

City of Austin BCP Projects
BCCP Coordinating Committee Meeting
March 15, 2014-July 31, 2014

Program Administration

Personnel

- We hired four seasonal biologists on March 3, 2014, to help with avian monitoring and habitat restoration. Their terms ended August 1, 2014.

BCCP Infrastructure Training Workshop

- Scheduled for October 30, 2014, tentatively at UT's J. J. Pickle Research Campus.

Biological Monitoring

Karst

- Tawny crazy ants (TCAs) were first observed negatively impacting cave fauna in Whirlpool Cave in June 2013, and it is likely that they have invaded McNeil Bat Cave as well. City and Travis County staff are working with the Texas Cave Management Association (TCMA)/Whirlpool Cave manager on monitoring impacts to cave fauna. Staff currently conducts cave faunal surveys quarterly and recently has noticed a sharp decline in the number of TCA's found inside the cave. It's too early to say why this has happened, however, the recent flood likely played a major role (washing high numbers of TCA's downstream), plus the wetter conditions may allow for the TCA's to stay on the surface (they likely are accessing the cave in search of water during dry periods). We still anticipate that this new invader will effectively eradicate most of the cave fauna from this cave and any other cave they invade. The section 6 grant proposal (investigate possible methods of treating TCAs within the cave cricket foraging area) was denied due to lack of funding, however, City and Travis County BCP staffs along with Ed LeBrun (UT Fire Ant Lab) plan to resubmit the grant proposal in November.
- Violet Crown Trail parking lot/ trail work/ TCA's issue: City and County BCP staff met with City of Austin Public Works (PW), Watershed Protection (WPD) and Parks and Recreation Department (PARD) staff and regarding future work for the Violet Crown trail parking lot in an area that is currently infested with TCA's. We discussed ways to minimize the chances of spreading TCA's to non-infested sites
- Conducting cave faunal surveys and cave cricket exit counts. (Ongoing)
- Monitoring cave conditions, removing trash, and treating for red-imported fire ants. (Ongoing)
- BCP Staff is continuing to assist Nico Hauwert and the Watershed Protection Department with the Blowing Sink critical environmental feature (CEF) stabilization CIP project. Several major recharge features/caves are unstable, leading to large amounts of sediment washing into the aquifer. The project will stabilize these features, thus improving water quality to Barton Springs. This project is actively proceeding forward. (Ongoing)
- In an effort to educate the public about the importance of caves and cave fauna, Nico Hauwert initiated an effort to find local non-BCP caves that would be appropriate for educational purposes. Staff and volunteers are currently excavating several karst features. (Ongoing)
- Cave public access: A cave collaboration group of City and County staff and volunteers met regarding guidelines for future public access to local caves including some BCP permit caves. The goal is to try to determine which caves are appropriate for public access, determine the appropriate number allowed per cave, and come up with a permitting system that would determine qualifications needed for leading cave tours. (Ongoing)
- Karst location/ public data meeting: Discussed Travis County and City of Austin policies and recommendations for Karst Data Public Display/Use, including online data viewers; potentially align City of Austin and Travis County karst data contributors and users to review/develop clearer karst data distribution policies for both agencies, this may better address developer needs and inform conservation decisions. In the meantime, Travis County agreed to limit access to data/ locations.

