

REVIEWS

THE DEER WARS: The story of deer in New Zealand, by Graeme Caughley, Heinemann, 1983.

Dr Graeme Caughley, formerly deer culler, Internal Affairs Wildlife Trainee, Forest Service trainee, biologist with FRES, UN investigator, university teacher, and now a senior scientist with CSIRO's Division of Wildlife and Rangelands, has loosed off a 14-chapter literary salvo on deer control into the aging carcass of the foundering Forest Service. This book, Caughley's second, ranges over the immense field of evolution of landscapes and biota of the New Zealand region, introduction and impact of alien mammals, the rise and fall of official control campaigns, the commercial venison industry, harvesting, research, and the political machinations which lurked behind the development of New Zealand wildlife law. It is not the first book to appear on New Zealand deer. But it is the best. It is the first to attempt to cover the whole canvas, and is the first to treat the subject with the literary skill necessary to be entertaining, yet convey the complexities, atmosphere and conflict of the subject.

Throughout its 187 pages, Caughley writes of the deer "war" as a specimen of the conspiracy theory at work. The human qualities of courage, industry, ingenuity and perceptive genius, frontal assault, treachery, deception, plot and counterplot, venality and stupidity, are all there. And striding through it all, with rifle in hand and shorts rolled up to the crotch to improve ventilation, strides the good keen man himself!

The *dramatis personae* are on the one hand the tough resilient, resourceful, private sports hunters, the innovative entrepreneurs of the venison industry, and the legendary government deer cullers. On the other are ranged a power-hungry, fanatical and misinformed bunch of public servants (mainly foresters and botanists) and similar wrong-thinking people. Caughley's review of the last 100 years reads like the most damning indictments of bad generalship ever to come from Gallipoli or the Somme. And to make the military analogy crystal clear, the narrative is sprinkled with a rich selection of evocative phrases: "long knives in the night"; "Forest Service, having got Internal Affairs on the defensive, pushed their advantage"; "final shoot-out"; "notable victory"; "by then they were staring down the barrel of the Wild Animal Control Act, the finger of the Forest Service firmly on the trigger". He leaves no turn unstoned.

Caughley's argument is centred on the conviction that, because of co-evolution of New Zealand plants and moas during millions of years, Cockayne's axioms about vegetation evolving without defensive structures are untenable. He argues that Cockayne had become so passionately fond of the New Zealand vegetation that he could only regard browsing and grazing by mammals as pathological and destructive influences. Or alternatively, Cockayne is portrayed as believing that, even if the moas might have nibbled the occasional plant or so, they passed away so long ago that the wall-to-wall mass of Umbellifers, *Coprosmas*, buttercups and other succulent species seen by the 19th century botanists had to be perceived as the fully developed, "natural" vegetation.

Of such concepts, Caughley bluntly states that, "when it comes to deer, Cockayne could not think straight" and "that the cause of the blind spot is not to be sought so much in the lack of information as in a philosophical position reached and held independent of what information was available to him". Quite explicitly, Caughley considers that botanists and foresters who repeated Cockayne's liturgical axioms, even in the privacy of their own bedrooms, were completely sucked in by those fallacies.

Entreat Thane Riney, an American biologist, in 1950. Caughley's perspective of the eight years that Riney spent in New Zealand was that he "singlehandedly advanced New Zealand wildlife research by about twenty-five years", the greatest contribution being "his discovery that although deer modify vegetation, as everyone knew, that process could not go on indefinitely. An equilibrium is achieved after about 40 years, the vegetation and the deer reaching an accommodation with each other".

I am glad to see Thane Riney get an overdue and well-deserved public accolade. But it is a pity Caughley offered the eruptive oscillation model as the prime citation. That differed little in causality or overall impact from what Holloway (1950, *N.Z. Jl For.*) had already spelt out regarding red deer in the forests of western Southland. As for support, the longer-toothed of us would have recognised magnanimity if the names of Johnston, Shorland, Falla, Wodzicki, Watson, Poole, Williams, Dunbar, Douglas, Logan and many others had been described at least as a collective digit of Riney's single hand. Despite that lapse, I go along with Caughley in his view that Riney "had the knack, distinguishing a great researcher from a merely good one, of asking [questions] in such a way that the answers could be extracted by scientific method." Of course, Riney did not actually show that the vegetation and deer

reached a *stable* equilibrium. He suggested it as an hypothesis. Jack Holloway would undoubtedly have argued that it is far too soon to know whether the "accommodation" reached is stationary or gradually degrading. Perhaps on this angle Caughley suffers a touch of the malady which he diagnosed in Cockayne.

Regarding other scientific contributions to the deer story, Caughley disposes of the bulk of ecological work over the past 30 years with both choke and scatter from the trusty old 12-gauge shotgun. "It mostly skirted around the essential questions and concentrated upon peripheral issues." "The theory that vegetation slows erosion is the protection forester's reason for living. It would not occur to him to debate or investigate it." I suspect this, along with some of his other conclusions, will be surprising news to the many people who have been involved in watershed surveys since the late 1950s.

Conversely, the geologists and hydrologists receive the mantle of revelation of the important truths. Rainfall, lithology and slope are the overwhelming determinants of erosion rates in the steep mountains. Most of the eroded surfaces were present long before the deer ever got on to the ground. "Erosion is caused by forces of such elemental power that any plant getting in their way is simply ignored or removed." In other words, Caughley argues that the geohydrologists have neatly shown that vegetation is unimportant in the steep mountain New Zealand erosion story. Curiously, though, he does concede that vegetation is important at lower altitudes, particularly on some special soil and rock types.

Fanning out from these conclusions, Caughley traces over the old Internal Affairs and Forestry eradication and control campaigns as monumental exercises in futility soldiered by first-rate blokes, but generalised by a succession of inept administrators, scientists and politicians. According to Caughley they were based on fallacy. They had little or no effect. They were in the wrong place. They were eventually swept aside by the devastatingly efficient commercial venison recovery operations. They revealed more of the political processes of gaining and exercising power than of the wise management of a wildlife resource.

These arguments obviously cut the ground out from under everything that has been done to control deer over the past 60 years. Obviously, and rightly, they will be the touchstone of some anger, much debate and, I hope, a lot of research over future years. They will, incidentally, give real edge to the natural conflict between the custodians of indigenous biota and the managers of game animals,