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**Preparation and International Evaluation of African  
Fair Game Trophy Antelopes at Waterberg Plateau  
Park, Namibia**

BY  
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**DECLARATION**

I declare that I did this thesis on my own and the materials mentioned in references and I prepared it as a requirement for the degree of Master of Science in Wildlife Management in Tropics and Subtropics at Czech University of Life Science (CULS) in Prague, Czech Republic. This thesis is the original work of the author and it has not been submitted for a degree elsewhere. The views and opinions stated therein are those of the author and not necessarily those of the institution.

Date.....

B.Sc. Timoteus Iita Matheus

Signature.....

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**Abbreviations**

MHG = *Master hunting guides*

MET = Ministry of Environment and Tourism

HG = *Hunting guides*

GRN = Government of the Republic of Namibia

PH = *Professional hunters*

WPP= waterberg Plateau Park

NAPHA= Namibia Professional Hunting Association

### **Abstract**

The aim of the study was to find out if there is change in the scores of antelopes at Waterberg Plateau Park. The other aim was to show the importance of evaluation and find out the methods which are common used to evaluate the African fair game. Promote the importance of trophy evaluation and trophy hunting for preservation and conservation of wildlife. There are different methods for evaluation of evaluating trophies but they all have same aim of letting people evaluate the species hunted as well as the importance of hunting and the experience of hunting.

**Key words:** Evaluation, trophy, antelopes, Namibia

### **Abstrakt**

Cílem mé diplomové práce je zjistit, zda dochází ke změně počtu antilop v parku Waterberg Plateau v Namíbií. Dalším cílem bylo ukázat důležitost hodnocení africké lovné zvěře a ukázat nejběžnější metody k tomu používané, důležitost podporování tropického ohodnocení zvířat a lovu pro ochranu a zároveň záchranu divokého života zvířat. V dnešní době máme různé metody k hodnocení "trofejí", ale všechny mají stejný cíl, nechávají lidem oceňovat lovené druhy a zároveň upozorňují na důležitost lovu a zkušenosti s ním.

**Klíčová slova:** hodnocení trofejí, antilopy, Namibia

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## **1. Introduction**

My thesis term is the evaluation of African fair Game Trophy Antelopes at Waterberg Plateau Park. The purpose for carrying out the research was to find out if the scores or points of trophies of antelopes do change over the periods of years.

I approached the problem by studying the methods used to evaluate and scoring for African fair game and use this knowledge to carry out my research. Rowland Ward method (which is common in Namibia) was used for measuring and scoring during field work.

The research was a problem analysis that means it was aimed to find out, though the data for past years were used with those obtained on the field, for analysis of the results.

This book or report is important for people who want to know the evaluation of African fair game trophies and keep records of the measurements of hunted animals as well as of trophies. From the study one can find out how important is the evaluation of trophies, the scoring methods and professional hunters in connection with the preservation of wildlife. Scoring methods are good indicators that one can know if the prevention of breeding age is adhered to as well as the prevention of hunting from the data of hunted animals.

Evaluation of trophies is necessary to see if there is trend in the score of in animals' species as indicator of the species well being which otherwise could not be recognized. Finding out that some areas of the world have animals with high quality trophy might boost hunting in that area of the world.

### **1.1 Literature Review**

Phenotype-based selective harvest including trophy hunting, can have important implications for sustainable wildlife management if they target heritable traits (David W. Coltman; et al, 2003).The trophy hunting industry has to be managed on a sound basis of statistics (Van Niekerk C G & Bottger H W P, 1990). Scoring systems, such as Rowland Ward, CIC and SCI measuring method, is therefore of utmost importance achieve this goal (Van

Niekerk C G & Bottger H W P, 1990). Furthermore this scoring system is to safeguard against the hunting of undersized and inferior trophies and in the long term accumulate statistics to indicate tendencies in the quality of trophies. Statistics form the base in adapting future policies to improve the whole trophy industry. The laws, rules and principles that govern hunting must be based on practices that are ethically accepted and appreciated (CIC-Red). Before taking part in hunting activities man must be acknowledge and abide by his responsibilities (CIC-Red). He must become thoroughly acquainted with the customs and ideals of the true nature sportsman. He must accept the fact that he is an active custodian of nature, and that it is his duty to maintain a satisfactory biological equilibrium (CIC-Red). When all the issues are properly understood and principles followed, hunting can provide substantial benefits-moral as well as material undertaken in the right spirit, it creates friendship of an international nature and forms bonds between those who share a common ideal (CIC-Red).

Namibian farm owners can register as game farmers and stock their farms with wildlife which hunters can pay to hunt (Michael N.H, 2002). Professional Hunter or Hunting Guide in Namibia must know the minimum scoring totals for most of the trophies hunted in Namibia by heart in order to evaluate a trophy on the hoof (Van Niekerk C G & Bottger H W P, 1990). Namibian Quality Control officially approves and implements measuring methods for evaluation of trophies (Van Niekerk C G & Bottger H W P, 1990).

Hunting and use wildlife in Namibia is regulated according to The Nature Conservation Ordinance of 1975 (Ordinance 4 of 1975) (see appendix A page 41) by the government. Though the Ordinance is still used it has been amended in recent years (1990, 1996 and 1998) and the new purposed is still to be passed (2008) (Erckie, 2008: personal communication).

There are three classifications of hunting professionals which are; Hunting guides, Master hunting guides and Professional hunters (NAPHA, online, 2007 & Michael N.H, 2002). Hunting professionals should comply with all the trophy-hunting regulations of the Ministry of Environment & Tourism (NAPHA). Hunting shall be conducted exclusively in company of a registered hunting guide, master hunting guide or professional hunter (NAPHA online 2007). *Hunting guides* (HG) may only conduct hunts on their own farm(s), duly registered as a hunting farm(s) (NAPHA online, 2007).

A hunt shall only commence if the HG / MHG / PH has obtained a valid hunting permit (trophy hunting permit) from Nature Conservation prior to the start of the hunt. For cheetah and leopard an additional hunting permit has to be obtained prior to the start of the hunt (NAPHA online, 2007). Ordinary hunting guide may guide hunts on a particular farm on which



he/she is registered (Michael N.H, 2002). The master guide may guide hunts on a guest farm for which he/she is registered and with permission from government, on two other farms (Michael N.H, 2002). Professional hunter may guide hunts anywhere in the country, where such hunting is permitted, including public land (Michael N.H, 2002). After the hunt, the hunter must obtain export permits from the government in order to take his/her trophies home (Michael N.H, 2002).

Hunters, who are concerned with the fate of the eupecoran on the one hand, and the fate of hunting on the other, should also give thought to the scoring formulas (Bubenik A B, 2007). Hunters cannot compete in harvesting world record trophies for the improvement of personal status without losing face before the public (Bubenik A B, 2007). Sociobi-ological formulas are designed to undercut such efforts (Bubenik A B, 2007). The trophy should be once more regarded as a status symbol of the game itself (and not that of the hunter) as a species-specific feature (Bubenik A B, 2007). Under such conditions, trophy-shows [*and record books, Ed*] will be unique educational aids, presenting evidence as to how hunters can improve the welfare of the game (Bubenik A B, 2007).

### **The Safari Club International (SCI) Measuring method for most trophy animals in Namibia**

Four measurements are taken for the length both horns and circumferences of both the bases (Van Niekerk C G & Bottger H W P, 1990). The sum total all measurements taken is the score of the trophy. Measurements are taken in inches to nearest 1/8<sup>th</sup> of an inch (Van Niekerk C G & Bottger H W P, 1990). Measurements are taken with a steel measuring tape (max. mm wide) or steel cable (Van Niekerk C G & Bottger H W P, 1990). The measurements are taken as soon as possible after trophy begged. Trophies to be measured for SCI records must be measured by an official measurer of SCI (Van Niekerk C G & Bottger H W P, 1990).

### **The Medal System**

Gold, silver and bronze medals, in conjunction with the appropriate certificates are obtainable for mature trophies (NAPHA, 2007 online). This is to promote the basic idea of selective trophy hunting (NAPHA, 2007). The Record book measurements of the Safari Club International are the founding basis for the medal system (NAPHA, 2007 online). This also forms the basis for the prescribed measuring. The "Record Trophies" in this "Book" are the basis for the Namibian silver medal. Trophies up to 5% below these values are honoured with a bronze medal and those 5% or more above these values receive a gold medal (NAPHA, 2007).

Apart from that, a special "Conservation Medal" minted in "old-silver" is obtainable for the trophies of old animals or an abnormal trophy (NAPHA, 2007 online).

## **2. Objectives and Limitations of the Study**

The aim of the research or study was to assess the importance of trophy evaluation and regulations of game, specifically antelopes by measuring trophies and study regulations of antelope species at Waterberg Plateau Park.

The specific objectives of the research were:

- a. To determine if there is change in the scores of antelopes at Waterberg Plateau Park, by comparing data from past years and those we get on field work during the study.
- b. To promote the importance of trophy evaluation and trophy hunting for conservation of wildlife.

The limitations of the study were that there were no enough data especially for smaller antelope species. We only measured the few horns (trophies) which were available for sampling the antelopes. The data for some antelope species could not be proved statistically due to little data.