- Restoration and monitoring efforts have begun at 2 endangered species caves located in the courtyard at McNeil High. Nico Hauwert is leading the restoration effort along with help from FWS, City and Travis County BCP staff. Travis County and City BCP staffs are currently conducting cave faunal surveys with the goal of including student participation for long term monitoring and potential research projects that will benefit the listed species. Viv Loftin is currently working on a restoration plan. City staff will provide plants for this project. (Ongoing)
- Travis County and City BCP and WPD staff met with COA Public Works staff on October 3rd regarding a proposed trail that would be built within the cave cricket foraging area of Stark's North Mine. Staff recommended that Public Works contract out a cave cricket foraging study to determine if Walnut Creek acts as a barrier to cave cricket foraging and if so, then the trail would not impact the cave. Nico Hauwert agreed to resurvey the cave, and to come up with an estimate on the size of the sub-surface drainage catchment area. Zara Environmental conducted the study, determined that the vast majority of cave crickets exiting the cave do not venture to the proposed trail; however, it was recommended that Public Works minimize site disturbance and future vegetation maintenance in an effort to reduce Red Imported Fire Ant (RIFA) infestations (major threat to cave crickets).
- City and Travis County staff continue to meet with TXDOT, CTRMA as well as other local stakeholders regarding the proposed construction of SH45 SW, its impacts on Flintridge cave as well as other karst features in the area. These meetings are focused primarily on ideas on how to minimize damage to these features. (Ongoing)
- City staff commented on SH 45SW's DEIS: noted that the DEIS does not address how the proposed road may impact the BCP permit. It was also noted that the plan has been released prior to the initiation of the subsurface catchment study of Flintridge Cave (vital information that should be known prior to the public comment period). Also the DEIS does not address the issue of potentially introducing invasive species such as the tawny crazy ant.
- In an effort to determine the validity of a possible new location for an endangered species (*Texella reyesi*) at Barker Ranch cave # 1 (close proximity to the proposed SH 45SW), COA BCP staff conducted one cave faunal survey in May and then another survey in July. The July visit also included TXDOT consultants SWCA and Cambrian Environmental. On the July visit COA BCP staff collected one *Texella* specimen and sent it off to Darrell Ubick for species verification. Several people including James Reddell believe that this species identification may be a mistake, since currently all other *T. reyesi* locations are north of the Colorado river and that *Texella mulaiki* has been confirmed from caves in close proximity to Barker ranch cave # 1 (Flintridge cave and many other caves in the area). Also according to recent correspondence with Darrell Ubick, "...the Barker Ranch Cave #1 record for *T. reyesi* is probably an error since the species does not occur that far south. Also, as the identification was based on a juvenile specimen, which cannot be reliably determined, it was regarded as tentative (not confirmed) and included mostly to document the cave record." City of Austin Watershed Protection Department is in the initial stages of conducting a hydrological study at Flintridge cave to determine the subsurface drainage in an effort to determine what impacts the proposed SH 45 SW will have on the cave.
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- Buda Boulder Spring: regarding City of Austin PARD new plans for upgrading Shoal Creek Park, BCP staff answered contractors' questions regarding the spring and SOC and reviewed plan to see if there are any potential problems with the proposed work (none noted).
- Lamm cave: responded to a local news story about local residents fear of rattlesnakes and their possible plan for filling in the karst features. COA and Travis County BCP staff met on site to investigate the 2 fenced preserve areas. Lamm cave preserve was not directly impacted, but the other fenced critical environmental features (CEF's) was actively being used by apartment dwellers. BCP staff met with the Walmart store manager and agreed to lock the 2 gates leading into the CEF area, staff also removed trash from the site.

Golden-Cheeked Warbler (GCWA)

- USFS Project: Interlocal Agreement with the US Forest Service (Dr. Frank Thompson, Jennifer Reidy) to provide GCWA Population Viability and Habitat Suitability modeling within the BCP.
 - 5-year study, focuses on four primary questions:
 - What is the absolute abundance of the GCWA on the BCP and on individual macrosites?
 - How do demographics (e.g. density, productivity, survival) vary with landscape and habitat factors?
 - How viable are these populations?
 - How do various management scenarios influence population viability?
 - Completed fourth year of data collection in collaboration with BCP partners (Audubon, LCRA, Travis County, Wild Basin) and over 40 volunteers:
 - Color-banded 184 GCWAs (115 males, 19 females, 50 fledglings) on 18 intensive study plots
 - Monitored 194 GCWA nests
 - Resighted 99 (46%) GCWAs banded in 2009-2013
 - Documented high site fidelity, especially older adults, as well as dispersal (6 males) between years.
 - Conducted point counts and habitat monitoring across the BCP.
 - These GCWA monitoring data will be correlated with habitat and landscape data.
- Vickery Method: The U.S. Fish and Wildlife Service provided funding for the U.S. Forest Service to compare results of less intensive monitoring (spot mapping and productivity surveys without color banding or nest finding) with more intensive data collection. USFS has hired two seasonal biologists to work on 7 of the intensive study plots in 2014. The USFS will submit a report of the results and findings to USFWS in September 2014.
- Accuracy of Density Estimates from Models Fit to Point Counts: BCP staff and partners drafted a manuscript comparing model-based GCWA density estimates with spot mapping for three different studies conducted on the BCP (Texas State University, U.S. Forest Service, Texas A&M University). The comparisons found that the model-derived estimates tend to overestimate GCWA densities, particularly in areas with low GCWA densities. Work on the draft manuscript will resume in early August.

Black-capped Vireo (BCVI)

- We confirmed 4 BCVI territories on the Forest Ridge tract, and found 3 nests in two of these (2 nests fledged 3 young in early July, 1 failed in early June). No fledglings were observed in the other two territories. All of the birds were unbanded, except for one male banded by Travis County staff in 2009.
- One BCVI territory (male banded this year by Travis County staff) was documented on the Kent Butler tract that successfully produced two broods. Two mature fledglings were observed in mid-June. A second nest was found on July 10 with at least one chick that fledged the following day.
- COA BCP staff and volunteers are continuing to implement demonstration projects at the Vireo Preserve to promote slope stabilization, soil restoration, and regeneration of native plants on degraded areas that are currently not habitat for either the GCWA or BCVI. Since Vireo Preserve supports many of the habitat types observed throughout the BCP, lessons learned from restoration work at this site should be applicable to other areas within the BCP.

