



Australia and New Zealand form the Australia-New Zealand IODP Consortium (ANZIC), and the two countries have access to all IODP activities. This bulletin provides current news, job opportunities, scholarships and events relating to both national and international scientific communities.

**For more information contact:**

**Website: [www.iodp.edu.au](http://www.iodp.edu.au)**

**Website: [www.drill.gns.cri.nz](http://www.drill.gns.cri.nz)**

## *News from the ANZIC Office*

This has been a busy time for ANZIC with both administrative and scientific activities of some importance.

### **Scientific Activities**

- Jody Webster (Sydney University) and Richard Arculus (ANU) are about to go to the Proposal Evaluation Panel (PEP) meeting in Kyoto, where they will help evaluate new IODP proposals, including one led by Stephen Gallagher to better understand the last 5 million years of Northwest Shelf geology and oceanography.
- Alan Baxter of the University of New England is aboard *JOIDES Resolution* on the Costa Rica Seismogenesis Project (Expedition 344) as a nannofossil expert but with much wider interests in collision zones. The aim of the expedition is to understand processes that control nucleation and seismic rupture of large earthquakes at erosional subduction zones.
- Lionel Esteban of CSIRO has just boarded *Chikyu* on the NanTroSEIZE Plate Boundary Deep Riser Expedition 338 on the landward side of the Nankai Trough, working aboard on gas and porewater chemistry, but intending to work on petrophysics after the expedition. The expedition aim is to log while drilling, take cuttings and spot core on to 3600 metres below sea floor (mbsf) in this phase of work. The hole should be drilled to about 5200 mbsf next year to cut the megasplay fault, with the broad aim of understanding processes that control large earthquakes in this very dangerous subduction zone.
- Richard Arculus (ANU) and Joanna Parr (CSIRO) have just returned from an IODP planning workshop in Lisbon covering the Brothers Volcano in the Kermadec Arc: *The roots of an arc hydrothermal system – fluids, metals, and life*. A full report will be in the next Bulletin.
- Work continues on a full report on the SW Pacific IODP Workshop, and a summary is about to go to *EOS*.
- Twelve grants of up to \$25,000 for post-cruise analytical funding have been made and one more is under consideration. The aim of the grants is to encourage more publications by Australian-based groups using any ocean drilling material as a basis. This has been funded from the financial contributions of the Australian ANZIC members, and does not involve ARC funds.

### **Administrative activities**

- Planning is well underway on a bid in the next ARC/LIEF round to cover the next phase of IODP commencing in October 2013. The bid will be led by Richard Arculus of ANU but will involve all our partners in due course.
- The *Allen Consulting Group* has been awarded a contract to work with the ANZIC Office in producing an external review of Australia's performance in IODP and the value of continuing in the next phase of IODP.
- Catherine Beasley is working closely with *Voodoo Creative* to produce a new web site for ANZIC with a more attractive design and better functionality than the present one. It should be up and running in December.

# AT SEA

## DV Chikyu

Expedition 338 NanTroSEIZE Leg 3

Continue to wait on cementing. #2 plug back cementing. Pull out diverter assembly while displace riser with seawater. Prepare to recover riser and BOP. Today the entire science party was onboard Chikyu. Group A scientists welcomed Group B scientists and informal discussions began regarding laboratory procedures and preliminary data for Hole C0002F. After ship and lab safety training, we gathered the science party for a picture on the sunny helideck, and then had introductions by everybody. In the evening, Group B scientists learned about our Expedition objectives through a presentation by co-chief scientist Kyu Kanagawa and also learned about regional tectonics of the Nankai region through a presentation by co-chief scientists and specialty coordinator Greg Moore. Tomorrow the group A scientists will give overview presentations on what we have learned at Hole C0002F and what we can learn from coring during Group B's science activities.

Lionel Estaban of CSIRO is sailing as a member of the Group B Science Party and we wish him every success.

Follow the Chikyu at [http://www.jamstec.go.jp/chikyu/eng/Expedition/NantroSEIZE/exp338\\_dr.html](http://www.jamstec.go.jp/chikyu/eng/Expedition/NantroSEIZE/exp338_dr.html)

## JOIDES Resolution

Expedition 344 Costa Rican Seismogenesis

Leg 2

Where are we now?

Off the western coast of Costa Rica, in the Pacific Ocean, Site U1413. Our coordinates: 8°44' North, 84°7' West. Water depth: 540 meters (~1.22 mile).

Air temperature is 28 ° C (82 °F) and the water temperature still 33 °C (91°F)...doesn't change much!

## Scientists at Work

More cores were brought up today and found to have an abundance of greenish gray silty clays, *turbidites*, dark gray sand layers, and lighter green clays with rare ash layers. At least it is some variation. Fossil examination points to Upper Pleistocene age. They are still finding wood chunks and seashells. This is a large fossilized seashell.



