

Media Release

Chiefs of Staff, News Directors

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Environmental research supported with awards

Three major research projects which aim to support and encourage environmental conservation and management have been awarded the 2016 Governor's Environment Scholarship.

Her Excellency Professor the Honourable Kate Warner AM presented University of Tasmania students Cloe Cummings, Paul Han and Rae Quinlan with their awards at a ceremony at Government House this morning.

"It is only fitting that in a state like Tasmania, where its natural habitats are envied the world over, environmental research is being supported and encouraged," University of Tasmania Vice-Chancellor Professor Peter Rathjen said.

The scholarship is available to students undertaking an honours or masters project, in any faculty, which relates to management of the environment. Three awards are offered every year, with each award valued at \$6000 for one year.

"I congratulate all of this year's recipients, and also acknowledge and appreciate the ongoing assistance provided by industry, and local and state governments towards the annual scholarships," Professor Rathjen said.

Her Excellency Professor the Honourable Kate Warner, is Patron of the scholarships which are provided by leaders in environmental policy in Tasmania.

The current donors include Bell Bay Aluminium, Hydro Tasmania, TasNetworks, Nyrstar Hobart, SEMF Pty Ltd, Local Government Association of Tasmania (LGAT), and the Department of Primary Industries, Parks, Water and Environment through the Environment Protection Authority (EPA).

2016 Governor's Environment Scholarship Research projects:

Cloe Cummings, Honours project: Seal conservation, (Bachelor of Environmental Science)

Cloe's honours research project is focussed on the interactions between marine predators (particularly seals), and fisheries in Tasmanian waters. This topic has significant practical relevance to environmental management in this state, the crux of which is a two-fold problem: marine predator interactions with fish farms and oceanic fishing can create conservation and animal welfare issues, but conversely, such animals can reduce the quality and quantity of catches by preying upon their

contents. The research will involve an in-depth case study of a local fishery and a social science component relating to attitudes and experiences of fishers with regards to marine mammals. Cloe's ultimate aim is to gather information that may be used to inform environmental management strategies that are sensitive to both primary producers and to the environment itself.

Paul Han, Honours project: Correlation of selenium in soil and vegetables, (Bachelor of Environmental Science)

Selenium is often found as a contaminant in the environment derived from drainages. In previous studies inland Tasmanian soils were classified to be deficient in selenium, with low levels contributing to reduced fertility rates in cows. In humans, deficiency of selenium is known to cause the long-lasting disease Kashin-Beck, a joint disease on the bones. In Tasmania, a study has been done which indicated that regional Tasmanians as compared to the others states of Australia are lower in Selenium levels. To date no study has been done to correlate Selenium concentration in soil to vegetable crops. The project will analyse concentration in a number of vegetables such as peas, asparagus and potatoes that are commercially grown in Northern Tasmania and the soil they were grown in to determine the correlation between soil selenium and crop selenium levels.

Rae Quinlan, Honours project: Develop an antibody-based Paralytic Shellfish Toxin Test Kit, (Bachelor of Marine Science)

Rae will develop an anti-body Paralytic Toxin Test Kit for microalgae water samples. This is a relatively new concept as most tests are designed primarily to test the flesh of the shellfish. At the moment the method to test microalgae can only be completed in a lab with the use of specialty equipment. The new kits will allow shellfish farmers to complete testing on-site. Once the improved kits are available shellfish farmers will be able to ascertain the concentration of, and the number of toxic cells in the water that their product is grown. Most importantly, the kits will act as an early warning sign for farmers which should prevent future economic loss and provide confidence in the industry for markets both at home and overseas.

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