**7 Habitats of Seabourne Creek Nature Park**

Tour Talking Points

General Tour Guidelines:

**Philosophy:** Through the presence of TMN volunteers at SCNP once a month, we believe that we can expand the educational options for our park visitors and enhance the overall experience of those coming to Seabourne Creek Nature Park. We understand that the park is used by people for various purposes beyond seeing nature, but we would like to encourage all to be aware of the natural resources of this park. We also believe that a CPCTMN presence at the park will improve the awareness of the community at large about our organization, its opportunities, and our aims.

**Tours:** While this information is meant to give some options for things to share with our visitors, we believe that it is most effective to talk to the public about things we are excited and passionate about. This is different for every interpreter, and we encourage our tour guides to conduct tours that meet both their needs as well as the interests of the visitors.

We envision tours lasting no more than 1 hour, and this would include visits to several of the habitats present at the park. It is also fine to create tours that spend less time, and visit fewer of the habitats. Please feel free to craft tours that work best for you and your expertise, and remember that even a great tour may need to be tailored to fit different audiences.

Walk in tours, like our weekend walks, will most likely NOT be geared towards nature experts, so a few things to consider:

1. **Introduce yourself, and try to get to know your visitors –**
* A little bit of information about who you are and why you are there goes a long way to making you and your tour more comfortable.
* Asking visitors their names and other non-intrusive facts can break the ice further, and help your know about what kind of a tour your visitors might like.
1. **Make it interactive –**

\*Asking questions is a great way to keep your audience involved.

 \*Help your guests see connections between this experience and others they have had – connections are a great teaching tool! \*Help people use more of their senses – smell, sound, (plus touch and taste where appropriate) are often forgotten, but can draw people in.

\*Use the space you have – get down to look at things on the ground, encourage looking up, gather people in, and at times let them spread out…. It all helps make it exciting and interactive.

1. **Keep it light** –

**\***Fun facts, and anecdotes are great ways to keep the mood fun

 \*Do remember that humor is personal and may not always transfer across ages, cultural boundaries etc.

1. **Find the right level** –

**\***Don’t talk down to visitors, but don’t inundate them with science (unless you know they want it).

**\***A good strategy is to impart science-dense ideas in several different ways so you give people good information, but make it accessible at the same time.

**\***Repetition of new/difficult concepts helps understanding. \*There is no one tour that will work for all groups at all times. Be ready to change your walk as the day/group dictates.

\* You can always let people know that you are happy to take some visitors further, and let others leave at any point.

1. **Be Flexible-**

\*There is no one tour that will work for all groups at all times. Be ready to change

 your walk as the day/group dictates.

\*Mixed groups (younger and older, and very different levels of knowledge) are the hardest to give tours to. Look for ways to entertain the younger visitors (ex. Give them a project “look for 5 different colors you see in this garden”, “See how many different insects you can find in the next 5 minutes” etc.) while you give the adults more detailed information.

\* You can always let people know that you are happy to take some visitors further, and let others leave at any point.

1. **Have Fun-**

\*When all else fails- show that you love what you are talking about.

Enthusiasm is infectious!

**Park Introduction**

\*Seabourne Creek Park is a 368 acre municipal park acquired by the City of Rosenberg in 1993. In 1994 Texas Parks and Wildlife Department protected 164 acres of this property with an Outdoor Recreation Grant.

\*Until 2009, little happened in the park, but In October, 2009 the Coastal Prairie Chapter , Texas Master Naturalists entered into an Agreement with the City to assist the City in the development and management of the 164 acres.

\* Since this time work has been underway to develop diverse habitat areas within the park to support natural biodiversity, as well as to increase the educational opportunities for visitors at the park.

**Butterfly Garden** (Habitat 1)

This is the likely starting point of most tours, and some tours may visit this area only. Pick how much time you would like to be in this area, and then select your talking points. The talking points provided are likely to take 10-20 minutes.

