



**UNIVERSITY of the
WESTERN CAPE**

Accommodating the Wild?

Leopard Conservation, Tourism and Local Communities in the Cederberg

By

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degree of Master of Arts in the Faculty of Arts at the
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DECLARATION

The study described in this thesis was carried out in Cape Town from March 2016 to September 2019, with fieldwork undertaken in the Moravian mission communities of the Cederberg. The study was conducted under the supervision of Professor Shirley Brooks of the Department of Geography, Environmental Studies and Tourism at the University of the Western Cape.

This thesis “Accommodating the Wild? Leopard Conservation, Tourism and Local Communities in the Cederberg” represents original, unaided work by the author and has not been submitted before in any form, in part or in whole, for any degree or examination in any other University. It is being submitted for the Degree of Master of Arts (Geography) at the University of the Western Cape. The use of work done by others has been duly acknowledged in the text.

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DEDICATION

To the local subsistence farmers of the Wupperthal communities and to those who suffered the loss of their livelihoods and houses in the fire of 2016 as well as the devastating fire of December 2018.



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ABSTRACT

The Cederberg is increasingly associated with wildlife and ecotourism. Long-established rural communities practising subsistence farming reside in the Cederberg, some on the very boundary of the Cederberg Wilderness Area. Land uses related to tourism and conservation are currently reframing the Cederberg as a leisure landscape; a development that is not always compatible with sustaining the livelihoods of local inhabitants. Humans often occupy spaces to create a 'civilised' place of belonging for themselves and their domestic animals, and may regard certain indigenous wildlife species (such as baboons and leopards) as intrusive vermin. Livestock-keeping communities in the Cederberg are affected in particular by leopard conservation efforts. Livestock (sheep and donkeys in particular) is important to these farmers but often in danger of becoming prey to wild predators. In the Cederberg, the endangered Cape Mountain Leopard moves freely between the protected and inhabited spaces and often comes into contact with livestock owned by local subsistence farmers.

This dissertation is rooted in the emerging sub-discipline of 'animal geographies'. It explores divergent views of the term 'wilderness' as well as the treatment of 'wild' animals within the areas occupied by local people. It focusses on the community involvement in conservation practices and human-wildlife conflict issues, exploring community responses to their changing context and especially current conservation practices of CapeNature and the Cape Leopard Trust (the provincial conservation authority and an NGO respectively). Interviews with local people about current and historical leopard encounters are drawn upon in the analysis. The study is concerned to understand how conservation is impacting on local communities, and their responses to these shifts. Results suggest that there is substantial gap in the relationship with the communities and conservation authorities, especially regarding leopard conservation and livestock preservation. The communities of Wupperthal continue to suffer significant losses due to leopard predation. As it is now illegal to trap or kill leopards, residents have few strategies to protect their livestock. While some communities have a better relationship with CapeNature regarding the tourism activities within their community and other conservation initiatives, their considerable frustration was evident. The study explores the complex land issues in the region, and suggests possibilities for improvement in the relationship between local subsistence farmers and conservation authorities.

Key words: animal geographies, wildlife, livestock, conservation, indigenous knowledge

CHAPTER 1: INTRODUCTION

This study is located in the mountainous region of the Cederberg in South Africa's Western Cape province. Although there are local people who reside in the area and have done so historically, the Cederberg is now more commonly associated with nature tourism, wilderness and wildlife. Much of the area has been redefined and reimagined as 'wilderness' and its landscapes are now valued for leisure-based consumption through tourism. CapeNature, the provincial conservation agency, plays a major role in governance of the area, much of which is now part of conservancies (on private land) or the formally declared Cederberg Wilderness Area.

With the rising importance of 'wildness', local communities who have historically invested in livestock find themselves in a difficult position. Geographies of wilderness and wildness do not always sit easily with the maintenance of lifestyles where domestic livestock play an important role. Snijders (2014:176) notes that with the rise of conservation, "more measures have been promoted to convert (sets of) environmental entities into capital, while on the other hand rigid conservation frameworks have been adopted which interpret nature as an inalienable good that ought to be protected from and for humans".

In response to these changes, small scale farmers in the Cederberg are being encouraged or even forced to switch to activities more in tune with the reimagined landscape, such as tourism and rooibos tea production. The residents of old mission communities like Wupperthal and even more remotely situated communities have little choice but to try to accommodate to the priorities of others who define this space as 'wild'. The central questions in this study are around the impacts on the local residents of, and their responses to, the shifting of their landscape to conservation and tourism-based activities. A major focus of this study is the clash between leopard conservation in the Cederberg and the livestock-based livelihoods of local people.

I have a deep personal interest in the subject under study. With extended family living in villages within the Cederberg, this landscape has always been an area that I am attracted to. This is an intriguing place, not only because the mountainous area is very majestic, but because of the fact that humans live in a place that is known as the 'wilderness'.

Within the area, there are private farms and tourist destinations, conservancies as well as a number of rural communities, mainly linked to the Moravian mission history.

Wild animals within the area include the baboon, jackal, dassie, caracal, grey rhebok, koggelmander lizard, zebra, bat-eared fox, lynx and – most importantly for this study – the Cape Mountain Leopard (Cederberg Conservancy, undated). Although the Cape Mountain Leopard is very shy it is also the largest predator within the area. Places such as private farms and tourism destinations are protected and may have fences to prevent wildlife interaction with humans and livestock, however villagers cannot afford such protection.

As a child, I visited the Cederberg every holiday and some weekends during the year, staying in the village of Wupperthal where my grandparents were long-time residents. As grandchildren from the city, it was always the highlight of our holiday to visit our grandparents. We were like my grandfather's shadow, always following him to the gardens where we picked fruits and vegetables and ate it just there on the spot, after blowing off the sand. When livestock had to be fed or slaughtered, for the festive season, we were there to get a glimpse of every little step. As a teenager it was always a tradition to visit the other smaller villages of the Wupperthal Mission. Whilst my grandfather was catching up with some old friends we, as grandchildren would sit in, listening to all of the stories, knowing that afterwards we would get the opportunity to explore the prime swimming spots. Whilst driving in the Cederberg, over the years we have spotted a lot of wild animals, but when there was mention of a "tier" in the mountains killing livestock, we assumed it was just a rumour and so did our parents. I grew up listening to stories about life in the mountains, but do not remember stories regarding leopard encounters. However, I am now aware that the Cape Mountain Leopards within the Cederberg have a high profile due to their endangered status and are a major focus of the work of conservation NGOs such as the Cape Leopard Trust.

It was only recently that locals believed that there is such a thing as a "tier" in the mountains. Locals still refer to the leopard as a "tier" or tiger, a name derived from the times of the European settlers in the Cederberg. Even those who grew up in the mountains and who went deep into the Cederberg Mountains to collect firewood were unsure whether there really were leopards in the mountains. It was only quite recently that the leopards moved towards the village of Wupperthal itself. In the past, it was only the smaller villages closer to the Cederberg Wilderness Area boundary that experienced leopard encounters. However, 'the wild' in the form of leopards now enters these human spaces to predate on livestock.

This is what drew my attention to the subject explored in this dissertation. I am familiar with the area and the type of lifestyle these people lead, and have an understanding of how much their livestock means to them and what the effects are of livestock loss. I began my exploration with an Honours research project looking at the dynamics of the domestic (livestock) and the wild (leopards) encounter in the context of the Cederberg, with focus on the communities within the Wupperthal mission (Van Schalkwyk, 2015). I came to understand that the subsistence farmers are very vulnerable to wildlife interaction, especially when it comes to grazing patterns of their livestock. Due to the fact that the community of Wupperthal is incorporated into the Greater Cederberg Conservancy, there is no physical boundary which separates the Cederberg Wilderness Area and Wupperthal. Hence, the Cape Mountain Leopard can move freely across the boundary, which can thus be seen as a 'porous' boundary. This Masters dissertation takes this further to explore the attitudes of local people to new conservation and tourism priorities for the region - their home yet a place regarded as 'wilderness' by outsiders. The current study grows out of my personal and academic interest in this topic.

1.1) Rationale for the study

According to Philo (1995), geographical literature as a whole has largely overlooked animals as distinctive objects of study, often subsuming them within broader discussions of nature and environment, and rarely making them into an issue deserving of special consideration. However, over the years, geography as a discipline has undergone significant transformations regarding the subject of humans and non-human animals. More recently, human geographers and social scientists began to acknowledge the need for as well as the importance of a revived animal geography which "... explores how animals and the networks in which they are enmeshed leave imprints on particular places, regions, and landscapes over time, prompting studies of animals and place." (Emel et al, 2002: 409). This study aims to make a modest contribution to this goal.

Clearly human-wildlife conflict is an issue of high conservation concern and has led to the global decline of many large carnivore species (Chase-Grey, 2011). Human-wildlife conflicts exist due to the competition for resources and space and can have a huge impact on wildlife species, as well as human life and lifestyle. Wild predators are often forced from their natural habitat and limited in resources when humans occupy their habitat for residential and agricultural purposes. These animals may struggle to survive in these spaces as prey may be limited or difficult to find.

This often leads to the carnivore moving towards human inhabited spaces and beginning to feed on the humans' livestock. Such incidences lead to conflict between humans and wild animals, as appears to be the case in the Cederberg.

While there has been a great need for conservation and preservation of wild animals, this has often led to the exclusion of local communities within conservation areas. In recent years more literature is appearing which argues for the need and benefits of local knowledge to be incorporated with scientific research to derive more robust methods for the management and conservation of biodiversity.

It is argued that conservation should move away from the "state-centric" ideal towards a society based activity, especially the society at a local level (Hulme & Murphree, 1999). This study therefore explores the relationships between conservation authorities concerned with the protection of nature (including leopards but also landscapes), and the local people living in the Cederberg.

With the rise in the global debate on conservation and a significant focus on tourism, the wildlife sector has been considered an active agent in "defining and redefining both themselves and their animals" (Snijders, 2014:176). More social science research pertaining to local community involvement in conservation strategies of wild animals is needed in South Africa. Studies of human-wildlife conflict in Africa are more abundant in other African countries such as Zimbabwe and Kenya, or in Asia (for example studies on the snow leopards of Asia). My study hopes to add to the emerging interest in wildlife conservation practices and local community involvement in South Africa, as well as understanding of the relationship local subsistence farmers have with conservation authorities and how wildlife conservation influences the livelihood of subsistence farmers in these rural villages.

Lastly, there are many scholastic studies done regarding the "establishment of conservation areas such as wildlife parks and game reserves" which frequently resulted in the forced removal of indigenous populations in Southern Africa (see Brooks, 2005; Carruthers, 1994; Ramutsindela, 2002). Yet there is insufficient research in conservation areas where local communities actually remain and are incorporated into the conservancies or protected areas. In the Cederberg, the contestation over the leopards is only one aspect of a broader change to which locals are attempting to adapt, as their landscape is increasingly redefined in terms of tourism and conservation.

Located within the broader nature-culture debate, this study hopes to provide insight on the effects that wildlife conservation and tourism has on the communities living in the region as well as the incorporation of local people within conservation practices.

1.2) Aim and Objectives of the study

The main aim of the study is to explore the way in which the increasing priority given to conservation and ‘wildness’ in Cederberg landscapes is impacting on local communities, and their responses to these shifts.

This, in turn, informs the research objectives of the study which are broken down as follows:

1. To explore the politics of the domestic and the wild in the form of potential conflict between local subsistence farmers and conservation authorities with regards to resource management and land use (in particular, livestock keeping).
2. To investigate local livestock keepers’ attitudes towards the leopards, as well as their stories of encounters with these animals.
3. To explore the responses of local residents to the reimagined conservation and tourism development priorities for the region.

1.3) Structure of the thesis

Following this introductory chapter, there is a literature chapter which will familiarise the reader with the key concepts in the sub-discipline of animal geographies. Concepts such as ‘nature’, ‘wilderness’ and ‘culture’ being socially constructed phenomena are discussed, as well as processes in which animals are categorised according to the desires and interests of humans.

Chapter 3 presents more background to the study area, to provide the reader with a good understanding of the mountainous part of the Cederberg, especially the communities of Wupperthal, their livelihood and the dynamics between the domestic and the wild. The methodology section, Chapter 4, summarises the research methodology employed during the data collection phase for this study. It also describes the steps undertaken for data analysis and interpretation of data arising from the interviews. The rationale behind the selection of the particular methods is also discussed as well as the challenges faced during the period of data collection. For this dissertation data was primarily collected through interviews with local subsistence farmers and an interview with the Chief Executive Officer of the Cape Leopard Trust and Community Conservation Officer for the Cederberg area of CapeNature.

The findings are discussed in Chapters 5 and 6. The data collected is assessed and critically discussed using the concepts and main themes discussed in Chapter 2, the literature review. The emerging information is provided in appropriate themes according to the research subject. Lastly, this dissertation concludes with Chapter 7, where I reflect on the findings to give a critical conclusion and recommendations to this study.



CHAPTER 2: WILDERNESS, ANIMALS AND THE SOCIAL CONSTRUCTION OF NATURE

2.1) Introduction

The main source of inspiration for this study comes from the emerging sub-discipline of animal geographies, focusing specifically on the different views of the term ‘wilderness’ and how ‘wild’ animals are sometimes treated in these spaces that humans occupy. Humans often occupy spaces to create a ‘civilised’ place of belonging for themselves and their domestic animals, while certain wild animals (such as baboons and leopards) become transgressive in their own area, causing these animals to be ‘out of place’. ‘Wilderness’ is the opposite of this – a space where wild animals are seen to belong. This process can only be understood if one views ‘nature’ as a socially constructed phenomenon, which is not without human interference. According to Whatmore (1999: 7), our relationships with nature are “unavoidably filtered through the categories, technologies and conventions of human representations”. Nature is defined by the way in which humans imagine and think it should be. It is in this sense constructed in our minds.

Humans have included animals in this social construction of nature. Often wild animals are commodified to fulfil the desires of humans such as entertainment and recreational activities. While there has been a real need for conservation and preservation of wild animals, this has often led to the exclusion of local communities within conservation areas. In recent years more literature is appearing which argues for the need and benefits of local knowledge to be incorporated with scientific research to raise robust methods for the management and conservation of biodiversity.

Considering the ways in which wilderness is defined, viewed, understood and occupied, this chapter will explore literature on the different concepts of nature and wilderness, animal geographies, spatial boundaries related to conservation such as fencing, and indigenous knowledge and community-based conservation. Furthermore, this chapter focuses on the mitigation strategies of human-wildlife conflict placing emphasis on community involvement and community-based conservation.

2.2) Nature and Wilderness

Scholars have recently been thinking through terms like 'Nature', 'Wilderness' and 'Culture' in relation to one another, both within the subject of geography and beyond. There are many different understandings which often contradict each other. The relationships between the natural and social realm have long been of unique interest for geographers, with an essential part of geography's history being "consumed with discussions around nature and the environment and their relationship with human and society" (Naylor, 2000: 261). Wilderness is often perceived as an unproblematic category in nature. It "... is valued for its intrinsic worth, as places of reverence for nature, as sacred places for the preservation of the wilderness image" (Gomez- Pompa, & Kaus, 1992: 295). However, this has constantly been questioned by geographers, anthropologists and many others.

Whatmore (1999) describes two different views on how nature is socially constructed. According to Whatmore (1999), the first is the Marxist tradition which has been concerned with the material transformation of nature as it is put under a variety of different conditions of production. Marx meant in a material sense, that "people work on the raw matter of nature to transform it into a second, social nature" (Ginn and Demeritt, 2008: 304). Marx observed the ways in which plants and animals were being physically manipulated by farmers by cautiously using particular selection and breeding techniques to produce commercially more valuable crops and livestock. The conclusion he gained from these techniques was "... that with the rise of industrial capitalism, those things which we are accustomed to think of as natural were increasingly becoming refashioned as the products of human labour" (Whatmore, 1999: 5). Here, nature is socially constructed in the sense that it is transformed by humans for the purpose of production. This "...historicises the human relation to nature and thereby relativises a supposedly invariant and intransigent nature" (Castree, 2000: 13).

Cultural geographers on the other hand have focused on the changing idea of nature, what it means to different societies and how they go about representing it in words and images (Whatmore, 1999). According to Whatmore (1999: 7), in this geographical endeavour the natural world is understood to be moulded "as powerfully by the human imagination as by the physical manipulation". The importance thereof is the fact that it "...forces us to recognise that our relationship with those aspects of the world we call natural is unavoidably filtered through the categories, technologies and conventions of human representation in particular times and places" (Whatmore, 1999: 7).

Nature from a cultural perspective has different meanings and values for different cultures, or even individual people. Hence, it is shaped by our imagination. It is in this sense what we think and believe it to be.

Like 'nature', the concept of 'wilderness' is also socially constructed, with a lot of social connotations given to it over the years. Cronon (2005: 70) argues that "there is nothing natural about the concept of wilderness". He argues that the wilderness is part of a culture which is a social construct since it is a product of the perception of 'nature', which is dynamic. The first connotation of wilderness, as described by Cronon (2005: 70), was to be "deserted", "savage", "desolate", "barren", basically it was known as a "waste" or wasteland. There was nothing positive to be linked with the idea of wilderness. Wilderness, in short, was a place to which one came "only against one's will, and always in fear and trembling" (Cronon, 2005: 70). Therefore, the wilderness in its pristine state had nothing to proffer civilised human beings.

Wilderness was also defined by a sacred connotation. According to Stankey (1989), the wilderness was also a place where people could prove themselves worthy of God. This experience helped establish a tradition of going to the wilderness for freedom and a purification of spirit – values that would become "embodied in the present-day legislative definition" of wilderness (Stankey, 1989: 12). Therefore, wilderness came to be seen (by the nineteenth century) as a place where one could "purge and cleanse the soul" and "as a place of refuge and contemplation" (Stankey, 1989: 12). In the twentieth century, nature and wilderness turned into a commodity as it was introduced into the tourism industry. Tourism is considered "one of the largest industrial complexes and consumption markets in modern Western economies ...tourism is an important component of mass culture with significant discursive power" (Norton, 1996: 355). Humans shaped wilderness as a phenomenon of recreation. According to Cronon (2005), wilderness emerged as the landscape of choice for elite tourists, who brought with them strikingly urban ideas of the countryside through which they have travelled. Therefore, they do not see wilderness as a production site for labour, survival or a home. It is rather a place to escape from their daily stressful lives in the urban areas.

Cronon (2005) argues that one now goes to the wilderness not as a producer but rather as a consumer of the wilderness landscape, for leisure and recreation. For those living there, however, wilderness isn't seen as a space of recreation by everyone.

The residents of these rural Cederberg communities, such as Wupperthal, would not use the term ‘wilderness’ to describe what city people see in the Cederberg, which is for them not ‘wilderness’ but rather the place which they call home.

They view this ‘wilderness’ area rather as a place of love and belonging, a place with human history. These two very different perspectives on the same space are a fundamental issue in this thesis.

2.3) Animal Geographies

In order to understand how this dissertation is rooted in the sub-discipline of animal geographies, it is necessary to look at how the sub-discipline emerged in the field of geography. This section also looks at how animals have been socially constructed by humans since the times of the Roman amphitheatre to the present where humans intend to place animals in spaces where they are imagined to “fit” perfectly. Thus, viewing animals as “in place” or “out of place” in particular spaces (Brooks 2006).

According to Emel et al (2002), animals have been an enduring and significant focus of geographers. In the twentieth century two approaches, zoogeography and cultural animal geography, were articulated reflecting on the breadth of the discipline (Emel et al, 2002). In zoogeography “the ambition was to establish general laws of how animals arranged themselves across the earth’s surface or, at smaller scales, to establish patterns of spatial co-variation between animals and other environmental factors” (Emel et al, 2002: 407). As cited in Emel et al (2002), in the early 1960s a more ‘cultural’ approach arose regarding the studies of how humans influence the “numbers and distributions” of animals, for example in the work of Bennett (1960).

This was taken up by cultural geographers from the 1990s. This new research in social and cultural studies led to a rethinking of culture and subjectivity which “began arguing for animal subjectivity and the need to unpack the “black box” of Nature to enliven understandings of the world” (Emel et al, 2002: 408). An important figure in this regard is Philo (1995). According to Philo (1995: 657), geographical literature as a whole has “largely overlooked animals as distinctive objects of study, often subsuming them within broader discussions of nature and environment, and rarely making them into an issue deserving of special consideration”. Philo points out that animals often received attention from physical geographers especially in the field of biogeography, where the spatial distributions of animals and plants in relationship to the natural environment were examined.

In human geography however they have been largely viewed in terms of production purposes (food, tourism, entertainment) to be utilised and sold by humans.

The development of a new cultural geography, ‘animal geography’, from the 1990s has changed this. Scholars point out that, drawing on the idea of the social construction of nature/wilderness, animals are classified as “acceptable” or “unacceptable” within the civilised human spaces. Where domestic animals would be accepted in certain human spaces, wild animals are seen as “out of place”. According to Philo (1995: 666),

“animals as a social group have become inextricably bound up in these stories, much as have certain outsider human groups, and as a result animals have become envisioned in particular ways with particularly practical consequences: one of which is that some animals (cows, sheep, and pigs) have become matter that should be expelled to the rural world”.

Therefore, livestock has been classified as “out of place” in western cities, where domestic animals such as cats and dogs are accepted. Philo (1995) argues that it is important to look at “the non-utilitarian aspects of how animals become embedded within broader societal orderings of respect and disgust” (Brooks, 2006:7).

Brooks (2006: 11) too argues that animals are “enmeshed in complex power relations with human communities and are deeply affected by social practices linked to ideas about particular animals and where they ought (or ought not) to be”. Brooks (2006) draws on Whatmore and Thorne (1998: 437), who argue that “‘wild’ animals have been, and continue to be, routinely imagined and organized within multiple social ordering in different times and places”. Whatmore and Thorne (1998) use the idea of topologies or networks of wildlife to illuminate the way in which humans socially order animals.

Whatmore and Thorne (1998) discuss the social construction of wild animals in history. The first example they use is the “carceral” space of the Roman amphitheatre. Interestingly, this article speaks about leopards, which are important for this study. This was where “felidae animals, such as leopards and cheetahs, collectively known as *leopardus*”, were captured and transported from Africa to Rome to be released for the entertainment of the privileged Roman Empire, to kill or be killed in the ring (Brooks, 2006: 13). According to Whatmore and Thorne (1998: 447), these animals were “starved”, “abused” for the preparations of the Roman Games.

“The spatial network of connections facilitating this wildlife performance thus placed *leopardus* firmly within the organizational relations of the Roman military establishment, which extended across the known world of the time” (Brooks, 2006: 13).

