



Conservation Message of Hackberry Flat:

- understanding that sportsmen & women pay for wildlife conservation
- understanding the values of wetlands & wetland restoration
- understanding the wet and dry management techniques of the wetland
- understanding the wildlife dependent on this wetland and how they use the habitats
- understanding the historical events associated with Hackberry Flat



Staff at Hackberry Flat

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Hackberry Flat Annual Report, July 2011—June 2012

Frederick, Oklahoma



Hackberry Flat Wetland—a Boom and Bust Lifestyle!

Without a doubt, the lack of significant moisture since 2010 can be considered the dominant feature at Hackberry Flat this year, but this inspired us to learn more about the dry cycle of prairie wetlands and to include this information in our wetland classroom and programming with educators, naturalists, birdwatchers, and visitors.



Photo: Justin Roach

OK Dept. of Wildlife Conservation biologists and technicians attended an incredible wetland workshop at the Hackberry Flat Center that provided a better understanding of the im-

portance of both the dry and wet periods of wetland management. During the dry or “Bust” period, the annual grasses and forbs germinate producing seeds during their growing season. When these annuals are standing in water during the wet period or “Boom” period, the “decomposers (bacteria, worms) and shredders (aquatic insects, crayfish) begin to eat the plants releasing mineral nutrients and soluble organic compounds into the wetland. These nutrients are used by plankton which are then consumed by larger organisms and so forth. (See photo gallery about the workshop on page 2.) Together, this boom and bust lifestyle produce a biologically immense system of food for migrating and breeding waterfowl and shorebirds at Hackberry Flat.

The wet/dry cycle of wetland management was incorporated



into the wetland classroom curriculum and presented first, to two teacher workshops and then to a home school association. Each teacher and student left the Center with a Ziploc bag of wetland soil and instructions on how to practice wetland management in a jar.

This year the staff at Hackberry Flat included a tour of the area using the bird blind trailer into every wetland classroom, workshop, event and scheduled program. The importance of getting our visitors into the area is paramount to understanding how Hackberry Flat is managed in a wet/dry cycle.

Enhancements at the Center



Photo: Kathy Adam Clark

This year the focus continues to be on the areas out and around the Center. The most obvious addition was the installation of a split rail fence that serves to delineate the area around the Center from the nature trail. The birds immediately found new perches and during the winter, tumbleweeds that were

stopped by the fence posts would provide shelter for white-crowned sparrows.

All the benches have been placed around the nature trail offering visitors a chance to sit quietly and enjoy the views. Intern Marcus Thibodeau created brushpiles near some of the benches to encourage birds to perch close by.

The bird blind located at the end of the boardwalk was modified to block visual exposure on the approach to the blind from

the boardwalk as well as to block north and south winds while inside blind.

A Special Thank You to Charlotte McPherson!

The wetland classroom truly began when Charlotte agreed to be our first wetland classroom coordinator. Her love for the children and her passion to provide opportunities for children to understand the natural world continue to inspire!

Wildlife Management on Hackberry Flat July, 2011– June, 2012

Parched and brown is where we left off last time and the weather has not greatly improved since. By July we were in the throes of an extreme hot and dry period that gave us 101 days of over 100 degree temperatures.....with no rain. Several hundred acres of millet and milo was planted but quickly succumbed to the harsh conditions. The evapotranspiration rate was extreme and the Hackberry Flat reservoir lost water rapidly. However, September did bring some relief with cooler temperatures and a little rain. Dove hunters flocked to Hackberry Flat during their annual trek, but found limited success.

The reservoir was about half full going into the fall as water was rationed out to wetland units in a desperate attempt to create waterfowl habitat. Very little vegetation grew during the summer, so food was limited. Only about 300 acres of wetlands were flooded during the fall and winter resulting in a decrease in numbers of ducks and duck hunters. A mid-winter

waterfowl survey was conducted during the first week in January only to report about 2,500 ducks.

Spring brought with it some hope from the lingering drought as timely rains provided Tillman County farmers with a bumper crop of wheat. The reservoir caught enough water to flood a wetland unit in time for the spring shorebird migration.

Hackberry Flat hosted a wetland workshop instructed by Leigh Frederickson, Mickey Heitmeyer, and Adonia Henry providing insight into wetland dynamics, encouraging information for a manager managing a wetland during an extreme drought.

