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**North American Droughts of the Medieval Climate Anomaly and the Little Ice age –  
response of the Pacific Northwest**

**Abstract:** The aim of this proposal is to assess the response of Northeast Pacific coastal terrestrial and marine environments (specifically upwelling and hypoxia) to the natural climate variability of the last ~10,000 yrs. Coastal redwood (*Sequoia sempervirens*) is and has been closely associated with fog drip related to offshore upwelling in space and time (Burgess and Dawson, 2004; Pisias, et al., 2001). High-resolution pollen analyses of core W1103-4KC and another core off Oregon, in conjunction with stable isotope, benthic faunas, diatoms, and trace metals analyses (A. Mix, pers. comm.), will provide an integrated Holocene data set of coastal environments, upwelling, and dysoxia offshore. These data will provide the basis for submitting a joint proposal by Heusser and Alan Mix (Oregon State University).  
Heusser, Lamont-Doherty Earth Observatory ).