# Newsletter Salt Marshes

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California has very few salt marsh habitats. However, these few areas are important because they filter pollutants and provide a barrier to destructive waves.

## Meet the youth hunting photo contest winners

Image: Additional systems of the system o

hunt weekend in Los Banos.

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## Our Salt Marshes

California has only 3% of the coastal salt marshes in the United States, covering around 145 square miles of the state. Most of these salt marshes are in San Francisco Bay which is the largest stretch of coastal salt marsh on the Pacific coast. Salt marshes can be found along bays, lagoons, and estuaries, where low lands are protected from constant wave action. Salt marsh habitat formed along the coast of California as glaciers from the Ice Age melted, causing the sea level to rise and flooding large areas of low land.

Salt marshes are nature's most effective filters like a funnel. Marsh soils filter pollutants, and soil organisms absorb these pollutants. Because they are between land and water, marshes can decompose or break down toxins before they reach open bays and the ocean. Coastal salt marshes also act as a protective buffer or barrier, blocking the shore from destructive waves, slowing coastline erosion and protecting inland areas from flooding.

Most plants and animals cannot survive in the salt marsh because of the high amount of salt, lack of oxygen in the soil and changes in water temperature that come with the tides. The low, middle and high marshes all support different species based on the unique conditions at each level.

## Species You Might See



Salt marsh harvest mouse



California clapper rail



## Fiddler crab



King (Chinook) salmon

## zonation

High Tide

#### Low Tide

#### Subtidal Channels

are important habitat for fish at low tide. They allow good drainage and flooding in mudflats.

#### Mudflats are rich in invertebrate life for Shorebirds. Algal mat grow here also.

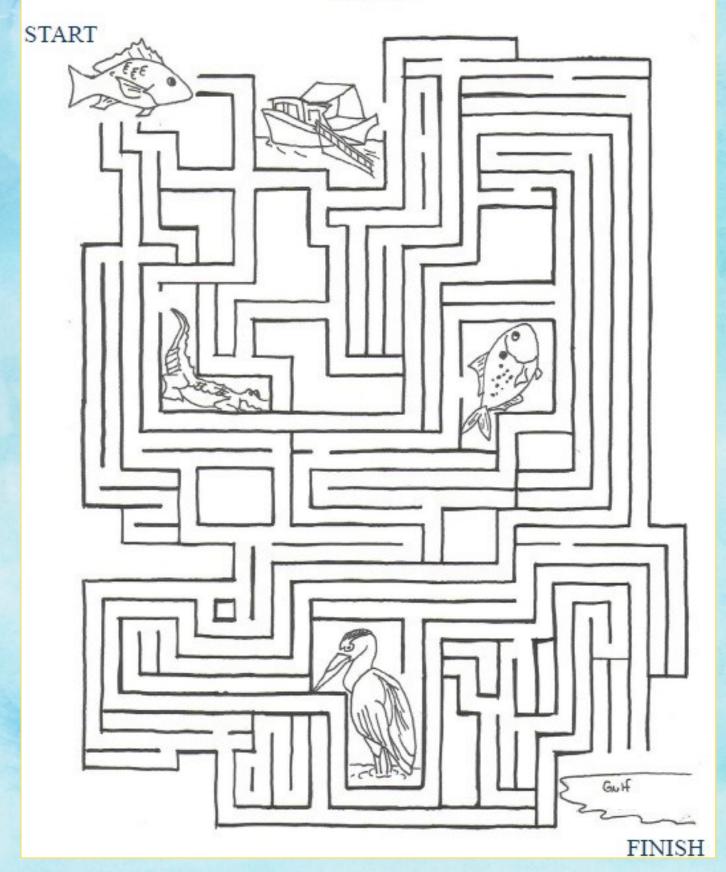
Low Marsh is good habitat for cordgrass, insects, herons and egrets and the clapper rail.

#### High Marsh supports pickleweed and patches of cordgrass. A good habitat for Savannah Sparrow and Clapper Rail.

## Salt Marsh Maze

Salt Marshes are great places for baby animals to grow up. There is protection, shelter, and lots of food to eat. Some animals leave the Salt Marsh and go to live in deeper waters. Help this juvenile snapper find its way past all the predators and out to the Gulf

Good Luck!



# THE FILTER EFFECT

### INTRODUCTION

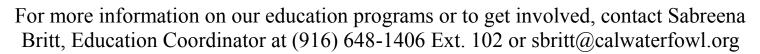
This activity illustrates the filtration power of wetland plants. Using a celery stalk in colored water will simulate how wetland plants absorb pollution and act as natural water filters. The activity takes two days, as the celery stalks will need to sit overnight to create the results.

## MATERIALS

- Glass Jar
- Red Food Coloring
- 2 Celery Stalks
- Tap Water

### PROCEDURE

- 1. Fill the jar 1/2 to 2/3 full with water and add several drops of red food coloring to the water.
- 2. Cut off the bottom half inch of the celery to prepare them, and place the celery in the water overnight.
- 3. Make a hypothesis about what will happen to the celery. How will the celery change or look like?
- 4. The next day, observe how the colored water has traveled by breaking open the stalks to see the celery's tissue.



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