According to Brooks (2006: 7), “nowhere is the ‘respect/ disgust’ binary and its power in structuring human relationships to animals more evident than in the attitudes of predator-animals that have been classified as (‘disgusting’) vermin and ruthlessly hunted in practice”. Emel (1995) discusses the social construction of the American wolf which was seen as a hated predator. The wolf was constructed as a “merciless killer of innocent livestock” as well as “cowardice... once wolves had experienced gunfire, they ran at the sight of guns and humans.” (Emel, 1995: 722). This representation of the wolf led to the animal being “...tortured, set on fire, annihilated” (Emel, 1995: 720). Emel (1995: 721) goes as far as to describe the conflict between the people and the wolf as a “war” which was provoked by “masculine stereotypes that provided negative representations of the wolf and sympathy for the prey”. However, today the representations of this animal have changed from it being the subject of hatred to being seen by many as the iconic symbol of the wild. Thus “...the wolf created by Western European culture - with its connotations of the wild, the darkness, the devil, even war and lust - was determinedly destroyed until a new wolf was imagined in the latter part of the 20th century.” (Emel, 1995: 709)

Often in the contemporary world, wild animals are commodified. They are held by other forms of networks, especially in tourism products. Wild animals are now commercialised in forms of zoos, game ranging and trophy hunting. The work of Anderson (1995) on the urban zoo notes that the zoo can be seen as one of the networks into which humans place wild animals. Anderson (1995) argues that these places such as zoos, game reserves and parks are places in which “...an ill defined ‘nature’ has been converted into a cultural experience and social commodity”. Furthermore, Bolla and Hovorka (2012), focuses on the human positioning and confrontation of wild animals. They argue that “human imaginings of wild animals are based on both respect for and exploitation of nonhuman animals [which] together shape dominant conservation and tourism agendas, and fix wild animals into discrete protected areas across the landscape” (Bolla and Hovorka, 2012: 74). However, humans and wild animals transgress their assigned spaces and socialise with each other, causing these encounters to become “dynamic” and “multifaceted”, which generates both admiration (for tourists) and fear (due to wild animal presence in the area) (Bolla and Hovorka, 2012).

According to Bolla and Hovorka (2012: 74), “such encounters reinforce and justify human imaginings and fixings of wild animals, prompting fear-based responses and “problem animal” discourses, and re-placing animals into where they belong.”

2.3.1) Animals and Boundaries

With the realisation that nature is a socially constructed phenomenon, the garden metaphor arose to re-imagine new models for conservation. Naughton-Treves (2002: 488) notes that in the modern day humans globally dominate the ecosystems and biotic processes, causing many “...conservationists to abandon the idea of pristine nature and search for an environmentalism that accepts human agency in nature (Cronon 1995; Zimmerer 2000)”. A diverse group of writers ranging from ecologists to social critics now reject the wilderness ethic, in its “...absolutist values and separation of people from nature, and turn instead to the garden’s call for human care and responsibility for nature” (Naughton-Treves 2002: 488).

Hence, reimagining natural areas as gardens emphasises the mark of human utilisation in parks and reserves and permits a need for restoration and management of the environment (Naughton-Treves, 2002).

Implementing the garden metaphor for wildlife conservation would require the rethinking of the presence of wildlife “inside” versus “outside” inhabited spaces, or as illustrated by Whatmore and Thorne (1998) a reordering within the “typologies of wildlife” (Naughton-Treves, 2002: 488).

The ideal of humans sharing space with wildlife is of significance, but to implement it practically is more complex. Very often wild animals “violate” boundaries by entering inhabited spaces and thus threatening humans and their activities in the inhabited spaces. The permeability of these boundaries also implies that wildlife survival might be affected by the human activities in the inhabited spaces (Naughton-Treves, 2002), as well as the human reaction to the threat of wild animals crossing over in the inhabited space. Naughton-Treves (2002: 490) cites animal geographies literature in arguing that “...nature/culture dualisms in Western thought have led to the creation of mutually exclusive spaces for both people and wildlife, with unfortunate consequences for both (Whatmore and Thorne 1998; Wolch and Emel 1998)”.

Furthermore, the boundary between the wild and the domestic is often “blurred” and that species adored by some might be despised by others (Naughton-Treves 2002: 490).

Philo (1998) and Wolch too discuss the implications of human struggles to categorize wildlife as “pests” or “pets” (Naughton-Treves, 2002: 490). In reality these classifications can often become difficult, especially if there is no physical boundary separating the “domestic” from the “wild”.

2.3.2) Animals and Society

The encroachment of human and livestock settlement into protected areas and related interaction with wildlife is considered a global issue that could be problematic for sustainable development, particularly in developing countries. For many years protected areas have been recognised as the most significant method for the conservation and preservation of wildlife and biological diversity (Gandiwa et al, 2011). Although protected areas serve as conservation and preservation for important biodiversity, conservationists argue that human encroachment is severely degrading and destroying in such areas (Gandiwa et al, 2011).

Gandiwa et al (2011:19) note that “this destruction, taking different forms, for example degradation, fragmentation or outright loss, is a function of growing human activities prompted mainly by such factors as poverty, demographic factors, land tenure systems, inadequate conservation status, development policies and economic incentives (Kidegheso et al, 2006)”.

Protected areas are usually associated with large areas of “undisturbed wilderness”. But there is also the view of protected areas as social spaces, which are socially conceived and preserved (Gandiwa et al, 2011). These practices tend to exclude people from the wilderness except visitors and employers within the protected area.

Fences are widely used in Southern Africa, as well as many countries worldwide, to separate wildlife from domestic animals for the prevention of conflict and to prevent the transmission of diseases. Ferguson et al (2012: 106) argue that fencing should be viewed in a broader light theoretically and practically when it comes to the issues surrounding fencing to reduce human-wildlife conflicts. This fencing can “constrain and contain” in different symbolic, physical, economic and ecological purposes and represents a significant structure which mitigates the exchange between ‘nature’ and ‘culture’. As cited in Ferguson et al (2012: 106), “containing wildlife by means of fencing can only serve a potential combination of four purposes: firstly, to reduce human-wildlife conflict by reducing contact between the two; secondly, to reduce disease transmission risk between the wild and the domestic animals; thirdly, to increase the security of a protected area and fourthly, on occasion, to demarcate an international boundary (Hayward and Kerley, 2009; Newmark, 2008).”

Veterinary cordon fences are a prevention method recognised by the World Organisation for Animal Health to establish disease-free zones (Jori et al, 2011). In the attempt to control transmissions of infectious diseases and to reduce human-wildlife conflict, many wildlife areas in Southern Africa, such as Namibia, Zimbabwe and even the Kruger National Park, are bounded by thousands of kilometres of veterinary cordon fences (Jori et al, 2011).

The value of this approach has however been questioned. Some advocate alternatives to ‘fencing’, which allows some degree of a merger between ‘nature’ and ‘culture’ spaces,

“...such as the development of buffer zones, wildlife corridors and the zoning of different forms of wildlife usage, [but these] require much more effort and more planning ... than simply erecting fencing and will inevitably fail unless animal health experts can be convinced that diseases of economic importance to the nation can still be effectively contained within these new partially or wholly “unfenced” dispensation” (Bengis et al in Ferguson et al, 2012: 106).

In summary, while fencing is seen as a valid conservation method there is a need to create a balance between the ‘nature’ and ‘culture’ spaces which includes a deeper understanding of the dynamics between these two spaces.

2.4) Key Focus in Animal Geographies

2.4.1) Human-Animal Conflict

Recently, with the decline in wildlife population across different species, government policies and regulations regarding the management of wild animals are gaining traction. Habitat loss has become a global phenomenon which is affecting all species. The transformation of land from its natural state to agricultural land, urban development, and destruction or fragmentation and other human activities do have a significant effect on the population of wild felids (Loveridge et al, 2010). As humans occupy spaces in order to create a civilised environment for themselves, they often remove animals from their natural habitat considering them to be “out of place”. In some cases, especially rural areas, this can lead to conflict between humans and wildlife. Human-wildlife conflict can exist due to the competition for resources and space and can have a huge impact on wildlife species, human life and lifestyle.

As cited in Chase-Grey (2011: 77) conflict between humans and wildlife can be defined “as a competition over resources or space and can take the form of threats to human life, economic livelihood, property or recreation (Treves and Karanth 2003).”

Human-wildlife conflict is an issue of high conservation concern and has led to the global decline of many large carnivore species (Chase-Grey, 2011). Wild animals, such as leopards are forced from their natural habitat and limited in resources when humans occupy their habitat for residential and agricultural purposes. These animals may struggle to survive in their forced spaces and prey may be limited or difficult to find.

This often leads to the carnivore moving towards human inhabited spaces and beginning to feed on the humans' livestock. Such incidences lead to conflict between humans and wild animals.

There have been high levels of mortality of wild felids due to human-wildlife conflict, especially in cases of livestock depredation. Loveridge et al (2010: 164) listed the following to be the principal reasons for human-wildlife conflict in the case of predators: "depredation on domestic animals or game species and, less frequently, when large felids kill or injure people", as this often leads to retaliatory killing of the animals responsible. According to Loveridge et al (2010: 164) "historically, eradication of carnivores has been a state-supported priority, incentivized by rewards and bounties."

As cited in Chase-Grey (2011: 78), "...conflict between humans and carnivores is one of the main causes of negative attitudes towards large predators, reducing tolerance and leading to retaliatory killings (Woodroffe and Ginsburg, 1998)". In South Africa, the leopard is threatened by a number of different factors. These include habitat loss and fragmentation caused by human expansion and loss of prey species (Chase-Grey, 2011). In the area of the Soutpansberg Mountains, for example, high levels of human-wildlife conflict exist between leopards and landowners, and leopards are frequently persecuted for perceived livestock predation although in studies by Chase-Grey, no evidence of livestock was found in leopard scats (Chase-Grey, 2011). Chase-Grey (2011: 2) cites a study by Henschel et al (2008) which argues that the leopard is also "heavily persecuted as a real or perceived livestock killer and is subject to legal and illegal off-take for trophy hunting proposes".

According to Loveridge (2010: 170), the "impacts of felid depredation of livestock vary, depending on the scale of livestock ownership, husbandry techniques, livestock type, stocking density, and density of predators." Hence, small scale subsistence farmers might experience an unbalanced impact through such depredation due to the fact that they lack the above mentioned resources to provide successful protection for their livestock.

Also in the case of small-scale subsistence farmers, the loss of just one animal might have a higher impact than the same loss to a farmer with more livestock.

According to Loveridge et al (2010: 171),

“Although generalizations are difficult across widely variable socio-cultural circumstances and it is often difficult to distinguish between the underlying reasons for negative perceptions people hold towards predators, there is some evidence that levels of tolerance livestock owners have for predators are related to magnitude and impact of losses.”

2.4.2 Hybrid geographies?

Within the overall subject of geography, there has been a recent theoretical focus on hybridity and heterogenous geographies. Some human geographers believe that hybridity can point to a more harmonious way for humans and nonhuman entities to share or occupy space. Whatmore (2000) for example began to explore heterogeneity within the sub discipline of animal geographies.

According to Kwan (2004), hybrids are humans and nonhuman entities (e.g., objects, projects) that “travel” between and connect existing divisions, and hybridization entails a movement that seeks to integrate elements that are thought to be incompatible or conflicting. In the case of animal geographies, scholars like Kwan argue that there is a need for more hybrid spaces in which humans and wildlife species can live together, sharing spaces without conflict occurring. Hybrids “transgress and displace boundaries between binary divisions and in so doing produce something ontologically new” (Rose in Kwan, 2004: 748). Movements of hybrids will likely “render certain binary divisions harder to sustain” (Kwan, 2004: 758). The hybrid geographies that Whatmore (1999: 268) has in mind:

“[unsettle] this glib coincidence of the things/ spaces of nature fixed somewhere, always at a distance, and alert us to a world in commotion in which wildlife emerges within the routine interweavings of people, organisms, elements and machines as these configure the partial, plural and sometimes overlapping time/ spaces of everyday”.

Is it possible that humans and wildlife can share space without conflict?

2.5) Wildlife conservation and trophy hunting in South Africa

Even though South Africa is considered to have one of the most liberal constitutions in the world, the Constitution does not go as far to include rights for animals. Animals fall under the South African common law, which according to Glazewski (2013: 13), means that “wild animals are classified as *res nullius* meaning that they are owned by nobody but fall into the category of objects which can be owned (*res intra commercium*).”

Due to the anthropocentric nature of the Constitution, animals, particularly wild animals, are considered to be part of the “environment” as defined in NEMA (National Environmental Management Act). Therefore, they are considered as resources of the environment and humans are in the position to control these resources and their wellbeing. It is a clear example of the social construction of animals; wild animals are commodified according to the desires and benefits to humans.

In his study of the trophy hunting industry in South Africa, Snijders (2014: 173) focuses on the Wildlife Forum, which is defined as an “important national discursive space in which the government engages with non-governmental parties about wildlife policy”. One might expect that the non-governmental parties would be all those who are in some way involved with wildlife, whether through hunting, tourism, labour relations, environmental protection, rehabilitation, etc. Instead, Snijders (2014: 178) notes that the “Wildlife Forum [which] was ... hosted and chaired by the DEA (Department of Environmental Affairs) ... invited hunting industry organisations that were involved in wildlife production (breeding, ecotourism, professional hunting, predator breeding, translocation, fencing, etc.) but excluded labour, welfare and civil society stakeholders”.

It is, therefore, clear that the motive behind this forum was not for the animal protection but rather for the preservation of animal species for the purpose of monetary benefits. The commodification of wild animals such as breeding for the purposes of hunting, zoos, and parks is considered acceptable because it meets human needs and desires. Trophy hunting, for example, is considered by proponents to be a positive method of conservation, due to the fact that it keeps species alive for future generations and most importantly contributes immensely to the tourism industry. However, it is clear that in the South African context wild animals are highly commodified, a fact which is overlooked in national legislation – or rather, as Snijders (2014) points out, national legislation finds it difficult to regulate commodification and the associated practices.

The wild animals are removed from their natural habitat, stripped of their wildness, genetically manipulated for the sake of being appealing to a potential customer. Kamuti (2016) discusses the exotic game species, where the 'exotic' refers to animals that are translocated into an area where they would not naturally occur. As he notes, "Exotic species are often introduced in order to augment the variety of animals available for trophy hunting and farmers can go as far as to alter the genetics to produce forms of wildlife as hunters are prepared to pay a premium price for them" (Kamuti, 2016: 62). Here, it is evident that the industry itself is a manipulation of the notion of hunting for the purposes of conservation. If trophy hunting is seen as promoting conservation for important wildlife species and also breeding of these species is allowed, the question is what idea of these wild animals is being sold to people as new exotic varieties are being created, and what exactly is being conserved by this industry?

Lindsey et al (2006) and Di Minin et al (2016) discuss the question of whether banning trophy hunting will have an impact on biodiversity loss. The motivations for trophy hunting as a conservation method stem from the economic benefits it brings to the tourism industry in a country, rather than the conservation of the species itself. Where ecotourism is seen as a great opportunity for communities that coexist with wildlife, it is reckoned that trophy hunting can create incentives in remote areas where ecotourism is not possible, due to most ecotourists preferring areas that are more accessible (Lindsey et al, 2006; Di Minin et al, 2016). Also, according to Di Minin et al (2016:101), trophy hunting can lead to a smaller environmental footprint than ecotourism in terms of "carbon emissions, infrastructure development, and personnel, and can generate more revenue from a lower volume of tourist hunters". Meaning that trophy hunting relies on fewer tourists than ecotourism due to the income generated from one hunter being extremely high. Hunters normally prefer the habitat to be as pristine as possible, unconcerned with "attractive scenery" and infrastructure which in turn leads to a minimisation of habitat degradation (Di Minin et al, 2016:101). Furthermore, the "management for hunting places emphasis on maintaining large wildlife populations for offtake, as opposed to ecotourism, where the presence of only a few individual animals is sufficient to maximize profits." (Di Minin et al, 2016: 101)

Considering protected areas for the conservation of certain wild animals, Scholtz (2005) notes that only species regarded as valuable may be seen as worthy for conservation, where “a plant or animal may be of vital importance to the functioning of an ecosystem, but may not conform to the threshold of agreed aesthetic appeal, and may therefore not be deemed worthy of conservation.” Here it is clear that the motivation behind conservation is not always beneficial for the environment as a whole. According to scientists Paquet and Darimont (2010:), the “consequent loss to land conversion of locally-adapted populations within species, and of genetic material within populations, is a human-caused change that reduces the resilience of species and ecosystems”. The consequence of how animals are forced to lose their natural habitat due to human influences might be the “permanent loss or modification of sensitive wildlife species, especially the large mammalian” species. Paquet and Darimont (2010) also note that “consequently, populations of native species have crashed, disappeared, or as an adaptive to the novel anthropogenic stresses, modified their behaviour to accommodate humans”.

Scholtz (2005) uses the example of the African elephant, where the law allows for a number of conservation methods when it leads to an overpopulation of these elephants (including culling of elephants). In his article, Scholtz (2005) looks at the reason to why this overpopulation occurred in the first place. He notes that in South Africa national parks such as the Kruger National Park, were established to protect and preserve certain species, such as the African elephant. In these “unnatural natural surroundings the elephants have no natural enemies.” It is clear that this overpopulation exists due to the need to reserve space for wild animals to protect them from the ‘civilised’ spaces of humans.

Placing human needs above environmental needs does not guarantee the protection of the environment, specifically wild animals. This however does not specify whose needs will be considered as more important, the need of local rural communities or the need of the urban looking for the wilderness experience.

2.6) Mitigation of human-wildlife conflict

Loveridge et al (2010: 178) argue that “local support for, or at least tolerance of, large felids is one of the key factors in determining the fate of all wildlife populations [as] elimination of real or perceived threats is pivotal”. The pros and cons of several strategies for mitigating human-felid conflicts are discussed below.

According to Loveridge et al (2010), there is a need for conservationists to develop policy frameworks for implementing a thorough response to problem animals. These frameworks frequently incorporate the "creation of professional problem animal response teams and crafting of national policies and protocols for response to conflicts between humans and large felids" (Loveridge et al, 2010: 178). Loveridge et al (2010) further argue that whilst every situation is unique, there should be a general protocol according to which local wildlife managers can make decisions that create accountability, as well as providing response teams with the necessary guidelines to implement when choosing the appropriate method – a critical first step in acting fast and efficiently to deal with problem animals.

Lethal control may be used when wildlife “cause - or are perceived to cause - serious damage to human livelihoods” (Woodroffe et al, 2005: 2). When wild animals are perceived as problem animals, they are legally or illegally killed. According to Woodroffe et al (2005:3) “in developed countries the most common methods are shooting, trapping and poisoning”, however, traditional methods are used as well. Loveridge et al (2010: 178) discuss other control methods, such as “toxic collars on vulnerable livestock, use of dogs or skilled trackers to follow problem animals, and shooting and trapping of culprits when they return to recently made kills”, methods which specifically target individual animals. Loveridge et al (2010) further argue that in cases where the problem animal is part of an endangered species, lethal control might not be considered a favourable option by conservationists. However, in particular cases where human lives and livelihoods are at risk, lethal control might be the most practical and effective option available (Loveridge et al, 2010).

Thirdly, translocation of problem animals is an option to remove problem animals and place them back into protected areas, zoos or other protected places. According to Chipman et al (2008), translocation, which is sometimes also known as relocation and transplantation, is the capture and transfer of a carnivore from one area to another. This method has been used to achieve a range of wildlife management goals which include “enhancing populations or reintroducing rare or locally extirpated wildlife, providing hunting or wildlife viewing opportunities, farming wild game, and reducing local human-wildlife conflict” (Chipman et al, 2008).

Although translocation has been used in a number of areas, especially with leopards and lions within Africa, the success rate is “equivocal due to high post-release mortality, extensive movements, and homing behaviour of translocated animals” (Loveridge et al, 2010: 179).

Weilemann et al (2010) also argues that in areas which are already occupied, the translocated animal may struggle to fit into the already established area, hence they often return to their original site or sometimes show “extensive roaming behaviour” after their release. Loveridge et al (2010:180) argue that the translocation of a large felid is more likely to succeed when the problem animal is “moved long distances across prey significant landscape barriers to areas with reasonable prey densities and few livestock or people”. However, this is not that easy since such areas are not always available and most of the areas already have their own species population. Athreya (2006: 422) argues against relocation/translocation as a technique, calling it a “reactive procedure [which] involves large amounts of resources.” The translocation of problem animals is expensive and requires extensive record-keeping, and proficiency to capture, mark and re-identify livestock predators (Loveridge et al, 2010). This type of thorough management is not often possible in developing countries.

According to Quigley and Herrero (2005:54), the “guarding of livestock has been the natural response to depredation losses since the beginning of domestication”. It should be noted that in the past the killing of wild problem animals was part of the husbandry practices. Loveridge et al (2010) argue that in areas where the predators have been extinguished, traditional knowledge has been lost. Where livestock are grazing without the supervision of a shepherd or protecting of a guard dog, predation on the livestock is likely to be high.

According to Linnell et al (2012), in Europe, Asia and Africa, shepherds are frequently accompanied by a guard dog to guard the livestock whilst they graze during the day, and at night the livestock are protected in enclosures. Linnell et al (2010:326) explain that “some expensive systems, especially those associated with nomadic pastoralists, have no night-time enclosures”, in turn the livestock sleep close to the campsite where they are guarded by the shepherds and dogs. Also, enclosures which are constructed of “poles or wicker were superior to those built of thorny *Acacia* branches or wire mesh, because they reduce the chances of stock panicking at the sight of a predator and breaking out of the protective enclosure” (Loveridge et al, 2010:181). Linnell et al (2012:327) argue that large carnivores, particularly large felids, tend to be “extremely aggressive and persistent when entering night-time enclosures, either by jumping fences, squeezing through small openings, or using brute force (often aided by panicking the livestock that break down the enclosure wall from the inside)”. Hence, it is often suggested that enclosures should be constructed with very solid materials and even a roof.

Damage compensation schemes have been implemented in different countries to mitigate the damage caused by wild animals. According to Loveridge et al (2010), the payment of damage compensation has the consequence of extending the monetary liability and financial risk between the local farmers experiencing the livestock predation and the conservation authorities responsible for wildlife conservation. Compensation is normally funded by the government, non-government organisations (NGOs) or agricultural insurance schemes

Although compensation might alleviate some of the expenses and possibly encourage tolerance towards the damage caused by predators, the approach does suffer from some key shortcomings. Loveridge et al (2010: 183) argue that the “verification of damage (to eliminate fraudulent claims and over-estimates of loss) can be time-consuming and expensive and lead to animosity between conservation managers and livestock owners.” There is also the possibility that incentives might be given to wrongly accredited losses caused by poor husbandry practices, accidents, or disease rather than problem animals in order to claim compensation. Compensation schemes can be extremely expensive and debateable, especially in developing countries with limited resources, unless supported by NGO’s or international funding (Loveridge et al, 2010; Linnell et al, 2012).

As cited in Loveridge et al (2010: 184), “private insurance schemes to cover costs of carnivore damage have also been attempted; however, in many cases rural farmers are unwilling to cover the relatively expensive premiums required (Nyhus et al, 2005)”. Hence, due to this compensation schemes can be viewed as unsustainable, especially because of failure to fully compensate or poor management of these schemes may cause local residents to be resentful towards conservation authorities and to mistrust conservation efforts (Loveridge et al, 2010; Linnell et al, 2012).

