

# Industry Gaps & Bridges

Historic Wildlife Change

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Sable antelope  
(*Hippotragus niger*).  
Photo © Quintus Strauss



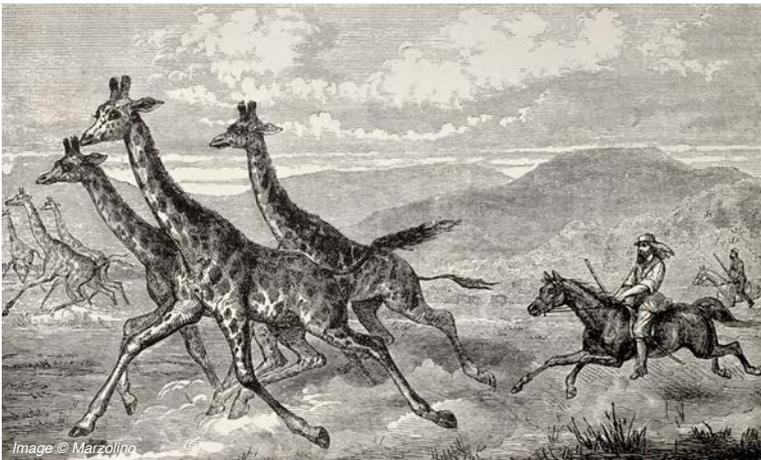
Deon Furstenburg



2017 is developing into what is undoubtedly the most bizarre, controversial and challenging year in the game industry. There has been a lot of change and, to gain perspective, we need to dig down into the past, which continues to affect southern African wildlife.



▲ Jan van Riebeeck arrives in Table Bay in April 1652. Painting by Charles Davidson Bell.



Sir Samuel White Baker (8 June 1821 – 30 December 1893), a British explorer and big-game hunter.



Image © Morphart Creation

Wild Africa was 'tamed' by European settlement and later degraded and almost destroyed by the human population explosion, poverty, exploitation, politics and greed. The balance has tilted a few times in the past and is tilting once again. The last socioeconomic tilt was the arrival of the British settlers in the Eastern Cape in 1820 and the consequential mass export of wildlife hides to Europe. Vlekpoort near Hofmeyr was named after the thousands of hides being draped over rocks as far as the eye could see, drying for export from East London harbour.

### Timeline (1652-1960s)

#### 1652:

Jan van Riebeeck landed in the Cape and found large and small game most abundant from the coast and throughout the interior.

#### 1700s:

Trigger-happy hunting parties of early settlers and European royalties eradicated most of the game in the southern Cape.

#### 1820:

4 000 British settlers arrived in the Eastern Cape and extended the mass game killing into the Cape Midlands.

#### 1823-1826:

Livestock farmers entered the 144 000ha marshlands of the Hofmeyr area and built a 30km furrow along the Bamboesberg catchment, drying out the marshes to prevent foot-rot of livestock. The marshes and the Cape Midlands used to be an epicentre of convergence of millions of migrating plains game. By 1942, the area had been expropriated by national government due to excessive soil erosion of the once largest wetlands in the southern hemisphere.

**1836-1838:**

The great Boer trek to the north took place, with farmers settling across the country, at first living primarily from hunting and later turning hunting into an adventure sport.

**1884:**

Most game in the Cape and Free State had been eradicated and the bushveld put under such pressure that President Paul Kruger legislated hunting restrictions between the Crocodile and Sabie Rivers in the Lowveld.

**1887:**

A rinderpest epidemic broke out from Indian cattle being introduced to Eritrea by Italians. The epidemic spread across Africa, killing wildlife and livestock at alarming rates. It crossed the Zambezi River by 1896, killing 5.2 million cattle and an estimated 80% of the remaining game in southern Africa.

**1898:**

Paul Kruger proclaimed the Sabi Reserve (Kruger National Park) as a protected area for wildlife.

**All these incidents and activities reduced the number of game animals in South Africa to fewer than 500 000 head.**

**1898-1914:**

Thanks to the tsetse fly and associated trypanosomiasis parasite control programmes, 620 000 head of game were shot by state veterinarians in northern KwaZulu-Natal, Mozambique, Zimbabwe and

Botswana, including 6 597 buffalo, 201 000 duiker, 90 000 kudu, 76 000 warthog, 40 500 bushbuck, 37 600 sable, 36 700 impala, 34 900 grysbok, 22 000 bushpig, 10 300 eland, 9 300 zebra and 5 500 roan.

