



Turnbull Wildlife Refuge



Fall 2014 3rd Quarter Friends of Turnbull N.W.R. Quarterly Report Volume 17 Issue 3

Friends of Turnbull General Meeting

Molly Zammit

Our general meeting was held August 19, 2014 at the refuge. This year's meeting was different for two reasons. The first was that we invited the members to join us for a meal that was catered by Hungry Hound Barbeque as a thank you to our members for your support of the Friends of Turnbull National Wildlife Refuge. It was a pleasure to invite you to share in a meal at one of the most beautiful places in Eastern Washington.



The second reason our meeting was different had to do with the guest speakers. Many of you are aware that Friends

of Turnbull provides funding for the Environmental Program at the refuge. It serves up to 8,000 elementary, middle school and high school students in a given year. But another aspect of the education program involves Eastern Washington University. For many years students have been doing research at the refuge under the guidance of professors at EWU. Dr. Rebecca Brown, Dr. Margaret 'Peggy' O'Connell, Dr. Robin O'Quinn and Krisztian Magori presented students or information about students who are working on various projects at the refuge. Kimberly Cook spoke about the effects of invasive grasses on the wildlife ecosystem of Turnbull. Heather 'Raven' Frady and Nicholas Loehlein spoke on tick identification and educating the public about avoiding the critters when we are at the refuge.

As a result of the meeting, Friends of Turnbull has been invited to take part in a survey early in 2015 about ticks. Yes, you read that correctly...ticks. Krisztian Magori's research focuses on the ecology of infectious diseases. This is the investigation of the complex relationships between humans, the pathogens that make us sick, the insect vectors that transmit them, the animals that host them, and the climate, the landscape, and the other living organisms that affect all of them. One important aspect of this work is to understand the knowledge, attitudes, and practices of those visiting the Refuge towards the relevant infectious diseases, its vectors, i.e. the ticks and the steps we take to prevent exposure to them. We hope that all of you will take the opportunity to participate in this Friends activity. More information about the survey and the work already conducted and planned in his lab will be coming with the January/February newsletter.



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Friends of Turnbull Bookstore & Gift Shop Report

Marian Frobe

I'm sure most of you know by now that MaryJane Booth, our store scheduler, died on August 10th, and there is a separate article in this newsletter about her. It was certainly unexpected for me, although I guess she had been ill for a few weeks. I am currently doing the scheduling in her place and find that the store volunteers are being very kind to me. I plan to do the scheduling through the rest of the time the store is open this year, and then I hope to find a replacement scheduler for next year. MaryJane will be hard to replace.

We are finally making a profit for the year, though we were into August before that happened. July sales were not very strong. I guess we call that the summer doldrums. However, August sales were the strongest monthly sales for the whole year. Our sales in August were \$970.28, bringing our net profit for 2014 to \$940.33. Our first weekend in August was a big one, as Dennis Paulsen's informative program on Dragonflies was on that first Saturday and we sold out his book, Dragonflies and Damselflies of the West, plus we sold a number of other books and shirts that day. We probably won't try to restock any of the books or shirts until next season. For some reason, there were a lot of sales on the last weekend of the month, too, keeping our volunteers busy.

If you would like to volunteer to help out at the store, please call me, Marian Frobe, at 328-0621 or at rrfrobe@msn.com. Or check the "I want to volunteer" box on your membership form and we will contact you. Thanks to those who have responded and are now helping us out. We have a number of newer volunteers this year and they are all cheerfully helping us.

President:Molly Zammit molly.z@comcast.net
Vice President: Katherine Ryf FriendsofTurnbull@gmail.com
Treasurer:Robert Liepold rliepold@aol.com
Secretary:Joanne Powell...jopowell39@aol.com

Visit our great website!
www.fotnwr.org

Fall & Winter Activities

December 6, 2014. 9:00 a.m. to 3:00 p.m..

Annual Friends of Turnbull

WinterFest

See page 4 for details.



Turnbull NWR.
© Jim Neiland

Membership: Just a reminder to renew your membership. We depend on your support to continue our important work with the Environmental Education program at Turnbull.

If you would like to receive your newsletter through your email, please let us know. Email jcorder@hughes.net.

