

Pteropods under multiple stressor effects in the California Current ecosystem

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The California Current System is a seascape with co-occurring multiple stressors across various spatial and temporal scales, yet with poorly characterized in situ biological effects. My research focuses on disentangling the complex nature of multiple stressors and to provide a scientific foundation for improved predictions of climate change effects on marine calcifiers. To do this, I combine observation data, experiments, and modelling outputs using pteropods as a model organism. Pteropods are pelagic calcifiers with thin aragonitic shells that undergo a rapid process of dissolution upon the exposure to ocean acidification, making them an invaluable indicator for ocean acidification in the California Current System. In addition, the co-occurrence of ocean acidification and thermal stress related to the El-Niño events, can result in the absence of the entire pelagic gastropod community. Our experimental and field results were incorporated into habitat suitability models that can support policy-management conversations

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