* As you enter you will see the **bronze fennel** plant (*Foeniculum vulgare*). This plant is a host plant for black swallowtail butterflies. (See laminated picture or QR code)
* This may be a good point to discuss the concept of host and nectar plants for all species of butterflies. Each species of butterfly will have unique host and nectar plants, and both are necessary for a successful butterfly habitat. **Host plant:** a plant where butterfly lays eggs, and caterpillars hatch there and eat this plant as they develop. **Nectar plant:** plant that is used by the adult butterfly for their nectar (food).
* **Rattle Snake Master** plant (*Eryngium yuccifolium*) – this is a native plant with a memorable name, and a good nectar plant for butterflies and bees. The plant looks like yucca. You can touch it gently and though it looks pointy, but points are not firm. The name came from 1700’s lore that said if you put the juice on your hands you could handle rattle snakes safely (scientific evidence does not support this, so don’t try). The boiled root can be used to induce vomit (we don’t suggest trying this either ( ; ) ( See QR code)
* **Frostweed** plant (*Verbesina virginica*) – This is a native and a great nectar plant for native butterflies. It blooms in late summer through the first frosts, providing a food source for butterflies when the early booming plants are unavailable. It was considered useful to the Native Americans as a laxative, and general medicine for gastrointestinal ailments. It gets its name from the unique (and beautiful) display of ice ribbons it forms when the first frosts hit. The stem splits open and the ice exudes out forming the beautiful sculptures—but you have to look fast- these fascinating forms melt quickly. (See QR code)
* **Passion Vine** plant ( *Passiflora sp.)* – This is the host plant for the Gulf fritillary larva, and a nectar plant for the adult butterfly. Both the plant and butterfly are natives to Texas. The Gulf fritillary has a spiny caterpillar, and though the spines are soft and non-stinging, the caterpillar is poisonous to all but a few specialized predators such as paper wasps. The chrysalis of the Gulf fritillary has an identifiable ‘bent’ look to it (see laminated photo or QR code).
* **Swamp Hibiscus or Rose Mallow** *(Hibiscus sp.)* **-** This plant is a native, at attractive to bees, butterflies and hummingbirds.
* ***Duranta sp.*** – this plant, used as ornamentals in gardens for its attractive purple flowers and yellow berries, is a favorite with butterflies. It is native to Mexico and well adapted to this region of Texas.
* **Mexican or Tropical milkweed** *(Asclepias curassavica)* – This Texas adapted milkweed is the host plant for the monarch butterfly. All milkweeds serve as host plants, and while there are true native Texas milkweeds, these are often a challenge to grow in gardens. Thus, the resilient Mexican milkweed is often the host of choice. Milkweeds have toxic sap, and care should be taken as it can cause temporary to permanent eye injury. (See laminated photo or QR code)

**Talking points on monarch butterflies**

* **Monarch butterflies use milkweeds as their host plant**, and the caterpillars consume the poisonous leaves, thus making the caterpillars themselves toxic. Birds avoid them, and their showy colors help advertise their indelibleness to birds. Some specialized insects such as paper wasps do eat the caterpillars.
* **Monarchs are migratory butterflies**, and are the only butterfly to make the two way migration like birds do. Some fly as much as 3000 miles on their journey. Still, it takes multiple generations for monarchs to reach their furthest northern summering zones. Often it takes as many as 3 or4 generations of butterflies to reach the northern US and Canada, and by the 7 generation, it is time to migrate back to Mexico. Monarchs move north through Texas in March and early April, and travel back south in October through early November. (See laminated picture or QR code)
* **Differentiation between male and female monarchs**: when the wings are spread open you can see that the males have pheromone pouches on their wings that look like a larger spot on one of the black wing ‘veins’. (See laminated picture or QR code).
* **Butterflies taste with their feet, and smell with their antennae** which can catch a scent a mile away.
* **Monarch populations are in massive decline**. The three lowest population counts ever have been recorded in recent years (see QR code). There are various contributing factors, including climatic events in the overwintering locations in Mexico, but two other major problems include the loss of habitats and food sources in North America due to development, and the proliferation of the parasitic disease of monarchs known as OE. OE lives in the caterpillar, and as they defecate, ends up on the milkweed plant, and thus gets eaten by the caterpillars again perpetuating the cycle. It seems that the later generations of monarchs are more affected, probably since the concentration of the parasite on the plant increases throughout the season. Investigations are underway to help understand this parasite and its effects.
* Many organizations are joining in the efforts to help understand the monarch decline and provide habitats and other solutions to save this iconic butterfly. Monarch watch runs a fall tagging program, and from August through October tagging efforts will begin. Watch for information about tagging clinics here at Seabourne Creek Nature Park. More information can be found at monarchwatch.org.
* **Things you can do:**
1. Plant milkweed for host plants – make sure they have not been grown with pesticides
2. Plant plenty of nectar plants
3. Cut back your milkweed plants in November to help reduce the OE concentrations.
4. Help with tagging efforts
5. Spread the word!

