## California Science Center



## CALIFORNIA STATE SCIENCE FAIR 2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.)

John J. Del Piero

**Science Fair Use Only** 

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**J0705** 

Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)
SLIP SLIDING AWAY Loss of Elkhorn Slough Eel Grass

SLIP SLIDING AWAY Loss of Elkhorn Slough Eel Grass Beds Due to Induced Coastal Erosion

**Division J Junior** (6-8) **J Senior** (9-12)

**Preferred Category** (See page 5 for descriptions.)

7 - Environmental Biology

**Abstract** (Include Objective, Methods, Results, Conclusion. See samples on page 14.)

Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.

The project was conducted to determine if eel grass beds in the Elkhorn Slough are affected by the man-made development near and around the mouth of the Slough. Local scientists have documented significant increasing erosion in the slough. The most destructive factor on the slough is the opening of the mouth of the Moss Landing Harbor. When this occurred, very few people realized that the habitat would be destroyed. Additionally, because the mouth of the harbor was opened, the daily tides are causing the slough to get deeper and the banks are eroding away. The native eel grass beds are rooted to the bottom of the slough so that when the dirt and mud erodes, the eel grass goes with it. The eel grass beds were mapped using a GPS unit. I mapped the eel grass beds for my project, then compared the result to previous studies done by the Moss Landing Marine Lab. After comparing the size of the beds with their size in Nov. 1999, Feb. 2000, and Aug. 2000, my study demonstrates that the eel grass is eroding faster than it is growing. This information supports my theory that eel grass beds are being adversely effected by the man-made development of the mouth of the Slough. This further demonstrates that something needs to be done to protect the environment in Elkhorn Slough from erosion before all of its' native plants and habitat are destroyed.

**Summary Statement** (In one sentence, state what your project is about.)

"Slip Sliding Away" is a detailed analysis of the decline and loss of eel grass beds in the Moss Landing, California harbor due to man-made coastal erosion and tidal scouring.

**Help Received in Doing Project** (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4. Linda Kuhnz is a Marine Biologist who supervised my work and my safety in the waters of the Elkhorn Slough. Peter Slattery helped me with my research in the Slough. The Moss Landing Marine Lab allowed me to use their equipment and facilities for my research. My science teacher, Mrs. Gonzales supervised my written work and my parents drove me.