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SOUTH AFRICA

Part 3

## HUNTING IN SA

Northern Cape

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Part 3

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# Index

## COLUMNS

Editorial: From the hip  
Gemsbok/ Southern Oryx  
Hunting Photos  
Popular South African Cartridges:  
.300 Win Mag  
Great hunting destinations in other  
parts of South Africa

## HUNTING STORIES

A Gemsbok hunt  
Bittersweet Mountain Reedbuck

## COMPETITION

Win a hunting trip to South Africa  
worth 10 000 USD

## ARTICLES

- 6 Hunting in South Africa Part 3:  
24 Northern Cape - land of sand and  
54 camel thorn trees  
Amakulu Safaris  
76 Swarovski Z5(i) 3.5-18x44P  
Shot Placement : The facts speak:  
92 Shots at an angle  
Show some respect  
Competitive handgun Shooting part 1  
Creating a Foundation for success  
Old Dogs make Better Shepards  
Hornady G2 1500 Electronic Scale  
Terminal ballistic theories part 2  
CZ: The answer to all your  
self-defence requirements

68  
72



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The Northern Cape is South Africa's largest province and makes up for 30% of the country's total land mass. Towards the northern parts of the province lies the Kalahari Desert, a unique and arid landscape covered in sand and camelthorn trees. However this is home to various species including gemsbuck, springbuck, lion, cheetah and many more. There are an array of exquisite hunting destinations all over the Northern Cape.



Amakulu is situated near the town of Kimberley in the Northern Cape. This prime hunting destination is open to visitors all year round and be assured that you will be treated in a very special way. The owners of Amakulu will go out of their way to make you stay very memorable.



The Gemsbuck is sometimes described as the "spear headed antelope", and for good reason. The long and sharp horns of this majestic animal is often used to defend itself against any and all attackers. The Gemsbuck is also a very popular trophy for local and international hunters. Read everything you need to know about gemsbuck on page 24.



The popularity of the .300 Win Mag is a good choice for hunting game, in South Africa there is no difference. Our fire arms expert, Pierre v.d. Walt, gives in-depth detail about this popular calibre.

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# From the Hip

Another year is almost done

The year 2020 will certainly be remembered as one of the toughest in modern history. The Covid-19 pandemic has turned all our lives upside down and many of us have made tremendous sacrifices not only financially but also on very personal levels. Many of us have lost loved ones – fathers and mothers, brothers and sisters, family members and friends. And still the pandemic is claiming its toll on human life across the globe. So far over here in South Africa we have been extremely fortunate because the full force of the Covid-19 wave has not reached us yet and hopefully it never will! For that we can only thank our Lord!

The South African borders have been opened to visitors from certain countries and we can only hope that the rest of the world will also be permitted to visit us again soon. We are in desperate need for foreign currency by means of international tourists from Europe and the USA. I honestly believe that South Africa has so much to offer to the international traveller – our wildlife, game parks, sea shores and wine yards are only a few of the excellent reasons why our beloved country should be on the wish list of any person who is looking for an exhilarating experience abroad. Of course, the favourable exchange rate is an additional attraction on its own! Therefore, it is not difficult to see how much there is to gain by visiting the southern tip of Africa.

In this edition we describe the hunting conditions and other attractions in the Northern Cape, the largest Province of South Africa. The world-renowned Kalahari Desert is also located in the Northern Cape, and we had the opportunity to hunt there this year again. The Kalahari is indeed an incredibly special piece of Africa's landscape – a place so full of surprises that it must be experienced personally to be fully appreciated. Read this article on page 8

We are also launching an incredible hunting opportunity as a Grand Prize! To stand a chance to win this prize worth \$10 000.00 (US), all you need to do is subscribe to Hunt The Wildland for a period of one year – that will only cost you \$18.00 in total (approximately) Please see page 40 for more information. This is a once in a lifetime opportunity to visit South Africa with all expenses paid except the airplane tickets.

The Afrikaans word we are discussing in this issue is 'bakgat' a word widely used by locals when they are expressing satisfaction with a situation or with an object. So when you say to someone you have a 'bakgat' (good or nice) vehicle they will understand it fully. The word 'bakgat' can be used in various forms to express excitement or joy, for instance "You shot a bakgat (big) kudu" or "this is a bakgat (nice) hunting destination". But the word can also be broken into two separate words - bak gat where the first part (bak) refers to baking a cake. It can also refer to baking in the sun. The second part (gat) is where the problems arise when using it on its own. 'Gat' means a hole in the ground but can also be used to describe another part of the human anatomy –



*André van Dyk by a gemsbuck bull he shot in the Kalahari a few years ago*



the backside – especially that of a woman. So be very careful when you tell someone "Your bakgat (nice) girlfriend is baking her gat (backside) in the sun. Baking your 'gat' in the sun plainly means you are a lazy human - nobody wants to be called lazy and by the way nobody in South Africa is lazy... haha! Another reference can be made to 'gat', when saying that something has come to an end or sudden demise, for example 2020 has seen its 'gat'!

On that note, the year 2020 is near its end and we can only pray and hope that 2021 will be much better. From the Hunt The Wildland team we wish you all a merry Christmas and happy new year. May your all your dreams come true during 2021 and may you find the time to visit the ultimate hunting grounds of the world – South Africa!

Straight shooting

André and the Wildland team

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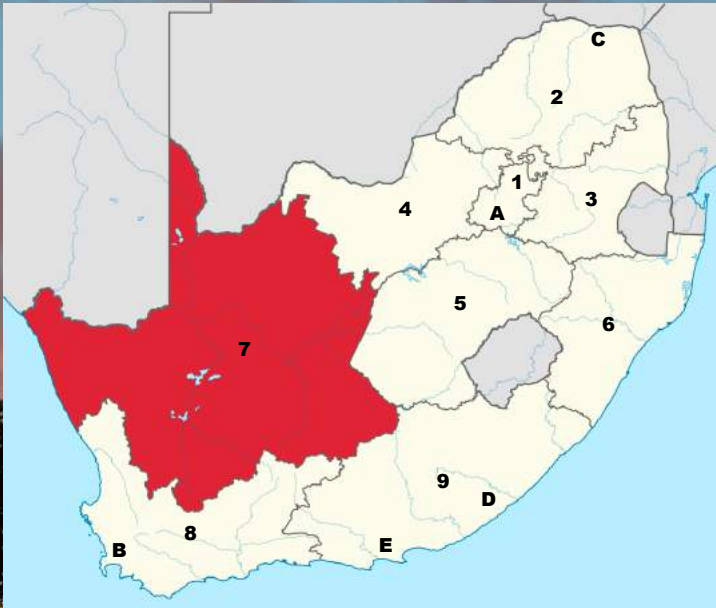
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# Hunting in South Africa

The Northern Cape - land of sand and Camel thorn trees



- |                   |   |
|-------------------|---|
| 1. Gauteng        | Distance from Johannesburg to Cape town is approximately 1 400 km (870 miles) |
| 2. Limpopo        |   |
| 3. Mpumalanga     |   |
| 4. North-West     |   |
| 5. Free State     |   |
| 6. KwaZulu-Natal  |   |
| 7. Northern Cape  | Distance from Musina to Cape town is approximately 1 914 km (1 189 miles)     |
| 8. Western Cape   |   |
| 9. Eastern Cape   |   |
| A: Johannesburg   |   |
| B: Cape Town      |   |
| C: Musina         |   |
| D: East London    |   |
| E: Port Elizabeth |   |

Many hunters dream of making that one special hunting trip of a life time – South Africa the world renowned hunting destination that offers more than 35 huntable species. Because South-Africa is such a large country with nine different Provinces, it will be wise to choose the animals you want to hunt first and then decide in which of the Provinces you would like to hunt in. Otherwise, should you put your sights for instance on the Limpopo Province, to also visit the Kruger National Park, you might not find your bucket list species there. The fact of the matter is you will never be able to hunt all the available species in just one

hunting trip to South Africa. So rather start by deciding on either the species or region first, and then plan your trip from there. It is especially important for every visitor to work through a registered Outfitter and professional hunter, in fact it is illegal to hunt in South Africa without a registered PH at your side 24/7. Before you book the trip ask the Outfitter or PH for references and contact them. In this regard the South African Professional Hunters Association (PHASA) can also assist you and they can be contacted by e-mail at [phasa@phasa.co.za](mailto:phasa@phasa.co.za) or by telephone +27 12 6672048.



# Northern Cape

## land of sand and Camel thorn trees



The Northern Cape occupies about 30% of South Africa's total area. It borders with Botswana in the north, and Namibia in the north-west. The Kalagadi National Park is situated where these three countries join to form one of the most intriguing Parks of the world. The world famous Kalahari Desert, with its magnificent red sand dunes and Camel thorn trees, is the major attraction for hunters and tourists alike. There is an old saying amongst the inhabitants of this vast dry area; "You only cry twice in the Kalahari – the day you arrive there and the day you leave".

The Northern Cape is the biggest Province of South Africa and was established during 1994 when the then Cape Province was divided in three separate Provinces, Western Cape,

Eastern Cape and Northern Cape. The total inhabitants of the Northern Cape are about two million residents. According to a study that was recently done by one of the universities, the North Cape is one of the prime hunting destinations in South Africa for international as well as local hunters.

Two cities are to be found in the Northern Cape, Kimberly in the south-west and Upington in the north. Both of these cities depend heavily on tourism for the well-being of their 75 000 plus inhabitants.

Kimberley boasts with the world's largest open-groove diamond mine. Diamond mining started here more than a century ago and although this specific mine is not in operation anymore, it was converted into a museum that attracts

thousands of tourists every year. It is an unforgettable experience to walk through this museum of yester year and relive times gone by many moons ago. Here one can trace the history of diamond mining in South Africa and walk in the footsteps of the old mine magnates like Cecil John Rhodes and Barney Barnato who created their fortunes from of the shinning stones of Kimberley.

Around Kimberley there are many excellent hunting destinations that are fully-equipped to receive international hunters and they have good trophy animals on offer. One such a place is Amakulu Safaris just outside Kimberley.



# Amakulu Safaris

Amakulu is situated just 20 kilometers from Kimberly airport and it is open for hunting all year round. It is a dream hunting destination that caters in luxury and style for hunters from abroad and the hunter that is not satisfied with the accommodation won't be satisfied with any other place. The lodge has four separate chalets and two luxury tents that can sleep two persons each. They are furnished with the utmost taste and each room has an air conditioner for the summer months, but also helps to heat

things up a bit during winter. All the chalets and tents have luxurious on suite bathrooms. The main building that houses the dining room, kitchen and bar is just 'two steps' away from the overnight accommodation. It is packed with trophies that the owner John Ekkenberg and his wife Hettie have hunted personally, from all over the world. The interior of the main building is furnished with heavy and dark wood that gives it a very warm and welcome

feeling. On warm days the swimming pool just in front of the lodge gives relief for visitors during the extremely hot summer days. Here one can splash away whilst watching the wild animals having a drink at the waterhole just 80 meters away. Just outside of the main building a very nice Lapa can be visited where the stars and the crackling fire can be experienced, with a cocktail of your choice from the bar. This is the place where the 'big hunting stories' are told.





The following recipes are what the visitor can expect to be served at Amakulu.  
Just look at the mouth watering pictures to get your mind set on Amakulu.

# Salted and Herbed Kudu Fillet



## INGREDIENTS:

- 30-45ml Cerebos Kalahari Desert Salt (coarse)
  - 15ml freshly crushed garlic
  - 45ml fresh herbs (rosemary, thyme, oregano), chopped
  - 30ml freshly ground Cerebos Black Pepper
  - 10 ml olive oil
  - 1 whole kudu or beef fillet (approx. 2kg )
- Sweet potatoes:*
- 500g sweet potatoes, scrubbed, left unpeeled, and cut into 3mm thick slices
  - 30ml olive oil
  - Cerebos Kalahari Desert Salt (coarse) for sprinkling on the potatoes

## INSTRUCTIONS:

1. Mix the Cerebos Kalahari Desert Salt (coarse), crushed garlic, fresh herbs, Cerebos Black Pepper and olive oil.
2. Roll the fillet in this mixture, rubbing it onto the meat so that it sticks.
3. Braai over hot to medium coals. Turn the fillet until it is cooked to your liking. If oven roasting, seal the fillet first by browning on each side in a large frying pan. Finish off in a hot oven at 200°c for about 20-35minutes depending on how well done you would like it.
4. Season to taste. Rest for a few minutes before slicing into thick medallions.
5. For the sweet potatoes: arrange the potato slices in a baking dish. Drizzle with olive oil and roast them at 180°c for about 30 minutes, or until they are golden and crisp. Sprinkle with Cerebos Kalahari Desert Salt (coarse) and serve with the fillet.
6. Recipe provided courtesy of Cerebos and prepared using Cerebos artisanal salt

# Springbok shanks



## INGREDIENTS:

- 4 springbok shanks
- salt and freshly ground black pepper, to taste
- cumin and cinnamon, to taste
- flour, for dusting
- 2 onions, roughly chopped
- 2 garlic cloves, crushed
- 180ml white wine
- 4 tomatoes, blanched, seeded, skinned and chopped
- 6 dried dates, whole
- 250ml (1 cup) lamb or chicken stock
- a splash of olive oil
- 45ml (3 tbsp) honey
- 1 x 400g tin chickpeas, drained and rinsed, to serve

## INSTRUCTIONS:

1. Preheat the oven to 180°C.
2. Heat the oil in a large frying pan and season the springbok shanks with salt, pepper, cumin, cinnamon and flour.
3. Brown the springbok shanks, pour off the excess fat and add the onions to the frying pan.
4. Return the shanks to the pan and add all the remaining ingredients.
5. Bring slowly to the boil and then transfer everything to a casserole dish.
6. Place a tight-fitting lid over the top and cook in a slow oven until tender, about 2½ hours.
7. If desired, the sauce may be cooked down for a thicker consistency.
8. Serve warm with chickpeas.



All the naturally occurring game species for the region, occur on Amakulu. The vegetation is semi-Kalahari with normal Thorn and Camel thorn trees scattered across the landscape. The ground is also somewhat sandy and that enables the hunter to walk softly and quietly to get closer to the game. John has years of experience in taking out clients to various parts of the word and he will do everything in his ability to get the visiting hunter what he came for. They also have concessions areas in other parts of South Africa, and they can arrange for any animal, big or small, to be hunted.





Close to Upington the Augrabies waterfall in the Orange River can be visited. It is situated in the Augrabies National Park that has good accommodation with a restaurant that caters for all tastes and pallets. The Orange River flows through the Northern-Cape and on its last stretch to the Atlantic Ocean it also forms the border between South Africa and Namibia. Along the banks of the Orange River, especially around Upington, there are a variety of farming activities. Some of the best grape, wine and fresh fruit produce are farmed here and transported to cities in the north and south of South Africa.

Upington is also, so to speak, on the edge of the Kalahari Desert, the home of the springbok and the Oryx. From Upington it is mere 200 kilometers to the Kalagadi Park. Up to the Park the road is tarred but once you are in the Park a 4X4 vehicle is highly recommended, because this is the 'land of sand' and you don't have to obtain a Masters driving degree to get stuck in the red Kalahari dunes - it happens automatically. Visitors can also drive through the Park to cross the border into Namibia. However, before you attempt to tackle the Kalahari Desert it will be advisable to speak to your professional hunter. They have all the necessary knowledge to give you informed advice.

Apart from Upington and Kimberley there are many smaller towns scattered across the Northern-Cape. However it must be said that some of them only exist because of a small post office, the local dealer and off course the hotel with its bar.



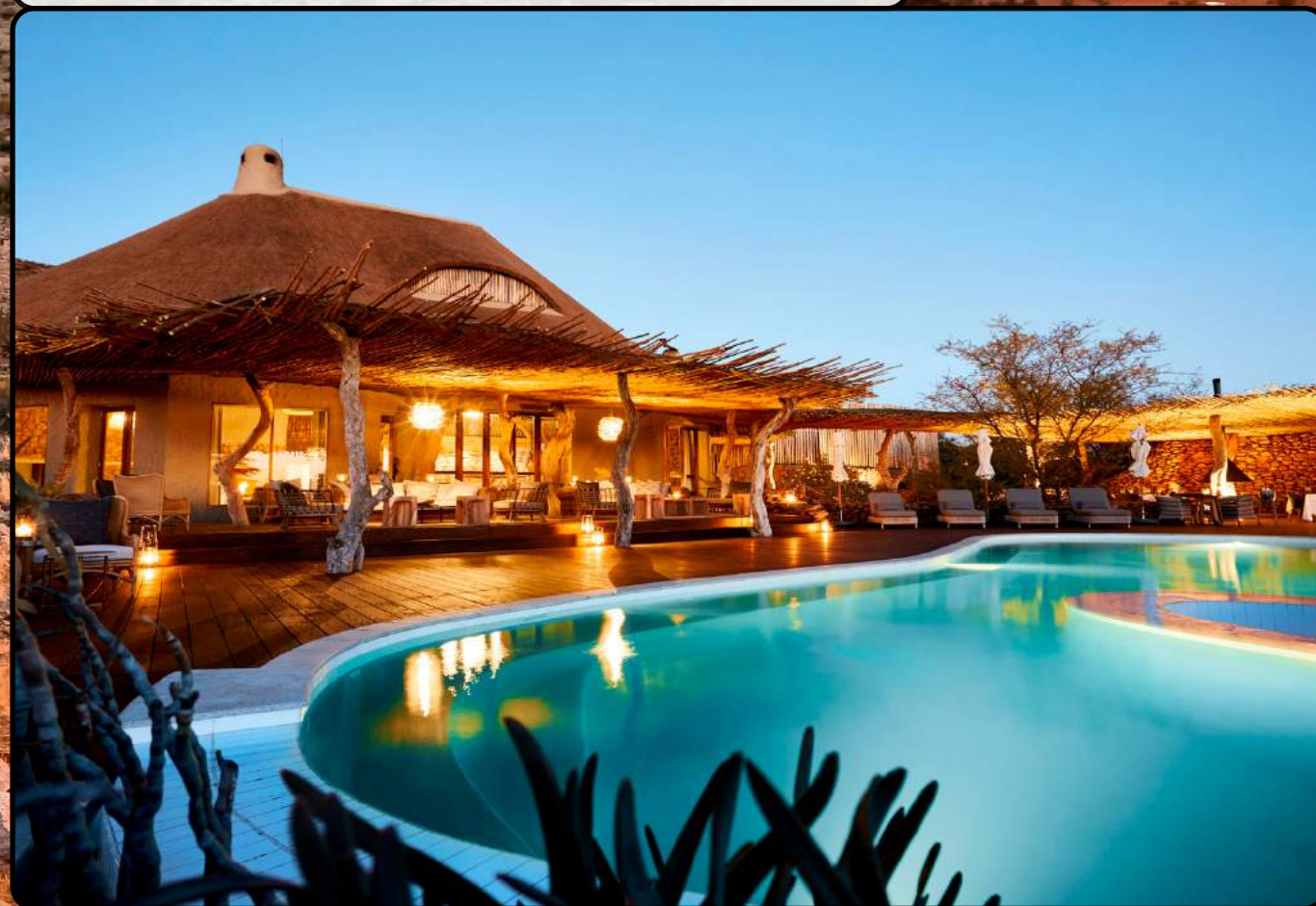
Other towns of interest are Kuruman about 150 kilometers from Upington where a huge fountain feeds the whole area with crystal clear water. Further to the north towns like Van Zylsrus can be found and boasts with a unique hotel that serves as a watering hole for all humans that dare to tackle the sandy roads of the Kalahari. Whenever you are in the vicinity of Van Zylsrus, a visit to the hotel is a must. Another very small town on the edge of the Galagadi Park is Askam – it is so small that should you swerve out for goat that crosses the road, you might miss the town completely. However I must mention that during a recent hunting trip to a farm close to Askam, we experienced some tire problems and the garage on Askam was able to provide us with two brand new tires that were fitted instantly and professionally.

Despite the arid sandy conditions plains, game is found in abundance and some of the ultra-luxurious lodges even have the Big Five on offer. As mentioned earlier, the Kalahari is the home of the springbok and Oryx and outstanding trophies can be hunted here. Other species like eland, blesbuck, red

hartebeest, blue wildebeest and steenbok are also available.

Hunting lodges can be found all over the Kalahari and depending on how thick your purse is, you can spend your hunting days in luxurious places or opt for the cheaper, but well-equipped tented camps. It actually does not matter where you stay, as long as you experience the Kalahari to its fullest.

During our recent hunting trip to the Kalahari we stayed on farm called 'Gemsbokkie' about 35 kilometers from Askam on the road to van Zylsrus. Although the accommodation is good, it is a self-catering place and one must take all your own food and drinks. Never the less, 'Gemsbokkie' is a very special place with game in abundance and huge red sand dunes across this 10 000 ha area. When hunting on such a farm where the sand dunes are endless, be aware that most of the times you will be in for a rough ride on the back of the vehicle. To gather enough speed to 'charge' the next dune is the only way to be successful in reaching the top – so things can get rough! During our trip we managed to shoot a couple of good Oryx and springbuck.





Calibers

Be prepared to take longer shots in the Northern-Cape, especially in the Kalahari. Shots of up to 300 meters are not uncommon and as you know a springbuck is very tiny at those distances. The ideal will be to bring two rifles, a small caliber, flat shooter for springbuck and other small game. For bigger game like Oryx , eland and blue wildebeest a .300 WM or any other flat shooter in .30 caliber will do the job.

Weather

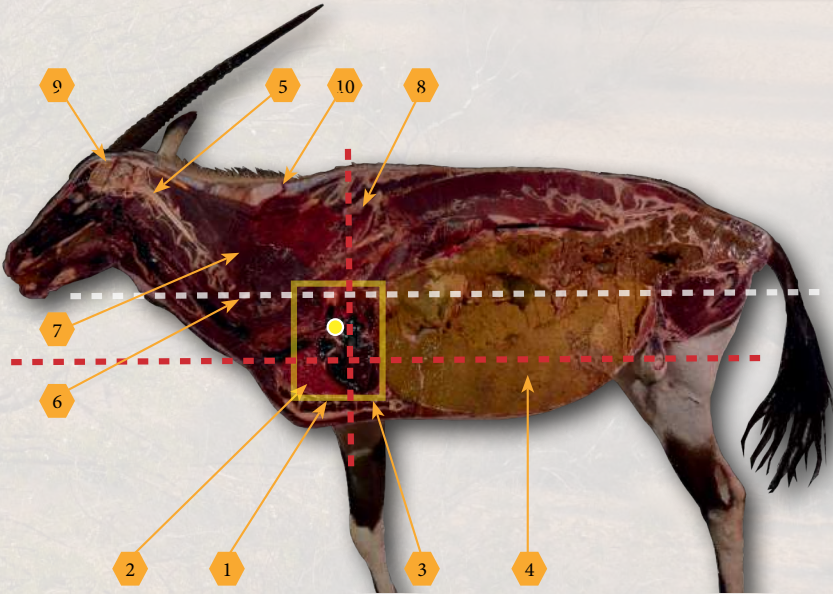
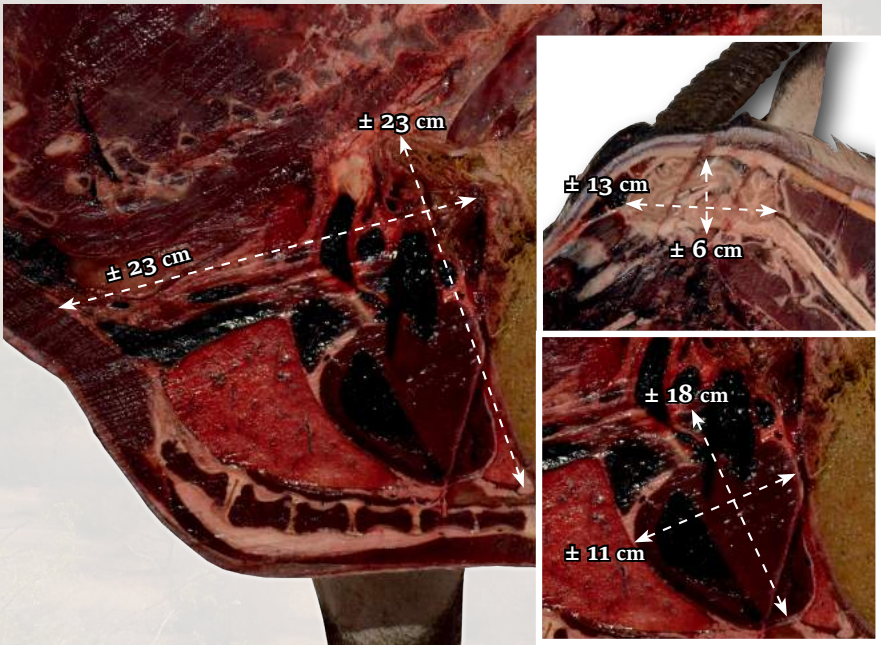
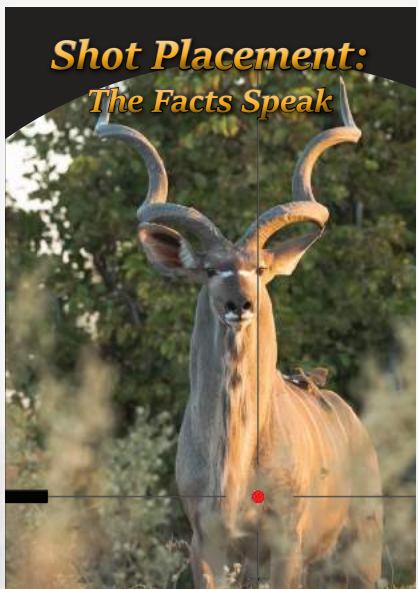
The weather can be extremely warm during summer months reaching up to 45 degrees Celsius. On the other hand, subzero temperatures are not unusual during winter. The only thing that the visitor is guaranteed of is that there is only a 10% change of rain. So, a raincoat will not be needed in most cases, but you will need a warm jacket because on the back of the hunting vehicle. Just make sure to bring enough sun protection lotion with a high UV factor even during the winter.

Shot placement book

To help visitors to make sure of their shots on South African game, we have published a book “Shot Placement – The Facts Speak’. In this book we explain the exact shot placement on 16 different plains game species, including eland, Oryx, blue wildebeest, springbuck and blesbuck. In fact all the species occurring in the Northern-Cape are covered in this book. The book was done in an unusual way where we shot each animal in the neck and then froze the complete carcass without removing the intestines. After it was frozen solidly it was cut open right through the middle and therefore the exact location

of all the vital organs is exposed. We highly recommend this book to any hunter that intends on visiting South Africa. A digital version of the book can be brought on our website [www.wildlandmag.co.za](http://www.wildlandmag.co.za) for only \$12.00 (approximately, depending on the exchange rate)

Shot Placement:  
The Facts Speak





## Other activities

Most lodges close the Kalagadi Park offers day trips for visitors to experience the vastness of this desolated area of South Africa. Likewise, lodges closer to Upington offer trips so that visitors can enjoy the thundering sound of the Augrabies waterfall. The same applies to lodges near Kimberley – the “Big Hole” is always a very popular place for any foreigner.

In Van Zylsrus there is even a world class taxidermist and most of the local hunted species are delivered here. The owner Hendrik Morsner was trained by the well-known, late Nico van Rooyen. Also see the Ad of ??? on the next page.

## Medical advice

Apart from the sun and some mosquitoes, hunters have no ‘invisible’ enemies. It is Malaria free. But scorpions, snakes and some other spiders are found in the area. So never walk bare foot anywhere in the Kalahari. Also ensure that your professional hunter carries a first aid kit with him wherever you are travelling.