Summer time is here and the drought continues. Several days of temperatures near 113-115 with strong winds have robbed Hackberry Flat of water. The reservoir has almost completely dried up allowing us to control cattails and saltcedars along its interior. Lots of

needed field work and repairs to water control structures were completed during this dry lull waiting on the next big rain. Dove season is around the corner as habitat fields are manipulated awaiting the annual trek of hunters and their game.



Leigh Frederickson, wetland ecologist, brings over 50 years of wetland management experience to wildlife area managers all over the nation.



While ODWC biologists and technicians look on, Dr. Frederickson looks at the soil profile in one of the units at Hackberry Flat



The objective of the workshop: the importance of a management strategy that mimics the natural wet/dry cycle. Dry cycles allow plant germination, which produces seeds, which feeds ducks!



Quail Study on Hackberry Flat

The OK Dept. of Wildlife Conservation is participating in a 3-year study with the Rolling Plains Quail Research Ranch to identify types and occurrences of infectious diseases and parasites in western populations of bobwhite quail. Biological samples are taken from 10 wildlife management areas in western Oklahoma, including

Hackberry Flat WMA. Samples will be analyzed for assorted diseases including quail fever, pox and bronchitis, avian influenza virus and West Nile virus. Other associated studies will look at quail parasites and bacterial and fungal pathogens. Each WMA will be sampled twice a year for three years.



A Thank You to our Interns, Matt Fullerton (Summer, 2011) and Marcus Thibodeau

(Summer, 2012) for all of their hard work controlling invasive plant species, disking and mowing within the wetland but also for upkeep around the Center. Additionally, both young men helped with wetland classroom programming and preparation. Good luck in your future endeavors!

Maintenance and Upkeep

- Lawn around Center was treated with herbicide
- 1 AC Unit repaired
- Plumbing modifications to inside restrooms
- Outside bathrooms cleaned once a week; Center cleaned once a month
- Lawn mowed as needed
- Cedar Elm trees were watered as needed.

Wet or Dry, the Classroom was busy this year

Charlotte McPherson—Thank You!



Fall, 2011 and Spring, 2012 were the perfect seasons for observing the dry cycle of the wetland. There was still enough water during the scheduled school trips however to observe shorebirds, waterfowl, crayfish and snakes! A total of 382 students, teachers and parents visited the Hack-

berry Flat Center and wetlands.

- Walters High School Biology (30)
- Tipton High School Biology (18)
- Frederick High School Biology (22)
- Tillman County 5th graders (68)
- Apache 2nd graders (50)
- Marlow 3rd-5th graders (24)
- Geronimo 5th graders (20)
- Hobart 1st graders (120)

- Lawton Home School Assoc. (30)

Some of these schools visited Hackberry Flat because their teachers had experienced the wetland during teacher workshops we have hosted in previous summers. Word is definitely getting out about our wetland classrooms.

Teacher Workshops

In June, we hosted 2 teacher workshops, each with a different emphasis. The **Oklahoma Alliance for Geographic Education Teacher's Workshop** included a tour of Hackberry Flat to learn about the cultural history of the wetland. They were very impressed with the ditch that was dug to drain the wetland.

This was the second year that the **SENSEsational Science Teachers Workshop** visited Hackberry Flat. We added a new dimension to their understanding of wetlands by focusing on the dry cycle and the importance of this supposedly "bust" period. Each educator took home a bag of dry hackberry wetland mud to create their own wetland in a jar. These teacher workshops have helped bring students to experience a wetland classroom as the word "gets around".

Events & Saturday Morning Programs

The Hackberry Flat Center is open on the second Saturdays of each month, except for July. Hunters and birders alike stop by to see the Center and to ask questions. Some programs are scheduled during those Saturdays including hunter education classes, birding tours, photography exhibit and in June we offered a Wetland at Night program. The Center was also used to host meetings including the OK Wildlife & Prairie Heritage Alliance Quarterly meeting, Ok State Park Naturalists meeting, and the OK Conservation Commission's CP Staff monthly meeting. A tour of the wetland was provided for each of these groups. A special tour of the wetland was provided for the US-Afghanistan-Pakistan Trilateral Study Tour hosted by the NRCS. Agriculturalists from Afghanistan and Pakistan were learning about irrigation practices in the United States and how some lands were not suitable for crop production, whether irrigation was possible or not.

Backswimmer—a wetland insect



July 2011 – July, 2012
Scheduled Programs

- August—Hunter Ed Class
- October—Birding Tour
- December—Larry Hancock, Photography Exhibit
- March—Hunter Ed Class
- April—Hackberry Flat Day
- May—Birding Tour
- June—The Wetland at Night

Birding and Birding Tours

Traditionally, formal birding tours at Hackberry Flat are offered during the annual Hackberry Flat Day and on some of the Saturday morning programs. However, Lou Truex and Kurt Meisenthal from Lawton, by request, will provide informal birding tours throughout the year.

