

## **SWINGIN' IN THE RAIN: STUDYING SELECTION IN THE WILD**

Professor Andrew Cockburn FAA



Main Research Interest- Evolutionary  
Ecology

I obtained my honours degree in botany and a PhD in zoology on the ecology of rodents in the genus *Pseudomys* from Monash University. I then took up a CSIRO Postdoctoral Fellowship in 1980-1 at the University of California at Berkeley, working with Bill Lidicker on population dynamics in microtine rodents. I returned to Monash in 1981 as a Monash postdoctoral fellow in Tony Lee's lab to start long-term research on life history evolution and behavioural ecology of *Antechinus*, a bizarre group of marsupials that exhibit semelparity, with all males plunging to their deaths immediately after mating. This not only requires special explanation, but also allows clear tests of otherwise intractable hypotheses, because the extreme simplicity of the life history throws several issues into sharp relief. My interest in *Antechinus* persisted through a Queen Elizabeth II postdoc with Charley Krebs at CSIRO Wildlife and Ecology and Hugh Comins at the Research School of Biological Sciences at the Australian National University, and a lectureship in Zoology at the ANU that I took up in early 1984.

In 1990 my life changed in three dramatic ways. First, I was appointed Professor and Head of the newly merged Division of Botany and Zoology at ANU. Second, I took a sabbatical in Malte Andersson's lab at Göteborg, and Tim Clutton-Brock's lab at Cambridge. Third, and most remarkably, I realised that I was not having nearly as much fun tramping through leech-infested rainforests in pursuit of antechinuses, as one of my graduate students was having teasing apart the intricate sex lives of superb fairy-wrens in the croissant-infested Botanic Gardens in Canberra. I have worked on fairy-wrens ever since, seeking an answer to the centrally important question of the benefits that females obtain from discrimination among mates, the implications of those benefits for understanding the maintenance of genetic variation, and the evolution of the extraordinarily complex societies of fairy-wrens.

I am interested in the evolution of life histories, complex mating systems, and gender and sex in animal societies, and my favourite study animals are birds and dasyurid marsupials.