Board Members:

John Barberpattianjohnbarber@hotmail.com
Lorna Kropp.....lkropp@cet.org
Kelissa Owens.....Kellisa.Owens@hotmail.com
Peter Porter.....drpporter@yahoo.com

A Sad Loss for the Friends of Turnbull

Marian Frobe

MARYJANE BOOTH

We lost a wonderful lady and a faithful Friend of Turnbull on August 10th. From the beginning of our Friends group, MaryJane was instrumental in getting us started and keeping us going in the early years. She was our very first president and served in that capacity for several years. Even after stepping down as president, she continued to serve on the Board until mid-2000. When she resigned from the Board, she and Rosalie Napier continued selling T-shirts and sweatshirts in grocery stores and other venues in the years before our store was established, and off and on even after the store opened. These two also helped out for many years with outreach at community events, etc.



MaryJane with her great-grandchildren Mikyla (in front) and Chloe & Jack.

One of her greatest assets was her wide range of friends and acquaintances. When the Friends of Turnbull Store finally got off the ground and needed people to run it, she set the hours and the shifts and served as our scheduler for most of the years since. Although we recruited people from the ranks of the Friends of Turnbull, she also recruited friends and people she knew. She was so good at calling people and keeping the schedule straight that we never had to worry about how things were going. She was even-tempered and unflappable, so even if she had difficulty finding someone for a shift she didn't panic. She was our scheduler almost until her last days and was even calling people earlier this year when she had fallen and broken her hip. She had her son bring her the scheduling calendar and she called people while she was convalescing. She was a very dedicated volunteer and will be greatly missed.

Swan Update

Mike Rule

No cygnets this year. Both pairs have been seen in the Pine Creek wetlands, but none of the non-breeders have shown back up yet. Outside the wetlands below HQ swan habitat is pretty limited. It could be a tough winter for our swans. The shallower water will likely freeze up faster once winter weather sets



Swans on Cheever Pond
by Carlene Hardt

WinterFest at Turnbull

December 6, 2014

Chili Contest!

Molly Zammit

One of the most unusual chilies I had was made with elk and Jack Daniels whiskey. As chili goes, it was ok. I enjoyed it and 'chef' was excited to share his dish. I personally enjoy trying different ingredients such as sweet potatoes or different kinds of beans in chili. As you all know the Friends of Turnbull has hosted a chili feed as part of the Winterfest each year. Those who come for the Elk Tour have stopped and enjoyed the various chilies provided by the Friend of Turnbull National Wildlife Refuge.

This year we are looking at adding some something a little different to our annual Winterfest. chili feed. You are invited to be a part of the 1st Annual Chili Contest. Bring us a slowcooker filled with your favorite chili to share on December 6 by 10:00 AM. List the major ingredients on a 3 x 5 card with your name, address, and phone number. Consider giving your chili a clever name. Those attending the festival will choose the best chili by placing money in a donation jar next to each entry. The donation jar with the most money wins. All donations go toward our environmental education programs, which FOT supports at the refuge. These programs serve up to 8,000 students in Eastern Washington every year. The prize...knowing that you have made the best chili at Turnbull and a pair of tickets to the Turnbull Auction to be held on March 14, 2015.



Bears! Bears! Bears!

Julie Erlenbach from WSU's Bear Center will be presenting a program all about bears!

No live bears will be visiting. Sorry!

For the tour reservations (9:00 a.m. or 1:00 p.m.) call Joanne at 509-999-2090 or email her at jopowell39@aol.com.

Tours:	9:00 and 1:00
Bear presentation	11:00
Chili lunch	12:00
Chili Judging	1:00



National Wildlife Refuge System Friends Academy 7

Katherine Ryf

As a Friends of Turnbull board member I was given an amazing opportunity to attend the seventh annual Refuge System Friends Academy (FA7), held at the National Conservation Training Center (NCTC) in Shepherdstown, West Virginia August 4-8, 2014. I have to say this is one of the best leadership conventions I have attended, the time and energy devoted by the Fish and Wildlife staff that coordinated the training was phenomenal. The training focused on Refuge System programs, growing the success of our partnership with Turnbull Refuge and strengthening our organizations core management. This was an incredible week filled with activities, classroom sessions, collaborating, and developing new knowledge and skills to increase my effectiveness to serve on your board. I gained many new tools to make our friends group stronger and grow into the future. I look forward to putting my 'FA7' knowledge to work and to collaborate with the board members from other friends groups across the country.

