BIDR
The Swiss Institute for Dryland Environmental & Energy Research (SIDEER)

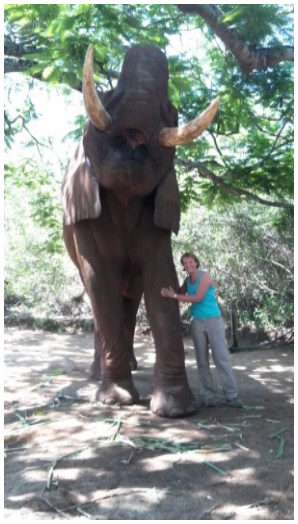
MITRANI DEPARTMENT OF DESERT ECOLOGY

Find, visit, quit: what shapes foraging decisions by mammalian herbivores in space and time?

Prof. Clare McArthur

School of Life & Environmental Sciences, University of Sydney, Australia

10/11/2020, 12:00, at your nearest available Zoom machine



Foraging provides the resources animals need to grow, survive and reproduce and so it is absolutely fundamental to animal fitness. I aim to take you on a journey in space and time through the foraging process, to demonstrate the multi-faceted set of decisions foragers make, the factors that influence these decisions, and the consequences of those decisions both to foragers and to the ecological community more broadly. I start where most foraging theory starts —in the middle, when animals are at a food patch — and ask: what foods do they choose and why? I then move to the end of the process, and explore when and why animals quit food patches. Finally, I twist back to the start — a stage that is often ignored except in sensory ecology — and ask: how on earth do foragers find their food in the first place? I'll mainly talk about mammalian herbivores such as possums, wallabies and elephants. It's a journey about plant chemistry (the good, the bad and the ugly), plant neighbours, associational refuges and phantom decoys. It is overlaid by decisions associated with predation risk, and foraging dilemmas associated with food and fear. It's about short-term cognitive decisions and long-term "optimal foraging" decisions. And it's a journey of the senses, and whether food odour draws foragers to patches or whether foragers simply have prescient knowledge of their environment.

clare.mcarthur@sydney.edu.au