



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

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| Name(s) Richard W. Pinckert | Project Number 22612 |
| Project Title How Will the Levels of Salinity Delineate the Ballona Wetlands and Affect the Halophyte Salicornia virginica? | |
| Abstract Objectives/Goals My problem is "How will the levels of salinity delineate the Ballona Wetlands and affect the halophyte Salicornia virginica?" My purpose for choosing this project is because I have a conjecture that people interfered with the natural wetlands system at Balona Creek and I believe people who live on the earth should maintain the environment, not just for their own interests but for the benefit of all living creatures. Methods/Materials To test salinity levels in the Ballona water samples, I poured the samples into a 500 ml. beaker. I took three samples at each test site. I tested the temperature and the specific gravity using a hydrometer in the three trials. These calculations were used to determine the salinity level from a salinity conversion chart. The analysis of the results were charted and compared. The data is used to confirm or invalidate the hypothesis. Inferences were made to determine if the pickleweed plant was receiving enough salt to sustain it. Results The salinity level in the Ballona wetlands was approximately 38% lower than an effective delineated working tidal wetland so this means the Pickelweed plant isn't receiving the salt necessary to sustain their natural place in the ecosystem. Conclusions/Discussion From observing the results, it is concluded that when the Army Corp of Engineers installed the floodgates they didn't realize that besides saving homes from flood, they kept the seawater from coming into the Ballona Wetlands and kept the area from maintaining an environment that can be delineated as a true tidal marsh. Their idea was to eliminate the continual flooding in the area so it could be used to build industrial and residential buildings. This caused the Ballona Wetlands to be so demolished that it became an unnatural environment for many plants and animals. The floodgates interfere with the free flow of salt water into the estuary and the sewer run-off has polluted the environment ruining its natural marsh delineation. The Ballona wetlands have been drastically influenced by man-made interferences. Without these obstructions the Ballona wetlands could be a healthy place for Pickelweed and other saltwater plants, but at this time, Ballona isn't a natural and safe environment for these plants. | |
| Summary Statement My project is about the Ballona Wetlands salinity levels, how it affects its delineation as a tidal marsh, and how it affects the Pickelweed in the area. | |
| Help Received Abby Fox let me into the area of testing at the Ballona wetlands. | |