



SEMINAR

Department of Public Health



University of Otago, Wellington | 23A Mein Street | Newtown | Wellington

Public-health benefits of urban trees

Dr. Geoffrey Donovan, US Forest Service, Portland, Oregon

Geoffrey Donovan will present results from two studies showing how the natural environment can improve public health in direct and indirect ways. The first study used the spread of an invasive tree pest—the emerald ash borer—as a natural experiment to quantify how the impact of a major change in the natural environment impacts public health. We found that in the US between 2002 and 2007, emerald ash borer infestation was associated with an additional 15,000 deaths from cardiovascular disease and 6,000 deaths from lower-respiratory disease. Results held even after controlling for demographic differences between counties. Our results suggest that invasive trees pests may pose a significant public-health threat, and exposure to trees may be protect against cardiovascular and lower-respiratory disease.

The natural environment not only provides direct health benefits, it can also help detect threats to our health. We used 347 moss samples taken from urban trees to map atmospheric heavy-metal pollution in Portland, Oregon. We found that two stained-glass manufacturers were releasing levels of cadmium and arsenic that posed an immediate public-health risk.



Geoffrey Donovan is an economist working for the US Forest Service in Portland, Oregon. His main research area is the public-health benefits of urban trees. For example, He has found that women with more trees around their home are less likely to have underweight babies and when trees are killed by an invasive pest, cardiovascular and lower-respiratory mortality rates increase. More recently, He has been using moss and lichens to map urban air quality. He is currently working at Massey University on the children-and-pesticides study, and he will also be starting a new project on the relationship between exposure to the natural environment and academic performance.

Friday 16th June 2017 12.30 to 1.15

Small Lecture Theatre, Level D, University of Otago Wellington

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ALL WELCOME!