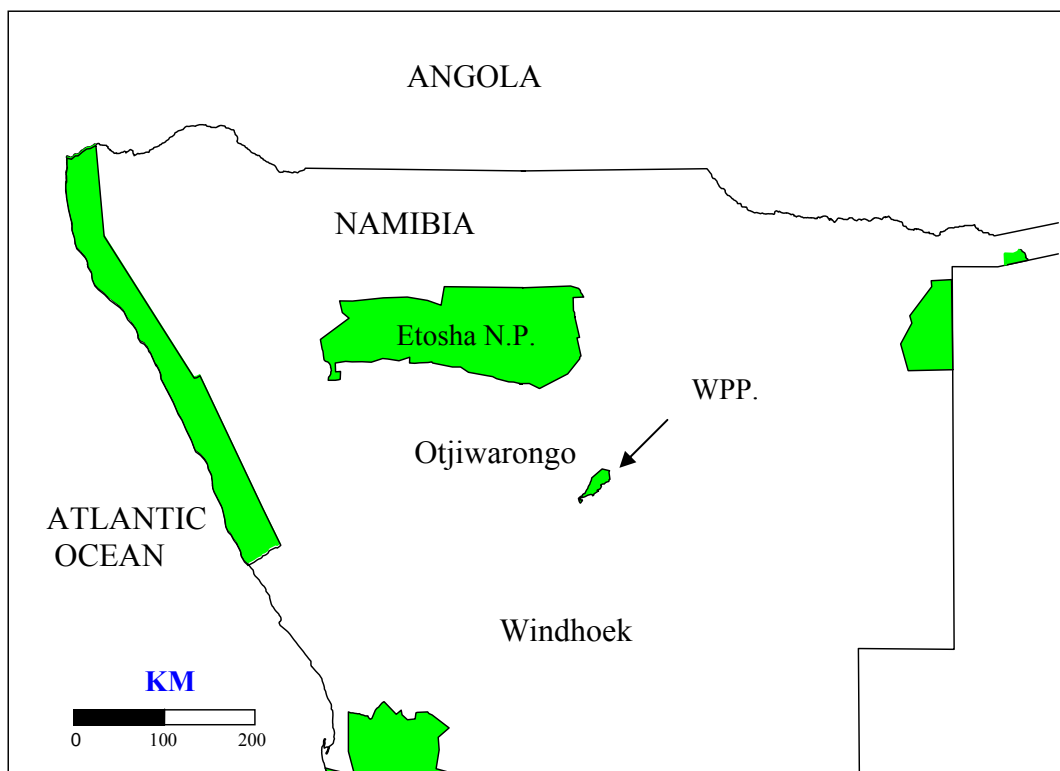
### 3. Material and Methods

#### 3.1. Study Area

The park is situated in north-central Namibia between 20° 30' S and 17° 15' E (Figure 3.1) and approximately 80 km east of the town of Otjiwarongo. It forms a table mountain with a prominent plateau of about 40 000 hectares. The highest point on the plateau lies at 1930 m above sea level (Erckie, 2007). The lowest point of the plateau lies at 1550 above sea level and between 100 m to 300 m above the surrounding plains.

The park measures about 50 km in length and 16 km in width. On the north-west, the south-west and the south-east, the mountain is surrounded by steep escarpment or steeply rising slopes. Towards north-east the plateau altitude decreases gradually due to the dips of the plateau where the mountain eventually merges with the Kalahari Sandveld to the east level (Erckie, 2007). Along the northern western edge of the WPP lies the Okarukuvisa Mountains, which are approximately 2000m higher than the plateau. These mountains play essential role of protecting the area in the southeast against erosion. Waterberg Plateau Park has 35 workers for managing the park and 60 for Waterberg Resort which runs tourism in the park.

**Figure 3.1 The location of Waterberg Plateau Park (WPP)**



## Park background

The Waterberg plateau was first proclaimed as Natural monuments by the Historical Monument Commission decision on 15 June 1956. Ten years later (May 1966) the Parks board of the then Administration of South West Africa, visited the Waterberg plateau and decided on the following:

The feasibility of renovating the old German Police station known as the “Rasthaus” for tourism, and

The possibility of creating an eland reserve on the plateau.

Mr. K.C. Tinley, who was the ecologist of the Nature Conservation Branch, was tasked to produce an ecological report, with recommendations on the feasibility of creating an eland reserve on Waterberg (Boas, 2007). Tinley (1966) recommended the following:

a. During 1967 commercial farmers were granted ownership over wildlife in Namibia as preventative measure and to ensure the future of eland (*Taurotragus oryx*), and in addition the saving of rare, wild ungulates from extinction.

b. The two key farm areas for the Plateau, Onjoka (333) and Bergtuine (455) should be bought and added to the North Western Monument areas on the Plateau.

c. The Directorate of Water Affairs has planned to construct a dam for the Waterberg Plateau in the Karakuwisa Mountain Range. A game proof fence should be build along the northern boundary of the Plateau.

d. When (c) and (d) are completed, the Nature Conservation should begin stocking the Plateau with rare game species such as Sable antelope, Roan antelope, Tsessebe and black rhino.

e. Nature Conservation staff were appointed to administer the Nature Reserve (Monument Areas) of the Waterberg Plateau; especially as there is much poaching on the Plateau.

In 1970 some farms adjacent to the park were bought and incorporated into the park which in extent makes up 40545 ha. In 16 June 1972, the WPP was officially proclaimed according to Article 38 of the Ordinance of Nature Conservation of 1967 with the following justification (Boas 2007):

The aesthetical value of the sandstone formations;

The historical importance of the area;

The suitable habitat for rare and endangered animal species;

The only area in Namibia where the “Tree savannah and Kalahari dry woodland” are conserved and the need for a tourism Centrum in the north, central area of Namibia.

## **Climate**

WPP falls within the climatic region known as “Hot steppe” climatic zone according to the Köppen system of classification (Erckie , 2007). “Hot steppe” is a dry region with a deficiency in rainfall, an annual mean temperature above 18° C and receives summer rainfall.

During the winter months (May to August) high-pressure cells move south and contribute to the formation of the Kalahari high-pressure system over Botswana. As a consequence, not much humid airflows into northern Namibia and rain during these months are an exception on WPP (Erckie, 2007). The topography of the WPP is an influencing factor on the local climate of the plateau. This is because the plateau is about 150m higher than the surrounding areas (Erckie, 2007).

## **Temperature**

WPP temperature tends to follow the typical summer high and winter low pattern of the Southern Hemisphere. The average daily minimum temperature for the coldest month is between 4 °C and 5 °C and during June, the temperatures can go as low as -5 °C. The average daily maximum temperature ranges in the hottest month between 31 °C to 32 °C and during October to December and January temperatures rises up to 39.4°.

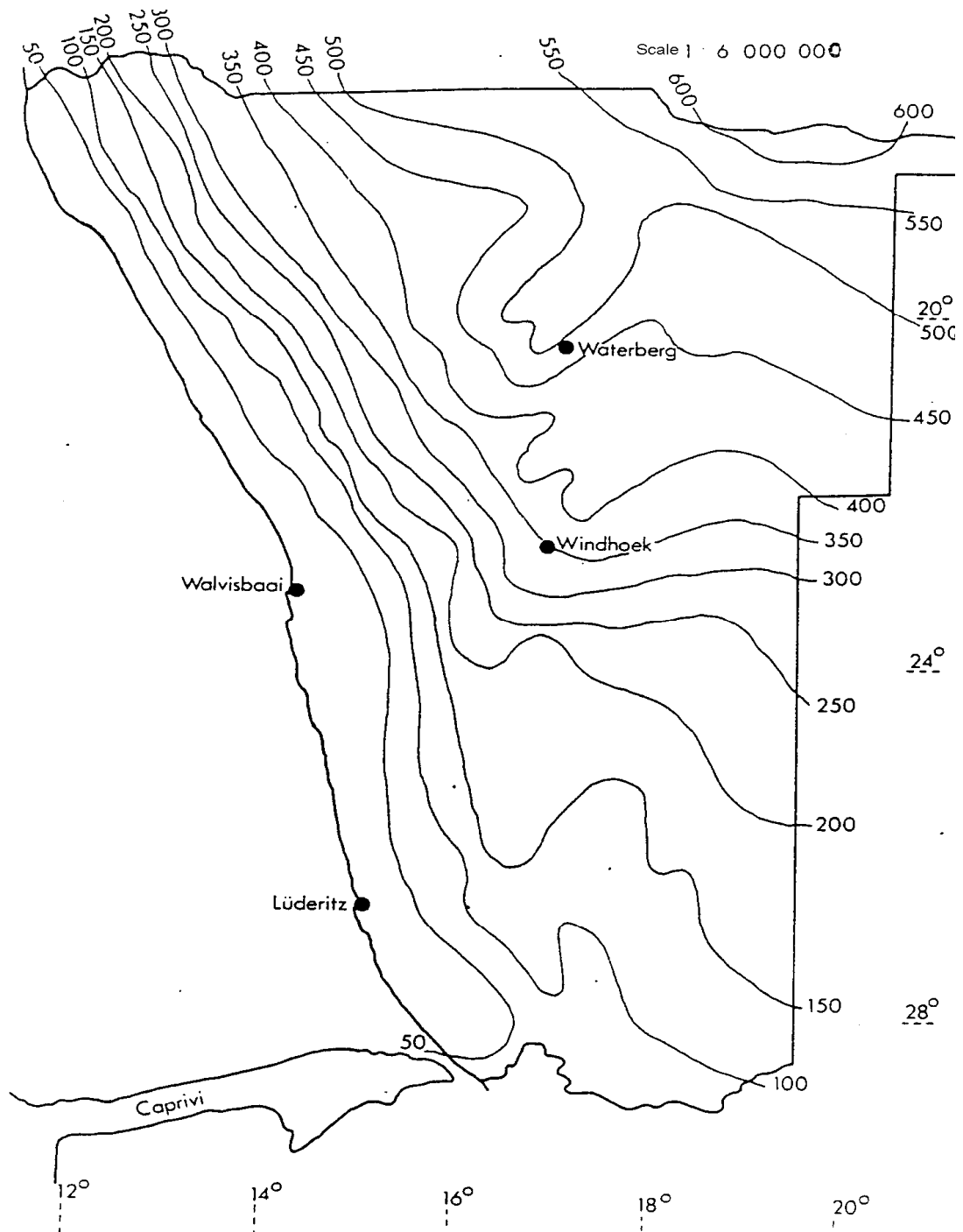
## **Wind**

The wind regimes are influenced by the prevailing high and low-pressure systems. The winds that are predominant throughout the year blow from the east being windiest between June and December. In April and October the north winds turn to west winds in the late afternoons, and south and southeast winds blows usually during September and October. These prevailing wind patterns influence the rain and usually the rain occurs with the north, northeast and east winds, which brings humid air from those directions (Erckie, 2007).

