

NAME: _____

DATE: _____



Explore & Discover the 5 Habitats of Don Edwards SF Bay National Wildlife Refuge Worksheet



**Use this as you go through the PowerPoint. All answers are found in the PowerPoint or at the links provided.*

Introduction

1. Who manages National Wildlife Refuges?
2. Why were National Wildlife Refuges established?
3. Name one endangered species found at Don Edwards SF Bay National Wildlife Refuge:
4. What are the 4 things that make a habitat successful?

Salt Marsh

Read: Salt marshes are wetlands that surround the San Francisco Bay. They are a transitional habitat between the bay and land. As you can see in this photo, there is a mix of land (or vegetation) as well as channels and pools of water. Tidal marshes have daily high and low tides, meaning the water level changes throughout the day. Non-tidal marshes, such as this one found at the Environmental Education Center in Alviso, is managed by the US Fish and Wildlife Service to have seasonal water levels.

Due to development, we have lost at least 80% of the salt marsh habitat that surrounds the San Francisco Bay. The Refuge helps to protect, manage, and restore this habitat in the South Bay.

Looking at this photo, what do you notice about the plants? Are they big and tall, or small and short? Why do you think this is? If salt marshes are connected to the bay, what type of water is this? It's salt water! Just like the name suggests, Salt Marsh. It is very difficult to grow in salt water, that is why the plants here are small and short. Marshes are very shallow, providing easy access to food that lives in the mud, and space for nesting during the Spring.

Wetlands also have lots of benefits for people too! They provide flood protection during storms and high tides, acting like a sponge soaking up excess water. They also do a great job of filtering runoff, removing pollutants and providing clean water.

Urban runoff pollution travels to the wetlands via storm drains. Have you ever seen a storm drain in your neighborhood? These storm drains lead right into our watersheds, carrying pollution such as trash, oil, soap, and chemicals. Do you know what a watershed is? A watershed is an area of land where all of the water drains to the same place. Watersheds are comprised of streams, creeks, and rivers, that lead to a bay or directly into the ocean. For ways to make sure your local watershed, and the Salt Marsh, stay clean and healthy, visit mywatershedwatch.org



Click on your mouse or spacebar to continue, and discover some of the plants, wildlife and birds that rely on this critical habitat!

1. Why do American Avocets have a long, upturned bill?

2. What type of bird is an American Avocet?
 - a. Raptor
 - b. Waterfowl
 - c. Shorebird
 - d. Songbird

3. How does Pickleweed get rid of salt?

4. Why is Salty, the Salt Marsh Harvest Mouse, listed as endangered?

5. Watch the video about Salty. When do biologists do surveys for Salty? Why?

6. Male and Female Northern Shovelers look different, why?
 - a. Which is pictured here? Male Female

7. What adaptation do Northern Harriers have that make them similar to owls?

8. Does the Northern Harrier's call sound high or low pitched?

9. Name one benefit that wetlands provide to us:

10. Write a pledge, or draw a picture, of how you plan to protect salt marshes and help Salty!