

# Hunting as an acceptable management tool for conservation

by

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## **Abstract**

The South African game and hunting industry has made a major contribution to the conservation of game species, but problems that have developed in certain aspects of the industry are now taking on such proportions that the credibility of all

role-players are being adversely affected. Provincial conservation authorities are partly to blame for this state of affairs. Current problems in this industry viewed from a conservation perspective include: genetic manipulation, for example, through the artificial selection and breeding of recessive colour phenotypes, the deliberate mixing of known races of game taxa which could result in significant depletion of the genetic integrity and diversity of natural populations; game taxa that have increasingly been introduced to areas outside their natural distribution ranges may lead to competition, hybridization, inbreeding, destruction of habitat, or even other abnormal defects, including the introduction of foreign pathogens and parasites; hybridization of closely related game taxa which is of great concern to South African conservation authorities as it makes no contribution to either nature conservation or the long-term survival of these taxa, and severely affects the integrity and long-term viability of the game industry; the breeding of rare game varieties for trophy purposes may lead to undesirable levels of inbreeding or, still worse, hybridization of subspecies; significant impacts on the habitat can be caused by the introduction of undesirable invasive or alien game taxa and deliberate modification of indigenous vegetation; and in general, unregulated relocation of animals can also have a variety of other unfortunate consequences.

South African conservation bodies are also to blame, since there are currently no national norms and standards in place for the translocation and introduction

of game species outside their natural distribution ranges. As a result little has been done over the years to inform and guide the game and hunting industry adequately. The availability of up-to-date information is a further problem, as limited information is available on important aspects related to the SA game industry. The conduct of some hunters, including professional hunters, is currently a source of concern to all role-players in the industry. Conservation authorities are currently investigating irregularities with regard to permits and unacceptable conduct. Certain joint solutions are suggested, to contribute to the establishment of a platform for constructive collaboration between all role-players.

### **Introduction**

Nature conservation in South Africa, despite being a statutory responsibility at both national and provincial level for more than 5 decades, has been inextricably linked with the hunting industry and private landowners for roughly three centuries and before that with communal landowners as a result of the protection of tribal hunting grounds.

Without the efforts of the hunting industry and private landowners, nature conservation in South Africa would today have been in a far poorer state. Simple examples of animals that were effectively saved from extinction by private landowners include the bontebok, the black wildebeest, the Cape mountain zebra, the geometric tortoise, and countless numbers of rare plant species.

As a result of this private landowner protection, particularly in the case of the rarer mammals, it became possible again to translocate founder populations to areas where these animals used to occur historically. This resulted in a situation where relatively large populations have now been built up within the historical ranges of these animals, once again exposing many of these animals to the natural selection pressures and evolutionary processes which shape their destiny within functioning ecosystems. Associated with these advances in conservation, which were assisted by the hunting industry and private or communal landowners, was the development of the game industry as increasingly more landowners and hunters became aware of the societal value, and the intrinsic monetary value of several of these animals based on their rarity.

As translocation techniques have evolved it has become increasingly safe to translocate wild taxa over large distances. As convenient as this is, it also has several drawbacks if undertaken without due consideration of actual and potential consequences. South Africa is blessed with an exceptionally diverse landscape, which has shaped the great evolutionary diversity amongst its fauna

and flora. Many plant and animal taxa are highly distinct yet still closely related to other offshoots descended from the ancestral taxa, whether these be at the species, subspecies, ecotype, or population level. Inappropriate and irresponsible translocations of closely related taxa into the natural ranges of one another therefore pose major genetic risks. These risks include the possibility of outbreeding depression, of hybridization between species, between subspecies, and the mixing of ecotypes with the possible resultant loss of local genetic fitness due to the modification or loss of local gene adaptations or alleles.

A further great risk is the transmission of diseases and parasites to areas where they previously did not exist and these pose considerable threats to the wildlife, and in some instances even to domestic livestock, of the areas into which they have been introduced. Yet another major risk is that an introduced taxon often has the potential to cause considerable irreversible ecological damage whether it is in the form of substrate or habitat destruction, or even out-competing local taxa.