The Friends Academy is fully sponsored by the federal government including travel, lodging and meals. I first heard about it Summer, 2013; however, was unable to attend as I was 8 months pregnant. I didn't think I would be able to attend this year having three young girls at home, one whom I'm nursing. While exploring options I learned NCTC offered onsite childcare through the Children's Treehouse which holds three spots for folks attending conferences. After working through logistics with my hubby and employer to take a week off from work I flew out east with our littlest girl on my hip. Although we had a double dose of childcare expenses for the week, without being able to enroll our infant into the Children's Treehouse, I would have missed another year of attending this amazing Academy.

Thank you to Dan Matiatos and Molly Zammit for nominating me, the Refuge System for continuing to host this annual training, the staff at Children's Treehouse who cared for my little one so I could attend the academy and Charlotte Bowers, NCTC security who went above and beyond the call of duty to lend a helping hand when I most needed it.



Refuge Happenings

by Sandy Rancourt
Visitor Services Manager

We had another exceptional year with our Volunteer and Environmental Education Programs. Over 760 volunteers contributed 18,400 hours this fiscal year. The majority of the hours donated were volunteered in the biological and public use programs. This is equivalent to a monetary savings of \$407,376. In addition, 7,540 individuals participated in the Turnbull's on and off site Environmental Education Program, and over 5,148 individuals experienced our interpretation programs.

EE & Outreach

With the advent of summer, the deluge of classes from Spokane County visiting the refuge for our Field Trip Program dissipated. However, our summer was quite occupied providing environmental education and outreach for hundreds of students involved in camps, scouts, youth centers, summer school, universities, and senior centers who wanted to experience the refuge during the warmer months. Students not only participated in field trips and night hikes at the refuge but we also customized programs to fit their needs. One such request was from Upper Columbia Academy Elementary School (UCAES) for a field trip with a volunteer project component. Twenty-two students and 3 adults enjoyed a field trip facilitated by Pathways Intern Paul Reilly. The students also spent an hour weeding potted native saplings in our nursery which were quite overgrown.



Students from UCAES weeded a hundred pots in our nursery (S. Rancourt)

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Fall Field Trips

I received numerous calls from teachers this summer and have already booked our Fall Field Trip Program including our Environmental Education and Stewardship Project with Cheney High School (CHS). This year CHS are bringing out an additional 60 students for their 2-day program. Refuge staff and volunteers will be kept quite busy for 2 days teaching 310 students wetland ecology, water quality, and riparian restoration. EE Facilitators will also be busy spending several days facilitating refuge programs in October for Camp Wooten and Camp Cowles.

VOLUNTEER PROGRAM

snyamncut – EWU Residential Hall

I mentioned in the previous newsletter that snyamncut, an EWU residential hall, adopted Turnbull last year. Twenty-six resident volunteers, 8 community advisors and one faculty hosted a “Tearin’ it up for Turnbull” event on May 29th for 80 participants. The resident hall raised several hundred dollars at this fundraising event in support of the refuge. Mike and I met in town with Gina Ondercin, Area Coordinator for snyamncut, to decide on what to purchase for our restoration projects. Several tools, buckets, gloves and even shovels for the little ones were purchased with funds that the hall raised. The staff is very appreciative and thankful for the continuing support of this group.



Gina Ondercin, Area coordinator –snyamncut, with purchases made possible by the fundraising efforts of the resident hall. (S. Rancourt)

EWU – Eagle Up!