## General

The Northern-Cape is a vast Province with a network of roads and airports that can take the international traveller to virtually any part of the Province. There are also thousands of kilometers of dirt roads and some of them should not be tackled without a 4X4 vehicle. However, your professional hunter knows this, and he will make sure you get to your hunting destination safe and sound.

## Closing


To hunt anywhere in South Africa is an exhilarating experience that will be edged into your memory for ever. However, I call on all international travelers to please buy your necessary equipment and accessories (excluding rifles) over here. South Africa has many excellent firearm and ammunition dealers that sell everything a hunter or traveler will require. On the opposite page is an advertisement of the all the Wildman hunting stores in the country – they will assist you wherever they can.



*Although no foreigners are allowed to hunt in South Africa without being accompanied by a professional hunter, here are some tips to consider before hunting in this region of South Africa. Your PH will provide everything you need but just in case he forgets something make sure he has the following.*

- *In vast areas of the Kalahari there is no mobile phone reception so it will be advisable to carry road map.*
- *Enough drinking water and cool drinks.*
- *Sunglasses.*
- *Sun protection cream with a high UV factor*
- *Warm clothes.*
- *Cloves and a hat.*
- *Binoculars.*
- *Range finder.*
- *Pocket or survival knife.*

Furthermore, South Africa is in dire need of foreign currency, so by buying your required items over here will help us, as a nation, tremendously! The Kalahari is a tough place and to live here and make a living is not everybody's cup of tea. But it can also be a visually rewarding place with its unequalled sunsets. Here you can experience unlimited views over the endless red dunes. Traditionally we end our Kalahari hunting trip on the last evening with sundowners on the highest

dune. Of course, this event is used to relive our time in the Kalahari and to ‘cry’ because we are leaving but with the same breath, we plan our next trip to this unforgettable piece of heaven on earth. Enjoy your hunt in South Africa's ‘land of sand’ – the Northern-Cape Province. Here you can taste sand between your teeth and wash it off with any drink you like. However, I found that those with a bit of a “kick” – “do the trick”! 

# HGT Taxidermy Studio PTY (Ltd)

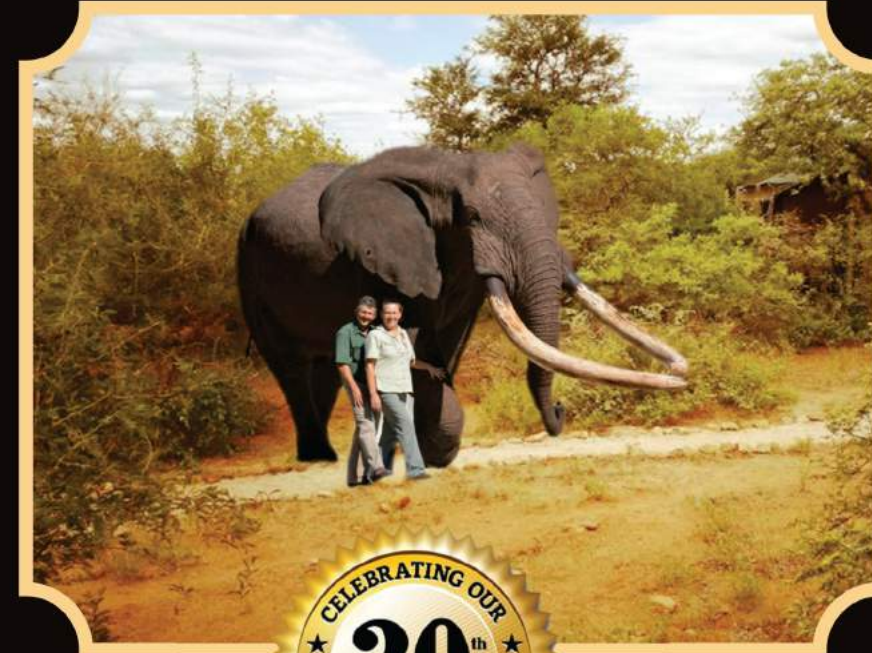
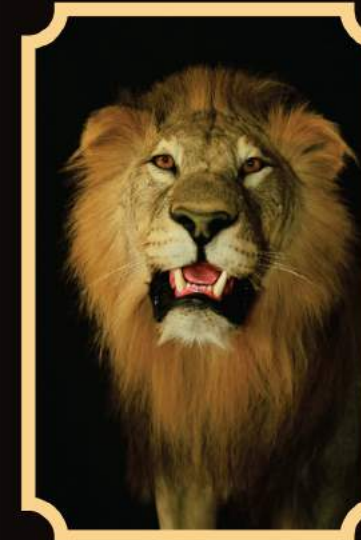
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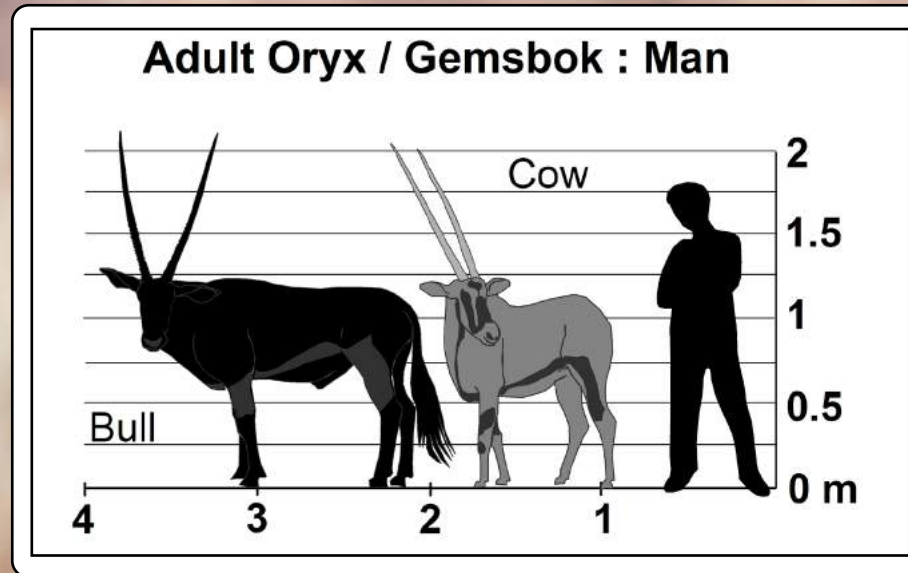




# Gemsbok / Southern Gemsbok / Southern Oryx

## *Oryx gazella* (Linnaeus, 1785)

Afrikaans	Gemsbok
German	Spiessbock
French	Gemsbock
isiNdebele	Inkukhama
isisXhosa	Inkukhama
tshiVenda	Noni
seTswana	Kukama
Shona	Mhala
Nama	!Gaeb



## IUCN Conservation Status:

- Gemsbok, Beisa oryx, Fringe-eared oryx = Lower Risk, conservation dependent (LR/cd)
- Scimitar-horned oryx = Endangered (EN)
- Arabian oryx = Critically endangered (CR)

Ancient tales of the unicorn had their origins in the legends of Egypt where the scimitar-horned oryx sometimes developed only a single horn. Rather more prosaically, it may have been the consequence of one horn being broken off at the base! Both gemsbok and springbok *Antidorcas marsupialis* are endemic to the south-western, arid region of Africa and are certainly the most known of the larger animals that have evolved in this barren area. The sight of a gemsbok invariably evokes the vision of a silhouette against a deepening sunset on the red dunes of the Kalahari. It is one of the top ten most attractive southern African game species as far as trophy hunting and eco-tourism are concerned. Collectively these species are the sable, nyala, kudu, gemsbok, buffalo, giraffe, lion, leopard, rhino and elephant.

The origin of the name oryx is Greek, referring to horns that are like pick-handles and, for some unknown reason, the name “gems” from a Dutch term used for the chamois antelope *Rupicapra rupicapra* of Europe that has little resemblance to the gemsbok.

## Taxonomy

Kingdom:	Animalia
Phylum:	Cordata
Class:	Mamalia
Supercohort:	Laurasiatheria
Cohort:	Ferungulata
Superorder:	Cetartiodactyla
Order:	Ruminantia
Suborder:	Pecora
Superfamily:	Bovoidea
Family:	Bovidae
Subfamily:	Antilopinae
Tribe:	Hippotragini
Genus:	Oryx
Species:	Gazella

The genus is divided into four species and four subspecies of which only the gemsbok or southern oryx occurs naturally in South Africa. The species are:

- *Oryx gazella gazella* the gemsbok or southern oryx of southern Africa
- *O.g. blainei* the Angolan gemsbok of Angola



- *O. beisa beisa* the Beisa oryx of north-eastern Africa
- *O.b. callotis* the fringe-eared oryx of the central parts of East Africa
- *O. dammah* the scimitar-horned oryx of northern Africa
- *O. leucoryx* the Arabian oryx of Arabia and Iraq, also known as the white oryx

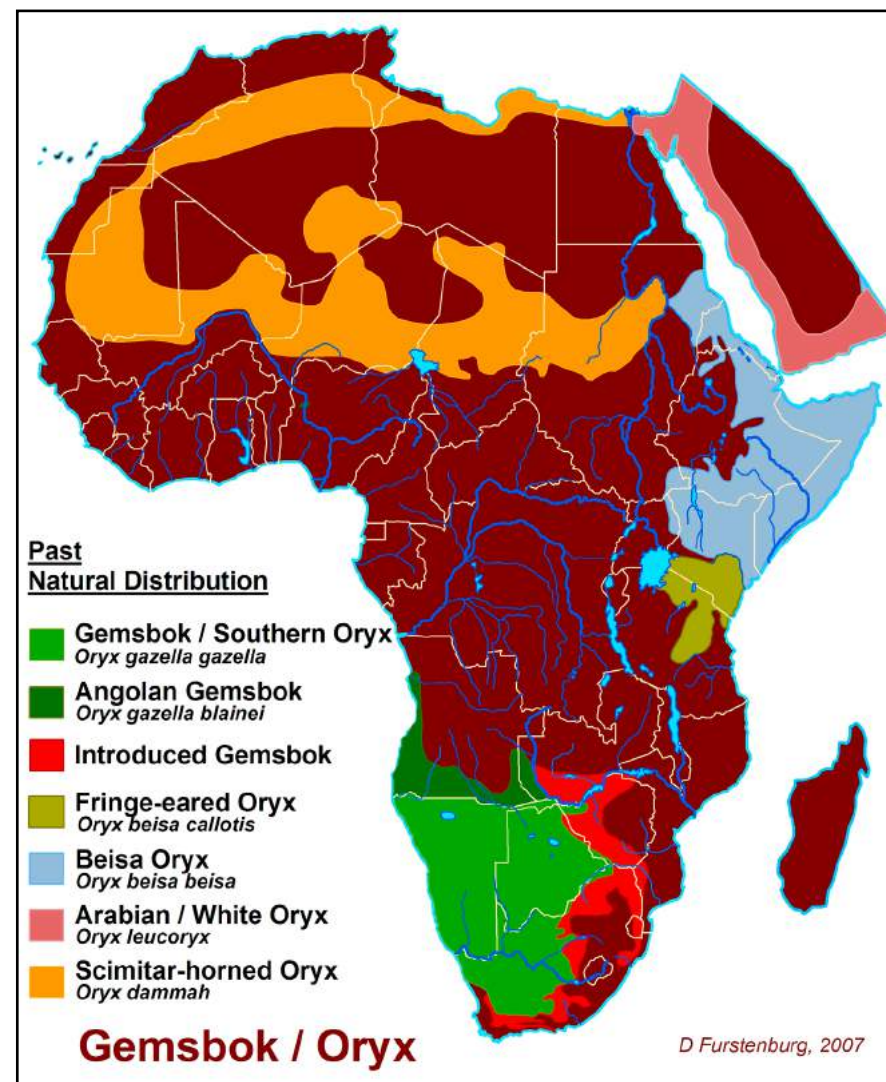
Discrepancy still exists among taxonomists regarding the validity

of the sub-speciation of the Angolan gemsbok although it is recognised by the Rowland Ward trophy register. There is also a dispute over the recognition of the species *beisa*. Some authors are of the opinion that it should be a different subspecies of *gazella* but this remains to be confirmed by genetic characterisation. At present the odds are in favour of *beisa* being a species.

## Distribution

The endangered scimitar-horned oryx of the Sahara, believed to be the ancestor of all extant gemsbok and oryx species, was tamed by the ancient Egyptians for commercial farming. It was recently introduced into game farms in the U.S.A. and into the State of New Mexico where it is free roaming. The Arabian oryx is presently confined to the coastal zones of Arabia and Iraq where it has become critically endangered, mostly due to civil warfare. The Beisa oryx is restricted to Somalia and the lowlands of eastern Ethiopia. It was previously found in Eritrea and southern Sudan but is now extinct in these countries. The fringe-eared oryx, a subspecies of the Beisa oryx, only occurs in southern Kenya and the northern parts of central Tanzania, while the southern gemsbok is widely distributed throughout Botswana, Namibia, southern Zambia and the western and southern regions of South Africa. It has also been introduced into Zimbabwe and the eastern bushveld and savannah areas of South Africa. Introductions into the Eastern Cape Province to the east of longitude 24°45' E do not perform well. The poor performance is due mainly to high levels of parasite infections and the cold, wet winter spells.

During the drier times of the Pleistocene 2 million years ago, the distribution ranges of the northern and the southern gemsbok species



were probably continuous in Africa but became divided (3 600 km apart) by global climate change. Estimates of the present global gemsbok numbers are 373,000. Overall population trend of the

gemsbok is increasing on private farms and conservancies and protected areas. In Namibia the estimated population increased from 55 000 in 1972 to >164 000 in 1992 and still increasing.



**Royal (red) gemsbok**  
(dr. Johan Kriek)



**Golden gemsbok**  
(D. Furstenburg)



**Golden gemsbok with deformed horns, a consequence of in-breeding**  
(D. Furstenburg)



**Beware! a scimitar-cross-bred to be traded as golden gemsbok, noted on a farm in 2011** (D. Furstenburg)

## Description

The mean shoulder height of the southern gemsbok is 120 cm (bulls weigh 210-240 kg and cows 180-215 kg). The Angolan gemsbok is smaller and has white ears compared to the sandy ears of the gemsbok and beisa oryx are more slender (shoulder height 115-122 cm, mass 150-204 kg). The Arabian oryx is the smallest (height 80-90 cm, mass of 65-70 kg), with a white tone and black feet. The scimitar-horned oryx (height 110-125 cm, mass 180-200 kg) is white-toned and reddish-brown around the neck and throat.

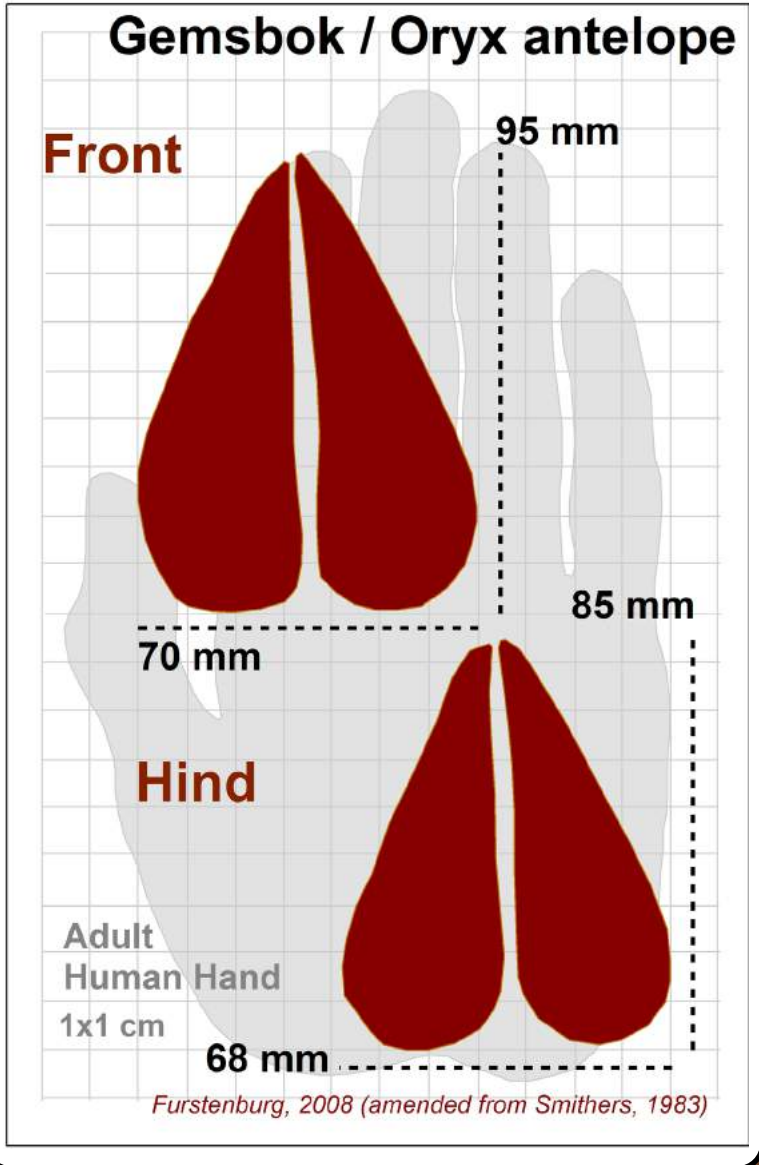
Two colour hybrids are being recognised in the commercial game industry, the Burchell's golden gemsbok / oryx, and the royal (red) gemsbok. The golden variant originated naturally and Fred Burchell, related to the late Dr William John Burchell after whom the Burchell zebra was named, established the first golden gemsbok (free roaming) breeding herd at Dewad Sud near Keetmanshoop in Namibia. The original golden animals were obtained from various natural free roaming populations scattered across the southern regions of Namibia. The origin of the royal gemsbok is less known apparently from selective in camp-breeding on a farm. A specific breeding project enforcing the colour variant of the royal gemsbok is managed by dr. Johan Kriek from Kriek Wildlife Group.

Severe cases of genetic in-breeding with golden gemsbok are apparent on several commercial game farms, mostly resulting in weak and deformed horn growth. Golden gemsbok are being cross-bred with normal gemsbok at large scale, and cases have been found of cross-breeding with scimitar oryx and being offered for sale as golden gemsbok. The latter carries great risk of being infertile.



Spoor

The spoor is that of a split-hoofed antelope, the front foot measuring 9.5 x 7 cm and the hind 8.5 x 6.8 cm. The larger front hoof supports the heavier forequarters.



Information table

Gemsbok / Oryx information table			
Characteristic		Bull	Cow
Adult body weight	kg	210 – 240	180 – 215
Adult shoulder height	cm	124	120
Sexual maturity age	months	18 – 24	20 – 24
Social maturity age (1st mating)	years	5 – 7	2 – 2,5
Gestation period	days		261 – 275
1st Calf born at age	years		2,9 – 3,4
Calving interval	months		9 – 10
Rutting season		Year round	
Calving season			Year round
Weaning age	months	3,5	
Gender ratio: entire population (natural)		1	1,2
Gender ratio: entire population (production)		1	3
Mating ratio: adults (natural)		1	4 – 5
Mating ratio: adults (production)		1	8 – 12
Calf birth ratio		1	1
Maximum lifespan	years	20	18
Home range	ha	Unlimited (nomadic)	Unlimited (nomadic)
Territory range	ha	420 - 980	None
Large stock grazing unit (adult)	LSU	0,47 per animal (65% of diet)	0,47 per animal (65% of diet)
Browsing unit (adult)	BU	0,8 per animal (35% of diet)	0,8 per animal (35% of diet)
Maximum stocking load		50 animals per 1 000 ha (at 280 – 320 mm rain)	
Minimum habitat size required	ha	1 200	
Annual population growth		15 – 33% (mean 24%) (5 – 12% in the eastern Cape)	

Trophy

Horns are present in both sexes and are long, almost straight and heavily grooved with smooth ends. The horns of the cow are longer, thinner and usually narrower with a lesser tip-to-tip width than that of the bull. The best trophies are usually found in cows rather than bulls and the greatest quality is found in the southern gemsbok. Horn buds appear shortly after birth and reach a length of 2-3 cm at six weeks. The average adult horn length is 38-42" and the Rowland Ward trophy status is reached after 6.5 years in cows and 8 years in bulls.

Gemsbok does not do well in captivity nor in camp systems. In-

breeding in herds and environmental stress in marginal habitats are major problems and as a result of, deformed horns has become a common phenomenon – this correlates with the slow trend of Rowland ward top 10 trophies recorded. The gemsbok population is genetically advanced in its development with little room of further improvement.

The Rowland Ward no. 1 (491/2" from Askam in the Northern Cape by S. Marais in 1985) is still holding its place after 30 years, also still holding their places are: no. 2 (491/4", Northern Cape, 1912), no. 3 (49", Northern Cape, 1996), no.

4 (483/4", Namibia, 1990), no. 5 (483/8", Botswana, 1981) and no. 6 (48", Botswana, 1913). A recent new entry only made it at no. 7 at 47 7/8" by Wynand Kemp. The same applies for the other gemsbok specie's no. 1 trophy records; Angolan gemsbok dates 1963, beisa oryx dates 1970, fringe-eared oryx dates 1971, scimitar-horned oryx dates 1959 and the Arabian oryx dates 1913. Trophy registrations indicate that gemsbok genetics with regards to horn development has reached a maximum ceiling some 20-30 years ago – hence a huge challenge for game breeders and scientific management to improve.



Gemsbok / Oryx trophy records (2007)					
Rowland Ward (XXVII edition 2006)					
Minimum qualifying value = 40" (101.6 cm)			Measuring method 7		
Rank	Inch	cm	Locality	Year	Source
1 <sup>st</sup>	49 <sup>1</sup> / <sub>2</sub> "	125.73	Askam, Northern Cape, RSA	1985	S. Marais
2 <sup>nd</sup>	49 <sup>1</sup> / <sub>4</sub> "	125.10	Kalahari, Northern Cape, RSA	1912	Albany Museum Grahamstown
3 <sup>rd</sup>	49"	124.46	Kalahari, Northern Cape, RSA	1996	J.G. Stadler
4 <sup>th</sup>	48 <sup>3</sup> / <sub>4</sub> "	123.83	Namib, Namibia	1990	J.C. von Wielligh
5 <sup>th</sup>	48 <sup>3</sup> / <sub>8</sub> "	122.87	Kalahari, Botswana	1981	W.J. Ray
6 <sup>th</sup>	48"	121.92	Botswana	1913	Sir A. Bailey, Bt
Angolan Gemsbok ( <i>Oryx gazella blainei</i> ); Minimum qualifying value = 35 <sup>3</sup> / <sub>8</sub> " (89.85 cm)					
1 <sup>st</sup>	43 <sup>5</sup> / <sub>8</sub> "	110.81	Mocamedes, Angola	1963	A.P. Carvalho
Beisa Oryx ( <i>Oryx beisa beisa</i> ); Minimum qualifying value = 30 <sup>7</sup> / <sub>8</sub> " (78.42 cm)					
1 <sup>st</sup>	43"	109.22	Ethiopia	1970	E. Buckles
Fringe-eared Oryx ( <i>Oryx beisa callotis</i> ); Minimum qualifying value = 30 <sup>7</sup> / <sub>8</sub> " (78.42 cm)					
1 <sup>st</sup>	43 <sup>3</sup> / <sub>8</sub> "	110.17	Lake Magadi, Kenya	1971	R.J. Phillips
Scimitar-horned Oryx ( <i>Oryx dammah</i> ); Minimum qualifying value = 38"					
1 <sup>st</sup>	50 <sup>1</sup> / <sub>8</sub> "	127.32	Fada, Chad	1959	F.C. Hibben
Arabian Oryx ( <i>Oryx leucoryx</i> ) Extinct					
1 <sup>st</sup>	27 <sup>1</sup> / <sub>4</sub> "	69.22	Tebul, Saudi Arabia	1913	D. Carruthers
Safari Club International S.C.I.					
Gemsbok; Minimum qualifying value = 88" (223.52)			Measuring method 1		
1 <sup>st</sup>	111 <sup>5</sup> / <sub>8</sub> "	283.53		1981	W.J. Ray
Confederation of Hunters Associations of South Africa CHASA					
Gemsbok; Minimum qualifying value = 40" (101.60 cm)			Measuring method (A)		
1 <sup>st</sup>	47 <sup>1</sup> / <sub>2</sub> "	120.65	Aroab, Namibia	1997	M.M.B. Van Rooyen
Beisa Oryx; Minimum qualifying value = 30" (76.20 cm)					
1 <sup>st</sup>	35"	88.9	Omo Valley, Ethiopia	1993	N. Van Rooyen
Scimitar-horned Oryx; Minimum qualifying value = 38" (96.52 cm)					
1 <sup>st</sup>	39 <sup>5</sup> / <sub>16</sub> "	99.85	Addelaide, Eastern Cape, RSA	1988	G.A. Sparks

## Habitat requirement

The preferred habitats are associated mainly with dry, karroid scrubland, semi-desert shrub vegetation, arid grassland and semi-arid open savannah such as that of the Kalahari sandveld. In desert conditions, gemsbok tend to keep to the calcareous paths between the dunes. These habitats are located predominantly in the southwestern tip of Africa, the Horn of Africa and across an area of northern Africa bordering the Sahara. Broadleaved,

short grasslands surrounding pans are highly favoured. In the Kalahari sandveld, gemsbok prefer the arid grass on the sand dunes while springbok prefer the dry riverbeds between the dunes.

The most essential habitat parameters for the gemsbok are a sandy soil, short, annual sweet grasses, perennial broadleaved forbs, dwarf shrubs, low density large shrubs and an annual rainfall of 50-300 mm.

Gemsbok only use thicket and closed woodland for refuge against potential danger and bad weather but frequent disturbance by humans tends to transform them into bush-dwellers. Moist drainage lines are totally avoided especially on alluvial and clay soils, tall grasses and forests. Gemsbok often roam on steep, dry mountain slopes. They are not dependent on surface drinking water.



**Gemsbok roaming free in optimal natural Kalahari habitat (D. Furstenburg)**



**Gemsbok adapt well to temperate sweet grass-veld in the Free State provided the grass are frequently cut short and there are some sort of cover (blue gum trees in background), (D. Furstenburg)**

## Behaviour

Gemsbok are most active during cool, early morning and late afternoon hours and moonlight nights. They tend to stand in the shade of trees during the heat of the midday hours or, in the absence of shade, limit heat absorption by turning their bodies lengthwise in line with the rays of the sun. Gemsbok cope with the intense heat of the day by raising their body temperature by 4° to 42°C. By this means, body fluids are retained and are not lost in the process of cooling by evaporation which is the normal means of thermoregulation in mammals. A high body temperature can be maintained for up to four hours after which the body's thermoregulation accelerates the evaporation of fluids in order to avoid further increases in the body temperature. Both the nasal tract and the black coloured skin areas of the gemsbok are equipped with a complex network of very fine arteries, *retae-meribillae*, that act as a thermo-regulator. These act as a mechanism for cooling hot, surface blood before it reaches the internal organs during hot periods, and reversing the process when it is cold.

Body contact between individuals is rare and grooming is not a general phenomenon. Like the springbok, gemsbok neither associate readily with other game species nor do they share senses in order to warn of potential danger.

It is a poor jumper but a master of crawling underneath fences. Adults push under fences through holes as small as 30 cm wide and break them open by forcing the forequarters through. In order to allow gemsbok to pass freely under Inner cattle fences they should have a bottom strain not lower than 30 cm and the droppers should not be driven into the ground.



