

California State University, Fresno
Department of Biology and CSU COAST present*

**California Ocean Acidification Science Thrust:
A COAST to COAST study of porcelain crab responses to ocean
acidification and warming**

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Intertidal zone organisms along the California coastline are routinely exposed to variability in habitat temperature and pH. These important environmental drivers vary due to upwelling, low-tide aerial exposure, and daily cycles of photosynthesis and respiration. The variability along our coastline is among the most dramatic in the world, and studies of organisms along our coast have been important in assessing how shoreline organisms will respond to future climate change and ocean acidification. My graduate students and I have been investigating how an intertidal zone porcelain crab, *Petrolisthes cinctipes*, responds to changes in pH and temperature. In this seminar I will present studies of how early life history stage and adult crabs respond to reduced pH, increased temperature, and the combination of the two. Our results suggest that future climate change may be energetically unsustainable for these crabs, but that inter individual variability in responses presents hope for adaptation of future populations of crabs. I thank CSU-COAST: This project was initiated with CSU-COAST release time to write a NSF grant (that was funded) and the many MS students who have worked on the project have been supported by CSU-COAST, whose research I will highlight in this talk.

For further information: www.csufresno.edu/biology or phone 278-2001

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