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| Scholarship Project Title | Enhancing Genetic Diversity and Adaptability of Four Key Broadleaf Tree Species in Ireland for Sustainable Forest Diversification in the Face of Climate Change (Adap4Tree) |
| Advert Reference number | WD_2024_05_SPONS |
| Supervisor(s) | <i>Dr. Nick Mc Carthy SETU Waterford Dr Dheeraj Rathore, Teagasc Oakpark Carlow.</i> |
| Research Group | <i>Eco Innovation Research Centre EIRC</i> |
| Department /School/Faculty | <i>Dept Of Land Science, School of Science</i> |
| Duration | 4 Years/48 Months |
| Status: Full-time / part-time | Full Time |
| Funding information | Teagasc Walsh Scholarship |
| Value of the scholarship per year for four years | Stipend: €25,000 per annum Fees of €5,750 per annum (covered by scholarship) |
| Closing Date and Time | Wednesday 11 th December 2024@ 4PM Irish Time |
| Interview date | To be confirmed |
| PhD commencement date | To be confirmed |

Project Key Words: *Forest genetic diversity, Climate change, Native broadleaves.*

Post summary

The Adap4Tree Project

Climate change presents significant challenges to Ireland's forestry sector. The Adap4Tree project is an ambitious initiative aimed at improving the genetic diversity, resilience, and adaptability of four essential broadleaf tree species in Ireland—Downy Birch (*Betula pubescens*), Silver Birch (*Betula pendula*), Alder (*Alnus glutinosa*), and Beech (*Fagus sylvatica*). These species are critical to Irish forestry and ecological health, providing valuable ecosystem services and contributing to sustainable wood production. As climate change continues to exert increasing pressure on forest ecosystems, this project aims to enhance the adaptability and resilience of these tree species to ensure long-term forest sustainability.

Overall, Adap4Tree aims to contribute to Irish forestry by supporting the genetic improvement of these 4 key broadleaf species. Through efforts to foster climate-resilient tree populations, conserve valuable genetic resources, and encourage sustainable forest management, the project hopes to play a role in enhancing Ireland's environmental and economic resilience in response to climate change.

Qualifications

Essential

- *Applicants should hold a minimum 2:1 Level 8 Honours degree (or equivalent) in Forestry,*

Plant Breeding, Plant Biology, Environmental Science, or a related discipline.

- *The successful candidate should be highly self-motivated and be prepared for field and laboratory work with modern analytical equipment.*

Desirable

- *A Master's degree in a relevant field and prior research experience will be advantageous.*

Knowledge & Experience

Essential

- *A good practical knowledge of Irish forestry and Climate change systems is essential.*
- *Applicants must hold a full EU driving licence.*

Desirable

- *Experience in laboratory research and/or field trials.*
- *Experience with statistical packages.*
- *The applicant has conducted an undergraduate research project or trial and/or has fulfilled work placements at a relevant research centre*

Skills & Competencies

Essential

- *Applicants whose first language is not English must demonstrate on application that they meet [SETU's English language requirements](#) and provide all necessary documentation. See Page 7 of the Code of Practice*
- *In order to be **shortlisted for interview**, you must meet the SETU English speaking requirements so please provide evidence in your application.*
- *Strong communication skills, and teamwork capabilities, and*
- *A demonstrated interest in climate adaptation and forest conservation are essential.*

Desirable

- *Scientific writing skills.*
- *Use of referencing software and statistical packages*

Further information

For any informal queries, please contact Dr Nick Mc Carthy SETU on email Nick.McCarthy@setu.ie or Dr Dheeraj Rathore Teagasc on email dheeraj.rathore@teagasc.ie

For queries relating to the application and admission process, please contact the Postgraduate Admissions Office researchadmissions@setu.ie or telephone +353 (0)51 302883.

For queries relating to the funding programme, please email scholarships2024@setu.ie

University Website <https://www.setu.ie/>

Application procedure

Download the Research Postgraduate Application Form from SETU website and return the completed application to researchadmissions@setu.ie quoting **WD_2024_05_SPONS** in the email subject line.

Please note that paper submissions will not be accepted.

The University may decide to interview only those applicants who appear from the information they provided, to be the most suitable in terms of experience, qualifications and other requirements of the post.

The University will short-list and interview those applicants who provide the most suitable information in terms of experience, qualifications and other requirements relevant to the scholarship.

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