## **Precipitation**

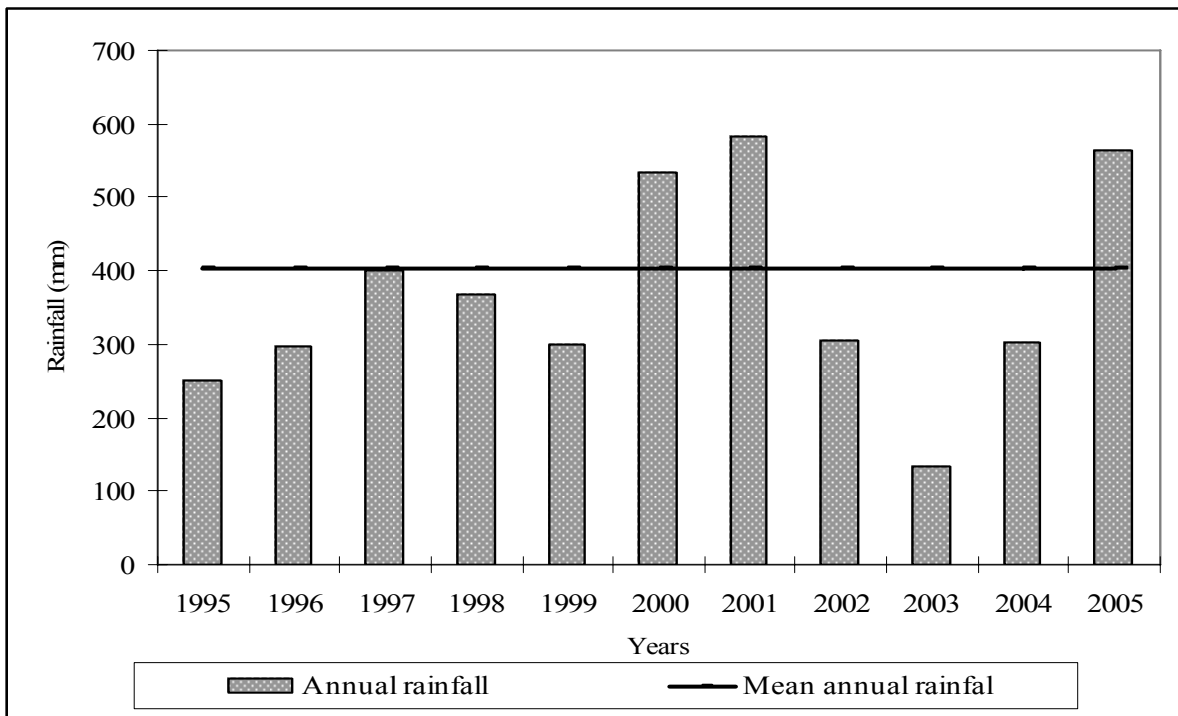
Dew and mist occurs during summer and autumn respectively. Frost occurs in the winter months with a definite influence on the structure of the plant communities. Frost is associated with the topography of the mountain with a higher incidence of lower temperatures in the more low-lying areas.

Waterberg Plateau Park falls within the 450-500 mm rainfall isohyets (Figure.3.2) with mean annual rainfall which is not normally distributed and therefore the median as a statistical parameter can also be used to describe the rainfall distribution.



**Figure 3.2** Rainfall isohyets of Namibia illustrating the effect of the Waterberg Plateau on the local climate (Erickie J.B, 2007).





**Figure 3.3 Annual rainfall amounts (mm) with the mean annual rainfall super-imposed for Onjoka Office (WPP) for the period 1995 to 2005 (Erckie, 2006).**

## Fauna

Waterberg Plateau Park (WPP) was proclaimed in 1972 as a sanctuary for rare and endangered game species with the objective of breeding and to provide stock for the reintroduction of species within selected areas in Namibia where they naturally occurred.

Some of the herbivores such as Tsessebe (*Damaliscus lunatrus*) introduced at WPP were either threatened due to habitat destruction, others such as black rhino (*Diceros bicornis bicornis*) were threatened with extinction due to illegal hunting and trading of their products. A few others like white rhino (*Ceratotherium simum*) were introduced due to economical reasons whereas some game species such as roan antelope (*Hippotragus equine*) and sable antelope (*Hippotragus niger*) were considered as rare in Southern Africa (Erb, 1993). However, games species such as African buffalo (*Syncerus caffer*) were introduced for multi purposes such as breeding, trophy hunting, and tourism and live selling.

The following game species were present before the proclamation and were kept on the plateau due to their conservation status: Eland (*Taurotragus oryx*), Giraffe (Giraffe camelopardalis) and Red Hartebeest ( *Alcelaphus buselaphus*) (Erickie J.B, 2007).

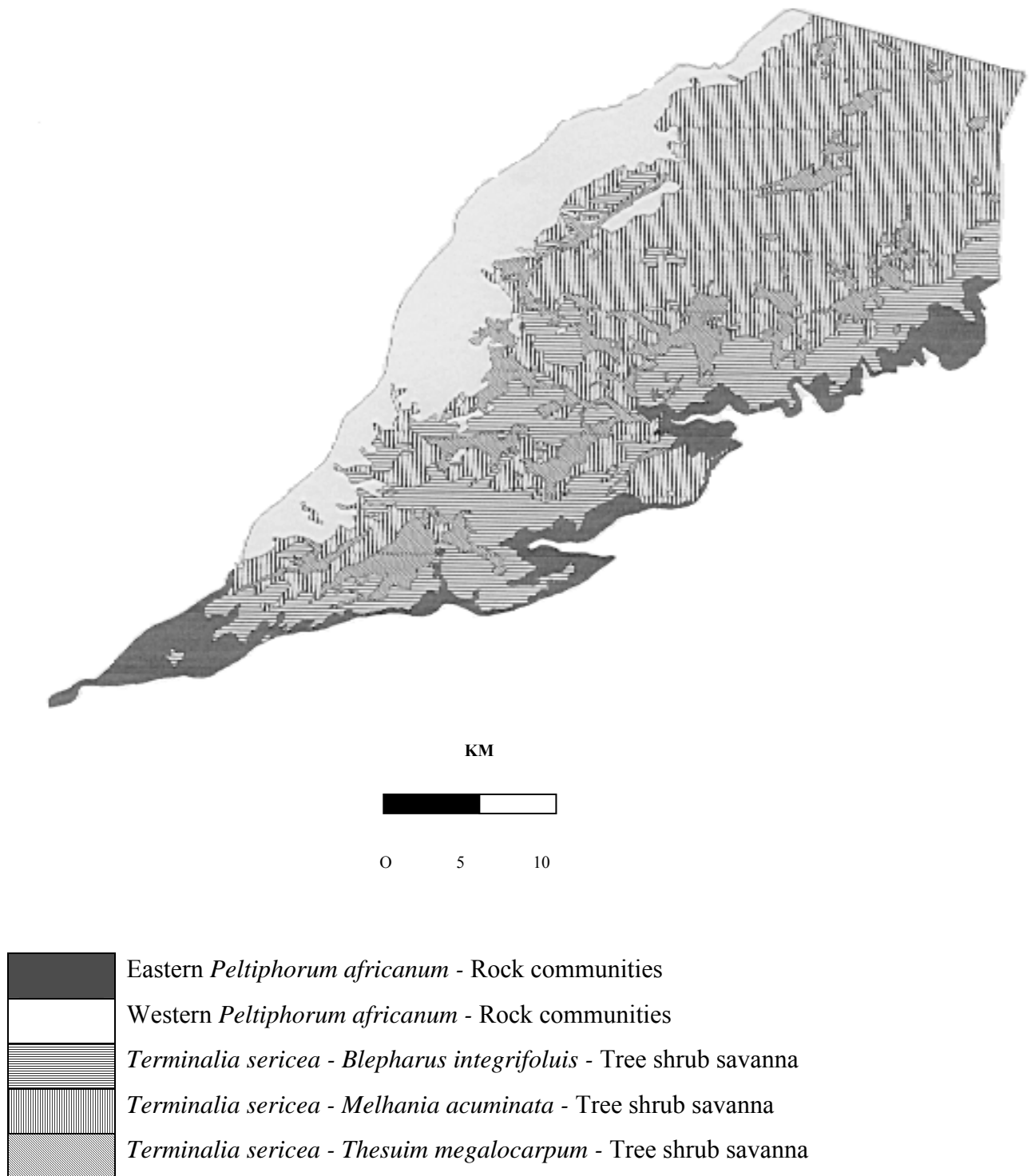
## Flora

WPP falls within the “Tree Savannah and Kalahari Woodland” vegetation type of Namibia and consists mainly of variety of deciduous trees and shrubs and “hard” grasses. The vegetation types on the main plateau are associated with vegetation in the Kalahari basin (Erickie , 2007). In contrast, the vegetation below the plateau is of the common thorn bush savannah, dominated by *Acacia mellifera*, *Dichrostachys cinerea* and *Acacia erioloba*. All the mentioned plant communities represent about 1600 ha of the main plateau.

Ten different plant communities and their classification at WPP:

- *Terminalia sericea*–*Thesium megalocarpum* (tree/ shrub savannah), which is widespread on the deep sandy soil of the plateau resulting in a complex mosaic distribution. This habitat type was related with low-lying depressions, which are susceptible to frost.
- *Terminalia sericea*–*Melhania acuminata* (tree/shrub savanna), the largest (16000 ha) and widespread plant community on the plateau with *Antheophora pubescens*–*Eragrostis superba* dominant grass species (grass savannah).
- *Peltophorum africanum* (rock communities) that include all rocky areas of the WPP
- *Terminalia sericea*-*Blepharus intergrifoluris* tree shrub savanna on the dune crests.