## Feeding & Nutrition

Gemsbok are partly selective, mixed feeders of both grass and browse. When surface drinking water is available they consume large quantities of roughage material that is rich in fibre. They become highly selective in their choice of plant matter without drinking water and destroy the veld by digging up bulbs and roots. The diet generally consists of 70-85% grass and broadleaved forbs and 25-30% browse of low growing shrubs. Grasses and forbs are preferred during the moist summer periods and browse, bulbs, succulents and plant roots during drier winters. The digging behaviour is a particular problem in the Karoo where the shrubs are extremely slow growing. Although veld of an intermediate grass 8-30 cm high is frequently grazed, short grasses of sweet species 2-6 cm in height are preferred. Mixed grasses with a high proportion of sour species are marginal, while sour veld is entirely unsuitable. Natural licks are essential but in areas with mineral poor soils they should be supplemented with artificial licks.

Surface drinking water is not essential as gemsbok obtain their daily requirement of 4-7 litres from their diet. They do not drink from livestock troughs with raised edges but only from those at ground level. Succulent plants such as cacti and vygies, tsamma-melons *Citrellus lanatus* and gemsbok cucumbers *Acanthosicyos naudinianus* are important supplementary sources of moisture. A daily consumption of 4-5 tsammas provides sufficient moisture to keep a gemsbok alive. In deserts they also lick condensed dewdrops from rocks and plant stems in the early morning.

## Territory & Home range

Gemsbok groups are nomadic and will cover long distances, wandering at random across large areas without following any fixed route. As a result their home ranges cannot be defined or the sizes calculated. As they utilize the entire area within the boundaries of farms or fenced land units, a minimum land area size of 1 200 ha is recommended.

Adult bulls have large, fixed territories of 420-890 ha (mean 760 ha) that are poorly demarcated. The boundaries tend to follow morphological terrain structures such as drainage lines, hills, koppies and dunes. As solitary bulls rarely enter another's territory, fighting between bulls is unknown. A bull occasionally leaves its territory to join a mixed group that wanders across several territories, and then returns to its territory at a later stage. At any given time only 13% of the bulls are solitary.

Territorial bulls defecate in a specialized manner. They kneel

on their hind legs and reduce the distance the dung falls. The pellets fall in a small compact pile that retains the odour for much longer than if it was spread from a high fall. Standing cows do not kneel and the pellets always scatter. Before defecating the bull scratches the soil with the forefeet to distribute the secretions from the inter-digital glands between the hooves. Sometimes they intentionally break branches and shrubs with the horns in order to demonstrate their dominance.

## Social structure

Gemsbok are predominantly semi-gregarious with

- mixed groups of 5-40 individuals that include several territorial bulls as temporarily associates, adult non-lactating cows and sub adult cows
- family groups of 4-12 animals consisting of adult cows and calves and, sometimes, a territorial bull
- bachelor herds of 2-7 bulls of all ages
- solitary territorial bulls

During dry periods the groups split into smaller groups of 4-12 individuals that reassemble when conditions become more favourable. Groups are unstable as individuals interchange when the groups reunite. Family bonding is thus weak.

In desert habitats, groups often sense rain falling far away and migrate towards it in order to utilise the new plant growth. During these times aggregations of several hundred gemsbok can occur.



Reproduction

Mating occurs throughout the year without an identifiable mating season although in South Africa, a slight peak in births is seen in August and September and in Botswana from December to March. Cows reach sexual maturity at 2 years but only mate with a territorial bull after 2.5 years when social maturity is reached. The first calf is born at an age of 3.3 years after a gestation of 264-275 days. Bulls become sexually mature at 1.5-2 years and socially mature at 4.5-5 years when they establish territorial status. They remain territorial for approximately three years until the age of 7.5-8 years when younger, mature males replace them. In the absence of male competition and

with a low density of males, male maturity is extended and may last until an age of 12. Post mature bulls join either bachelor herds or mixed groups. Calves are generally single and have a mass of 9-15 kg. The mother hides the young in thicket vegetation or under a bush for 3-6 weeks and returns daily for suckling and nursing. During this time the calf is frequently moved between hiding places that can be up to 3km apart. After this period they re-unite with the family group. The calf weans at 3.5 months. In optimal conditions a cow may reproduce every 9-10 months and can deliver five calves in four years.

Management & Hunting

Gemsbok performs marginal to poor in moist and sour bushveld habitats, and is less suitable for intensive breeding systems. In such habitats special attention need to be given to parasite management and high energy supplemental feeding. Gemsbok has extremely good vision and can detect danger from a distance of up to 2 km. It is nervous and shy and will flee when danger is 0.5 km or more away. When alerted, they stand on high slopes or dunes to observe the oncoming danger and when it becomes threatening, take flight for distances of 2-6 km before coming to a standstill. In bushveld they become master thicket dwellers and can hide for months without being spotted. It is a difficult animal to stalk and approach, the average distance to shoot from being >250 m. Furthermore it is a bullet-tough animal requiring good shot-placement from a large calibre. If wounded, it will run for many kilometres before lying down, and playing fake death when approached. It will lie apparently dead until you reach within 0.5-1.5 m and then the split-second deadly horn slice. Under no circumstance should a wounded or confined gemsbok be approached; rather give it a final dead shot before coming closer from 7 m. Even lions are frequently killed by gemsbok. Stoning a gemsbok, it can deflect a stone with its horns 95% of the time, illustrating the effective slicing.

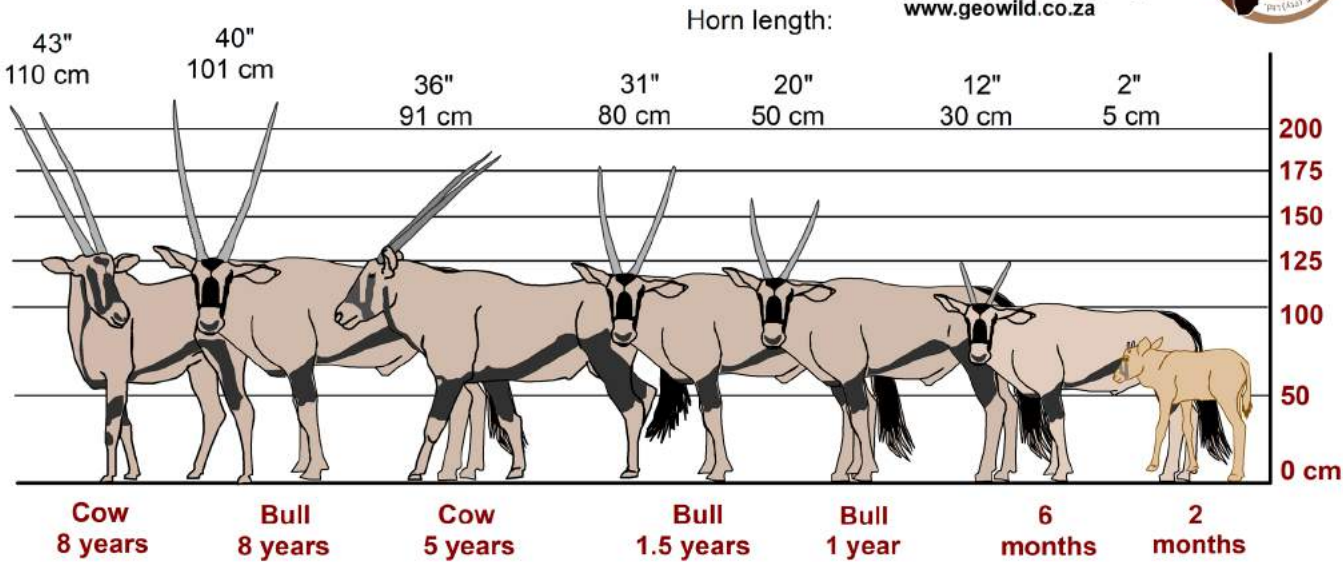
Production

In general, gemsbok have a low impact on veld condition but with mismanagement, a lack of surface drinking water and a high density temporarily become destructive, high impact users that can degrade veld condition dramatically. In Namibia in particular, high densities of gemsbok are the main culprits in reducing game farms to a worse ecological status than cattle farms. The natural annual population growth ranges from 5-12% in the marginal habitats of the Eastern Cape Province, to 33% in the optimal habitats of Botswana. The average production rate is 15-25% depending on rainfall and veld condition. An optimal habitat of 1 000 ha at an annual rainfall of 280-300 mm can sustain 50 gemsbok if they are the only short-grass feeder in the habitat. In the absence of bull competition the maximum mating ratio is 1 bull: 8-12 cows. An adult gemsbok animal unit of 210 kg equals

- 0.47 Large Stock Units (LSU) multiplied by 65% for its portion of grazing, giving 0.31 LSU's per animal
- 0.80 Browser Units (BU) multiplied by 35% for browsing, giving 0.28 BU's per animal

Gemsbok growth formation

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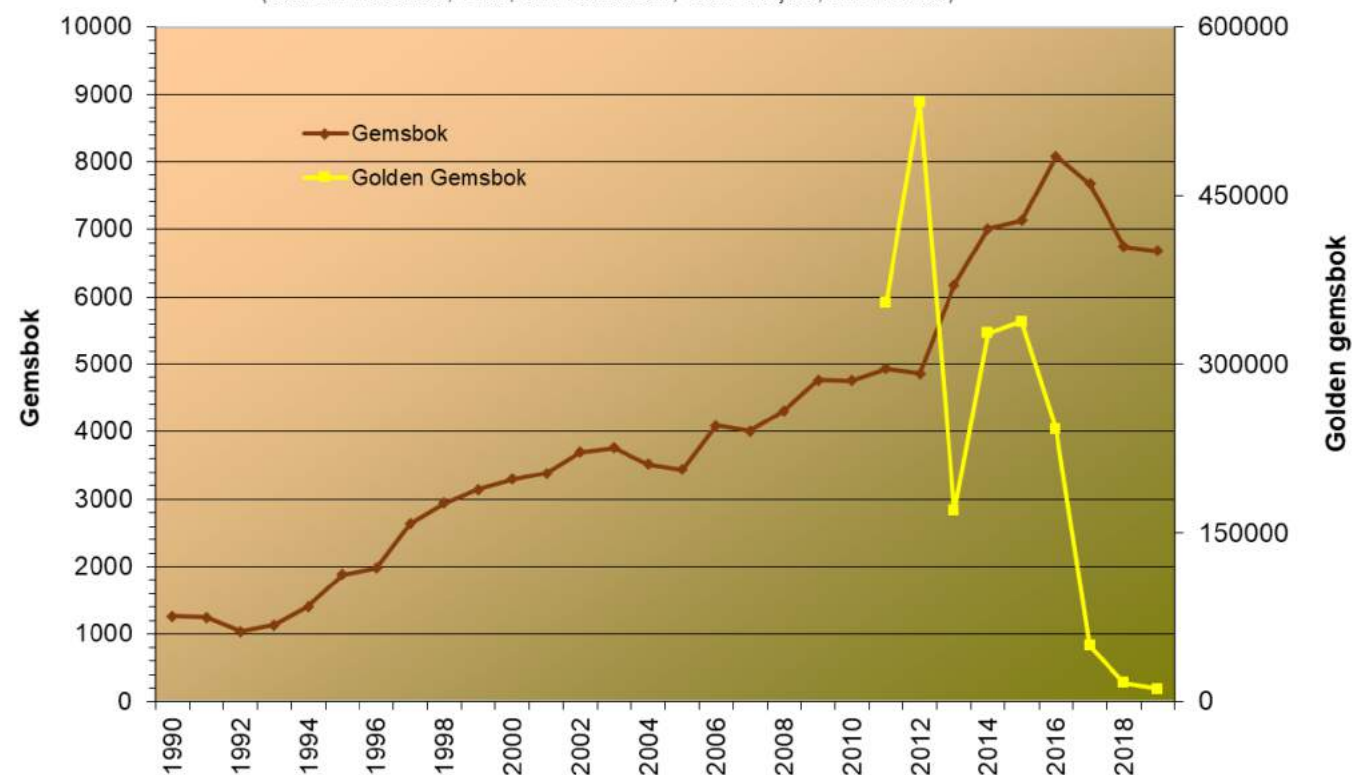


D. Furstenburg, 2007



### Trend in mean annual Gemsbok prices (SA Rand)

(Data from: Vleissentraal; T. Eloff, Univ. Potchefstroom; Cloete & Taljaard, Univ. Free State)



With large-camp systems (500 ha and greater per camp) more than one breeding family can be stocked provided that the number of adult bulls may at no time be less than three, and if only one breeding family is stocked then only one adult bull, but never two bulls in one camp as it will create fierce fighting.

Small-camp systems should not be less than 50 ha per camp as gemsbok are nomadic migrators with large spatial need. Rotational stocking altered every 8 months between two 50 ha camps, per breeding herd (1 adult bull of 4-10 years age and 20 cows of 3-10 years) is recommended. Rotational stocking help to sustain good natural veld condition and minimize the build-up of unwanted parasites. With small-camp systems the male calves need be removed from the breeding herds to a separate male camp before reaching 1,5 years but not before 7 months to allow proper bodily development and to prevent injury from fighting of the adult bull. A similar management strategy as

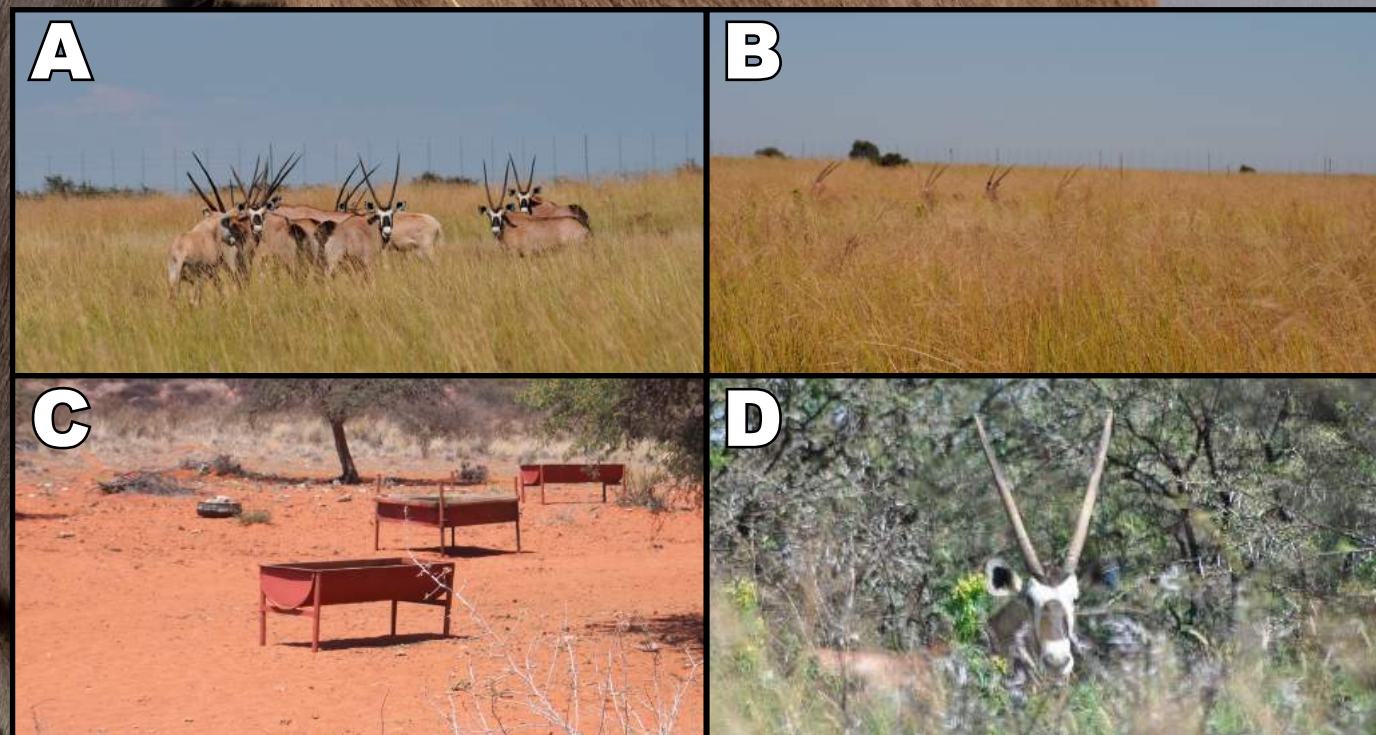
illustrated and described for the impala, but with larger 50 ha camp sizes (see chapter on impala).

In general, gemsbok have a low impact on veld condition but with mismanagement, a lack of surface drinking water and at a high animal density they become destructive, high impact users that can degrade veld condition dramatically. In Namibia in particular, high densities of gemsbok are the main culprits in reducing game farms to a worse ecological status than cattle farms.

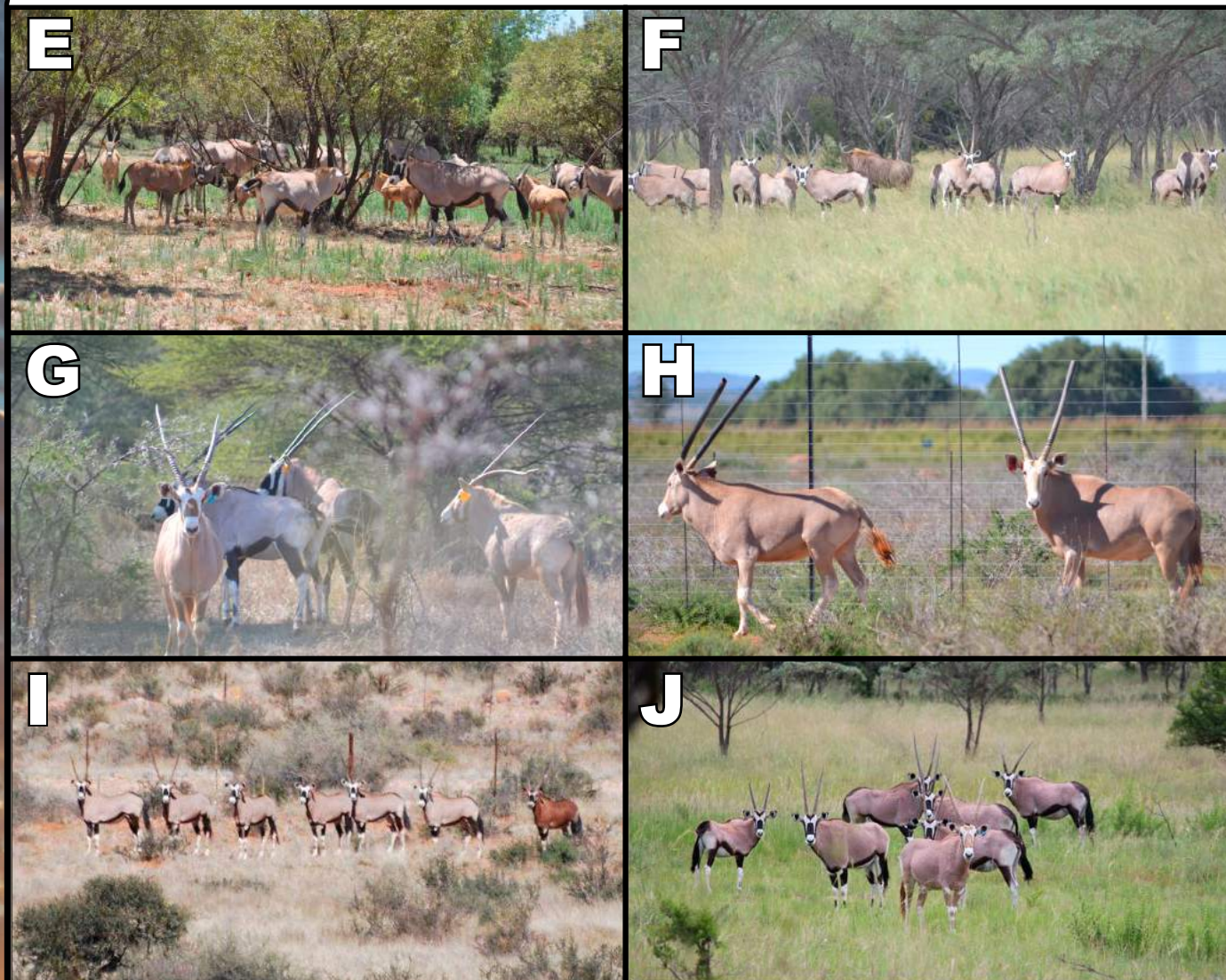
With camp systems animal movement are restricted, therefore supplement feeding and water need to be provided – a minimum of two water holes per camp and one feeding station per gemsbok group per camp. Important that feeding stations are to be rotated bi-weekly between 2-3 different locality sites to prevent dung and parasite build-up at the feeding sites. Feeding buckets should be placed in a full circle (not in a line) and 5-7 m apart – one bucket for each animal in the group. The feeding buckets must be

moved by 0,5 m with every feeding to prevent moist and parasite and diseases to build-up underneath the buckets. Never feed directly from the ground as to mush soil intake with the food can compact the rumen. Feeding stations and water holes must never be closer than 50 m from any fence or infrastructure. When planted pastures in camps altered sections of the pasture need to be slashed down to a maximum height of 12 cm to provide suitable grazing grounds for gemsbok.

Small-camp systems with gemsbok should never be shared with any other game species as gemsbok do not associate well with other game. Camps larger than 500 ha can be shared with other game but with caution, in doing so separate feeding stations need to be provided for the different species. Following below are pictures illustrating some of the different aspects of gemsbok management.







Ten pictures illustrating different aspects of gemsbok management:

1. A. cross-breeding of gemsbok and golden gemsbok in small camp, grass too high, risk of parasites and diseases (D.Furstenburg)
2. B. planted pasture in small camp higher than gemsbok (only horns above grass), animals in social, behavioural and feeding stress, risk of parasites and diseases (D. Furstenburg)
3. C. feeding buckets in 500 ha camp in Kalahari optimal veld, only 2 buckets for 30 gemsbok, risk of fighting when feeding together (D. Furstenburg)
4. D. shy gemsbok bull hiding in Acacia karoo thicket, thicket shelter important in all breeding camps to minimise animal stress (D. Furstenburg)
5. E. small-camp (25 ha) cross-breeding gemsbok and golden gemsbok in mixed bushveld, good habitat, camp too small, note deformed horn on animal 2nd from right due to repeated in-breeding (A. Peens)
6. F. large camp (800 ha) multi species breeding in mixed bushveld, habitat good, sufficient space, parasite control programme in place (D. Furstenburg)
7. G. small camp (130 ha) one breeding herd in arid sweet bushveld, gros-breeding with gemsbok and golden gemsbok, severe in-breeding – 50% of animals with deformed horns (D. Furstenburg)
8. H. golden gemsbok in small boma camp (0,5 ha) awaiting trading, note the horns being piped to prevent injury when confined, handled and transported (D. Furstenburg)
9. I. large camp breeding in optimal Kalahari veld, crossing gemsbok with royal (red) gemsbok (Auction Catalogue)
10. J. large camp breeding in marginal mixed bushveld, crossing gemsbok with golden gemsbok (Auction Catalogue)

## Diseases and parasites

Little are known about the susceptibility of gemsbok towards sub-tropical diseases and parasites. Gemsbok are animals of arid environments and have an evolutionary development devoid of tropical diseases and parasites. They also lack the grooming behaviour that helps them eliminate external parasites

and cannot tolerate high levels of parasite and tick infestations. They are susceptible to both heartwater and botulism and, in wet cold spells, to pneumonia. Anthrax less commonly infects gemsbok, 8 cases were recently reported on farms in the north-western Cape. One known incident in the Waterberg of theileriosis from ticks. Reports of

gemsbok being infected with cysts of the tape worm *Taenia saginata* in Limpopo and Namibia. Due to pneumonia gemsbok tend to do poorly in the eastern Cape and do poorly in the sub-tropical bushveld mainly due to heavy tick loads and badly in sour-veld areas due to feeding stress.

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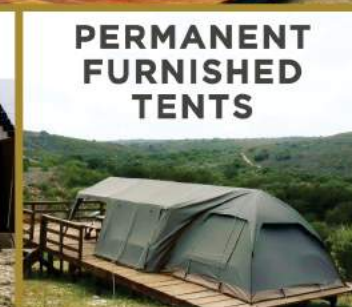
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# Swarovski Z5(i) 3.5-18x44P

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*Steyr & Swarovski the ultimate Austrian combination.*

*Steyr-Mannlicher started to build rifles during the 1400's and that makes it one of the oldest small*

*firearm manufacturers in the world. In the previous issue of 'Hunt The Wildland' we published a lengthy article about their latest model the Monobloc. However the production of the other models is still continuing and it is sought after products world-wide. I know many articles have been published about the Steyr Classic CL11 and there is no way that we here in South Africa can add anything to what is already published. It is truly an*

*amazing rifle in all respects. We took the Classic 11 on a recent hunting trip to the Kalahari where we shot a couple of oryx and springbuck with the Steyr in 7X64mm caliber. Fitted to the Steyr was a Swarovski Z5i 3,5-18X44P and that makes it an all Austrian combination – surely one of the best in the word. In the following article Jonathan Fouche a well-known sport shooter in South Africa tested the Swarovski on the Steyr – here is his full report.*

**Years ago, I realised that all riflescopes are not equal.**

**While all riflescopes are intended to serve the same function, that is to align the rifle with enough accuracy to hit a target, there are many different applications and even more different targets. Target shooting, hunting, military are but a few applications – each with similar but different requirements for the riflescope.**

**H**itting the inside of the barn door does not require much alignment; the target is nearby and quite large. As your target moves further away, or becomes smaller, so the need to accurately align the rifle with the target increases. The hunter aiming at a Kalahari Springbuck on the crest of the next dune, into an early morning sun, has a different functional requirement from his riflescope to the PH stalking the wily Cape buffalo in the thick scrub of the Zambezi River valley. Weight, size, optical clarity, even range estimation are different considerations.

Hunting conditions are always changing, so a versatile riflescope with

variable magnification allows the hunter to tackle a range of static or dynamic targets, under different light conditions, with the same rifle. This is why riflescope manufacturers predominantly make variable magnification riflescopes, rather than much cheaper fixed magnification riflescopes. The benefits of variable magnification far outweigh the costs of the related mechanisms.

But hunters require more from a riflescope than just precise aiming. Target identification is important too. A quality riflescope with clear optics helps the hunter see what needs to be seen, in poor light conditions as well as broad daylight.

By Jonathan Fouché



## CHOICE

Hunters today have a massive variety of riflescopes to select from, more options than ever before. There are very few completely junk options available as the consumer soon dismisses those offerings. Most riflescopes are adequate, but some do the job better than others. They achieve this through better quality glass, innovative technologies (greater zoom range, illuminated reticles, etc), proprietary lens coatings (more light transmission, less reflection), sturdier mechanical design and years of experience. Older manufacturers learn all the time, making each new model better than the one before.

Choice is great for us consumers but is frequently terribly confusing – especially with so many riflescope brands and models to choose from! Many people limit their options at the start, by constraining their choice via their budget. I prefer to spend time

considering my own unique (or not so unique) functional requirements for the new riflescope that is suited to the purpose of the rifle it will be used on. Upgrading is costly, simply because there is little market for used riflescopes. So, rather save longer for the best scope that meets your needs.

If you are a bushveld hunter you won't need 25x magnification, and you don't want to lug around a heavy, target scope with 30 mils elevation adjustment. A sporterised 303 probably won't benefit from anything more than a 3-9x40, while a modern 6.5mm Creedmoor likely yearns for pulling that far-away target closer. Night-time varmint hunters have very different requirements again, many preferring thermal night-vision for this specialist application. Understand your own needs, to make a wise choice in a quality riflescope.

