Print

Understanding Future Sea Level Rise: Woods Hole Oceanographic Institution

September 21-25, 2009

Organizers: Bill Thompson, Mark Siddall, and Claire Waelbroeck

Understanding the potential magnitudes and rates of future sea level change is an urgent societal and scientific problem, and the sensitivity of ongoing sea-level rise to increases in temperature is a key question for sea-level prediction. Former highstands of sea level associated with the warm temperatures of interglacial periods during the Quaternary could provide pairs of global temperature and sea level height data, so that the data set covers the range of temperature and sea level increases suggested for the next century. Our goal is to place empirical constraints on sea level rise over the next century using sea level data from past interglacials. The most direct method for reconstructing sea level history is U/Th dating of fossil corals that once grew near the sea surface, which has the potential to provide a detailed and well-dated record of sea level change for the last 700,000 years. Despite decades of effort, this crucial goal remains elusive because many U/Th ages are unreliable due to mobility of the relevant isotopes, a problem that gets worse with increasing coral age. New developments in coral dating are making substantial progress in overcoming these obstacles, but many challenges remain. This meeting is part of an international series by the PAGES (Past global changes) working group PALSEA (Paleo constraints on sea level change), and will focus on the challenges of dating coral records of past interglacial sea levels. IMAGES (The International Marine Past Global Change Study), PAGES, and the WHOI Ocean and Climate Change Institute are providing support for this meeting.

Last updated: June 24, 2009

Related Files

» PALSEA Workshop Report (pdf)
by Bill Thompson, WHOI

Related Links

» EarthChem Workshop
June 21 - 22, 2010
A workshop in Nottingham, UK to begin the work of bringing U/Th coral dating into the EARTHTIME and EARTHCHEM system.

» PAGES
Past Global Changes (PAGES) project is an international effort to coordinate and promote past global change research. The primary objective is to improve our understanding of past changes in the Earth System in order to improve projections of future climate, environment and sustainability.

» IMAGES
The International Marine Past Global Change Study (IMAGES) is an organization investigating the ocean's role in climatic changes during the Late Quaternary, using data from long *marine* sediment cores.

» PALSEA
Paleo-constraints on Sea-level rise - a PAGES/IMAGE Working Group

» WHOI
The Woods Hole Oceanographic Institution (WHOI) is the world's largest private, nonprofit ocean research, engineering and education organization.

Copyright ©2007 Woods Hole Oceanographic Institution, All Rights Reserved.
Mail: Woods Hole Oceanographic Institution, 266 Woods Hole Road, Woods Hole, MA 02543, USA.
E-Contact: info@whoi.edu; press relations: media@whoi.edu, tel. (508) 457-2000
Problems or questions about the site, please contact webdev@whoi.edu