**1899-1902:**

The South African War put more pressure on already struggling wildlife.

**1958:**

The first veterinarian cordon fence (VCF or Red Line) restricting animal movement was erected in northern Botswana, followed by the Red Line along the Kruger Park in 1964 and the Red Line in Namibia in 1966. Red Lines stretched from KwaZulu-Natal continuously along the western boundary of the Kruger Park and associated private reserves, up to Botswana below the Okavango (several fences) and across northern Namibia below the Caprivi and Etosha (several fences).

**1961:**

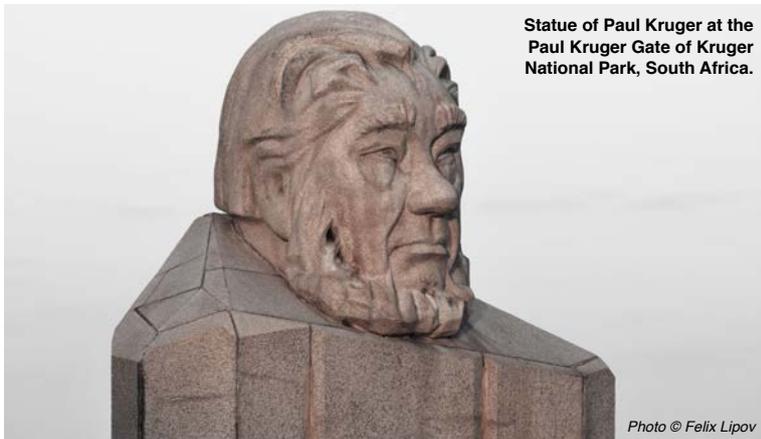
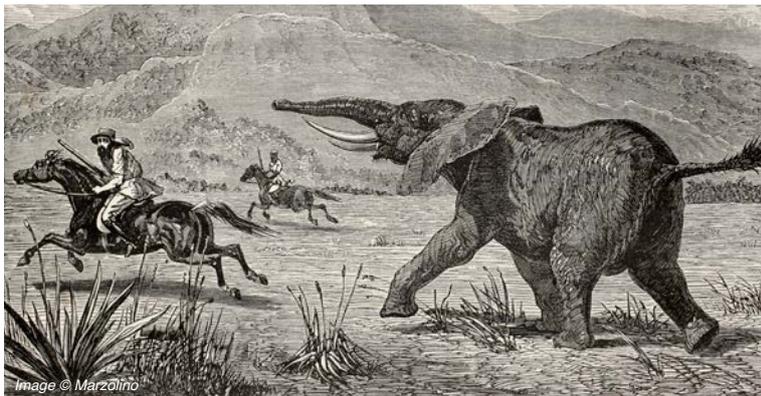
Independence of the Republic of South Africa.

After 1965, there was an increase in conservation activities, with an emphasis on wildlife conservation and the establishment of many more protected parks and reserves by the State. Consumptive wildlife use and hunting was still of minor interest and of little economic value.

**1969:**

Professor J. du P. (Koos) Bothma started the first-ever formal wildlife management education, degree in Wildlife Management by the Eugène Marais Chair of Wildlife Management, Pretoria University.

All these incidents and activities reduced the number of game animals in South Africa to fewer than 500 000 head, compared with 14 million cattle and over 30 million sheep and goats.



Statue of Paul Kruger at the Paul Kruger Gate of Kruger National Park, South Africa.

Photo © Felix Lipov

## Timeline (1970-2017)

### 1981:

The KwaZulu-Natal Conservancies Association was formed and the first-ever Conservancy in South Africa started at Balgowan in the Natal Midlands.

### 1984:

Legislation of the Animal Diseases Act 35.



*Red Line restrictions, along with Act No. 35 of 1984, limited animal movement, which largely contributed to the formation of species bottlenecks, manmade creation of species, sub-species, new phenotypes and the degradation of genetic integrity, to the detriment of many game species.*

*In the late 2000s, commercial game markets took advantage of this phenotyping (different-looking animals and bloodlines increased in price, species value notwithstanding), and this controversial artificial value-add became known as the 'wildlife gravy train'.*



Greater kudu (*Tragelaphus strepsiceros*), Limpopo.