## SWAROVSKI OPTIK

SWAROVSKI OPTIK is an Austrian company that develops and manufactures long-range optical instruments. Renowned for their aesthetic design, great functionality and innovation, Swarovski is all about quality, offering high intrinsic value to many discerning users, worldwide. High precision riflescopes, binoculars and spotting scopes allow people from different walks of life to appreciate nature in their own way. Hunting, hiking, and birdwatching are all better with *Swarovski*!

Wilhelm Swarovski, son of the original founder, Daniel Swarovski, was 17 years old in 1935. Already an avid hobby astronomer, Wilhelm's passion "to be closer to the stars" awakened his ambition to build his own, improved binoculars. With access to the specialized glass production and finishing technologies already used to manufacture jewellery stones in his father's factory, Wilhelm managed to develop a novel prism fabrication and

grinding process that he applied in constructing his first 6x30 binoculars.

Wilhelm went on to found SWAROVSKI OPTIK KG in 1949, laying the foundation stone for a sport optics company inspired by the love of nature. *Swarovski's* first serial product, the Habicht 7x42, is still an industry standard in the field of hunting optics and continues to be produced by SWAROVSKI OPTIK in the best tradition of its founder.

*Swarovski's* first riflescope was produced in 1959, over 60 years ago, and the first spotting scope followed in 1967. Innovation continued with the world's first rubber-armoured binoculars in 1971. In 1994 SWAROVSKI OPTIK introduced their first telescope. The SWAROVSKI OPTIK EL-binoculars with the world's first wrap-around grip were introduced in 1999 and captured Field and Stream Magazine's Best of the Best Award, making it the development of the decade.

## AT THE HEART OF HUNTING: RESPECT FOR NATURE

While researching this article, I was please to discover SWAROVSKI OPTIK's clear position on hunting. In today's politically correct, anti-gun world, this brave corporate statement included the following words that resonated with me.

"We see hunting as a responsible pursuit in harmony with nature – if it is carried out sustainably. Through our commitment to our company philosophy and the age-old hunting

traditions of the Alpine realm, we stand behind all forms of hunting internationally that support and strengthen the respectful contact between man and nature. The hunter has to rely on alert and trained senses: watching respectfully and with full concentration, listening carefully, and safely assessing situations are the basis for hunting and its success. We believe that this respect for nature and her beauty lies at the heart of hunting."

Although I do have a few sport shooting medals, I have no hunting trophies to my name – I'm a biltong hunter who agrees with *Swarovski's* opinion "that meat harvested through hunting (game) is an ethically correct, sustainable, local, and high quality food source that is superior to many other means of meat production, and it encourages the mindful consumption of meat."





NEW Z5(i)

In 2020, the (first) year disrupted by the Coronavirus, *Swarovski* offers the following series of riflescopes. The Z3 is a simple line of riflescopes with a 3x zoom range. The new Z5(i), the X5i for long range, and the dS ‘smart-scope’ with a built-in laser rangefinder all offer a very useful 5x zoom range. A Swarovski-first, 6x zoom range features on the Z6i while the modern Z8i has a massive 8x zoom range.

The new Z5(i) is a 1-inch riflescope with a 5x zoom capability and optionally illuminated reticle. With three models available, the Z5(i) is a light-weight riflescope well-suited to almost every type of hunting.

I had the opportunity to evaluate the new Z5(i) 3.5-18x44 P BT L. The smallest and lightest model in the Z5(i) range, this scope is perfect for hunting in the mountains or plains, and for mounting on slimmer rifles. The other models in the Z5(i) range are a 5-25x52 for long-range hunting and a 2.4-12x50 for hunting in thick bush and forest.

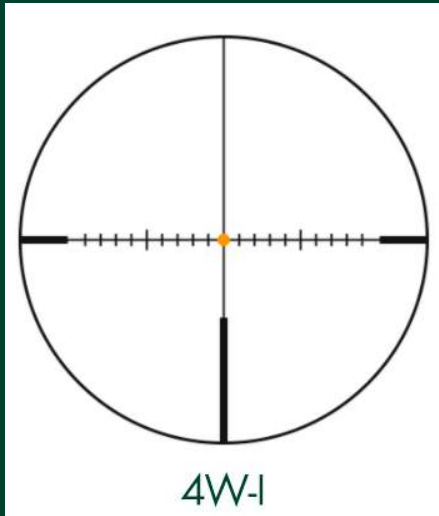
The specific riflescope I received featured the 4W-I reticle with the horizontal axis graduated for windage. Each graduation represents 5cm at 100m, at the maximum magnification of 18x. Located in the second focal plane, this reticle does not scale as the magnification setting changes – only the

target image gets bigger or smaller. *Swarovski* ballistic turrets (BT) allow the user to accurately adjust their scope elevation for four pre-selected ranges, and then quickly adjust to those settings in the field. There’s zero (usually at 100m), then green, yellow and red ‘dots’ for quick reference at increasing distance. For most practical hunting scenarios, I would imagine 200m, 250m and 300m would be appropriate. These setting could be calibrated on the range or set with input from Swarovski’s useful Ballistic App or something similar.

The specifications for the Z5(i) 3.5-18x44 P BT L are summarised in the accompanying table.

SPECIFICATIONS

Weight (approx.)	490 grams
Length (approx.)	363 mm
Tube diameter	25.4 mm (1 inch)
Magnification	3.4 to 18.0 times
Objective lens diameter	44 mm
Field of view	30 m @ 3.4x to 10.2m @ 18x, at 100m
Exit pupil	10 mm @ 3.4x to 2.4mm @ 18x magnification
Eye relief distance	95 mm
Dioptre adjustment	–3 to +2 dioptres
Adjustment value per click	7mm @ 100m; or ¼ MoA
Elevation Range	160 cm at 100 m; or 57 MoA
Windage Range	± 50 cm at 100 m; or ± 18 MoA
Parallax adjustment	50 m to Infinity
Reticle	4W-I, with illuminated dot in the 2nd focal plane
Waterproof	400 mbar (4 m depth)
Temperature range	–20°C to +55 °C
Colours	Black



4W-I Reticle, in the second focal plane

MOUNTING

I received the riflescope for evaluation already fitted to a *Steyr CLII* rifle, chambered in 7x64mm. This versatile, European calibre is dimensionally and ballistically similar to the venerable .30-06 Springfield (7.62x63mm in metric notation), so is well suited for most South African antelope including large Kudu or Gemsbok, and smaller Springbuck at longer ranges.

The Z5(i) riflescope was already mounted to a 2-piece Picatinny rail, using 1-inch high rings. When I checked out the range of adjustments, I discovered that the windage was nearly all the way to the right, leaving just a little more room to manoeuvre. This is not ideal for evaluating the adjustment consistency of the scope, so I investigated ... and discovered that the two parts of the base were at quite different angles, shown up by the bubble level of my Wheeler Engineering

Professional Reticle Levelling System. When I removed the two pieces of the base, there was an excessive amount of dry thread-locking compound under each base. After removing the dried fluid, I refitted the base pieces. Although better, the two pieces were still not perfectly aligned, which is why I prefer a one-piece base – the front and rear scope-ring are properly aligned to each other.

I quickly re-installed the scope to a proper ‘zero’ of the rifle, using the reference level on the exposed Picatinny rail to align the barrel clamp bubble level of my Wheeler System.

My bore-sighting collimator showed that I had moved everything in the right direction, taking the windage adjustment closer to the centre of the mechanical range. Not perfect, but much better!

INITIAL EVALUATION

The proof is in the pudding, so to speak and not in the specifications nor in good looks. So, how does the Z5(i) perform?

Optical clarity was fantastic, as expected of such a classy riflescope. It was easy to focus the reticle for my aging eyes, staring into the infinity of a blue sky. With that done, I was quickly reminded that this riflescope can adjust parallax from 50m, and beyond. This means that anything closer, such as my preferred 25m target, cannot be in focus at maximum magnification. I was able to see a sharp 25m-target when the riflescope magnification was no more than 10x. This is normal, nothing wrong with the scope.

For convenience I selected a target 25m away, and securely held the *Steyr* in my gun-cradle, aligned with the

small aiming point. I could easily move both the elevation and windage turrets to their end-stops, and back again. Even after several rotations the reticle returned to the initial aiming point each time, and obviously to the same extremities too. Test passed, as expected!

Once zeroed, the ballistic turret allows 53 clicks of elevation, of which 45 are graduated. This is plenty for most hunting situations, but a PRS competitor may want more. I like the zero stop that allows a quick return to zero.

Due to the way it’s mounted, this scope on this rifle allows 50 clicks of windage to the right (a full turn is 58 clicks, written on the turret) , and plenty more to the left (nearly two full turns).





## RANGE EVALUATION

My first tests were to zero the rifle at 50m, the maximum available to me on the day, and evaluate the group size. This helps temper expectations in further evaluations. I like to challenge myself with 5 shot groups, but due to time and ammunition constraints I opted to fire 3-shot groups. I do this at minimum and maximum zoom, and somewhere in the middle. My three groups were done at 3.5x, 10x and 18x.

The PMP Pro-Amm 7x64mm soft-point ammunition performed admirably. At 3.5x zoom the red dots on my target were small, mostly obscured, so it's unsurprising that this setting delivered the largest group size of 28mm. Ten-power was plenty to see the target, and the group size halved to 15mm. At 18x zoom, a little more improvement to a 12mm group. The shift of the group was mostly due to the setup, another way of admitting my fault. Nevertheless, this equipment combination is MoA capable.



My main riflescope test is aimed at evaluating how consistently the scope tracks in elevation and windage. I prefer to use 25m for tracking tests, rather than 100m or 50m, for two reasons. Firstly, shooter error and 'group size' have a smaller influence. Secondly, the closer distance means that more clicks are required to move the impact a given distance on paper. However, the Z5(i) 3.5-18x44 is not a long-range scope. It has parallax adjustment from 50m and has quarter-MoA adjustments that are specified as 1 click equals ¼ inch at 100 yards, or 7mm at 100m. so, at 50m, 2 clicks is 7mm, 20 clicks is 70mm, 46 clicks is 160mm, and so on. I decided that 50m would be a more

appropriate distance for evaluating this scope and customised my A4-target to this riflescope's expected capability. Shot 1 is aimed at the centre of the circle, at the maximum 18x zoom. I then proceed counter-clockwise with shot two at the same elevation, out right by 20 clicks (70mm) of windage dialled at 50m. Shot 3, still aimed at the centre of the circle, is made with elevation increased by 46 clicks (160mm), still with 20 clicks of right windage dialled in. Shot 4 is made by dialling windage to the left by 40 clicks, to be 20 clicks (70mm) left of centre. Shot 5 drops the elevation half-way and returns the windage to zero to place the shot in the centre of the rectangle. This is the first,

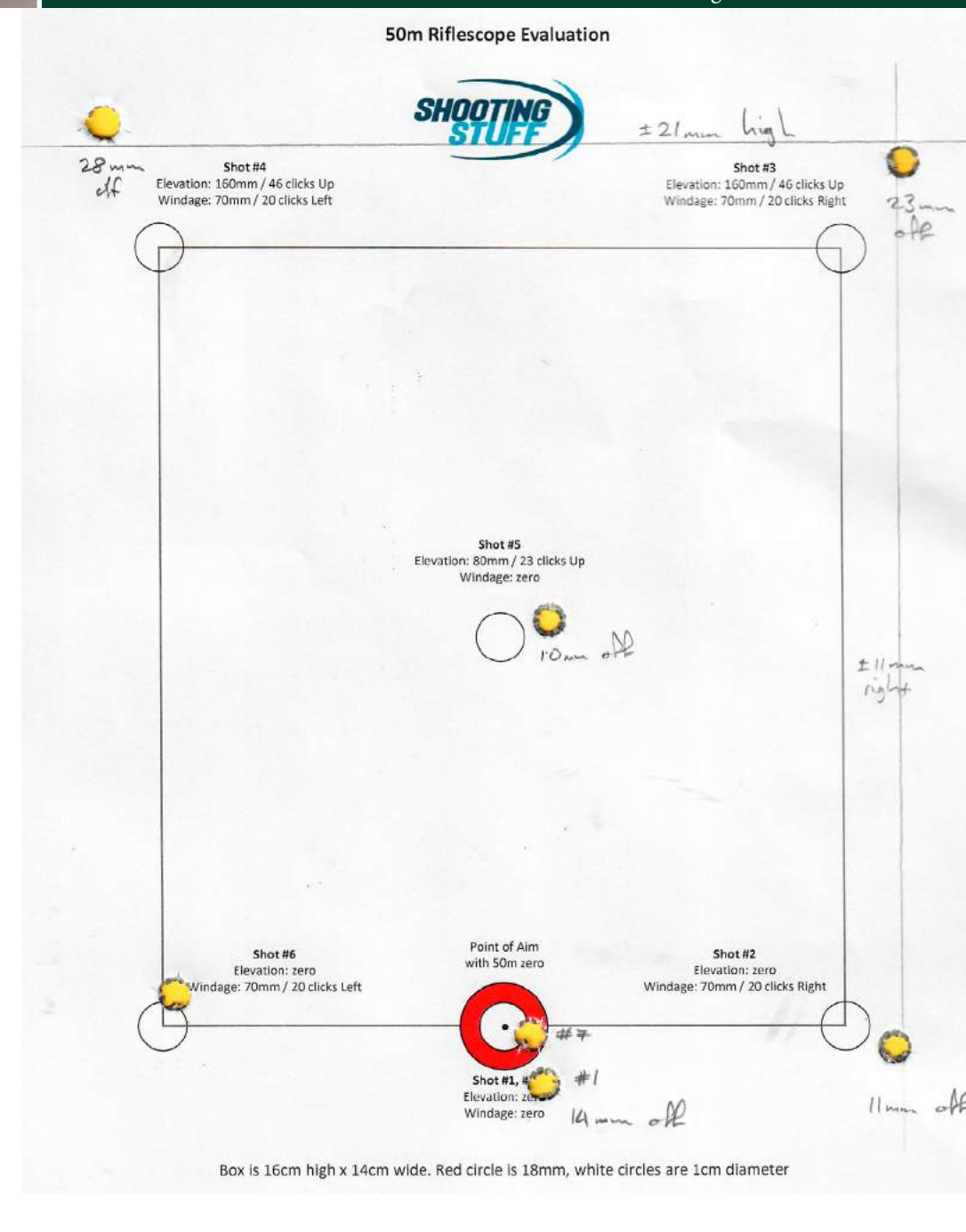
simultaneous move of both elevation and windage during the evaluation. Shot 6 targets the bottom left corner, another simultaneous adjustment of both elevation and windage. The final shot, shot 7, returns both the windage and elevation to zero and is expected to be centred on the circle. All shots are aimed at the centre of the circle, and shot movement is through adjusting the windage and elevation dials.

My anticipated consistency with this rifle – ammo combination is 1 MoA at best, more likely a little more due to the particular setup at this shooting range. So, at 50m the shots should impact within about 12mm to 15mm of their target.

Shot #1 impacted a little low and right, consistent with the grouping at 18x, but within the anticipated radius. Shot #2 followed suit but shot #3 went a little high (and right). Shot #4 was at a similar height, around 21mm higher than expected, just a little left. Shot #5 was just right of the expected impact and shots #6 and #7 were essentially on target. The extra elevation gain on shots #3 and #4 is why it is important evaluate each scope in this way.

Ideally, I would repeat this test on another day, on a better setup to verify that the effect is real and not shooter induced. It is important to bear in mind that this is a minor effect, at extreme elevation, so not something to bother most shooters. Were the effect verified to be real, I would conduct further tests to include additional elevation settings to investigate any deviation from linear adjustments.

Given the uncertainty of my performance with (for me) a new rifle, scope and ammo, I am satisfied that the Swarovski Z5(i) 3.5-18x44 performed correctly, especially returning to zero.



SWAROVSKI  
OPTIK



## OPTICAL CLARITY

What I've seen over the years is that optical quality is difficult to quantify, without scientific tools. Does optical quality and clarity matter to the average hunter? Yes, and no. Most of the riflescopes on the market, with similar specifications, can 'see' much the same things. But the image through better glass is clearer, sharper, easier on the eye. That's under bright daylight conditions – the difference becomes more pronounced under less ideal conditions like dusk, poor weather, and even less-ideal positions or orientations.

I have devised and refined an optical clarity test for riflescopes. This includes reading different font sizes and identifying patterns / lines in different orientations. On this A4-sizes printed page, I was able to read down to 18-point font size at 50m on a fine spring morning, and could differentiate the wider spaced lines in squares 2, 4 and 6. The others appeared a uniform shade of grey.

I was easily able to identify the 7mm bullet holes at 50m, at greater than 6x zoom, and enjoyed the clarity of these optics and the simplicity of the reticle. I did not use the illumination for any of these tests.

✓ 60 Point: ABCQO abcqo 12345

✓ 48 Point: ABCQO abcqo 12345

✓ 36 Point: ABCQO abcqo 12345

✓ 28 Point: ABCQO abcqo 12345

✓ 24 Point: ABCQO abcqo 12345

✓ 18 Point: ABCQO abcqo 12345

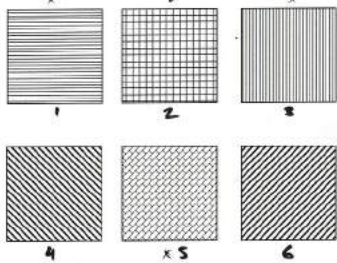
16 Point: ABCQO abcqo 12345

14 Point: ABCQO abcqo 12345

12 Point: ABCQO abcqo 12345

10 Point: ABCQO abcqo 12345

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## CONCLUSION

The Swarovski Z5(i) 3.5-18x44 P BT L is a great riflescope and offers good value for the discerning South African hunter. Simple, reliable, no frills. I liked the 4W-I reticle, graduated for windage. Once you are used to them, the Swarovski ballistic turrets are really useful for the South African hunter.

The recommended retail price was around R35 000 in September 2020, and I'd like to thank Whylo for supplying

the model for evaluation. Ask your local dealer to contact Whylo if you're interested in one of these fine optics.

Would I buy a Swarovski? Yes. In fact, I have a Swarovski Z6 2.5-15x44 on my Rem 700 223 rifle, so I guess that I've already put my money where my mouth is. **WL**

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# HUNT THE WILDLAND PHOTOS



**Hunter:** Eddie Moolman; **Species:** Blesbuck ram;  
**Rifle:** .300 WSM; **Ammunition:** 210gr Berger VLD;  
**Distance:** 250m; **Location:** Amsterdam, Mpumalanga



**Hunter:** Jaco van Wyk;  
**Species:** Springbuck ram;  
**Rifle:** Remington Sander 7mm Rem Mag;  
**Ammunition:** 150gr Nosler Ballistic Tip  
**Distance:** 165m;  
**Location:** Lime Acres, Northern Cape



**Hunter:** Megan Jonker; **Species:** Blesbuck;  
**Rifle:** Remington 30-06;  
**Ammunition:** 180gr; **Distance:** 160m;



**Hunter:** Mickayla Basson; **Species:** Impala ewe;  
**Rifle:** Remington .243 **Ammunition:** 80gr PMP;  
**Distance:** 60m; **Location:** Potgietersrus, Limpopo



**Hunter:** Juanita Steenkamp; **Species:** Grey rhebok ram;  
**Rifle:** Tikka T3 Hunter 6,5x55mm;  
**Ammunition:** 143gr Hornady ELD-X  
**Distance:** 300m; **Location:** Napier, Western Cape



**Hunter:** Almér du Preez;  
**Species:** Nyala bull; **Rifle:** 7x57mm;  
**Ammunition:** 173gr Sellier & Bellot  
**Distance:** 80m;  
**Location:** Weenen, KZN



**Hunter:** Pieter van der Merwe;  
**Species:** Blue wildebeest;  
**Rifle:** CZ .308 Win;  
**Ammunition:** 180gr; **Distance:** 70m



**Hunter:** Wynand Viljoen; **Species:** Gemsbuck bull;  
**Hunter:** Brno .308 Winchester;  
**Ammunition:** 180gr Sierra GameKing  
**Distance:** 160m; **Location:** Otjiwarongo, Namibia



**Hunter:** Mynardt van Huyssteen; **Species:** Golden wildebeest bull;  
**Rifle:** Tikka 6.5x55mm; **Ammunition:** 143gr Hornady ELD-X;  
**Distance:** 80m; **Location:** Moedwil, North-West Province



**Hunter:** Loui Hough; **Species:** Kudu bull;  
**Rifle:** Sako .338 Win. Mag; **Ammunition:** 230gr Norma Oryx  
**Distance:** 53m; **Location:** Clocolan, Free State



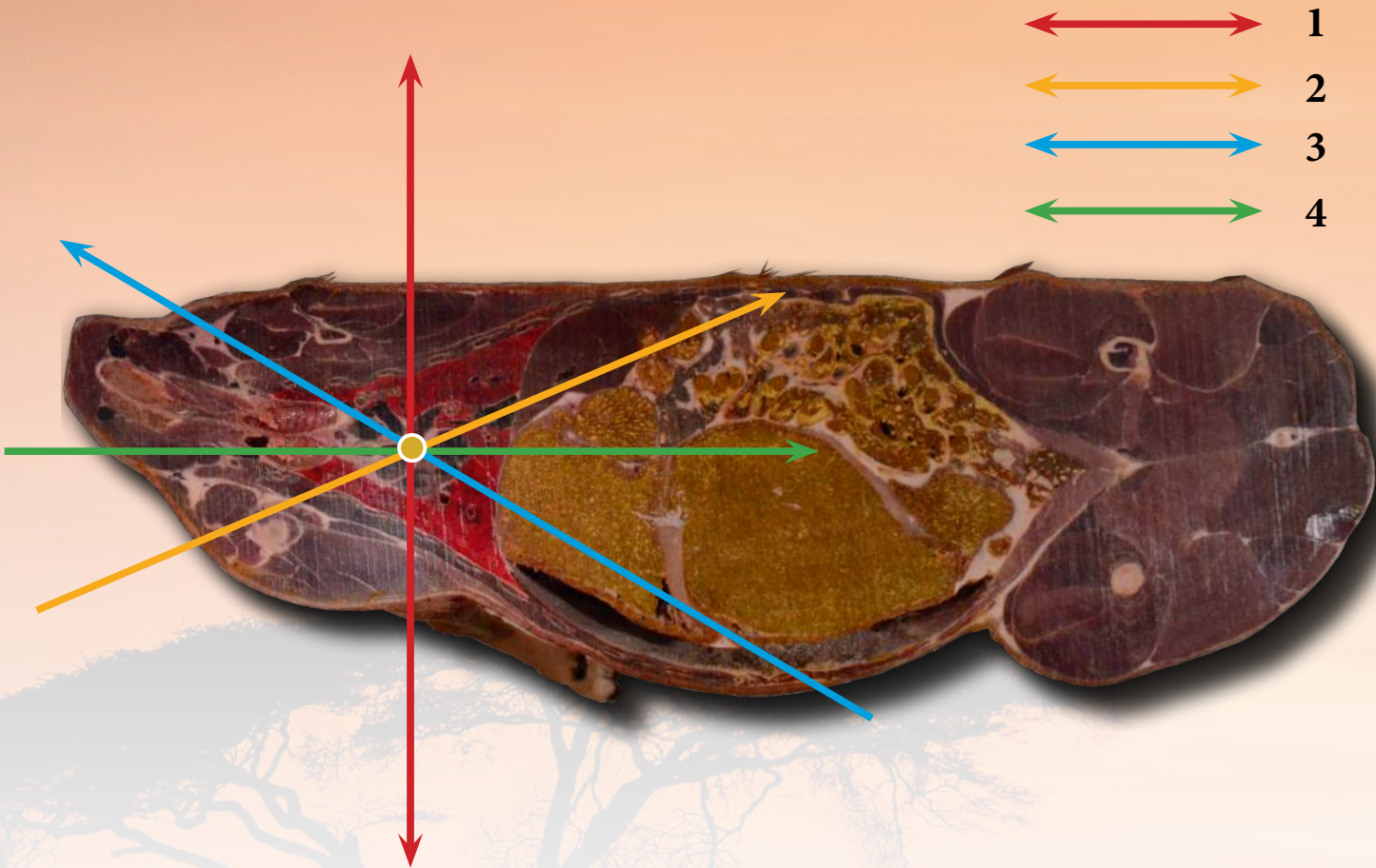
# Shot Placement: The Facts Speak

## Shots at an angle

Suppose the animal is positioned broadsided relative to the hunter. Using the method described on the previous pages, it is quite easy to determine

where the heart-lung area is located (1). However, should the animal be facing you at an angle, either towards or away from you, the bullet, when passing

through the animal's skin, must have another point of impact in order to still reach the heart-lung area.



Should one shoulder of the animal be facing (quartering) towards you, the bullet's point of impact as well as its path of penetration is shown in (2) (see the picture above). Should the animal be facing (quartering) away from you, the impact point and path of penetration are given by (3) (see the picture). A shot straight from the front could also be very effective, but the hunter needs to ensure that the animal is facing him straight on, otherwise the bullet

may just fracture one shoulder blade with devastating consequences (4). Be aware that, compared to a broadside shot, the bullet has to travel a longer distance before it reaches the vital organs. Furthermore, there are often more bones in the way of the bullet's path than when a perfectly broadsided shot is fired. Suppose a shot is fired at an animal in the quartering away position, thus at an angle facing away from the hunter (3). As such, it is likely that the

rumen (for ruminants) or the stomach (for non-ruminants) will also hinder the penetration of the bullet. A hunter needs to take this factor into consideration. (See the video of the eland, page 48 for details). Thus, the hunter must always opt for a calibre that has the ability to penetrate deeper, whilst still having sufficient killing power left to make a proper killing shot on every animal.

## Head and neck shots

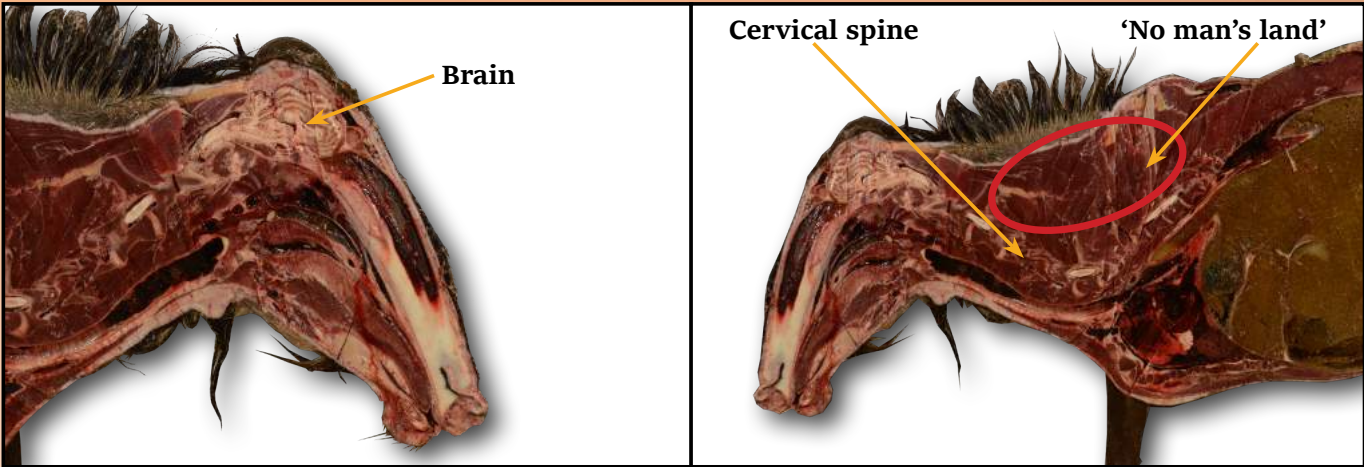
Hunters sometimes say, "I only shoot at the head!" That might be true, but do all head shots necessarily imply fatal shots to the brain? Take note that the nose and the jaw also form part of the head.

