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Environmental DNA for biodiversity surveying: opportunities and challenges

Thursday 26 September 2013, 1pm

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Gould Seminar Room (Rm 235) Gould Building (Bldg. 116), Linnaeus Way, ANU



Over the past two decades, ongoing developments in genetic techniques have provided new ways of collecting biodiversity information; ranging from endangered species population monitoring to ecosystem-wide biodiversity surveys. The first major applications of these approaches followed the development of non-invasive sampling. Researchers developed methods using DNA from non-invasive sources such as faeces, hair, feathers and eggshells to detect and study elusive, secretive and rare taxa. The species/population of interest do not need to be located physically, and a variety of information can be gathered that otherwise may be difficult to obtain. More recently, detection of multiple species using environmental DNA (eDNA) found in soil, fresh water and seawater and a meta barcoding approach is revolutionizing species inventories and garnering vital biodiversity information. In this talk I will discuss the pros and cons of using non-invasive DNA sources in research with particular emphasis on my PhD research on the brush-tailed rock wallaby. I will then discuss the opportunities that eDNA can provide but also the challenges in using a degraded DNA source to obtain accurate and meaningful biodiversity data.

Presented by

Research School of
Biology

ANU College of
**Medicine, Biology
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This lecture is free and open to the public

EEG seminar information:
biology.anu.edu.au/News/events-eeg.php

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