### 1987:

Dr Keith Ramsey and Dr Amie Aucamp drafted the first proposal to government to recognise and declare wildlife game farming as a *bona fide* agricultural business. From the very start, this attempt was heavily opposed by Environmental Authorities.

### 1988:

The Communal Areas Management Programme For Indigenous

Resources (CAMPFIRE) started in Zimbabwe. This was the start of **wildlife transformation**, as it is known in present-day politics.

### 1989:

Deon Furstenburg from the Agricultural Research Council commenced the first-ever scientific ecologic wildlife study concerning the principles of private game farming in the Eastern Cape on the J. C. Steyn Prison experimental

**The private ownership and commercial production of wildlife in South Africa became possible with the promulgation of the Game Theft Act No. 105.**

farm near Kirkwood (a study that continued for 13 years). A similar study by H. O. de Waal commenced in parallel at Mara experimental farm, northern Limpopo.

**1991:**

The private ownership and commercial production of wildlife in South Africa became possible with the promulgation of the Game

Theft Act No. 105. Livestock on agricultural land had gradually been replaced with indigenous plains game, creating private game ranches. The motive was economic gain for the sustained livelihood of human families. A lack of skills and knowledge of how to farm wildlife back then meant production was based in the main on conservation principles.

Increasing global development over the years raised the economic pressures of sustainable livelihood exponentially. Supply and demand became the key to successful game ranching. By 1992, there were 3 500 private game ranches in South Africa.

**1992:**

South Africa signed the international **Convention on Biodiversity** in Rio de Janeiro, which has been the most controversial wildlife management and legislation agreement to date.

**1994:**

Wildlife Ranching South Africa was started as an affiliation of the Farmers Union of South Africa under the chairmanship of Jan van der Walt, the late editor and owner of *Game & Hunt* magazine.

**1995:**

Deon Furstenburg presented from his research into the first-ever scientific eco-production strategy for private game farming at an Eastern Cape Game Management Association (ECGMA) workshop at Fort Fordyce. Soon afterwards this strategy became the benchmark of game-farm planning across the country. Professor Nico Smit from Free State University also began to use the same strategy. This was the start of intensive (or later semi-intensive) private commercial game farming and **the next major upturn in the wildlife industry – the move from wildlife conservation management towards wildlife consumptive use management.**

Game ranchers in Limpopo took the lead in semi-intensive commercial farming, followed by the Eastern Cape.

**1996:**

The Marketing of Agriculture Product Act No. 47 already recognised game as an agricultural product under the Department of Agriculture, Forestry and Fisheries (DAFF).



Greater kudu (*Tragelaphus strepsiceros*), Eastern Cape.



## HISTORIC WILDLIFE CHANGE

### 2000:

The first black impala sold for R40 000 and introduced **the start of the colour variant boom**. Take note that white blesbok and white and black springbok were in the market since the mid-1970s, at normal species prices.

### 2002:

In May, the first Peace Park (Transfrontier Conservation Area), the Kgalagadi, was opened between South Africa and Botswana. Today, there are five TFCA parks in South Africa and many more in Africa.



Black impala (*Aepyceros melampus*).

**The Scientific Authority of South Africa, under the auspices of the South African National Biodiversity Institute (SANBI), started implementing Non-Detriment Findings (NDFs) on wildlife game species.**



Golden wildebeest or gnu (*Connochaetes*).

### 2004:

On 7 June 2004, the Department of Environmental Affairs (DEA) rewrote the 1992 Convention into the National Environmental Biodiversity Act 10 (NEMBA).

In February, Cape Nature Biodiversity proposed the draft endangered and alien species invasion legislation as part of NEMBA. **Commercial wildlife markets reacted immediately with an average 30% price-drop for four years. This proved an economic disaster for the private game farming industry, and in the long term also a disaster for species' genetic integrity. Various attempts by DEA to legislate the proposal**

**have not yet been approved, though different provinces enforce the proposal aggressively in their regulations.**

### 2004:

The coloured springbok boom started.

### 2005:

The first golden wildebeest was sold.

### 2006:

The process to move the private game ranching sector to the Department of Agriculture Forestry and Fisheries (DAFF) was further pursued with the National Section 7 Committee Game Report titled

'Report on the investigation to identify problems for sustainable growth and development in South African Wildlife Ranching', by the National Agricultural Marketing Council (NAMC report No. 2006-03).

### 2006:

Wildlife Ranching South Africa became an independent association.

### 2009:

The buffalo boom started, focusing on increased genetic trophy quality.

