Role of commercial harvesting in the management of wild deer

The recently published Handbook of New Zealand Mammals (ed. C. King, 1990; reviewed in this issue, p24) lists 32 mammals successfully introduced into New Zealand in what Dr Carolyn King characterises as the "last and clearest example of ecological imperialism". These introductions have, individually and collectively, led to massive changes in the character of New Zealand's indigenous ecosystems. The process of change is continuing, and at least on the main islands is largely irreversible.

Deer and other wild ungulates have severely modified the ecological processes and species composition of practically all of New Zealand's remaining native forests, scrublands, and grasslands. The need to manage animal numbers to limit these impacts has been officially recognised since the 1930s. Over the years the rationale for 'animal control' has changed from one of protecting forests to avert the downstream effects of altered erosional and hydrological regimes, to one of protecting forests and other ecosystems for their intrinsic values. Traditional control methods have not proved particularly successful and it is only since the development of markets for wild venison in the late 1950s that large-scale reductions in animal numbers have occurred.

In this issue of the journal, Dr Chris Challies reviews the history, status, and future management of the so-called Wild Animal Recovery (WAR) industry. In the last 25 years aerial hunting has played a key role in animal control, reducing red deer numbers by up to 90-95%, and similarly affecting other ungulate species such as thar and chamois. Dr Challies' analysis, prepared in 1989, led him to the conclusion that the Department of Conservation (DOC) must take a more pro-active role in the structuring of the industry. The simple truth is that if the benefits of aerial hunting are to be maintained, then so must the industry. In the past WARs has been highly competitive and exploitative. While this had the favourable result of rapidly reducing animal numbers to low levels, it is hardly a suitable approach for the long-term harvesting of low-density populations. By 1989 WAR had deteriorated to a marginally economic, and mainly parttime occupation.

Dr Challies has proposed a system in which the traditional competition between helicopter crews for animals 'on the hill' would be replaced by competition in the market-place for the right to harvest animals from specified areas. In short he is advocating a 'sole operator', 'large block', 'long tenure' scheme where DOC allocates the resource by tender and enters a contractual arrangement with the successful WARs operators. This change would supposedly reduce the costs of harvesting by eliminating unproductive competition, and make the industry profitable at lower price levels and/or lower animal densities. DOC's primary objective in doing this would be to ensure, as far as they can, that the target species are harvested intensively enough to keep them at stable low numbers on the long term. This would require DOC to develop a more 'hands on' approach to the management of wild ungulates than in the past.

The corollary of this is that there must be a general recognition in policy that wild animals such as deer are permanent components of New Zealand's ecosystems. Such a proposition is, to say the least, contentious. New Zealanders, quite properly, value their indigenous flora and fauna and find it difficult to accept the fact that a range of introduced mammals are now an integral part of our natural environment. While we can try to manage their impacts, in most cases we cannot remove them.

The situation has deteriorated since Dr Challies prepared his paper. The prices being offered for wild deer carcasses recently dropped to a level where few WARs operators can make a profit at current recovery rates. This downturn is, at least in part, a consequence of the changes taking place in the political and economic systems in Central and Eastern Europe. Like the reduced demand for venison following the Chernobyl disaster it might be a temporary downturn, but we have no way of knowing for sure.

DOC made some changes to its administration of WARs in 1990 following its 1989 review of the industry. It must now consider further changes to insure against the possibility of a longterm reduction in the demand for wild venison. The likelihood of taxpayers' money being available to replace the commercial industry, should it fail, is low to non-existent. Not least attractive in this day and age is the possibility that the management system proposed by Dr Challies could be used to determine a 'market-led' subsidy for the industry. This way the animal management and productive benefits of WARs could be maintained, where necessary, with a fair input from the State.

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