The study areas fall within the tree shrub savanna but between the *Terminalia sericea* – *Melhania acuminata* and *Terminalia sericea* and *Blepharus intergrifoluis* vegetation types.



**Figure 3.4** The main plant communities at WPP. Source (Erickie, 2007)

## 3.2. Data Sources and Methodology

### 3.2.1. Data collection

I collected data from Ministry of Environment and Tourism's permit office in Windhoek, for hunted animals at Waterberg Plateau Park permit sheets of the past years 1998, 1999, 2000 and 2001 for trophy hunting (see Table 3.1-3.6).

The permit sheets have the data for measuring of game trophies though not evaluated so we converted the data from these permit sheet using Rowland Ward system to get score or points.

The data gathered from eight (8) species of antelopes, which were, 1) sable antelope (*Hippotragus niger*), 2) Greater kudu (*Tragelaphus strepsiceros*), 3) Gemsbok (*Oryx gazella*), 4) Eland (*Taurotragus oryx*), 5) Impala (*Aepyceros melampus*), 6) springbok (*Antidorcas marsupialis*), 7) Roan antelope, and 8) Hartebeest (*Alcelaphus buselaphus*).

**Table 3.1 Data for sable antelope (*Hippotragus niger*) collected from MET permit office showing score or points hunted at WPP the ones with star was in The Namibian TOP 10 Trophies**

	Data from WPP (Rowland Ward sys)	
<b>Species</b>	<b>Points ( score) cm</b>	<b>Year</b>
Sable	96	1999
Sable	96	1999
Sable	294,3*	2000
Sable	274,7*	2000
Sable	116	2000
Sable	122	2000
Sable	100.5	2001

*Source:* Author's own scoring based from permits from Permit office data.

**Table 3.2 Data for kudu collected from MET permit office showing score or points hunted at WPP**

	Data from WPP (Rowland Ward sys)	
<b>Species</b>	<b>Points ( scoring position)</b>	<b>Date</b>
Kudu	124	2000
kudu	132	2000
Kudu	144	2000
Kudu	121	2001

*Source:* Author's own scoring based from permits from Permit office data.

**Table 3.3 Data for gemsbok collected from MET permit office showing score or points hunted at WPP**

	Data from WPP (Rowland Ward sys)	
<b>Species</b>	<b>Points ( score) cm</b>	<b>Year</b>
Oryx or Gemsbok	73	2000
Oryx or Gemsbok	96	2000
Oryx or Gemsbok	94	2000
Oryx or Gemsbok	82	2000
Oryx or Gemsbok	92	2001
Oryx or Gemsbok	97.5	2001
Oryx or Gemsbok	79	2001

*Source:* Author's own scoring based from permits from Permit office data.

**Table 3.4 Data for eland collected from MET permit office showing score or points hunted at WPP**

	Data from WPP (Rowland Ward sys)	
Species	Points ( scoring position)	Date
Eland	78	2000
Eland	84	2000
Eland	78	2001
Eland	89.5	2001

*Source:* Author's own scoring based from permits from Permit office data.

**Table 3.5 Data for impala collected from MET permit office showing score or points hunted at WPP the ones with star was in The Namibian TOP 10 Trophies**

	Data from WPP (Rowland Ward sys)	
Species	Points ( score) cm	Year
Impala	67.2	1998
Impala	76.5	1998
Impala	161,8*	1998
Impala	55	2000
Impala	62	2000
Impala	55	2000
Impala	58.5	2001

*Source:* Author's own scoring based from permits from Permit office data

**Table 3.6 Data for Roan antelope collected from MET permit office showing score or points hunted at WPP the ones with star was in The Namibian TOP 10 Trophies**

	Data from WPP (Rowland Ward sys)	
<b>Species</b>	<b>Points ( score)</b>	<b>Year</b>
Roan antelope	71.6	1998
Roan antelope	72.6	1998
Roan antelope	190.9*	1998
Roan	192,6*	1998
Roan	207,9*	1999
Roan	195,0*	1999
Roan	78.5	1999
Roan	75	2000
Roan	69	2000
Roan	195,0*	2000
Roan	199,4*	2002

*Source:* Author's own scoring based from permits from Permit office data



### 3.2.2. Data in Field collection

We collected data by measuring the trophies using the Rowland Ward system. We collected the data from July to the end of September 2007. The species which were measured on the field were 8 species as indicated below (see Table 3.7 -3.13); 1) sable antelope (*Hippotragus niger*), 2) Greater kudu (*Tragelaphus strepsiceros*), 3) Gemsbok (*Oryx gazella*), 4) Eland (*Taurotragus oryx*), 5) Impala (*Aepyceros melampus*), 6) springbok (*Antidorcas marsupialis*), 7) Roan antelope (*Hippotragus equinus*), and 8) Hartebeest (*Alcelaphus buselaphus*).

**Table 3.7 Scores or points for sable during research at Waterberg Plateau Park on field**

	Scores during research at Waterberg Plateau Park on field	
Species	Points ( score) unit in cm	Year
Sable antelope	55.3	2007
Sable antelope	80.1	2007

**Table 3.8 Scores or points for kudu during research at Waterberg Plateau Park on field**

	Scores during research at Waterberg on field	
<b>Species</b>	<b>Points ( score) unit in cm</b>	<b>Year</b>
Kudu Greater	126.9	2007
Kudu Greater	119	2007
Kudu Greater	115.1	2007
Kudu Greater	138	2007
Kudu Greater	135.5	2007
Kudu Greater	120.9	2007
Kudu Greater	138	2007

**Table 3.9 Scores or points for gemsbok or oryx during research at Waterberg Plateau Park on field**

	Scores during research at Waterberg on field	
<b>Species</b>	<b>Points ( score)</b>	<b>Year</b>
Oryx or Gemsbok	97	2007
Oryx or Gemsbok	96.5	2007

**Table 3.10 Scores or points for Roan antelope during research at Waterberg Plateau Park on field**

	Scores during research at Waterberg on field	
<b>Species</b>	<b>Points ( score) unit in cm</b>	<b>Year</b>
Roan antelope	60.7	2007
Roan antelope	53.3	2007

**Table 3.11 Scores or points for Red Hartebeest during research at Waterberg Plateau Park on field**

	Scores during research at Waterberg on field	
<b>Species</b>	<b>Points ( score) unit in cm</b>	<b>Year</b>
Red Hartebeest	50.9	2007
Red Hartebeest	55	2007

**Table 3.12 Scores or points for Impala during research at Waterberg Plateau Park on field**

Scores during research at Waterberg on field		
Species	Points ( score) unit in cm	Year
Impala	51.2	2007
Impala	50.6	2007

**Table 3.13 Scores or points for eland during research at Waterberg Plateau Park on field**

Scores during research at Waterberg on field		
Species	Points ( score) unit in cm	Year
Eland	75.7	2007
Eland	69.8	2007
Eland	78.5	2007
Eland	75.1	2007
Eland	77.4	2007
Eland	68.9	2007

We measured the horns of games brought by park workers to MET office Onjoka in the park from the games which died from natural causes. We measured horns at Vulture restaurant where the park management kills antelopes to feed vultures. In addition we asked the workers of the park to inform us of any antelope which they found dead so that we could go to get data from it so that means we collected also data around the park from the animal which died from natural causes. Some data were collected from Okatjikona Environmental Education Centre where they have trophies for educational purpose.

We used Rowland Ward system includes taking three measurements for most animals, namely:

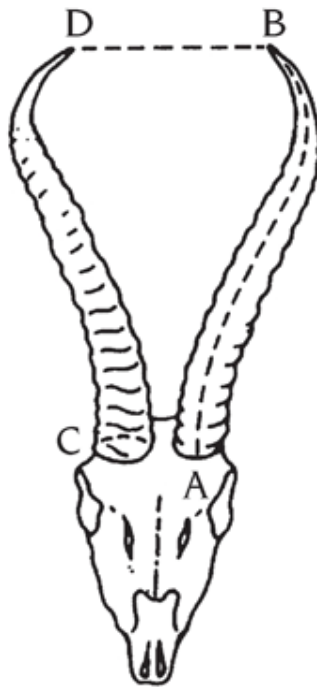
- *length of the horn,*
- *Circumference at the base and the tip to tip measurement.*

The length is, however, the most important measurement and determines the position of the trophy on record list.

### **General measuring methods**

This method applies to all types of animal, except those have particular measuring methods.

**Figure 3.5 General methods for unbranched nonspiral-horned antelopes**



### **Length of horn:**

The measurement is taken along the front curve, from base to the tip of the horn(a-b).

**Circumference at base:**

The circumference of the longest horn is measured at right angles to the base of the horn, as close as possible to the head.

**Tip to tip:**

The measurement is made in a straight line from the tip of one horn to the tip of the other horn (c-b).

The length of horn determines the position on the list.

***Antelope with Spiralled Horns***

Measuring of spiral-horned antelopes

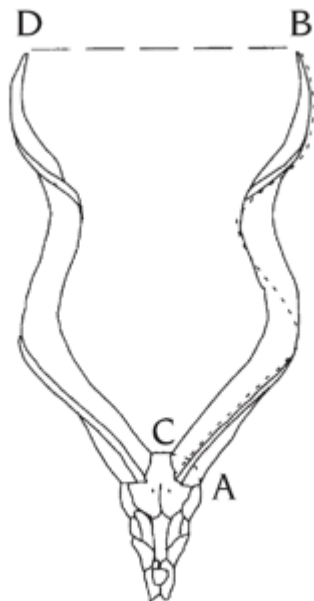
Tragelaphus

Taurotragus

Addax

The method applies to measuring of common kudu, eland, nyala, bongo, mountain nyala, sitatunga, bushbuck and lesser kudu as indicated in fig down.

