Llano Estacado Master Naturalist Curriculum Guide

Unit 19: Wetland Ecology and Management

When the well is dry, we know the worth of water

-- Benjamin Franklin

Unit Goals: After completing this unit, volunteers should be able to:

* explain what a wetland is,
* know the types of wetlands,
* describe the types of wetlands in Texas,
* be familiar with the state and federal regulations affecting and governing wetland conservation in Texas.

**Texas Wetlands: A Vanishing Resource**

1. It is estimated that Texas has lost over \_\_\_\_\_\_\_\_\_\_\_ of its original wetlands.

**What is a Wetland?**

1. Wetlands are often compared to kidneys for their ability to purify polluted water. In addition, they:
	1.
	2.
	3.
2. Wetlands contain \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ for part of the year and have \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Why Are Wetlands Important?**

1. Classify the ecosystem services on pg. 603, under the appropriate category.

Wetland Ecosystems Services

|  |  |  |  |
| --- | --- | --- | --- |
| **Regulating:** regulating of ecosystem processes | **Supporting**: provide living spaces and maintain genetic diversity | **Provisioning:** material benefits people derive  | **Cultural:** non-material benefits people derive |
| flood control | groundwater recharge | timber |  |
|  |  | fishing | outdoor recreation |
| water purification | habitat |  |  |
|  |  | fresh water  |  |

**Texas Wetland Types and Freshwater Springs and Headwaters**

1. Wetlands in Texas are divided into two groups: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_wetlands and the state is divided into wetland regions depending on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .
2. From pg. 606-610, match the region or ecoregion with their wetland types.

\_\_\_\_\_High Plains A. Dominated by bottomland hardwood forest, prairie wetlands over

clayey soils.

\_\_\_\_\_Rolling Plains

 B. Coastal wetlands including freshwater, saltwater and intermediate

\_\_\_\_\_Widespread in marshes, barrier islands, mudflats, estuarine bays and bayous and

TX from Panhandle to rivers

 Pineywoods to

South Texas Brushland C. Freshwater or brackish wetlands including mangrove swamps,

 and depressional wetlands between dunes

\_\_\_\_\_East Texas

1. Characterized by playas and saline lakes

\_\_\_\_\_Gulf Coast

 E. Riparian wetlands, a few playas and some playa-like basins

\_\_\_\_\_South Texas

 F. Riparian wetlands

1. Due to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, freshwater springs in The Edwards Plateau and the Trans-Pecos are ceasing to flow due to overutilization.

**Loss of Wetlands, Common Wetland Management Practices, Fact and Fiction:**

1. Besides supporting conservation and expanding restoration programs, increased \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can help to stem the loss of wetlands.
2. Common wetland management practices include managing vegetation, controlling nuisance fish or wildlife, creating or enhancing habitat, and controlling water levels. Name two specific control measures from pg. 611.
3.

1.

1. What two concerns prevent landowners from restoring or enhancing habitat?
2.
3.

**Additional References for Unit 19**

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

Playa Conservation. <http://pljv.org/playa-conservation/>

Texas Playa Conservation Initiative

<https://texanbynature.org/projects/texas-playa-conservation-initiative/>