

# Malleefowl leading Adaptive Management in Australia



Many of us have heard of 'Adaptive Management' but there are two quite distinct uses of the term. In most cases it is used offhandedly to mean learning from our mistakes but that's nothing new; in a sense, humans have always done this. There is another more formal use of the term that is far more relevant to our work with Malleefowl and it has to do with 'learning by doing'. This approach introduces experiments, monitors success and then adjusts actions.

The trouble with learning from our mistakes is that first we have to make mistakes and second we have to realise that we've made a mistake. For example, let's say that we do some fox control and while Malleefowl numbers improve slightly...how do we know they wouldn't have done that anyway or how do we know that they wouldn't have improved far better if we'd done something else?

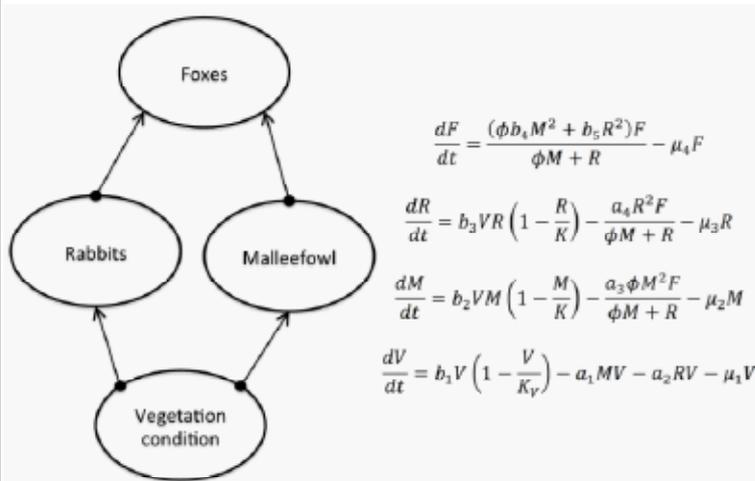
So let's try learning from success not from mistakes



A team of volunteers gathering data on Malleefowl mounds. The main reason Malleefowl have been selected for this work is the long history of data collection

Adaptive Management is different to learning from our mistakes in that we attempt to very accurately describe what really works: we learn by measuring the response of the system to actions we take. Let's continue to use the example of fox control. In some cases we may have done fox control and seen an improvement in Malleefowl numbers, but it may also have been that it was a good season and surrounding paddocks had high crop loads (increase of food supply), a recent calicivirus outbreak reduced rabbits significantly (reduced food competition) and the area was getting a solid build up of ground litter as it's been 20 years since a fire (increase of nest material). Which of these elements has caused the increase in Malleefowl?

In the past we may have quite reasonably assumed it was the fox control (because that's the only action we deliberately took). In effect we are relying on a hunch because we have no way of truly measuring all the different elements against each other. So we continue to do fox control as the main Malleefowl protection and not realise that our efforts actually have very little impact. As it turns out there are two recent studies that show this might be the case (note that it was only in 2012 that the first study was undertaken to quantify the return on investment in fox control in a conservation context). But neither study suggests that we stop fox control, just that we should look deeper to discover the true relationship between fox control and Malleefowl activity.



An example of how our mathematicians at Melbourne University turn the various elements into a formula. Thankfully we don't all have to understand it all!

In the case of Malleefowl we are extremely fortunate because our loyal band of volunteers (more than 100 across Australia) have been recording accurately across the range for many years. In fact, there are over 3000 mounds inspected every year. This gives us the basic data on how well the species is doing in any area. This data can be matched with the actions in those areas to see what works in Malleefowl favour. But we need something better than just a hunch on what really works.