There is thus a need for all those interested in the maintenance of natural biodiversity to establish national norms and standards for the translocation of biota so that no one element poses a conservation threat to any other. Although the new Biodiversity Act provides important principles to effectively address some of the problems mentioned, implementation of these principles will only be possible with properly resourced conservation agencies and a game and hunting industry that fully supports and understands sustainable utilisation. Effective, but practical regulation of the movement of those mammals which are of the greatest importance to the game and hunting industry, namely indigenous South African mammalian herbivores, and those organisms which pose a threat to them and which may also pose a significant threat to endemic plants or even plant communities.

The purpose of this contribution to the hearing is to expose major role players in the South African game and hunting industry to the latest schools of thought in conservation circles, and to continue a positive debate in search of workable solutions.

### **Conservation related problems with the SA game and hunting industry**

Although the South African game and hunting industry has made a major contribution to the conservation of game taxa in this part of the world, as stated above, problems have developed in certain aspects of the industry. These problems are now beginning to take on such proportions that the credibility of all role players is being brought into question. South African provincial conservation authorities are partly to blame since they have, over an extensive period, allowed other factors in the game industry to overshadow conservation

principles. If this tendency is allowed to continue, it may ultimately undermine general nature conservation principles as well as the economic viability of the game industry.

**These problems include the following issues.**

**Genetic manipulation**, for example through the artificial selection and breeding of recessive colour phenotypes, which occurs in practically all forms of life, is developing into a lucrative industry in some areas of the country. Unfortunately, these manmade “creations” have become sought after among game farmers and trophy hunters. Known examples include black impala, black and white springbok, white and yellow blesbok, red wildebeest, white eland, *etc.* Another example is the deliberate mixing of two acknowledged races, as in springbok, in an attempt to breed bigger animals for trophy purposes. In the long run such practices serve no purpose, as the dominant gene in the population determines the colour or size of individuals. These practices could, however, result in significant depletion of the genetic integrity and diversity of relatively small natural populations and could significantly threaten the effective conservation of the species. Such animals do not normally survive in nature, and unnatural or weak features may emerge should they be used for breeding. This also establishes the wrong messages with the ignorant and naïve trophy hunter or tourist, and does great harm to the image of the game and hunting industry.

**Game taxa outside their distribution ranges** create a variety of problems. An example of problems that occur regularly is that of springbok in the southern parts of the West Coast of South Africa, where they did not occur historically. These animals regularly contract foot-rot due to the more humid climate of the area. Another example is the elongated hoof growth, which occurs among Cape mountain zebra in the Saldanha dune fields (West Coast, SA), also outside their natural distribution range. Here unnatural hoof growth has been observed and has been attributed to the sandy substrate which does not sufficiently wear away the hooves of these animals. Further examples of taxa that have increasingly been introduced to areas outside their natural distribution range in SA are impala, nyala, blue wildebeest, black wildebeest, blesbok, mountain reedbuck, waterbuck, lechwe, reedbuck and giraffe. Although bushbuck and nyala are found together in certain parts of South Africa, there is however no natural overlap in the south-western regions. Where nyala are, however, artificially introduced to bushbuck habitat in the Western Cape, nyala tend to displace the bushbuck from their natural habitat. A further problem with closely related game species outside their natural distribution range such as blue and black

wildebeest, waterbuck and lechwe, is that they tend to hybridize and in these cases even produce fertile offspring. The resettlement of game species on private properties outside their natural area of distribution may thus lead to competition, hybridization, inbreeding, destruction of habitat, or even other abnormal defects, including the introduction of foreign pathogens and parasites. From a game farming and hunting point of view such game species outside their natural distribution range may be equally as acceptable as herds of livestock. The question is what contribution does this make to nature conservation; especially as such ventures find it profitable to do business under the banner of conservation?