Lastly, zoning is another suggested mitigation strategy amongst conservationists. Zoning can be described as the spatial separation of humans and wildlife (Larson, 2008). The objective of zoning conservation of wild animals is to conserve feasible populations of predators as well as to minimise, or at least mitigate conflicts with local residents and livestock (Loveridge et al, 2010). Restricting the interaction between predators and people can in turn assist in reducing conflict in areas where it occurs. Zoning conservation “allows prioritization of mitigation efforts and efficient use of conservation resources in the area” (Loveridge et al, 2010: 185).

It is important to note, however, that due to the fact that local people will rarely be welcomed and included in the zones where carnivores are given preference, it may create a feeling by locals of the “urban majority overruling a rural minority” (Linnell et al, 2005: 174). This may lead to resentment towards the conservation authorities which could evolve into social conflicts. Furthermore, Linnell et al (2005:174) argues that the greater density of large carnivores in an area, “especially if multiple species are zoned sympatrically, may increase the competition between game hunter and large carnivores.”

2.7) Conservation and local communities

Critics of modern conservation often argue that indigenous knowledge is overlooked by science. To conserve African wildlife species in human-occupied spaces requires management, which scholars argue is often guided by a “mechanistic understanding” of how anthropogenic factors influence ecological processes (Gandiwa et al, 2011). According to Gadgil et al (1993), indigenous peoples with a historical continuity of resource-use practices often possess a broad knowledge base of the behaviour of complex ecological systems in their own localities.

This knowledge is gathered through years of observations transferred from generation to generation. Gadgil et al (1993:151) argue that “such “diachronic” observations can be of great value and complement the “synchronic” observations on which western science is based”.

As noted, due to ‘environmental concern’ there has been a great need to understand the environment for the purposes of conservation and preservation of biodiversity. As mentioned by Hunter and Rinner (2004), “environmental concern” has come to represent a broad concept referring to a wide range of phenomena from awareness of environmental problems to support for environmental protection. According to Parathian (2019: 27) “local beliefs are misunderstood, contradicted or overlooked by conservation policies (Forsyth: 2004)”. Gadgil et al (1993) argue for the importance of “traditional ecological knowledge” as a significant use for conservation in resource practices. Indigenous knowledge is important in the context of understanding the environment. Indigenous people have lived in their environment for generations now and in some respects might understand the environment better than scientists do.

It is argued that the combination of scientific and local knowledge can contribute to a more comprehensive method of managing complex and dynamic natural processes and systems.

As cited in Reed (2008: 2425), “by triangulating different local and scientific sources, it may be possible to investigate uncertainties and assumptions and develop more rigorous understanding as well (Johnson et al, 2004)”. By incorporating local knowledge, it has been argued, the broader the knowledge one would gain about the particular environment and therefore it could lead to more robust solutions for the environmental problems the communities are facing. The growing literature on the incorporation of local knowledge into the management of the environment suggests such methods “...may empower local communities to monitor and manage environmental change more easily and accurately” (Reed, 2008: 2425). Stringer and Reed (2007) argue that by “hybridising these knowledges (Forsyth 1996; Nygren 1999) it may be possible for researchers and local communities, with their different understandings, to interact in order to produce more relevant and effective environmental policy and practice” (Reed, 2008: 2425).

There have been global debates regarding the management of resources in protected areas, in particular to promote the involvement of local inhabitants to create more sustainable methods for conservation of resources and biodiversity. Gandiwa et al (2011) argue that for this involvement to be effective and for local knowledge to be incorporated, a deeper understanding of people’s relationships with the environment is needed.

Hence, there is a need for a socially sensitive approach which considers the basic needs of the community and possible projects that can be undertaken to improve the livelihoods of the locals whilst promoting wildlife conservation (Gandiwa et al, 2011). The burgeoning field of ‘community-based conservation’ cannot be reviewed here in detail, but some observations are made below.

2.7.1) Community involvement in wildlife conservation

The conservation of large carnivores can be viewed as a pressing issue due to the rapid declines in their geographic ranges, the size of the population of these species as well as their probable capacity as umbrella species for broader biodiversity (Dickman et al, 2010). Whilst human-wildlife conflict has been a serious issue for conservationists, the need to protect the world’s wildlife animals that have great value at a global scale but little or none at a local scale, remains one of wildlife conservation’s biggest challenges.

According to Hackel (1999), community- based conservation is rooted in the practice of conservationists operating in poorer countries during the 1960s and 1970s.

It is noted in Barrow and Murphree (2001) that the community development practiced in Africa and Asia at that time was state-controlled. Therefore, conservationists came to the realisation that local communities are commonly hostile to conservation practices and had to be won over as to support conservation efforts (Hackel, 1999). Hence, the “new conservation” narrative, which is known in literature as “community conservation”, approaches started between the 1980s and 1990 in Africa (Hulme & Murphree, 1999: 193). The new conservation narrative requires a shift from a state-centric activity and responsibility, to a more local-level, society-based practice (Hulme & Murphree, 1999; Adams & Hulme, 2001; Barrow & Murphree, 2001). The need for an integrated conservation approach attempts to “...link biological diversity within a protected area to social and economic development outside that protected area” (Newmark & Hough, 2000:585).

Here, it is clear that locals in community conservation must be viewed as partners and they need to be actively participating in conservation. In addition, community conservation must be organised in such a manner that the protected/ conservation areas and species provide economic benefits for local people and broader community. Adams and Hulme (2001) discuss integrated conservation and development projects (IDCPs), community conservation and development projects, collaborative or joint management ventures and community-based natural resource management (CBNRM).

These initiatives were practiced in case studies such as West and East Africa, India, Asia, and South America. Whilst the decision as to what would be the best conservation practice for the specific area’s needs is a complex one, all these projects share a common goal – to bring about behavioural change in local people towards the environment and wildlife, as well as to promote economic and social development of local communities.

2.7.2) Combining cultural values, economic incentives, and conservation goals

Whilst there has been a recognition that cultural values play a significant role in achieving conservation goals, Waylen et al (2010) argue that greater focus should be placed on understanding and adapting to this. According to Loveridge et al (2010), co-management and stakeholder involvement shows improvement in attitudes regarding conservation efforts. As cited in Waylen et al (2010:1126), “effective governing institutions can enable successful and equitable control of community activities and responsibilities, and local control of land tenure promotes individual security and concern for resources (Noss, 1997)”.

Hence, conservation efforts are more likely successful when they understand and respect local culture and institutions. Brooks et al (2012:3-4) argue that “community participation, capacity building, and equitable distribution of economic benefits, and support” are significant design features of community-based conservation. Community-based conservation requires adequate “time for development opportunities and income generation to emerge before measurable economic success is achieved” (Brooks et al, 2012: 4). Shrestha and Lapeyre (2018:99) argue that conservationists should “create space for a more transparent, democratic, and participatory model of conservation, building the local population’s sense of ownership and responsibility over biodiversity.”

One of the economic programmes used to achieve biodiversity conservation along with community-based conservation is the implementation of community-based ecotourism (CBET). Kiss (2004:232) argues that the “attraction of CBET is the prospect of linking conservation and local livelihoods, preserving biodiversity whilst simultaneously reducing rural poverty, and of achieving both objectives on a sustainable (self-financing) basis.” Up until now the general experience of most community-based ecotourism projects is that these generate limited cash benefits which often only reach a small part of the community (Kiss, 2004).

As cited in Kiss (2004:234), “Ecotourism can generate support for conservation among communities as long as they see some benefit (or maintain a hope of doing so), and if it does not threaten or interfere with their main sources of livelihood (Alexander, 2002; Walpole and Goodwin, 2001; Salafsky et al; 2001)”.

However, according to Stem et al (2003:388) “some ecotourism operations contribute minimally to local development, with little or no revenue reaching local people.” Furthermore, tourism is also seen as a “far from ideal entry-level business’ for rural communities which have little or no prior experience (Kiss, 2004:234).

The ideal for CBET is for incentives from ecotourism to be extremely high such that locals will intentionally protect biodiversity in order to maintain that income (Kiss, 2004). Hence, the economic benefits generated from ecotourism must be exceptionally high and extensive enough to replace their basic livelihoods. Aside from this outcome being highly unlikely, as cited in Kiss (2004:234), “this kind of success is likely to attract outsiders, who will both dilute the benefits and put greater pressure on local natural resources (Hodgson and Dixon, 2000; Wunder, 2000; Taylor, 2002)”.

Stem et al (2003:388) argue that even though ecotourism depends on a minimal impact on the environment, successful ecotourism may lead to an increase of visitors which may ultimately contribute to “solid waste generation and habitat disturbance” that can threaten the resources ecotourism depends on.

Overall, Stem et al (2003:410) argue that “there is a need for greater emphasis on integrating environmental awareness raising and knowledge generation into ecotourism activities.” Waylen et al (2010:1126) support this argument, stating that “[community-based conservation] “interventions providing community outreach and education about conservation were more likely to successfully change attitudes than those who did not.” However the goals of community-based ecotourism, while perhaps laudable, are difficult to achieve in practice.

2.8) Conclusion

This chapter has reviewed literature that assists in understanding the concepts of wilderness and how wild animals are viewed by humans. Wilderness spaces are socially constructed and contested, as scholars have shown. By drawing on the sub-discipline of ‘animal geographies’, the chapter also gives an understanding of how humans create spaces in which they believe particular animals belong.

Literature on conservation, the mitigation of human-wildlife conflict and in particular community-based conservation has also been reviewed. Literature has shown that there is a greater need for social sciences to be included in conservation strategies in order for it to be successful. Wild animals are a special focus here, as a key subject of this dissertation is a wild animal, the leopard.

My main interest in this thesis is to explore the way in which the increasing priority given to conservation and ‘wildness’ in Cederberg landscapes is impacting on local communities, and to understand their responses to these shifts.

This research explores whether indigenous knowledge is incorporated with the methods used to preserve leopards as well as the responses of local residents to the reimagined conservation and tourism development priorities for the region.

Therefore, a focus has been placed here on the incorporation of indigenous knowledge, as well as the different mitigation strategies to alleviate human-wildlife conflict to understand its importance for biodiversity conservation and preservation. The focus on community involvement and community-based conservation and ecotourism is important as background and guidance to help understand the relationship between local farmers and conservation authorities, as well as the impact of the leopard conservation as a priority over local livelihoods within the Cederberg area.



CHAPTER 3: BACKGROUND TO THE STUDY

3.1) The Cederberg

The Cederberg settlements' history dates back to the times of the San and the Khoi slaves who were emancipated from slavery. The Khoi were pastoralists who grazed their flocks in the coastal Strandveld in winter and migrated east beyond the mountains for summer months (Red Cederberg, undated). As mentioned by Van Rooyen and Steyn (2004), the first written account of the Cederberg Mountains dates from 1488 when Bartholomeus Diaz saw them from the Atlantic Ocean and named them the "Sierra dos Reis" (the mountains of the three wise men of the East) (Red Cederberg, undated). The name Cederberg is derived from the Clanwilliam Cedar Tree (*Widdringtonia cerdarbergensis*), a relic species from a time of a colder climate (Red Cederberg, undated).

In the 18th century, European settlers were established as stock farmers in the Cederberg. Historically properties were used for the grazing of livestock and over time it appears that these areas became severely overstocked and consequently overgrazed (Red Cederberg, undated). In 1830 the first Rhenish Mission station, Wupperthal (originally a farm named Rietmond), in the Cederberg was established by Johan Gottlieb Leipoldt, the grandfather of C Louis Leipoldt, the late well-known Afrikaans poet, novelist and medical doctor. It started out as a Rhenish mission station that was then transferred to the Moravian church in 1966.

The Cederberg has a long conservation history. As far back as 1876, there was an attempt to introduce conservation practices when a forester was appointed to oversee Crown Land in the Cederberg Mountains (Red Cederberg, undated). It was not until the late 1960s however that harvesting of wood resources in the region ended. In 1967 the removal of dead cedar trees was halted and all other exploitation ended in 1973 with the proclamation of the Cederberg Wilderness Area (Cederberg Conservancy, undated). The area under conservation was expanded in October 1997 when the Cederberg Conservancy was constituted as a voluntary agreement between landowners to manage the environment in a sustainable manner (Cederberg Conservancy, undated). Today land in the Cederberg Mountains includes several private farms, tourism destinations, and rural communities. The rural communities mostly survive from subsistence farming of livestock and crops, and some have connections with family members who live in the city.

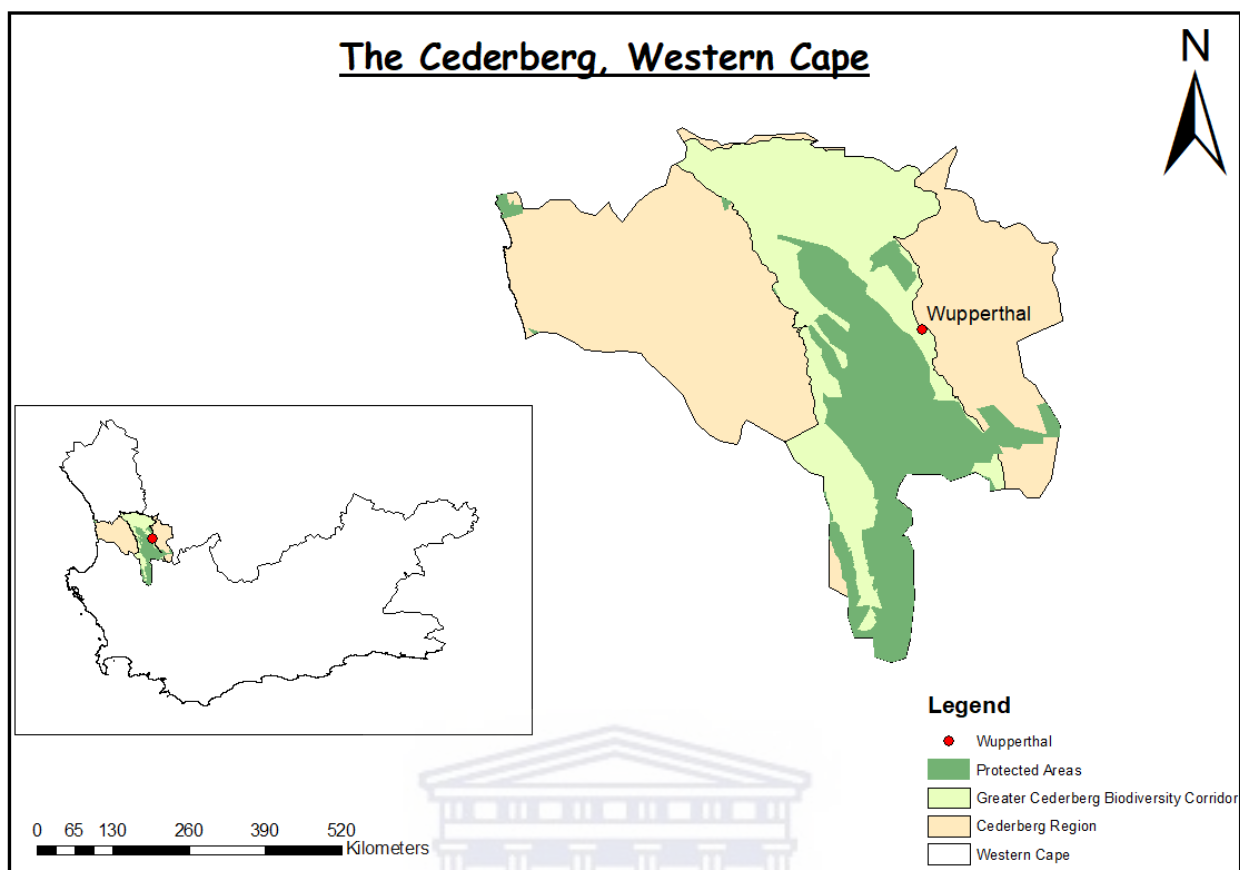


Figure 1: Location map of the Cederberg and Cederberg Wilderness

3.2) The Wupperthal Mission

The isolated rural mission of Wupperthal is situated in the heart of the Cederberg Mountains; approximately 290 km (4 hours' drive) from Cape Town. From Clanwilliam the tar road continues up until one has reached the “Engelsman se graf” (Englishman’s Grave), then the dirt road begins until one has reached the village itself.

The Wupperthal area is approximately 36 000 ha with 19 surrounding rural communities, including Langbome, Beukeskraal, Nuweplaas, Prins-se-kraal, Brugkraal, Martiensrus, Eselbank, Langkloof, Heiveld, Kouberg, Suurrug, Menskraal, Brugkraal, Die Hang, Heuningvlei, Kleinvlei, Witwater, Grasvlei, and Agterstevlei. The land of Wupperthal belongs to the Moravian Church and the traditional white houses with thatched roofs are visible in the landscape. In order for one to gain residency, you need to be a member of the Moravian church. The fundamentals of their lifestyle are based on the church and their beliefs, and the land cannot be privately owned.

Arriving from the Clanwilliam side, you will notice that when you enter the gates to the official grounds of the Wupperthal Mission, you are quite far from any community or built-up area. Due to the fact that there are various communities within the Wupperthal mission, one would often be greeted by the sights of free roaming livestock such as sheep, donkeys, horses, and cows on your way to the Wupperthal community.



Figure 2: Free roaming sheep along the road.

(Photographer: Van Schalkwyk, 2017)



Figure 3: Free roaming donkeys outside the village of Kleinlei

. (Photographer: Van Schalkwyk, 2017)

As one passes the different turnoffs that lead to the communities of Heuningvlei, Kleinvlei, Grasvlei, Heiveld and Brugkraal, one reaches the top of Koueberg, also known as “die Set”. When you take the bend on “die Set”, you will see a green patch in the depths of the undeniably rugged landscape. Entering the valley of Wupperthal community, you will pass the new graveyard and park. The road splits once you have reached the Community Hall on the right-hand side, where one road leads you to the residential area and the other main driveway to the town.



Figure 4: The intersection as you enter Wupperthal village

Figure 5: The view of the town from residential area

(Photographer Figures 4 & 5: Van Schalkwyk, 2018)

The architecture and buildings in Wupperthal are similar to other Moravian mission stations such as Elim, located on the Agulhas Plain. The layout of the town itself makes it clear that the church is the central point since it is situated at the end of the main driveway with large eucalyptus trees on either side. The town preserves its original look of the whitewashed thatched-roofed buildings which one can find scattered throughout the town. Other than the community hall and church, buildings include the following: the local “Van Schalkwyk” Bakery, the Mission stores, which used to be a store with the basic needs for the community, the Café, “Red Cedar Cosmetics” which sells handmade organic rooibos tea product, a local restaurant named “Lekkerbekkie”, a museum, butchery, information centre, small post office, shoe factory which still produces handmade veldskoene (vellies) and the Wupperthal primary school with a hostel for children from the surrounding communities within the mission.

Most parts of the buildings are in moderately good condition, however, some buildings have been completely neglected. If one would be to build a house in Wupperthal it is mandatory that the houses are the same as the traditionally whitewashed thatch-roof houses.¹The people of the mission are highly dependent on their livestock and crops. Gardens and grazing land is rented from the church, therefore animals such as cows, goats, sheep, donkeys, and horses graze freely on the land that belongs to the church. Crops and livestock such as cows, goats, sheep, and pigs are used for own consumption and sometimes sold to earn something extra over the festive season.



Figure 6: Subsistence farmer with his sweet potato crop

Figure 7: Importance of the garden

(Photographer Figures 6 & 7: Van Schalkwyk, 2017)

Some of the locals also have their own rooibos production where the growing and harvesting of local rooibos tea takes place. Much is also sold in Biedouw Valley or Clanwilliam for processing. Other than that locals do not have a lot of local employment opportunities, except for those who work in the restaurant, bakery, shops, shoe factory, tuck shops or others who work in the surrounding communities as builders, fieldworkers, and cleaners in nature reserves, farms or in the town (Clanwilliam). The Wupperthal mission on the border of the Cederberg Wilderness Area is incorporated as part of the Wupperthal conservancy, however, this does conservancy not appear to be active currently.

¹ Note that since conducting the fieldwork for this thesis, the appearance of Wupperthal village has changed following a devastating fire in December 2018.

3.3) The Cederberg Wilderness Area

The mountainous region of the Cederberg has proclaimed a wilderness area in 1973 and the nature reserve of 5250 hectares was established in 1987 in order to prevent the extinction of the Clanwilliam cedar tree (CapeNature, undated). The Cederberg Wilderness Area is considered a significant area since it forms part of the eight selected areas selected to represent the Cape Floral region for World Heritage Status (Table Mountain National Park, 2004). It has since then been acknowledged as a World Heritage Site. On the official tourism website of the Cederberg, it is stated that: “The Cederberg Wilderness is surrounded by conservancies - land owned by farmers but conserved in its natural state - such as the Cederberg Conservancy, the Pakhuis conservancy, and Nardouwsberg conservancy so that the whole Cederberg wilderness area is close to 170000ha.” (Cederberg, undated). Therefore, the Cederberg area remains one of the least impacted by humans in South Africa and is increasingly viewed as a wilderness landscape with important potential for conservation and tourism. As a World Heritage Site, the provincial conservation agency CapeNature has an important role in management, together with a number of private landowners within the area.

3.4) Leopards and conservation

One of the biggest issues for local residents of this area is the difficulties they face in keeping livestock within an area that is earmarked for conservation, in particular conservation of the Cape Mountain Leopard. This section provides a little more background on leopard conservation in South Africa and the work of the Cape Leopard Trust.

3.4.1) Leopard trophy hunting as conservation

In the context of South Africa, regulations attempt to offer certain species special protections. In the Threatened or Protected Species Regulations (ToPS), which is produced in terms of the Biodiversity Act, leopards are listed as “near threatened”. Hence, they are considered “as facing a high risk of extinction in the wild in the medium-term future but are not regarded as critically endangered or endangered.” (Kvalsvig, 2017). Due to the rapid decline in leopard population numbers, conservationists believe that leopards are one step closer to the endangered list. According to Brophy (2016), the leopards’ population has declined by more than “30% in the past 25 years, and the species has lost 48% to 67% of its historic range in Africa.”

Due to the poor management of leopard trophy hunting, this industry continues to play a big role in leopard decline. In South Africa, there have been constant changes in leopard trophy hunting restriction and banning.

The question of lifting the ban on hunting leopards has stirred up controversy between the Department of Environmental Affairs (DEA), with animal welfare conservationists arguing that there is not substantial data to allow for the lifting of the ban (Brophy, 2016). Conservationists of the Ban Animal Trading and EMS Foundation disagree with the notion of leopard trophy hunting due to insufficient data availability on leopard populations in South Africa and the management thereof (Louw & Pickover, 2017). Brophy (2016) states that in 2014 alone, a total of 311 leopard trophies was imported to the United States, as well as between the years of 2004 and 2015 there has been a total of 10 191 individual leopards traded internationally.

3.4.2) The Cape Leopard Trust

The Cape Leopard Trust is an environmental NGO which actively works together with CapeNature (the provincial conservation agency) towards the conservation of leopards. As stated on their webpage they aim to use "... research as a tool for conservation, finding solutions to human-wildlife conflict and inspiring interest in the environment through an interactive and dynamic environmental education programme" (Cape Leopard Trust, 2015). Their research is highly scientific to gather information on leopard behaviour and the overall ecology of the leopard. They are also considered as one of the leading authorities on predator conservation in South Africa (Cape Leopard Trust, 2015). In the Cederberg, their offices are located in the Matjiesrivier Nature Reserve (run by CapeNature, the provincial conservation agency) which is part of the Greater Cederberg Biodiversity Corridor.

