



****Fully Funded PhD Project****

**Palaeoenvironmental Research Unit
School of Geography, Archaeology & Irish Studies
National University of Ireland, Galway**

'A cosmogenic-nuclide approach to quantifying the drivers of rocky coastline erosion under changing climate and sea-level conditions.'

PROJECT DESCRIPTION

Projecting how coastal stability will respond to sea level rise and intensifying weather events, and quantifying the risk of loss due to erosion, is a growing priority for Ireland's adaptation sector. We invite applications to a field-based PhD project at the National University of Ireland, Galway, which will apply a geomorphologic–geochemical–modelling approach to reconstruct long-term evolution of Ireland's rocky coastlines, establish drivers of coastal erosion/stability, and simulate future change under global warming conditions.

Ideally, the successful applicant will commence the project on the **1st September, 2022**.

THE SUCCESSFUL CANDIDATE WILL:

- Undertake geomorphic and topographic surveys of target rocky coastlines, including shore platforms and cliff lines.
- Collect rock samples from along target shore platform transects and prepare samples for cosmogenic ¹⁰Be geochemistry.
- Contribute to reconstructing the temporal evolution of rocky coastline development and numerical modelling of past erosion scenarios.
- Conduct a thorough review of local/regional historical and palaeoclimate data relevant to the reconstructed coastline record (centuries to millennia).
- Actively disseminate research through written and oral communication.
- Undertake occasional visits to project partners and collaborating labs.

REQUIREMENTS

Applications are welcomed from individuals with a first-class or upper second-class honours/4-year degree in Earth sciences, Geology, or Physical Geography. The successful candidate will be highly motivated to pursue field-based geomorphological research and lab-based geochemistry, and will have excellent English written and verbal skills. Additional research experience (e.g., MSc in a related field) is preferable, including evidence of field and geochemical laboratory components. Experience in numerical Earth system modelling and/or coastal geomorphology would be highly beneficial.

FUNDING STATUS

This 48-month project is funded by the SFI Research Centre in Applied Geosciences (iCRAG) and covers an annual stipend of €18,500 (plus university fees for EU applicants), in addition to full project costs.

TO APPLY

Please submit an electronic copy of Curriculum Vitae with 2 referees' contact details and a letter stating your interest and suitability for the PhD position to:

Dr. Gordon Bromley (gordon.bromley@nuigalway.ie). For more information, contact the same.