Twenty-three Eastern Washington University students participating in EagleUP! assisted refuge staff and other volunteers in picking up garbage along the east and west side of Cheney Plaza Highway on September 23. This volunteer event allows incoming freshmen and transfer students an opportunity to get involved in their community. We were very fortunate to get a group of enthusiastic volunteers to help get this needed task done. It has been many years since garbage has been picked up along the highway that runs through the refuge so we decided it was time to beautify Turnbull even more. The refuge provided the garbage pickup sticks, safety vests and staff to supervise the crew. Mike Rule, the refuge biologist, myself, bio- tech Roy Brazzle, Pathways Intern Paul Reilly, new AmeriCorps interns Brittany Moore and Collin Adkins, and the refuge manager, Dan Matiatos, had a great afternoon working side by side with these young adults. At the end of the day, we had a few pickup truck loads of garbage bags to show for our efforts. The EagleUp! group had an evaluation activity at the end of the project and surprisingly it was pretty darn positive despite this type of task. Everyone left with a sense of accomplishment.



Still smiling after a hot, muggy afternoon picking up garbage. (S. Rancourt)

Youth Projects

Youth Conservation Corps (YCC)

When funding allows, four teens, between the ages of 15-18, participating in the Youth Conservation Corps (YCC), are hired during the summer to help out with various refuge projects. The refuge provides a wonderful opportunity for these teenagers to get job experience during a pretty tough employment period for anyone as well as exposing these kids to the great outdoors. One much needed project our crew worked on this year was the East Blackhorse Lake Trail Restoration Project. This trail is at one of our 4 outdoor education sites. Each outdoor education site is approximately 1/2-3/4 mile long which runs through the 4 habitats of the refuge. This crew with the assistance of yet another youth crew (Northwest Youth Corps) replaced the bark on this Trail. Despite the intimidating piles of wood chips (it takes a few large dump truck loads to complete a trail) the 2 groups tackled and completed this tough project.

EWU freshman and transfer students spent the afternoon before the start of classes volunteering for the refuge. (S. Rancourt)



Two YCC crew members putting the finishing touches on the East Blackhorse Trail. (S. Rancourt)

In addition to trail restoration, the YCC crew assisted with multiple maintenance projects during their 8-weeks at the refuge. One such project was helping out with potting native bare root stock for Turnbull's riparian restoration projects. The YCC crew potted two thousand seedlings, all from native stock, including hawthorn, aspen, willow and serviceberry. In about a year, those potted saplings will be ready to plant at one of the refuge restoration sites or private lands projects. In addition to working on refuge projects, the YCC crew spends one day/week on environmental education. YCC and Northwest Youth Corps participated in our Field Trip Program, and YCC spent several hours learning about birds at our songbird banding station.

Northwest Youth Corps

Eight members of the Northwest Youth Corps ranging in age from 16-19 years old spent a week restoring Turnbull's West Blackhorse Lake Trail. This was a tough project since this trail has had little use in years. A few years back, volunteers from the Veteran Conservation Corps with assistance from Spokane Community College built an environmental education shelter along this trail that is closer to water giving us an alternative place to conduct our wetland ecology program. In the summer of 2013, Master Hunter Duane Davey crafted all the benches for the shelter. Before we could use the site for educational purposes, the trail needed a great deal of restoration work as a result of all the activity from building the shelter and its general disuse. The Northwest Youth Corps removed rocks and scraped the trail removing all weeds and new seedlings before putting on several thick layers of wood chips with nothing but the aid of wheel barrows. Two-thirds of the way through the project, we ran out woodchips so the crew put compacted gravel on a rest of the trail. The crew was led by 2 very competent crew leaders and assisted by refuge staff. This was a very hard working group who worked diligently on this project to completion.

Two other Northwest Youth Corps crews assisted refuge staff with forestry projects during the spring and summer months. One crew cut trees along the refuge Smith Road and the Auto Tour Route. The crew also chipped the trees they cut which ultimately provided more wood chips for the trail restoration projects. A third Northwest Youth Corps thinned and

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piled trees in the Railroad Butte Forest Restoration Unit. Thinning projects on the refuge are crucial to keeping our ponderosa pine forests healthy by preventing catastrophic fires ultimately sustaining large diameter trees in an ecosystem that is more adapted to frequent, low intensity fires.



Northwest Youth Corps restoring the West Blackhorse Trail. (S. Rancourt)

Master Hunter Program

Brian Issac, an individual in the Master Hunter Program, spent an afternoon potting a hundred bare root black hawthorn seedlings.