**Hybridization**, a practice of great concern to SA conservation authorities, is the deliberate cross-breeding of closely related game taxa such as blesbok and bontebok. This practice destroys the genetic purity of both, but naturally holds much more danger for the scarcer bontebok. Other taxa that could hybridize are kudu and eland; black and blue wildebeest; and several other possibilities. Unfortunately financial gain has become an important driver of these practices. For example, some landowners would like to obtain the more sought-after and rarer sorts of game such as bontebok, but since such animals reach prices that are eight to ten times higher, they instead purchase cheaper blesbok, cross-breed them with a bontebok ram which are then offered to tourists and trophy hunters as purebred bontebok. Possible hybridization among several other subspecies such as the Cape mountain zebra and Hartmann's zebra threaten the genetic purity of both subspecies. Hybrids of distinct species that have fertile offspring, for instance between black and blue wildebeest, are unfortunately a common occurrence today. The unnatural cross-breeding or hybridization of different species and subspecies is in conflict with conservation principles and makes no contribution to the long-term survival of such taxa and could severely affect the integrity and long-term viability of the SA game industry, especially where rare taxa are involved.

**Breeding of rare game species** such as roan antelope, sable antelope and bontebok for trophy purposes by people without the necessary expertise may lead to undesirable levels of inbreeding or, still worse, hybridization of subspecies. These practices are genetically not desirable, threaten natural ecological processes and should be discouraged by nature conservation authorities and the game industry, unless it undertaken following acceptable and co-ordinated zoological principles as part of an approved management programme for which a management plan has been prepared, and which has been approved by a recognized conservation authority.

**Severe impacts on the habitat** can be caused by the introduction of

undesirable invasive alien species such as the Himalayan tahr. Such examples can have a severe negative influence on the natural environment, which ultimately results in the costly extermination of such animals. The translocation of herbivore taxa outside their natural distribution range can also impact the habitat negatively if not managed professionally. For example the establishment of gemsbok in the succulent Karoo outside or on the fringes of their natural distribution range, in higher densities than they may have historically occurred, could have severe negative impacts on sensitive parts of the already scarce natural vegetation (referred to as “renoster” bush) and quartzite-based succulent vegetation patches. These animals tend to dig out succulents and eat them, especially during dry periods and if enclosed in areas that are too small, the habitat could be severely impacted upon. With the growing interest in game in the Western Cape, South Africa, certain game farmers also are converting the natural vegetation (referred to as “fynbos”) into grassland, through frequent burning or by cutting down the vegetation with a bush cutter. This makes it possible for them temporarily to keep a greater variety of game alien to “fynbos”. What has to be taken into account, however, is the fact that “fynbos” soil types are basically nutrient poor and that these animals will ultimately be dependent on supplementary feeding for their survival. Again this is undesirable from a conservation point of view.

**Unregulated relocation of game** can have a variety of unfortunate consequences in South Africa. Although most role players in the game and hunting industry are eager to do business under the banner of conservation, the translocation of game without the necessary permits is unfortunately giving the game industry a negative image in South African conservation circles. Conservation bodies are also partly responsible, since only a few of the provinces have had game translocation policies or guidelines, and as a result little has been done over the years to inform or guide the game industry adequately regarding this matter. With the formation of the nine provinces in 1994, the situation in South Africa has deteriorated still further, and no uniform game management policy is followed. Conservation authorities at all levels in this country therefore need to address this situation without delay, to prevent the dangers posed by genetic hybridization, transmission of parasites and diseases, and irreversible ecological damage.

**Availability of general information** is a further problem. Although valuable information is available on the economic value of the South African game industry, very limited information is available on other important aspects of hunting or game farming/ranching in the country. A

comprehensive survey on among other things, the impact of current hunting practices, the diversity of game, numbers, origin of breeding herds and forms of utilisation and it's sustainability, is essential for good and sustainable game management.

**The mal practice of “canned or put and take hunting”** is not acceptable from an ethical or conservation point of view. It refers to the releasing of captured animals into small fenced enclosures for the sole purpose of having them “hunted” by paying clients. Trophy males are for example often selected at game auctions for this purpose and even advertised as such. In such cases there is no intention to build up a breeding stocks or viable game populations. The paying trophy hunter is often misled and is in most cases unaware that he/she has been exposed to “canned hunting”. These practises including “**canned**” lion hunting are primarily economically driven and contributes nothing to conservation or the credibility of the local hunting industry. The threat of an uncontrolled and unregulated “bush meat trade” in South Africa also need to be addressed while considering the social as well cultural aspects thereof. Other forms of hunting e.g. green safaris and “traditional hunting” need to be scrutinized carefully and managed sustainably where possible.

