



# Australian and New Zealand IODP Consortium

## Sail with IODP in 2017 as ANZIC's Educator@sea

**APPLICATION DEADLINE: 23 April 2017**

In July, 2017 IODP will embark on Expedition 371: Tasman Frontier Subduction Initiation and Paleocene Climate. The Australian and New Zealand IODP Consortium (ANZIC) is seeking a professional educator, based in Australia, to help share the story of this cutting edge research into our planet's past and potential future, aboard the drill-ship *JOIDES Resolution*, as Education and Outreach officer.

The Education and Outreach officer will:

- Conduct education activities including ship tours and Q&A sessions with groups around the world via Skype.
- Work 12-hour shifts during the 8 weeks of the expedition, engaging actively both with your team and with the science party and other shipboard personnel.
- Utilise [joidesresolution.org](http://joidesresolution.org) and social media to communicate the story of the expedition to your own and a wider audience, with particular attention to Australia and New Zealand.
- Conduct post-expedition activities.

Each education officer brings their own passion and talents to this task and the role is flexible in order to accommodate that. Creative skills in arts, technology or communication and experience in distance teaching are advantageous. The successful applicant must be available for preliminary briefings and the expedition will be at sea from late July to late September, 2017.

ANZIC will bear all costs relating to transfer to and from meetings and the expedition and will make arrangements to cover the participant's salary during the expedition.

**About the role:**

<http://joidesresolution.org/node/453>

**About the expedition:**

[https://iodp.tamu.edu/scienceops/expeditions/tasman\\_frontier\\_subduction\\_climate.html](https://iodp.tamu.edu/scienceops/expeditions/tasman_frontier_subduction_climate.html)

For further information, please contact Catherine Beasley at:

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# Tasman Frontier Subduction Initiation and Paleogene Climate International Ocean Discovery Program Expedition 371

This expedition will be two months long, departing Townsville on 27th July and landing in Hobart on the 26th September, 2017.

The expedition schedule includes links to the original IODP proposal and expedition planning information, including a map showing the proposed sites.

[https://iodp.tamu.edu/scienceops/expeditions/tasman\\_frontier\\_subduction\\_climate.html](https://iodp.tamu.edu/scienceops/expeditions/tasman_frontier_subduction_climate.html)

## EXPEDITION SUMMARY

Summary: The Tasman Frontier expedition will address global and regional tectonics and regional oceanographic and climate change, as part of the history of the submarine super continent of Zealandia. It will investigate the initiation of westward-dipping subduction at the Eocene Tonga-Kermadec trench about 50 million years ago, and evaluate whether a period of high-amplitude and long-wavelength compression initiated the subduction, or whether alternative geodynamic models were involved. Sediment cores and geophysical wireline logs from the new IODP boreholes, to be drilled in the Norfolk Ridge, New Caledonia Trough, Lord Howe Rise and Tasman abyssal plain, will constrain stratigraphic interpretations of existing seismic reflection profiles, and also the timing, length and scale of deformation and uplift associated with this, the largest known global subduction initiation event and change in plate motion. The Paleogene and Neogene sediments will also constrain past oceanographic changes caused by subduction initiation and other changes in tectonics. The sediments will show the influence of tropical and polar climatic teleconnections and the transition from greenhouse to icehouse climate in a region with large meridional variations in surface water properties, in a strategic setting related to the opening of the Southern Ocean Gateway between Australia and Antarctica about 30 million years ago. For more scientific information visit [http://publications.iodp.org/scientific\\_prospectus/371/](http://publications.iodp.org/scientific_prospectus/371/).

## OPERATIONAL INFORMATION

This *JOIDES Resolution* expedition will have a shipboard contingent of about 100 people, including about thirty scientists and thirty technicians, and will take about 5000 m of sediment cores from deep holes in the sediments below the seabed. A New Zealander will be one of the co-chief scientists aboard, and there will be three more New Zealanders and one Australian among the scientists. The cores will be split aboard ship, described in detail by the scientists and their ages ascertained, and run through many high tech measurements using the modern geoscience instruments in the excellent shipboard laboratories. Many of the scientific questions being asked will be resolved in a preliminary way aboard ship, so that a clear overall picture of the expedition's achievements will evolve as the expedition proceeds. The atmosphere will be highly cooperative and very supportive of the two education and outreach officers (one Australian and one American). The outreach to school and university classes around the world is extremely important to IODP, and you will organise numerous talks to groups ashore by videolink, using the scientists involved and showing the technology as it works. You will share a cabin with another scientist and the shipboard facilities are excellent.

