

## **Bulletin of the British Ecological Society, March 2017**

### **From our southern correspondent**

*Richard Hobbs, University of Western Australia*

I just had a quick look at the last piece I wrote for the Bulletin (I find this useful in that it prevents me repeating myself too frequently). Although written only just over 6 months ago, the article has the feel of something written a long time ago in a galaxy far, far away. It focussed on statistics in ecology, but started with observations on the (then) pending US Presidential elections, the Brexit poll and a Federal Election here in Australia. I'm sure I don't need to comment on the feelings of shock and foreboding that many people experienced following the results of the US election and the Brexit poll, or on what's been happening since (here in Australia, we ended up with the same crap government we had before - although even here we thought things couldn't get much worse, but they since have).

Rereading my last article, it struck me that we seem increasingly to be living in two parallel universes. In the universe inhabited by people who read the BES Bulletin, sound evidence, statistical rigour and logical argument are key elements in people's day-to-day existence. In the other universe, inhabited by some of our political leaders and, it appears, a significant proportion of the general public, such elements hardly seem to feature at all – who needs evidence when you can say what you like, whether it comes close to matching reality or not? Who needs statistical rigour when you feel you can ignore the whole matter, never mind check to see whether the evidence is rigorous or not?

There are worrying signs that this second universe is slowly swallowing the first. Climate change, vaccination, the role of migrants in the economy, the performance of the NHS: all examples of issues for which there is clear evidence based on sound research - evidence that assorted political leaders choose to ignore, wipe from government websites, misrepresent or even ridicule. It's almost as if the Enlightenment hadn't happened.

Here in Western Australia, we're experiencing our own little descent back into the dark ages. My part of the world is characterised by some of the most amazing ecology on the planet – hyper-diverse plant communities, weird and wonderful flora and fauna (see Alan Crowden's frontispiece photo in the previous issue), with a healthy smattering of endemic taxa. It's also characterised by a kind of bipolar approach to protection by our state government. On one hand, there have been truly amazing additions to the conservation estate this year with large areas of marine parks being declared in the remote Kimberley region (<http://www.abc.net.au/news/2016-11-23/kimberley-marine-park-created-around-horizontal-falls/8050330>). On the other hand, a ruckus over a major road extension through protected wetlands and a threatened woodland community in Perth has pitted the current conservative government against a broadly-based citizen protest movement, and at the same time exposed serious problems with the state's environmental protection laws.

The Roe 8 road extension is part of a long-standing plan to extend an existing highway to provide a more direct route for trucks in and out of Fremantle Port. In addition to being home to Little Creatures Brewery, Fremantle has a busy and active port, and most of the freight goes in and out via trucks. The Roe Highway currently ends about 20 km east of the port and, on the face of it, it would seem to make sense to carry on and fill in the gap. The problem is, however, that the 8<sup>th</sup> stage of the highway is being routed through areas of high conservation, Aboriginal heritage and social value and has been subject to long-standing community opposition. The 5km extension still leaves the remaining 15 km to the port as is, and there is ongoing debate and uncertainty about how to complete the link. In addition, the rationale for the road is being questioned in terms of the long-term future of the port and the eventual need for a new more accessible port facility at the city's industrial hub south of Fremantle.

The initial 5 km extension cuts through the Beeliar Regional Park, which incorporates the Beeliar Wetlands, two chains of lakes and wetlands that run parallel to the west coast, and Banksia woodland that has just been given Threatened Ecological Community status under the federal Environmental Protection and Biodiversity Conservation Act. The wetlands and woodland are popular areas for recreation and habitat for a wide range of fauna, including Carnaby's black cockatoo, which is also listed under the EPBC act.

The WA Environmental Protection Agency concluded in 2003 that it would be difficult to make the road project environmentally acceptable and that it would lead to the ecological values of the area as a whole being diminished in the long-term. However, in a 2013 report the EPA concluded that the significant residual impacts of the development (including clearing of native vegetation and protected wetlands and loss of cockatoo habitat) could be offset by a range of measures including acquisition of conservation land elsewhere, wetland restoration and weed control programs. In September 2015 the group Save the Beeliar Wetlands took legal action against the EPA, arguing that the EPA did not follow its own policies. The Supreme Court supported this argument and found that the EPA assessment and subsequent approval of Roe 8 was invalid. That stopped work on the road in its tracks for a while, but the WA Government took the matter to the Court of Appeal in July 2016, and the Court ruled in favour of the State Government, finding the EPA was not obliged to take its own policies into account. Let's say that again: "the EPA was not obliged to take its own policies into account". Insert suitable exclamation here. Towards the end of the year work started on clearing bushland in preparation for the road, and further legal actions initiated by the community group have so far failed.