### 2011:

The first golden gemsbok sold and the year marked the start of the sable genetic trophy quality boom.

**2012:**  
Bontebok prices started to escalate.

**2013:**  
The nyala genetic trophy quality boom started.

**2014:**  
The Scientific Authority of South Africa, under the auspices of the South African National Biodiversity Institute (SANBI), started implementing Non-Detriment

Findings (NDFs) on wildlife game species. An NDF is a conclusion by a scientific authority that the export of specimens of a particular species will not impact negatively on the survival of that species in the wild.



African buffalo or Cape buffalo (*Syncerus caffer*).



Nyala (*Tragelaphus angasi*).



*The NDF by a scientific authority is required before an export or import permit or a certificate for an introduction be granted for a specimen of an Appendix I and Appendix II species. In 1960, the International Union for Conservation of Nature and Natural Resources (IUCN) determined that trade in global species constitutes a threat to several species. It requested that each country adopt import restrictions attuned to the export regulations of the countries of origin. An international convention for the protection of endangered species was requested in 1964 – the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) – which was signed at Washington, D.C., on 3 March 1973 and came into force on 1 July 1975. The scientific reviews as to whether or not trade endangers a species are the ‘non-detriment findings’ (NDFs) (Resolution Conference 16.7). The first of 26 important indicators of species measurement (grouped as: biology, status, management, control, monitoring, incentives and protection, and forming the matrix of the current **NDF Radar Chart**) were presented in 1992 but only accepted for implementation in 2014 for making an NDF.*

## HISTORIC WILDLIFE CHANGE

Since 2004, the game industry has experienced gradual increased pressure from DEA and Provincial DEA authorities limiting and denying transportation and trade of privately owned wildlife across South Africa, and since 2014 the pressure has increased rapidly with much more focus.

### 2015:

The most enlightened globally cited review of South African wildlife politics is a doctoral thesis by Dhoya Sneiders, titled *Shifting species in South Africa: Wildlife policy rural consequences*, De Vrije University, Amsterdam.

### 2016:

On 6 July, after 29 years, a game farmer from the Kalahari, Peter Knipe, succeeded in listing 12 game species (bontebok, impala, springbok, blue duiker, oribi, tsessebe, red hartebeest, gemsbok, blue wildebeest, black wildebeest, roan and sable) in accordance with the Animal Improvement Act, and the Statutory Registering Authority, the Wildlife Producers Association (WPA), with DAFF.



Gemsbok (*Oryx gazella*).



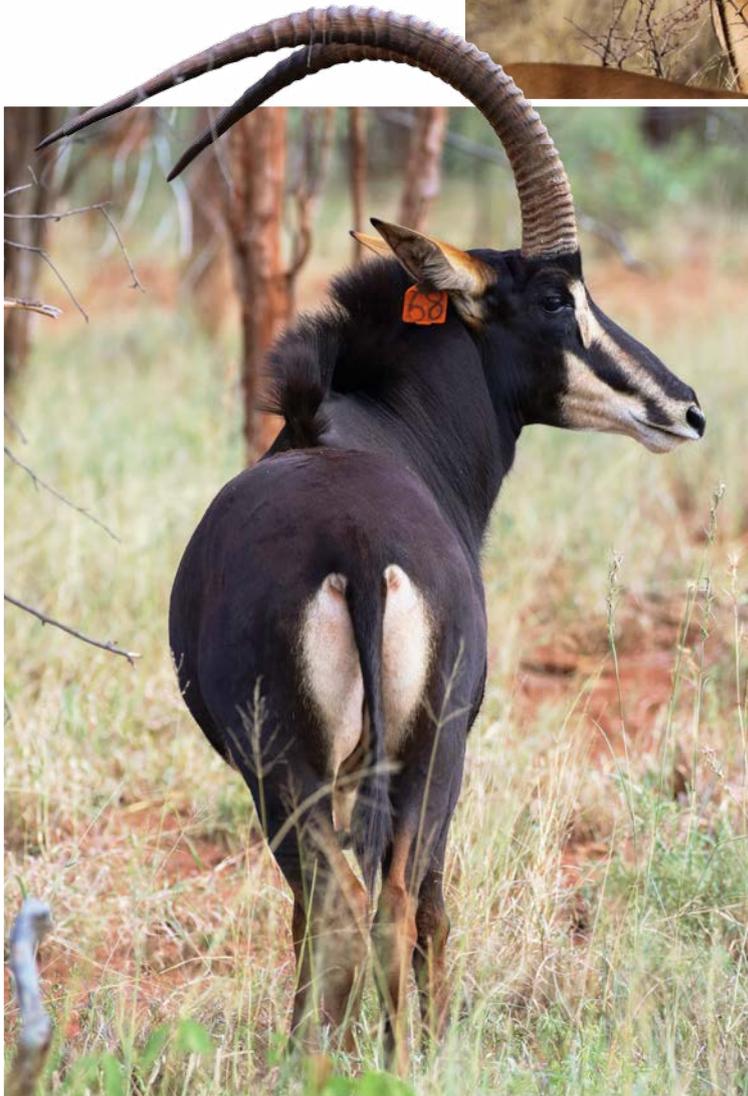
Roan antelope  
(*Hippotragus equinus*).

