

## **Extending and expanding paleo-proxy records at annual resolution from anoxic Soledad Basin, Baja California**

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**Abstract** - Soledad Basin at 25N; 116W lies in a region where SSTs are strongly influenced by the tropical Pacific. However, unlike the tropical Pacific, SSTs in the Soledad Basin area have also gradually risen over the past century. Large-scale effects of this warming on the California Current ecosystem have been documented but the underlying mechanisms are only partially understood. The goal of this project is to provide a longer-term perspective with paleo-reconstructions of ocean-atmosphere variability in the region, starting with the evaluation of a suite of proxies against the record of local variations in SSTs reconstructed since the mid-19<sup>th</sup> century (A. Kaplan). This will entail improving the age model of an existing box core with additional <sup>210</sup>Pb (John Crusius) and AMS<sup>14</sup>C (NOSAMS) analyses. SSTs and the intensity of sulfate reduction in surficial sediment at the bottom of the basin will be reconstructed at close-to-annual resolution using U<sup>37</sup> (Max Zhao) and Mo, respectively. Planktonic forams will be picked for stable isotope and Mg/Ca analyses.