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TWO ECOLOGICAL UNIVERSES ON EITHER SIDE OF THE DINGO BARRIER FENCE

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ABSTRACT

While the purpose of the Dingo Barrier Fence dividing South Australia and New South Wales is achieving its aim: protection of sheep from dingoes in NSW. There are, however, other unforeseen ecological consequences. Indeed, the Dingo Fence cuts across semiarid landscapes like a knife for over 6,000 km, creating two contrasting ecosystems.

Thus, in NSW are four species of kangaroo live right up to the Dingo Fence, two of them abundantly. In South Australia where there are dingoes, there is only one species, the red kangaroo, and it is uncommon right across the rest of inland Australia. Emus are more abundant in NSW also. Introduced mammalian pests follow that same pattern despite aridity. Feral goats and pigs occur right up to the Fence also, but are absent in the other side. Red foxes follow a similar pattern of distribution, but feral cats are not affected, and indeed can climb the Fence.

Before rabbit calicivirus disease (RCD) decimated rabbit populations throughout the semi-arid and arid zones, they fluctuated independently on either side of the Dingo Fence. That was so despite similar landscapes, vegetation, rainfall and general climate on either side. Indeed, vast eruptions arose on the South Australian side, resulting in thousands of rabbits bunched up there along the Fence for hundreds of kilometres, and starving. No similar crowding arose on the NSW side, and where rabbit densities never reached anything like those in South Australia. The causes of such easterly movements to the Fence in SA are unknown.

The different densities of kangaroos, emus, feral goats and pigs on either of the Dingo Fence respectively can be explained by the presence or absence of dingoes. The differences in population sizes and eruptiveness of rabbits appear to be due to different intensities of grazing of the ground vegetation by sheep in NSW and by cattle in South Australia respectively.

The impact of RCD since the 1996 outbreaks has been profound. Moreover, rabbits remain scarce across the vast extent of the desert lands. Effects reported are the same across the Dingo Barrier Fence also. Before RCD, myxomatosis acted independently on either side of the Fence, again for unknown reasons.