Having provided more context with regard to the study area, the next chapter explains the research methodology adopted in the study.

CHAPTER 4: METHODOLOGY

4.1) Introduction

This chapter outlines the main aim and research objectives, as well as discussing the methodological approach adopted for this study and the method of data analysis employed. Interviews were conducted in the rural communities located in the mountainous region of the Cederberg in 2017. I am an insider to this community, due to the fact that I have visited the area throughout the year for over 24 years of my life, visiting my family who resides in one of the rural communities during the holidays. There were always stories about the losses subsistence farmers experienced due to “tier” (leopard) attacks.

The presence of leopards is prominently advertised on the tourist destination websites as one of the biggest attractions within the Cederberg (eg Cederberg Conservancy), but little focus is placed on how local communities who practice subsistence farming share space or co-exist with these wild animals, or on understanding their involvement in tourism and conservation within the area. I began conducting interviews with local subsistence farmers during my honours research in 2015 and extended this in the present study (interviews conducted in 2017).

Due to the nature of this study, a qualitative methodology was used. This research uses a humanistic approach that seeks to understand reality through the eyes of the research participants. A qualitative approach differs in various ways from a quantitative approach. Qualitative methods seek to illuminate human behaviours through the perspectives and experiences of the research participants – that is, to understand their reality rather than collecting “statistical facts” to prove or disprove scientific hypotheses about reality. Qualitative research is characterised by its aims, which relate to understanding some aspect of social life, and its methods (which in general) generate words, rather than numbers, as data for analysis (Bricki and Green, 2007). Therefore, this research aims to collect evidence about how people perceive their reality rather than investigating reality by generating scientific facts.

4.2) Research Objectives

The main aim and objectives were informed by the conceptual framework which draws from nature-society debates, including animal geographies and human-wildlife conflict. The sub-discipline of Animal Geographies was used as the main source of inspiration for this study, focusing specifically on how local people are involved in conservation practices within the peripheries of the Greater Cederberg Biodiversity Corridor as well as how the domestic and wild animals are defined, understood and treated in this area. As a result of humans and wild animals sharing space, the invisible boundary between ‘culture’ and ‘nature’ creates conflict between the wild and domestic. Hence, it is significant to understand the role of the community concerning conservation and eco-tourism related practices within the Mega Conservancy, as well as the relationship of the partnership between locals and conservation authorities.

The main aim of the study is to explore the way in which the increasing priority given to conservation and ‘wildness’ in Cederberg landscapes is impacting on local communities, and their responses to these shifts.

This, in turn, informs the research objectives of the study which are broken down as follows:

1. To explore the politics of the domestic and the wild in the form of potential conflict between local subsistence farmers and conservation authorities with regards to resource management and land use (in particular, livestock keeping).
2. To investigate local livestock keepers’ attitudes towards the leopards, as well as their stories of encounters with these animals.
3. To explore the responses of local residents to the reimagined conservation and tourism development priorities for the region.

4.3) Data collection

The way people experience the world differs on many levels. Their perceptions and experiences are usually influenced by their environment and space which they function in. This includes their cultural values, a geographical location which they occupy, livelihoods, level of education, etc. Therefore, their reality is shaped through their experiences and knowledge about their surroundings and social experiences.

According to Ballard (2002), in qualitative research language is treated not as a transparent medium for reflecting reality, but as a way of understanding and gaining insight into constructions of reality in relation to particular social contexts.

This study focuses on how tourism and other interests are currently reframing the Cederberg as a leisure landscape; a development that is not always compatible with sustaining the livelihoods of local inhabitants. Livestock-keeping communities deep in the Cederberg are affected in particular by leopard conservation efforts.

The data used for this study consist of both primary and secondary sources. Secondary data consists of academic journal articles relevant to the fields of animal geographies and human-wildlife conflict.

The main source of primary data was in-depth semi-structured interviews conducted with local people, mainly subsistence farmers who have interacted with leopards before. As mentioned in Clifford et al (2016), semi-structured interviews “...unfold in a conversational manner offering participants the chance to explore issues they feel are important.” This research method allows participants to speak comfortably and freely in a less formal setting. The purpose of interviews is to investigate and understand operations within specific settings, to examine human relationships and discover as much as possible concerning the reasons why people feel or act in a particular way.

In my Honours research of 2015, a total of 19 interviews were conducted of which 18 interviews were conducted with local subsistence farmers who has suffered livestock losses due to leopard attacks. The nineteenth interview was that with the Environmental Educator of the Cape Leopard Trust. In 2017 I returned for Masters fieldwork on the extended study. Nine further in-depth interviews with subsistence farmers were conducted in order to acquire more in-depth information on how local subsistence farmers are coping with leopard predation, as well as to what extent they are involved in leopard conservation strategies. This was also done to explore the relationship between the Cape Leopard Trust and the local farmers. The fact that the Cape Leopard Trust’s mission is to reduce human-wildlife conflicts suggests that it is their responsibility to include farmers as well as the communities that interact with the predators.

With the permission of the participants, all the stories from farmers were collected by means of snowball sampling, where one farmer guided/ led me to the next farmer. Interviews were in depth and in Afrikaans, since it is the home language of the local people and interviews were more meaningful because locals felt more comfortable and could express their feelings better. These interviews were recorded and later transcribed and translated into English.

Both English and Afrikaans versions are given in the text of the thesis. This approach, therefore, provided valuable insight into various discourses, which are defined by Ballard (2002) as “the process of people using language to draw on systems of meaning in order to make their environment intelligible to themselves and, in so doing, to construct the nature of those environments”.

A semi-structured interview with the Chief Executive Officer of the Cape Leopard Trust was conducted in July 2018. Information on the methods the Cape Leopard Trust employs to reduce human-wildlife conflict was gathered prior to this interview. The interview gave me a good understanding as to whether the Cape Leopard Trust involves local subsistence farmers in their conservation strategies and practices and if they have some sort of relationship with the local farmers as well as the different communities. The interview also gave insight into what projects will be implemented in the future in order to reduce human-wildlife conflict.

In September 2018, a semi-structured interview was conducted with the Community Conservation Officer of CapeNature. This interview provided insight on the relationship between the local communities and CapeNature, as well as the projects that have been involved in to empower the communities of Wupperthal.

Primary data also includes information in articles published on the Facebook page and website of the Cape Leopard Trust as I needed to better understand the way in which leopards are portrayed and studied. Maps from the website of the Cape Leopard Trust are useful to explore where leopards are commonly found and for a better understanding of the dynamics between leopards and livestock within rural communities. These maps might seem limited because it only shows the movements of a few leopards that were tracked, but at the same time, one gets a better understanding of the space that these few leopards dominate.

In summary, a total of 30 interviews were conducted for this study, 27 of which were conducted with local subsistence farmers who, it became apparent, have suffered great losses due to leopard attacks.

The other 3 interviews were with the Chief Executive of the Cape Leopard Trust, the Environmental Education Officer of the Cape Leopard Trust and the Community Conservation Officer of CapeNature.

4.4) Research Process

As already mentioned, qualitative semi-structured interviews were used as the primary basis for empirical data. In order for me to gain an understanding of how local subsistence farmers are involved in leopard conservation strategies, I spoke to a variety of people all of whom were in different locations within the Cederberg. This gave me an understanding of how the different communities might experience leopard attacks differently depending on their close proximity to the borderline of the Cederberg Wilderness Area. The interviews also allowed locals to mention stories of other predators such as the caracal and the baboon within the area. This was mainly to get an idea of what the local farmers experienced and also how they make their own comparison between the predators, and what seems to be most problematic at the moment.

The interviews (in particular those conducted in 2017) also ranged more widely to discuss local views about conservation and tourism in the region. Subsistence farmers who are livestock keepers were interviewed, and an effort was made to also include individual farmers and residents with some knowledge and involvement in conservation. This was in order to gain an idea of how they see the issue the other subsistence farmers have experienced, as perhaps those more experienced in such work may have different perspectives on the animals within the environment. The different communities experienced livestock loss due to leopard predation differently; therefore, I gained insight into various discourses the different Cederberg communities have. This provided the foundation, not only to understand the dynamics between the domestic and the wild, but also to better understanding the relationship between local communities and conservation authorities. Overall the research explored locals' reactions to the changing priorities in the Cederberg and the extent to which they are involved in tourism and conservation practices, especially leopard conservation.

I began the interviews by providing the farmers with the information sheet explaining what this research seeks to understand (Appendix C). One reason for giving a background on the questions before actually asking questions was to observe which objective they would answer first. This gave me an understanding as to what they felt was important to share first, as well as what concerned them the most.

From their responses, it was clear that the relationship which they have with the Cape Leopard Trust and CapeNature was of vital importance, along with how the communities are involved in tourism and their interactions with CapeNature concerning their involvement in tourism. A relationship with the CLT and CapeNature concerning leopard conservation and livestock protection was something many are longing for. Currently the situation is tense and communication poor.

Although the themes of the interviews were predetermined, some general questions (Appendix C) were prepared as a guide to discussion since questions were asked based on the experiences and stories shared by the subsistence farmers. Every farmer had their own experience to share and every situation was handled differently. Questions such as, “How is the community involved in conservation within the area?” and “Do leopard conservation strategies include livestock protection?” were asked to get an understanding of how people are involved within leopard conservation within the area. The interviews were conversational in nature and involved the building of trust between myself and the participants.

4.5) Challenges experienced in the research process

My study area is located within the Cederberg mountainous area, which is a drive of 3.5 hours from Cape Town. I spent limited periods within the area collecting data and as I travelled every day from one community to the other, it was not possible to spend much time within one community before moving on to the next. This meant that I could not interview all the local farmers I initially wanted to interview.

Due to the extremely bad condition of the roads, it took a very long time to get from the one place to another. Also, some of the telephone lines did not work in certain sections of the area so one could not make appointments with the farmers to make sure that they would be home when I visited. Some of the subsistence farmers who might have spoken to me were either were in the field or had gone to town (Clanwilliam).

Not many people on the ‘outside’ are aware of the human-leopard conflict within the Cederberg. This is a sensitive topic for conservationists due to the threatened status of leopards and also the risk of the leopards’ presence possibly attracting trophy hunters. Few articles are written in local newspapers on human-leopard conflicts or issues experienced due to leopards. Thus, existing textual data on the issue was limited.

4.6) Data Analysis

After collecting the different forms of textual data, the process of analysis could begin. The most appropriate method for analysing the qualitative textual data for this study was discourse analysis. According to Denscombe (2007:308), “Discourse Analysis is an approach to the analysis of qualitative data that focuses on the implicit meaning of the text or image rather than its explicit content.” Furthermore, it “aims to expose patterns and hidden rules of how language is used and narratives are created” (Hewitt, 2009: 2). Hence, it is a “research method which involves examining communication in order to gain new insight” (Hewitt, 2009: 2). In this study, the specific discourses and themes emerge from the way in which locals use language to understand and to communicate within their surrounding environment. Since I am interested in how local subsistence farmers are involved in leopard conservation strategies, this method of data analysis was considered most suitable. The analysis includes quotes from the interviews so that these discourses could emerge clearly.

The data collected goes deeper than just written or spoken words, for there is meaning behind how the subsistence farmers responded and why they responded in such a manner. The main “storylines” were identified by reading through the transcripts on many occasions. The stories from the different experiences that were shared with me, provide a better understanding of the farmers’ reality and are central in illuminating the dynamics between the local subsistence farmers, conservationists and leopards in the Cederberg.

4.7) Ethical Considerations

Due to the fact that these are personal narratives from the subsistence farmers and residents, certain ethical considerations had to be taken into account before the fieldwork could start to ensure that no harm occurs to participants. Firstly, I applied for ethical clearance from the University of the Western Cape as well as requested permission from the relevant authorities to conduct my research in the area of study..

I ensured that potential participants are fully aware of what my research entails, its desired outcomes as well as what it requires of them. Respondents received an information letter and consent form which they were required to sign after acknowledging its contents. An Afrikaans version was prepared. In the case of illiterate participants, the letter was read out loud to ensure that the potential participant fully understood what they were consenting to.

Signing the form confirmed that they agreed to participate, however, it was communicated that their participation was completely voluntary and that they were able to withdraw from the study at any time if they wished to do so, without any undesirable consequences for themselves. Furthermore, in order to ensure that the confidentiality of the respondents is protected, I have used pseudonyms to assure their anonymity.



CHAPTER 5: CONSERVATION, LEOPARDS AND LIVESTOCK KEEPING IN THE CEDERBERG

5.1) Introduction

This chapter focuses on the contestation that arises when Cape Mountain Leopards move across the porous boundary of the formal Cederberg Wilderness Area to predate on the livestock (in particular, sheep) farmed by local residents. Rarely seen, and a “vulnerable” animal, the Cape Mountain Leopard is of conservation value and protected under the National Environmental Management: Biodiversity Act (NEMBA).

The reimagining of this animal may be compared to Emel’s (1995) discussion of the American wolf, a once hated predator which is now seen as an iconic symbol of the wild. Leopards are the Cederberg’s equivalent. Their preservation is a key focus of CapeNature together with an NGO, the Cape Leopard Trust (CLT) which is based in Cape Town. Local people, however, do not regard the increased presence of leopards in the same positive way. In this instance, ‘wildness’ appears to be incompatible with the domestic.

This chapter explores the impacts of leopard conservation on the livelihoods of small scale livestock farmers in the Cederberg and discusses local attitudes towards the animal. It illustrates how perceptions and activities have changed over time as well as how conservation operations are perceived from the local subsistence farmers and the CLT. The tense relationship between local livestock owners and conservation-oriented bodies such as CapeNature and the Cape Leopard Trust is also explored. The chapter explores in what manner human-wildlife conflict is dealt with as well as how the different parties involved are experiencing this issue. When addressing the issue of human-wildlife conflict, it is important to include the needs of both affected parties in order to minimize and/or resolve the conflict.

5.2) Leopard encounters: Past practices

Leopards have been a threat to the subsistence farmers of Wupperthal since the days when the Strassbergers resided in the then Rhenish mission.

Prior to the current conservation legislation banning the killing of leopards without a permit, it was expected that the mission residents would kill leopards when they attacked livestock within the area. After killing a leopard, all one had to do was report it at the church office and receive your reward for protecting the area. One respondent, Willem, remembered an incident in which a leopard had killed seven sheep:

“Man, vroeë jare. Kyk doerie vroe jare het jy hom mos maar doodskiet. Ja, het jy hom mos maar dood maak... Hier was am toe nog ‘n man wat toe nog ‘n geweer gehad het. Toe’t hy hom daar geskiet. Toe’t ons, toe’t hy dit aangemeld. Daai tyd het jy mos nog alles by die kerkkantoor aangemeld. Nou toe’t ons dit aangemeld laat hy hom doodgeskiet het, want hy’t sewe goed gevang.” (Interview with Willem, 7 July 2015)

[English translation] Man, in earlier years. Look in earlier years you could’ve shot him. Yes, you could just kill him. There was still a man who had a gun. He shot the leopard and reported it. Back then everything had to be reported by the church office. We reported it, that he had killed it, because the leopard killed seven sheep.

In the past, when the residents of the Wupperthal mission were still under the control of the European missionaries, it was possible for them to hunt the leopards that attacked their livestock and to kill the animals if they got the opportunity. As Koos explained:

“Nou ja, daai tyd toe was dit nog so, toe mag ons hulle nog, van toe’t hulle nog nie bedreigde spesies was nie. Toe’t hulle hom gevang, daai tyd toe was dit 5 pond. Ek weet nie of jy weet hoeveel dit is nie, dis ongeveer R 10, nê. Toe’t hulle die vel verkoop, maar nou mag jy hom nie meer vang nie, maar nou is hy, hy is nou gevaarlik.” (Interview with Koos, 9 July 2015)

[English translation] Yes, back then we could still [kill them], they were not endangered species yet. They caught him, at that time it was still 5 Pounds. I do not know if you know how much that was; it was more or less R 10. They sold its skin, but now you are no longer allowed to catch him. Now he is very dangerous.

It is clear that everything one did on church grounds was done according to church regulations, and that the behaviour of killing problem animals was rewarded. Willem confirmed that, in the past, the church paid a bounty on each predator or nuisance animal shot, not only leopards:

“Sy vel was iets werd. Ja, hy en die boejaan s’n, en die rooikat en die rooijakkals. Jy, jy is uitbetaal vir hom as jy doodmaak, want hy maak skade. Ja, maar nou mag jy mos nie meer. Jy moet mos nou, jy moet mos nou gaa sit.” (Interview with Willem, 7 July 2015)

[English translation] His skin was worth something. Yes, the baboon’s, caracal’s and red jackal’s skin as well. You were compensated if you killed him, because he caused damage. Yes, but you are not allowed to do it anymore. Now you must just go and sit.

In addition to the skin of a leopard having some value, the main focus was survival and protecting valuable property (in this case, sheep). Unfortunately, this meant that so-called problem animals were killed by local farmers because they constituted a threat to their livelihood. Killing leopards became acceptable and this was passed on from generation to generation. As a result, the leopard species almost became extinct in the Cederberg.

While the local farmers never got into any trouble from the authorities due to killing these leopards, respondents stressed that it was dangerous to try and catch or kill a leopard. There were no stories from respondents about accompanying their parents to see how a leopard was killed, as children were only allowed to see the leopard after it was killed. Only the bravest men with the best shooting and trapping skills and experience were the ones to face the leopards. Hannes remembered that his father had considerable skill in this area, and recounting a story about a memorable leopard encounter:

“My pa het baie luiperd gevang in sy leeftyd. Vyftien met die yster...My pa het baie kennis gehad ook oor die luiperd... Een van sy laaste stelle, pa sê toe pa die luiperd sien, pa en oom Ewerd so glyk. Toe lê en skommel hy hom eintlik so reg om te spring. Toe het oom Ewerd netso op pa se skouer gedruk. Pa sê dit is ook al. Toe is pa se ore toe. Toe klap die skoot.” (Interview with Hannes, 6 July 2015)

[English translation] My father caught many leopards in his lifetime. Fifteen with the iron trap... My father had a lot of knowledge regarding the leopards. One of his last iron traps, my father said that when he saw the leopard, he and uncle Ewerd saw it simultaneously. The leopard was preparing to attack. Then uncle Ewerd just pushed down my father's shoulder. Father said that was all. After that, he was deaf. The shot went off!

Not everyone had a revolver to shoot the leopards. It is also clear that trapping methods evolved over the years. As Hannes explained:

“In die oudae het hulle nie die ysters vasgemaak nie. Dit het hakke gehad. Dan volg hulle die sleepsels tot waar hy vasgihak het. Dan het die oom sommer die tier met die tuinvurk doodgesteek.” (Interview with Hannes, 6 July 2015)

[English translation] In the past they didn't secure the trap. It had hooks. They just followed the drag marks until where it stopped. Then the uncle just took the pitchfork and killed the leopard.

Today, the livestock owners are no longer allowed to aggressively defend their sheep against predation by leopards. Trapping leopards can have serious consequences. Local people link this to the increased presence of outsiders (tourists) in the Cederberg and associated conservation controls in the area.

As Elvin put it:

“Ja ek het sommer 3 ysters gestel, maar toe se hulle nou van Cape, hier is te veel Kapenaars, almal hier en so aan. Ek wil nou nie da in die tronk gaan sit nie. Toe los ek maar die besigheid.” (Interview with Elvin, 24 April 2017)

[English translation] Yes, I set three traps, but then they said, the people from Cape Town, there are too many Capetonians, everyone here and so on. I do not want to sit in jail, so I rather left that trapping.

5.3) Livestock keepers' current experience: Losses due to leopard predation

In the present day, the killing of leopards is no longer rewarded and indeed killing a leopard can incur a severe penalty in law. This leaves the local subsistence farmers and their livestock in a vulnerable position. Due to leopard conservation efforts, the leopard population in the Cederberg is increasing. Local people's sheep are easy prey for the large predator. In interviews I conducted in 2015, livestock owners described the leopard predation on their sheep and its effects on them.

Livestock keepers who live close to the boundary of the Wilderness Area, for example in Heuningvlei, Kleinvlei, Langkloof, and Heiveld, have experienced losses due to leopards over more than a decade. Jan described an incident about a decade ago where his sheep were attacked just prior to their planned slaughter for sale in Wupperthal:

“... ek het uh, seker so 10 jaar gelede gewees. Toe't 'n klompie skaap van my uitgebly, ma toe't ons nou al klaar Wupperthal... Ons maak mos nou slaggoed. Toe's hier nou al sewe tot agt lammers wat ons nou al uitgesit het moet Wupperthal toe gaan en net 'n week voor dit toe slaap van die skaap nou uit. Toe vang die tier hulle daar. Daai, al agt lammers nog twee ooie op 'n streep gelê. Een kry ek daar lê die volgende lê daar. Niks weggedra nie. Almal lê daar, maar daarvan het ook niks gekom nie.” (Interview with Jan, 8 July 2015)

[English translation] I did uh, it was probably about 10 years ago. A lot of my sheep slept in the field that night, but then we have already decided on Wupperthal's meat... we were busy slaughtering. So 7 or 8 lambs were set aside to go to Wupperthal and just a week before they slept in the field the one night. Then the leopard caught them all there. All eight of the lambs with two ewes laying in a row. The one there and the other there. He didn't take any away to feed on. All of them were just lying there and nothing was done about it.

Klaas stated that he has experienced substantial losses over a period of five years:

“Wag laat ek eers tel, sewe, vyf en agtien plus twee... hoeveel is dit nou? Oor ‘n tydperk van so te sê 5 jaar het hy 32 van my gevang.” (Interview with Klaas, 6 July 2015)

[English translation] Wait let me count first, seven, five and eighteen plus two... how many is that? Over a period of so five years he has caught 32 of mine.

Hannes, one of the locals who has worked in conservation before and has a relatively broad knowledge on the biodiversity of the Cederberg, was well aware that that the locals’ livestock is considered as an easier catch for the leopards.

“Êrens is ‘n versteuring. In die veld is nie kos vir hulle nie. Nou kom hulle hier. Die is maklike prooi en sodra hulle agterkom van die maklike prooi, da los hulle daai. Hierdie is baie maklike prooi.” (Interview with Hannes, 6 July 2015)

[English translation] Somewhere there is a disruption. There is no food for them in the field. Now they come here. This is an easier prey and when they are aware of this easier prey, and then they leave the natural prey in the field. This is very easy prey.

The communities located close to the boundary of the Wilderness Area mentioned a few expectations that they have of CapeNature but which are not being fulfilled. It was mentioned by Jakobus that they do not have field workers in their Wilderness Area anymore. He said that the field workers he last saw regularly about ten years ago are no longer evident, and he argues that they could at least let field workers patrol the area once a month or so. CapeNature does not patrol. In the absence of the field workers, he admitted, he sometimes went to hunt in the Wilderness Area which is illegal.