A major mind-shift occurred within South Africa's academic scientific arena that started to attend to applied consumptive-use conservation research instead of only 'purified' conservation preservation.

**2016:**

A major mind-shift occurred within South Africa's academic scientific arena that started to attend to applied consumptive-use conservation research instead of only 'purified' conservation preservation. **This most important science shift surfaced at the 9th International Wildlife Ranching Symposium in Windhoek and again at the 2016 SAWMA Congress in Tzaneen.**

Impala (*Aepyceros melampus*).



Sable antelope (*Hippotragus niger*).

**2017:**

Decline of game prices across the market, especially of colour variants. Private game ranchers and government conservation authorities continued to clash over increased species diversity and integrity. Government appears to see private game farming as inbreeding to the detriment of species enhancement and does not recognise the role of genetic outbreeding by private game farming. Its policy is to restrict animal movement, which limits outbreeding (which is indeed detrimental to species enhancement).

### The bubble or not?

The escalation of game prices started in 2000, after the first black impala traded at R40 000.

At first, the escalation was mild but significant in relation to past history. A gradual but rapid growth took place until 2004, with the announcement of the draft translocation proposal of DEA, when prices generally fell by 30%. Recovery took four years, whereafter dramatic escalation commenced in 2008 and remained unaffected by the 2009 worldwide economic recession. Escalation of all game markets hit an all-time high in 2015, most likely due to temporary market saturation of the high-value ('exotic') animals. Note that the term 'exotic' does not refer to alien exotics, but animals low in supply and high in demand at extreme pricing.

Individual animal profiling became the by-word of the industry, with genetic bloodlines important indicators of pedigree and value. Inbreeding was a concern only with regard to the economic value of animals. Little to no attention was given in the past to the **genetic measurement** of outbreeding, which affects species integrity, except with regard to buffalo and bontebok. Some genetics research was published once-off for eland, sable, roan and bushbuck. The genetic colour marker describing the phenotype of the impala was discovered, which strongly boosted the industry.

### 2000-2015:

The historic prime of the industry. Before 2000, the market became well supplied with normal plains game, the prices of which kept pace with inflation until 2015.

- Many new game farmers entered the 'exotic' game market at the end of the escalation curve, near its peak. These farmers, entering near

the end of the peak, purchased at the highest prices of all time, which left them with little room for making profit from further price growth. Their only option was to produce turnover by high-volume progeny produce instead of expected value-added price growth. When prices started to decline in 2016 they battled to cope with the reduced income generation.

This happened in tandem with the continuing global economic downturn, with the national politically driven economic recession, two to three years of severe drought and uncertainties around the emotional 'land question', with many utterances

by populist politicians about land-grabs and expropriation without compensations fuelling crime and farm murders. DEA's pursuit of translocation limitations increased the burden severely.

- Game farmers that entered at the start of the escalations or midway through had sufficient time to balance out input-investment and mostly have reserve capacity to ride out the temporary market correction.
- Diversification is currently more important than ever before.
- The hunting industry has also not stopped pressuring the game-breeding industry against price hiking and the intensification of individual farms.



Copper springbok (*Antidorcas marsupialis*).



Blue wildebeest (*Connochaetes taurinus*).



Oribi (*Ourebia ourebi*).



Red hartebeest (*Alcelaphus buselaphus caama*).



Blue duiker (*Philantomba monticola*).



Black wildebeest (*Connochaetes gnou*).



Tsessebe (*Damaliscus lunatus lunatus*).

