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| **What is a salt marsh?**  The salt marsh is defined in Webster�s dictionary as a flat land that is subject to overflow by salt water. A salt marsh is a flat coastal area that is somewhat over come by the incoming tides. However the salt marsh acts more of a buffer for the tides than as a flood plain itself. It has been argued that the functional role of the wetland environment is to act as a sort of filter improving water quality. But the extent of their role goes beyond that, salt marshes help to control floods and help to maintain lower shoreline erosion levels. They generally develop where salty waters of the ocean meet the fresh water of the rivers. The salt concentration in the marshes depends on the water that it is connected to. Marshes connected to the ocean have high salt concentrations while the marshes near the fresh water rivers have very low amounts of salt. (www.aura) The coastal salt marshes are located where the salty waters of the ocean or bay meet the fresh waters of estuaries and rivers. The salt marshes of the San Francisco bay generally have a lower salinity level than the salt marshes along the southern coast. This is because of the large amounts of fresh water runoff (www.tram). The salt marshes appear to have very little life and diversity, but with a closer look you can see the vast life that live in the marshes. Salt marshes are one of the most productive habitats per square acre. A large variety of plants and animals can be found within a salt marsh environment, the majority of these organisms are fully dependent upon the salt marsh for survival.  As the amount salt marsh habitat shrinks these animals are constricted to smaller and smaller habitats, which endangers the survival of the plants and animals within the salt marshes. The plants are forced to grow in tiny areas, which enforces Darwin�s Law: survival of the fittest. Many of the plants native to the marshes die off because of the competition they are faced with. Scientists are renovating returned and reclaimed salt  marshes into the original salt marsh habitat, but it takes several years for the water to become suitable so the native plants and animals can re-establish themselves.  **What happened to them?**  Ninety-five percent of the California coastal wetlands have disappeared since the 1850s. "Historically the bay was ringed by roughly 190,000 acres of tidal marsh, 50,000 of tidal flats, 85,000 acres of seasonal wetlands and associated uplands, and over 69,000 acres of riparian habitat (San Francisco Bay Joint Venture). Today all that remains are 40,000 acres of tidal marsh and a mere 2,500 acres of riparian habitat."(San Francisco Bay Joint Venture) This low amount of habitat has stressed the inhabiting wildlife, and has put many of them on the endangered species list. Some of this destruction is caused by nature�s evolution but humans have caused the majority of it. Most of the historic tidal marshes within the South San Francisco Bay area have been altered to salt ponds because of the destruction and changes made to the marshes. Over the course of the years we dredged the tidal marshes, diked them for agricultural purposes, and created flow diversions within them for municipal needs (San Francisco bay Joint Venture). In the past many of the large salt producing companies, such as Leslie Salt, would donate their salt ponds back to the local wildlife refugees as tax write-offs. Today there is increased pressure on the salt companies to return the land. The Don Edwards San Francisco Bay National Wildlife refugee owns approximately 20,000 acres of the original wetland area along the South Bay, but approximately 30,000 acres is still under use as salt production ponds. Despite all of the destruction that has occurred the San Francisco bay has the largest and most complex wetland structure in California, something that we do not want to lose.  <--- Back [Next --->](http://docs.google.com/introduction2.html)  [[Home](http://docs.google.com/home.html)][[Introduction](http://docs.google.com/introduction.html)][[Hypothesis](http://docs.google.com/hypothesis.html)][[Procedure](http://docs.google.com/Procedure.html)][[Data](http://docs.google.com/data.html)][[Conclusions](http://docs.google.com/conclusions.html)][[Bilio/Links](http://docs.google.com/biblio.html)]  [[2001 Projects](http://docs.google.com/index.html)][[2000 Projects](http://docs.google.com/AP2000/index.html)][[1999 Projects](http://docs.google.com/AP99/index.html)][[1998 Projects](http://docs.google.com/AP98/index.html)] |