We have already established that the brain of the impala is roughly half the

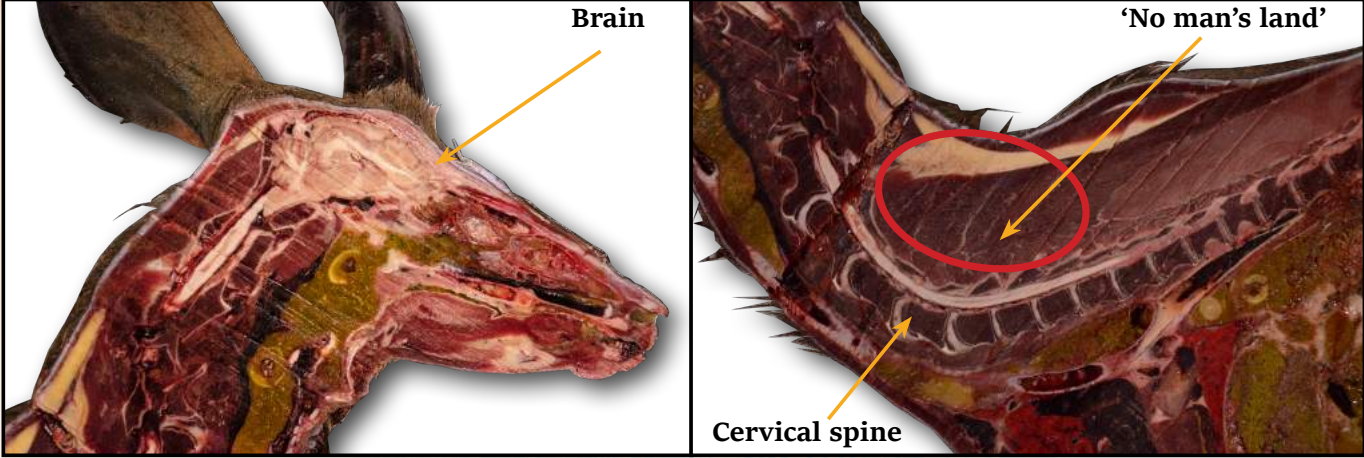
size of the heart and approximately six times smaller than the heart-lung area. The same applies for the majority of antelope species. The skull is featuring a thicker bone structure on the front than on the sides. Thus, the front of the skull offers better protection to the brain

than the sides. The lateral sides of the skull offers fairly little protection to the brain. In most cases the brain is located high up in the skull, and the centre of the brain is normally situated around halfway between the eyes and the ears.

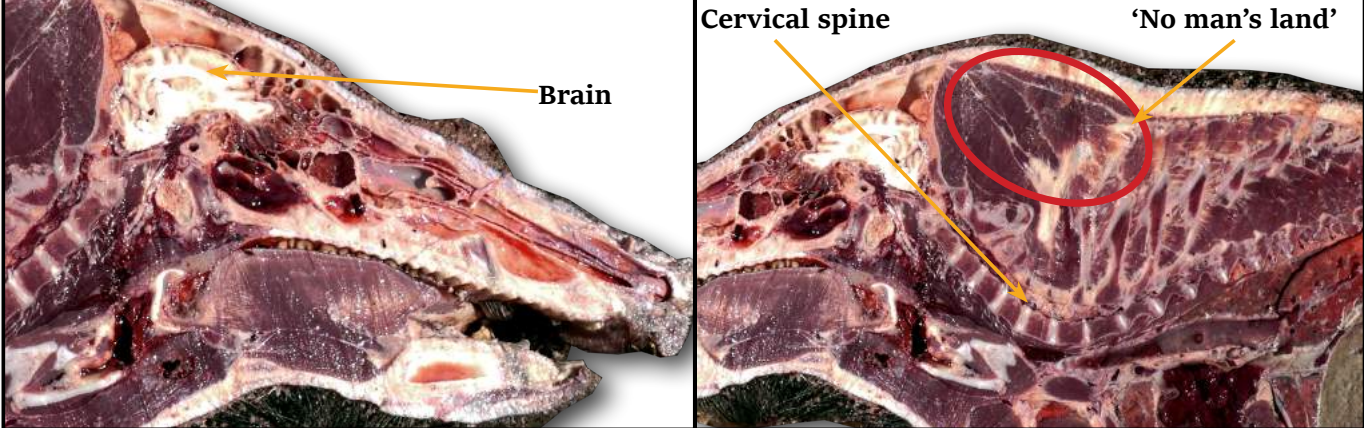
### Blue wildebeest



### Kudu



### Bushpig





Because the brain is so small, it is fairly easy to misjudge yourself with shot placement. There is a high probability that a fault factor of only one centimetre on a head shot might result in a wounded animal. On the other hand, a fault factor of only one centimetre on a shot fired at the heart-lung area should probably not have any noticeable effect. In the case of an impala, the heart-lung area is bigger than your hand when stretched out. Compared to this, the brain is smaller than your fist.

As far as neck shots are concerned, the neck of any animal can be very misleading. The cervical vertebrae extend downwards from the skull and make a low turn where they join the thoracic vertebrae. Above this section, there is an area which I, as mentioned earlier, label *no man's land*. Note that there are no vital organs or major blood vessels located in this area. In the blue wildebeest particularly, this area is even more pronounced compared to most other game species. Thus, it is so much easier to make a mistake with shot

placement when aiming at the neck. There is always the risk that the bullet can pass undisturbed through the neck muscles without causing any significant damage, not severing any vital organ. As is the case with the brain, the bullet needs to make contact with and fracture the cervical vertebrae in order to bring about an effective kill.

An additional fact increasing the risk factor associated with effective head and neck shots concerns the movement of the animal. The tail of the animal is the most moving part of the body. An animal is frequently swaying its tail to keep flies and other insects away. Another part of the body often moving is the head. Watch any animal that is grazing or listening attentively, looking in a certain direction. Note that the ears are almost constantly twitching. Apart from the ears, the head is seldom held still for extended time periods. Therefore, should the hunter aim at the head and pull the trigger at the exact moment the head is moving, it can, depending on the distance the shot is

fired, result in a miss, or even worse, a wounded animal. The longer the distance between the hunter and the animal, the greater this risk becomes.

In the hunting season of 2018, I have experienced how a hunter completely missed an antelope at a mere distance of 30 metres. The antelope raised its head at the exact moment the hunter pulled the trigger.

Study the following pictures of an impala. The shutter speed of the camera was set to a 60th of a second. This means that the shutter of the camera only remains open for one 60th of a second, exposing the picture, whereafter it shuts again. Also note that the camera was mounted on a tripod to ensure it remained absolutely stable.

It is clear that the movement of the head has a huge influence on proper and accurate shot placement. Remember that the hunter is always in charge of his own situation. However, the movements of the animal are completely beyond his control.

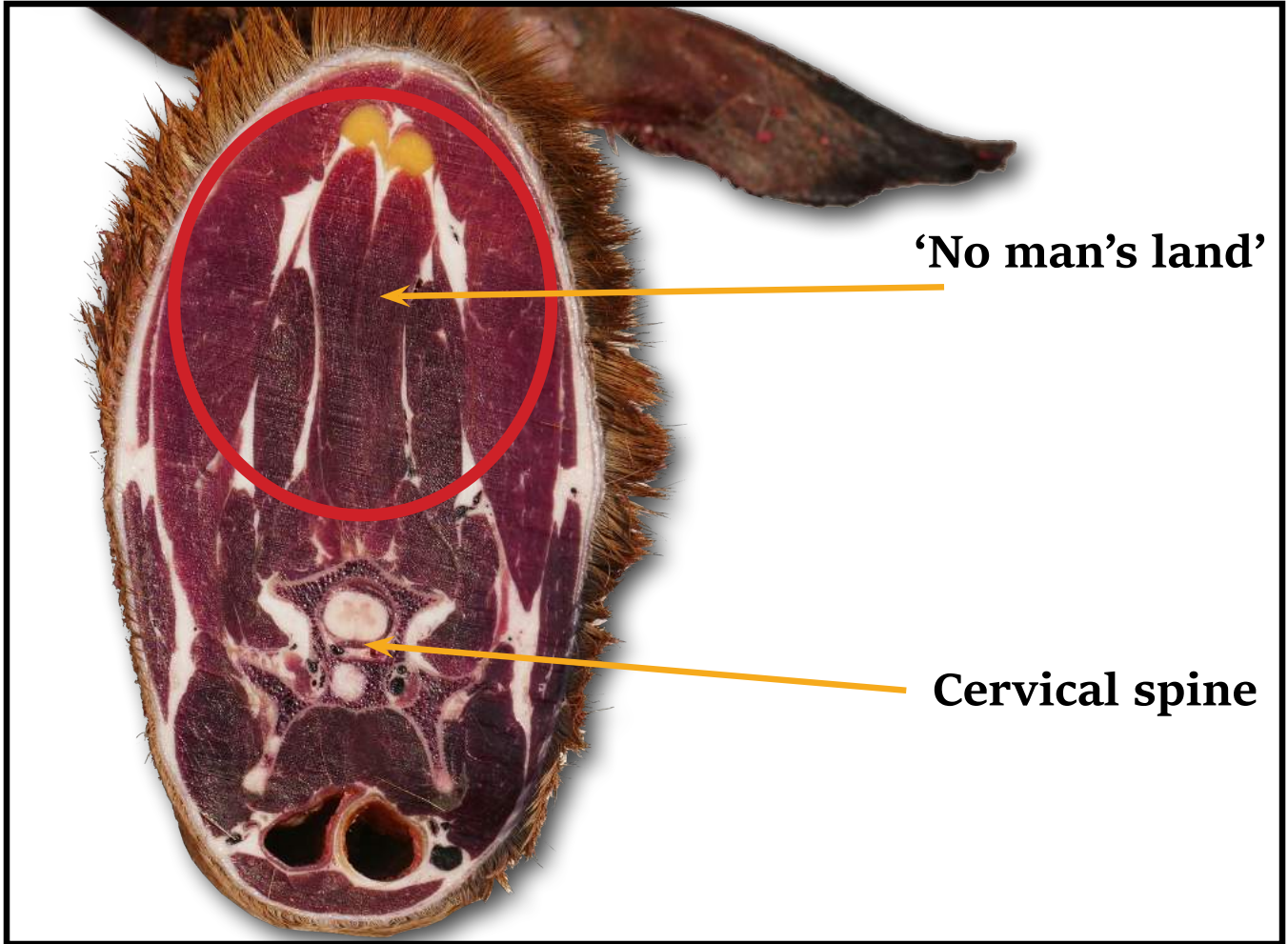


Thus, should the animal move or shake its head, the hunter has no means to remedy it. It is relatively easy for any shooter on the shooting range to place his shots constantly within a small circle on a paper antelope target. However, the same shooting expert on the range cannot control the movements of the animal on the hunting grounds. Therefore, the hunter needs to take responsibility for his decisions and actions. Thus, a hunter should, as far as possible, refrain from taking shots at the head and neck area.

I do, however, grant the fact that there are times when head and neck shots can be justified. Examples thereof are culling operations or when game is shot for the market. The difference is, these 'hunters' are experienced taking head and neck shots on a regular basis, they know their limitations and are skilled enough to most often execute clean shots. However, they would also be the first ones to admit that clean brain shots cannot be executed at all times.

Of course, it is a dramatic experience when an animal succumbs due to a fatal shot to the brain or the neck. (Please refer to the video.) The hunter has reason to delight in his shooting skills and often proudly shares his experiences with his hunting companions round the campfire. However, should he contemplate his actions, he will have no other choice but to question his conduct from an ethical point of view. It is also a fact that most hunters boast about their perfectly executed brain and neck shots, but they seldom care to mention their mistakes that lead to wounded game. I have reached the conclusion many, many years ago that head and neck shots are not worth the risk associated with them. I therefore try to avoid head and neck shots at all costs. I do, however, realise that in certain cases the hunter does not have any other choice, and I do understand that as well.

visit [www.wildlandmag.co.za](http://www.wildlandmag.co.za) to get your cope of Shot Placement: The Facts speak.





# Show some respect

By Cobus Erasmus

The article by Rienie Denner, on ethical behaviour and trophy hunting (Wildland, February and March 2018) had me pondering about various issues, one of them being how to help our young hunters to start their hunting careers ethically. I also call upon all true and dedicated hunters to rethink how we can bring about change with regard to the biased attitudes of the hunter-haters in our society. It is not something that we can quickly read and scroll by. It requires careful analysis and assessment as it presents a challenging situation indeed.

Any true hunter will try to ensure that he or she has booked a legitimate hunt. Unlike the poor dentist (with Cecil the lion), the unforgettable memories you bring back from the hunt should not be 'nasty' ones. As hunters, especially young hunters, we need to tread carefully, and we need to realise the powers of modern world-wide technology. We need to show some real respect towards our trophy, and we need to earn that respect by being an ethical hunter.

How do we avoid the Facebook hype that quite often tends to destroy the image of hunters? Firstly, we must be

aware of the fact that there are two main groups of people who do not understand our passion, and who therefore are against it: there are anti-hunters and there are hunter-haters. As a dedicated hunter, you must remember this fact; but you must also realise that you should focus your telescope on the anti-hunters. They do not really hate hunters, but are more neutral, and, with time, one should be able to convince them that we are not bloodthirsty wild killers – provided that we behave ethically.

They will tolerate your friendship despite the fact that you are a hunter; they will enjoy the biltong with you; they

might even have a look at your trophies. If you treat these anti-hunters with respect, show you respect your quarry, and entertain them with stories about the whole hunting experience (and not only about you as the big violent kill-all criminal), they can be won over and they might at least try to understand our passion.

The hunter-haters waste no time in condemning any form of hunting or hunter; in fact, any hunter becomes a 'shooter' in their narrow views, and should be eliminated on the spot. Yes, the same people that love animals, and want to protect them at all cost, hate humans (also known as hunters) and would love to 'shoot them there and then/eliminate them/hunt them down and kill them', etcetera. On the world-wide platform of publicity known as Facebook, these hunter-haters have no mercy whatsoever for us as hunters. And we need to be very aware of what we post on Facebook! The blood of your trophy might not even be dry on your pants after the hunt, and all over the world people might start calling for your blood if you – or your friend – have posted a picture of your hunt on Facebook. The so-called 'armchair-Greenies' are a very dangerous type of hunter. The recent deaths of two famous professional hunters, where so-called 'nature lovers' were actually glad that they have died, bear evidence of this fact.

Byron Pace has said that we should never apologise for being hunters. His words, "There is no greater honesty in life than hunting. We make our peace in the wilderness of this world. We understand balance and survival, and most importantly, the sacrifice of life. True hunters are the greatest conservationists of all. I fear for the day the last hunters walk this earth, as the final guardians of our world will be gone."

Recently I was invited to assist when some American friends journeyed through South Africa on a hunting

experience. The two very amiable hunters, Charlie and Alan, first had to prove their ability with a rifle, a 7x57 caliber. They proved to be excellent marksmen. One shot was slightly off target, but with, 'the target must have moved ...' they dismissed the one slightly bad shot. They did tell us about one guy who came hunting on their big ranch in Texas, and who did not shoot well at the target. His excuse? "I will use my good ammo on the animals."

We have heard a lot of stories through the course of the hunt, but there is one impression that has stuck with me ever since. You cannot tell someone to respect you or your behaviour. Respect has to be earned. And through your words as well as your deeds, people around you can just sense that you deserve respect.

They took some impala and blesbuck with nice clean shots, and remained very modest about it. Most impressive was the respect that they have shown: not only for the animals, but – and listen well – also for the anti-hunters and Facebook. They did not even want to pose with a rifle, in case some people might find it offensive and start more campaigns against hunting and owning a weapon. Yes, it might sound a bit too modest, but they seemed to have learned some lessons in their lives.

I came to realise that if we really want to win over the anti-hunters, we need to become much more modest about our achievements as hunters. And we as parents should remember what I have once read in a store in the USA: "Hunt with your kids, not for them". That way they should learn how to show respect from an early age.



## The damage done by warthogs when digging holes

On a recent warthog hunt, we had to cull quite a few warthogs, as there were far too many on the game farm – in excess of about 100 warthogs. But there was a good reason for the culling. There was a serious drought. But, before you could just take a quick shot, you had to ensure that there was no other animal lurking somewhere behind in the bush. We would soon learn that even the modest warthog deserves to be treated with respect.

It was soon evident that we would really struggle to hunt the warthog. They knew their way, and they were really fast and quite vigilant. We shot 15 warthogs in three days. A 'Greenie' will probably react with: 'What!??? 15 warthogs? Murderers!' But divide 15 warthogs into

3 days (5 per day); and then you will realise it only results in about two per person per day.

While on this hunt, I have again realised the value of the modest warthog as the first animal to be hunted by the young hunter. Compared to other game animals, warthogs can still be hunted at a fair price. But, please! Be ethical and do not try to wipe out the entire warthog population.

But remember: before the hunt, take a few shots at a target, and make sure that your rifle shoots where you aim. It is your responsibility, your host expects it, and your quarry, whether it be a trophy or not, also deserves respect. **WL**



Young hunters must learn to take note of their surroundings.

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# Competitive Handgun Shooting

## Part 1: Creating a Foundation for Success

(For the sake of simplicity, please read "He" for "She" and visa versa.)

(Another convention will be to refer to any handgun as a pistol, but this will also apply to revolvers where applicable.)

By Shaun H Kennedy

The foundation skill for any handgun shooter has to be to develop a solid, reliable routine that can be repeated, time after time, shot after shot, all day long, all year round, in good or bad weather, in your town or anywhere else you may be competing in a match.

Developing this routine, the shooter needs to ascertain what a good routine is, and what is not.

So we begin this journey to achieve high performance shooting success by granting you some time to determine what functions, tasks, tools and methods of shooting need to form part of your routine in order to deliver positive results.

Of course, there are some basic skills that a shooter has to master and be competent in to hit a target with absolute consistency, precision and success.

This article provides a checklist to help you identify all the right components your shooting routine should be comprised of. A good, well-defined, reliable routine is not a matter of choice – it is a matter of necessity. You must do certain things correctly and exactly the same every time you take a shot or a shot series, irrespective of the target – be it a pin, an animal silhouette, a popper, a steel plate or a paper target with circles on it. The target makes no difference.

What does matter though, is that you know the difference between what you are doing now, and what you should be doing in the future; therein lies the secret to great shooting progress.

Below please find a checklist for creating a foundation routine you must learn to put in practice, one that you can fine tune and hone until it's razor-sharp and rock-solid. Without a properly defined shooting routine, you will be wasting precious time and money. The sooner you get a consistent, well-defined and properly understood routine in place, the sooner your scores will improve and you will achieve success.

A foundation shooting routine is provided over the next few editions of this magazine, each of which will contain a detailed explanation of every element of a good handgun shooting routine. **A well-defined foundation shooting routine should include each of the following elements:**

- **Feet position;**
- **Hand position on the handgun;**
- **Arm position in relation to the target;**
- **Locking of the wrist and elbow;**
- **Line of sight along the shooting arm to the target;**
- **The correct sight alignment and sight picture;**
- **Focus of the master eye on the front sight;**
- **Trigger action, without disturbing the sights;**
- **Follow-through after the shot; and**
- **The correct breathing cycle in your routine.**

If these fundamental skills are not solidly and absolutely repeatable for every shot, then your chances of a Gold Medal will reduce in direct proportion to how poorly your routine matches this foundation checklist.

Please study the accompanying photographs before we begin our journey of exploration into becoming a High Performance Handgun Shooter. The photographs show the classic Olympic shooting stance first, followed by the recommended two-handed shooting stance which would be used for all the other shooting disciplines, since you will probably be using one or both of these stances along the way.

Look carefully at the two photographs and try to identify all the differences – they each tell their own story about technique that you should either adopt or avoid, as the case may be. In the picture on the right, my wife, Sharon, demonstrates the classic one-handed, Olympic shooting style, whilst in the picture on the left, my very good friend, Mark, is doing the 'male' thing, demonstrating how the Olympic one-handed shooting style can be easily misinterpreted.

The classic Olympic stance is more typical for slow-fire, high precision shooting such as you would expect at Commonwealth Games and Olympic Games events, whilst the two-handed stance is more typical in combat and defensive shooting situations and competitions. Top shooters should train to be able to shoot both one-handed and double-handed, especially with the growing trend towards one-handed shooting in elimination events – it separates the good from the best every time.



The wrong way:

Mark demonstrates how it should not be done in the one-handed pistol



The right way:

Sharon is demonstrating the recommended stance for one-handed pistol shooting. This photograph will be referred to regularly as the Olympic stance is described. Balance and as little movement in the stance are critical elements of success.

In the picture on the right two of the world's best NPA and PPC shooters, Thomas Svensson and Ralf Vanicek, provide insight into the recommended two-handed shooting stance. (A separate and detailed discussion of combat or defensive shooting styles will be provided later in this series after the basic skills have been defined and explained).



Clickn the following QR-Code to look at a short video about Shaun Kennedy.



### Curriculum Vitae

Shaun H Kennedy: A born winner, having the heart of a champion and understanding that perseverance is the key that unlocks the door to success.

In the 1960s, as a 15-year old, he started pistol shooting in Carletonville and became the youngest member of the Western Transvaal Mens Provincial Pistol team. Highly successful at pistol shooting, he has represented South Africa various times at national and international shooting events. At the age of 21, he became a Springbok and received national colours every subsequent year since 1973-1978. Being a member of the Pretoria Practical Shooting Club, he has been a hard-to-beat combat shooter, a novice rifle shooter and keen sporting clay target competitor. In 2011, he took up Black

Powder Pistol shooting after a 30-year break from competitive handgun shooting. One year later he was selected for the Protea Black Powder Pistol team participating in the World Championships (Germany). In 2014, he moved to ISSF pistol shooting, with some 36 years between his last ISU match and his new Olympic shooting involvement. By 2017, he had reclassified himself from Bronze Class to Master Class in all seven ISSF events, currently being listed in the top three for all of these. Recognised as a competitive sportsman with big-match temperament, he began teaching

high school kids in Gauteng to shoot air pistol in the 10-M Olympic event in 2012. In that same year he self-published his first book, *Pistol Shooting Techniques* (which sold out quickly) and has now been superseded by his latest book, *Competitive Handgun Shooting*. He strives towards establishing a Shooting Academy in South Africa to develop young talent and create top quality shooters.

Shaun H Kennedy: Champion, mentor, teacher – passing on his knowledge, dedicating his experience and effort, passionately living his dream and leaving a legacy! WL

Get a copy of Shaun Kennedy's *Competitive Handgun Shooting* for only R160 incl. postage (normal price is R190.) This offer is only valid to the first 50 buyers. Just attach a copy of this advert to your mail.

## Competitive

## Handgun

## Shooting

By  
Shaun  
Kennedy

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TEL: 082 654 9917



# Old Dogs Make Better Shepherds

By Louis Steyn



I was intrigued to find a growing interest in the successful use of so-called *Old World Dogs* such as the Kangal brought from Turkey to use against predators in areas where growing predator populations are increasingly threatening flocks of sheep. This old or ancient flock-guarding breed shows affection and a protective nature towards the weak and helpless, and violent aggression to all that pose harm to their timid, woolly friends. Facing predatory packs, some of these loyal dogs pay the ultimate price and are left lifeless on the battleground, fatally savaged, but taking along with them their enemy, *Canis lupus* - the Gray Wolf!

Now draw a parallel to the violent firearm toting, pitiless predatory ‘wolves’ who are hunting in packs, daily gunning down innocent people daily in our country as they murder, rob, rape

and pillage, without showing an ounce of mercy or remorse. Where are our *Guard Dogs* who should be protecting the weak against the ruthless? What has happened to us as a nation, shivering and cowering while listening to the screams and cries for help from our terrorised neighbours? A strange new strain seems to be emerging – a *New World Breed* which rather prefers to hide, virtually a prisoner in his safe walled estate, while outsourcing his family’s security to the police or armed reaction companies. The bandits, on the other hand, roam free and unmolested in city streets and the rural countryside, doing more or less whatever their evil intent drives them towards. I am not a vigilante and do not for one moment suggest that we should go out and provoke a fight. I am merely proposing that we should stop running away

continually from the responsibility of protecting the weak against the evil that roams our land unopposed. To paraphrase the recent words by Wayne La Pierre, Executive Director of the National Rifle Association of America, “the only way to stop a bad guy with a gun is with a good guy with a gun.”

As a third generation (now long-retired) police officer, I have been involved one way or another in active law enforcement, including armed confrontation and firearm training since the 1960s. Without doing the embarrassing maths, this obviously qualifies me as an *Old Dog*. I still try to maintain a modest skill at arms and continue to train as a sport shooter in the company of some of my aged peers as well as young, fit men and women – all of whom shoot far faster and more accurately than we old guys. Many of the

younger set have the latest and greatest low slung guns and gear and most of them can do the practice drills much faster than we can. The *Older Dogs* in our club, however, ALL exercise their right to carry legally, fully concealed handguns licenced for defence virtually at ALL times and practise their sport shooting skills the same way as they carry their defence pistols or revolvers. Conversely, many of the younger set are either selective about concealed carry and do so only when they feel that they ‘might’ need to defend themselves, or only keep firearms at home for defence. We oldies ensure that our defence pistols are unlikely to ever see the inside of a safe until our widows place them there and arrange for them to be passed on legally to the beneficiaries in our wills. Until then they will always be at hand – day and night – in the never

ending battle between good and evil. The great advantage of *Old Dogs* acting as shepherds to helpless innocents is that we are normally too grumpy and argumentative to give up without a fight. So, if there are any other *Old Dogs* out there reading this, switch off the Saturday rugby every so often, dust off your Colt 1911 pistols or your Browning Hi-Powers and show the youngsters on the range that you can still put up a fight.

Rules for Old Gunfighters

1. Keep standing – if you go prone, you may not be able to get up again.
2. Forget about going for cover – aimed suppressive fire towards bad guys IS cover.
3. If you can still run, run towards the enemy.
4. Carry enough spare magazines to avoid running out of ammo.

5. Never surrender, nor beg for mercy. We all need to go sometime or another. Going out with a bang rather than a whimper is good for one’s dignity.

In the meanwhile, before ‘The Solitary Reaper’ comes for us, let’s stay safe, watch our six and always carry concealed. **WL**



# Hornady G2 1500 Electronic Scale

By Pierre van der Walt

**H**ornady recently introduced the second generation of its well-known 1500 scale. It is a compact and affordable reloading scale. Unlike its predecessor, it is not a flat black, rectangular pad. It looks like an arch turned on its side; its colour distinctive Hornady red. It measures roughly 75x100 mm and stands 20 mm high.

The scale is battery operated, which I like, because the South African power supply generates noise and fluctuates, causing havoc with scales. Batteries do have the downside that they can go flat at the most opportune times, but they do prove more consistent in supplying power to the reloader, more so than the power giant, Eskom, currently does.

Like most other scales, the G2 1500 scale offers 0.1 grain precision up to 500 grains. Its maximum weighing capacity is an impressive maximum of 1500 grains. This means that even reloaders of .50 BMG, .416 Barrett and .375 CheyTac cartridges can use it. That comes in very handy and convenient.