This year the Truexs conducted 13 informal birding tours for visitors from throughout Oklahoma as well as Connecticut, Ohio, and California. Addi-

tionally 2 university classes were guided by Mr. Truex.



Maybe not the cutest of young birds...

During the Truex's shorebird surveys between Jan. 2012 and June, 2012, 32 species of shorebirds were recorded. Unique birds between July 2011 and June 2012 included a Long-eared Owl, Vermillion Flycatcher, Sage Thrasher, Curve-billed Thrasher and Eastern Screech Owl. There may

not have been a lot of water this spring to entice shorebirds to nest at Hackberry Flat but a pair of Turkey Vultures raised 2 vulture chicks in one of the abandoned buildings on the area. To our knowledge this was the first pair to nest on the area.



**Birds Seen on
Hackberry Flat Day**

- American White Pelican
- Double-crested Cormorant
- Pied-billed Grebe
- Eared Grebe
- Great Blue Heron
- Little Blue Heron
- Glossy Ibis
- White-faced Ibis
- Canada Goose
- Snow Goose
- Mallard
- Blue-winged Teal
- Cinnamon Teal
- Northern Shoveler
- Northern Pintail
- Green-winged Teal
- Ring-necked Duck
- Gadwall
- American Wigeon
- Ruddy Duck
- Northern Harrier
- Peregrine Falcon
- Northern Bobwhite
- Virginia Rail
- Sora
- American Coot
- Snowy Plover
- Semipalmated Plover
- Killdeer
- American Golden Plover
- Black-necked Stilt
- American Avocet
- Greater Yellowlegs
- Lesser Yellowlegs
- Upland Sandpiper
- Hudsonian Godwit
- Marbled Godwit
- Semipalmated Sandpiper
- Least Sandpiper
- Baird's Sandpiper
- Pectoral Sandpiper
- Stilt Sandpiper
- Dunlin
- Long-billed Dowitcher
- Wilson's Phalarope
- Wilson's Snipe
- Mourning Dove
- Great Horned Owl
- Barn Owl
- Scissor-tailed Flycatcher
- Horned Lark
- House Wren
- Northern Mockingbird
- Clay-colored Sparrow
- Vesper Sparrow
- Lark Sparrow
- Savannah Sparrow
- Grasshopper Sparrow
- White-crowned Sparrow
- Red-winged Blackbird
- Yellow-headed Blackbird
- Eastern Meadowlark
- Western Meadowlark
- Common Grackle
- Brown-headed Cowbird

Hackberry Flat Day—May 21, 2012

Over 400 visitors attended Hackberry Flat Day which was one of those rare, perfect spring days in south-west Oklahoma. ODWC and many of our amazing partners provided a variety of activities related to the outdoors. First, we appreciate our fellow ODWC employees: Scott Webb for helping with shotgun, Ryan Ryswyk for the sportfish of Oklahoma aquarium, Jena Donnell for the Mud-Buggin' activity, Will Gibson for OK Archery in the Schools and Jeff Neal for the Duck ID exhibit. And of course we would also like to thank the following partners for helping make Hackberry Flat Day a success: Alabaster Caverns State Park, Quartz Mountain Nature Park, the OK Conservation Commission and the Wichita Mountains National Wildlife Refuge for providing fun, interactive exhibits. Stacy Turner, an Oklahoma Archery in the Schools Instructor and her family helped run the archery activity. The Friends of Hackberry Flat acted as hosts to the visitors and ODWC family members, April Ryswyk (Ryan's wife) and Kayla Umber (Bret's wife) maintained reservations for the birding tours and answered lots and lots of questions from the visitors. Frederick FFA students helped families build bluebird houses to take home, which was a very popular activity. The Red River Transport provided a touring van and a wonderful bus driver. Lou & Mary Truex and Kurt Meisenthal conducted the intermediate birding tour and their list is on the left side of this page. A special Thank You to Girl Scout Troop from First Christian Church for helping visitors enjoy the Goose-Knocking activity, which was also a big hit. The Hackberry Flat Foundation provided refreshments and lunches for all the volunteers and exhibitors! And as always, a special thank you to Carol and Dennis Stayer for having oversight of the event and capturing Hackberry Flat Day by camera!