From the respondents’ accounts, leopards now appear to be ranging further afield. Dirk lives in Langbome, which is further away from the boundary of the Cederberg Wilderness Area and closer to the Karoo. He has experienced livestock loss due to leopard activity only since 2013. I interviewed Dirk in 2015 soon after he had suffered the loss of his livestock. Whilst conducting the interview with him, he was visibly upset and was trying hard to hide his sadness by looking at the ceiling as he was sharing his stories. From time to time he would make eye contact with me but when it was getting too difficult for him and his eyes started tearing up, he would just look back at the ceiling again.

Dirk described his loss as follows:

“Dis die volgende oggend toe is hulle uit mekaar uit! Toe ons daar kom toe is daar drie lammers doodgebyt en een van die ooie toe nou die gevat en so ‘n ent gesleep en so, so uh, uh halfpad aangevreet en toe het ons hom maar ‘n yster gestel, maar hy’t ook nie weer gekom nie. Nee, dis maar nou die tweede keer wat met my gebeur, maar met die ander mense het dit ook al gebeur... oor die twee jare het hy sewe van my skape gevang.” (Interview with Dirk, 3 July 2015)

[English translation] The next morning they were torn apart! When we got there three lambs were dead and one of the ewes he took a little further and uh uh only fed on it halfway. We set up a trap but he didn’t come back again. This is only the second time this has happened to me, but other people have also suffered. Over the two years he has caught seven of my sheep.

One factor mentioned by some of the respondents is that changes in the landscape are also making their sheep more vulnerable to attack. Of particular importance is the expansion of rooibos tea production. The fenced rooibos tea camps make it easier for leopards to trap and attack their prey. Hennie’s narrative makes a clear connection between the rooibos tea production and the greater vulnerability of his sheep.

Despite the fact that the sheep were only a few hundred meters away from his home, Hennie suffered a major loss in just one night. The leopard succeeded in trapping the sheep against the fence of the tea camp, which is just a few hundred meters away from his house.

“In hierdie omgewing het nog niemand so groot skade gekry soos ek nie. Baie van die blankes wat ook vir my ken sê uh, “Hennie, is dit regtig waar dat die luiperd veertig skaap van jou gevang het?” ...seker so 500m of something nuh. Ja nog bietjie minder. Het hy die skaap aangejaag en hulle het in die tee kamp loop vaskeer waar dit skoon is en toe’t hy daarvanaf net gevreet. (stilte)” (Interview with Hennie, 6 July 2015)

[English translation] In this area, no one has ever suffered such a great loss as I did. Many whites who know me asked, “Hennie, is it really true that the leopard caught forty of your sheep?” ... Probably about 500m or something nuh. Actually, it was a little less. He chased the sheep into the tea camp where they were trapped and then he just started to feed. (silence)

As a subsistence farmer in a rural community, losing 40 sheep in one night is a tremendous loss from which many would not be able to recover. At about R1000 per sheep, the loss amounts to approximately R40 000. Many other farmers said that if this were to happen with them, they would not have been able to survive. Even some of the white commercial farmers Hennie knew agreed and offered Hennie sympathy and support.

“Nee, hier’t baie boere vir my gebel. Hulle sê dat as hulle nou so ‘n skade kry, da ga hulle dood. Dan dood hulle (lag). Dis te ‘n groot skade...” (Interview with Hennie, 6 July 2015)

[English translation] No, a lot of farmers phoned. They said that if they were to suffer such a tremendous loss, they would die. They would die (laughs). It is just too much of a loss.

Hennie attempted to accept his great loss with humour, coming across as upset but resigned. He feels there is little he can do about it. In sharing his story, Hennie tried to hide his emotions about losing his 40 sheep. He joked that now he keeps his livestock in the kraal and just prays and hopes that there will not be any more livestock attacks. He joked that they should not say Amen, because if you say Amen than the leopard would attack.

“En daarvanaf toe is my vlae gesak. Dis te ‘n groot skade... Ek is so hartseer, maar ek huil nou maar stille’tjies so oor die 40 skape. (Stilte). Ons het maar stille’tjies, ons het maar stille’tjies slaap net en knie vou. Bewaar vir hom en soek vir hulle. Jy moet nou net nie Amen sê nie (lag).” (Interview with Hennie, 6 July 2015)

[English translation] And thereafter my flags dropped. It is too much of a loss... I am so sad, but I’m silently weeping over my 40 sheep. (Silence). We must be quiet, sleep quietly and bend our knees. Protect him [the leopard] and seek for them. Just don’t say Amen (laughs).

Elvin’s sheep were also attacked in an ox camp:

“En nou het die luiperd mos laasjaar Desembermaand hier by my gevang... ek mos nou verbaas, hiers dan nou twee hier in die kamp. En uh die ander ene het al die vorige aand al weer kraal toe gekom. Die een lam, maar die grootste skaap van my, die is nie daar nie. Ja, maar ekt nie luiperd se gedagte nie en toe’t ek nou gaan kyk of die skaap nie weer nie... ek stoot nou so hieraan, of hy nie weer ou spoor gevat het nie. Hy miskien, hy is mos nou meer verstandig as die ander drie. Net toe ek so loop toe dink ek, jinne, hiers die sleepselsel, by die berg en toe sien ek vir jou groot spore...toe’t ek nou weer toe ek nou geloep het dit is net so ‘n entjie by die draad, hy’t hom nie oor die draad gekry nie.” (Interview with Elvin, 24 April 2017)

Last December the leopard caught [animals] here ... I was surprised, because there were only two sheep in my camp. An uh the other one came back to the kraal the previous night. The one lamb, my biggest sheep, was not there. Yes, but I didn’t think of the leopard at that time and when I went to go look to see if the sheep didn’t... follow the old footprints. He might be more mature as the other three. Just as I was walking, I thought, here’s the blood trail, by the mountain and then I saw the big footprints... when I walked again it was just so near the fence, he [the leopard] couldn’t get him over the fence.

One couple, Dottie and Elvin, shared photographs of their sheep with me. The images below show the animal in life and then after it had been predated by a leopard.



Figure 8: Elvin's lamb killed by a leopard in an ox camp in December 2016

Figure 9: Elvin's lamb killed by a leopard in an ox camp in December 2016

(Source: Dottie, 2016)

Subsistence farmers set up kraals to protect their sheep, but these are not effective. The attacks take place sometimes in close proximity to the houses, which are often remotely located. During fieldwork in April 2017, I was shown the kraal of a farmer at Martiensrus who had lost sheep due to a leopard attack. Below is a photograph of the location of the sheep kraal and the house, showing the spatial proximity of the structures.



Figure 10: Location of a leopard attack

(Photographer: Van Schalkwyk, 2017)

An important point to make is that the animals are known as individuals to the subsistence farmers, those around Wuppertal as well as the other communities such as Langkloof and Kleinvlei. They all had this sadness and sense of loss that went beyond the loss of the money, suggesting that the sheep are more than just livestock to be slaughtered at a later stage. These animals were domesticated and had meaning and value to the subsistence farmers as individuals. When they speak of their animals, the animal is clearly not just food for them, it was like a pet.

“So dit is nou my ding, hy verskeur en hy vermink my dier. Dit is nou wat hy vir my ‘n bietjie uh-uh-uh. As ek daar by die dinges kom man, nou-nou dan was hy nou miskien die nag tussen hulle gewees dan kom ek hier by ‘n skaap dan is hy nog lewendig. Hy’s vermink, hy’s ‘n stuk uitgebyt of hy het gate in gebyt. Nou moet ek hom kop afsny. Nou dit maak, verstreur my ‘n bietjie.” (Interview with Dirk, 3 July 2015)

[English translation] So this is my thing, he tears and mutilates my animal. This is why he makes me uh-uh-uh. If I get there, and perhaps he was there last night. Then when I get to my sheep it is still alive. He is mutilated, there’s a piece of his flesh missing or he is bitten full of holes. Then I have to slit its throat. Now this makes me ...this upsets me.

The suffering caused by livestock loss has a major impact on the standard of life that these livestock farmers can give their families. Whilst conducting the interviews different emotions were shown by interviewees as they were sharing their experiences. Many tried to resign themselves to the loss and attempted to deal with it through dark humour. There were however also respondents who were very frustrated and openly angry about the losses they have suffered. Dirk became very upset when he referred to the scene after the leopard attacked his sheep. Even though he does slaughter his livestock animals when his family needs food, killing his animal while it is suffering in pain is just too much for him. He was open about his frustration:

“...nou moet jy amper weer van die begin af weer opbou, opbou en dit is maar nie, dit is maar nie ‘n lekker gevoel nie. Dit als, die, dit is die jy raak agressief vir die klas goeters.” (Interview with Dirk, 3 July 2015)

[English translation] ...now you must almost start from the beginning again, just build up again, it is not a pleasant feeling. This, everything, you get aggressive about these things.

Pieter felt equally bitter:

“Ons moet maar nou tevrede wees met die verlore wat ons kry. Ek mien jy gaan mos nou net trug, wat baat dit, jy kan dan die diere niks doen nie, sonder vergoeding. Selfs een verloor is omtrent ‘n R 1 000 wat jy verloor en waar kry jy nou weer ‘n R 1000 om vir jou weer een te koop of jy moet slaghuis toe gaan vir jou gaan vleis koop.” (Interview with Pieter, 8 July 2015)

[English translation] We should now just be satisfied and accept the losses that we are having. I mean, you are not getting it back, it does not matter because you cannot do anything to the animals and there is no compensation. Even if one sheep is equal to more or less R 1000 which you lose. Where are we going to get another R 1000 to buy another sheep or meat from the butchery?

In general, the local people of Wupperthal are deeply attached to their home and it seems that the older they get, the more they just want to stay in Wupperthal. Few move away from the area when old, rather the opposite. However, for one of the long term residents, the leopard attacking his sheep was too much. This man, I was told, got rid of the livestock that were left and decided to move away from Wupperthal to Citrusdal. He was unable to come to terms with the existence of leopards in his home that could kill his livestock. This shows how local farmers are attached to their animals and how a loss can affect them.

The subsistence farmers felt that they could not accommodate a wild animal such as a leopard in their domestic space. Pieter stated clearly that this level of loss is not acceptable to them. He clearly distinguishes between the sphere of the ‘domestic’ and the sphere of the ‘wild’, and he argues that the wild should not encroach into the domestic space.

As he put it:

“Dit raak ‘n huishoudelike probleem by ons. Onse diere word gevreet, jy weet nie waarheen nie, maar omdat die wilde diere hier loop.” (Interview with Pieter, 8 July 2015)

[English translation]. This is becoming a domestic problem by us. Our animals get attacked, you don’t know what to do, but [it’s] because there are wild animals walking around here.

The fact that Pieter describes it as a domestic problem emphasises the important role played by these livestock animals. It is part of their household. The animal is part of their lives and contributes to their quality of life, as well as their identity as small livestock farmers.

5.4) Changing attitudes through education?

The initial goal of the Cape Leopard Trust when it was co-founded by Dr. Quinton Martin in 2004 was to investigate whether or not there were still leopards in the area, and to lobby for preservation measures. Conducting research on the Cape Leopard in the Cederberg was and is considered very important. As the Chief Executive officer stated:

“Historically the trust was based on research primarily, cause no one knew what the likelihood of leopards being around was...” (Interview with CEO, 25 July 2018).

It was important also to understand the environment of the leopard and how the leopard functions in it, so research projects on the ecology of the leopard were a major focus from the start.

However, as leopard populations grew, the organisation could not ignore the conflict between livestock keeping and leopard preservation, and began to seek solutions. The website states that its projects “aim [not only] to further our understanding of leopard ecology and behaviour, [but also to] reduce human-wildlife conflict which has persecuted the species for centuries.” (Cape Leopard Trust, 2015). For the Cape Leopard Trust, it is of primary importance to preserve and conserve the species as well as to get it to feed on its natural prey again.

In an interview with the organisation’s environmental educator, the latter acknowledged that there is a “leopard problem” and that sheep are some of the main prey for the leopards. However, in his view, this is due to the fact that the Cederberg is not the natural habitat of livestock animals such as sheep, goats, and donkeys.

The correct diet for the leopard would be the wildlife naturally occurring there, such as the dassie and the rhebok (which are a lot faster and smarter than sheep). It was hoped that by explaining the ecology, local people would realise that the problem could not be solved by simply killing leopards.

“As a solution, [Dr. Martin] realised he had to take the sheep off the menu, so to speak so that leopards can prey on what they would naturally. His studies also showed that if a leopard does get killed, that another leopard would just move into his territory. So it’s not really getting rid of the leopard problem. Uh, you have to take preventative measures, so what’s the aim to do was, to show his research and to show what the dynamics are around the way the leopards move and [that] killing a leopard doesn’t really help.” (Interview with Environmental Educator, 12 August 2015)

From the Environmental Educator’s perspective, the relationship between the subsistence farmers and the leopard is improving. This view appears to be based on the fact that very few leopards are now killed in the Cederberg. The Environmental Educator stated:

“When Dr Martin started working there, an average of 8 leopards were being killed a year and at its worst it was 17 in one year. The fact that only 1 leopard got killed after he has been there, for about 10 years. I think there’s an indication of how the relations have improved in terms of bringing an awareness of how they should look after a leopard and I mean to change people’s lives in that way, have some type of good relationship. I think in the Cederberg specifically, it’s been good!” (Environmental Educator, 12 August 2015)

The CLT appear to see the conflict between humans and leopards as largely resolved, based on the fact that leopards are not being killed by locals any longer. However, it appears that this view is not informed by positive feedback or actual involvement with the subsistence farmers. It may be that the overly positive view of the environmental education officer is based on his work with young people in the Cederberg, educating them on their surroundings.

One cannot necessarily, however, draw positive conclusions about the level of conflict based on the number of leopards being killed now compared with in the past. The fact that few leopards are being killed does not reflect a reduction in conflict with livestock owners, or a reduction in the number of sheep being taken by leopards. Rather, it reflects people’s fear of the penalties they could incur should they trap or kill a leopard. The subsistence farmers interviewed for this study expressed few positive feelings towards the conservation authorities or the Cape Leopard Trust. There appears to be a low level of engagement with local livestock owners.

Jakobus remembered one educational meeting which happened a long time ago:

“Yes, voor dit het hulle uitgereik, maar hulle het net uitgereik op klagtes. Hulle sal nooit uit hulle eie kom nie en onderig gee nie. Een, eenkeer het hulle gekom het hulle bietjie meer vir on ingelig aan die eienskappe van ‘n luiperd...Ja, nee soos ek julle sê, daai verhouding bly nie vas tussen ons nie. Ons het al seker alles vergeet toe hulle nou laas weer hier by ons gewees het. So lank trug was dit.” (Interview with Jakobus, 24 April 2017)

[English translation] Yes, previously they did reach out, but they don’t reach out on complaints. They will never come out on their own to educate us. One time they came to educate us about the characteristics of a leopard... Yes, as I say, the relationship does not stay integrated between us. We probably forgot what they have taught us the last time that they were here. That is how long it has been.

Occasional community meetings have been held, but these have not helped to build a better relationship. According to Elvin, no meetings have been held for years. He said that even if more meetings were held, he would not attend them now anyway, because so many false promises have been made in the past:

“2009 het hulle gekom, nog nooit weer vergadering kom hou nie. As hulle kom da wil ek nie eers gaan nie. Hulle belieg jou man, jy mors jou tyd.” (Interview with Elvin, 24 April 2017)

[English translation] 2009 they came, and they haven't had another meeting since. If they come again then I don't even want to attend the meeting. They just lie to you; you will waste your time.

When asked about the status of their relationship with conservation officials, a typical comment is that by Hannes:

“Dit is nie so gesond nie, want daar is nie 'n verstandhouding nie.” (Interview with Hannes, 6 July 2015)

[English translation] It is not so healthy, because there is no understanding.

Dirk was outspoken when I interviewed him in 2015, and again in 2017. He stated that *“natuurbewaarders, hulle - hulle ryk nie eintlik uit nie.”* (Interview with Dirk 3 July 2015) [English translation: “The nature conservationists, they don't reach out to us”]. He complained that the authorities do not engage the livestock farmers on the issue of stock losses due to leopards, and frustrate all attempts to hold them responsible.

“Tot so ver nog niks. Niks vergadering. Nog nooit opgevolg nie.” (Interview with Dirk, 26 April 2017)

[English translation]: Until now, nothing. No meetings. Never followed up.

The livestock owners complain that when they do meet with conservation officials, all they receive is empty promises. The “empty promises” claim is based on the livestock owners' experience of past attempts at cooperation, according to the terms agreed upon regarding leopard information and encounters. The next section explores this in more detail.

5.5) On the ground: The relationship between livestock owners and conservation authorities/ advocates

The dynamics between the domestic and the wild create a particular complexity within the Cederberg. The fact that people are highly dependent on their livestock, places them in a vulnerable position in which their domestic animals serve as an easier prey for predator animals, such as the leopards, jackals, and caracals. In conducting fieldwork during 2015 and 2017, I gained a deeper understanding concerning the relationships between the local subsistence farmers and conservation authorities, particularly on the issue of leopards. Interviews were conducted both with the subsistence farmers and the leopard conservation advocates, and there are very different perceptions on each side.

The formal conservation authority in the region is CapeNature, the provincial conservation agency, responsible for the Cederberg Wilderness Area. CapeNature also plays an active role in the many conservancies set up in the area. One of these is the Wupperthal Conservancy, which does not appear to be active at the present time. A second key player is the advocacy organization or NGO, the Cape Leopard Trust, which works closely with CapeNature.

In discussing their experiences of livestock losses due to leopards, the respondents would always start their stories by commenting on the work of CLT and CapeNature. Many of them raised the issues and concerns they had around the management of leopards in the Cederberg. It should be noted that the subsistence farmers do not always distinguish between the Cape Leopard Trust and CapeNature conservation officials with whom they come into contact after a leopard-related incident. They are often confused and just refer to the conservation authorities as “Nature”, not really giving a clear indication whether it was an official from CapeNature or Cape Leopard Trust. However, when speaking with the subsistence farmers of Heuningvlei and Kleinvlei it is clear who they are referring to due to the fact that these two communities interact with conservation authorities more often than the other communities.

5.5.1) Reporting and trapping

It appears that there is an agreement that the presence of leopards can be reported by local livestock owners, following which conservation officials promise to bring a trap in order to trap the animal and remove it. Examining this in more detail, there are a number of problems and it is clear that this system is not working well. The first problem is that there is a lack of clarity on how the reporting actually works.

The fact that the local subsistence farmers are not clear on whom to contact, serves to emphasise the lack of communication between the local subsistence farmers and the conservation authorities.

Dottie, who is a subsistence farmer's wife, described how she attempted to follow up with the authorities (CapeNature in Vredendal):

“Ek het nou ‘n maand gelede, toe was hy [luiperd] mos daar naby... toe bel ek Vredendal toe. Ek sê vir hom, meneer julle het nou Januarie maand belowe julle gaan hokke bring. Julle het nounog nie die hokke gebring nie, hier loop die tier, luiperd nou al weer. Hy sê vir my, mevrou dit baat nie ons bring die hokke nie. As ons die hokke bring en ons vang die, die... wat moet ons met hom maak? Ek sê, maar dis jullese luiperd, julle moet weet wat julle met hom maak. Toe sê hy vir my maar as dit ‘n jong luiperd is, da moet hulle maar net weer los. As dit ‘n ou een is wat se slagande uitgesluit is, dan kan hulle hom uitsit. Maar as dit ‘n jong een is, moet hulle maar net weer los.” (Interview with Dottie, 24 April 2017)

[English translation] A month ago, when he [the leopard] was around, I phoned Vredendal. I told him, Sir you promised us that you will come and set up traps in January. You still have not showed up with the traps. He answers; if we bring the traps and we catch him, what are we supposed to do? I responded, but it is your leopard, you should know what you need to do with him. He answered; if it is a young leopard then we will have to let him go, but if it is an old one without fangs, then we can put him down. But if it is a young one, then they have to let him go again.

Dottie reported spending a lot of time on the telephone, in vain:

“Toe se ek maar dit is die nommer wat hulle vir my gegee het. [Lag] Ek het van die Woensdag af gebel tot die Vrydag, die Vrydag voor Kersfees. Hulle sal kom, hulle sal kom, hulle sal kom. Ja, toe ek daai nommer bel, toe se hulle vir my maar daai man is in Kanada, hy's in Kanada die een wie jy nou soek.” (Interview with Dottie, 24 April 2017)

[English translation] So I said this is the number that they gave me (laughs). I phoned from the Wednesday until the Friday before Christmas. They will come, they will come, and they will come. Yes, when I called that number, they told me that the man is in Canada, he is in Canada, the one that I am looking for.

Klaas expressed extreme frustration:

“Hulle doen te min, hulle doen te min, hulle doen te min. En ek is nie gelukkig daaroor nie. Ek het al te veel met hulle gekontak en het soveel lammers verloor. Hulle sou kom, hulle sou kom, hulle sou kom, hulle sou kom. Hulle kom net nie hier uit nie.” (Interview with Klaas, 6 July 2015)

[English translation] They do too little, they do too little, they do too little. I am not happy about this. I have contacted them too often and I have lost too many lambs. They are coming, they are coming, they are coming. They just don't make it out here.

Even if the trap arrives, this does not go far enough in solving the problem. Dirk explains what happened after his animals were attacked:

“Hulle het gekom soos ek sê, toe het hulle nou daar ‘n hok geko stel. Toe het hulle gesê maar hy, as hy die derde dag uh uh nog nie weer gekom het nie, dan sal hy nie weer kom nie. Die hok het omtrent so vir 8 dae daar gestaan en toe het hulle hom weer gekom wegvat. Daarop het ôk niks gevolg nie, want ek sê hulle redenasie is maar die diere is vry om te loop waar hy wil en ek meen mens, mens, mens raak maar bitter ontevrede.” (Interview with Dirk, 3 July 2015)

[English translation] They came here, like I have mentioned, then they set a trap. After that they said that if he didn't come uh uh by the 3rd day, then he will not come again. The trap stood there for eight days and they just came to collect it again. Nothing came thereof, because they believe that they animals are free to walk where he wants to and I mean as humans, we get very upset about this.

Jan sees the whole process as pointless, because the animal that has been trapped is simply released and is free to return:

“Hulle doen min, as hy nou so skade gedoen het, dan is hulle bydrae maar baie êffenkies. Hulle, hulle as hulle hom wegvat, hulle ga maak hom mos nie daar vas nie en hy weet presies waar kan hy sy aas kry. Kom hy weer... Dit is, hulle- hulle bydrae is maar baie skram.” (Interview with Jan, 8 July 2015)

[English translation] They don't do much; if the leopard did any harm their contribution is very little. They, if they take him away, they don't tie it up to a tree or something; he knows exactly where to get his prey. He just comes again... it is; their contribution is very little.

Not only is the trap method regarded by the livestock owners as ineffective, they find it upsetting that the officials appear to use the trapping mainly to conduct research on the leopards. Locals do not see how further research on the Cape Leopards that are trapped will help them.

According to Elvin:

“Man en nog ‘n ding, as jy nou om in die hok vang ja, da sal hulle kyk sy tande. Nee maar hy's nog uh jonk. Da los hulle net weer more [laughs].” (Interview with Elvin, 24 April 2017)

[English translation] Man, another thing, if they catch him in the trap, they will only check his teeth. No, but if he is still young, they will just let him go again [laughs].

