Using Geographical Information Systems to investigate the Bushmeat Phenomenon in KwaZulu-Natal

By

Annelene Kammer
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ABSTRACT

The bushmeat phenomenon is spreading throughout the African continent. Wildlife species are slain and conservation areas are under increasing strain. Although studies have been conducted in east, central and western Africa, limited resources regarding this phenomenon exist. This is the first study to be conducted in the southern African region. Initially the study was intended for the whole of South Africa, but due to a lack of co-operation from other provincial governments and the unavailability of data, the study was focussed on conservation areas within KwaZulu-Natal.

Data regarding bushmeat occurrences were collected from Ezemvelo KZN Wildlife and the South African Police Services. With the help of a Geographical Information System, the data was overlain with other datasets such as the National Census data and a real-world model was created to establish the correlation and relationship between the bushmeat phenomenon in southern Africa compared to other regions of the continent.

The results confirmed a steady increase in the number of reported bushmeat occurrences in KwaZulu-Natal from year to year. The increase in the number of bushmeat occurrences in KwaZulu-Natal can be attributed to an increase in population and poverty as well as the lack of a substantial alternative protein source. Bushmeat are primarily targeted by members of impoverished communities in the surrounding rural areas. Bushmeat are sold at local commercial markets as a subsistence protein source for consumption by the local communities. There is no evidence of a significant international commercial trade in bushmeat in the study area. Poachers travel great distances on foot to hunt inside conservation areas where the targeted animal species are still relatively abundant. Snares are utilised as the most preferred method for poaching in all areas. Hunters also utilise traditional weapons and dogs, but the use of firearms are relatively limited. According to the information derived from the analysis, Nyala and Wildebeest were the most targeted species during poaching activities. The highest percentage of bushmeat occurrences in KwaZulu-Natal take place in Mkhuze- and Ndumo Game Reserves.

One of the most troubling results of the study was the police action associated with bushmeat occurrences. In most cases no Police Action was involved and only a limited amount of bushmeat incidents resulted in arrests being made. More effective policing by the South African Police Services are recommended as well as an increase in judiciary participation. More effective documentation of bushmeat occurrences by utilising a Global Positioning System to accurately log the specific locations as well as standardised documentation procedures are recommended for all field officers in all protected areas and regions. This will enable more effective monitoring of the bushmeat phenomenon. It is essential to address the key socio-economic problems as the main cause for the increase in the number of bushmeat occurrences in KwaZulu-Natal. The illicit bushmeat trade in the areas surrounding Mkhuze- and Ndumo Game Reserve can only be brought under control once the quality of life for the surrounding communities improves and more employment opportunities are created. Community conservation and awareness programmes as well as a better understanding of, and an increase in partnerships with surrounding communities will help to alleviate the bushmeat problem.
CONTENTS

1 INTRODUCTION
   1.1 Definition
   1.2 Literature Review

2 RESEARCH DESIGN AND METHODOLOGY
   2.1 Problem Definition, Aims and Objectives
   2.2 Research Design
   2.3 Research Methodology
   2.4 Project Parameters
   2.5 Data
   2.6 IT Considerations
   2.7 Models

3 RESULTS AND PRESENTATIONS
   3.1 Overall View – Bushmeat Occurrences
   3.2 Overall View – Bushmeat Related Occurrences
   3.3 Demographic Analysis of Areas with highest Bushmeat Occurrences
   3.4 Case Study: Bushmeat Occurrences within Mkuze and Ndumu Game Reserves

4 CONCLUSION
   4.1 Discussion
   4.2 Recommendations

5 REFERENCES
TABLES

Table 1: Data List
Table 2: Bushmeat Occurrences per Region
Table 7: Bushmeat Occurrences by Incident
Table 12: Bushmeat Related Occurrences per Region
Table 16: Bushmeat Related Occurrences by Incident
Table 19: Population data comparison – Hluhluwe – Imfolozi area
Table 20: Age data comparison – Hluhluwe – Imfolozi area
Table 21: Household data comparison – Hluhluwe – Imfolozi area
Table 22: Household Income data – Hluhluwe – Imfolozi area
Table 23: Population data comparison – Ndumo Game Reserve and surrounding areas
Table 24: Age data comparison – Ndumo Game Reserve and surrounding areas
Table 25: Household data comparison – Ndumo Game Reserve and surrounding areas
Table 26: Household Income data – Ndumo Game Reserve and surrounding areas
Table 27: Population data comparison – Mkhuze Game Reserve and surrounding areas
Table 28: Age data comparison – Mkhuze Game Reserve and surrounding areas
Table 29: Household data comparison – Mkhuze Game Reserve and surrounding areas
Table 30: Household Income data – Mkhuze Game Reserve and surrounding areas
FIGURES