The G2 1500 is well designed. It offers a clear cover over the metal weigh bed to protect it from dust and against damage when a too heavy object is inadvertently placed on it when not in use. The calibrating weight is stored in a special recess next to the weigh bed. There is no excuse if it gets lost then. It is extremely simple to operate. The instruction sheet is printed in English; the instructions are clear and can easily be followed.

The apparatus comes with a one year warranty that covers defects in material and workmanship. Obviously, the warranty does not cover damage by wear or abuse.

An excellent feature of the G2 1500 is that it is trickle compatible. Very few scales in the sub R1 000 price range are trickle compatible. It also offers a constant readout and, better still, it even offers variable auto-off times that can be adjusted in 30 second increments ranging from 30 to 180 seconds. That is a great feature as scales with a fixed 30 second auto-off feature are often a pain in the butt. I am obviously not the only one who objects to a fixed 30 second auto-off feature. Hornady must have introduced variable auto-off times on the G2 based on customer feedback.

For a person my age, it is safe to say that my eyesight is not going to get any better. I appreciate that being taken into account when designing equipment. Both the Hornady instruction sheet and the scale's backlit display are large enough to be easily read. Mostly senior reloaders will appreciate these features.

The Hornady G2 1500 scale retails around R740.00. It is most likely the most affordable scale on the market, thus offering excellent value for money. Therefore, more bang for your buck! **WL**

*More bang for your buck!*

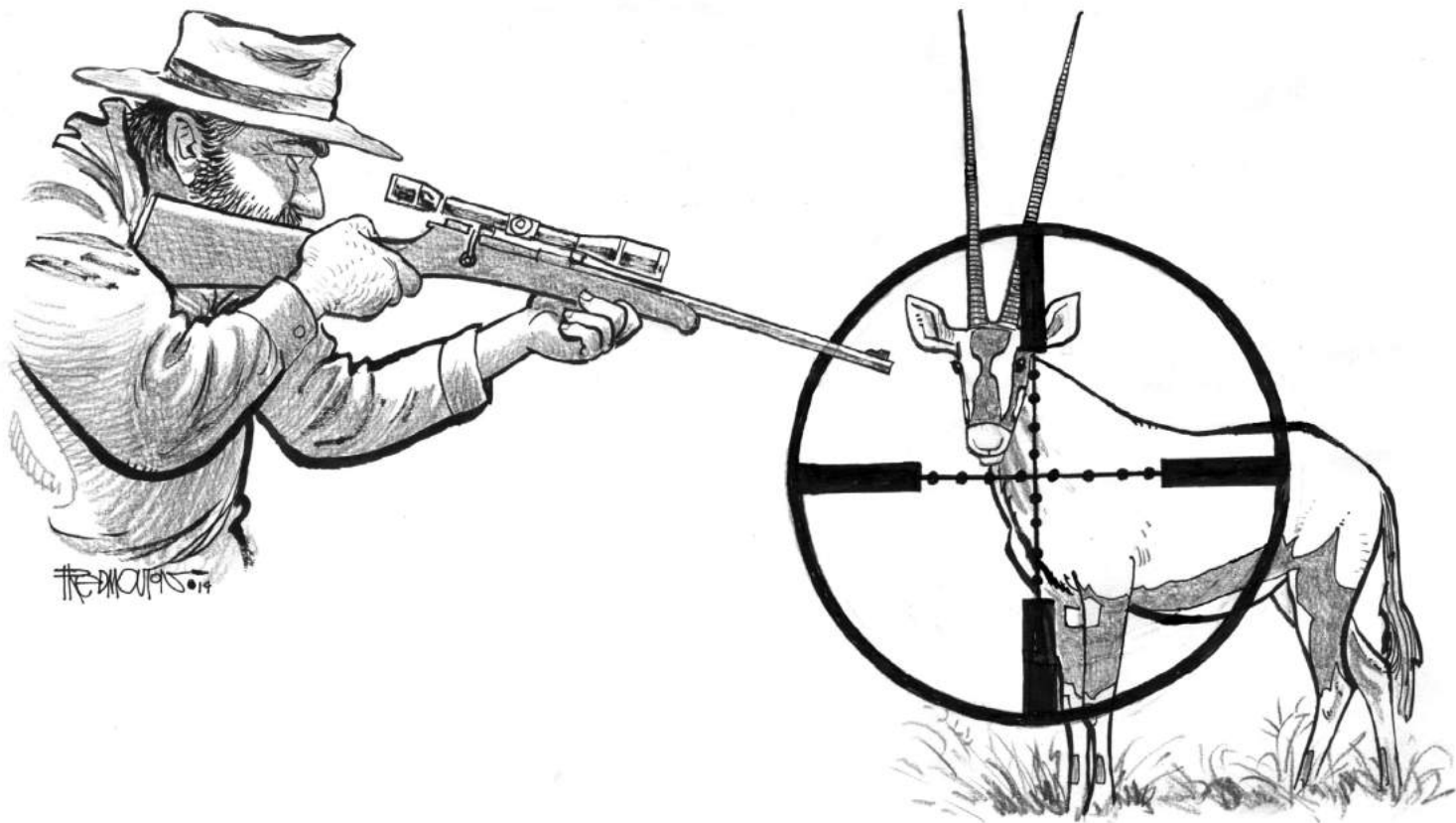


**To win this Hornady G2 1500 Electronic Scale, just e-mail your name and telephone number to [info@wildlandmag.co.za](mailto:info@wildlandmag.co.za) and who knows, maybe this time, it is your turn.**



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# A gemsbok hunt

By Bruce Parker

A SUV flew past, spraying gravel and small stones across the windscreen and bonnet. Blinded by the following dust cloud and braking too hard, we began to slide into the sunset stained gloom.

Pinned haphazardly in the cabin, we waited in our rumbling, darkened world for the impact that would injure and kill. As the vehicle spun, we imagined the deep sand piles along the roadside and braced as best we could. Earlier, Adrian had been going on about a car hitting the graded pile at an angle, describing how it would flip and finish amongst the boulders that covered the hillside. We came to a stop, smoothly, and with the silence, came the billowing dust. Then the doors crashed open and we were all outside looking for someone to blame and figuring what had happened. My brake marks and guilt, were etched in the gravel and I came in for a decent portion of that blame, though had the SUV driver returned just then, my sins would have been forgotten.

Earlier Chris had arrived at the obligatory Friday lunch debrief, full of news. A client of his had invited us to spend the weekend on his family ranch, some 90 kilometres south of Windhoek. Smiling broadly he confessed to calling our booking agent and moving the flights to Monday. Having been there once before, he knew we'd be impressed and while

two guys left to fix things with their families, we loaded up.

An hour beyond the 'incident' we were off the main road and following a gently climbing, grassed track into the hills. The ranch buildings stood sentinel over a dry river and a vast grassy plain whose edges folded into a million hills and merged at the horizon with a mountain range, now storm dark and lit by a flickering line of silent, but continuous lightning strikes.

We crunched to a halt outside reception, very happy to get out of the car, dust ourselves off and look around. Chris, back to normal, dragged us along to reception, knowing the ambience created by the high vaulted ceilings, trophy hung cut stone walls and thatched roofing, would properly signal the start of our weekend, as we stepped into what he enthusiastically called, 'the perfect hunting lodge'.

"Hey, Man, incredible!" said Alan, as we stood and stared at one record trophy after another. Mounted in natural settings, the stone walls were washed by warm desert air and, still pink from the last of the sun's glow. A dark wooden walkway led past reception and we followed it onto a deck with a view

that immersed us in so silent and vast a place, we became an essential part of the flow of time and acacia savannah that began at our feet and disappeared into the flickering grey wall of the distant storm.

"Kudu, hartebeest and gemsbok country, and brimming with them", said a cheery voice from behind. The barmen, passing by and carrying a crate of beer, extended a free hand with a welcoming grin.

"Be with you in a sec, just loading the freezer for you guys," he said, "have a look around. Best time of the day, we'll be lucky if the storm gets here, then you'll see something!"

"Thanks!" said Chris and to us, "this is it, come."

Piling our bags in a nearby corner, we walked back onto the deck and settled on the railings and chairs, eager to witness Namibia's transition into night. The beer arrived in long, very cold glasses and we drank, drank to wash away the dust and the week, and drank to salute the arrival of Namibia's endless vault of stars.

Far out in the wilderness, a jackal staked his claim, then another, far to the east, and another nearby, somewhere along the deeply shadowed river bed. Each of us thinking his thoughts, but then, mostly of a jackals' life, protected by wits and tasked to wander ceaselessly, nose and ears following every hint of subtle concealment and opportunity. Then, they became quiet, spreading out across the wilderness, taking stony paths into deep silence. After a few moments we relaxed, and turned from listening to talking, but quietly. Just then, a sharp cry pierced the night, and us too, for on the deck a questioning silence ruled.

"Hey, anyone know who just died?", whispered Adrian, eyes wide.

"Another round", said Chris, chuckling to break the tension as much as to head off a bout of crazy laughter, "but you got to admit, this place gets to you". His words unwittingly tightening Namibia's primal grip. Draining his beer, he stood, and said,

"And, gents, we need to check in and change before Johan gets here at around 19h30".

The evening passed quickly, mostly work talk during dinner, with the hunting stories starting as we moved to the lounge for a last drink. In a moment it was clear that the hunter in each of us was out, strutting and spoiling for a

chance to walk the land, get the taste of its dust, and the crunch of rock under our boots. Over brandy, we learnt that Johan's family had been ranching mixed game and cattle for years, and held a controlling interest in the ranch where we were now staying.

"Tell me, Johan, I asked, "obvious question, but do you arrange hunting trips?"

"Jake, my family have hunted this ranch on and off for many years, it's been under hunted and in such good condition, we've been building up the infrastructure for next year when we're opening it to international clients. There's still a bit of work to be done, for example, we're two hides short and some roadway extensions need grading and gravelling. Maybe you'd like to go out with our maintenance crew tomorrow? They leave after breakfast and follow the northern boundary, stopping to salt, check dams and water pumps. It's about 60 kilometres and should take six to seven hours, all being well. There's some rain on the way, as you've seen, and it's best to check everything now. You'll see herds of game all over, a bit skitterish ahead of the rain. That, and since they're not vehicle shy, you'll see a lot of good trophy animals."

"If I can see antelope like those in reception, I'll walk the 60 kilometres!" said Alan, "Oh yes, how big is the property?"

"Our northern section is close on fifty thousand acres, and altogether the ranch totals a hundred and ten thousand acres. Savannah and rolling hills account for most of it, but we do have around ten thousand acres of really rough country around the mountains. Their isolation and habitat has resulted in Namibia's biggest leopard coming from there. You may have seen the mountains when you drove in?"

"Yes, we did, but very much in the distance," said Alan.

At that, the party broke up and in walking through the open reception area to our chalets, got a taste of just how fast temperatures drop in the semi desert.

Dry, cold air rolled into my room, along with a cup of Arabica and amazingly, a small plate of 'lebkuchen', the spiced German cookie that really elevates coffee. At breakfast, more of the same, with a mix of croissants, brotchen, cheeses and jams that really sorted us out. Then wrapped in borrowed army surplus overcoats, we climbed onto a

cruiser just as the sun tipped the eastern horizon. In air so icy, there was little talking. To our surprise, Johan appeared, carrying a rifle case. Waving a 'hello' he spent a few minutes talking to Mathias, the driver, and then turned to me and passed up a cased rifle.

"Morning gentlemen! I hope you slept well. The provisions you'll need for the day are in the cool boxes under the front seats. Mathias, your driver, and his assistant Jacobus both know the ranch, and have radios. I am giving Jake, here, a 300 Win Mag, one of the ranch rifles that shoots to point of aim at 200 metres, along with ten rounds. You guys decide who shoots. The chef wants a young gemsbok, and I suggest you select a female. Have a great day, and Chris and I will see you around drinks time tonight!"

The rumble of the big diesel and crunch of heavy tyres on the slate roadway, signalled the start. Deep sand in the riverbed below the lodge, slowed the cruiser and with the low gear climb out, a pair of black backed jackals bolted into the road and ran ahead of us for some distance and vanished. We learnt right there just how glacial the night air could be for in passing through the river bottoms we developed instant blubbery lips and watery eyes.

Then we were churning up towards the warmer east slopes, searching for kudu, but saw none. From the hilltops, we saw just how broken the country was, appearing to be an impossible jumble of hills and ravines of every size. We'd not seen much yet and wondered if it was because the cold, grey dawn colours and deep shadows effectively hid the game. As the dawn graded through the pinks to full light, the contrasts sharpened and with the shadows in retreat, we felt the action was about to begin.

Cresting a hill, Mathias coasted the truck to a gentle stop. Silent routine now and up came the binoculars. Moving slowly and partly hidden by an old windmill was a massively horned kudu. We were well above him and some 500 metres away, but it seemed impossible he'd missed our arrival. Watching that stately antelope start up the hill, drifting almost effortlessly across a recent rock fall, we got an idea why they had come to be known as the Grey Ghosts of Africa.

"Now, that's a kudu," said Alan, "I am coming back here for that, he's got to be over 60 inches."



Leaning forward, he whispered to Mathias, straightened, and said quietly, “Mathias says 60 maybe 61, maybe a touch more”, said Alan, with a feverish look.

The kudu really stirred us up and on reaching the waterhole; everyone jumped down and circled the trough, looking for his tracks.

“Here they are”, said Adrian, “No, hang on, these are too small”.

“Kudu have small hooves”, said Mathias, who was walking past, hefting a chunk of salt lick.

“Their tracks are smaller than most antelope of their size. Here,” indicating track at his feet, “you can see the gemsbok track is quite a bit bigger, even though the kudu’s body is larger and heavier.”

“Why’s that?” asked Adrian.

“Not too sure, but gemsbok live on the desert margins and spend time walking the desert sands, where a larger track will help them. Remember how easily that bull went up through those rocks? A smaller hoof is a benefit on rocky ground, wait till you see them moving on a gentle rock face, slow, but its miraculous!” said Mathias.

“Incredible, and that’s salt?”

“Yes, when Johan decided to invite international hunters, he asked the state to make tests, and it was they who confirmed our soil had mineral deficiencies. Like manganese, zinc and magnesium, all of which are typically deficient in southern Namibia. Now we add them to the salt lick to help sort out possible fertility issues, calving mortality rates and milk production problems.”

Mathias began to change our thinking about this land, and the maturity he added through his understanding of the local ecosystem was evident in our conversation. Somewhere, we moved from viewing the country as a source of trophies, to an interest in what made it work.

At around one o’clock, we reached the top of the highest hill in the area and also our turning point. The air had a dry, translucent quality, a mountain side ambience filtered by the waving grasses and a million hills. Adrian wanted to stay, happy to drowse in the sun, and Alan, with his hat pulled over his eyes had already wriggled into a hollow. The solitude of our hilltop wilderness was suddenly broken by the slamming of the cruiser bonnet and the crackle of a radio. A murmur of voices and static, then Mathias joined us,

“Gentlemen, our transport is down. A relief vehicle is being dispatched and should take about three hours, maybe less. Alan, Adrian you may rest undisturbed, and there’s plenty of beer!”

Keen to have a little exercise, I grabbed a pack, pushed a radio into a side pocket, along with some sandwiches and bottled water and set out along the rocky road that wound into the stark, granitic mountains we’d been watching last night. Around the corner and about a kilometre away, the road dipped steeply into the next valley and half way down, another branched off towards a small dam. An old rockslide had created a natural impoundment of about an acre of deep, clear water. Access was via the road which ran across the top of the rockfall, and as I arrived, a family of warthogs hurried away, headed up the road away from me. This was an opportunity I couldn’t miss, for if this was a remote waterhole, there would be many unsuspecting visitors. I quickly returned to the cruiser to talk to Mathias.

“Mathias, I have a plan. You know the dam on the other side of this hill? I want to go down there and hide in the rocks and see if I can get the gemsbok Johan wanted.”

“Good idea, that little dam is the only water for kilometres, everything waters there. Take an overcoat, a radio and a

torch,” Mathias grinned, “because when the sun goes down it gets cold, quickly. Also, remember you’ve got about four hours before our relief vehicle arrives. I’ll give you a few clicks on the radio to let you know.”

Next, I strolled over to the sleeping forms and asked if anyone wanted to walk to the next waterhole? Maybe get a gemsbok? I got one grunt and a nothing. Pleased with the response, I equipped in indecent haste, and was off in a minute.

From high on the hillside I glassed the most obvious routes on the opposite hill and down along the ravine to my left. Deciding not to go down for a quick look at the tracks, I climbed from the road, about halfway down the hill, and settled into the bushy base of a house sized opening in the cliff. The rock mass that blocked the ravine must have tumbled from here and dammed the small stream. With small bushes growing from the cracked floor it was made for an ambush. The wind was light, its direction hardly perceptible, but it did seem to drift over the dam, heading down slope. If this held, my scent would dissipate high in the air above the game trails.

The afternoon shadows began to deepen and there was nothing for it now but to get comfortable and position myself for a long wait. With time on hand, I had a close look at the rifle Johan had left me. It was a serious looking weapon, a Ruger M77, Mark 11 loaded with a Nikon Monarch 4-12 x 40 scope, pretty fancy for a farm gun I thought, but the ammo was a no-nonsense choice too, Remington Swift A-Frame’s in 200g. I unboxed four, polished them, filled the magazine, moved one into the breach, closed the bolt, and set the safety. Setting up included making sure no acacia twigs or grasses lay in my possible sightlines, including the difficult left shot down the ravine, where I figured the game would exit after drinking.

In the middle of an afternoon, you notice a siesta like stillness, not an empty silence, but a world of little watchful sounds. A movement across on the way, the quick jerkiness suggesting a jackal, seen before it moved from the grass to stand in the roadway. I watched through the scope, half expecting it to spot me, swing away and vanish. It didn’t, instead it trotted down the road on a path that would take it to the dam’s edge.

Clouds had begun to build overhead, moving towards the west, and a cooler movement in the wind suggested another storm was on its way. Hard to believe, but more than two hours had passed since I had left my dozing companions over the other side of the hill. The temperature continued to drop as cooler air flowed down the hillsides and over the dam.

Somewhere a stone knocked another. I lowered my head slowly and waited. Nothing for a minute or so, then that sound again, but it echoed giving me no clue as to its location.

Whatever was approaching wasn’t too concerned about noise. My imagination went to work, piecing together fragments of fact and hope, could this be an antelope on its way to the dam and most importantly a female gemsbok? But why should it be, surely a kudu, a bat eared fox, a brown hyena or even a porcupine could make a sound like that?

I could see nothing on that shadowed hillside. I tried to range the source, but I learnt that a single stone knocked out of the way by a hoof, is just not enough. Putting my hand down into the deep overcoat pocket, I withdrew the radio and checked it was on, and that the squelch was set very low. The last sound I wanted now was an impatient, “We’re on our way.”

Easing back the safety, I twisted my body to face the hill, prepared now and keen to make contact with the

approaching animal. A moment later, another sound, this time possibly from the left. Staring though the opening I had enlarged when I set up, I still saw nothing and turned slowly to look down to my left.

A gemsbok was walking up the exit route, and would soon reach the road below me. I almost panicked, checked the scope again at 3x, and tried to position the cross hairs left of centre, thinking raking heart shot, then with the its movement, a shoulder moved into the way, and the shot was turning into a lung heart combination. Not a good idea. By now the gemsbok was just short of the sand pile and I suddenly remembered that I still had to see if it was a female. More panic, and aware of an animal’s sixth sense, I moved with the utmost care, trying also not to concentrate so hard that it might become aware of me, that, ‘something was not quite right’.

The gemsbok stopped right on the sand, a clean 70 or so metres, the shot angling down at about 45 degrees. I could not be sure it was a female, horns looked thin and long, but no-way could I look under the belly. Then another thought, Johan had said ‘chef’. My crosshairs wavering across its heart lung area, now moved up the neck, then to the head. Wrong again, I was dithering with indecision. I rolled partly onto my side and turned the scope to 9x. Re-aligning wasted more seconds, and yet the gemsbok still didn’t moved and still stared across the dam. I tracked carefully up its neck while I tried working the numbers, wanting my POI on a rifle shooting to zero at 200 metres. So, at 70 metres, down 45 degrees, I figured a negative 1” and at that moment the gemsbok stepped out of scope view. Quickly raising my head I saw it had taken a few steps, turning towards the road the jackal had come down. Now it’s rump faced me and I was looking along

its back. Bringing the crosshairs up its neck again, and to achieve a negative 1” I must try for a line joining the base of its ears, up a fraction, centralise, steady and squeeze. I don’t know how I did all this with a dialed 9x, the calculations and the panic I felt without a PH whispering supportively in my ear. Just a mess of thinking and risk, but, because I was so tense from trying to follow and position and sex the animal, all from a high position, I finally just went with it and squeezed. The Ruger kicked sharply, but the downhill shot seated the stock well, and I mostly stayed with it.

The gemsbok died instantly, its collapsed front legs pitching its face squarely into the sand, as though pitting its strength against mother earth, then it slowly rolled over on its side and did not move again. It was a female. It was about right age and it lay in the centre of the track.

Ten minutes later the cruiser pulled up next to me, Johan at the window with a cheerful smile and eyes that looked me over carefully.

“Hullo Jake,” he said,” you made good use of time! Once the truck was sorted there was just time for a beer before we heard the 300. And, Jake, that’s pretty good placement - both times!”

In the years that followed, when the hunting types got together over beer, some-one would always dig up the story and make me tell it again. To be honest, each time I did I could still feel some of that panicky woolly feeling that covered those few crazy minutes. I know I was lucky, and resolved never to chase an outcome like that again. Too many what ifs and at the end of the day, the ranch had its pick of any number of suitable gemsbok, not just the one I saw.

There will be moments in hunting, as in life, when risks taken are rewarded, these may be rare, personal and may gift the hunt, and all those involved, with memories that grow the day.



# Bittersweet Mountain Reedbuck



By Engee Potgieter

Consolation prize, a ram I took on a different trip to tick the species off my list.

I watched with bated breath as my arrow sailed high through the air toward the biggest mountain reedbuck I had ever laid eyes on. Horror filled me as I realised about two thirds of the way that my arrow was going to go wide of my target, in my haste I had made a crucial error, by never allowing for the wind drift on the long shot. I was going to cleanly miss a Mountain Reedbuck ram that would easily surpass the current world record.

**I**t had become an obsession to try and kill this ram with a bow and I had spent a great many days sneaking around his home range, often glassing the ram and his small group of females for hours on end. Trying to figure out what his pattern was, if he wasn't in a perfectly stalkable position I held back in fear of bumping him to the neighbouring property, who's boundary fence was always within sight of his preferred bedding area. Some days I wouldn't catch sight of him or his females and could only surmise that he would willingly travel to and from that property as well, so any sign of danger or any irregular movement in that valley would have him retreat to the safe haven.

This game of cat and mouse had played itself off over many weeks as I had to make time between work and family responsibilities so that I could drive more than an hour to the area where the ram was calling home. It took many hours

of climbing the hills, scanning and searching for possible ambush locations for me to get a general idea of his pattern. Yet just as I would think that I had him cold, he would pull a Houdini on me, disappearing for days on end and that fear would well up in my stomach, fearing that someone had spotted him and shot the ram, or that he had been caught by the multitude of predators in the area or had simply died of old age. There were some inexplicable times that I would spot his small herd of females, but he would never show himself.

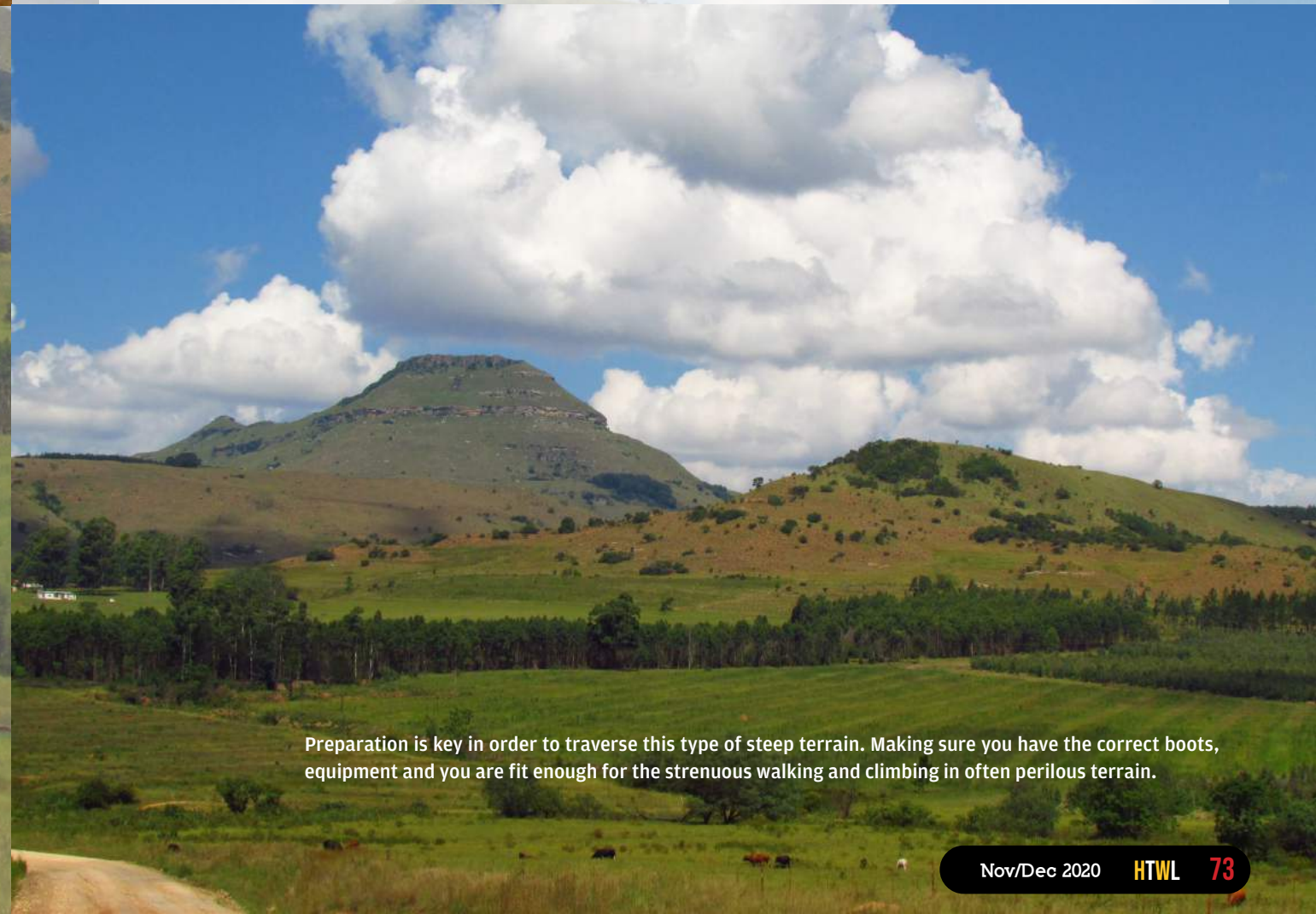
A dozen or so times I could have easily killed that ram if I had a rifle in my hands. He would be completely unaware of my presence as I sat completely hidden from him across the valley at a mere 180 yards. Never did I ever get the desire to do so, even when begged by the only hunting buddy I had told about the monster ram's existence. I'd spend hours

between my binoculars and spotting scope glassing the ram that would stretch a tape measure well over 9 inches, willing him to get up and move into a better position for me to be able to cut him off and put an arrow in him. Crisscrossing those mountains over the weeks and months leading up to winter I had passed up many other mountain reedbuck rams, but remained solely focussed on killing that huge ram. Then after what seemed like a futile attempt, I had my lucky break. There was a hidden little bench that the small herd would sometimes seek shelter in if there was a strong westerly wind. It was completely hidden from view due in part to the raised brim and it being well up on the side of the mountain. I watched from the base as the herd made their way there one afternoon, waiting until they dropped out of view in single file before I got up and started my climb up. My pulse was racing, partly because of the incredibly exertion to ascend this steep mountain and the fact that this was my first real opportunity to get close enough to arrow this giant.