**Figure 3.6 Measuring of spiral-horned antelopes using Rowland Ward method.** Source: <http://www.rowlandward.com/RecordBook/RecordBook.aspx?cid=6&pid=4&gmid=2>)



**Length of horn:**

- The measurement is made by beginning at the point which is formed by horns on the forehead in these fair games.
- Follow the spiral until it disappears near the tip of the horn.
- Where the spiral disappears, follow a straight line to tip of the horn (a-b).

**Circumference at base:**

- Measure the circumference of the base of the longest horn as close as possible to the head.
- The measurement must be true a true circumference and not an elliptical measurement

**Tip to tip**

The measurement is made as for general measuring method (b-d).

**3.2.3. Data Analysis**

To come to the conclusion, if there is a change in scores or points of game antelopes at Waterberg Plateau Park, we used T-Test, F-Test using Microsoft Office Excel and sorting ANOVA. We measured the trophies using Rowland Ward's system or method for scoring which is common in Namibia or in Africa.

## 4. Results

We used T test, sorting ANOVA and F test to carry out statistic problems (t-test is for equal variances, T-test\* is for different variances, F-test is for comparing of variances).

### Hypothesis

**H0:** The horn length or scores of the antelopes is uniform in two periods, and there should be little difference between collections from different years.

**H1:** The score of the trophies differ or vary in different years.

There was not that much data for proving the research statistically, this is due to different reasons such as hunting of rare species which is not allowed and so we could not get data, but we managed to carry out research results statistically. There was not much statistically significant difference in the scores over the two periods so; there is a need for further study concerning the evaluation of Africa.

The research indicates that there is no significant difference in seven species (sable antelope (*Hippotragus niger*), Greater kudu (*Tragelaphus strepsiceros*), Gemsbok (*Oryx gazella*), Impala (*Aepyceros melampus*), springbok (*Antidorcas marsupialis*), Roan antelope (*Hippotragus equinus*), and Hartebeest (*Alcelaphus buselaphus*), in the scores at WPP in the periods of years from 1998 to year 2007.

There is significant difference in one species eland (*Taurotragus oryx*). That means the score of eland is not uniform over the period from of years in the park.



The results for eland show significant difference. We can reject the hypothesis null because P is less than 0.05.

Eland in year 2000 – 2001: 78, 84, 86, 102, 89.5, 78, 73 cm

2007: 75.7, 68.8, 78.5, 75.1, 77.4, 68.9 cm

**Table 5.1 Results for eland**

<i>eland</i>	<i>2000,1</i>	<i>2007</i>				
	78	75,7				
	84	69,8				
	86	78,5		<i>P</i>		<i>P</i>
	102	75,1	<i>t-</i> <i>test</i>	<i>0,034905</i>	<i>t-test*</i>	<i>0,033252</i>
	89,5	77,4				
	78	68,9	<i>f-</i> <i>test</i>	<i>0,073361</i>		
	73					
<i>mean</i>	<i>x</i>	<i>y</i>				
	84,35714	74,23333				
<i>sample dev</i>	<i>sx</i>	<i>sy</i>				
	9,577379	3,980787				

The results for kudu show that there is no statistically significant difference in the score or horns length between the year 2000-2001 and year 2007. We can not reject this hypothesis null because P is not less than 0.05.

Kudu 2001-2001: 124, 132, 144, 121 cm

2007: 126.9 119, 115.1, 138, 135.5, 120.9, 138 cm

**Table 5.2 Results for kudu in year 2000,1 and 2007**

<i>kudu</i>	<i>2000,1</i>	<i>2007</i>		
	124	126,9		
	132	119		
	144	115,1		<i>P</i>
	121	138	<i>t-test</i>	0,680729
		135,5		
		120,9	<i>f-test</i>	0,809814
		138		
<i>mean</i>	<i>x</i>	<i>y</i>		
	130,25	127,6286		
<i>sample dev</i>	<i>sx</i>	<i>sy</i>		
	10,27538	9,611749		

The results for Roan antelope show that there is no statistically significant difference in the score or horns length among the years 1999, 2000 and 2007 because  $FA=2.084$  is not greater than  $F_{2,4}(0.95)=5.786$ .

**Table 5.3 Results for score of roan antelope using sorting ANOVA**

<i>Roan antelope</i>						
<i>1999</i>	<i>2000</i>	<i>2007</i>	<i>Sums of squares</i>	<i>SA=12915.7</i>	<i>Degrees of freedom</i>	<i>fA=2</i>
<i>207,9</i>	<i>75</i>	<i>60,7</i>		<i>Se=20292.4</i>		<i>fe=5</i>
<i>195</i>	<i>69</i>	<i>53,3</i>		<i>ST=33208.1</i>		<i>fT=7</i>
<i>78,5</i>	<i>195</i>					
<i>means</i>				<i>FA=2.084</i>	<i>F<sub>2,4</sub>(0.95)=5.786</i>	
<i>160,4667</i>	<i>113</i>	<i>57</i>	<i>116.8</i>			

The results for Gemsbok show that there is no statistically significant difference in the score or horns length between the year 2000 and year 2007. We can not reject this hypothesis null because P is not less than 0.05.

**Table 5.4 Results for Gemsbok scores for year 2000 and year 2007**

<b>2000</b>	<b>2007</b>					<b>P</b>
73	97		<i>t-test</i>	0,264	<i>t*- test</i>	0,14651
96	96,5		<i>F-test</i>	0,048199		
94						
82						
<i>means</i>						
86,25	96,75					

The results for **Sable antelope** show that there is no statistically significant difference in the score or horns length between the year 2000 and year 2007. We can not reject this hypothesis null because P is not less than 0.05.

**Table 5.5 Results for sable antelopes for year 2000 and 2007**

<i>Sable</i>						
2000	2007			<i>P</i>		<i>P</i>
294,3	55,3		<i>t-test</i>	0,170374	<i>t*- test</i>	0,053661
274,7	80,1		<i>F-test</i>	0,276067		
116						
122						
100,5						
<i>means</i>						
181,5	67,7					

The results for **impala** show that there is no statistically significant difference in the score or horns length between the year 1998 and year 2007. We can not reject this hypothesis null because P is not less than 0.05.

**Table 5.6 Results for impala for year 1998 and 2007.**

<i>Impala</i>						
1998	2007					<i>P</i>
67,2	51,2		<i>t-test</i>	0,28131	<i>t*- test</i>	<b>0,232719</b>
76,5	50,6		<i>F-test</i>	0,011507		
161,8						
<i>means</i>						
101,8333	50,9					

Hunting and evaluation of game in Namibia is highly regulated, which implies the registration of professional hunting, and issuing of permission for hunting by the Ministry of Environment and Tourism even the individual will hunt in private farm or wherever, and hunting can only done under supervision of a registered professional and he or she has to evaluation or just simple to take measure of the hunted animal. Further more there are measurers for Rowland Ward around the country when one wants to record their trophies in the Record Book. Hunting professionals make connection between the hunters, owners of wildlife (park management, conservancy's members, farmers) and the conservationists or the ministry responsible for protection of wildlife and this make it easy for the evaluation of trophies.

## 5. Discussion

There was not that much data for proving the research statistically, this is due to different reasons such as hunting of rare species which is not allowed and so we could not get data, but we managed to carry out research results statistically. We collected the data of rare species though data for these species was unavailable at MET permit office, the reason why is because there was no such research carried out to provide the ministry with the information. On the other hand data of rare species could be collected from field work because the animals died from natural causes.

There was not much significant difference in the scores therefore there must be a need for further study to assess this research.

The research indicates that there is no significant difference in seven species (sable antelope (*Hippotragus niger*), Greater kudu (*Tragelaphus strepsiceros*), Gemsbok (*Oryx gazella*), Impala (*Aepyceros melampus*), springbok (*Antidorcas marsupialis*), Roan antelope (*Hippotragus equinus*), and Hartebeest (*Alcelaphus buselaphus*), in the scores at WPP in the periods of years from 1998 to year 2007.

There maybe many causes for these results. One reason might be because of less data collected during the field work as well as those collected from the permit office. The low data from permit office might be because in the park, hunting is only allowed for particular species which has high number than the carrying capacity and some species are rare so they are not allowed to be hunted. The lower data from field work could be as a reason that few animals died from natural causes, more data could not be collected due to this regard. Some species (which are rare or with decreasing population) are not allowed to be killed for feeding vulture at the vulture restaurant (the place where they feed vultures in the park ) where antelope species are killed to feed vultures.

There is significant difference in one species eland (*Taurotragus oryx*). That means the score of eland is not uniform over the period from of years in the park.

The evaluation of trophies is needed to save the biodiversity by knowing the areas with best animal in trophy scores and also take measures from the data of trophy records for biological and scientific research especial for conservation.

The laws, rules and principles that govern hunting must be based on practices that are ethically accepted and appreciated. Hunters, law enforcement for use of wildlife, organisations which keep records of trophies, conservancies, local people as well as farmers can play role in conservation of wildlife through trophy hunting, so evaluation is a good method for doing this and such research is needed.

We could collect the data of rare species on field because they some of the data we collected were for animals which died from natural causes. The data for red hartebeest was unavailable from MET permit office so that we could prove it statistically though we got the data during field work.



## 6. Conclusion

There was little data for proving the research statistically but was enough to carry out statistically proof. This is due to different reasons such as the hunting of rare species is not allowed and so we could not compare the data we collected during field research. We could collect the data of rare species because they some of the data we collected were for animals which died from natural causes.

There was not much statistically significant difference in the scores over the two periods so; there is a need for further study concerning the evaluation of Africa. There was not much statistically significant difference in the scores over the two periods so; there is a need for further study concerning the evaluation of Africa.

Evaluation of trophy is done by the professional hunters, master guides and Hunting guides in Namibia though not directly, because they take measurement for all the hunted animals during the hunting. Scoring system is to safeguard against the hunting of undersized and inferior trophies and in the long term accumulate statistics to indicate tendencies in the quality of trophies. Statistics form the base in adapting future policies to improve the whole trophy industry.

