical Depot, Pueblo, CO:** Clark Jones, Wildlife Biologist

# Colorado Fish and Wildlife Conservation Office



AUGUST 2016

## Partnerships & Accountability

*Army Environmental Database – Environmental Quality.* Clark Jones completed Pueblo Chemical Depot's annual data call to update the Army's Environmental Database – Environmental Quality (AEDBEQ) that reports on metrics related to Army compliance, conservation, and pollution programs. These metrics are some of the primary data sources for Congress and are collected annually at the end of each fiscal year. Specific updates to the AEDBEQ include updates to conservation management plans, planning level surveys and inventories, threatened and endangered species data, wetland and forestry acreage, as well as additional metrics related to agriculture and grazing outleasings.

*SCA AmeriCorps Natural Resource Internship.* During August, Krystal Phillips worked with SCA, the Service Contracting Office, and the COFWCO Project Leader, to successfully prepare and deliver necessary documents to extend the SCA internship through the end of January 2017, thus increasing person-power and project capacity on military installations along the Front Range.

*Big Brothers and Big Sisters.* Laura Mendenhall set up some taxidermy displays and talked with children participating in the big brothers/big sisters for a day event at McConnell AFB. Mendenhall focused on the urban-wildlife interface, using a coyote skin and skull and Canada goose to exemplify animals that have been able to take advantage of urban and subur-

ban landscapes. The kids enjoyed looking at the coyote's teeth and learning about how far Canada Geese can migrate.

*Fish Stocking.* On August 1<sup>st</sup> and Aug 31<sup>st</sup> Melissa Whittingslow stocked the US Air Force Academy Lakes with Rainbow trout, which was sure to make fishermen happy for the Labor Day weekend. The Academy has five lakes on base that are open to fishing for active and retired military, military families, and their guests.

and the prescribed burn site to benefit Plains Ironweed.

*Integrated Natural Resources Management Plan (INRMP) updates.* Max Canestorp worked on updating the INRMPs for Schriever Air Force Base (AFB) and Cheyenne Mountain Air Force Station (AFS).

*Fishing Derby.* There was a great turnout at F. E. Warren for the Fishing Derby! Just over 30 people showed up. There were fishing poles and bait available for all folks to use and, for this event, people were allowed to fish without fishing licenses.

Free burgers and hot dogs were also served. There were prizes for a number of categories including "Largest fish", "Smallest fish", "Most fish" etc.

*Integrated Natural Resource Management Plan.* Per the federal Sikes Act, Krystal continued working on the five (5) year tri-partite signatory major revision update of the Buckley AFB INRMP and created a summation sheet of major accomplishments since 2012 and major changes

made to the content of the INRMP. Specifically, Krystal coordinated with internal Air Force program personnel, U.S. Fish and Wildlife Service Ecological Services and Migratory Birds, and Colorado Parks and Wildlife to review and update existing language. The annual tri-partite meeting was established for 21 Sept 2016.



**Bob Fant, Brian Mihlbachler, and Lt. Col Rollman look out over a healthy section of riparian vegetation at USAFA.**

*USAFA Leadership Briefing.* James Donahey and Brian Mihlbachler took the new CE Commander, Lt Col Rollman on a tour of the natural resource issues facing the Academy. Sites visited included past watershed restoration areas along the main stem and tributaries to Monument Creek, fuels reduction and forest health improvement efforts on the west boundary,

## More Partnerships...

Sheep and a Dalmatian toadflax plant stripped of its leaves at FE Warren AFB.



*Innovative Invasive Species Control Project.* The pilot phase of the Dalmatian toadflax control/sheep grazing research project was completed this month at FE Warren AFB. The sheep arrived and were attended by University of Wyoming Staff. At night, the sheep were kept on-site in a corral. About 100 sheep were used. After obtaining sufficient clearance from base officials, four 3.5 acre test plots were designed. Each plot had rough-

ly equal quantities of Dalmatian toadflax coverage. The flock was kept in each plot until the Dalmatian toadflax was sufficiently eliminated. Electric fencing was used to keep the sheep in place. After a few weeks on base, the sheep were done and then, reluctantly, loaded back into stock trailers, after which they were taken to their next destination. The second phase of this research experiment is planned to be continued in 2017.

## Species Conservation & Management

*Rocky Mountain NP Fish Population Estimate.* Chris Kennedy completed mark-recapture population estimate at Fern Lake within Rocky Mountain National Park. Three hundred and thirty-nine fish were marked over five days. The estimate has not been calculated as of yet; however, Fern Lake has a very healthy cutthroat trout population with an abundance of fish.

