

## **ENSO in the last 2,000 years from individual foraminifera in Galapagos multicores**

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**ABSTRACT.** This proposal requests funds for 530 stable isotope analyses ( $\delta^{18}\text{O}$  and  $\delta^{13}\text{C}$ ) on individual foraminifera from two shallow multicores collected in the Galapagos Islands in 2009 aboard RV Knorr. Excellent recovery and C-14 dating confirm that these multicores contain undisturbed sequences of the last 2-3 millennia with sedimentation rates of 10-14 cm/ky. Abundant carbonate, and high preservation quality are among the advantages of these sites, making them good candidates for single-specimen isotopic analyses to estimate variability in surface hydrography related to the El Niño Southern Oscillation (ENSO) following methods developed earlier. This project will generate pilot results to investigate the feasibility of a continuous ENSO record over the past 2,000 years, to be pursued with later funding from NSF.