4 Just ahead of you is another native tree that was an important part of historic river-valley woodlands: **screw-bean mesquite** or **tornillo**. How do you think it got its name? We don't have to do much to encourage tornillo at the park. Soil and water conditions here are very favorable for this tree. It grows throughout the park, and in many areas you'll find young seedlings. In 10 years, there will be many new tornillo stands at the park.

5 What is this big "X"? As you walk the park's trails, you'll see several of these strange structures. As the landscape at Rio Bosque changes, we are monitoring different physical and biological aspects of the environment to better understand the changes and help guide park management. The big "X" is a **pitfall trap**, for live trapping small animals. In the middle of the X is a covered, buried bucket. Once a month, we remove the covers from the buckets at 5-6 traps and leave them open overnight. The next morning, we identify what we have caught, take some measurements and release the animals. Each individual trap gets used 2-3 times per year.

6 What's different about this area? The City of El Paso once had a **tree farm** here. A few trees have lived; most have not. The survivors are examples of species that can survive in dry conditions even though not native to our area. They have adaptations allowing them to survive with little water.

7 **Wetlands** were once more common in our river valley. At Rio Bosque, we're bringing these valuable habitats back. This constructed wetland, built in 1997, floods when the park gets enough water. When wet, it teems with life. Its varied habitats support organisms of all sizes with different feeding requirements. In the water, zooplankton and algae are eaten by insect larvae. Wading birds like Black-necked Stilts sift larvae and other food out of the water and mud, while insect-eating birds like flycatchers and swallows capture the adult insects overhead. Ducks float on the surface and feed on small organisms living in the water, and larger birds like herons hunt for frogs and fish.

8 The area before you was largely bare in 1997, after all the clearing and grading associated with building the wetland project at Rio Bosque. Not today. El Pasoans remember well the **summer of 2006**. In that year, a succession of storms hit the region from early August to early October, with extensive flooding. At Rio Bosque, there was no flooding, but the effects were long lasting. The heavy rains triggered germination of 1000's of tornillo seeds in soils throughout the park. Most of the young tornillos on either side of the road here got their start in summer 2006. Exceptional weather events can play a major role in shaping the future of a landscape.

9 To create the desired mix of habitats at the park, we disturb some areas periodically to keep them in an early successional stage but leave other areas, like this grove of mature tornillo, alone. This grove could be called a **climax community** because it will last a long time and, if damaged, is likely to return to a similar plant community.

10 **Water**, of course, is vital for sustaining wetland and riverside habitats. These metal wheels are important for sending water where it's needed. By moving large metal plates up and down, they control how much water goes where.

11 As you walk along this water channel, imagine you're walking along the **historic Rio Grande**. Guess what? You are! The channel is actually an old bend of the river, cut off when the Rio Grande was straightened and put into its current location in the 1930's. Today, many of the plants you see here are early successional species. Eventually, they will be replaced by native trees and shrubs historically found along the river. The process is already under way. Notice the tornillo trees on your left. They've grown since 1997 from seeds that came from the large older tree behind you. Here and throughout the park, the environment is changing. As you visit in the future, you'll be able to see the changes and enjoy the results.

Cover art: Zackery Zdinak

www.riobosque.org

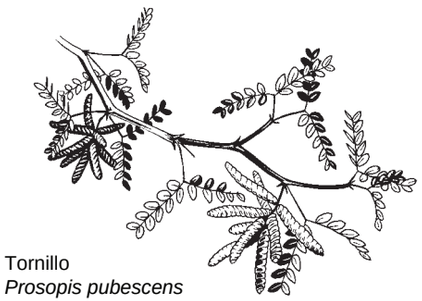
CERM CENTER FOR ENVIRONMENTAL RESOURCE MANAGEMENT
The University of Texas at El Paso

May 2020

Wetland Loop Trail

Rio Bosque Wetlands Park

A City of El Paso Natural Area



Tornillo
Prosopis pubescens

FRIENDS OF THE RIO BOSQUE
el paso WATER
UTEP

The environment in the El Paso-Juárez Valley has changed dramatically since pre-settlement times. The wetlands, riverside forests and other highly productive native habitats that once graced the banks of the Rio Grande are largely gone. At Rio Bosque, the environment is still changing, but in a new way. Here, a diverse partnership is working to bring back meaningful examples of the unique and valuable ecosystems once found in our river valley.

The ***Wetland Trail***, at 1.5 miles, is a mid-length trail that will take you to a wetland overlook and many other habitats. Follow the orange trail signs with the duck logo.

1 Upstream and downstream of this bridge, you'll find cottonwood and willow trees growing along this channel. **Cottonwood-willow bosques**, or woodlands, once lined the banks of the Rio Grande for miles and were wonderful habitats for wildlife. We're working to restore this habitat along the channel. We've planted some of the trees; some have come in on their own. Can you tell which are which?

2 **Wolfberry**, the shrub next to the post, is a common native of the river valley that we are seeking to establish in new areas at the park. In late spring, it can be covered with red-orange berries that are a good food source for many birds and mammals. Speaking of which, have you seen any of the park's many jackrabbits yet? On wolfberry and many other shrubs at the park, you'll find a browse line created by jackrabbits eating the foliage as high as they can reach.

3 One of the common trees in this bosque is **saltcedar**. The large saltcedar here is probably 70+ years old. This non-native plant has replaced native riparian species along the Rio Grande and other rivers of the western United States. It was brought to the U.S. from the Mediterranean because it could prevent erosion by growing quickly in poor, salty soil. We are removing it from many areas of the park to allow native vegetation to become re-established.

Although saltcedar is not a native plant, this large stand does provide a unique habitat within the park. In summer, birds like Yellow-breasted Chat and Painted Bunting nest here. In winter, it is used by 1000's of crows and ravens for roosting at night. We are clearing the saltcedars here only gradually and selectively as native species become established.