*Buckley Air Force Base Natural Resource Report Reviews.* Buckley AFB contains a variety of species and natural resources so in order to develop and periodically revise the Integrated Natural Resource Management Plan, biological surveys are carried out to establish and update the natural resources status on BAFB. Krystal reviewed and provided substantial comments on the following in-house reports in August, Songbird Report, Raptor Pole Report and Monarch Butterfly Point Paper.

*Small Mammal Trapping.* Laura Mendenhall, Taylor Cassidy, and Tina Seemayer (MAFB) began small mammal trapping on the airfield at McConnell AFB. The group deployed 40 Sherman traps in a grid for 3 consecutive

nights. The group successfully trapped one Hispid Cotton Rat (*Sigmodon hispidus*) on the third night of trapping. The goal of trapping small mammals is to establish baseline knowledge of the species inhabiting 4 different habitat types on base. Following this, Mendenhall will redeploy the traps in a wetland setting during the next new moon.

*Pollinator Short course.* Clark Jones attended a pollinator short course in Pueblo, Colorado held by the Xerces Society and the Natural Resource Conservation Service. This course was designed to teach concepts that promote and protect pollinator populations, especially bees, in managed settings. It focused on best practices for the creation and protection of habitat as well as pest management approaches that protect pollinators. It also included discussions on protecting and promoting monarch butterfly populations, as well as information on pollinator biology, economics, and field identification. The Xerces Society is an international nonprofit organization whose mission is to protect

wildlife through the conservation of invertebrates and their habitats.

*Sensitive species status determination.* Max Canestorp confirmed the presence of plains ragweed (*Ambrosia linearis*), a species considered sensitive by the Colorado Natural Heritage Program, on Schriever AFB.

*Preble's Meadow Jumping Mouse Survey.* Small mammal trapping along Crow Creek and Diamond Creek on F. E. Warren AFB was completed this month. Crow Creek supports the primary corridor of habitat suitable for Preble's by providing stands of willow with scattered cottonwoods, marshy areas, and herbaceous communities characterized by sedges, Baltic rush, and several grasses. Adjacent uplands support true grasslands. Small mammal surveys were designed primarily to determine the presence or absence of jumping mice species. As in previous years, the researchers concentrated trapping efforts on Crow Creek where suspected Preble's have been most reliably captured in the past.

“Three hundred and thirty-nine fish were marked over five days[...]Fern Lake has a very healthy cutthroat trout population [...]”

# Habitat Conservation & Management

**Stormwater Projects.** Brian is evaluating preliminary stormwater projects identified and prioritized by the Monument Creek Watershed Flood Restoration Master Plan Team. Many of the 200+ projects are either on Air Force Academy property or immediately adjacent to the base. The project types include riparian restoration, stream channel stabilization/restoration, flood risk reduction, and water quality/stormwater detention. The final project list and Master Plan will be available by November 2016.

**Noxious weed surveys.** Max Canestorp initiated noxious weed surveys on both Cheyenne Mountain AFS and Schriever AFB. Canestorp mapped Canada thistle stands on Schriever.

**Musk thistle control.** Max Canestorp implemented musk thistle control by removing the plants on Cheyenne Mountain AFS and Schriever AFB.



**A bountiful haul of musk thistle at Cheyenne Mountain AFS.**

**Pest Management.** James Donahey conducted several sweeps of the Academy's road systems for bark beetles, he also met with representatives of Colorado Unmanned, an Unmanned Aerial Vehicle (UAV) company who performed a trial flight of a stand with their drone. In just a few minutes they had spotted a tree infested with bark beetles. James Donahey constructed and installed several Lindgren funnel traps to trap Ips beetles in the woodlot. The traps have a pheromone to lure Ips beetles, and once inside the beetles cannot exit. The

traps are a trial to see if they help reduce the population of beetles in our woodlot.



**A shot of a beetle infested tree at USAFA as taken from the UAV.**

**Aquatic Habitat Monitoring.** Chris Kennedy replaced water temperature loggers at fifteen locations (Arrowhead, Adams, Ypsilon, Caddis, Upper Hutcheson, Lower Hutcheson, Pear, Fern and Spruce Lakes, Paradise (2), West, Cony (2) and Ouzel Creeks) within Rocky Mountain NP. These loggers are deployed in cutthroat trout populations to assess temperatures for recruitment and detect changes associated with climate change, wildfire and beetle kill.