**The conduct of professional hunters** is also of concern. Irregularities with regard to permits and unacceptable conduct by SA professional hunters and professional outfitters in the country are currently being investigated by conservation authorities and will hopefully result in improved standards and better control.

### **Suggested joint solutions.**

**National norms and standards** must be developed for the translocation, re-introduction and introduction of game species in South Africa in order to reduce and control the introduction of game species/taxa outside their natural distribution ranges. The fact that several precedents already exist does definitely not justify an unqualified perpetuation of this practice.

**Clear guidelines** are thus urgently required for all role-players to initiate the difficult process of rectifying undesirable practices such as the cross-breeding or hybridization of subspecies and species, the keeping of invasive species, the breeding of recessive colour phenotypes and other variants, the breeding of rare species solely for trade purposes or as tourist attractions, and the potential introduction of complex pathological consequences.

**Partnerships** between conservation authorities and all facets of the game industry must urgently be established. Incentives and effective communication, rather than law enforcement, should be developed through these partnerships to promote desirable practices and to discourage undesirable practices.

**Reliable information systems** need to be developed in the interests of all role players, since they are essential for the sustainable management of this important resource.

**The classification of game farms/game ranches** and other holding facilities for wild large herbivores according to an accredited system (possibly the SA Bureau of Standards - SABS), with the support of the industry, would facilitate their management and sustainability. The highest category could for instance be rewarded with contractual nature reserve status and qualify for the highest level of incentives. The lower categories could represent game hunting, exhibition or breeding facilities with educational and/or commercial value, but with little or no conservation value and with little or no opportunity to qualify for incentives. Incentives ought to be developed which are economically and ethically attractive enough to the game and hunting industry to encourage the establishment of the highest possible category of game-keeping facilities. Such facilities could be used as management tools to sustain the industry and at the same time be beneficial to conservation. Prospective trophy hunters or tourists will then be assured that accepted norms and standards are being maintained sustainably in the South African game industry.

**Recognition of game trophies** by the South African and international hunting industry should preferably only include trophies that comply with mutually agreed conservation criteria, and which would ultimately bring an end to unacceptable trophies that currently seriously threaten the ethics of the game industry. It is particularly heartening that at a recent meeting of the Confederation of Hunter's Associations of South Africa (C.H.A.S.A) it was recognised that a hunting trophy should only qualify as such if it comes from an indigenous game species which "was hunted under normal circumstances according to ethical norms in its natural area of distribution", and where all statutory requirements have been met. Also heartening is the fact that practically all the above mentioned "problems" in the game industry are also seen as "undesirable" by C.H.A.S.A, and according to them, do not qualify for recognition as trophies. In our opinion all conservation bodies should support this position taken by C.H.A.S.A. Official appeals should also be made to Safari Club International (S.C.I) and the Roland Ward administration for their support in the development of such initiatives. If both S.C.I. and the Roland Ward administration could be persuaded to recognise only trophies that comply with strict conservation criteria, it would ultimately bring an end to the undesirable trophies that currently seriously threaten the ethical credibility of the game industry in South Africa.

**Effective communication** and positive co-operation between all role-players will be a key to the solution of the major problems in the South African game and hunting industry.

Acceptable and joint solutions should be found to address the issue of “**canned or put and take hunting**”.

### **Concluding remarks**

Some of the suggested solutions as outlined in this paper are theoretically enforceable, but more importantly primarily dependent on the positive co-operation of the relevant role-players. We believe that effective communication and good co-operation between all role-players, will be a key to the solution of current problems in the South African game and hunting industry. The suggested solutions as outlined in this paper are not enforceable and are primarily dependent on the positive co-operation of these role-players. Furthermore, practically achievable encouragement or incentives will offer a workable alternative to render this industry sustainable as well as to provide us with usable tools to manage this important resource according to acceptable international norms and standards. These entities in the game industry are mutually dependant and their sustainable future depends on a constructive partnership. Nature Conservation authorities should, however, also commit themselves to providing a more professional service to the South African game and hunting industry and all its affiliates.

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