Overall, the feeling is one of extreme frustration. This is expressed by Koos:

“Hulle kan meer doen ja, al wat hulle doen, hulle doen niks!” (Interview with Koos, 9 July 2015)

[English translation] They can do more, yes, because all they do, all they do is nothing!

These responses are an indication of the lack of communication between the subsistence farmers, leaving locals confused and angry. They do not understand the purpose of calling the CLT or CapeNature if nothing is going to be done to help the situation.

To make matters worse, the livestock owners feel that they are treated disrespectfully by some of the officials. Klaas mentioned that he tried to raise the issue during a meeting, and received a dismissive response from the conservation official:

“Ek vra hom eendag, toe’s hier vergadering by die skool. As daai tier nou weer agt skaap va my vang, wat gat julle maak en julle kom vang hom of wat ga julle kô maak? Hy antwoord: Ons ga’t ‘n hok ko stel en da ga ons kyk hoe hy is van gesondheid en als daai. Ek sê: En dan? Dan kan hy maar nog agt va jou vat. Ek vra, hoekom? Nee hulle los hom net weer daar...” (Interview with Klaas, 6 July 2015)

[English translation] I asked him one day during a meeting at the school, if that leopard catches another eight of my sheep, what are they going to do about it, are they going to trap him or what are they going to do. He answers: We will come and set a trap and then we will look at its health and all that. I asked: And then? He answered: Then he can take another eight of your sheep. I asked him why, he said that they would release him just there again...

With such a response, it is not surprising that there is anger among local livestock owners about the situation.

5.5.2) The issue of compensation and local attitudes to leopards

The issue of compensation is a major point of contention and a source of great bitterness. Respondents feel strongly that the conservation authorities are responsible for their losses and that they should receive financial compensation. Koos made this argument to a CapeNature official, but in vain:

“Ek het hoeka daa CapeNature, daai ou van CapeNature, so ‘n dik ou. Ek en hy het laas omtrent gestry. Toe sê hy as ek hom seermaak dan kos dit my R 25 000. Toe sê ek en as hy nou vir my seermaak of as hy nou my goed so vang, betaal hulle uit? Toe sê hy nee, hulle betaal nie uit nie.” (Interview with Koos, 9 July 2015)

[English translation] Once I was there by CapeNature, a guy from CapeNature, a fat guy. We argued that time. I told him that if I hurt him [the leopard] it will cost me R25 000. So then, I asked him, what if he (leopard) hurts me or if he kills my livestock, will I get compensation? He said no, they don't give any compensation.

A visit from a Cape Town-based woman (organisation unknown) gave the livestock owners some hope. However, they have no faith in the local officials:

“Ja, want kyk daai ene wat uit die Kaap uitgekom het, die vrou wat uit die Kaap uitgekom het, die't mos gesê ons kan, hulle moes eintlik vir ons vergoed het. Maar die uh-uh mense wat hier by ons is, is mos nou boetie-boetie, se hulle kom da kom hulle nooit nie. ...Nee, CapeNature, hy doen niks hier nie man. Die hokke, hy wil nie hok gee nie.” (Interview with Elvin, 24 April 2017)

[English translation] Yes, because the person that came from Cape Town, a lady, she told me that we should actually be compensated for our loss. But uh-uh the people that work here is “micky mouse” say that they will come, but they never do...No, CapeNature, they do not do anything here. The traps, they do not want to give it.

The compensation issue causes great bitterness, especially as the smallholders have heard that commercial farmers do receive compensation for stock losses. According to Jan:

“Maar die groot boere, hulle het, ek het al gehoor van hulle wat vergoed word. Hulle bel hulle net, kom vat die goed weg. Gert-hulle sê hy't nie probleem met daai mense nie, onmiddelik is hulle daar. Onmiddelik kry hy sy geld, maar hier moet ons maar nou kyk wanneer kom hulle hier.” (Interview with Jan, 8 July 2015)

[English translation] But the commercial farmers, they have, I have heard of them receiving compensation. They just call, come and take the thing away. Gert-them say he doesn't have any problems with them, immediately they are there. Immediately he gets his money, but here we must still see when they will get here.

This frustration is expressed in anger against the animal responsible for these losses, the leopard. Some livestock owners stated that they would like to kill the animal if they could. One can see that a combination of factors such as poor management, porous boundaries, the leopards being protected, no compensation, and the trapping of leopards just to see whether they are healthy leads to a greater frustration. The fact that they receive so little help from the CLT and no compensation for the loss of livestock makes local people angry towards the leopards.

Dirk was very angry after the loss of his sheep:

“Nou ons het al gegaan al dan stel ons die aas aan ‘n yster, want ons is kaalseker kom hy daar, ons maak hom van kant! Ek meen hulle roei jou uit, jy kry nie vergoeding. Dit als, die, dit is die jy raak aggressief vir die klas goeters. Ja, nee die verhouding wat ek voel teenoor my dier maak vir my dat hy [luiperd] moet net vernietig word, ja.” (Interview with Dirk, 3 July 2015)

[English translation] Now before we used to set an iron trap, because we are sure, if he comes back we will kill him. I mean he eradicates you and you don't get compensation. All of this, it, one gets aggressive about such stuff. The relationship I feel towards my animal makes me feel that he [the leopard] must be destroyed, yes.

Klaas would like to hunt the leopard and kill him, but is deterred by the fear of the penalty he would incur:

“As ek hom mag gejag het, sal ek hom gevolg het, da het ek hom klaar gemaak, maar die ding is hulle kan jou vang.” (Interview with Klaas, 6 July 2015)

[English translation] If I were allowed to hunt him, I would have followed him and finished him off. But the thing is you can get caught.

Willem also expressed aggression against predators in the Cederberg, especially the leopard. When asked whether he would kill a leopard if he had the chance, he replied as follows:

“Ja, hy en die rooikat en die rooijakkals en die boejaan. Hy moet geskiet word, want hy verplinder vir jou. Rooikat vang net twee. Die jagluiperd vang sovele as hy bykô... Jy werk mos aan jou lewe, dis mos jou bestaan. Nou as hy jou so aangaan dan op die einde van die dag het jy niks. As jy byvoorbeeld 4 skape verloor, jy kry hom nie weer. Hy's duur, jy kan hom nie bekostig nie. Jy kry nie vergoeding nie. Nou ons as daar nou vergoeding is dan kan dit ook nog gaan, maar daar is nie, nou so die beste is dan moet hulle hom verwyder. Dan moet hulle, hulle verwyder, maar dit is nou die blyste wat ek sal wees.” (Interview with Willem, 7 July 2015)

[English translation] Yes, him (the leopard) and the caracal and the jackal and the baboon. They must be shot because it plunders you. The caracal only catches two but the leopard goes as far as he can. You work your entire life on this, this is your livelihood. Now if this continues at the end of the day you will sit with nothing. If you for example lose 4 sheep, you won't get it back. It is expensive and you can't afford it. You don't get compensation. Now if there was any compensation it would've been understandable, but there is not, so the best would be to destroy him. They must destroy the leopards, that is when I will be happiest.

The subsistence farmers have not changed their attitudes towards the leopard based on increased awareness and environmental education; rather their actions have changed based on fear of getting into trouble or worse, going to jail:

“Nee, nee... Die wet maak jou sommer dood vir niks. Is die wat ek wil nie nog moeite maak nie. Dis alles tervergeefs. Dis net, ek sal nie ‘n yster stel nie, hoekom die ding net kwes?... Het nie ‘n skiet ding nie, moet dan nog een by iemand leen.” (Interview with Elvin, 24 April 2017)

[English translation] No, no...the law will kill you over nothing. This is why I will not put in effort. Everything is in vain. It is just, I wouldn't set up an iron trap, because why just hurt him? I do not have a gun, so then I still need to borrow one from someone.

The frustration felt by the livestock owners lies deeper than just the leopards killing their livestock. It is the poor management of the leopards and the lack of rights they as tenants have when it comes to the land that they are paying rent for. The church is the nominal landowner and the community members are the nominal tenants. However, in this matter the role of the church is not clear. The Wupperthal Conservancy represents a partnership between the church and conservation authorities, but the conservancy appears to be dysfunctional at present. I was unable to secure an interview with church authorities on this matter.

Not only do these livestock owners feel angry and helpless but this issue also makes them feel as if they are less valuable than others in the Cederberg because they are from a rural community and poorer than others, and therefore, they lack the power to stand up against what is happening. Klaas believes the reason they are treated like this is that others view them as disadvantaged rural communities. They receive poor treatment compared with private landowners/commercial farmers.

He also views the situation in racial terms. As coloured people living on church land, they are not noticed. For a farmer such as Hennie, who lost 40 sheep in one night and did not receive compensation for his loss, this suggests to locals that they are not as important as commercial farmers. They lack the power to do something about their situation and have no choice but just accept what is happening. Klaas reflects on the situation as follows:

“My ding is, ons sit op ‘n afgeleë plekkie. Die ding is vá die, ons is kleurlinge. Ons word nie eintlik raak gesien nie. Was dit miskien blanke mense wat skades gehad het sal hulle meer ingegaan het daarop, maar oor ons kleurlinge is. Klein plekkie ‘tjie hier rond, agtergeblewe sal ek maar nou sê, stel hulle nie belang nie... ons is op ‘n klein plekkie en die mense vat ons nie kop toe nie.” (Interview with Klaas, 2015)

[English translation] My thing is, we live in a far-off place. The thing is this, we are coloureds. We are not even noticed. Maybe if it were white people who suffered from leopard attacks, they would've made more effort in the situation, but it's because we are coloureds. Small village, left behind I would say, therefore they don't really care... we live in a small village and they don't take us seriously.

While the locals appear to be accepting the terms and conditions of living with the leopards, they are not doing so willingly. The situation makes them feel insecure, hopeless and even worthless because the CLT and CapeNature make them feel disadvantaged and without options. There is a lack of clarity about responsibility. In comparison, the commercial farmers are obviously more secure than the subsistence farmers. They have more livestock as well as a variety of wildlife animals (such as gemsbok, springbok, etc.) and they are not necessarily dependent on their animals. Since their land is privately owned, they do have the right to set up their own boundaries (fencing). There is a need for clarity as to who takes ownership and responsibility for the different needs of the subsistence farmers and the leopards. It is clear that locals are upset by the leopard conservation measures and that they do not really have a voice when it comes to their own land which they are renting from the church.

The next section focuses on the work of the CLT and the different methods that they have implemented to reduce and solve the human-wildlife conflict. This also includes the experiences that the subsistence farmers in Wupperthal have had with the methods implemented and how they regard the efforts of the CLT continually to reduce human-wildlife conflict. Again, whilst collecting data it was noticed that the views of the local subsistence farmers and CLT differ in various ways. This theme places emphasis on the perceptions and information locals have about CLT and the way the latter claims to try to reduce human-wildlife conflicts as well as their overall attitudes towards the leopards.

5.6) Addressing human-wildlife conflict? The Cape Leopard Trust and local livestock owners

The Cape Leopard Trust has a clear goal of the leopard conservation and its primary interest is in scientifically based research on leopards. Its publicly stated position is as follows:

The Cape Leopard Trust is a research-based organisation that utilises a variety of research techniques to gain a better understanding of the ecology and behaviour of the animals we study. By gathering invaluable data, we can make informed decisions, based on scientific fact. These data can be applied to areas of resource conservation, human-wildlife conflict mitigation, and further research.
(<https://capeleopard.org.za/research/techniques>)

As noted earlier, the CLT cannot ignore the problem of the leopard predation on domestic animals in the Cederberg. Thus the research and practical goals of the organisation include the implementation of sustainable methods and strategies to reduce and solve the human-wildlife conflict. Regarding the issue of human-wildlife conflict, the goals or methodology used by the CLT states the following on their website:

The Cape Leopard Trust has always been committed to establishing sustainable long-term strategies to human-wildlife conflict, based on scientific fact rather than emotional conjecture ... We employ constructive solution-seeking strategies that include farmers and other affected parties, as opposed to berating and alienating them ... We do not engage in attacks on those with a different viewpoint, as this compromises our integrity. Instead, we urge all stakeholders to redirect their efforts towards constructive collaboration with the Cape Leopard Trust, with farmers and with statutory organisations, based on tried and tested methods.
(<https://capeleopard.org.za/research/conservation/conflict>)

In the interview with the environmental educator, I asked whether a humanistic or community-based approach incorporated with their scientific methods would seem appropriate since they are dealing with humans, who are part of the conflict. The environmental educator argued that the approach is humanistic as well as scientific:

“The Cape Leopard Trust has the best approach in terms of balancing the science with human impact, specifically with the environmental education project. It is not just about studying leopards and their behaviour. It is bringing that info to the public as well and I’m extremely proud to tell you this particular organisation, because it’s got a very good humanistic approach.” (Environmental Educator, 12 August 2015)

This is what the CLT consider as a humanistic approach, once the information goes public and they communicate it through via their community meetings and environmental education projects. The community-based work of the CLT is mainly educating children about the environment which they are living in, and giving the farmers information on methods they can use to discourage leopards from preying on their stock. This, however, is not including the local community to work together on a strategic plan with scientific knowledge incorporated with local knowledge to help reduce human-wildlife conflict. At this point, it does not appear to give the subsistence farmers the feeling that their knowledge, needs, and voices are important, not only for strategic planning but also for building a good relationship and for understanding with the community.

5.6.1) Mitigation strategies and local responses

During interactions with officials from the CLT, I gained a clearer understanding of what was meant by their claim to use “tried and tested” methods to resolve the human-wildlife conflict. Since the ecology and the behavior of the leopards in the Cederberg are still in the process of being investigated, it is difficult at this time to come up with long-term sustainable fixed strategies to resolve the human-wildlife conflict. The CLT are thus working on a trial and error basis in order to see which methods are effective and successful.

According to the website, three main methods are used by the CLT to generate research on the leopards in the Cederberg and to inform mitigation strategies:

(<https://capeleopard.org.za/research/techniques>)

- Dietary Analysis
- The Cape Leopard Trust Trapping Techniques
- Camera Traps

However, the methods such as trapping and dietary analysis do not mean anything to locals since it is just done to check whether the leopard is still healthy and what it feeds on. Camera traps are regarded in a similar light.

5.6.1.1) Camera Traps

In addition to physical traps (discussed in the previous section), the CLT employs ‘camera traps’ which enable the organisation to monitor leopard movement and behaviour. This understanding should inform tactical strategies to protect both the leopard and the livestock. While the camera traps are important for CLT, livestock owners cannot necessarily see their value in mitigating leopard attacks.

Camera trapping is a costly procedure. Back in 2010 when the first survey was done, the CLT could only identify about 35 leopards in the Cederberg. In 2010, the camera survey was a lot smaller due to the resources available. The CLT is an NGO and they rely on sponsorships and partnerships with national and international organisations.

(<https://capeleopard.org.za/sponsors>) It is clear that this process is very time consuming and highly dependent on the equipment available. (<https://capeleopard.org.za/shop/donations>) On the CLT website, a member of the public could sponsor a camera for R 4 500, which does not include the maintenance of the camera.

It was interesting for me to learn how complex it really is to do this survey and track the leopards within the area, as well as maintain the cameras. As the CEO explained:

“Last year July we started a year-long camera survey field camera survey and it’s been mapped strategically with guidance from Zoological Society in London to be scientifically robust to a moveable area. So we can put 150 cameras out over a 148 000 ha [area] and then we can start to map what leopard movement is coming through there... Since July every 2 months we have to service the cameras, change batteries, download the SD cards uh and then look at the information and we’ve identified 52 individuals now since then. And once we’ve completed this block the cameras will be moved to another area. And what we have to also manage is if there’s a spike in conflict somewhere then we would obviously try to look at that area next as a priority. (Interview with CEO, 25 July 2018)

Although the Cederberg is an enormous area, the CLT is prioritising their work according to where conflict is highest. It should be noted that whilst the chief executive was explaining the process of the survey and the objectives they would like to achieve, that this is still a work in progress and results that were mentioned were only preliminary. These cameras have been in this specific area for over a year already and this survey is continuing, showing how complex such a study is:

“But we want to systematically look at how the leopard population is currently standing and uh whether it looks different to how it was when this last survey was done in 2010. Whether its uhm increased or whether it’s decreased and look at how leopards are moving through the area, cause the Cape Leopard’s territory is about ten times larger than the Savanna leopard. So they’ve got huge territories, and it’s interesting to see one at the bottom of Cederberg and appearing again north. So we uhm we’ve also been very fortunate to see there are quite a few young leopards in the population, so we hope that’s indicative because of the remoteness of the area they’ve - they’re very static but we don’t know yet, it’s preliminary results only.” (Interview with CEO, 25 July 2018)

Like many of the livestock owners, Koos feels that the research conducted on the leopards does not really help them as subsistence farmers. He says that the only thing the methods provide is information on leopards, such as pictures of their movements and behaviour, which means nothing for the local subsistence farmers to protect their livestock. This doesn’t help the owners at all. Also, the fact that these cameras are so expensive (R 4 500) means that they cannot set up one everywhere. They have to select carefully when setting a camera trap and not the whole of the Cederberg is covered with camera traps.

Koos explained:

“Nee hulle loop sommer, hulle loop sommer amper tot daar waar ons tee kom stel, bring hulle later hier, hoe noem hulle nou daai goedjies, wat hulle amper soos ‘n kamera wat hulle ook toe langs die paaie sit om te kyk hoeveel daar is. Nou wat beteken dit ha? Dit help nie vir ons nie. Hulle sien maar net die ding was hier gewees en party spuit hulle nou in, ag nie inspuit nie, die bandjie dat hulle nou sy bewegings monitor. Dit beteken niks vir ons nie. Die ding kom vang maar altyd net onse goeters hiersô... ja, ja oor sy bewegings. Hulle doen navorsing, maar vir ons doen hulle niks nie... hy doen hopeloos te groot skade. Hy’t nou die dag ‘n donkie ook gevang, nou hier kort. Ek dink laas week of so. Dan ga stel jy nou daar ‘n yster en hulle vang jou dan’s jy in die tronk of jy betaal ‘n boete van hoeveel?” (Interview with Koos, 9 July 2015)

[English translation] No, they just walk, they walk until where we farm our tea. They brought this, what do they call those things, almost like a camera which they set up along the paths to see how many [leopards] there are. Now what does that mean huh? It doesn’t help us. They just see that the thing was there and sometimes they inject, no not inject, [attach] the collar which monitors its movements. It means nothing to us. The thing just comes again to catch its prey here... Yes, yes about its movements. They are doing research, but for us they are doing nothing... he is doing way too much damage. The other day he caught a donkey, just the other day. I think last week or so. Now you set an iron trap, they catch you and you will sit in jail or you pay an amount of how much?

The local subsistence farmers are unable to understand how methods such as the camera trap serve as mitigation strategies for human-wildlife conflict. It is for this reason that they are so unhappy about the work that CapeNature and the CLT do. In all of the interviews, they would mention that the methods the CLT applies don’t seem to work for them. It might work for the leopards since locals are prohibited to kill the leopards, but it does not solve or reduce the leopard attacks on livestock.

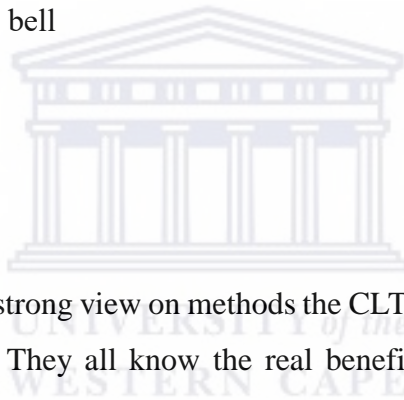
Whilst the leopard monitoring is a long-term project, there are also short-term mitigation strategies that have been attempted or are planned to try to reduce the likelihood of the leopard predation on local livestock. In my interview with the CEO, he was understanding of the local farmers’ viewpoint. As he put it:

“And that’s where we hope to help. We can understand if they lose an animal. I mean, it’s their livelihood, it’s their money” (Interview with CEO, 25 July 2018).

The CLT and CapeNature have provided an incident register to the locals in which there is also advice about methods that livestock owners can combine to protect their animals from the leopards. This is a register which is given to the subsistence farmers to write down any incidents and/or any spotting or tracking of leopards they have done. Most farmers have lost their booklet or do not care to keep track, because this is not seen as a practical solution to the human-wildlife conflict.

While the long-term strategy to mitigate this conflict has yet to be developed, these methods can be seen as a ‘quick fix’. Something that is temporary, because identifying specific strategies for this region is a complex method, which might take longer. These methods include the following.

- “Jakkalsjaer”
- “Deadstop” collar
- “Protect a lamb” bell
- Donkeys
- Shepherd dog
- Kraal



The local livestock owners had strong view on methods the CLT uses and recommends to them to help protect their livestock. They all know the real benefits and disadvantages of these methods for they use it in practice. They commented on these various mitigation methods, sometimes in humorous terms.

The ‘jakkalsjaer’, or jackal chaser, consists of a machine which when triggered makes a loud noise intended to scare predators away. Klaas from Heuningvlei is very humorous and even though he is frustrated about the situation, he would always try to make a joke about the complicated situations they are facing as subsistence farmers. He described the Jakkalsjaer as a radio which the leopard dances to after some time, which indicates that the irritating noise it makes to keep wild animals away doesn’t really help because they adapt to it easily.

“Hulle het ook op ‘n tyd ‘n ding hier gesit wat so raas al oor ‘n tyd. ‘n Jakkalsjaer noem hulle dit. Maar daai ding het ook maar nie much nie... die tweede, derde keer toe die tier die ding hoor toe neem hy dis ‘n draadlosie. Toe dans hy saam, want dit help nie daai goed nie man. Hulle raak dit gewoond.” (Interview with Klaas, 6 July 2015)

[English translation] Once they had this thing that makes such a noise every other time. A Jakkalsjaer they call it. But that thing didn't do much...after the second, third time when the leopard heard it, he assumed it was a radio. He danced along with it, because that thing, no man. They get used to it.

Pieter is sceptical about the use of the “protect a lamb” bell, even stating that far from protecting the lamb, it served to alert the leopards to its whereabouts. Their animals could get stuck in the bushes and they might not even be able to know where this animal is stuck and so it is the perfect snack for the wild animal in the area. Pieter remembered the CLT bringing bells for his lambs:

“Ja, hulle het eenslag hier ‘n klomp klokkies ook gebring wat jy seker net 10m kan hoor ... Hy sit mos later vas in die bosse, dan weet jy nie eers waar hy vas sit nie.” (Interview with Pieter, 8 July 2015)

[English translation] Yes, once they brought a lot of these bells, which you can only hear for about 10m or something ... Later he will get stuck in the bushes and then you wouldn't even know where he's stuck.

Another measure is the deadstop collar which can also be placed around the lamb's neck in order to protect the animal. However, the local farmers felt that it would not deter a leopard:

“Of jy kry mos so, amper so wat jy om die nek sit, vir die vangslag, da byt hy tien draad vas, maar ek dinkie die...” (Interview with Jan, 8 July 2015)

[English translation] Or you get something, almost a thing which you place around its neck, to protect against the attack, and then he bites against the steel, but I don't think...