Follow the JR at <http://joidesresolution.org/> or on [Facebook](#)

## Investigator @ CSIRO



CSIRO's Future Research Vessel Project

Work on the RV Investigator is progressing well , read the latest report in CSIRO's ECOS Magazine at <http://www.ecosmagazine.com/?paper=EC12330> and follow the construction on the Investigator's blog at <http://csirofrvblog.com/>



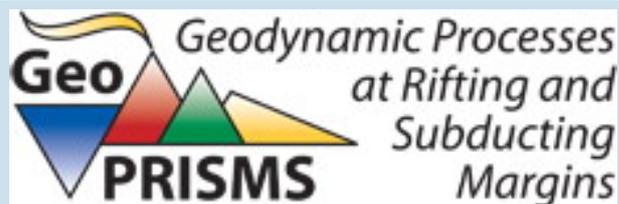
GNS Science and Victoria University of Wellington seek a student to undertake a doctoral study of Paleogene radiolarian micropaleontology, with a focus on Paleocene-Eocene paleobiogeography and faunal change.



The study is part of an international three year project that will begin in March 2013 and is funded by the New Zealand Marsden Fund to investigate plankton response to extreme global warming in the early Eocene, entitled "The Eocene Ocean: the unbearable warmth of being". Chris Hollis is the principal investigator on the project and associate investigators include Giuseppe Cortese, Hugh Morgans, Denise Kulhanek, Shin-ichi Kamikuri, Bridget Wade, Claudia Agnini, Jim Zachos, Jerry Dickens, and Matt Huber. The PhD project will be based in Wellington, New Zealand, and will be co-supervised by Chris Hollis, Giuseppe Cortese (both at GNS Science) and Rob McKay (Victoria University). The research will primarily draw on sediments recovered during recent IODP expeditions as well as legacy DSDP and ODP collections. However, there is also scope for fieldwork in southern New Zealand. Interested students should send their expression of interest, curriculum vitae, and PDF of MSc thesis if available to Chris Hollis ([c.hollis@gns.cri.nz](mailto:c.hollis@gns.cri.nz)) by 1 December 2012.

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## New Funding Opportunities for GeoPRISMS-Related Proposals

This is a reminder to the GeoPRISMS community about additional funding opportunities available at NSF, all of which provide unique opportunities to develop and support large inter-disciplinary science projects to advance the ambitious objectives outlined in the GeoPRISMS Draft Science Plan found at: <http://geoprisms.org/science-plan.html>

Two of these programs are new: **Hazards SEES** and **Integrated Earth Systems**, with their first calls for proposals in 2013. The third program, **Frontiers in Earth System Dynamics** will hold its final call for pre-proposals in 2014. The programs are introduced below. Please see the weblinks and contact the appropriate NSF program officers for more information. And happy proposal writing!

### **Interdisciplinary Research in Hazards and Disasters (Hazards SEES)** [Solicitation 12-610]

The overarching goal of Hazards SEES is to catalyze well-integrated interdisciplinary research efforts in hazards-related science and engineering in order to improve the understanding of natural hazards and technological hazards linked to natural phenomena, mitigate their effects, and to better prepare for, respond to, and recover from disasters. The goal is to effectively prevent hazards from becoming disasters

**Full Proposal Deadline(s): February 04, 2013**

### **Integrated Earth Systems (IES)** [Solicitation 12-613]

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=504833](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504833)

<http://www.nsf.gov/pubs/2012/nsf12610/nsf12610.htm>

Integrated Earth Systems (IES) is a program in the Division of Earth Sciences (EAR) that focuses on the continental, terrestrial and deep Earth subsystems of the whole Earth system. The overall goal of the program is to provide opportunity for collaborative, multidisciplinary research into the operation, dynamics and complexity of Earth systems at a budgetary scale between that of a typical project in the EAR Division's disciplinary programs and larger scale initiatives at the Directorate or Foundation level.

**Full Proposal Deadline(s): November 14, 2013 and annually thereafter**

### **Frontiers in Earth System Dynamics (FESD)** [Solicitation 12-547]

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=503525](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503525)

<http://www.nsf.gov/pubs/2012/nsf12547/nsf12547.htm>

The Earth is often characterized as "dynamic" because its systems are variable over space and time, and they can respond rapidly to multiple perturbations. The goals of the Frontiers in Earth System Dynamics (FESD) program are to: (1) foster an inter-disciplinary and multi-scale understanding of the interplay among and within the various sub-systems of the Earth, (2) catalyze research in areas poised for a major advance, (3) improve data resolution and modeling capabilities to more realistically simulate complex processes and forecast disruptive or threshold events, and (4) improve knowledge of the resilience of the Earth and its subsystems.

**Preliminary Proposal Deadline: July 2, 2012 (final call for pre-proposals in 2014)**

**Full Proposal Deadline: March 4, 2013 (final invitation for proposals in 2015)**