

CALIFORNIA STATE SCIENCE FAIR

2001 PROJECT SUMMARY



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

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Science Fair Use Only

S1819

Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)

Competition of Bay Mussels (*Mytilus galloprovincialis*) & Japanese oysters (*Crassostrea gigas*) for Nutrients & Habitat

Division

Junior (6-8) Senior (9-12)

Preferred Category (See page 5 for descriptions.)

18 - Zoology

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.

How will the recent invasion of *Crassostrea gigas* (Japanese oyster) into Salinas de San Pedro affect long-time resident *Mytilus galloprovincialis* (bay mussel)? Both species are common filter-feeding mollusks found in the Los Angeles Harbor and on the rocks lining the entrance to Salinas de San Pedro, a man-made salt marsh near Cabrillo Beach. These oysters were most likely imported as larvae in ballast water released by ships in port. This experiment investigated the feeding requirements of both species, using brine shrimp as food in eleven six-hour periods. The mass, length, width, and depth of each mollusk were measured at the beginning and end of the experiment. I also surveyed the salt marsh for each species and used water-testing data to determine the habitat's desirability for both species. It was concluded that *C. gigas* will most likely cause substantial changes in the salt marsh as it continues to flourish.

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

This project analyzed the effect on the bay mussel (*Mytilus galloprovincialis*) and the salt marsh ecosystem of the Japanese oyster's (*Crassostrea gigas*) recent invasion in Salinas de San Pedro.

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.

Mentor Linda Chilton at Cabrillo Marine Aquarium advised; Mother helped arrange display and edit report; Used equipment at Cabrillo Marine Aquarium; Participant in Southern California Academy of Science