

Rare Game Excursion Information Brochure

Breeding of rare game and rare coloured game

The breeding of rare game such as sable and rare coloured game species such as golden wildebeest and black impala has become big business. The selective breeding of such game is however often frowned upon, as it is seemingly only done to make money, with little or no conservation value. However, as this industry is indeed very lucrative, income generated in this way can be ploughed back into numerous conservation projects and is a very welcome addition to the maintenance budget of game farms and nature reserves, who struggle to make a living from tourism alone. What is important to keep in mind however, are the ethical matters regarding breeding of game in general. As rare coloured animals occur as a result of mutant genes that spontaneously appear and which are then selectively bred, care should be taken that these mutant genes do not escape into wild populations, as such human manipulated stock could have a very negative effect on wild populations (remember that such mutant genes would in most cases not survive under natural circumstances). These animals should thus be regarded as semi-domesticated animals and not part of the wild population. The breeding of rare species such as roan and sable in captivity is altogether another situation however, and the breeding of these rare species could actually assist in the overall conservation of these animals.

A quick lesson in genetics

Genes can either be dominant or recessive, meaning that a dominant gene’s phenotypic characteristics (what the animal looks like) would suppress the characteristics of a recessive gene. As an example, in humans brown eye colour is dominant over blue eye colour. This means that the children of a couple would always have brown eyes if one of the parents has brown eyes and the other blue eyes. These children would however, all be carriers of the recessive blue eye colour gene. Should these children in turn have children with a person who also has brown eyes, but also carries the recessive blue eye colour gene, a 25% chance exists that a blue-eyed baby would be born (see diagrams below).

- B – Dominant gene for brown eye colour
- b – Recessive gene for blue eye colour

F1 Generation:
 Phenotype: Brown eyes x blue eyes
 Genotype: BB x bb

	b	b
B	Genotype: Bb Phenotype: Brown eyes, carrier of blue gene 100% chance	Genotype: Bb Phenotype: Brown eyes, carrier of blue gene 100% chance
B	Genotype: Bb Phenotype: Brown eyes, carrier of blue gene 100% chance	Genotype: Bb Phenotype: Brown eyes, carrier of blue gene 100% chance

F2 Generation:

Phenotype: Brown eyes, carrier of recessive blue gene x Brown eyes, carrier of recessive blue gene

Genotype: Bb x Bb

	B	b
B	Genotype: BB Phenotype: Brown eyes 25% chance	Genotype: Bb Phenotype: Brown eyes, carrier of blue gene 50% chance
b	Genotype: Bb Phenotype: Brown eyes, carrier of blue gene 50% chance	Genotype: bb Phenotype: Blue eyes 25% chance

Disease free Buffalo (*Syncerus caffer*):



The so called “clean buffalo” refers to disease free buffalo. In Southern Africa diseases such as Foot-and-Mouth disease (FMD) cause great economic losses and subsequently FMD are also managed internationally by the World Organization for Animal Health (OIE). Very strict monitoring protocols are followed in a FMD zone, which ensures that diseases are not transferred from one area to another. Typically, three zones are set namely, the infected zone, the buffer zone and then finally the monitoring, or inspection zone – these are also referred to as the red, blue and yellow zones.

Buffalo in Southern Africa's world-famous Kruger National Park are carriers of FMD. The animals do not die from the disease but can spread it when they come in direct contact with other buffalo, cattle, or other animals. Current legislation in South Africa specifically requires animals to be free of the following diseases before the group or individual animal is moved from its current location:

1. Foot-and-Mouth Disease
2. Tuberculosis
3. Brucellosis
4. Corridor Disease

Bovine Tuberculosis (BTB), an airborne bacterial disease, was discovered in 1990 in the Kruger National Park. Infected buffalo may carry the disease for long periods, becoming emaciated and eventually succumbing to predation. Tuberculosis has had a devastating effect on wild buffalo herds, crossing the species barrier and widely contaminating predators, scavengers and herbivores, such as lion, leopard, cheetah, baboon, kudu, eland, bongo, oryx, sable antelope and waterbuck. The South African National Parks Board (SANParks) felt the only practical solution to the epidemic, was to breed disease-free buffalo outside of the Kruger National Park. Disease-free buffalo (animals that were proved to be so after careful screen testing) were thus sourced from the Kruger National Park and bred in selected areas. This project has resulted in the establishment of disease-free herds in all nine provinces of South Africa, away from the TB-ravaged areas of the Kruger National Park. These breeding projects came into existence due to the large demand for clean buffalo.

