WILDLIFE RANCHING : A CELEBRATION OF DIVERSITY 127

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CONCLUDING ADDRESS

This symposium has rightfully focused on the African continent where there is a rich diversity in wildlife and where the ravages of drought are severe for both man and beast. Diversity both among and within species is very relevant to all levels of game utilisation. I want to pick out some of the highlights and offer a few thoughts for the future.

GAME RANCHING AND THE COMMUNITY

There are exciting developments in several parts of Africa where rural communities have been able to derive substantial income from the carefully planned harvest by fee paying hunters of a limited number of large game animals. Revenue from ecotourism is attractive and complementary to hunting. The communities themselves are making the decisions about game management plans and about how to spend the derived funds. Schools and grain milling equipment may be high community priorities as well as the sharing of profits among all families. Poaching often falls dramatically and the quality of the habitat improves as the people realise that it is necessary to protect the village game asset for future income generation. If these developments continue then we may begin to provide answers to comments such as; "Poverty is inextricably mixed with game" and "Can we have conservation inside and poverty outside?" The pictures of a village community sitting under a tree (a big one!) in order to plan game operations and then to dispense the profits were compelling. These sorts of projects need to be

- 1. totally separate from the political system (often difficult),
- 2. focused on excellent communication.

CONSERVATION OF ANIMAL SPECIES AND HABITAT

The loss of animal species through extinction has markedly accelerated in the 20th century and there is continuing debate about how to stop this process. One school of thought says that we achieve conservation by a process of fenced protection around reserves which must be policed to prevent poaching. A different philosophy is conservation through controlled management and utilisation of animal species. Advocates of the protectionist view have become extremely vociferous in the media and there were several contributions at this symposium putting forward the alternative option of controlled utilisation.

There are situations where uncontrolled exploitation has led to extinction and the protectionists will feast from these. To get into a war of specific examples of good or bad conservation will probably not achieve a lot and will leave the media confused.

What we need is sound systematic evaluation data about the affects of game ranching on conservation - this has barely started and must be a high priority. There have been many papers and posters dealing with ways of measuring changes in vegetation and animal numbers on the land. Sometimes the methodology may appear mundane but is vital in providing documentation of change.

With good planning and effective marketing, well managed game can be "harvested" many times through a camera or a pair of eyes. The economic gain as well as some by-product meat from culling is attractive. A point was made that it seems most unlikely that Africa can meet its human protein requirements through game utilisation. Revenue from a variety of game products will improve the economic base and make some impact on poverty.

When considering conservation and biodiversity we must not lose sight of the fact that there are very many species that do not seem to be economically attractive and thereby get run down in the rush to conserve and utilise the economically attractive ones. In making a case to the international community on behalf of game ranching it is necessary to show that there are benefits to those species which might be seen as "less attractive". Ecotourism is one useful approach but it is also unwise to put labels on species. Who would have thought a few years ago that the green iguana could be a very attractive food item and that the endangered status of this animal could be turned around through intelligent utilisation and habitat protection.

MARKETING

There was a persistent theme that the symposium dealt mainly with production of game and couldn't get to grips with marketing. A future symposium should make a point of addressing the issue because it is absolutely fundamental to the success of game ranching. For an industry to develop, the products need to be professionally marketed.

The New Zealand Game Industry Board (GIB) is a non-government body which comprises elected representatives of producers and exporters. The GIB cannot own or sell any product but has the responsibility for strategic planning and product promotion. During the next five years under its newly formulated strategic plan, the GIB will spend the major part of this budget (derived from levies on producers) on market and product development. Reindeer meat from Russia and Alaska, antelope from Africa and perhaps Australia in the future and venison from Europe, Australia, North America and New Zealand all need quality marketing.

