



I-20 WILDLIFE PRESERVE

JENNA WELCH NATURE STUDY CENTER

Self Guided Field Trip Experience Informational Guide

Welcome! We are so glad that you have an interest in touring the I-20 Wildlife Preserve - it is our hope that your visit will be both educational and exciting!

There are a few basic guidelines that you need to be aware of prior to your visit:

Weather: If the temperature is below 45° F or above 100° F, and/or wind is blowing over 25mph, you may consider rescheduling your visit if at all possible. This will ensure that you have the safest and most enjoyable trip to the Preserve!

Attire: Close-toed shoes, long-sleeve shirts, and pants are strongly recommended.

Adult Supervision: We request that all children are accompanied by an adult - preferably a 1 to 10 adult/child ratio.

What to Bring: cameras, water bottles, notepad and pencil, bug spray, sunscreen

What NOT to Bring: cell phones, other electronics, snacks, dogs

Site Map and Site Map Key: A site map and informational sheets are included in this informational guide.

Please remember, this is a WILDLIFE Preserve and the chances of encountering wildlife are elevated. This includes species that are considered dangerous (i.e. rattlesnakes, bees, porcupines, etc.)

Thank you again and we hope you enjoy your visit to the I-20 Wildlife Preserve!

Field Trip Experience

The I-20 Wildlife Preserve is a unique living lab that can enhance your science understanding! Walking the entire 1.45 mile loop will take the average group about one hour. Stopping at the suggested stop or ascending to the top of the Paul Davis Hawk Observation Deck will add additional time to your visit.

Suggested stops include:

Stop A: Junction with South Boardwalk

Along the way to the boardwalk, you are passing through the upland mesquite forest. Use your senses to look for signs that wildflowers bloomed in the spring, native grasses are being foraged, and that birds are all around.

Playas are the typical water feature on the High Plains and Great Plains. They are common from the north part of Midland County up to almost the Canadian border and are important recharge points for the Ogallala Aquifer. Over thousands of years, wind and water shaped the playas from small depressions into the shallow drainage basins that we see today. The I-20 playa is the twelfth largest playa in Midland County. Human interactions over the last 200 years have changed its shape and appearance into the playa you see before you. This is your first view of the playa. Observe the playa with all of your senses. Playas are ephemeral (cycle of wet/dry stages) so you are lucky if you can smell or see the water in the playa basin. If you close your eyes, you can hear both natural and man-made sounds. As you walk on to the next stop, look and listen carefully for anything that might be of interest: acacia spines, pack rat middens, bird songs, rabbits and bobcat scat.

Stop B: Honey Locust Sign

As you walk along the pathway, you are under a forest canopy unique to Midland. It is a beautiful place to visit - but it is also completely non-native. The forest is composed mostly of horticultural trees used in Midland landscapes since the 1960's. Seeds for these trees washed in through a drainage ditch dug to control flooding in southwest Midland. The resultant forest changed the edge of the playa and altered its ability to recharge the aquifer below our feet. During the recent drought, as these trees have died, they have been cut down and removed opening up the area to the native grasses that normally rim a playa.

Stop C: Salehi-Olgin Butterfly Garden

In the spring of 2014, many volunteers came together to build and plant this garden. But people have been interacting with the playa both negatively and positively for many years prior. Paleo and Archaic Indians, and later Native Americans, sought food, water and shelter on playas and many may have on our playa. Later, Spanish expeditions to the Llano Estacado in the 1500's and early Anglo explorers used the playas - many may have passed by here as well.

The founding of Midland (1881) and the advent of the railroad brought farmers and ranchers to the area. The playa and adjacent lands were auctioned off and by the early 1900's, this

garden was a cattle stop for the railroad. Look around you for the pillars which marked the corner of the stop. The playa was grazed from the early 1900's to the 1960's when the land was deeded to the city of Midland to be used for a park. The 1960's to 2006 saw continued urbanization around the playa including the damming of the playa to build Interstate 20, the development of industrial pads and buildings around the playa, and oil drilling.

In 2006, a group of interested citizens came together to fund a Master Plan for what would eventually become the I-20 Wildlife Preserve & Jenna Welch Nature Study Center. The I-20 Wildlife Preserve opened in January 2013 with its boardwalk, hawk observation deck, bird blinds, and trails. The I-20 Wildlife Preserve continues to be a birding and butterfly site, drawing people from all over the world. Midland Naturalists' records for this site go back over 25 years and the pavilion was named in honor of Joann and Don Merritt - long time Midland Naturalists. Since January 2013, over 40,000 people have visited the I-20 Wildlife Preserve to walk, learn, and simply enjoy. Future plans include the building of the Jenna Welch Nature Study Center and the establishment of the Playa Wetlands Research Institute for research and playa conservation.

Stop D: Julianan Cowden Teaching Boardwalk

As you walk out on the boardwalk, see if you can observe four distinct zones in the vegetation. These zones are determined by the water needs of plants in each zone. Where do you think the plants that require the most water live? As you get out to the end of the boardwalk, look for those zones on the opposite shore and as they extend around the playa. Now, look to the north. The brown, dead and dying trees are salt cedar - a highly invasive, introduced species that has become the scourge of southwestern waterways. Scientists have long looked for a natural predator to control the salt cedar and may have found one in the salt cedar leaf beetle. Some of the research for this project was undertaken in Big Spring. The beetle was introduced to the I-20 Wildlife Preserve in early summer 2013 and has been very effective. Look for the beetle up close and personal on the salt cedars next to the trail as you continue to the next stop.