Added to this is the unseemly rush with which various environmental management plans were assembled to cover the Roe 8 project just before or even after the clearing had begun (<https://project.mainroads.wa.gov.au/roe8/Pages/default.aspx>), and observations that the management plans were not even being adhered to as work commenced. It does not appear that the plans were open to any feedback or peer review, and hence their adequacy has not been assessed. This is particularly concerning in relation to the plans for actions that form part of the offsets that were

put forward to compensate for the loss of woodland and wetland. The process of negotiating the terms of these offsets was opaque, and there has been no independent assessment of whether the implementation plans actually meet the stipulated criteria. Offsets have increasingly become a tool of choice to ensure that developers have to demonstrate some conservation outcomes to make up for the environmental damage caused by the development. However, offsets are also increasingly seen to be fraught with difficulties (Maron *et al.*, 2016) and have been called “Faustian bargains” (Maron *et al.*, 2012). Our recent research suggests that application of offset policy in Western Australia has been patchy at best (May *et al.*, 2017).

Why the rush to get plans completed and work started? Three words provide the answer – an election in March. Colin Barnett, the WA Premier, has been determined to get the Roe 8 extension started and is forging ahead now that legal impediments have been cleared away. This is the same guy who doggedly continued with a program of shark drum lines a few years ago to reduce the risk of shark attacks on Perth beaches, even though a Fisheries Department report stated that drum lines are ineffective (this was the topic of an earlier Bulletin article). The Labor opposition party has stated that it will cancel the entire project if elected, and there have been calls to halt the clearing until the results of the election are known. But, in the face of mounting community dissent and evidence of lack of adherence to due process and relevant policies and procedures, the bulldozers are out and woodland is being obliterated. WA Environment Minister Albert Jacob stated that he was “comfortable with” the possibility that 97.8 hectares of vegetation may be cleared for Roe 8, even if a newly elected Labor government cancels the project (<http://www.abc.net.au/news/2017-01-11/wa-election-roe-8-no-pause-for-work-albert-jacob-says/8176280>).

Why, you might ask, am I dwelling on our little local problem in the BES Bulletin? Well, it seems that our little local problem is being replicated in different ways around the world. And it’s symptomatic of the bigger issues facing society as governments and corporations entrench neoliberal policies (Mendoza, 2015). Gus Speth has recently written about his experience in science and environmental activism, and discussed the way in which the huge advances in environmental protection made a few decades ago are now being eroded. For instance, “government agencies lose their luster and their drive and become partly or wholly captives of those they are supposed to regulate” (Speth, 2014). And, for environmental groups “Major resources shift from offense to defending past gains” –in other words, inordinate efforts need to be focussed on not losing what we’ve got, never mind improving things.

For me, Speth hit the nail on the head with the remark: “I used to think that top environmental problems were biodiversity loss, ecosystem collapse and climate change. I thought that thirty years of good science could address these problems. I was wrong. The top environmental problems are selfishness, greed and apathy, and to deal with these we need a cultural and spiritual transformation. And we scientists don’t know how to do that.” (<http://canadiancor.com/scientists-dont-know/>). Conducting and communicating good science is what we ecologists mostly do.

Accumulating evidence and feeding it into management and policy circles is the way we have an impact, right? Well, maybe only partially right now. This is still essential but not necessarily sufficient any more. As exemplified by our little local issue of valuable wetlands and vegetation getting trampled to make way for a road that has dubious merit, governments are increasingly able and willing to ignore evidence and push agendas despite, rather than because of, scientific advice and environmental policies.

So, that's why it appears essential to recognise that being a scientist does not preclude also being a citizen. Many of my American colleagues recently marched in resistance to the new regime in the US. In the case of Roe 8 and the Beelias wetlands, the government's actions have been met with a growing campaign of citizen protest and civil disobedience. Protesters were initially labelled by the government as layabout ratbags, but the protests have swollen to include people from all walks of life – including university professors. The Leeuwin Group of Concerned Scientists is pushing for more effective environmental protection processes (<http://theleeuwingroup.org.au/data/papers/>), and other groups are forming to add their voice to the protests.

All this is a long way from quadrats and bird counts. But quadrats and bird counts aren't much use in the middle of a freeway. May the force be with you, wherever and however you need it.

## References

- Maron, M., Hobbs, R.J., Moilanen, A., Matthews, J.W., Christie, K., Gardner, T.A., Keith, D.A., Lindenmayer, D.B., & McAlpine, C.A. (2012) Faustian bargains? Restoration realities in the context of biodiversity offset policies. *Biological Conservation*, **155**, 141-148.
- Maron, M., Ives, C.D., Kujala, H., Bull, J.W., Maseyk, F.J.F., Bekesy, S., Gordon, A., Watson, J.E.M., Lentini, P.E., Gibbons, P., Possingham, H.P., Hobbs, R.J., Keith, D.A., Wintle, B.A., & Evans, M.C. (2016) Taming a Wicked Problem: Resolving Controversies in Biodiversity Offsetting. *BioScience*, **66**, 489-498.
- May, J., Hobbs, R.J., & Valentine, L.E. (2017) Are offsets effective? An evaluation of recent environmental offsets in Western Australia. *Biological Conservation*, **in press**.
- Mendoza, K.-A. (2015) *Austerity: The demolition of the welfare state and the rise of the zombie economy* New Internationalist Publications, Oxford.
- Speth, J.G. (2014) *Angels by the River: A Memoir Kindle Edition* Chelsea Green Publishing, White River Junction, Vermont.