THE BLACK BUCK ANTELOPE

The management and farm handling of deer has now been around for a while - some will say it goes back hundreds of years - but farm handling of antelope? Although the black buck antelope comes from India and Pakistan several people in Africa who have had experience with the animal in zoological parks said that it was at least equal to several species of African antelope in difficulty to handle. Black buck can be rounded up from a field and brought into holding yards with the aid of dogs, can be handled in the yards as easily as some species of deer and can be trucked to a central slaughter facility with minimal problems. Game producers should take the view that nothing is impossible and refuse to accept what might be seen as traditional views about game management and handling.

ANIMAL WELFARE AND ANIMAL RIGHTS

This topic is now a major one all over the world in relation to exploitation of animals and is certainly relevant to game ranching. We need to clearly establish the difference between animal welfare and animal rights. Animal welfare aims to stop animal abuse and protect animals so that they can live a healthy and "normal" life. Animal rights advocacy, on the other hand, says that animals have equal rights to humans, that they should not be managed or slaughtered and that humans should eat plant food. Poor welfare or animal abuse is something we must not tolerate and this applies to feeding, physical management and harvesting of game animals. Bad publicity in this field is very damaging.

Animal rights issues are a different matter. These extreme groups resort to terrorism, are politically powerful, are well funded, and can manipulate the large urban communities who know little about wild places but who can exert effective pressure on politicians to pass very restrictive laws. If you think you live in a country that is immune to this problem then think again. New Zealand is a small, remote agricultural economy yet it has recently seen incidents from the extreme animal rights groups. Some years ago the population of bison in a Canadian Park began to exceed the carrying capacity of the Park. Public pressure closed down the small abattoir that could have been used to process surplus animals and the staff had to resort to developing birth control systems with the bison or attempting to sell surplus animals

SOUTH AMERICA AND ASIA

I am sad that we have heard virtually nothing from the South American and Asian continents. Tropical rain forest now occupies only about 6% of the world's surface yet harbours 50-60% of the world's biodiversity. This is the essence of animal diversity for future generations - species that are lost can never be regained and many of these are uniquely adapted to difficult environments, e.g., disease resistance and ability to thrive on plants which grow in difficult environments. Technology is moving so fast that it is now not science fiction to see the day when desirable characteristics in the genome of one species can be extracted and grafted onto others. Biodiversity will play a major role in future genetic manipulation.

There are interesting contrasts in grassland ecology between the African and South American continents. M. Oesterheld *et al.* (1992) said "Subhumid grasslands of South America are invaded by exotic, mostly European species when grazed by livestock and the importance of native grasses are drastically reduced. In contrast the equivalent subhumid grassland in East African game reserves are always dominated by native grasses even under high grazing pressure. The difference was attributed to the longer evolutionary history of grazing in South African grasslands and savannah compared with those in South America whose grazers and browsing fauna almost totally failed to survive the Pleistocene extinction of large herbivorous mammals." We need to know much more about South America and its genetic diversity.

Finally, none of us can avoid the horror of the present drought in Southern Africa. We have seen the human devastation on television and heard about the animal devastation at this symposium. I am impressed that game ranching under conditions of high climatic variability needs a flexible approach which includes heavy harvesting under drought conditions and allows the game population to grow in times of good season. Increase can be allowed to continue until there is a measurable effect on the perennial grassland species. Innovation is going to be the key to future game farming development. The farming of black buck antelope or the introduction of tame elephant onto African farmland to better control bush encroachment are rather radical suggestions but should not be dismissed out of hand.

Even apart from the Chinese, the utilisation of non-conventional animals is not as new as many people think. I was recently sent a booklet entitled "Raising deer and other large game animals in USA". It could have been written in 1990 but it was actually published by USDA in 1910. One of the interesting stories related to the full domestication in Scandinavia of moose as courier animals. The animal was faster than reindeer and could draw a sleigh 375 km in a day! Moose were finally forbidden as transport under heavy penalties on account of their being employed to facilitate the escape of prisoners and criminals - and domestication was abandoned. Current thinking about innovation with game animals could learn some lessons from last century's innovation.