Eagle Scout Projects

Kepple Peninsula Interpretive Trail

Eagle Scout candidate Lincoln Oldham from BSA Troop 381 was recruited for the Kepple Peninsula Interpretive Trail project. Lincoln and his crew of scouts replaced several broken interpretive posts, reset old ones, moved 2 for better access (all of which were cemented in), and installed permanent steel marker numbers on all the posts. Lincoln did a great job with this project. He was well prepared and organized. The project went off without a hitch which is always so appreciated.



Eagle Scout candidate Lincoln Oldham and other scouts from Troop 381 prepare for their project. (S. Rancourt)

Lincoln instructing the scouts on the project (S. Rancourt)

Other Scout Project – Exotic Species Control

Ricky Brown and his mother JoAnn spent several hours in July pulling Dalmatian Toadflax along the refuge’s auto tour route for his scout community service project. Having groups periodically pull this species before it goes to seed has been quite helpful in reducing the spread of this invasive plant.



Welcome Aboard & Fond Farewells!

AmeriCorps Interns

Two new WSC AmeriCorps interns came on board this fall to help out with our Environmental Education and Biological Programs. Brittany Moore our new EE AmeriCorps member was my 12-week SCA intern this spring. In addition to facilitating programs for classes, she will give me a break from scheduling school groups. Collin Adkins traveled all the way from New England to do a 2nd term with the AmeriCorps program. He will be helping Mike in the biological program with numerous wildlife and habitat surveys and data entry and summary. He will also occasionally assist with our Winter Outreach Program during those long winter months to give him a needed break from computer work. Both interns are pleasant and enthusiastic, and we are looking forward to another great year.

Visitor Service Volunteer Bob Michels

Visitor Service Volunteer Bob Michels left Turnbull in early September for warmer latitudes. Bob lived in his RV at Turnbull headquarters during the summer and assisted with multiple tasks including keeping the public restroom and vault toilets stocked and spotless. Bob also made sure the Friends of Turnbull bookstore was locked and the alarm set during the weekends. He also mowed, recycled, removed garbage and did a variety of light maintenance projects. Bob was a hard worker, conscientious, dependable and a pleasure to be around. He is already missed, and we are hoping he returns next summer.

Biological Program

With the assistance of several volunteers and refuge staff, we had a very productive summer field season. AmeriCorps member Nathan Fall, SCA intern Derek Entz, and bio-tech Roy Brazzle completed bathymetry surveys of 2 wetlands on the refuge. This same crew completed several forest monitoring transects and conducted duck banding on the refuge this year as part of the national adaptive harvest management plan. Mike and Sandy with the assistance of long-term volunteers Marian and Russell Frobe, Rachel Rule, Joyce Alonso, and the biological field crew, completed the twentieth season of songbird banding under the Monitoring Avian Production and Survivorship program. In response to a memo signed by the President to promote pollinator conservation, The National Wildlife Refuge System has initiated a Monarch Butterfly conservation project that involves increased monitoring of monarchs and maintenance and restoration of milkweed populations, their critical food plant. Roy Brazzle, our new Biological AmeriCorps Collin Adkins, and Rachel Rule have been inventorying and mapping milkweed stands on the refuge and collecting seed for future restoration projects. Collin and Roy have also been completing counting coyote scat on 17, 0.5 mile road transects to monitor trends in coyote abundance.

Northwest Center

David Black from Northwest Center spent a week job shadowing in the biology department. Northwest Center is a non-profit organization that expands the skills, independence and opportunities of children and adults with disabilities. David was a very enthusiastic, polite young man. David had a passion for heavy equipment but was eager to help with any of our projects. He assisted with radio telemetry surveys, forest monitoring, duck trapping and banding, and MAPS. Everyone enjoyed their time working with him.

THE REFUGE ASSOCIATION IN ACTION

Collaborating to Conserve Oregon and Nevada Sagebrush Steppe

From an article in the NWRA newsletter and the WDFW. Even those this program is taking place outside of Washington state, there are thousands of acres of sagebrush steppe. The sage-grouse has been declining in Washington and many parts of its range in North America. The reduction in sage-grouse numbers and distribution in Washington is primarily attributed to loss of habitat through conversion to cropland and degradation of habitat by historic overgrazing and the invasion by cheatgrass and noxious weeds.