Hunting and use wildlife in Namibia is regulated according to The Nature Conservation Ordinance of 1975 (Ordinance 4 of 1975) by the Cabinet. Hunting is highly regulated in Namibia and members of Namibia Professional Hunting Association (NAPHA) adhere to a strict code of hunting ethics. And this help to keep records of all the species which hunted such provide the data for study purposes and management of wildlife, as all hunters must be accompanied and supervised by a professional hunter and see to all what is being shot such preventing the shooting of animals in the breeding age.

Hunting professionals make connection between the hunters, owners of wildlife (park management, conservancy's members, farmers) and the conservationists or the ministry responsible for protection of wildlife and this make it easy for the evaluation of trophies.



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## 8. Appendices

### Appendix A

#### Important parties of THE NATURE CONSERVATION ORDINANCE 1975 N0 4 OF 1975, which deal with the use and regulation of trophies in Namibia

##### Definitions.

1. In this Ordinance, unless the context otherwise indicates -

(i) “**adequate fence**” in relation to a farm means -

(a) a boundary fence which along the whole length thereof is at least 1,22 metres high and has been erected -

(i) with training post planted in at most 500 metres from each other

(ii) with middle post of iron or hardwood which -

(aa) in the case of iron post, have a mass of at least four kilograms each; or

(bb) in the case of hardwood posts, are at least 100 millimetres in diameter at the thin end; and

(cc) are planted in to a depth of at least 600 millimetres and at most 20 metres from the nearest straining post and from each other;

(iii) with iron droppers, or droppers of hardwood which are at least 35 millimetres in diameter at the thin end;

(iv) with at least five galvanised steel wire strands or, three galvanised steel wire strands and jackal-proof fencing; and

(v) with gates which are at least of the same height as the boundary fence and are of such a nature that they do not in any manner impair the efficacy of the boundary fence, but does not include such a boundary fence in which a game-trap has been constructed or of which any portion has been removed, damaged, cut, flattened or raised or is in such a bad state of repair that the efficacy of such boundary fence is impaired;

(b) in the case of devising line between two farms along which, in the opinion of the Cabinet, it is impracticable or inexpedient to erect a fence, any indication of the boundary line between the said farms in respect of which the Director has, after agreement by the owners of the farms concerned, with the approval of the Cabinet certified that it indicates the boundary lines in all respects; (Act27/’86/1(a))

(ii) “**big game**”, in relation to huntable game, means the following species of such game, namely buffalo, eland, onyx and kudu; and (A6/88/1 (b))

- (iii) “**angle**” in relation to fish means the use of a line and fish - hook, whether a rod is used or not; and includes the use of a landing or keepnet to land or keep fish caught by means of a line and fish-hook; (xiv)
- (iv) “**artificial lure or spoon**”, for the purposes of Chapter V, means any device which by its simulation of life or by its colour or appearance is designed to delude or entice a fish into seizing such device; (xxiii)
- (v) “**board**” means the Nature Conservation Board referred to in section 3; (xxxiv)
- (vi) “**catch**” and capture include the use of any means or method to catch, capture, injure or immobilise fish, game or any other wild animal; (xxiii)
- (vii) “**certificate of competency**” means a certificate of competency issued in terms of section 57(3); (vi)
- (viii) “**children**” means the natural children, step-children and lawfully adopted children of a person, and includes the husband or wife of any such child; (xxii)
- (ix) “**communal land**” means land which, in terms the constitution of the representative authority of a population group, or any other law, is communal land of population group concerned, but does not include any surveyed piece of such land if the ownership of such piece of land has at any time been transferred to any person by or under the authority of the executive authority of such representative authority, or under any ordinance of that representative authority or any other law administered by or under the control of that executive authority, by means of the registration of a title deed in any deeds office, whether the period which, in terms of the constitution or an ordinance of that representative authority, is to elapse after the date of such registration before such piece of land ceases to be communal land, has transpired or not;(A27/86/1(c))
- (x) “**coyote getter**” means the device known as “coyote getter” or a similar device; (xiii)
- (xi) “**Director**” means the Director of Nature Conservation and Tourism referred to in section 2; (vii) (A27/861(d))
- (xii) “**Directorate**” means the directorate of Nature Conservation and Recreation Resorts referred to in section 2; (A27/86/1(e))
- (xiii) “**Executive Committee**” means the Administrator - in - Executive Committee referred to in section 6 of the South West Africa Constitution Act, 19689 (Act 39 of 1968); (xxvi).
- (xiv) “**exotic game**” means any vertebrate (including any bird, fish or reptile) whether kept or bred in captivity or elsewhere, belonging to non-domestic species the habitat of which is not in the Republic of South Africa or the Territory; (xli)

- (xv) “**fish**” includes aquatic fauna in general (excluding mammals and birds) whether indigenous or exotic, as well as the eggs, brood or spawn thereof; (xlv)
- (xvi) “**fisheries**” includes all waters and all fish therein; (xlviii)
- (xvii) “**fishing tackle**” means any fishing tackle, apparatus or device, or any part thereof, commonly used for the catching of fish; (xlvii)
- (xviii) “**game**” means specially protected game, protected game, huntable game, huntable game birds and exotic game; (liii)
- (xix) “**game meat**” means the meat of any game, whether fresh, salted, smoked or dried, or in the process of being smoked or dried; includes the bones in, or attached to, such meat; and also comprises the whole carcass of any game which is dead; (lv)
- (xx) “**game park**” means the Etosha National Park referred to in section 13(1), and any area declared a game park in terms of section 14(1); (lvi)
- (xxi) “**game-proof fence**” in relation to any species of game means a fence which complies with the standard prescribed for a game-proof fence in relation to that species of game but does not include any such fence in which a game-trap has been constructed or of which any portion has been removed, damaged, cut, flattened or raised or is in such a bad state of repair that the efficacy of such fence is impaired; (A27/86/1(f) 1)
- (xxii) “**game-trap**” means any corridor-shaped passage in a fence along which any game or other wild animals can pass spontaneously through such a fence or can be lured to pass through such a fence, but not any such passage approved by the Director (A27/86/1(g))
- (xxiii) “**honorary nature conservator**” means any person appointed as an honorary nature conservator in terms of section 79(2) and includes any person who is an honorary nature conservator in terms of section 79(3); (ix)
- (xxiv) “**hunt**” -
- (a) for the purposes of any provision of this Ordinance, excluding a provision of Chapter IV, means by any means whatsoever to kill or attempt to kill, or to shoot or attempt to shoot at, or to pursue, to search for, to lie in wait for or to drive with intent to kill or to shoot at, or wilfully to disturb;
- (b) for the purposes of any provision of Chapter IV, means to -
- (i) search for, trace, lie in wait for or pursue problem animals;
- (ii) set a trap, spring-trap, net, drug, poison or any other means or device approved by the Director to capture or kill problem animals
- (iii) shoot at, or with dogs to hunt for, problem animals;

(iv) kill or capture problem animals in any other manner whatsoever approved by the Director;

(xviii)

(xxv) “**hunnable game**” means every species of game mentioned in Schedule 5, or either sex thereof; (xix)

(xxvi) “**hunnable game birds**” means every species of game birds mentioned in Schedule 6 or either sex thereof; (xx)

(xxvii) “**hunting season**” in relation to hunnable game or hunnable game birds means the period determined in terms of section 25 as the hunting season during which such hunnable game or hunnable game birds may be hunted in terms of section 30 or section 32, as the case may be; (xxi)

(xxviii) “**indigenous plant**” means a species of plant, shrub or tree which is indigenous to the Territory, irrespective of whether it is or has been cultivated and whether it is no longer growing in a wild state or has for some period not been growing in a wild state and includes the flower, seed, fruit, bulb, tuber, stem or root or any other part of such plant, shrub or tree, but not any plant declared under any law to be a weed; (xvii)

(xxix) “**keep**” means to have game or wild animals in possession or custody, to supervise such game or wild animals and to be in full control thereof; (i)

(xxx) “**lessee**” in relation to a farm or land or land on which waters are situated, means the person leasing such farm or land under a written contract with the owner thereof, and who actually resides on such farm or land, but does not include the lessee of a piece of land forming part of communal land, unless such piece of land is a surveyed piece of land which is represented on a diagram approved by the surveyor-general in terms of the Land Survey Act, 1927 (Act 9 of 1927); (A27/86/1 (h))

(xxxii) “**licensed game dealer**” means any person licensed as a game dealer in terms of section 41; (xi)

(xxxiii) “**local authority**” means a municipality or village management board or the Peri - Urban Development Board established under section 2 of the Peri-Urban Development Board Ordinance, 1970 (Ordinance 19 of 1970); (xxviii)

(xxxiiii) “**nature conservator**” means -

(a) a nature conservator appointed in terms of section 79(1); and

(b) any member of the security forces; (xxv) (A 27 / 86/ 1(i) (b))

(xxxiv) “**nursery**” means sufficiently enclosed premises on which protected plants are cultivated for commercial purposes: Provided that such premises shall not be less than 45 square metres in extent; (xxiv)

(xxxv) “**officer**” means any person in the service of the Administration; (iii) (A 27/86/1 (g))

(xxxvi) “**owner**” in relation to a farm; land or land on which waters are situated, means

(a) the person who is registered in a deeds registry as the owner of such farm or land, and includes every director of a company registered in a deeds registry as the owner of such farm or land; or (sec. 1/ Ord 4/77)

(b) the lawful heir of the owner referred to in paragraph (a) at the death of such owner; or

(c) where such farm or land is subject to a usufruct, the usufructuary thereof; or

(d) where such farm or land, except a farm or land forming part of communal land is owned by the Government; or (A 27/86/1 (k))

(dA) where such farm or land forms part of the communal land of a population group, or is owned by the representative authority of a population group but is not communal land of the population group concerned, the executive authority of that population group; or; (A27/86/1(l)(dA))