I slowed to a crawl as I crested the rim of the basin and oozed my way down into it, stopping every three paces to scan every inch before me. The bench was about 80 or so yards wide and roughly 160 long and richly strewn with numerous boulders of varying sizes and intermittent tufts of highveld grass. I had crossed through this bench many times and had a good idea where they would be bedded as there was an area of shorter grass and barren ground at the far end. The wind was blowing steadily from my right front, yet

the brunt of the gusts passed over the bench on its way up the side of the mountain, a perfect spot for them to spend the night, warmly hidden out of the wind. I was still carefully scanning ahead with my binoculars, picking out every inch of rock and grass when a female jumped into view. She had stood up and turned around a few times to get a better position and laid back down. Now I had their position, amongst the four females would be the huge ram. Ranging the nearest rock to her position it showed them to be about 69 yards away. The problem now was to get close enough to see them bedded with all the obstructions in between us. As carefully as I could I started zig-zagging my way past bigger rocks and over smaller ones, cautiously picking each spot where I placed a boot. I stopped often to scan ahead for any sign and to get another reading with my rangefinder, 69 became 54, then 41 and finally an uncomfortably close 37 yards. I could just make out a pair on incredibly long horns set between a sharply pricked set of ears, although they couldn't possibly have heard, seen nor smelled me, the clever old ram knew something was up.

I had a choice, I could either wait for him to stand, or roll the dice and stand up and full draw and hope to get the arrow off before he blew out of his bed. I opted for the former as rushing a shot that I had worked months to get was not an option, patience is by far the greatest virtue when hunting with bow and arrow. I was as tightly wound up as the string on my bow, arrow nocked, sight set and trigger



Preparation is key in order to traverse this type of steep terrain. Making sure you have the correct boots, equipment and you are fit enough for the strenuous walking and climbing in often perilous terrain.



attached, all I needed was for that ram to stand up. What happened next played off nearly in slow motion. The same ewe that couldn't seemingly get comfortable with her spot stood up again, but she was barely more than 20 yards from me. As she turned we locked eyes and although I was fully covered in a leafy suit, she knew whatever the thing was she was staring at wasn't kosher and immediately bolted. The whole group took off up the far end of the basin which gave me time to range them again. Past experience had taught me that a sharp, reedbuck like whistle would stop them in their tracks, which if there were still within reasonable range, would give me a very brief opportunity of a shot. I let off a loud, short alarm whistle and they almost immediately froze. A quick range gave me the distance, which was at the very edge of my effective range, so I set my sight and drew back.

The medium antelope was quartering slightly on, which wouldn't be an issue for the nearly 500 grain arrows out of

my 80-pound bow, so I settled the pin low on the front edge of the shoulder, exhaled and squeezed my release. The shot broke cleanly taking me almost by surprise. I knew I had him, until I watched the lighted nock drift left. I realised immediately that in my haste I had never allowed for the wind. The arrow clattered into the rocks next to the ram, completely startling him and sending the whole herd bounding up the mountain and over the crest without stopping. I was devastated and sat down utterly defeated, I couldn't believe my bad luck, trudging back to the small white specks that was my vehicle at the base of the mountain I felt depressed and defeated. Yet I vowed that I would return and try again in a week or so to give the herd time to cool off from their scare, to add insult to injury I was to find out 12 days later that someone had shot that ram by sheer happenstance from a vehicle when looking for missing cattle in that valley. That was a bitter pill to have to swallow. Turned out he taped a good deal over 9 and a half inches. ☺



Hunting mountain reedbuck certainly takes one to some of the most beautiful country in God's Creation.

## PRODUCT

# Bear Archery Brands Announce Legendary Lineup of 2021 Archery Bows and Accessories

**B**ear Archery and its family of brands have announced the early release of another lineup of bows and accessories for the 2021 model year. The refreshed suite of archery equipment includes several new compound and traditional bows, as well as an all new crossbow for the BearX crossbow lineup.

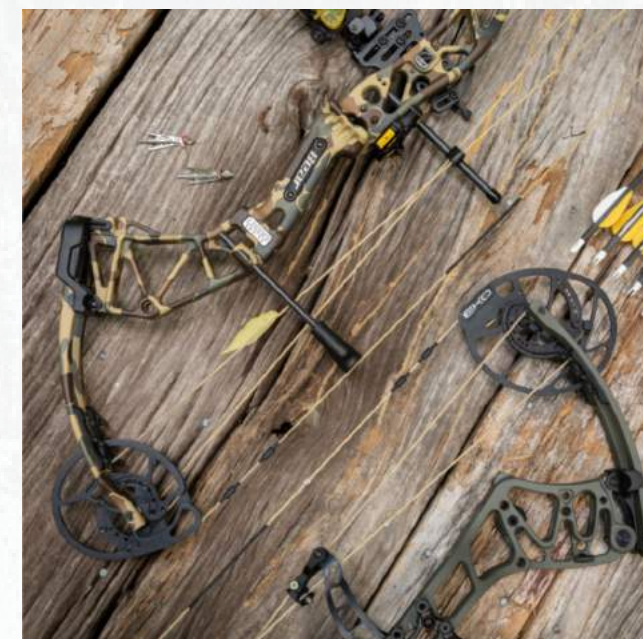
Last year, the team at Bear unveiled the Status EKO with the company's highly customizable let off position cams. For 2021, Bear is back at it with the all-new Redemption EKO. The new flagship model utilizes the company's groundbreaking Vibration Reduction System (VRS) to reduce hand shock and vibration through the riser by upwards of 25%. The new VRS works in conjunction with the existing Shockwaves Dampening System to reduce limb vibration as well. The Redemption EKO has an 31-inch axle to axle, 6.25-inch brace height, and weight of 4.1lbs.



Also new for 2021 is Bear's Legit with an industry first Ready to Hunt Extra package. The Ready to Hunt (RTH) package includes a Trophy Ridge sight, rest, quiver, and stabilizer. For 2021, Bear is raising the stakes with their RTH Extra package which includes everything in the RTH kit plus three Rocket Siphon broadheads, Trophy Ridge Wrath arrows with 100 grain field points, and a Trophy Ridge ArchX release.

"It was Fred Bear's goal to make archery accessible to anyone, no matter their budget or level of experience," said company General Manager, Jon Lene. "The Ready to Hunt Extra package does just that by presenting an affordable and all-encompassing solution to get you into the woods with the proper gear at a great price."

In addition to the Redemption EKO and Legit, Bear is introducing two other Legend Series bows to the compound



lineup. Several changes have been made to the traditional suite including a new Mag Riser Take Down made from lightweight aluminum composite,

Shedua, as an all-new wood choice for the Super Kodiak, Super Grizzly, Grizzly, and Cheyenne; and an Impact series crossbow that includes a silent cocking crank. The company plans to begin shipping 2021 product orders before the end of the year with most customers taking delivery from their dealer after the first of the year. Information on the 2021 Bear Archery lineup can be found on the Bear Archery website, [beararchery.com](http://beararchery.com) or by contacting your local Bear Archery dealer. ☺





# Popular South African Cartridges

## .300 Wincehster Magnum



By Pierre van der Walt

Pierre van der Walt is an old hand in our firearms and hunting circles and has written hundreds of articles for local and international magazines. He was the man who convinced politicians in 1993 to legalize gun shows in South Africa and then launched the concept. He served as SAGA Trustee for many years and was the founding editor of *Phasa News*, *Safari Times Africa* and the *Big Bore Journal*. Pierre is a qualified advocate and professional hunter as well as a publisher. He presently handloads for 42 cartridges and is the author of the popular book *African Dangerous Game Cartridges*. His next book, *African Medium Bore Cartridges* will shortly be ready for publishing. Contact Pierre at: [info@pathfinder-publications.com](mailto:info@pathfinder-publications.com)

### Cartridge history

During the period 1956 – 1958 Winchester introduced the standard-length .458 Winchester Magnum, .264 Winchester Magnum and the .338 Winchester Magnum belted cartridges. Wildcatters, as they always do, jumped on the concept and began necking them up and down. A plethora of wildcats evolved virtually immediately. Norma was the first major cartridge manufacturer to react to this trend when it introduced its .308 Norma Magnum in 1960 and Winchester followed with the .300 Winchester Magnum in 1963.

The company based the .300 Winchester Magnum on their .338 Winchester Magnum, but it had a problem: it was very possible that some fool would try to fire their new cartridge in one of the wildcat chambers with ill-effect and, in terms of American liability law, a fool does not

seem to have to take responsibility for his own idiotic behaviour. Winchester therefore changed the .338's case configuration slightly to prevent this.

The .300 Winchester Magnum outperformed both the long .300 H&H Magnum and the .308 Norma Magnum. It was offered in a truly great rifle, the pre '64 Winchester M-70 and, because it could be fitted into all standard-length rifle actions it became an overnight success. Although the chubby magnum fad temporarily bit into its popularity after the turn of the century, it remains a Top 10 cartridge in the popularity stakes. RCBS has, since 2006, again constantly sold more dies for the .300 Winchester Magnum than it did for the .300 WSM. It was no knock-out though, because the .300 WSM remains almost as popular.

### Characteristics

Apart from calibre, the main difference between the .300 Winchester Magnum and the .338 Winchester Magnum is that the .300's case is 0.12" (3,05mm) longer than the .338's. Winchester also increased the .300's case body length. That prevented the .300 Winchester Magnum from being chambered in most wildcats known at the time, but still provided wildcat owners the option of rechambering their shorter cased and bodied wildcats to the new factory chambering.

The redesign did not come with a free lunch. The .300 Winchester Magnum's neck ended up 85.7% of calibre. That offends so-called purists. In rifles with standard-length magazine boxes, it also requires deep-seating of heavy bullets; particularly those weighing in excess of 180-grains. When such heavy bullets also come with long ogives, it is not always possible to crimp them into place, or for the neck to hold them securely, as the neck has to grip on the taper. That

### Technical specs

First Regulator
SAAMI
Introduced
1963
Country
USA
Relative Case Capacity
91.5 gr water (5,941 cc)
Case Trim Length
2.612" (66,34 mm)
Groove Diameter
.3080" (7,82 mm)
Bore Diameter
.3000 (7,62 mm)
Groove Details
6 x .1100" (2,79 mm)
Minimum Barrel Area
0.0733"2 (47,29 mm2)
Std Proof Barrel Twist
1:10.0" (1:254 mm)
Max Average Pressure
64,000 psi (441 Mpa)
RCBS Shellholder

can be resolved one of two ways; opt for parallel-shanked bullets such as round noses, or extend the magazine box to accept cartridges loaded to a longer-than-specified maximum overall cartridge length of 3.34" (84,8mm) and modify the feeding ramp. If the bullets run into the rifling when long-seated for proper neck grip out of extended magazine boxes, one should opt for bullets with sub-bore diameter ogive sections such as the Peregrine VRG-3 and VRG-4 bullets.

The best solution if you are going to stick to heavy bullets undoubtedly is to have the barrel's freebore (leade) extended so that all heavy bullet configurations can be used. The down side of that is that light bullets loaded to shorter COAL will have to jump a lot of freebore before engaging the rifling. I don't see that as a problem.

Body taper is 0.69°, which is about 40% more than the minimum of 0.43° set by P.O. Ackley, but that must be put into proper perspective; it is just 36% of the .300 H&H's body taper, so it is not

terrible at all. At 25° the .300 Winchester Magnum's shoulder angle is quite steep for a mid-twentieth century design. It enables handloaders to headspace on the shoulder, rather than the belt.

The cartridge has an expansion ratio of 5.5 and a CaB-ratio of 94.5%, so it is approaching overbore capacity. To the best of my knowledge most barrels only go south after about 2,200 shots. That is considerably less than the .300 WSM, but that is an expected consequence of burning more propellant and probably

of using heavier bullets in the .300 Winchester Magnum than in the .300 WSM.

Everybody expected the .300 Winchester Magnum to suffer from accuracy problems because of its short neck. Well, theory is one thing. Reality is another. The .300 Winchester Magnum proved its accuracy potential in the sniper and the long-range competition arenas right out to 1,000 yards and the latest US sniper rifle has been specifically designed around this cartridge.

### Performance and application

Handload Performance Figures at 100% Bullet Expansion (24.0" Barrel)							
Bullet Weight	Velocity Threshold	Muzzle Energy	RTP Muzzle	RTP 100 yds	RTP 200 yds	RTP 300 yds	Recoil 8 lb
250-grain	2,650 fps	3,899 ft/lb	49.8	42.1	35.4	29.5	35.7 ft/lb
220-grain	2,900 fps	4,109 ft/lb	52.5	43.4	35.6	29.0	36.0 ft/lb
200-grain	3,025 fps	4,065 ft/lb	52.0	45.3	39.5	34.2	33.8 ft/lb
190-grain	3,100 fps	4,055 ft/lb	51.8	45.4	39.7	34.8	32.2 ft/lb
180-grain	3,175 fps	4,030 ft/lb	51.5	45.0	39.2	34.0	30.9 ft/lb
165-grain	3,300 fps	3,991 ft/lb	51.0	44.2	38.2	32.8	29.3 ft/lb
150-grain	3,425 fps	3,908 ft/lb	50.0	42.4	35.9	30.2	26.7 ft/lb
140-grain	3,500 fps	3,809 ft/lb	48.7	41.4	35.2	29.7	24.7 ft/lb
130-grain	3,575 fps	3,690 ft/lb	47.2	38.1	30.6	24.4	24.4 ft/lb
Averaged CSM = 8.6 lb (3,9 kg)							

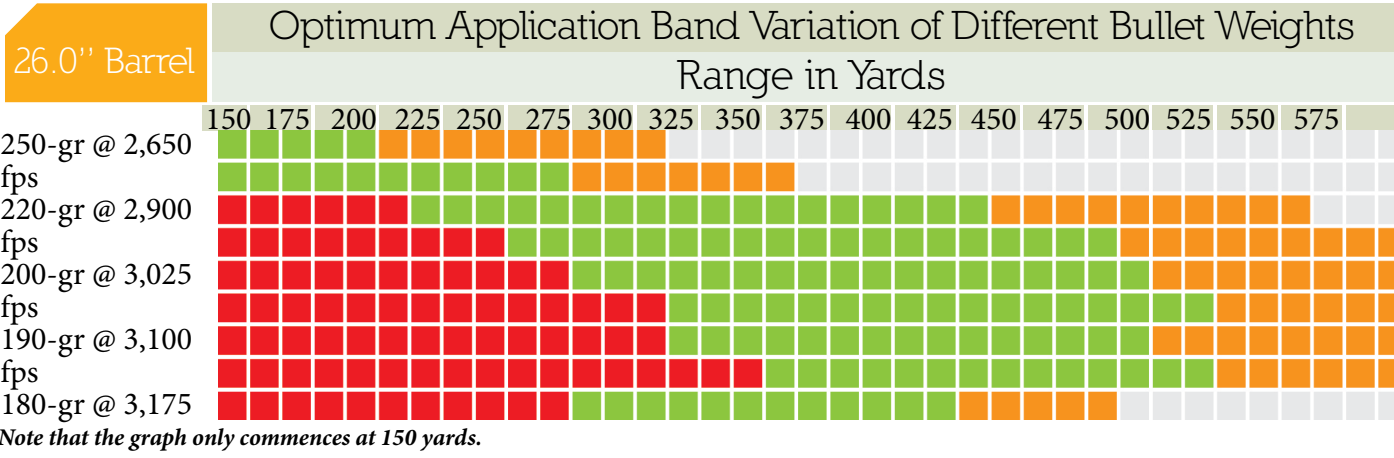
When normal Fourth-Generation bullets are used, the muzzle velocities generated by the .300 Winchester Magnum with all but 250-grain bullets are too high to deliver trouble-free terminal performance across bush ranges. Sturdy, premium-quality bullets are therefore recommended for Bush-range hunting (0 - 150 yards), but most traditional bullets work fine across savannah ranges (150 - 300 yards).

The .300 Winchester Magnum comes into its own with bullets in the 165 grains

to 180 grains bracket, especially when even more streamlined ones than the Nosler Partitions used for the OAB table are used. These bullets have a Green-Band commencing around 300 yards and extend application of the .300 Winchester Magnum to at least 500 - 550 yards. When the Amber-Band is brought into the equation, it becomes obvious that this cartridge can reach out to 600 yards and therefore cover all practical hunting ranges with ease.

Truthfully, the .300 Winchester

Magnum is as much cartridge as one would ever need for African large- to medium-sized antelope (350 lb - 750 lb), leopard and crocodile. Using it outside these parameters is not recommended unless truly premium quality bullets are used. There also are better cartridges for species lighter than 350 lb and for ones heavier than 750 lb, but it cannot be denied that it works on everything provided quality bullets are used and application range guidelines are followed.





Comparative Drop in RTPF and Recommended Game Weight Across Range								
Bullet Weight	RTPF 0yds	Game Weight 0 yd	RTPF 200 yd	Game Weight 200 yd	RTPF 400 yd	Game Weight 400 yd	RTPF 500 yd	Game Weight 500 yd
200-gr	52.0	100% - 750lb	39.5	76.0% - 570lb	29.5	56.7% - 425lb	25.3	48.7% - 365lb
180-gr	51.5	100% - 750lb	39.2	76.1% - 571lb	29.3	56.9% - 427lb	25.2	48.9% - 367lb
165-gr	51.0	100% - 750lb	38.2	74.9% - 562lb	26.6	52.2% - 391lb	22.3	47.1% - 353lb
Averages		100% - 750lb		75.7% - 568lb		55.3% - 414lb		48.2% - 362lb

As can be seen from the table, Comparative RTP and Game Weights, the .300 Winchester Magnum is able to cover both the minimum and maximum animal weight levels across its entire Green-Band with the 165- and 180-grain bullets. There is no real reason why one should shun the .300 Winchester Magnum because the theoretical recommended weight exceeds the RTPF figures by a few dozen or even

## Handloading

Rifles most often are the greatest culprits inhibiting the .300 Winchester Magnum cartridge. Magazine boxes of rifles chambered for the cartridge often prevent long-loading the cartridge. Long-loading is often necessary to achieve the best seating position for long, monometal spritzers or streamlined heavy Fourth Generation bullets. It is not an insurmountable problem: modify the magazine box and feed ramp of the rifle. With that achieved the cartridge has, strictly speaking, become something different, but in the modern era flexible approaches to bullet seating has become an established practice.

The recommended propellants are S-385

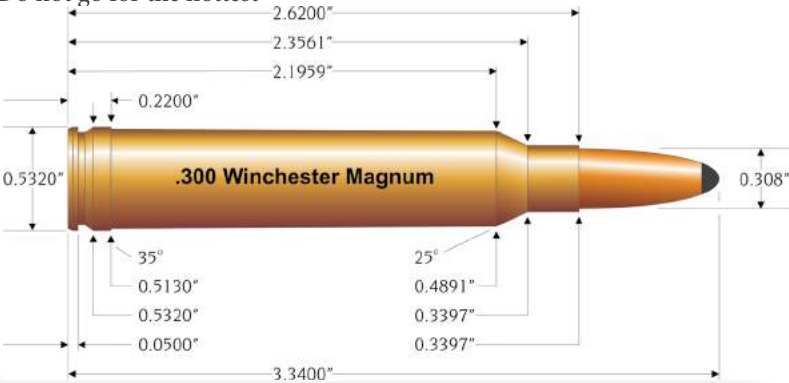
a hundred pounds. The application of logic when interpreting numbers and numerical trends is way more important than dogmatic enslavement to the actual numerical values.

I see a lot of short barrels on the .300 magnums and it does not make sense to me. I am a big supporter of barrels longer than 24.0” (610mm) on magnums, primarily because it delivers the best in

and S-365 depending on bullet selectin and barrel length. S-365 generally is the better choice. Standard primers generally are quite useable, but magnum primers are recommended. Do not go for the hottest magnum primers as it is not necessary and can be detrimental to Since the .300 Winchester Magnum has a fair shoulder and reasonably blown-out (improved)

terms of concept, and generally (given low expansion ratios in particular) it ensures hundred percent propellant combustion before the bullet exits the muzzle. I can see no gain in chopping a magnum’s barrel that cannot be better achieved by opting for another cartridge better suited to shorter barrels.

case, it can headspace on the shoulder. This is achieved with neck resizing only and is recommended.



Bullet Weight	Propellant Type	Min Load	Max Load	Max Velocity	Barrel Length	Data Source
220-gr Bullet	Somchem S-385	64.0 gr	69.0 gr	2,654 fps	24.0"	RDM Data Manual. 2011
	Somchem S-361	59.6 gr	66.2 gr	2,523 fps	24.0"	RDM Data Manual. 2011
	Somchem S-365	55.5 gr	61.8 gr	2,572 fps	24.0"	RDM Data Manual. 2011
200-gr Bullet	Somchem S-361	63.6 gr	70.7 gr	2,703 fps	24.0"	RDM Data Manual. 2011
	Somchem S-385	63.7 gr	68.7 gr	2,720 fps	24.0"	RDM Data Manual. 2011
	Somchem S-365	56.7 gr	63.0 gr	2,713 fps	24.0"	RDM Data Manual. 2011
180-gr Bullet	Somchem S-361	67.5 gr	75.0 gr	2,955 fps	24.0"	RDM Data Manual. 2011
	Somchem S-385	68.5 gr	73.5 gr	2,936 fps	24.0"	RDM Data Manual. 2011
	Somchem S-365	60.8 gr	67.5 gr	2,930 fps	24.0"	RDM Data Manual. 2011
165-gr Bullet	Somchem S-361	68.3 gr	75.9 gr	3,019 fps	24.0"	RDM Data Manual. 2011
	Somchem S-385	70.0 gr	75.0 gr	2,953 fps	24.0"	RDM Data Manual. 2011
	Somchem S-365	62.1 gr	69.0 gr	3,048 fps	24.0"	RDM Data Manual. 2011
150-gr Bullet tested	Somchem S-385	73.5gr	77.6 gr	3,200 fps	24.0"	Handload. Not pressure
	Somchem S-361	71.1 gr	79.0 gr	3,121 fps	24.0"	RDM Data Manual. 2011
	Somchem S-365	63.9 gr	71.0 gr	3,229 fps	24.0"	RDM Data Manual. 2011
130-gr Bullet tested	Somchem S-361	77.0 gr	82.8 gr	3,375 fps	24.0"	Handload. Not pressure



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# Terminal ballistic theories

## Part 2

Deur Pierre van der Walt

In the first article in this series we looked at the mechanics of death, the differences between instantaneous death and rapid death, as well as trauma and the concept of minimum wound surface area (MWSA). This month we take a closer look at the different theories.

In subsequent articles we will take a fresh look at killing power and the relative trauma potential value we use at cartridge articles in *Wildland*.

### Kinetic energy and the energy dump theory

I cannot say anything more about this than had already been done in the internet article *Shooting Holes in Wounding Theories*, so I will combine the gist of the article with some personal supporting experiences.

Although kinetic energy quantifies the ability of a bullet to do work, an erroneous belief is held by many that kinetic energy can be 'dumped' into an animal and that the more kinetic energy 'dumped' the higher the killing ability of a cartridge is.

An extension of this erroneous belief is that a bullet should not exit the animal because that would mean that it had not dumped all of its energy. Busting this myth is fairly easy.

Let us use two cartridges; a .308 Winchester cartridge that fires a sturdy 155 grain metal .308 calibre expanding bullet at 2 600 fps (792 m/s) to generate kinetic energy of 2 327 ft/lb (3 155 joules) and a 7.82 Lazzeroni Warbird also firing a .308 bullet, but one that weighs 170 grains. The latter bullet made of a very frangible hypothetical material and travelling at 3 550 fps (1 082 m/s) which generates

4 758 ft/lb (6 451 joules). The 7.82 Warbird bullet possesses  $\pm 104.5\%$  more kinetic energy than the .308 Winchester bullet. Now, fire both bullets point blank directed at an animal's heart area for example a giraffe; the metal bullet of the .308 Winchester will enter the chest of the giraffe and cause damage which will definitely cause death.

With a bit of luck, this bullet will pass right through the giraffe, but still cause death despite all of its energy not having been used in the process of killing. In fact, it may travel on for hundreds of yards before it runs out of energy.

The frangible bullet of the Warbird will arrive at the giraffe's chest, smash into it and 'dump' all its energy against the skin of the giraffe. The giraffe will be bruised, but it will not die. This despite the Warbird having 'dumped' at least twice the amount of kinetic energy into the giraffe the .308 Winchester even possesses. Many hunters have experienced this phenomenon.

Around 1980 I had the opportunity to hunt with a PH using an ultra-velocity .300 calibre Magnum rifle. The rifle, which he called Fulminiculus, named after the Latin for a bolt of lightning, had been left in the country by a grateful client. My friend had loaded his cartridges with light varmint bullets for baboon shooting.

I can't remember the exact muzzle velocity, but it was around 3 500 fps (1 065 m/s). On the way to where we

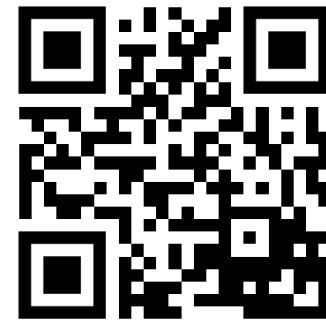
had planned to ambush the primates, we bumped into an unwary blue wildebeest at virtual arm's length and my friend needed camp meat. Fulminiculus thundered. Shot placement was spot on.

I saw the grey puff on the shoulder of the wildebeest, but thought it was dust. The wildebeest staggered for a second or so and then turned for a hasty departure; its handbrake clearly released. We found the animal later that day and killed it.

The inspection revealed that the bullet of the first shot had performed exactly as a soft bullet with a thin, frangible jacket was supposed to when abused; it had fragmented upon impact.

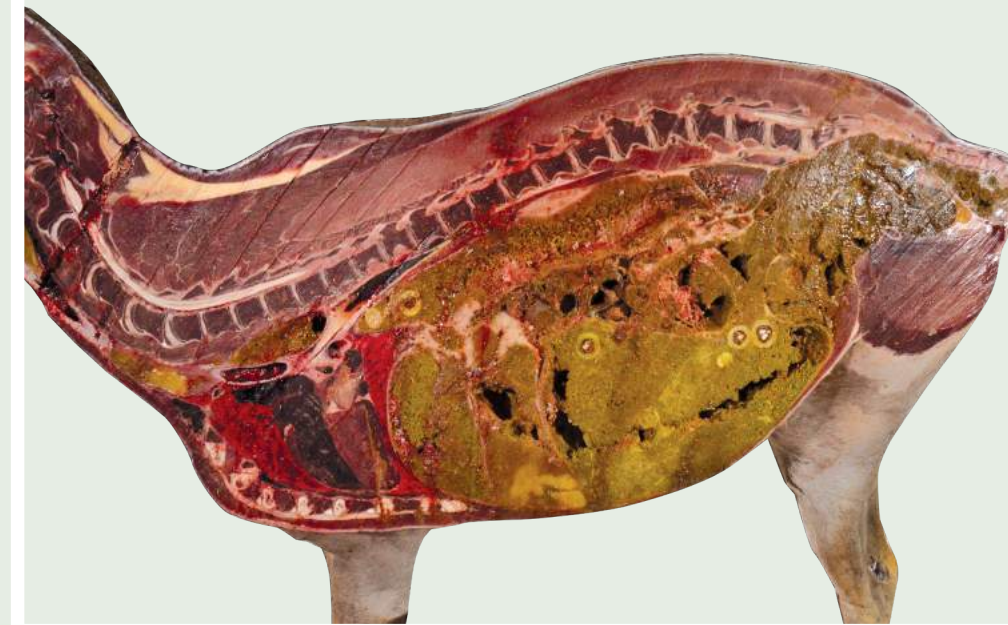
The wildebeest's skin was broken and there was massive bruising of the flesh around the point of impact, but no part of that bullet we could find had penetrated more than a couple of centimeters. The jacket we found about 2cm into the shoulder. The bullet had 'dumped all its energy', which was a lot, without effecting any mortal harm. That should take care of the myth that energy dumping contributes to killing or that a bullet has to remain in the target animal to kill effectively.

