PHD SCHOLARSHIP

Saving trees by linking genetics, chemistry and morphology to maximise tree growth and survival

University of Tasmania – School of Biological Sciences

Location: Hobart, Tasmania.

Salary and Conditions: $30,746 (2015 rate) tax free scholarship with possible 6 month extension plus project operating funds.

Mammalian herbivores attack the bark of young conifer trees. Bark stripping leads to stem deformation, weaknesses and high rates of tree mortality by ring-barking. Tree growers need a new and innovative solution to reducing bark stripping of trees.

Central to understanding this problem is the concept that plants exhibit significant genetic-based variation in plant chemical defences against herbivores. Diversity in defences within a single species may change through different developmental stages, possibly due to trade-offs between defensive chemistry and other plant functions such as growth. Many of these ideas can be explored by merging chemical ecology, quantitative genetics and genomic techniques.

This project aims to understand the genetic basis to variation in *Pinus radiata* bark secondary chemistry and morphology and how this relates to bark stripping by mammalian herbivores.

This is an exciting research project that develops broad skills, encompassing field, glasshouse, laboratory and statistical approaches. The position offers experience in all these fields and close contact with the Australian and New Zealand industry partners.

The project is supported by an Australian Research Council (ARC) Linkage Grant and will be affiliated with the

ARC Centre for Forest Value.

We are seeking applicants who have First or Second Class Upper Honours/Masters or equivalent, and are enthusiastic and dedicated to conducting high quality research science.

Please email your expression of interest, including a 500 word personal statement outlining your goals, a detailed CV, a copy of your academic transcript including previous Honours or Masters thesis results and at least one written reference to:

Dr Julianne O'Reilly-Wapstra

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