

WILD ANIMAL CONTROL:

CHANGING EMPHASIS TOWARDS THE 1990s

by Ken Miers, Director, Environmental Forestry Division,
Forest Service



A land of lush and virtually ungrazed vegetation greeted the first non-Polynesian settlers to New Zealand. Seemingly millions of years of isolated evolution, with no threat from browsing or grazing animals, had produced a multitude of palatable plants species almost completely unequipped to cope with the tide of exotic mammals so enthusiastically released.

Recent research, however, does point to the moa living in forest margins, suggesting that it was a forest browser and not only the grazer of open grasslands as previously thought.

Possums, deer and goats thrived in the new environment, and their numbers increased exponentially. Under this attack, the palatable and luxuriant forest understorey was rapidly depleted, but it was not until these animals reached very high densities that their real impact was truly appreciated; by then the damage was substantial, and in places irreversible.

These peaks in numbers occurred at different times for different species, depending on the biology of the animal and when and where they were liberated. Rabbits, for example, were numerous in parts of the South Island in the 1860s, long before they had established in the North Island and long before many other animals had been introduced.

Government control

As the knowledge dawned that most exotics had become pests, the Government attempted to control their numbers; the vast red deer herds which had spread over much of the country were the first to feel the effects of this new approach when Government operations started in the 1930s. Prior to this, culling carried out by Acclimatisation Societies had been ineffective.

Hunters on foot, under the control of the Department of Internal Affairs, concentrated on areas where deer numbers were highest, rather than those where soil conservation, or farm and forestry damage was a problem. Only in a few cases were the operations long or intense enough to reduce populations below what natural increase would put back.

Possums also found New Zealand vegetation to their liking, and their spread was rapid. Numbers reached high levels before it was accepted possums were causing damage, and although some people were advocating control as early as the 1890s it was not until 1922 that liberations were made illegal and commercial trapping allowed.

The threat of high wild goat numbers

did not attract any attention until the 1930s, by which time they were competing seriously with sheep for grazing and depleting a wide variety of palatable native plants. By then the species had probably been feral for more than 100 years. Government control operations began in 1937.

Chamois and tahr were also controlled from 1937. Chamois, especially, were at home in sub-alpine grasslands, spreading rapidly from Mt Cook to as far as Haast and Arthur's Passes by the late 1930s. They were calculated to have dispersed at the amazing rate of 10 km a year from their time of liberation until the early 1970s. Tahr, on the other hand, did not spread as rapidly but their preference for sparsely vegetated, steep alpine bluffs damaged native plants which were already subject to a precarious existence. In certain locations, concentrated tahr numbers have been claimed to have eliminated some alpine plant species.

Until the mid-1950s hunters and trappers were mainly responsible for wild animal control. When the Forest Service took over control operations (1956) it was apparent that periodic clean-ups of "problem" animals in high density areas were not having a significant effect. Despite deer tallies of up to 40 per day for some hunters and as many as 2000 per man a summer, the annual deer kill was increasing with no apparent impact on the growth and spread of herds. By now the various populations or herds were combining through their expansion.

A change of emphasis in control philosophy started at this time. Although planning was aimed at achieving maximum kills, an area might now be granted priority because of forest damage or erosion. Instigated by the then-Director-General of Forests, Lindsay Poole, this change meant there had to be some downstream value at stake to justify the considerable cost of animal control. Money could no longer be spared to control animals in low priority areas. Adequate control, let alone extermination, of deer, tahr and chamois and possums would not be possible until new methods were devised.

Commercial intervention

The development of the commercial venison recovery industry by James Maddren in the 1950s gave the control effort a much needed shot in the arm. Helicopter hunting by the late 1960s had created a multi-million dollar export trade, with the peak reached in the 1971 season when an estimated 131,000 carcasses were exported. Of course, total

kills were well above this figure. Reductions of the order of 70 percent were noted in some areas over only three years (eg Landsborough Valley to the Arawata Valley in Westland), and commercial operators were forced into more remote regions.

Tahr and chamois did not escape the commercial recovery frenzy. From 1973 to 1975 nearly 25,000 tahr were shot for export, severely reducing animal densities throughout their range. Chamois, too, proved to be easy targets from a helicopter and large numbers were removed from the Southern Alps.

By the mid-1970s the aerial hunters' deer recovery rates, in particular, began to fall and for the first time it was felt some measure of control had been imposed on hoofed animals. The best time for reducing populations was during spring when deer family groups were breaking up prior to calving. Young deer no longer under parental care were shot, while herds withered because no young ones were coming on.

Live deer recovery was the next development, spurred on by deer farming and the subsequent dramatic rise in the price of live deer. There were never as many live deer caught as had been shot in the early 1970s, but 1979 saw a peak of 25,000 captures, a figure which has fallen considerably since.

Possums did not face a similar decimation through the 1960s and 70s, but between 1976 and 1980 a dramatic increase in auction prices for raw possum pelts led to more commercial trappers and an increase in their catches. In 1979-80 more than three million pelts valued at more than \$23 million were exported. Possum numbers fell significantly but not to the same extent as deer, chamois or tahr, and in recent years prices have fallen and possum numbers have once again increased significantly.

Deer, chamois and tahr numbers are now down from the highs of 30 years ago, and the forests where they ranged are showing adequate regeneration. In the face of this control strategies have again changed, and all wild animal control is now governed by the Wild Animal Control Act 1977.

Recreational hunting

Recreational hunting areas (RHAs) — officially gazetted blocks of land set aside for hunters where commercial hunting is banned — have been established as a result of clauses in the Wild Animal Control Act. It is intended that recreational hunting should be the main form of control in these areas, although other methods can be used when recreational