(e) where such farm or land is owned by a local authority, the town clerk or the secretary of such local authority; (vii)

(xxxvii) “**parents**” means the parents of whom a person is the natural child, stepchild or lawfully adopted child, and includes the husband or wife of any such parent; (xxvi)

(xxxviii) “**pick**” includes to cut off, chop off, pick off, take, gather, uproot, damage or destroy; (xxix)

(xxxix) “**population group**” means a population mentioned in section 3 of the Representative Authorities Proclamation, 1980 (Proclamation AG 8 of 1980) (A 27/86/1(m))

(xl) “**prescribed**” means prescribed by regulation; (1)

(xli) “**private game park**” means any area declared a private game park in terms of section 22; (xxx)

(xlii) “**private nature reserve**” means any area declared a private nature reserve in terms of section 22; (xxx)

(xliii) “**problem animal**” means any animal declared a problem animal in terms of section 53; (xxxii)

(xliv) “**proclaimed road**” means a proclaimed road as defined in the Roads Ordinance, 1972 (Ordinance 17 of 1972); (xii)



- (xlv) “**protected game**” means every species of game mentioned in Schedule 4, or either sex thereof; (v)
- (xlvi) “**protected plant**” means every species of plant mentioned in Schedule 9; (iv)
- (xlvii) “**public road**” means a public road as defined in the Road Traffic Ordinance, 1967 (Ordinance 30 of 1967); (xxxiii)
- (xlviii) “**raw**” in relation to a skin means a skin which has not been prepared or tanned till it is soft; (xxvi)
- (xlix) “**regulation**” means a regulation made and in force under Ordinance; (xxv)
- (l) “representative authority” means a representative authority established as such by law for a population group and consisting of the legislative authority and executive authority of that population group; (A27/86/1(n))
- (li) “**road reserve**” in relation to a proclaimed road means the road reserve of such road as defined in the Roads Ordinance, 1972 (Ordinance 17 of 1972); (xxvii)
- (lii) “**Secretary**” means the Secretary of Agriculture and Nature Conservation (xxxviii) (Act 27/86 sec.1(o))
- (liii) “**security forces**” means the South West African Police or the South African Defence Force; (A 27/86/1/ (p))
- (liv) “**sell**” means to sell, barter, offer or expose for sale or offer as valuable consideration; (xlv)
- (lv) “**set line**” means a line and fish-hook which, when used for catching fish, is not under the immediate supervision of a person but is attached to something, but shall not include a line and fish-hook attached to a reel and rod lying loose on the ground; (xxxix)
- (lvi) “**skin**” includes any Portion of a skin; (xliv)
- (lvii) “**small game**” in relation to huntable game, means the following species of such game, namely, bushpig, springbok and warthog; (A 6/88/1 (b))
- (lviii) “**specially protected game**” means every Species of game mentioned in Schedule 3, or either sex thereof; (xxxvii)
- (lix) “**Territory**” means the Territory of South West Africa; (x)
- (lx) “**this Ordinance**” includes any proclamation and any regulation made and in force thereunder; (xv)
- (lxi) “**Trophy**” means the skin, shell, feet or head, or any part thereof; of game or any other wild animal, but shall not include any such skin, shell, feet or head, or any part thereof; which has lost its original identity as a result of a *bona fide* manufacturing process; (xl)

(lxii) “**waters**” includes waters in rivers, streams, creeks, lakes, lagoons, pans, vleis, dams, reservoirs, furrows and ponds; (lii)

(lxiii) “**weapon**” means any fire-arm, Spear, assegai, bow -and - arrow, axe, bushknife, knife or similar object and includes any narcotic rifle, pistol or bow; (li)

(lxiv) “**wild animal**”-

(a) for the purposes of any provision of this Ordinance, excluding a provision of Chapter IV, means any Vertebrate (including any bird, fish and reptile), Whether kept or bred in captivity or elsewhere, belonging to a non-domestic species and the habitat of which is in the Republic of South Africa or the Territory;

(b) for the purposes of any provision of Chapter IV, means any vertebrate (including any bird, fish and reptile) belonging to a non-domestic species (liv)

RELEVANT SECTION OF ORDINANCE TO TROPHY HUNTING

### **Hunting of specially Protected game.**

26. (1) No person other than the lawful holder of a permit granted by the Executive Committee shall at any time hunt any specially protected game.

(2). A permit granted in terms of this section authorises the lawful holder thereof subject to the conditions, requirements and restrictions imposed by or under this Ordinance to hunt the number and species of specially protected game mentioned therein at the time and place mentioned therein.

(3) Any person who contravenes or fails to comply with any provision of subsection (1) or any condition, requirement or restriction of a permit granted in terms this section shall be guilty of an offence and liable on conviction to a fine not exceeding R 6000 or to imprisonment for a period not exceeding six years or to both such fine and such imprisonment. (A 27/86/8 (a); Act 31/90/2)

(4) (a) No provision contained in this section shall prohibit the owner or lessee of land or occupier of communal land from killing specially protected game on such land in defence of a human life or to prevent a human being from being injured or to protect the life of any livestock, poultry or domestic animal of such owner, lessee or occupier whilst the life of such livestock, poultry or domestic animal is actually being threatened. (A27/86/8(b))

(b) Any person who kills specially Protected game in terms of the provisions of this subsection shall report it in writing to the nearest nature conservator or at the nearest police office within ten days thereafter.

(c) Any person who fails or neglects to comply with the provisions of Paragraph (b) shall be guilty of an offence.((5) (6) and (7) added A 27/86/8(c))

(5) Any person who hunts specially protected game under a permit granted in terms of this section, shall at all times have such permit in his possession while he is so hunting.

(6) Any person who has hunted any specially protected game under a permit granted in terms of this section, shall endorse -

(a) the species of specially protected game and the number of each of such species which he has hunted under such permit;

(b) the date on which he has so hunted it; and

(c) the name of the farm or a description of the land on which he has so hunted it, on such permit in ink or indelible pencil and shall sign it before he leaves the farm or land on which he has hunted such specially protected game.

(7) Any person who contravenes or fails to comply with any provision of subsection (5) or (6), shall be guilty of an offence.

### **Hunting of protected game.**

27. (1) No person other than the lawful holder of a permit granted by the Executive Committee shall at any time hunt any protected game.

(2) A permit granted in terms of this section authorises the lawful holder thereof subject to the conditions, requirements and restrictions imposed by or under this Ordinance to hunt the number and species of Protected game mentioned therein at the time and place mentioned therein.

(3) Any person who contravenes or fails to comply with any provision of subsection (1) or any condition, or restriction of a permit granted in terms this section, shall be guilty of an offence, and liable on conviction to a fine not exceeding R 4 000 or to imprisonment for a period not exceeding four years or to both such fine and such imprisonment (A27/86/9(a))

(4) Notwithstanding anything to the contrary in this Ordinance contained, the owner or lessee of a farm or piece of land which is not less than one thousand hectares in extent may, if such farm or piece of land is enclosed with jackal- proof fencing, at any time and by any

means whatsoever kill any ant bear or honey badger found on such farm or piece of land and any steenbok which is lawfully on such farm or piece of land shall be deemed to be huntable game to which such owner or lessee shall have the right of ownership: Provided that -

(a) for the purposes of the provisions of this subsection “owner” shall not include a town clerk or the secretary of a local authority;

(b) for the purposes of the provisions of this subsection relating to steenbok, “lessee” shall not include the lessee of a farm or land, who is not the owner of the huntable game, huntable game birds and exotic game on such farm or land.

(5) (a) No provision contained in this section shall prohibit the owner or lessee or of land or occupier of communal land from killing protected game on such land in defence of a human life or to prevent a human being from being injured or to protect the life of the livestock, Poultry or domestic animal of such owner, lessee or occupier whilst the life of such livestock, poultry or domestic animal is actually being threatened. (A27/86/9 (b))

(b) Any person who kills protected game in terms of the provisions of this subsection shall report it in writing to the near

(c) Any person who fails or neglects to comply with the provisions of paragraph (b) shall be guilty of an offence.

(6) Any person who hunts protected game under a permit granted in terms of this section, shall at all times have such permit in his possession while he is so hunting.

(7) Any person who has hunted any protected game under a permit granted in terms of this section, shall endorse -

(a) the species of protected game and the number of each of such species which he has hunted under such permit;

(b) the date on which he has so hunted it; and

(c) the name of the farm or a description of the land on which he has so hunted it, on such permit in ink or indelible pencil and shall sign it before he leaves the farm or land on which he has hunted such protected game.

(8) Any person who contravenes or fails to comply with any provision of subsection (6) or (7), shall be guilty of an offence. (A.27/86/9(c) (6) (7) and (8) added)

### **Hunting on Administration property.**

28. (1) (a) Subject to the provisions of Chapter IV no person shall, without the written permission of the Cabinet, hunt any huntable game, huntable game bird or exotic game or any other wild animal on any land, including communal land, owned by the Government of the Territory or a representative authority.

(b) For the purposes of paragraph (a) land leased by the Government of the Territory or a representative authority shall, unless an intention to the contrary appears from lease, and unless, in the case of communal land, the land leased is an unsurveyed piece of land, be deemed not to be land owned by the Government of the Territory.

(c) Any person who contravenes or fails to comply with any provision of paragraph (a) or any condition, requirement or restriction of any written permission granted thereunder, shall be guilty of an offence and liable on conviction to a fine not exceeding R 4 000 or to imprisonment for a period not exceeding four years, or to both such fine and such imprisonment.

(2) (a) Any person who hunts any huntable game, bird or exotic game or any other wild animal under the written permission of the Cabinet granted in terms of this section, on land, including communal land, owned by the Government of the Territory or a representative authority, shall at all times have such written permission in his possession while he is so hunting.