**Fish Passage Efforts on Baca Wildlife Refuge.** The National Fish Passage Program, a voluntary, non-regulatory initiative in the U.S. Fish and Wildlife Service (USFWS) provides funding and technical assistance to reconnect aquatic habitats. The Colorado Fish and Wildlife Office has been assisting Baca Wildlife Refuge under the Fish Passage Program, improve habitat for Colorado native fish, Rio Grande sucker (state endangered), Rio Grande chub (state species of concern), fathead minnow, and longnose dace, within the refuge through their efforts to construct safer barriers to allow a more efficient passage for these native fish. Pam Sponholtz, USFWS, Taylor Cassidy, SCA AmeriCorps, and Krystal Phillips, USFWS spent three field days on Baca Wildlife Refuge documenting and relocating native warm water fish into other native areas to prevent injury/death during the construction of three new fish passage structures on the refuge.



**Fish relocation at Baca NWR.**

**Stream Vegetation Buffers.** Laura Mendenhall and Taylor Cassidy completed a walking photographic survey of the new stream buffers at McConnell AFB. Cassidy collected photos to document plant diversity and improved erosion control. Mendenhall mapped the locations of 2 invasive plant species and documented 24 native plant species, including some excellent pollinator plants like Mint-leaf Beebalm (*Monarda fistulosa*), Common Evening Primrose (*Oenothera villosa*) Black-eyed Susan (*Rudbeckia hirta*), and Illinois Bundleflower (*Desmanthus illinoensis*). Cassidy located a patch of Erect Dayflowers (*Commelina erecta*), a plant that blooms for only several hours per year and is considered "true blue", a color rare among flowers. It is encouraging to see McConnell AFB hosts a variety of plants that both facilitate erosion control and provide food for native pollinator insects.



**Erect Dayflower (*Commelina erecta*).**

# More Habitat Conservation & Management...

**Wetlands Assessment.** Laura Mendenhall, Taylor Cassidy, and Tina Seemayer (McConnell AFB) used the California Rapid Assessment Method to reassess 7 wetlands following 2 years of management changes, including the addition of riparian buffers. In general, wetlands along the stream corridors with newly-established riparian buffers had much greater plant diversity. At one location, the

number of codominant species growing in the wetland jumped from 2 in 2014 to more than 7 in 2016. Plant codominance is a metric in the CRAM scoring system, so improvements were documented at several of the wetlands. Once scores are compiled, Mendenhall will create a report to distribute to several interested parties around base.

**Prescribed Fire Planning.** James Donahey and Samuel Urffer continued their efforts to work on a burn plan for approximately 500 acres of habitat improvement prescribed burns. They narrowed the focus to grasslands or forests with primarily a grass understory. James Donahey prepared an 813 for the environmental review of the project and worked with Samuel to write the burn plan.

## Leadership in Science & Technology

**Threatened Plant Survey.** Bonnie Heidel of the Wyoming Natural Diversity Database along with several assistants spent a week surveying Colorado butterfly plants at F. E. Warren Air Force Base. This species is listed as threatened under the Endangered Species Act. The F. E. Warren AFB populations are the only populations known to occur on federally-owned land and are among the largest populations in existence. This year's survey marks the 29th consecutive year that these surveys have been conducted at F. E. Warren AFB. This is the longest running dataset gathered for the species.

**NEPA Environmental Assessment.** USAFA Natural Resources staff meet with a Petersen AFB contractor to discuss scoping for a supplemental NEPA environmental assessment of the base's Integrated Natural Resources Management Plan. The supplemental EA will provide an improved, detailed analysis of the current program activities, and greater opportunity for tiering and expedited environmental compliance in the future.

**Sylvatic plague vaccine study at Pueblo Chemical Depot.** The USGS National Wildlife Health Center continued their study of sylvatic plague at Pueblo

Chemical Depot in August. Several technicians worked to capture prairie dogs and other small mammals to determine if sylvatic plague vaccine distributed on prairie dog colonies earlier this summer was consumed by prairie dogs and other mammals within the study area. A biomarker (Rhodamine B) within the vaccine bait is used as method to determine if the animal consumed the bait. When the biomarker is consumed, it is incorporated into the animal's whiskers and teeth. By taking a whisker sample, researchers can determine if the vaccine was consumed by that particular animal.



**Julie Poje and Katie Richgels (USGS) preparing to sample a desert cottontail (*Sylvilagus audubonii*)**



**Refurbished boat.**

**Boat Repair.** Alex Schubert (FWS) and Shain Wright (DoD) got the USFWS boat operational at F. E. Warren. It has been at least a decade since the motor had been started. The boat will be useful in the future for performing fish surveys and water quality measurements, as well as ensuring that the base lakes' aerator systems are functional.

**“The F.E. Warren AFB populations of Colorado Butterfly plant are the only populations known to occur on federally-owned land[...]**”