Figure 1: Physical and Conceptual Model
Figure 2: Cartographic Model
Figure 3: Conservation areas with highest bushmeat occurrences
Figure 4: Police Stations with highest bushmeat occurrences
Figure 5: Bushmeat Occurrences per Year
Figure 6: Bushmeat Occurrences per Month
Figure 7: Bushmeat Occurrences per Method
Figure 8: Bushmeat Occurrences per Species
Figure 9: Bushmeat Occurrences by Police Action
Figure 10: Bushmeat Occurrences by Place Name
Figure 11: Conservation areas with the highest bushmeat related occurrences
Figure 12: Bushmeat Related Occurrences per Year
Figure 13: Bushmeat Related Occurrences per Month
Figure 14: Bushmeat Related Occurrences by Police Action
Figure 15: Bushmeat Related Occurrences by Place Name
Figure 16: Bushmeat Occurrences per Year comparison
Figure 17: Mkhuze Game Reserve Bushmeat Occurrence per month from October 1999 to August 2003
Figure 18: Bushmeat Occurrences per Month comparison from October 2003 to October 2004
Figure 19: Bushmeat Occurrences per Species comparison
Figure 20: Bushmeat Occurrences by Incident comparison
Figure 21: Bushmeat Occurrences by Method comparison
Figure 22: Bushmeat Occurrences by Police Action comparison
Using Geographical Information Systems to investigate the Bushmeat Phenomenon in KwaZulu-Natal

ANNEXURES

Annexure A: Maps

- **Map 1:** Locality – Area Orientation
- **Map 2:** All Bushmeat Occurrences
- **Map 3:** Bushmeat Occurrences per Year
- **Map 4:** Bushmeat Occurrences per Incident
- **Map 5:** Bushmeat Occurrences per Method
- **Map 6:** Bushmeat Occurrences by Police Action
- **Map 7:** Bushmeat Occurrences by Place Name
- **Map 8:** All Bushmeat Related Occurrences
- **Map 9:** Bushmeat Related Occurrences per Year
- **Map 10:** Bushmeat Related Occurrences per Incident
- **Map 11:** Bushmeat Related Occurrences by Police Action
- **Map 12:** Bushmeat Related Occurrences by Place Name
- **Map 13:** Areas with highest Bushmeat Occurrences

Annexure B: Tables

- **Table 1:** Data List
- **Table 2:** Bushmeat Occurrences per Conservation Area
- **Table 3:** Bushmeat Occurrences per Conservation Area
- **Table 4:** Bushmeat Occurrences per Police Station
- **Table 5:** Bushmeat Occurrences per Year
- **Table 6:** Bushmeat Occurrences per Month
- **Table 7:** Bushmeat Occurrences by Incident
- **Table 8:** Bushmeat Occurrences per Method
- **Table 9:** Bushmeat Occurrences per Species
- **Table 10:** Bushmeat Occurrences by Police Action
- **Table 11:** Bushmeat Occurrences by Place Name
- **Table 12:** Bushmeat Related Occurrences per Region
- **Table 13:** Bushmeat Related Occurrences per Conservation Area
- **Table 14:** Bushmeat Related Occurrences per Year
- **Table 15:** Bushmeat Related Occurrences per Month
Using Geographical Information Systems to investigate the Bushmeat Phenomenon in KwaZulu-Natal

- **Table 16**: Bushmeat Related Occurrences by Incident
- **Table 17**: Bushmeat Related Occurrences by Police Action
- **Table 18**: Bushmeat Related Occurrence by Place Name
- **Table 19**: Population data comparison – Hluhluwe – Imfolozi area
- **Table 20**: Age data comparison – Hluhluwe – Imfolozi area
- **Table 21**: Household data comparison – Hluhluwe – Imfolozi area
- **Table 22**: Household Income data – Hluhluwe – Imfolozi area
- **Table 23**: Population data comparison – Ndumo Game Reserve and surrounding areas
- **Table 24**: Age data comparison – Ndumo Game Reserve and surrounding areas
- **Table 25**: Household data comparison – Ndumo Game Reserve and surrounding areas
- **Table 26**: Household Income data – Ndumo Game Reserve and surrounding areas
- **Table 27**: Population data comparison – Mkhuze Game Reserve and surrounding areas
- **Table 28**: Age data comparison – Mkhuze Game Reserve and surrounding areas
- **Table 29**: Household data comparison – Mkhuze Game Reserve and surrounding areas
- **Table 30**: Household Income data – Mkhuze Game Reserve and surrounding areas
- **Table 31**: Bushmeat Occurrences per Year – Ndumo Game Reserve
- **Table 32**: Bushmeat Occurrences per Year – Mkhuze Game Reserve
- **Table 33**: Bushmeat Occurrences per Month – Ndumo Game Reserve
- **Table 34**: Bushmeat Occurrences per Month – Mkhuze Game Reserve
- **Table 35**: Bushmeat Occurrences per Species – Ndumo Game Reserve
- **Table 36**: Bushmeat Occurrences per Species – Mkhuze Game Reserve
- **Table 37**: Bushmeat Occurrences by Incident – Ndumo Game Reserve
- **Table 38**: Bushmeat Occurrences by Incident – Mkhuze Game Reserve
- **Table 39**: Bushmeat Occurrences by Method – Ndumo Game Reserve
- **Table 40**: Bushmeat Occurrences by Method – Mkhuze Game Reserve
Using Geographical Information Systems to investigate the Bushmeat Phenomenon in KwaZulu-Natal

- **Table 41**: Bushmeat Occurrences by Police Action – Ndumo Game Reserve
- **Table 42**: Bushmeat Occurrences by Police Action – Mkuze Game Reserve

Annexure C: How to calculate projected Household numbers