The fact that the leopard not only attacks during the night anymore but also during the day is very frustrating to the communities. They understand that it is their job to foresee that the livestock should sleep in the kraal during the night, and accept it if the leopard catches their livestock during the night due to the fact that they have neglected to put the livestock in its kraal. The livestock grazes during the day and also very close to their houses where they could keep an eye on their animals while they are busy with their other tasks, but now the leopard has gone so far to attack livestock in broad daylight. Even though it is the responsibility of locals to have a herder with their livestock during the day, it can be hard because they have other responsibilities to take care of rather than just watching over 5 or 10 animals for the entire day.

Placing donkeys with the sheep does not make much of a difference, they say, as there are incidents of leopard attacks on donkeys. The leopards are adapting and attacking donkeys as well. Shepherd dogs are another option. After Hennie lost 40 sheep he got offered a dog from the CLT to help protect his livestock. However, Hennie was not impressed since he was told he still needs to pay R 3 000 for a Shepherd dog. This is unrealistic. Someone from a rural community who is dependent on his livestock and crops can barely afford to hand out R 100 for anything, but now needs to find a R 3 000 after losing R 40 000 he will never get back.

“Nee man, hy’s, hy’s uh. Toe ek eintlik die (sukkel om by naam te kom) Quinton, ja, toe het hulle vir my ‘n hond aangebied wat die skaap sal op pas. Toe dit is mos wat vir my sal werk, die hond kos R 3 000. Ja, ja hy moet groot gemaak word met ‘n ooi met ‘n lamme’tjie by, want vang die, hy moet opgegroeï word met ‘n lamme’tjie, want as van die skape nou lammers soek dan moet hy dit ken anders byt dit daai lamme’tjie dood. Hy het hierdie groep van beter Van de Jager se skaap het hy so gebyt dat hy dood gebyt, die lamme’tjies.” (Interview with Hennie, 6 July 2015)

[English translation] No man, he’s, he’s uh... when I actually (struggles to get to the name), Quinton, yes, then they offered me a dog to look after the sheep. This is what I needed, the dog was R 3 000. Yes, yes, he must grow up with an ewe with a lamb, because if it catches, he must grow up with a lamb, because if some of the sheep look for the lambs then he must know them otherwise he will bite the lamb. He once, this group of... Van de Jager’s sheep he bit so that he killed the lambs.

It is not that simple to get a dog to protect your livestock. As Hennie mentioned you need to train the dog and the dog needs to know every single lamb that you have or otherwise it will kill the lamb like it did in some cases. Also, leopards are not necessarily deterred by the dogs. Koos explained:

“Eenkeer, ek het nou toe gehoor, maar toe was dit nou daai ou voorlaaiers, groot ronde koël gehad, maar toe’t hy hom ook sleg gevang toe hardloop ‘n groot Boerboel hond van die boer. Toe gee daai tier hom so vat net met sy een hand. Daai hond het daar gelê en skree.... so gevaarlik is sy naels.” (Interview with Koos, 9 July 2015)

[English translation] Once, I heard, but then it was that old muzzle- loader, big round bullet it had, but then the [bullet] did not hit him properly. A huge Boerboel dog belonging to the farmer then ran and the leopard gave him one strike with his paw. That dog laid there and cried. ... so dangerous are his claws.

The Chief Executive of the CLT informed me that there were various projects underway:

“From the beginning this year it changed completely to be more people-centric now, so its very much uhm integrating the environmental education component more directly into the research interface...” (Interview with CEO, 25 July 2018)

One such project focused on herding has started in Heuningvlei and Kleinvlei. The CLT has started a small scale project using Anatolian shepherd dogs to guard the sheep, and using local people as herders (on a voluntary basis):

“So we put in a system where we used herders, employed herders and then we uhm also trained Anatolian shepherd dogs, Conservation South Africa trained dogs. And because herder livelihood is also some way the community can earn money and that’s one thing we are looking at. We’ve got two community members we’ve recruited now to start working, looking at uh predator of livestock and verify, and whether it was definitely a leopard and we may feed them into herder training programme so they have a qualification and they can possibly earn a livelihood from that work. Uhm, so we’ve got two already recruited and we’re going to probably by end of the year recruit a third person but we have uhm we doing it first of all kind of on a voluntary basis. So they won’t get paid at this initial stage because we don’t want the community to be resentful but they will receive benefiting kinds, uniforms, equipment when mobility, that sort of thing.” (Interview with CEO, 25 July 2018)

The CLT is starting this project on a voluntary basis, arguing that this will enable them to identify community members who are really interested in the project rather than doing it based on money. If this project is successful, they are planning to officially employ the herders and the herders will receive official qualification for this employment. If successful, this project will most likely be employed within the other satellite communities in Wupperthal. This is not only a project to help protect livestock but also to empower the community by hopefully providing a livelihood for some community members, as well as providing education with the training that the herders will receive. This could also help to better the relationship between subsistence farmers and the CLT and help them to be more cooperative.

The livestock owners remain sceptical. After the interview with Willem from Martiensrus, as we were in the car ready to leave Martiensrus, Willem came up to the car and, leaning into the window, he said the following:

“Sê vir daai Quinton jong, die jagluiperd het nie ‘n wagter nie.” (Interview with Willem, 7 July 2015)

[English translation] Tell that Quinton guy, that the leopard doesn’t have a herder.

A planned future project of the CLT includes building more secure kraals for the livestock. Most of the livestock owners mentioned, as knowledge they had gained from the previous generation that a leopard does not generally jump over a fence or a wall. Hence, it will rarely attack livestock in a kraal. Hennie and Kallie explained this to me:

“Ja man, eintlik behoort daar ‘n wagter te wees. Kyk die snaakste ding, was hul hoofpunt ook, skape hoort in die kraal. Die luiperd kom en in die kraal kom vang dan is dit ‘n ondene luiperd (lag).” (Interview with Hennie, 6 July 2015)

[English translation] Yes man, actually there should be a herder. Look the funniest thing is, this was their main point as well, and sheep belongs in a kraal. The leopard that catches livestock in a kraal is a naughty leopard [laughs].

“Oorle Jonnie Makan, Jonnie Mckenzie. Nou hy is Wupperthal se vee wagter. Hy’t gesê: “As jou skaap en jou bok in die veld slaap, da moet jy onthou, hy slaap op die rooikat en die luiperd se kooi, en hulle verdra nie dit nie. Hy verdra dit nie, hy vang hulle. Jy moet sôrre dat jou goed in die kraal is. Nou dis seker ‘n uitsondering as daai goed jou goed in die kraal kom vang. Tier weet ek nou sommer, die luiperd, hy spring nie oor sulke draad nie. Ha ah, hy gaan nie daaroor nie.” (Interview with Kallie, 6 July 2015)

[English translation] The late Jonnie Makan, Jonnie Mckenzie. Now he was the livestock herder of Wupperthal. He said: If your sheep and your goat sleeps in the field, then you must remember, he sleeps on the bed of the caracal and the leopard, and they don’t tolerate that. He doesn’t tolerate that, he catches them. You need to see that your animals are in the kraal. Now it is probably an exception if a leopard catches your livestock in a kraal. Tier I know, the leopard, he doesn’t jump over a fence. No, he doesn’t go over it.

There is a kraaling project underway, however it is not operational yet. I was informed that the CLT has appointed an Outreach Officer who will be based in the Cederberg. He will not only focus on the environmental education aspect, but he will work directly with the people, seeing how the CLT and the community can work together to protect the livestock. He will oversee the kraaling project, which relies on donated material. The first project that they will be implementing will be the kraaling project, which the community says was first mentioned over three years ago. As the CEO explained:

“...we also employed the community outreach officer last October. He is based in the Cederberg and he will be going to all the small communities. We’re going to start the kraaling project with the small farmers of Heuningvlei, Kleinvlei and uh one other... can’t remember the name now cause we still debating with CapeNature where the need is greatest. So we’re helping the farmers there to look - for instance, they’ll build a kraal against the rocks to save fencing.” (Interview with CEO, 25 July 2018)

This project is intended to help farmers to build a leopard or predator proof kraal so that the livestock can be secure in their kraal. It is important to notice that the relationship between the community and the CLT is currently not good.

Although this project was promised to the community a very long time ago, the community members did not show much of an interest when the CLT asked for their assistance to get the material to Wupperthal. According to the CEO:

“So we’re kind of going to go now and train them, how to make a proper leopard proof kraal, predator-proof kraal. We’ve got the material donated and so we, we got that from the other side of the valley, Cederberg Wines, but interesting thing is the community wants us to help, but they won’t help us to get the material. So uhm so then we eventually managed to borrow a truck now from a tourism operator near Clanwilliam [to] help us to transport the material out here, but the community outreach officer will now go and help them to set up leopard proof kraals. Uhm and see whether we can help them to manage predator conflict better ... It’s not, it’s something that we’ve considered for a while but it’s only an issue of when, getting up and running.”
(Interview with CEO, 25 July 2015)

If the projects that the CLT has installed for the communities of Wupperthal begin to work to protect livestock predation, this could foster a better relationship. If the livestock could be more secure the subsistence farmers will definitely have a change of attitude towards the leopards. Their frustration lies beyond the protection of the animal. It is the fact that they do not know what to do and that the conservation authorities involved seem to care more about the leopards, instead of their livelihood. This has been shown throughout the research study.

The methods discussed above are perhaps best seen as trial and error methods and short-term mitigation strategies. The final section looks at the the thinking of the Cape Leopard Trust on creating a longer term and sustainable solution. It is important to note that part of this solution relies on the local inhabitants of the Cederberg turning more to tourism for their livelihoods.

5.6.2) Longer term strategies of the Cape Leopard Trust

During my interviews, it was evident that every single subsistence farmer had great knowledge of the leopards’ behaviour and movements. They could all describe how it moves through their areas, through which mountains and how regularly it comes. For example, Jakobus closely observed the behaviour of the leopard and could exactly tell when the leopard would visit the area in his community. He said that this one specific leopard in their area would visit a certain place/ point once every three weeks. He monitored the leopard by tracking its footprints every time he walked that footpath to work.

He noticed that the spoor was there after every three weeks and that was also when leopard attacks happened within the area. Whilst telling a story about a leopard attack on livestock, he mentioned that the leopards are more dangerous when feeding:

“Dit is logies, dit is maar net ‘n kenmerk van ‘n luiperd, by sy aas is hy baie astant.”
(Interview with Jakobus, 6 July 2015)

[English translation] It is logical; it is a characteristic of the leopard. When he is with his kill, he is very aggressive.

During the winter, he said, the leopard normally feeds longer on an animal because the meat is still fresh and he likes to feed in extremely bushy areas and inside mountain cliffs. It is possible that greater co-operation with locals could be built by attempting to incorporate local knowledge into the management system. In the interview with the CEO of the Cape Leopard Trust, the issue of paying compensation for leopard attacks came up. The CLT is an NGO and therefore could not afford to pay compensation itself. One alternative would be to take out insurance against leopard attacks. Since the CLT covers several regions in South Africa, the chief executive explained why the CLT felt that something such as insurance would not work in the Cederberg, because it has been tried and tested in Namaqualand already.

“We’ve tried [the] insurance compensation system in Namaqualand when we did a big project uhm and Conservation South Africa ... and that didn’t work very well because the insurance companies renege on their promises. So although we paid the insurance, they didn’t want to comply with paying out. So it made it very tricky to deal with farmers.” (Interview with CEO, 25 July 2018)

She then suggested that insurance in the Cederberg could be community driven, that is the community would have their own fund which everyone would pay into. A farmer would then get money from this fund if they had livestock losses due to the main predator, the leopard in case of the Cederberg. However, this could be complicated since one would have to make sure that the farmers have enough income in order to establish this. The suggestion in this regard is that locals should get more involved in tourism:

“You need something much more reliable...a model they are using in Nepal is that the communities actually put together a small little pool of money and then when there’s compensation needed it comes from that investment and uh, and that’s possibly a model that could work. But we need to make sure the communities have enough uhm income for survival first of all. So you’re talking about how well they generate income from tourism for instance or the other option is to make a tourism enterprise that helps us to create a conservation fund, a compensation fund. Uhm and that’s something that could still be developed.” (Interview with CEO, 25 July 2018)

The CLT is well aware of the different methods that can be implemented to reduce human-wildlife conflict (described in Chapter Two above). They know about how other countries manage the issue of human-wildlife conflict and are considering how these lessons can be implemented in the Cederberg. In the meantime, the focus is on assisting the local people to improve their management system. The mitigation strategies discussed above are part of this.

“I think what we wanted to see first how well we could protect the livestock by improving the management system. Because in Namaqualand we’ve found that the sheep wandered kilometres and the farmers never knew where they were. And uhm, and so if they wandered, disappeared they would often blame the leopard, but it’s exposure or cold or disease and there was never anyone to look after the sheep.” (Interview with CEO, 25 July 2018)

There is always a chance of an incident such as a sheep wandering, later to be either found dead or missing, with no evidence that it was the leopard that attacked and killed the livestock. In the case of the Cederberg where there are other animals, such as the jackal and caracal, there will always be a chance that it was one of the two, rather than the leopard. It is clear that providing something such as insurance would not directly reduce human-wildlife conflict. This will only help farmers with their livelihood and not necessarily protect the livestock. Hence, it is significant to implement strategies to protect the livestock first, before finding solutions in compensation. Compensation methods need to be combined with protection strategies for both livestock and wildlife.

One point to which the interviews kept returning is the importance of environmental education. Environmental education is still seen as crucial in changing local attitudes towards the leopards. As the CEO put it:

“... and also part of that [managing predator conflict], we will be now speaking to the community uhm actually interacting directly with the children of the community, putting environmental education there, trying to get people to take ownership of their heritage which is really important. So they can become inspired to protect it so that’s part of the journey that we’re unpacking now.” (Interview with CEO, 25 July 2018)

The CLT does not only strive to help the community to protect their livestock but also they attempt to create a sense of ownership and responsibility on the part of the community concerning the environment. They want the community to understand that they are residing in this significant environment, everything within the ecosystem is important, and needs to be taken care of. It is more than just educating locals about their environment, it is rather providing them the understanding and tools so that they can take pride in their environment and start to love it, with its different predators.

This view that the problem in the Cederberg is an environmental education problem, in which local people are understood as not appreciating their environment sufficiently, may not be helpful in resolving the conflict. It could be argued that until the compensation issue is properly addressed, it is unreasonable to ask livestock owners in the Cederberg to care about leopards.

5.7) Conclusion

This chapter explored the impacts of leopard conservation on the livelihoods of small scale livestock farmers in the Cederberg and discussed local attitudes towards the animal. The leopard predation on livestock is a source of considerable tension and contestation between community members who are small scale stock farmers, and conservation authorities and advocates. It is clear from the findings that different people have different perceptions regarding the conservation of leopards in the Cederberg which are influenced by a variety of factors. This chapter illustrated the complexities that exist in a space where leopards and domestic animals are supposed to coexist. The methods currently in place from the CLT are evidently not working for the subsistence farmers of Wupperthal, creating a domestic problem for the locals. Due to the lack in a relationship between the local subsistence farmers and the CLT this chapter suggests that local subsistence farmers are not involved or consulted to address strategies for leopard conservation or for the mitigation of human-wildlife conflict. It appears that the CLT relies mainly on scientific research, lacking the humanistic approach in setting mitigation strategies. However, there are plans for this to change: it seems that for future projects the CLT will include more engagement with local subsistence farmers. This however would be very challenging due to the lack of trust and great disappointment and frustration that already exists among local subsistence farmers in the Cederberg.

CHAPTER 6: ADAPTING TO CHANGE: CONSERVATION AND CONTESTATION IN CEDERBERG LANDSCAPES

6.1) Introduction

As described in the previous chapter, the landscape of the Cederberg is being reimagined and redefined by outsiders as constituting ‘wilderness’. The Cederberg as a whole is predominantly represented as a landscape of leisure consumption and ‘nature’. In this process of change, nature and its conservation is now prioritised and the kinds of livelihoods encouraged are those that fit in more easily with a ‘wilderness’ landscape – in particular rooibos production and tourism rather than livestock keeping.

These landscape changes have complex implications for livelihoods and identities of the mission communities, and they create disputes and tensions at the local level. Some aspects of conservation-based intervention cause tension while others, which can be positioned more easily within the domestic landscape of the Cederberg, have enabled genuine participation in conservation (in particular the cedar tree conservation project).

Overall, the findings presented in this chapter show that the rural communities living on Moravian mission land continue to regard ‘their’ space as primarily domesticated and culturally inscribed by their histories and land-use practices. In addition, local level politics regarding authority and land management play a significant role in terms of residents’ ability to adapt in positive ways to change. Although the entire Cederberg mountainous area is often represented as one mega conservancy, the cartographic reality of formally designated “church land” versus “CapeNature” land still exists. The local people are living in the landscape technically as tenants of the Moravian church and the church controls the land. Within this context, questions of land-use and resource management are hotly contested.

6.2) The challenges of a permeable boundary

In the landscape itself, the boundary which distinguishes ‘nature’ from ‘culture’, is a visible although permeable boundary. The boundary was demarcated by CapeNature in the form of white rocks, which symbolise that it is prohibited for locals to cross into the Cederberg Wilderness Area. The Community Conservation Officer mentioned the spatial demarcation in as follows:

“...daars so soortvan amper soos ‘n barrier, so te sê hiers ons grond, daars julle.”
(Interview with Community Conservation Officer, 14 September 2018)

[English translation] There is sort of a barrier, something that states that this is our ground and that is your ground.

The local residents are well aware of the boundary and the consequences of crossing it; hence they choose not to occupy land that is in the close vicinity of the boundary. As Pieter expressed it:

“Jy sien die ding is die, as ons verby daardie bakens loop wat daar bo, wat hulle gemaak het met klip, rivierklippe. Daai manne ’tjie wat daa sit, witperd, hy’s ’n baken. As ons daar verby gaan, onse diere, dan word ons aangekla, maar as hulle goed hier kom, da’s dit niks...en dit is kerkgrond wat ons huur”. (Interview with Pieter, 8 July 2015)

[English translation] You see, the thing is, if we cross the boundaries which they have made at the top with rocks, river rocks ... that one there, the white one, that’s a boundary marker. If we cross that, our animals, then we get accused. But if their stuff [wildlife] comes here, then it’s nothing! And this is church grounds, which we are renting.

The boundary between the mission land and the land directly under the control of Cape Nature is a porous one. As described in this thesis, threats to the livelihood of local people can and do cross the boundary, not only in the form of predators but also through the spread of fire, so that contestations over the boundary are inevitable. Pieter complained bitterly about the porous nature of the boundary:

“My seining is dat jy kan nie wilde diere tussen mak diere en mense plaas nie. Verstaan my punt. Daar moet saam met ons lewe, maar daar moet ’n beperking [wees]. Jy kan mos nie wilde ding tussen mak diere sit nie en daa’s niks wat hulle keer nie. Hier’s nie grenlyne nie! Niks nie!” (Interview with Pieter, 8 July 2015)

[English translation] My thing is, my point is that you cannot place wild animals with domesticated animals and humans. Understand my point. They can live with us, but there needs to be a restriction. You cannot place a wild thing amongst domesticated animals and there’s no boundary which restricts them. Here are no boundaries! Nothing!

Similar tensions are evident with regards to landscape change and cultivation, with contestation evident between the local subsistence farmers, the conservation authority CapeNature and the church. The next section looks more deeply at the contestations occasioned by the expansion of rooibos cultivation and the danger of fire.

6.3) Rooibos tea cultivation and fire

Living from the land in recent times has involved a strong emphasis on rooibos tea production. Rooibos tea was historically grown at Wupperthal, but in recent decades there has been a major expansion due to the growth of the market both locally and internationally.

As the rooibos tea production is growing within the communities, so it has become a lot more socially acceptable for locals to use land for rooibos tea plantations rather than for cultivating crops. This once isolated and traditional community has now become a landscape where networking with broader society is important, especially for tourism and rooibos marketing activities.

The Wupperthal communities produce the tea locally and outsource to different overseas markets. The local market is also interested, and there is a link to tourism. For example, Rooibos Cosmetics was established as community development, providing employment for at least five women of the Wupperthal community to produce natural skin products containing rooibos and ingredients such as shea butter, honey, and lemon grass:

“Ons mense het rooibos tee plantasies waar hulle in die rooibos tee kweek. Die rooibos tee word ingedoen na ons korporasies toe, behalwe dat hulle uitgevoer word na Duitsland en Japan toe... Dit uh is ook market [vir] plaaslike toeriste na Wupperthal toe kan kom en rooibos tee produkte koop. Ons kry byvoorbeeld die rooibos tee sepie projekkie, waar die rooibos tee produkte gemaak word veral vir mense wat allergies is vir gewone sepe, gewone velmiddels en so aan ... Ja, ons mense is regtig aktief betrokke by toerisme. (Interview with Hendrik, 27 April 2017)

[English translation] Our people have rooibos tea plantations where they cultivate rooibos tea. The rooibos tea goes to our corporation, except that which is exported to Germany and Japan. This is also a market for local tourists to come to Wupperthal to buy rooibos tea products. We have for example the rooibos tea soap project, where rooibos tea products are made for especially people with sensitive skin ... Yes, our people are really actively involved in tourism.

Landscape change associated with rooibos tea production is viewed positively by other actors in the Cederberg. The expansion of rooibos tea is viewed positively by the Cape Leopard Trust, for example, because they hope it may provide locals with an alternative livelihood to livestock-keeping which brings them into conflict with leopards. During my interview with the CEO of Cape Leopard Trust, she mentioned that because the rooibos tea industry is now such a big focus in the community, there should be more emphasis on providing support to the community to assist in economic development. She feels that the rooibos tea industry should do more:

“The rooibos tea industry could do more to be invested in Wupperthal. Uh so I think there needs to be more, put more pressure on the rooibos tea industry to support the community. We can do a bit, but it needs to be a team effort.” (Interview with CEO, 25 July 2018)

Rooibos production may, however, have made locals more vulnerable to economic losses due to fire. This brings in the question of a porous boundary between ‘conservation’ land and mission land, as fire (like leopards) can easily cross the porous boundary between land that is directly under CapeNature’s control and that which is utilised by locals for cultivation.

There were mixed responses amongst locals on this issue and the way in which conservation authorities interacted with communities in regard to fire. The main interaction on this matter takes place through FireWise workshops run by the conservation authority. According to Hendrik:

“As ‘n mens kyk, as ‘n mens nou praat van bewaring van die natuur. Hier is ‘n projek wat bekend staan as FireWise, wat daarop ingestel is om die natuur te bewaar, sou daar nou ‘n vuur uitbreek en so aan, verstaan. Om dit te bekamp. FireWise is een van die groot projekte wat daar is en dan natuurlik is ons Wupperthal ingeskakel by natuurbewaring, nasionale natuurbewaring, waar wye, baie van ons mense ook dien en periodite vergaderings bywoon om hulle insette ook te lewer. Om nie net Wupperthal nie, maar die Sederberge munisipaliteit te bewaar.” (Interview with Hendrik, 27 April 2017)

[English translation] If you look, if you talk about nature conservation ... Here is a project known as FireWise, which is set up to preserve nature if there should be a fire outbreak, you understand. To put it out. FireWise is one of the big projects which is there, and we as Wupperthal are part of nature conservation, national nature conservation, where a lot of our people participate and they attend regular meetings to improve their knowledge. Not only for Wupperthal but to conserve the Cederberg Municipality.