Exactly the opposite is true. A wound cavity which stretches right through the animal disrupts more blood vessels and causes more blood loss than the exact same wound of lesser length caused by a bullet which had stopped short inside the animal. The aforesaid clearly shows that one must



Click or scan this QR code to see two video clips of

- 1) a bullet that was photographed at 40 000 frames per second traveling through a block of gelatine. The shock wave is clearly visible.
- 2) a waterbuck that was shot and filmed in slow motion. It is also clearly visible how the bullet causes a shock wave through the body of the waterbuck.



The spine is clearly visible in this picture that was taken of an animal that was cut in half. A shot near the spine could cause only temporary 'spinal shock' of which the animal could recover quickly.

not equate the mere expenditure of energy with killing power. It is the nature of work and the rate of conversion of the energy to achieve the work needed that determine the so-called killing power; not just energy.

The work required is (i) the creation of a profusely bleeding wound in (ii) a critical area. HTL explains the importance of the rate of energy conversion very well when he writes: "The rate of energy transfer to the target is vastly more important than the quantity of energy transferred. This is the technical definition of power.

Anyone sunbathing on a clear summer's day at the beach will receive an irradiance equivalent to over 4 600 ft/lbs (6 237 joules) every minute! Eventually, this bombardment by extremely high velocity particles will result in sunburn, but the body can withstand the energy it receives because it is spread over a large area and arrives at a relatively slow rate (compared with bullets). The power and intensity (power per unit area) is much less than with ballistic events.

The sun energy is roughly equivalent to the kinetic energy of a 480 grain (31,1 gram) .458 calibre bullet moving at 2 077 fps (633 m/s), but the rate of transfer to the recipient's body is vastly different: a minute in the case of sun rays and a split second in the case of the bullet.

### Hydrostatic shock theory

Proponents of high velocity often claim that the faster a bullet travels through a

body, the more hydrostatic shock, which allegedly kills the animal, is generated. That is incorrect as well.

### Hydrostatic shock

A bullet passing through a body indeed creates a wave of high pressure, but it is vastly different to what hunters generally believe it to be. This hydraulic (not hydrostatic as it is not static) is discussed in an excellent 1947 article with supporting imagery by Drs. Harvey and McMillen, titled: *An Experimental Study of Shock Waves Resulting from the Impact of High Velocity Missiles in Animal Tissues*, which appeared in the March 1947 issue of the *Journal of Experimental Medicine* and can be read at <http://jem.rupress.org/content/85/3/321.full.pdf+html>.

#### The article proves that:

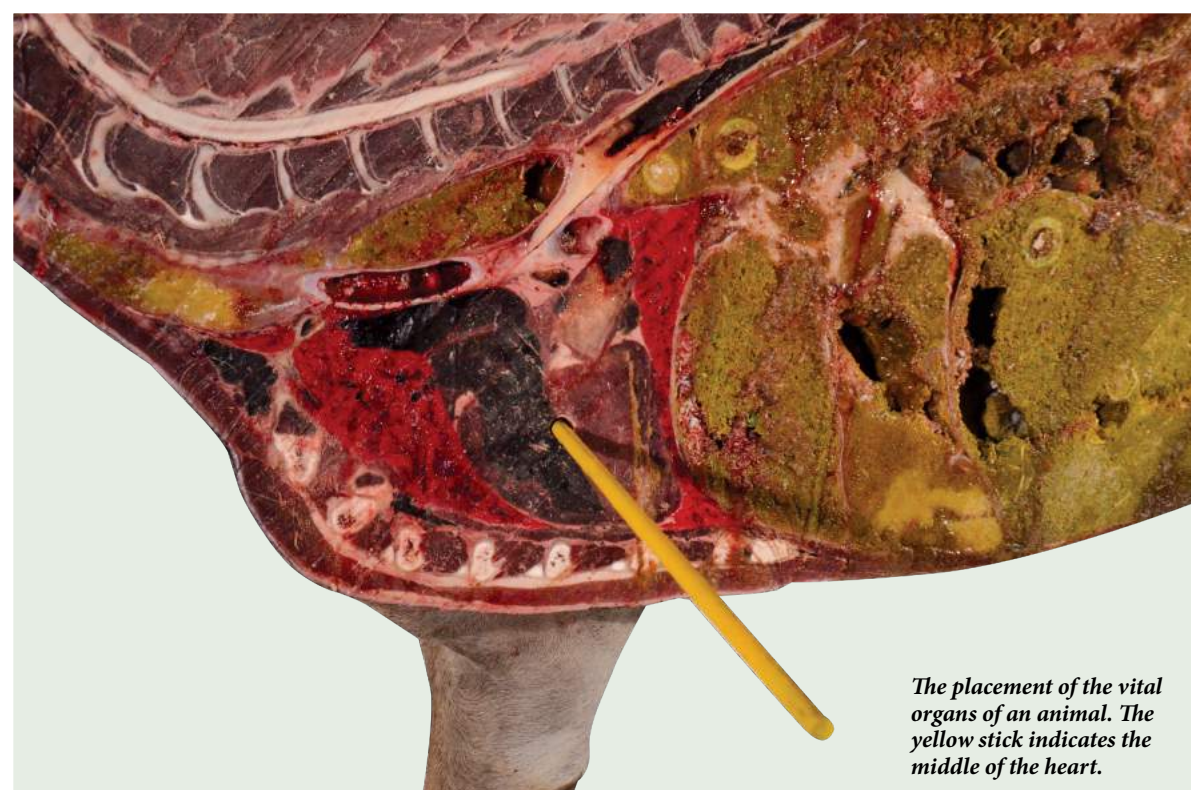
- The pressure of the shock wave falls off dramatically and inversely over distance. A pressure wave of 1 450 atmospheres ( $\pm 21\,300$  psi/ $\pm 145$  Mpa) generated by a projectile which impacted water at a velocity of 3 000 fps ( $\pm 1\,070$  m/s) dropped to 80 atmospheres (1 176 psi/8,1 Mpa) at a distance of 3.93" (100mm) travelled. In other words, the shock wave pressure is already miniscule by the time it has travelled the width of a small hand in water.
- Where a large number of surfaces or regions of different density exist in tissues (such as in an animal's chest), the initial regular shock wave will

be broken up and diffused even quicker during reflection and transmission than in water. This rapid diffusion of shock waves in tissue is particularly characteristic and represents the chief difference in the behaviour of shock waves in the body as compared with those in water. In tissue the initial transmitted wave suffers in intensity and converts into a large number of diffused wavelets, falling off much quicker than in water!

- Bone is a good shock wave transmitter and transmits shock waves quite well. This is confirmed by the article *Remote Spinal Injury Caused by the Focusing of Pressure Waves Induced by Missile Penetration* by B. Carrière and others that appeared in the *Journal of Trauma* 2001;50(4) and can be found at [http://karws.gso.uri.edu/Marsh/Ballistics/wound\\_1.html](http://karws.gso.uri.edu/Marsh/Ballistics/wound_1.html).

All of the above only means that any high pressure wave generated in chest tissue cannot contribute to death, but when the bullet passes close enough to the spine, the pressure wave can be reflected into the spinal column. It can cause some displacement of the vertebrae that damages the spinal cord and/or it can be reflected via the spine towards the brain and cause what doctors refer





*The placement of the vital organs of an animal. The yellow stick indicates the middle of the heart.*

to as ‘remote spinal injury’. It causes temporary paralyses, and that probably is what Taylor referred to with his Knock-Out phenomenon. The amount of bone around an elephant’s brain might make an elephant more susceptible to this phenomenon than other animals. Another ‘exception’ to all this is that the shape of the spine is such that it can actually amplify the pressure wave, rather than diffuse it.

Medical science has known for close to a century that the shock theory does not apply to tissue shots unless the bullet passes extremely close enough to the upper regions of the spine to cause remote spinal injury.

HTL takes it even further where he (slightly amended) writes: ‘The other popular contemporary misconception results from the belief that the rapid “transfer” of the kinetic energy of the bullet thereby kills instantaneously through “hydrostatic shock”. This term gets used rather loosely to describe quite a lot of things, including some actual wound mechanics, but for the sake of the following discussion I confine my reference to purported effects induced far from the wound cavity that are attributable to a “shocking effect” ascribed to certain bullets or loads. I don’t know where this term originated, but it is pseudoscientific slang. In the first place, these are dynamic – not static – events.

Moreover, “hydrostatic shock” is an oxymoron. Shock, in the technical sense, indicates a mechanical wave travelling in excess of the inherent sound speed of the material; it can’t be static. This may be a flow related wave like a bow wave on the nose of a bullet in air, or it may be a supersonic acoustic wave travelling through a solid. In terms of bullets striking tissue, shock is never encountered. The sound speed of water (which is very close to that of soft tissue) is about 4 900 fps (1 494 m/s). Even varmint bullets do not have an impact velocity this high, let alone a penetration velocity exceeding 4 900 fps (1 494 m/s). Unless the bullet can penetrate faster than the inherent sound speed of the medium through which it is passing, you will not observe a shock wave. Instead, the bullet impact produces an acoustic wave which moves ahead of the penetration. The initial acoustic wave causes no damage (it has been observed in testing passing harmlessly in advance of the bullet’s path). Some people use ‘shock’ in the colloquial sense to describe a violent impact, but it is confusing, especially in connection with the term ‘hydrostatic’ and lends undeserved quasi-scientific merit to the slang. It also tends to get confused with the medical expression attending trauma. We are not describing what is meant by shock to the medical profession. The word shock should never appear in a

gun journal, in my opinion.’

Insofar as killing is concerned, the shock theory clearly holds no water except insofar as it specifically and only relates to remote spinal injury.

I have on occasion seen neck shots that temporarily felled an animal by knocking it cold without having caused mortal trauma. Invariably these shots had passed within millimeters of the spine. In fact, I had once achieved this by accident on a blesbuck. As I got to it, it woke up and I jumped on its back to take it to the ground. Let me retain some dignity by saying that I never realised where a blesbuck could reach with its hind legs. It is not a feat I care to repeat. I succeeded in capturing it, but I did not look good afterwards. Suffice it to say that the ‘shock’ temporarily dropped the animal, but did not kill it.

### Hydrodynamic impulse

I am not qualified to discuss this topic, but fortunately HTL has done so in his *Shooting Holes in Wounding Theories* series of articles. He writes: ‘Before I become too dogmatic and overstate the situation, let me concede that there may be some merit to the idea that hydrodynamic (not hydrostatic) impulse created by bullets which have a high kinetic energy (or perhaps simply a high velocity) and generally exhibit violent cavitation (or merely generate local pressures of a

certain magnitude in combination with specific bullet paths), can cause some secondary effects due to pressure on the nervous system or circulatory system. In addition to the pressure induced cranial haemorrhage described previously, it is possible to kill manually by nerve “strangulation”. In this case actual damage to the central nervous system is not caused, but the signals governing the heart or diaphragm are shut off, resulting in instantaneous unconsciousness or even death. This sort of thing makes for lurid mythology in the martial arts and bad movies, but there is some real science behind it. Certain rare sports fatalities have been definitely attributed to a swift blow which interrupts the cardiac rhythm. Acoustic pressure on the spine can also cause temporary paralysis. These phenomena may account for the rapid effectiveness of some high-velocity hollow-point pistol bullet wounds, especially in cases in which the victim is not mortally wounded and recovers consciousness within a few minutes. Some special handgun loads (e.g. the THV bullet) have been designed allegedly to achieve this result.

Unfortunately, this is an unreliable mechanism of incapacitation, generally obtained at the expense of effective penetration. No bullet yet designed will produce this rapid shocking effect on demand because it depends more on (i) the hit location and perhaps even (ii) the timing of the hit than it does on the design characteristics or velocity of the bullet. Many of the handgun bullets designed to use this effect can be defeated by common barriers, such as glass, sheetrock, and even clothing.

More to the point, it’s less a matter of the bullet than the specific point of impact. Doing this deliberately by hand, even with a profound understanding of the mechanism and vital points, is extremely uncertain; using the passage of a pressure wave from a bullet to accomplish this, falls into the freak event category. Such is never an acceptable mechanism for the hunter.’

The importance of location and timing and the improbability of repetition was stressed to me when my son downed Alf, our 130lb (60kg) boerboel, with a punch to the heart. Pierre had the habit of doing so in a playful manner when they were playing. He must have punched Alf like that a hundred times before with no effect

except exciting the dog even more.

Then one day Alf went down like a bag of cement from that playful punch. He was out cold. That, I am sure, was nerve strangulation as a consequence of the highly improbable combination of timing and location. It never recurred in eight years of trying.

### Momentum

Better described as linear momentum, is the product (multiplication) of a moving object’s mass and its velocity.

**The formula is  $p = m \cdot v$ .**

We are discussing bullets, so let’s speak of a bullet’s momentum.

**Momentum is also described as the impetus of a moving bullet.** It is a so-called conserved quantity, which means that a moving bullet will retain its momentum unless external forces affect it. Such external forces include drag (wind or tissue resistance) or loss of weight (fragmentation).

Now let us compare two objects with the same momentum. The one object is a thin .0393” (1mm) calibre, long needle weighing 350 grains (22,7 gram) and travelling at 4 000 fps (1 219 m/s). Its momentum is 214.3 lb/ft-s (29,6 kg/m-s). The other is a .585” (14,86 mm) calibre bullet fired from a .577 NE weighing 750 grains and travelling at a more sedate 2 000 fps (610 m/s). It has the exact same momentum as the needle.

What will happen if you fire the 350 grain needle of the 1mm calibre with its 214.3 ft/lb-s momentum through an elephant’s lungs and out the other side of its body? Probably nothing, as the 1mm permanent wound cavity will be so insignificant that the tissue will contract, the blood will coagulate quickly, bleeding would be minimal and in time the elephant will heal totally. In a worst case scenario it may die after many days. If you fire the 750-gr .585” bullet with its 214.3 ft/lb-s momentum through the elephant’s lungs and out its other side, it will die quite rapidly. The same momentum levels from the same shot placement did not deliver identical results.

The reason is that momentum per se, does not possess or represent killing power. It needs another characteristic to convert whatever ability it possesses to killing. So, in the absence of that ‘extra’, which in the case of the second scenario is cross-sectional frontal area, momentum per se cannot

constitute the formula for killing power.

### Taylor’s knockout

John Taylor would most probably turn in his grave if he could see how his concept has been abused by us. Taylor never suggested his TKO as a killing power formula.

$$\text{TKO} = \frac{\text{Bullet weight in grams}}{7\,000} \times \text{Velocity in fps} \times \text{Calibre in inch}$$

He suggested it as a pressure wave transmitted concussion potential factor via bone tissue to elephant brains. He definitely did not suggest it as a killing power formula for soft tissue shots on plains game. His concept also applied to solid bullets and not expanding ones. To apply the TKO to expanding bullets while using the bullet’s initial calibre as is generally done, already constitutes gross misapplication of the concept.

Taylor’s formula essentially is momentum multiplied by bullet diameter. At first glance it seems as if Taylor had removed my criticism against momentum as a killing power value by adding that ‘extra’ (namely calibre), which creates the critical damage component to kill. It cannot be denied that there is some merit in the TKO formula, but merit alone is insufficient as it only relates to very specific shots on a particular animal.

One of the shortcomings of the TKO formula is that calibre relates to circumference and that in turn relates to the surface area of the wound created by the penetrating bullet, but it does not address the linear damage potential very well. Momentum to some extent represents the linear function, but calibre is not the best available factor to determine the drag the bullet will be subjected to.

### Other formulas

Quite a number of other killing power formulas exist. They are not seen in print as much and they do not have the critical support mass the theories discussed have. I consequently did not include them in this discussion. Readers interested in detailed discussions of these kind of theories should visit the Rathcoombe website mentioned earlier in this article.



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**E**qually at home on the range for certain sport shooting events, this new pistol ticks the boxes for suburban, small-holding or farm defence. This 9mm P handgun with its blowback action, 7¼-inch barrel and 20-round magazine is obviously not designed as your everyday carry gun.

The latter option is well catered for by another new CZ product which will be dissected and tested in this same article, namely the Sub-compact CZ P10s.

Whatever your choice of optical or open sights for the Scorpion may

be, the top picatinny rail will happily accommodate all of them, and the additional side and bottom rails are ideal for tactical torches and/or one of the many lasers available. With a one-point sling attached, the pistol is relatively easy to manage with the not-insignificant weight taming muzzle rise. The weight of the pistol itself comes in at just over five pounds. This is without the bells and whistles that you may wish to add to it as aftermarket products. The weight absorbs the felt recoil allowing for very fast follow-up shots.

**‘Home Defence  
Takes On A New  
Meaning:  
The CZ Scorpion  
EVO 3 S1 Pistol’**

By Louis Steyn



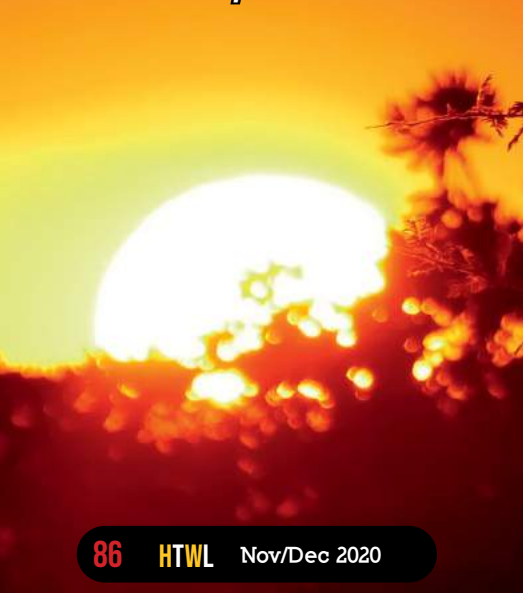




**Two twenty-round magazines are supplied with the scorpion EVO3 S1. Additional magazines can be purchased at extra cost.**



**A prominent and easy to use cocking lever sits at the front of the Scorpion.**



Its clear plastic double-stack 20-round magazine is nevertheless totally reliable. It was drop-proof tested from six feet onto concrete – both full and empty – and passed the tests. The 250 rounds of differing shape, weight, velocity and pressures - including some +P+ 'Law Enforcement Only' Rangers – all fed without a single hiccup, and magazine changes were particularly fast and easy with the mag well guiding the next 20 rounds into place with consummate ease. With the sound moderator attached, we put a full magazine of subsonic ammo into a group that a hand easily covered. The noise level? What noise? Yep, that's right. No noise – and no perceived recoil either.

Two magazines are provided, but one assumes that, as time passes, additional magazines will be available for sale. The barrel is threaded for a flash hider or sound suppressor. The latter is pretty handy in the dark with almost zero muzzle flash to betray the presence of the defender.

The action is the old reliable straight blowback, the frame is fibre-reinforced polymer and the overall length is only 16 inches – which means you can hang it fully concealed under your winter jacket when you go out to milk the cows in the snow at 04:00. (Men still do that you know!!)

All controls are ambidextrous and its non-reciprocating charging handle can be swapped to the other side for the lefties among us, while the trigger reach can also be adjusted (not only for stingy men with deep pockets and short fingers, but also for the fairer sex who often find that they need to change their grip uncomfortably to reach the trigger). The trigger broke cleanly after a short travel, and we were able to make, from the hip, well clustered torso hits from seven metres without any trouble.

The Scorpion was fitted with a Leupold Freedom RDS red dot sight, the latest addition to the already impressive Leupold series. We will in a forthcoming addition of WILDLAND publish a comprehensive article about the Leupold RDS.



**A NEXTORCH WL10X Executor can be fitted to the side of the Scorpion, which in turn will light up your target.**



**A-TEC manufactures this suppressor specifically for the Scorpion EVO 3.**



**The magazine release and safety catch are both ambidextrous and sit close to the trigger for ease of use.**

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# Everyday Carry Gun: The CZ P10s Sub-compact



Firstly let's talk about concealed carry, or more specifically about everyday concealed carry (EDC). In my view, every law-abiding citizen who owns an easily concealable firearm should do two things. One is that he/she should practise with it until he/she can draw and fire that particular firearm from a totally concealed carry position in, at the very least, one and a half seconds, and preferably in less than one second. Number two is that he/she must have the actual firearm with him-/herself properly concealed and ready to respond at all practical times. There is no season, no time either during the day or night that violent criminals attack. They, not you, decide on the where and the when. Assuming that at least some of our readers agree with this assertion, they will know that total concealment in either summer or winter means just that. The firearm may not 'print' on or under your clothing. If you are one of the few who believe that in our dangerous new world there is a need for a virtually invisible everyday carry gun, I have good news for you, – it has arrived!

The *Sub-compact CZ P10s* represents to me the state of the art of concealed carry. Except for the calibre, the ubiquitous 9mm P, the utter reliability, and the company that produces it, namely the ever reliable CZ, this little gun has nothing in common with the other CZ pistol featured in this issue of our magazine – namely the *Scorpion EVO 3* which has a totally different role to play. The *CZ P10s Sub-compact* comes as close to the perfect everyday carry (EDC) semi-automatic self-defence firearm as any that I have seen or tested to date. The standard for this type of striker-fired firearm has been pretty much dominated by the *Glock 26* and – to me at least – this *CZ Sub-compact* represents an improvement on the already excellent *Glock* product. The 12-round capacity is more than enough to handle most situations, while the trigger weight and the short trigger reset are superior to any of the other sub-compacts I have tested. My only gripe was the slide release which requires the concentrated efforts of a 400-pound gorilla to actually operate. However,



with cocking serrations both front and back, it becomes easy to get the slide forward, bypassing the slide release. No doubt CZ will address this problem with a slightly enlarged aftermarket slide release. The forward serrations also make it easy to check that a round is chambered. No matter what protrusions some firearms have to indicate a loaded chamber, there is nothing so reassuring as a quick look to visually see the back of the brass or nickel cartridge peeking out at you when you draw back the slide slightly. (The larger trigger guard also means that on a Free State winter morning, you won't have to tear off a glove in the middle of a gunfight). Take a good hard look at this little gun – it could save your life.

Stay safe! **WL**

## Specifications

**Magazine Capacity:** 12+1 9mmP Rounds

**Sights:** Front Orange Tritium; Rear-serrated Combat

**Frame:** Fibre-reinforced Polymer

**Width:** 1.26 inches

**Overall Length:** 6 inches

**Safeties:** Firing Pin Block, Trigger Safety

**Weight:** 24.4 oz

**Barrel Length:** 3.5 inches



Luminescent (glow in the dark) sights are fitted on the front and back, the latter of which is adjustable.



Two magazines are standard with the P10S with a round capacity of twelve, which is a lot for a sub-compact firearm.



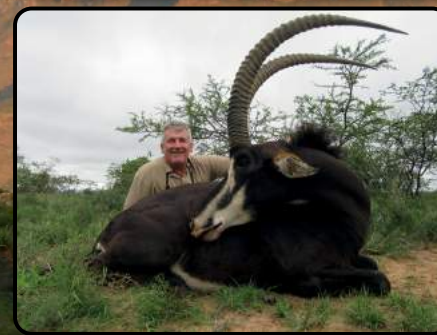
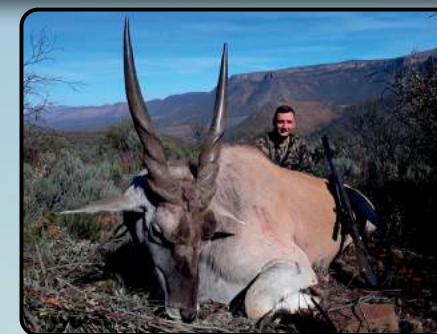
**CZ P-10S**

Click on the following QR Code to watch a video clip about the new CZ P-10 S



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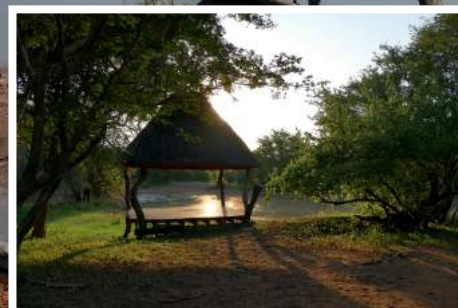
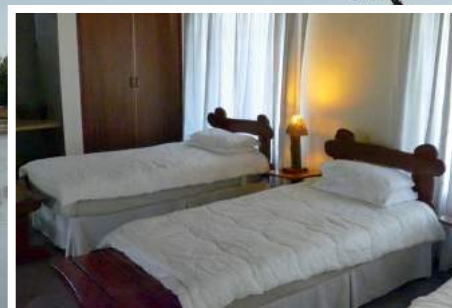
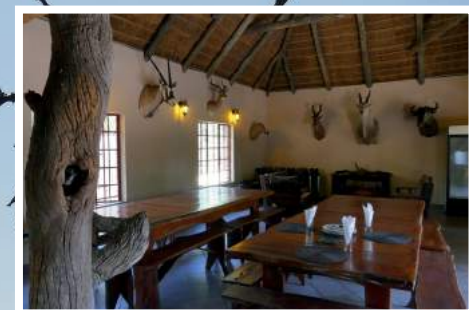
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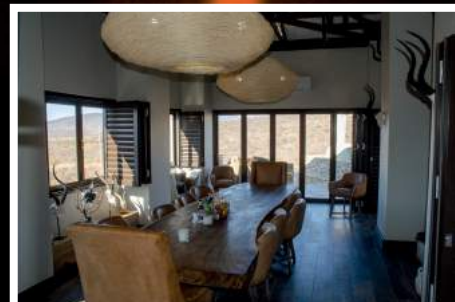
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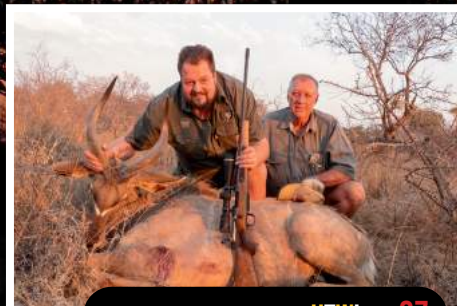
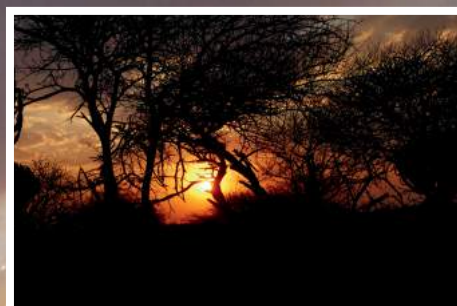
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