Two of the largest national wildlife refuges in the Lower 48 states, Hart Mountain National Antelope Refuge (278,000 acres) in Oregon and Sheldon National Wildlife Refuge (575,000 acres) in Nevada, serve as conservation anchor points in the high desert sagebrush steppe of the Northern Great Basin. Linked together by Bureau of Land Management holdings, state lands and private ranches, this big country provides habitat for more than 300 species including pronghorn antelope, pygmy rabbit and the greater sage-grouse.

The Refuge Association is working with the U.S. Fish and Wildlife Service, other agencies, conservation groups including the Friends of Nevada Wilderness and the Oregon Natural Desert Association, local officials, landowners and community members as well as Congressional lawmakers to blend a number of conservation strategies that can strike a balance in this large landscape.



WILD REFUGE FUNDRAISER

Katherine Ryf

As the summer slows and the cool air settles in its time to begin thinking about planning for spring activities, especially our main fundraiser the Wild Refuge Dinner and Auction. We have some fun new ideas to make this event 'wilder' for your enjoyment, please save the date; Saturday, March 14, 2015.

If you are interested in being a part of the 'Wild Refuge' development team our next meeting is scheduled for Friday, November 7, 2014 9:30 a.m. at the Wren Pierson Center in Cheney, Washington. Join us if you can.

Wild Refuge Sponsor Spotlight

Lucky for me my hubby was the high bidder at the 2014 Wild Refuge taking home a gift certificate for a two night, all inclusive "Glamping" stay at Turkey Ridge Ranch a working alpaca ranch, fiber store, and wellness retreat located outside Davenport, Washington.

The last weekend of July my hubby and I set out with our 10-month old baby for our first Glamping experience. All the comforts of home were awaiting us in our 'Badger' tent and nearby shower and open air facilities. The views of Lake Roosevelt and the Columbia River were incredible combined with gourmet meals served to our tent with five-star hospitality. Many thanks to Randy and Chris, owners and caretakers of Turkey Ridge Range for bending their own rules to allow us to bring our baby girl with us and for the 'on queue' flock of turkeys upon our arrival, the majestic deer crossing the meadow as the sun set over dinner, the funny little frog in the latrine, mama bird nestled in the rafter of the outhouse and the many other wildlife that greeted us during our stay; including the fun alpacas, Billy the goat and Olivia the pot-bellied pig.

The native culture and natural environment engulfed our senses, leaving us wanting more. We have pledged to return next season to our nearby retreat to experience everything Turkey Ridge has to offer. Although my hubby and I are not birders, we discovered a previous guest from the Audubon Society reported that they identified 37 bird species and photographed four that they could not identify. I encourage my fellow board of directors and Friends of Turnbull members to visit Turkey Ridge Ranch to experience Glamping at its finest. To our birding friends I challenge you to identify all 41 bird species and look forward to reading your story in the guest book on our next trip to Turkey Ridge.



Website: <http://www.turkey-ridge-ranch.com/>

Email: wellness@turkey-ridge-ranch.com

Phone: (509) 725-0830



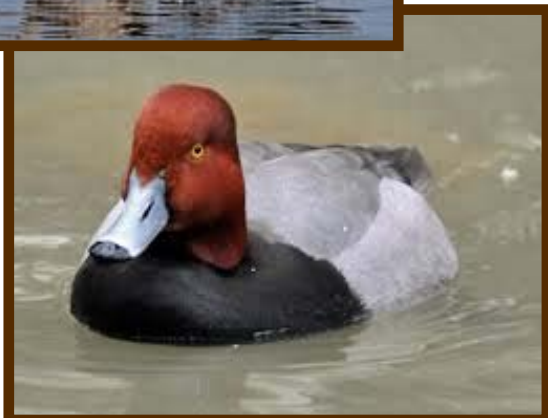
Summer/Fall Wildlife Observations

by Mike Rule

Summer has been long, hot and dry in Eastern Washington, and our wetland and riparian habitats have been showing its effects. Many wetlands have gone completely dry and several of the large permanent wetlands only have surface water in the very center leaving large expanses of exposed mudflats. Low water conditions and increasing water temperatures have resulted in high nutrient release and algal blooms in many wetlands. Our youth waterfowl hunt was suspended this year because of low water which made access to hunt areas difficult to impossible.