**Seabourne Lake** (Habitat 2)

For most tours you will likely spend limited time in this area. There are often snakes to find around the edges, so you may want to investigate more if you have a group that wants to find snakes. The talking points provided will likely take 5 – 10 minutes

\*This 5 acre lake was created in the early stages of the park’s development, though it was barren, understocked, and minimally utilized. With a depth of approx. 9 feet deep, the lake was meant to be the home of fish, water fowl and other animals, but it needed help.

\*Since 2009 projects have been underway to help revitalize this habitat.

 1. Planting lake edge vegetation – helps control erosion, and creates shelter and food for animals

 2. Stocking the lake – now stocked with blue gill, bass, and fathead minnows. Provide recreation opportunities and food for other animals

 3. Viewing platforms and rocks for fishing platforms.

 4. Planting of over 20 native tree species around the lake – provide shade and shelter for people and animals.

* Now on the edges and shallows of the water you can see a variety of vegetation:
* Examples include: Pickleweed, smartweed, pond sedge, spike rush, water primrose, blue flag iris, bull rush (cattails)
* Coots, Rowen’s Ducks (look like big mallards) make their home here
* Red Slider turtles, diamond back water snakes (not poisonous)
* Native shrubs/trees – include Swamp Hibiscus, Montezuma’s cypress, bald cypress, Mexican Oak, Mexican sycamore, Live Oak
* Fishtastic – a yearly Rosenberg event, focuses on fishing here at Seabourne lake.

**Wetlands area** (Habitat 3)

A good starting off point for this area is the viewing platform, and further talking points can be made as you make your way around the lake towards the forest. If you will not be visiting the forest, it might be a good idea to walk to the water’s edge to view additional plants/animals, and make sure to point out the board walk across the wetlands. The talking points here are likely to take 10 minutes.

* This wetland area was constructed in 2013, after less successful previous efforts. The major problem was keeping water in the area, and this problem was finally solved with the use of local clays which now line the base and retain water more effectively
* While water now no longer leaks out of the wetlands, ‘topping up’ is done with the use of reclaimed grey water from Rosenberg. This water helps maintain a maximum depth of approx. 36 inches, with most portions of the wetlands between 0 and 12 inches depth.
* Wetland areas provide important benefits to the environment. They improve water quality by filtering and accumulating pollutants, thereby protecting adjacent rivers, lakes, and streams.
* Wetlands also are the home for many species of plants, and animals.
* This shallow wetland area is a favorite for many types of birds. Year round water birds, as well as many migratory species are visible here.

-Some birds you may see here include, herons, egrets, ibis, cormorants, coots, black bellied whistling ducks.

- Over 185 total species of birds have been identified at Seabourne Creek Nature Park. Many of these have been seen from the viewing platform and boardwalk.

- Bird hikes occur on the first Wednesday of the month from November through May, from 8-10 AM.

* Vegetation has been planted around the wetlands to provide natural shelter and food for birds and other wetland animals. Plants such as spike rush, iris, and hibiscus are visible.
* You won’t see arrowhead, a common plant of wetland areas. This is because it is a favorite of the feral hogs. At first it was planted on the island, the one place we thought was safe, but the hogs swam out to the island and ate it even there.
* Notice the water: Crystal clear water is not a sign of good health of a wetland area. On the other end, too much sediment also restricts the growth of aquatic plants. A healthy wetland area will be somewhere in between. If you have time, dip a jar in and see what you see living in this water!

**Prairie Demo Garden, Prairie Restoration area, Wetland Demo area** (Habitats 4,5,6)

These three areas can be joined together as they are in close proximity, and the prairie demo area is a good place to discuss the restoration of the acres behind it. The talking points here are likely to take 10 – 15 minutes

As you are walking to the Prairie Demo Garden you can begin discussing the prairie restoration project, and then explore the garden pointing out specific species of your choosing. The talking points below give you some additional ideas to interweave into your conversation.

