



National Centre for Polar & Ocean Research
(Ministry of Earth Sciences, Govt. of India)
Headland Sada, Vasco-da-Gama, Goa - 403 804



Invites Nominations from Scientists/Researchers for forthcoming IODP expedition

IODP-India invites nominations in a prescribed format along with detailed bio-data and research experience, from geoscientists/researchers working in established national institutions/organizations and universities, to participate in the forthcoming International Ocean Discovery Program (IODP) **Expedition 377: Arctic Ocean Paleoceanography (ArcOP)** aboard a Mission Specific Platform (MSP). NCPOR will provide the requisite financial support to the selected candidates towards their participation in the said expedition. However, it will be the responsibility of the candidates to obtain the necessary Visas / permissions from the countries of embarkation and disembarkation on their own. A scientific plan is mandatory for a successful nomination.

Further details and format can be obtained at www.ncaor.gov.in/www.ncpor.res.in or by email to iodp.india@ncaor.gov.in/iodp.india@ncpor.res.in

Last date by which IODP- India/NCPOR receives nominations for Expedition 377: 14th May, 2021

For and on behalf of NCPOR
Group Director (IODP-India)

Complete nominations may kindly be emailed to iodp.india@ncaor.gov.in/iodp.india@ncpor.res.in

Information on forthcoming IODP Expedition aboard a Mission Specific Platform (MSP):

Expedition 377: Arctic Ocean Paleoceanography (ArcOP): August-September, 2022

Expedition 377 (based on IODP Proposal #708 'Arctic Ocean Paleoceanography') aims to recover a complete stratigraphic sedimentary record on the southern Lomonosov Ridge to meet the highest priority paleoceanographic objective: the continuous long-term Cenozoic climate history of the central Arctic Ocean. Furthermore, sedimentation rates two to four times higher than those at the site of IODP Expedition 302: ACEX permit higher-resolution studies of Arctic climate change in the Pleistocene and Neogene.

This sedimentary sequence from the central Arctic Ocean will be studied to answer the following key questions:

- Did the Arctic Ocean climate follow the global climate evolution during its course from early Cenozoic Greenhouse to late Cenozoic Icehouse conditions?
- Are the Early Eocene Climate Optimum and the Oligocene and Mid-Miocene warmings also reflected in Arctic Ocean records?
- Did extensive glaciations (e.g., the OI-1 and Mi-1 glaciations) develop synchronously in both the Northern and Southern Hemispheres?
- What is the sedimentary record of timing of repeated major (Plio-) Pleistocene Arctic glaciations as compared to that postulated from sediment echosounding and multi-channel seismic reflection profiling?
- What was the variability of sea-ice in terms of frequency, extent and magnitude?
- When and how did the change from a warm, fresh-water-influenced, biosilica-rich and poorly ventilated Eocene ocean to a cold, fossil-poor, and oxygenated Neogene ocean occur?
- How critical is the exchange of water masses between the Arctic Ocean and the Atlantic and Pacific for the long-term climate evolution as well as rapid climate change?
- What is the history of Siberian river discharge and how critical is it for sea-ice formation, water mass circulation and climate change?

- How did the Arctic Ocean evolve during the Pliocene warm period and subsequent cooling? How do the ACEX2 records correlate with the terrestrial record from the Siberian Lake El'gygytgyn?
- What is the cause of the major hiatus recovered in the ACEX record? Does this hiatus in fact exist?

The full proposal and addendum describing the primary drill sites, as well as up-to-date expedition information, can be found on the Expedition 377 webpage <http://www.ecord.org/expedition377/>.

Important Notes:

1. For more information on IODP Expedition 377 please visit www.iodp.org and use the link iodp.tamu.edu/scienceops/.
2. Applications in prescribed format available on the website www.ncaor.gov.in/www.ncpor.res.in shall be considered.
3. **Last date by which IODP- India/ NCPOR receives nomination for IODP Expedition 377: 14th May, 2021**
4. A scientific plan is mandatory for a successful nomination. Once nominated candidates will have to submit a detailed science plan along with sample data request which may also form a basis for collaborative research programs between their host organization and NCPOR.