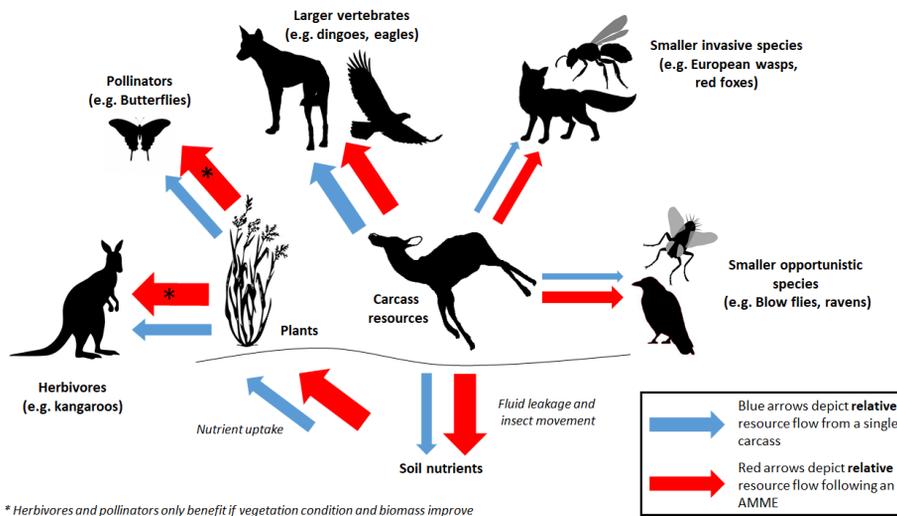


Animal mass mortality events (AMMEs) involve the rapid, catastrophic die-off of organisms. These events can produce many of tons of dead biomass in a single event, and they appear to be on the rise globally. In the past few years, Australia has witnessed a number of AMMEs, including the death of a million fish in the Murray Darling Basin due to algal blooms, thousands of cattle dying after floods in Queensland, the deaths of feral horses in central Australia from drought, and thousands of flying foxes dying from heat stress in New South Wales and Queensland. Humans also effectively simulate AMMEs when they undertake large scale culling of overabundant species. But while the causes of these events are known (e.g. poor water quality, drowning, drought, heat, and direct killing), we know very little about the consequences of AMMEs for ecosystems. For example: can vertebrate and invertebrate scavenger assemblages consume and disperse the vast quantities of carcasses that become available? Do carcasses attract and get scavenged by pest species? Do unconsumed carcasses result in unusual and excessive nutrient loads in surrounding areas, and does this affect plant growth, weed invasion, or have cascading effects on herbivore grazers? This project will answer these fundamental questions by simulating and monitoring AMMEs in the field. A key focus of the project will be the responses by scavengers including dingoes, red foxes, feral pigs, eagles, ravens, blowflies, and European wasps.



The project has financial support from the Hermon Slade Foundation and in-kind support from a major NSW Environment Trust project led by the NSW National Parks and Wildlife Service.

The field work will be in and around Kosciuszko National Park, and students will be working with local land managers and NSW Government Departments, including NSW National Parks and Wildlife Service, Department of Planning, Industry and Environment, and South East Local Land Services. Students will also be comparing the results with colleagues in southern USA replicating similar experiments in systems where vultures and coyotes are the dominant scavengers. External academic support is being provided by Dr. Philip Barton at Australian National University, Prof. Richard Duncan at University of Canberra, and Dr. Alex Carthey at Macquarie University.

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