* **Approximately 20 acres of land, originally prairie,** but then used as farm land, was assigned as the prairie restoration area.
* Unfortunately, land left unmanaged will not return to native prairie on its own. Introduced and invasive species have the upper hand, and quickly crowd out native species unless action is taken.
* **So why do we care to work so hard to get back to a ‘Native Prairie’**?
* Native plant habitats are severely limited due to ranching, farming and urban development, and without work, we could lose many native species entirely.
* Native plant habitats support native animals. Without their natural food sources, many animals will not thrive and may also go extinct.
* Native plants are suited for the climate of this region – they do not require extra water, and once thriving, can survive environmental episodes of pests and other natural variations.
* Biodiversity is the foundation of a healthy environment, and without natives, biodiversity is often seriously limited.
* **Prairie area has been managed in various ways:**

-Removal (chemical, some physical mowing and shredding) of unwanted invasives

-Planting: ‘grow out’ efforts by volunteers to germinate native seeds and then plant them in the prairie area.

-Seeding – no-till drilling of seed plants into the soils of the prairie area

-Controlled burning – used to manage invasives, but also to help natural regeneration of the prairie lands. \*\* Last burn happened in February 2015. Photos available.

* Notice the lack of trees within the Prairie Restoration area. This part of Texas was covered by a tall grass prairie and would have had no tress. We have worked to control invasive woody species.
* Orange flags- mark the places where Eastern gamagrass rhizomes have been planted. This is a favorite of cows, and in areas of intensive ranging, cows eat it down completely so it can’t survive. 200 were planted in 2015 and most were dug up and ruined by feral pigs.
* Notice the **pimple mound** to the right of the demo garden. Also known as mima mounds, these accumulations of soil in to small mounds were common in the prairies of this region, until many were flattened to aid in cultivation. The mima mounds provide slightly different soil conditions and thus traditionally supported a different range of plants, adding to the biodiversity of the prairie.
* Additional projects are visible here, many done with the help of **Eagle Scouts**. The potting and bump-up areas, water collection, sheds, and pathways were all projects undertaken with the help of Scouts.
* Within this area we also have set aside a wetlands demo area and a Prairie Demo Garden.
* **Wetland area – currently under construction.** This will showcase some of the species native to local wetland areas, including plants that can be seen in our own wetland areas. Here they can be viewed and identified at close range.
* **Prairie Demo Garden:** This garden provides an opportunity to view and identify native plants and showcase how natives can be used in our own personal, small scale gardens.
* Seasonality is obvious in this garden, with many of the wildflowers blooming in the spring, and different species flowering as the summer and fall. Make sure to check the QR codes to see the progression of blooms as the year continues.
* Keep your eyes out for fauna here too: “If you plant it, they will come”. Native animals love native plants, so make sure to look and listen carefully to find various animals that come to this native oasis.
* The Big 5 prairie grasses: Make sure to take a look at the display of the native ‘big 5’ grasses that would have made up the vast majority of the tall grass prairie of this region. Notice the variation of growth patterns, including size, shape, bunching, seeding, coloration etc. Who thought grasses were boring?

**Forest/ Bird Sanctuary area** (Habitat 7)

This habitat area offers visitors some quiet relaxation and a place to view a different variety of birds. If you are visiting this habitat in addition to the others listed above, be aware of fatigue levels. You’ve likely had a long walk. If you intend to get this far, you may want to borrow some of the binoculars as there are places to practice spotting birds in the bird sanctuary. The talking points here (and the walk) are likely to take 15+ minutes.

* As you walk from the wetlands down the path to the forest you can see some of the bird houses that have been created as Eagle Scout projects.
* At different times of year, various plant species will be abundant along this path. Some are natives, many are not. If you know about the plants you can point out specifics. If you don’t you may want to stop to do an observation activity for a minute to make sure your group is still interacting. You can do a 30 seconds of silence while people observe, and then have visitors list off together everything they noticed. Encourage people then to look up and down more, and use their senses of smell and hearing to notice more.
* As you walk into the forest, help the visitors note the differences between the habitats you have visited today. What is different in the forest area? What animals will prefer this area? What different plants live here and how do they grow?
* At the bird sanctuary, you can discuss the creation of this area as a habitat for forest birds. Food and water are provided here for the birds, and this coupled with the forest cover, makes it a good place for viewing.
* If you have binoculars you can help teach novices a few points about using them (how to focus etc.) People can practice spotting with the laminated bird pictures. Species you may see include cardinals, blue jay, chickadees, waxwings, and the tufted titmouse.
* As you are leaving you can review the different habitats you have visited that day, and help visitors understand the importance of diversity at this park.
* You can also revisit ideas about native plants, and prairies restoration efforts at Seabourne Creek Nature Park.
* Make sure to encourage visitors to check out CPCTMN on the web, and ask for feedback about the tour.
* Please make sure to record the number of people on your tour and any information/feedback you have from the day.