Australian National University

PUBLIC LECTURE

Managing kangaroo grazing for the conservation of grassland and grassy woodland fauna

Monday 29 June 10-11am

Speaker

Brett Howland

Location

Fenner Seminar Room

Fenner Building #141,
Linnaeus Way, ANU

This lecture is free and open to the public

ANU Public Lecture Series information:
anu.edu.au/publiclectures

Large mammalian grazers are ecosystem engineers, altering the resources available to species through selective consumption of plant matter, redistribution of nutrients and trampling. In south-eastern Australia, high intensity grazing by the native eastern grey kangaroo, *Macropus giganteus*, has been linked to ecological decline of multiple taxa. While efforts to manage the impact of grazers on biota have been undertaken, the effectiveness of these interventions is limited by a lack of knowledge of what constitutes optimal grazing levels. I investigated the relationship between kangaroos, grass structure and fauna to address this knowledge gap. I found that: 1) there was a strong negative relationship between the abundance of kangaroos and grass structure; 2) high intensity grazing had a negative effect on the reptile community; 3) the occurrence of a threatened grassland reptile, the striped legless lizard, *Delma impar*, was positively related to fine-scale grass complexity, and negatively related to kangaroo density at the landscape-scale; 4) birds with similar traits favoured similar grass structures, while bird with different traits showed a range of grass structural preferences; and 5) kangaroos selected forage habitat away from roads, where there was a higher percent cover of short grasses. To preserve a full-compliment of species in these grassy habitats, I recommend that: 1) management of grazing is based on grass structure not herbivore abundance 2) the extent and duration of intense grazing is limited; and 3) grazing pressure is rotated to create mosaics of different levels of grass structure.

About the speaker: Brett has worked as a wildlife ecologist as both a researcher and a professional for the last seven years. Over this time he completed a degree with First Class Honours in Science and is about to complete his PhD on the interactions between kangaroos and fauna, including reptiles and birds, in grassland and grassy woodlands. He has worked for government agencies in both NSW and ACT and non-government agencies such as Bush Heritage and the Australian National University. The majority of his work has been for the ACT Government where he has been keenly involved into developing a monitoring program for kangaroos, establishing a research program into grazing impacts on reptiles and developing a vegetation map of the ACT. Brett is passionate about both using science to solve conservation problems, and the communication of science to the wider community.

Presented by

Fenner School of Environment & Society

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