## 2017:

A new step in the market is meat schemes, though with many hiccups. Game-meat supply is abundant, but late-entry farmers suffering the market correction expect to recover their losses by capitalising on higher pricing. However, the local consumer market is burdened by food security concerns and expects to buy at market-related prices for red meat. The pricing gap is currently in the range of R45-65 per kilogram expected by the breeder versus R22-28 per kilogram carcass offered, in relation to local selling prices. **The breeder maintains that the meat is exclusive whilst food security demands staple food – a major gap to be bridged.**

- The market value of plains game started to increase from 2015 due to the global shift in supply versus

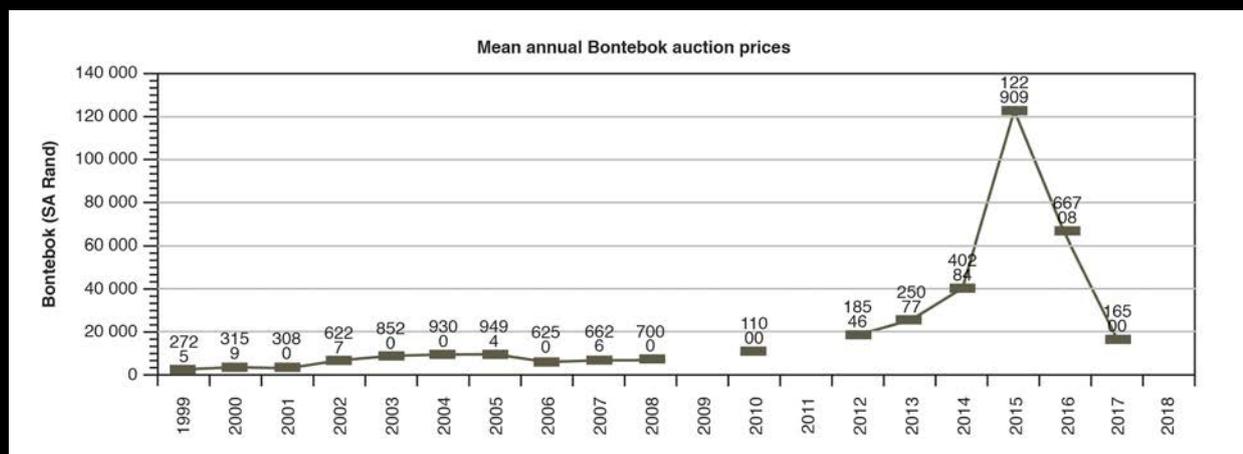


- demand of all game products.
- Genetic purity with relation to species integrity has become highly important as a result of global IUCN pressure on the enhancement and diversity of species.
- When and if the species societies are constituted in terms of the Animal Improvement Act, the role of DAFF and WPA could become pivotal and an

**The role of DAFF and WPA could become pivotal and an integrated tool of the future for self-regulation of the private game industry.**

- integrated tool of the future for self-regulation of the private game industry. This may then affect market supply and demand and hence market pricing.
- Academic wildlife research and education until the mid-1990s was restricted to conservation training only. Applied consumptive-use wildlife management research is only in its beginning phase.

Price dynamics (average annual auction prices) of the bontebok in relation to the described timeline since 1999. The curve's trend is similar for most other high-value 'exotic' game species.



## The gap

DEA has started the Biodiversity Economy initiative. To date, this move recognises economic growth by transformation projects and businesses, but still penalises the private game-ranching sector in terms of the biodiversity translocation regulations. Limiting private game translocations by state regulation restricts green economy business, which opposes the objectives of the

The Scientific Authority of South Africa does not recognise or count game on private farms as part of species enhancement in terms of NDFs.

From the 2016 South African Wildlife Management Association (SAWMA) symposium, a major gap exists between academic scientists and application scientists

with regard to the perception of conservation versus consumptive use. It is obvious that the exponential growth-rate of private game ranching has left academic science behind.

**Timing and time-framing has become the major underlying issue of biodiversity conservation versus private game ranching.**

**Limiting private game translocations by state regulation restricts green economy business, which opposes the objectives of the Biodiversity Economy Bill.**

Biodiversity Economy Bill (including creating income from biodiversity). 'Biodiversity' has become the most misleading and ill-perceived term in the history of wildlife management. As defined in the Convention on Biodiversity of 1992, all life, including livestock, is incorporated as biodiversity.



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