Sable (*Hippotragus niger*)



This magnificent antelope belongs to the *Hippotragus* genus, or horse-like antelope, named so because of the heavy mane down the back of the neck to the withers like that of a horse. The bulls are black in colour with white under parts, while the cows are chestnut-coloured. Average herd size is 14 animals but as many as 40 animals have been seen together. A herd usually consists of a number of cows and their calves and one large bull. The bull is dominant in the herd (over the cows), but dominant cows tend to lead the herd. Young bulls are evicted from the herd by the dominant bull at an age of about 2½ to 3 years. Old bulls tend to become solitary. Sable antelope are not territorial as they do not defend territories, but a herd bull will ward off intruder bulls out of their activity zone areas. They can be extremely dangerous when wounded or when they feel threatened and there have been instances where bulls have actually killed lions! Cows are sexually mature at around 3 years of age. A single calf is born, usually between February and March, after a gestation period of about 240 days. Calves are known as “hidlers” as they hide away in dense undergrowth during the day and are only suckled in the early morning for about 2 weeks after birth.

Golden Wildebeest (*Connochaetes taurinus*)



(Photo by Quaggasfontein Private Game Reserve)

This is a colour variation of the Blue Wildebeest.

The history of the Golden Wildebeest (as seen on the Golden Breeders' website)

Golden Wildebeest naturally occurred along the Limpopo River basin, adjacent to the Tuli-Block of Botswana. Early farmers in the 1920s, called them “Vos Wildebeest”.

The first Golden Wildebeest bull was captured by Alec Rough in the early 1990s on the game farm Swinburne, in the Limpopo Valley. This is the area from which the majority of Golden Wildebeest originate. They formed an integral part of the large migratory herds that once moved freely between South Africa and Botswana.

Very few people are aware of the phenomenal amount of work that was done to get Golden Wildebeest to where they are today. Golden Wildebeest were first referred to as “Red or Yellow Wildebeest” by pioneer breeders. The decision to change the name of these colour variants was as a direct result of false accusations of cross-breeding between black and blue wildebeest. Wildebeest hybrids (Black and Blue Wildebeest Crossbreeds) were also referred to as red wildebeest by nature conservation officials. Due to extensive DNA sampling and research done by Dr. Antoinette Kotze, we could clearly show that no black wildebeest genes occurred amongst any of our wildebeest herds.

By disproving this accusation Barry York (founding member of Golden Breeders) decided to distance himself from any further confusion and founded the name “Golden Wildebeest”. This name was soon adopted by all in the wildlife industry.

Black Impala (*Aepyceros melampus*)

This is a colour variation of the Impala.



(Photo by HAMISHNIVENPHOTOGRAPHY)

The late veterinarian, Dr. Dirk Neethling, is widely acknowledged as having pioneered the breeding of black impala. He came across the skin of one as a young boy and became fascinated with this very rare colour variation. He decided to make it his life's mission to capture a black impala and to start his own breeding project. When an opportunity arose to capture a ram in the Gravelotte area, Neethling was devastated to hear the animal had been shot by a hunter prior to his arrival. His trials continued through the late 1980s until he struck success in 1991. He and his son Arnold sold the first black impalas on auction in 2002 for an average of R120,000 each! In May 2011 a record price of \$2,384 was paid for a 27½ inch (horn length) black impala! On the weekend of 6 September 2014, South African deputy president Cyril Ramaphosa hit the headlines for selling three white-flanked impala (another rare colour variety) at the Stud Game Breeders auction held at Mbizi Lodge in Limpopo province, for R28 million. Of the three, the highest value impala was R9.7 million!

King Red Hartebeest (*Alcelaphus buselaphus caama*)

This is a rare colour variation of the red hartebeest.

The Red Hartebeest is a large, reddish-fawn antelope with sloping back and long narrow face. Both sexes have heavily ringed horns. Of the 12 subspecies described in Africa, the Red Hartebeest is the only one which occurs in South Africa. Due to its re-introduction and introduction onto game farms and nature reserves outside its natural distribution, it has a much wider distribution today than in the past. Preferred habitat is the dry, arid regions of Namibia, the Kalahari, southern Botswana, and north-western South Africa. The name "Hartebeest" was originally thought to refer to the heart shaped curve of the horns but the accepted theory now is that it comes from the Dutch word "hert", which means deer in Dutch and "beest" meaning beast, or cow/cattle. The term hartebeest was used by the early Boers who thought the animals looked like a deer. Hartebeest is the Afrikaans for hertebeest.