(b) Any person who contravenes or fails to comply with any provision of paragraph (a) shall be guilty of an offence. (A27/86/10)

### **Right of ownership to huntable game, huntable game birds, and exotic game.**

29. (1) The owner of -

(a) a farm which is enclosed with a game-proof fence or an adequate fence;

(b) any piece of land which is not less than one thousand hectares in extent and enclosed with a game-proof fence,

shall, subject to the provisions of this Ordinance, be the owner of all huntable game, huntable game birds and exotic game on such farm or piece of land as long as such huntable game, huntable game birds and exotic game are lawfully on such farm or piece of land and as long as such farm or piece of land remains to be enclosed in that manner.

(2) The lessee of

(a) a farm which is enclosed with a game-proof fence or an adequate fence;

(b) any piece of land which is not less than one thousand hectares in extent and enclosed with a game-proof fence,

shall, subject to the provisions of this Ordinance, and unless the contract under which he leases such farm or piece of land specifically provides otherwise, be the owner of all huntable game huntable game birds and exotic game on such farm or piece of land as long as such huntable game, huntable game birds and exotic game are lawfully on such farm or piece of land and as long as such farm or piece of land remains to be enclosed in that manner.

### **Hunting of huntable game.**

**30.** (1) (a) Save as is otherwise provided in this Ordinance, no person other than the lawful holder of a permit granted by the Cabinet shall hunt any huntable game

(aA) Subject to the provisions of this ordinance, a permit for the hunting of huntable game shall be granted -

(i) only if the person who applies for a permit produces a written authority granted to him in accordance with the provisions of paragraph (b); and

(ii) only in respect of the hunting of such huntable game, and the number of each such species, mentioned in the written authority referred to in paragraph (b), but in no case in respect of huntable game exceeding the one or the other of the following number:

(aa) three head of big game; or

(bb) two head of big game and four head of small game; or

(cc) one head of big game and eight head of small game; or

(dd) twelve head of small game:

Provided that the limitations mentioned in sub-paragraph (ii) (aa), (bb), (cc) and (dd) shall not apply in the case in the case where a permit is granted for the hunted of huntable game on a farm which is enclosed with a game - proof fence. (A6/88(a))

(b) The written authority referred to in paragraph (aA) - (A6/88/2(b), A6/88/2(c))

(i) shall be granted only by the owner or lessee of a farm which is enclosed with a game-proof fence or an adequate fence or by the owner or lessee of a piece of land which is not less than one thousand hectares in extent and enclosed with a game-proof fence;

(ii) shall be granted by such owner or lessee only in respect of the hunting of huntable game which is on such farm or piece of land and of which he is the owner in terms of

this Ordinance: Provided that such Owner shall not grant any such authority in respect of the hunting of any such huntable game of which he is the owner but has leased the right to hunt it;

(iiA) shall be granted by such owner or lessee only in respect of the hunting of huntable game not exceeding the one or the other of the following numbers of such game, namely:

- (aa) three head of big game; or
- (bb) two head of big game and four head of small game; or
- (cc) one head of big game and eight head of small game; or
- (dd) twelve head of small game:

Provided that the provisions of this subparagraph shall not apply to the owner or lessee of a farm which is enclosed with a gameproof fence.

(iii) shall be in ink or indelible pencil and shall contain -

(aa) the name and full residential address of the person by whom such authority is granted;

(bb) the name and full residential address of the person to whom such authority is granted;

(A6/88/2(d), A6/88/2(e))

(cc) the date or dates within the hunting season on which hunting under such authority is authorised;

(dd) subject to the provisions of paragraph (iiA), the species of huntable game, and the number of each such species, which may be hunted under such authority; and

(ee) the name of the farm or a description of the piece of land on which may be hunted under such authority,

and shall be signed by the person granting such authority. (A6/88/2(d), A6/88/2(e))

(bA) The permit referred to in paragraph (a) shall authorise the person to whom it is granted subject to the conditions, requirements and restrictions prescribed or imposed by or under this Ordinance, to hunt on the date or dates within the hunting season mentioned therein, the species of huntable game, and the number of each such species mentioned therein, on the farm or farms mentioned therein or the piece of land described therein. (A6/88/2(f))

(c) Any person who contravenes or fails to comply with any provision of paragraph (a) or (bA) or any condition, requirement or restriction of any permit granted in terms of this subsection, shall be guilty of an offence and liable on conviction to a fine not less than five hundred rand and not exceeding seven hundred and fifty rand or to imprisonment for a period

of not less than six months and not exceeding twelve months or to both such fine and such imprisonment. (A 27/86/11, A 6/88/2(g))

(2) Any person who hunts huntable game under any permit granted in terms of this section shall at all times have such permit in his possession while he is so hunting. (A 6/88/2(h))

(3) Any person who has hunted any huntable game under a permit granted in terms of this section. shall endorse -

(a) the species of huntable game, and the number of each such species, which he has hunted under such permit;

(b) the date on which he has so hunted it; and

(c) the name of the farm or a description of the land on which he has so hunted it, on such permit in ink or indelible pencil and shall sign it before he leaves the farm or the piece of land on which he has hunted such huntable game. (A 6/88/2(i))

(4) Any person who contravenes or fails to comply with any provision of subsection (2) or (3), shall be guilty of an offence.

(5) Notwithstanding the provisions of section 47, any person who grants a written authority in terms of this section, may claim and recover the amount (if any) agreed upon with the person to whom such written authority was granted, from such person in respect of any huntable game hunted under such written authority.

(6) Subject to the provisions of the proviso to subparagraph (aA) of subsection (1), no permit or permits shall be granted to any person in terms of that subsection which would result in such person being authorised to hunt in any given hunting season in total more than one or other of the following numbers of huntable game, namely:

(a) three head of big game; or

(b) two head of big game and four head of small game; or

(c) one head of big game and eight head of small game; or

(d) twelve head of small game. (A6/88/2(j)(6))

### **Hunting of exotic game and other wild animals.**

34. (1) Save as is otherwise provided in this Ordinance, no person shall hunt any exotic game, unless he is the lawful owner thereof or has the written permission of the lawful owner thereof, or is the owner of the land on which such game trespasses.



(2) Save as is otherwise provided in this Ordinance, no person shall hunt any wild animal which is not game as defined in section 1 on any land, unless he has the written permission of the owner or lessee of such land.

(3) Any person who hunts any exotic game or any wild animal referred to in subsection (2) under a written permission granted in terms of subsection (1) or (2). shall at all times have such written permission in his possession while he is so hunting: Provided that any person who is so hunting need not at all times have such written authority in his possession while he is so hunting if the person who has granted him such written authority accompanies him at all times while he is so hunting.

(4) Any person who contravenes or fails to comply with any provision of subsection (1) or (2) shall be guilty of an offence and liable on conviction to a fine not less than seven hundred an fifty rand and not exceeding one thousand five hundred rand or to imprisonment for a period of not less than twelve months and not exceeding three years or to both such fine and such imprisonment.

### **Lease of hunting rights.**

35. (1) The owner of a farm or land, who, in terms of this Ordinance, has the right to hunt huntable game, huntable game birds and exotic game on such farm or land may lease that right to any other person, in which case no other person than the lessee of such right shall have the right to hunt huntable game, huntable game birds or exotic game on such farm or land.

(2) Any contract in terms of which the right to hunt huntable game huntable game birds or exotic game is leased, shall-

- (a) be a written contract;
- (b) be entered into for a period of at least six months; and
- (c) indicate explicitly whether such right refers to huntable game, huntable game birds, exotic game, or two or more thereof. (suspended by section 1 Ordinance 16/ 80)

(3) Any lease in terms of subsection (1) of the right to hunt huntable game, huntable game birds or exotic game on a farm or land, shall lapse on the sale of the farm or land in respect of which it was leased.

### **Hunting for the sake of trophies, and possession and export of trophies.**

36. (1) (a) Notwithstanding anything to the contrary in this Ordinance contained, the Executive Committee may allow any person from any country or territory under a permit granted by the Executive Committee to hunt the species of game, and the number (but not exceeding two) of each such species determined by the Executive Committee and mentioned in such permit, in the Territory for the sake of trophies.

(b) For the purposes of paragraph (a) any game that has been shot at by virtue of a permit granted under that paragraph, and that was wounded when thus being shot at, shall in all respects be regarded as having been hunted by virtue of such permit. (suspended by section 2 (a) Ordinance 16/ 80)

(2) Subject to the provisions of section 49 no person shall without the written permission of the Executive Committee import any trophies into the Territory or export any trophies from the Territory.

(2A) (a) No person shall manufacture any articles either wholly or partially from a trophy or trophies for the purposes of sale unless he is licensed under this section as a manufacturer of articles from trophies.

(b) No person shall sell, offer for sale or display for the purposes of sale any trophies or adapted trophies unless he is licensed under this section as a seller of trophies and adapted trophies.

(c) The licences contemplated in paragraph (a) and (b) shall be issued by the executive committee in the prescribed fees.

(d) The licences required under this subsection shall not in lieu of but supplementary to any other permit, licence, registration, approval, permission or exemption required by law. ((2A-suspended by sec.2 (b) Ord.16/ 80))

(3) No person, other than the lawful holder of a permit granted by the Executive Committee, shall be in possession of any elephant tusk or rhinoceros horn or any portion of an elephant tusk or rhinoceros horn: Provided that the provisions of this subsection shall not prohibit any person from being in possession of-

(a) the tusk of any elephant or the horn of any rhinoceros which he has lawfully hunted or imported into the Territory in accordance with the provisions of this Ordinance;

(b) any portion of an elephant tusk or rhinoceros horn which has lost its original identity as a result of a bona fide manufacturing process.

(4) Any elephant tusk or rhinoceros horn found in the Territory as *res nullius* shall be the property of the state and shall be disposed of as the Cabinet may determine from time to time.(A 27/ 86/ 14 (b))

(5) Any person who contravenes or fails to comply with any provision of this section or any condition, requirement or restriction of a permit, licence or permission granted in terms of this section, shall be guilty of an offence. (suspended by section 2 (c) Ordinance 16/80)

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