Jollyville Plateau Salamander

- COA BCP staff assisted WPD with several JPS surveys.

Bracted Twistflower

- Twistflower observations were up from 2013 but in lower densities than 2012. Surveys were conducted at 5 sites:
 - Ullrich on April 23 (68 plants found, compared to 3 found in 2013)
 - Mount Bonnell on April 30 (11 plants found, compared to 0 found in 2013)
 - Barton Creek on May 7 (375 plants found, compared to 10 in 2013)

- Gus Fruh Section of Barton Creek on May 1 (6 plants found compared to 5 in 2013)
- Vireo Preserve on May 11 and 14 (7 plants found in the 2010 and 2011 introduction sites compared to 0 in 2013).

Largeflower/Giant Crested Coralroot (*Hexalectris grandiflora*)

- When this rare orchid species was discovered on the BCP in 2010, it was the first record for Travis County – the nearest known populations being in the Dallas area and in far west Texas. The plants were found blooming again in 2011 and 2012, but we were unable to find any sign of it in 2013. This year, we located 2 healthy stalks in the original location. During a June 9 survey, one 31-cm tall stalk had 3 blooms and 5 buds, and the other 25-cm tall stalk had 1 bloom and 7 buds. Two or three other species of *Hexalectris* orchids – all rare, though not as rare as this species – also occur in the BCP woodlands. They are “myco-heterotrophic” – depending upon fungi from tree roots for nutrients (non-photosynthetic) – and occur in pine-oak-juniper woodlands.

Preserve Management

Dual-Managed Lands

- AWU and PARD are working to close and restore trails within the Emma Long Motocross Park that are within the Connors Creek critical water quality protection zone.
- The proposed Mount Bonnell fencing to protect bracted twistflower habitat and keep people off the bluff has been designed and is being taken by PARD to the Historic Landmark Commission and Parks and Recreation Board for approval.

LCRA T-160 Transmission Line

- LCRA is upgrading the T-160 line which runs through the Bull Creek macrosite, and submitted a Phase 1 BCCP infrastructure permit application for road clearing and structure location bores last fall. LCRA completed extensive down hole boring camera work to assess potential impacts on karst features prior to March 1, 2014. They also contracted with Zara Environmental to conduct hydrological studies at the PWB 4 points NE cave cluster in an effort to determine the subsurface drainage for those 4 caves to see if the new T-160 line upgrade could potentially impact those caves. They did a similar analysis for two caves near the transmission line on Travis County property. The studies show that the T-160 line work will not impact the caves. The design is now complete, and LCRA has submitted their Phase 2 application for construction approval. Construction is scheduled to begin September 1 2014. LCRA is working closely with BCP and WPD staff to avoid impacts to endangered/threatened species and habitats.

Law Enforcement

- River Place Nature Trail (MUD trail).
 - The trail decommissioning and restoration work has been completed
 - A game camera installed along the section of the trail encroaching on City property has recorded few trespassers.
- Homeless camps are an ongoing management challenge in the Barton Creek greenbelt. AWU and PARD staff continues to monitor these sites and remove camps as they are discovered.
- Major vandalism and theft has occurred at the Blowing sink tract, APD are actively investigating the incidents.

Invasive Species/Animal Management

- See Tawny Crazy Ants, above.
- BCP staff is continuing efforts to remove non-native plants on COA BCP tracts.
- BCP staff is actively removing feral hogs.
- BCP staff are treating RIFA with boiling water adjacent to BCP caves

Oak Wilt

- BCP staff continued monitoring of all confirmed oak wilt centers and updated the Oak Wilt Management Plan chapter.

Fencing Projects

- COA BCP staff investigated recent flood damage; luckily most sites were easily repaired by staff. However, 2 water gaps on Beard Trust and one water gap on Vaught Ranch road were seriously damaged. COA have awarded a contract to a private vendor to repair both water gaps, repair work will be conducted in September.

Fire Management

- Wildland Conservation Division (WCD) staff participated in the creation of a Community Wildfire Protection Plan for Travis County. The final draft is completed and will be rolled out to the public next week.
- WCD staff is working with the Austin Fire Department Wildfire Division to plan additional fuel mitigation projects to be implemented after September 1st. The work will meet the specifications in the City of Austin Fuel Treatments in Juniper and Juniper-Oak Woodlands, Best Management Practices within the Balcones Canyonlands Preserve.