

**CALIFORNIA STATE SCIENCE FAIR****2001 PROJECT SUMMARY****Your Name** (List all student names if multiple authors.)**Matthew S Palmer****Science Fair Use Only****J1817****Project Title** (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)**How Will Global Warming Affect Corals?****Division**X 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.

Corals house over 25% of all ocean species, including 1,000,000 species of fish, while only taking up 0.2% of the world's oceans. Corals provide food, shelter and protection to fish and other marine animals. Humans have killed coral by polluting the seas with silt and sewage, fishing with cyanide and dynamite. Yet there is one potential man-made threat more dangerous to corals than all of these combined: global warming. My project simulated the effects of global warming on coral by increasing the water temperature for corals in small aquariums, to test my hypothesis that the corals bleach. I increased the water temperature of the aquariums to 32°C; 5-9 times higher than the predictions for global warming of 1-2°C. I found that the corals, instead of bleaching as I posed in my hypothesis, not only survived, but also thrived.

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

My project simulated the effects of global warming on coral by increasing the water temperature for corals in small aquariums

**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.

Father set up electrical system for aquarium pumps, lights, filters.