Stop E: Drainage Ditch

You are now at the north end of the playa. In the early 1960's, this ditch was built to control flood waters that empty into the playa during heavy rain events. The floodwaters alter the wet/dry cycle of the playa. Additionally, they carry in trash, road residue runoff, and invasive plant and animal species. The old metal bridge was used by the Midland Naturalists until the board walk was constructed. As you walk along the boardwalk, look down in the mud for tracks of various playa inhabitants. If you are lucky, you might be able to see who eats whom! Look carefully, too, for signs that this boardwalk can be under water. Look for the cables on both sides that anchor the boardwalk in a flood. Fast moving floodwaters also deposit the large debris flows of sticks and branches.

Stop F: Paul Davis Hawk Observation Deck

The 2-story tall observation deck gives you an unprecedented view even if there are no hawks in sight. The I-20 Wildlife Preserve is home to over 200 species of birds. Playas are an important stop for migrating waterfowl. They provide food and shelter at a critical time in

migration so that migrating birds can arrive at their destination in a healthy condition for breeding. In addition to birds, invertebrates, fish, amphibians, reptiles, and mammals all call the playa home. Because of the ephemeral nature of the playa, many of these species have special adaptations to the wet-dry cycles.

Look for the different vegetation zones in the playa basin. From up here, see how close to downtown Midland you are - and look at how close civilization has crept up to the I-20 Wildlife Preserve borders. The treed straight line at the south end of the playa is the dam that was built to keep Interstate 20 dry. From here, you can return to the Merritt Pavilion the way you came or you can continue around the playa. On the east side of the I-20 Wildlife Preserve, you will pass along the upland mesquite forest and walk along the dam before returning along the boardwalk and your last view of the I-20 playa.



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JENNA WELCH NATURE STUDY CENTER

Mission: To ensure conservation, restoration, education, research and outdoor enjoyment of Midland's urban playa for present and future generations.

Purpose: Our purpose is to make accessible to the public 99 acres for conservation of the wetland, eco-tourism and recreation, and educational opportunities for the citizens and visitors of Midland.

Location:

- From east of Midland: Traveling west on I-20, take exit 134 (Midkiff) and merge onto the north service road. Go over Midkiff and stay on the service road for 1 mile. Take a right onto S Midland Drive. The preserve is located on the second road to the right - across from Midland RV Park.
- From west of Midland: Traveling east on I-20, take exit 131 (Loop 250). At the light, take a left, go over I-20, and take a right at the second light onto the north service road. Go approximately 1.5 miles and take a left onto S Midland Drive. The preserve is located on the second road to the right - across from Midland RV Park.

Hours: The Preserve is open Tuesday through Sunday from 8:00 am to 8:00 pm (after fall daylight savings, it closes at 7 pm). We are closed on Mondays.

Cost: The I-20 Wildlife Preserve is free! We do accept donations on our website and at the Preserve.

Contact Us:

Mailing Address - PO Box 2906, Midland, TX 79702

Physical Address - 2201 S Midland Dr, Midland, TX 79703

www.i20wildlifepreserve.org

Facebook - I20 Wildlife Preserve

midlandwetlands@i20wildlifepreserve.org

References

General Playa Information

Ogallala Commons. <http://ogallalacommons.org/>

Ogallala Commons is involved in so much more than playas, but check out their playa programs.

EPA interactive plant map of Texas.

<http://www.plantmaps.com/interactive-texas-ecoregions-l4-map.php>

Shows the ecoregion of Midland county.

Playa Lakes Joint Venture. <http://www.pljv.org/>

Everything you would like to know about playas! Well almost everything. Video clips are on this site under representative categories.

Sibley Nature Center. Master Naturalist Report on Playas.

<http://www.sibleynaturecenter.org/habitats/playas/masternaturalistreport.pdf>

Texas Parks and Wildlife Partners in Flight.

http://www.tpwd.state.tx.us/huntwild/wild/birding/pif/assist/pif_regions/

Shows ecoregions of Texas in Black and white and includes county lines.

Texas Parks and Wildlife Department. Panhandle playa lakes.

http://www.tpwd.state.tx.us/landwater/land/habitats/high_plains/wetlands/playa.phtml

University of Texas. Ecoregions of Texas Color map

http://www.sbs.utexas.edu/bio3731/docs/Texas%20ecoregions/ecoregions_tx_color_map.pdf

Salt Cedar Infestation

<http://age-web.nmsu.edu/saltcedar/Introduction&Spread.htm>

http://www.usbr.gov/pmts/eco_research/011.html

Salt cedar infestation along the Canadian River.

Salt Cedar Beetles

<http://twri.tamu.edu/publications/conservation-matters/2012/august/saltcedar-beetles/>

Best summary.

<http://southwestfarmpress.com/management/saltcedar-leaf-beetles-arrive-el-paso-valley>

Documents beetles' arrival in El Paso.

<http://www.newschannel10.com/story/23491353/salt-cedar-beetles-exceeding-expectations>

Beetles arrive in Lake Meredith and the Canadian River basins.

<http://eppws.nmsu.edu/background-on-the-saltce.html>

Comprehensive information on how beetles are released and what was learned from initial sites.

http://www.currentargus.com/ci_23828232/salt-cedar-bugs-found-eddy-county

Salt cedar beetle arrives in Eddy County, NM.