

Formidable Phormidium: Toxic algae in Canterbury Rivers

Date: Thursday 13 October 2016

Time: 2.30pm – 3.30pm

Location: Room 208, Level 2, Te Ao Marama Building

Presenter: **Tara McAllister**

Ko Te Aitanga a Mahaki tōku iwi, ko Te Whānau a Taupara tōku hapū, kei Ōtautahi ahau e noho ana. I am passionate about our awa and protecting them for future generations. My interests include freshwater ecology, mahinga kai (especially tuna) and te reo Māori. Prior to moving to Ōtautahi, I completed a degree in Marine Biology at Victoria University. I am currently in the second year of my PhD with the Waterways Centre of Freshwater Management.

Abstract:

Toxic algal blooms, in both lakes and rivers, are a major concern in many countries due to their increasing extent and severity. The particular species I study is called Phormidium and proliferates in many of our Canterbury rivers. Phormidium can produce powerful toxins, which have resulted in the death of over 100 dogs in NZ. As well as posing a significant health risk, Phormidium inadvertently affects the ecology and health of rivers. In my first study, I sampled eight different Canterbury rivers (Pareora, Te ana a wai, Opihi, Orari, Temuka, Selwyn, Rakahuri, Waipara) every week for 30 weeks in order to elucidate the effect of different environmental factors, like river flow and water temperature, on growth. My second study was an experiment, where I manipulated nutrient and flow conditions in experimental river channels to see how these changes would affect growth. This experiment will help us begin to think about how Phormidium is likely to respond with increasing agricultural intensification. The results of these two studies will be presented and discussed.