Although most of our breeding waterfowl fledged before conditions became severe, several late nesters (gadwalls, redheads, and ruddy ducks) were likely affected as brood rearing habitat became increasingly limited. We won't know the full impact of these dry conditions on waterfowl until next spring when we do our pair surveys. Our annual breeding populations are dependent on adult survivorship and recruitment from the previous breeding season.

Gadwall, Redhead and Ruddy Ducks



American White Pelican

The up-side to the low water conditions is the oxidation and consolidation of wetland soils that generally results in increased submerged aquatic plant growth the following year. The low water will also result in nearly complete freezing of the water column and extremely low dissolved oxygen which should substantially reduce populations of invasive fish species such as the brook stickleback and pumpkin seed. The low water also concentrates these species in smaller areas making it easier for fish eating birds to capture as evidenced by flocks of foraging American white pelicans on many wetlands. Droughts have a bad connotation for most, but they are essential to the long-term productivity of the refuge wetlands.

Elk have been observed on several occasions in the Visitor Use area along the Entrance Road in early morning and south of Cheever Lake. In dry years the elk tend to gravitate to this area, since water is much easier to come by. Elk prefer not to slog through a 100 feet of belly deep mud to get to water if there is an alternative. The dry conditions have caused many of our hooved wildlife (deer, elk and moose) to browse earlier than normal. Every fall we anxiously await the change in colors in our riparian habitats, especially the golden aspen, pumpkin orange hawthorn and wine-red dogwoods. The very dry and warm conditions we have experienced have resulted in early leaf drop by some clones. Several trees just turned brown. Hopefully with some cooler and moister weather we can still see some normal fall colors. Aspen is particularly hard hit in some locations. The “trees” in front of the office have received visits by moose on more than a few occasions. Speaking of moose, several have been seen along the main driving route including several good-size bulls. One bull did some serious damage in a fenced tree planting area below HQ where the gate was inadvertently left open. Oops! New trees were planted there this fall.

Flocks of western bluebirds are everywhere taking advantage of the grasshopper population that often increases with drier conditions.

We completed our last day of landbird banding on September 12. We captured a total of 190 birds this year, 50 more than the long-term average. Twenty-five were recaptures. We captured all of the common species; house wrens, willow flycatchers, western pewees, black-capped chickadee, red-shafted flickers, red-naped sapsuckers, black-headed grosbeaks, common yellowthroats and yellow warblers to name a few. The spring and fall migration periods brought us numerous Wilson’s warblers, warbling vireos, a yellow-rumped and orange-crowned warbler, and a young male American red-start. We also captured dusky, western, and least flycatchers. We also caught few species that are common to the refuge but not often caught during banding: eastern kingbirds, spotted towhee, downy woodpecker, and black-chinned hummingbirds. Most of our migrants were young of the year so the dry conditions didn’t appear to be affecting songbird production.



Moose inside and outside the exclusion pen!



**Black Chinned Hummingbirds
Male - Upper Photo
Female - Lower Photo**



Eastern Kingbird

Friends of Turnbull NWR
P.O. Box 294
Cheney, WA 99004



The Friends of Turnbull National Wildlife Refuge, a nonprofit organization, supports the mandate of the refuge to protect and enhance wildlife and their habitats through education, research, habitat preservation and restoration.

Got email? Add it to your membership form for quick activity updates!

Membership Application

YES! I want to support the Friends of Turnbull National Wildlife Refuge and its programs with my membership.

Name _____
Address _____
City, State, and Zip _____
Daytime Phone _____
E-mail _____

Annual Membership: (Circle one)

Individual \$15
Family \$25
Business/Group \$35
Patron \$100
Benefactor \$500
Donation \$ _____
Endowment Fund Donation \$ _____
Amount Enclosed _____

New _____ Renewal _____

I would like to volunteer _____
Bookstore _____
Committee _____
Environmental Education _____
Where needed _____

My check is enclosed payable to
Friends of Turnbull N.W.R.
P.O. Box 294
Cheney WA 99004