Set against this positive view, however, Frans argued that this interaction with the conservation authorities was too limited, and was not reciprocal. Rather the workshops issued warnings and instructions. The difference between this and the cedar tree conservation project is that the latter is something that the community really takes ownership of, and that they are active in. In contrast, the FireWise project is more about disaster management and the consequences of spreading fire:

“So af en toe, vergaderinge is nie spesifiek, hoe kan ons saamwerk nie. Dit is eintlik net maar FireWise, sulke vergaderings... FireWise daar of so eenkeer ‘n jaar brand seisoen- tyd en so, maar nooit rêrig hoe kan ons saamwerk, wat gaan werk en wat gaan nie werk nie”. (Interview with Frans, 25 April 2017)

[English translation] Now and then, we have meetings, nothing specifically on how we can work together. It is only with FireWise, that type of meeting... FireWise, but so once a year during fire season, but never really on how we can work together, what will work and what wouldn't work.

Interviews with subsistence farmers following a serious fire which devastated tea plantations in the Langkloof community in December 2016, show that they are disappointed by the lack of support from CapeNature and very unhappy about how damages are managed. The devastating fire highlighted real tensions with CapeNature. As in the leopard stories discussed in the previous chapter, they feel neglected and ignored. Again, local people feel that there is no practical recognition of the threats to local livelihoods which have their origins in the wilderness area, and that the 'traffic' is only one way. Inadequate or no compensation was forthcoming following the fire which allegedly started in CapeNature's Wilderness area, destroying tea plantations belonging to the Langkloof community. The devastated community expressed great unhappiness about the lack of ownership, responsibility and support from CapeNature as well as that from the Moravian church (technically they live as tenants on communal land owned by the church).

The Langkloof subsistence farmers were already frustrated due to the leopard predation in the area, and this fire has left them in an even worse economic position. At the time of fieldwork, the Langkloof community had been without a telephone connection for about five months, the grazing land for their livestock was destroyed and the animals had to be kept at the kraal instead of being sent out to graze.

One subsistence farmer, Frans, lost his entire rooibos tea plantation which was worth about R19 000. He said that during their FireWise training (fire awareness training) it was made very clear to the community members that if a fire were to start from Wupperthal and moved into CapeNature's land, the person responsible for the fire would be held liable for the damages caused. However, in this case – where the fire started in CapeNature's land and spread to church land – nobody was held liable. Someone from CapeNature came out, he said, and did an assessment of the damages; but the community never got the results from the assessment. They only received a few bags of feed for the livestock, which was insufficient to feed the animals on a long term basis until the land had recovered.

“Kyk wat het nou gebeur met die vuur... hier het ons verloor, ons tee lande, myne ek is seker die een wat die meeste seergekry het. Daar tussen Eselbank en Langkloof, daai pad tussen, daar het ‘n klomp tee afgebrand. Dit is omtrent 19 duisend se skade wat ek gekry het en dis vir die volgende 4 jaar, tot 4-5 jaar wat ek geöes het maar nou op daai land. Nou moet ek weer van voor af begin. Dit is ‘n verlies van inkomste...maar niks word gedoen nie. Die vuur het daar by hulle ontstaan. Kom van CapeNature af, veral by FireWise bewusmaking sessies, aanhou gesê meer as ‘n keer by ‘n sessie gesê ons moet onthou, ek of enige een ons se tee laat brandsteek en die vuur versprei miskien hier by ons en hy kom oor by CapeNature se grond, daai een, spesifieke persoon word beboet... en swaar... Nou is dit net die teenoorgestelde. Die vuur kom nou daarvandaant af en niks gebeur nie.” (Interview with Frans, 25 April 2017)

[English translation]: Look at what happened now with the fire... here we have lost, our tea lands, mine - I am probably the one who suffered the most. There between Eselbank and Langkloof, that road between, a lot of [tea bushes] burned down. It is approximately R 19 000 of damage that I am suffering, and it's for the next 4 years, 4-5 years that I harvested but now on that land... Now I have to start all over again. It is a loss of income... but nothing was done. The fire started by them, it came from CapeNature. Especially at Firewise awareness sessions ... it was constantly said, more than once, that we must remember, if I or any other burn our tea lands and the fire spreads, spreading perhaps from us over to CapeNature's land, that specific person will be fined ... and heavily... Now it is the opposite. The fire came from their side and nothing happened.

The Community Conservation Officer was also involved in the assessment, and had this to say:

“Om die waarheid te sê, ons uh die, ons was, ek myself was na die brand, was ons betrokke gewees om opname te maak vir uh Departement van Landbou. Hoeveel verliese het hulle gehad op grond van voer en so aan ...” (Interview with Community Conservation Officer, 14 September 2018)

[English translation] Honestly, we uh the, I myself was there after the fire, we were involved to collect data for the Department of Forestry regarding the amount of losses by means of feed for the livestock.

Frans continued to express his frustration and hopelessness regarding the aftermath of the fire. As with the leopard predation, he expressed the view that because they are part of a small rural community and are not private landowners, there is little or no interest from conservation authorities to assist communities when they are suffering.

“Dit het nou al Desembermaand gebeur. Dit was oestyd gewees, oestyd is Februarie maand. Ek meen kyk waar staan ons, die helfte van die jaar, ses maande al so. Eintlik is onse hande afgekap. Mens weet nie vir wie, hoe jy op ‘n hoe manier die aanvat. Hulle is nou gou om vir ons te sê... Nee nee, ek voel hulle stel te min belang. Soos ek dit sien, in plat Afrikaans, aag wat dis somer ‘n arme gemeenskap en hulle het nie ‘n voet om op te staan om vir ons hof toe te vat nie. Dit is die tipe hulp, dit is die hulp of belangstelling...hulle het hulp aangebied met hulle trokkie en tweekeer kom voer gebring. Dit was so min 2-3 sakke... die rooibostee inkomste is onse brood en botter.”
(Interview with Frans, 25 April 2017)

[English translation] This happened in December already. It was [before] harvest time, harvest time is in February. I mean look at where we are, half of the year, six months like this. Our hands are actually tied. We don’t know whom or how you can tackle this. They are quick to tell us. No, no I feel they are showing too little interest. The way that I see it, in plain Afrikaans, oh well we are just a poor community and they don’t have a foot to stand on to take us to court. It’s the kind of help, the help or interest... they offered to help us with their truck and brought feed twice. It was so little, 2-3 bags... The rooibos tea income is our bread and butter.

It became evident that the Langkloof community were unclear on the lines of authority and how to get help. They were informed by CapeNature that if they have any queries they should work through the church with CapeNature, as this would be the correct protocol to follow. However, the community claims that the church failed to reach out to them and discuss the damage or offer assistance. The Langkloof community members were hurt by this. According to them, even just praying with the community would have helped them to feel better about the situation. Clearly, the subsistence farmers were placed between a rock and a hard place, where they were suffering but they did not know how to get assistance, leaving them resentful towards the church and even towards the Wupperthal community (which is located closest to the church’s headquarters). They felt that the church would have responded differently and paid more attention if this happened at Wupperthal, rather than in the more remote Langkloof community.



Figure 11: Fire damage in Langkloof after December 2016 fire



Figure 12: Fire damage in Langkloof after December 2016 fire

(Photographer: Van Schalkwyk, 2017)



Figure 13: Langkloof livestock in kraal because of limited grazing space following the December 2016 fire



Figure 14: Langkloof livestock in kraal because of limited grazing space after December 2016 fire

(Photographer: Van Schalkwyk, 2017)

6.3) Cutting down trees/planting trees

As is evident from the rooibos example above, cultivation is an important part of living off the land. This is also evident in regard to the planting or cutting down of trees, where one can see how conservation is either contested or embraced by the mission communities. The Wupperthal Conservancy appears to have fallen into disarray and is not currently operational. However, it seems that certain land-use practices are still discouraged or prohibited on church land. One respondent, Frans, claims that the conservation authority often prohibits local residents from making certain changes regarding land use, due to the area having to be in its natural state for tourists.

There appears to be a mismatch between the Cederberg conceived as a wilderness landscape which should be left untouched, and the ethic of the Moravian mission dwellers who regard cultivation of the land as part of their God-given duty. In this telling quote, Frans argues that the desire to work the land is deeply rooted in their tradition as Moravian people as well as being part of their livelihoods:

“Wat hulle nou goed is om te doen om te sê jy mag nie dit nie, jy mag nie dat nie, soos byvoorbeeld, simpel voorbeeld, dit is ‘n sonde vir ‘n morawier om nie sy grond te bewerk nie...soos die oumense geglo het, maar hulle sıl nou uitkom en sê, nee maar hierdie stuk land moet nie ontbos vir... Ek meen ons moet lewe uit onse grond uit.” (Interview with Frans, 25 April 2017)

[English translation] What they are good at is telling us what we can and cannot do. For example, it is a sin for a Moravian to not work his land, just like the elders believed in, but now they will come and tell us that we cannot deforest this piece of land. I mean, we need to live from our land!

However, one area in which locals and CapeNature appear to be co-operating is in the cedar tree planting project. Trees, it seems, can also be an area of co-operation between local residents of the Cederberg and the conservation authority. Similar to the Cape Mountain Leopard, the cedar tree has become an endangered species in the area. It is also iconic as it gives the region its name.

In conversations with local informants about their interactions with CapeNature, I asked whether there were any successful co-operative projects with the conservation authority and was informed about the cedar tree conservation project by members of the Heuningvlei community. This project has been ongoing for nearly two decades and every year more and more people take interest and participate in planting trees. Hannes from Heuningvlei described the cedar tree conservation project as the beginning of the relationship between CapeNature and his Cederberg community:

“En dan het hulle ook beginne met die bewaring wat ons nou mense as gemeenskap te saam is om die Seder te bewaar. Elke, elke jaar vanaf 2000 is dit elke jaar is die laaste Saterdag in Mei dan is hier ‘n sametrekking. Elke jaar word die mense hier meerder en meerder. Waar Boesmans Kloof sponser om boompies gee uh boompies plant, CapeNature gee die saad en hulle kweek uh uh saai die boompies, by daai tyd dan word dit uitgeplant.” (Interview with Hannes, 24 April 2017)

[English translation] Then they started with conservation where our community works together to conserve the cedar tree. Every year, since 2000, the last Saturday in May then there is a gathering. Every year more and more people come.

Where Boesmans Kloof sponsors or gives the trees and CapeNature gives the seeds and they plant the trees, by that time it can then be replanted.

It is evident that all the various stakeholders of the Cederberg area contribute towards this project. As Hannes mentions, CapeNature sponsors the cedar tree seeds to Bushmans Kloof Wilderness Reserve and Wellness Retreat. The people at Bushmans Kloof plant them in pots until they are ready to replant in May. The replanting takes place in the small community of Heuningvlei.

“Kyk en ons weet die Seder is al regtigwaar een van die uitgetorwes, amper uitgetorwes spesie, wat ons kry. Daar word, is al aanplantings gedoen en dis een va die dinge wat ons ook dan nou regtigwaaar hand insit om dit te bewaar.” (Interview with Hannes, 24 April 2017)

[English translation] Look, we have the cedar, which is really one of the extinct, almost extinct species that we get. There have been replantings and it is one of the things that we are really active in, to conserve.

The Western Cape experienced a severe drought period from 2016 to 2018 and the Cederberg was not exempt; yet the cedar tree planting project continued. Hannes explained that CapeNature and a private farm, Bushmans Kloof gathered locals and taught them how to install a drip irrigation system; to slowly drip water into the roots of the plants instead of using sprinklers or a hose for watering (Interview with Hannes, 24 April 2017). Not only does this contribute to the conservation of the cedar tree, but also it serves as an educational interchange between the conservation authority and the community members as well. This is a useful method especially for the subsistence farmers who focus more on crop farming to be aware of when needed and also a skill which they have gained and can pass on to the other subsistence farmers of the broader Wupperthal community. The community appears particularly proud of the cedar conservation project. It gives them the opportunity to take care of their environment and the landscape that they call home.

6.4) Tourism livelihoods and the Cederberg Heritage Route

It is common in rural communities where human-wildlife conflict occurs, that the development of tourism is encouraged in order for the community to shift to a livelihood which is not dependent on livestock and crops. Tourism is being held up as an alternative source of livelihood, for example by the CEO of the Cape Leopard Trust, who argued that tourism development would be beneficial to the community due to the associated economic benefits and skills development. The implication is that subsistence farmers should move towards working in tourism instead of continuing to earn a living from their livestock, increasingly problematic in a wilderness area:

“Tourism has the power to change lives... If you can get involved and interfaced with communities, it does provide a way for them to earn money and it does provide a way for upskilling.” (Interview with CEO, Cape Leopard Trust, 25 July 2018)

The Cederberg Heritage Route is an initiative developed by CapeNature. Local communities are offered opportunities to provide services such as accommodation, catering, traditional donkey cart rides, and acting as tour guides to tourists. As announced on CapeNature’s website (<https://www.capenature.co.za/cederberg-heritage-route/>):

CapeNature is proud to announce the latest addition to its stable of eco-tourism offerings, the recently launched Cederberg Heritage Route – within the boundaries of one of the eight World Heritage Sites located in the Cape Floristic Kingdom – the popular Cederberg Wilderness Area – a mere two hours drive north from Cape Town. “The main aim of this eco-tourism project is to provide income streams for community members on the route by offering accommodation, catering and guiding services” says CapeNature’s Sheraaz Ismail, Acting Director: Commercialisation and Business Development. The route will ultimately contribute to economic and skills development and is in line with CapeNature’s objective to create a conservation economy.

Giving more detail, the website explains that the route is intended to open up the entire area for tourism:

Historically, Wilderness users could only explore the area with heavy packs and camp in very rustic conditions. However, the Cederberg Heritage Route now makes this beautiful area accessible for visitors to explore the Cederberg Wilderness with only day packs or on donkey carts and offers visitors the option of lodging in comfortable and charming accommodation facilities at Boskloof, Heuningvlei, Brugkraal and at Wupperthal.

Local guides accompany visitors on the trails. Thus walkers can explore some of the classic walks of the northern Cederberg: Heuningvlei, Krakadouw peak and Boontjieskloof. Visitors will have the opportunity to learn more about the people and biodiversity of the area ...

The trails are fully inclusive: guests stay at comfortable community guesthouses in the picturesque Moravian mission villages, guided in the Cederberg Wilderness by local community guides with their overnight luggage taken to their next night's stay.

This community based eco-tourism initiative was developed with the collaboration of various stakeholders including the Moravian Church, a volunteer group from Cape Town, CapeNature as well as the Clanwilliam Living Landscape Project (specialising in rock art tours and marketed by Cedarberg African Travel, a Clanwilliam-based tour operator).

Community members are expected to grasp these opportunities, which stretch beyond their regular practices. The idea is to encourage local people to become more invested in tourism activities, allowing them to add this as part of their livelihoods along gardening, cultivation and farming with livestock. I was interested to probe local perceptions of these initiatives and responses to the move towards tourism livelihoods.

Local resident Jakobus mentioned the value of tourism and the heritage route to his community.

“Ja, by toerisme het hulle nogals ‘n groot deel by ons. Hulle reik baie uit, veral uh oor, met baie van onse voetslaanpaaie waar ons soos met gidse met toeriste gaan. Kyk daar moet ons mos permitte het en ja op so ‘n manier... Kyk ons het maar in 2010 begin met ons toerisme. Ons het lekker groei gekry... daar is groei en daar is meer aanvra, ons kry meer bookings, ensovoorts. Ja, en veral om ons toerisme uit te dra is nie net een of twee wat voordeel trek nie. ‘n Groot gedeelte van die gemeenskap word bevoordeel.” (Interview with Jakobus, 24 April 2017)

[English translation]. Yes, with tourism, they play a big part here. They reach out a lot, especially with our hiking trails, we go as guides with the tourists. Look, we need permits, yes in that way. Look, we only started in 2010 with our tourism. We have received a systematic growth in tourism from 2010 until now. I can tell, there has been an increase and there have been more enquiries, we receive more bookings, etc. Yes, and especially by providing tourism, it's just not one or two who benefit from it. A big part of the community benefits from it.

Some respondents interviewed had received tour guide training and were happy about that, albeit with reservations:

“Deur die heritage het deel ‘n sterk organisasie is, is daar geskrewe aan die Wes-Kaapse departement toe en hulle ‘t nou tweekeer geld gegee vir ons uh opleiding te kry, gids opleiding te kry. Vir mens wat ook ‘n baie duur ding is, is die first aid... en elke tweede jaar moet of so moet hy weer verval.” (Interview with Hannes, 24 April 2017)

[English translation] Through the Heritage, a strong organization, they wrote to the Western Cape department and we received money twice for our training, tour guide training for us. Another thing that is also very expensive is the first aid training and every two years or something, it expires.

Others however felt that despite promises and talk, there has been no or little development in tourism within their communities. With CapeNature as the driving force behind the heritage route, it seems to be mostly communities closer to the boundary of land held by CapeNature that are involved. Tourism is non-existent in some communities. This also adds to the frustration of some of the subsistence farmers interviewed, worsening the already poor relationship they have with CapeNature and creating resentment between communities.

“Nee ek weet nie eers wie die kommitee lede is nie. Nee dit is net die Heuningvleiers. Kyk daa, mens verneem net Heuningvlei, so ons, ons weet niks wat aangaan nie.” (Interview with Elvin, 24 April 2017)

[English translation]. No, I don't even know who the committee members are. No, it is only the people from Heuningvlei. Look, we only hear about Heuningvlei, so we, we don't know what is happening.

Frans expressed that only a few people within the Langkloof community benefit from tourism. According to him it is not much good if the community as a whole is not able to benefit from tourism.

“So projekte op Matjiesrivier, miskien twee hierso [Langkloof], maar ek meen dit kan nie vir die een, wee wat nou daar werk is dit miskien nou 'n inkomste, maar nie vir die gemeenskap nie. Dit is só klein. (Interview with Frans, 25 April 2017)

[English translation]. So projects on the Matjies River, maybe two here, but I mean that can only be an income for one or two working there, but not for the community. It is very small.

Wupperthal village is quite well known for historical reasons, including the famous veldskoene (“vellies” as made famous by local South African artist Dawid Kramer), and could attract more tourists. However, Dirk was clearly frustrated. Although there are several of attractions in the Wupperthal community, he felt that no-one is really showing interest in boosting the tourism enterprise.

“Op die oomblik, Wupperthal en Langbome kan jy sê gaan hier omtrint niks aan nie. In die verlede, nog altyd het hulle omtrint net so gekom en gekom en gekom, maar dit lyk dit het al minder, al meer afgetrek. Man, hier gaan eintlik niks besienswaardigheid hier by ons nie, of niemand van die gemeenskap doen iets om ... om hulle te trek nie... Nee so gaan dit op die oomblik met ons. Niemand stel belang in toerisme vergadering nie.” (Interview with Dirk, 26 April 2017)

[English translation] At the moment, you can say that there is almost nothing going on in Wupperthal or Langbome about tourism. In the past, the tourists used to visit Wupperthal a lot more, but now it seems that visitor numbers have reduced. Look, here we do not have anything worthy of attracting people or no one from the community is really doing anything to attract tourists... No, this is how it is going with us at the moment. No one is interested in meetings about tourism.

The CEO of Cape Leopard Trust also expressed her professional opinion regarding tourism activity in the Wupperthal community.

“I think the Cederberg model with Wupperthal had been a little up and down and there’s quite a lot of issues. I think in communities with uh alcohol abuse still and reliability, you are going to have tourists coming to your community for particular experiences. You need to have people who are going to be there to touch and undertake the exercise and I think that’s still a little bit of a precarious balance at the moment.”
(Interview with CEO, 25 July 2018)

Dirk agreed that one reason that Wupperthal village’s tourism is so poor is that the community members providing the different services (for example, the shoe factory, Lekkerbekkie restaurant) are irresponsible and neglecting their work when most needed during weekends. This, he says, is affecting the image of this heritage town and most definitely has an impact on the expectations of consumers.

“Lekkerbekkie en so, hy floreer ook nie soos dit moet nie anders sal ook meer toeriste trek... soos naweke, baie keer kom hier nou mense maar as hulle hier kom is daar niks. Daar’s nie eers koffie of iets wat aangebied word nie. Die man Vrydag klaar is, is hy klaar. Die skoefabriek op die oomblik is dit ook. Daar gaan niks aan nie. Die manne wat daar werk is ook hulle het nie verantwoordelikheid nie. In die werk is hulle gedrink. Is ‘n hartseer saak.” (Interview with Dirk, 26 April 2017)

[English translation] Lekkerbekkie does not flourish as it should, otherwise, it would have attracted a lot more tourists. Like on weekends, there are many times when visitors come here and then there is nothing. There is not any coffee or something that is offered to the visitors. When a man finishes work on a Friday, then he is done. The shoe factory at the moment is the same. There is also nothing going on. The men that work there do not take responsibility. They are drunk when they are going to work. It is a sad situation.



Figure 15: Tourist at the Lekkerbekkie restaurant

(Photographer: Van Schalkwyk, 2018)



Figure 16: Tourists cars outside Red Cedar Cosmetics

(Photographer: Van Schalkwyk, 2018)



Figure 17: Museum closed on a Saturday while tourists visiting Wupperthal



Figure 18: Visitors Information Centre closed on Saturday while tourists visiting Wupperthal

(Photographer: Van Schalkwyk, 2018)



Figure 19: Neglected Mission Store with broken windows

(Photographer: Van Schalkwyk, 2018)



Figure 20: State of the shoe factory

Although Dirk seems frustrated regarding tourism in the Wuppertal community, he acknowledges that tourism within some of the satellite communities is going well and that these communities are an example to Wuppertal, showing that tourism can be a success.

“Dingeses, soos hierdie buitestatie, Eselbank, Kleinvlei, Heuningvlei...daarvanaf is dit heeltemal aan die gang. Dit wys net dit kan gedoen word.” (Interview with Dirk, 26 April 2017)

[English translation] Look at the satellite communities, Eselbank, Kleinvlei, Heuningvlei. There they are very active. It just shows that it can be done.

Comments by some of the subsistence farmers suggest that they, as a community, are open to the change of landscape and new practices if this can include and benefit the majority of people and enrich the community. Landscape change is already underway and as community members are more open to getting involved in different and new economic activities other than crops and livestock, some remain hopeful and acknowledge ways in which the Cederberg Heritage Route has enriched their lives. It is important to note that upskilling as well as economic benefits is important to community members.

“Dit is ‘n, dit is ‘n goeie ding wat hier aan die gang is, want as jy projekte ook uitbreek sal daar ‘n ook uh uh kursusse vir die mense gegee word.” (Interview with Hannes, 24 April 2017)

[English translation] It is a very good thing that is happening here, because as there are projects that will also start soon, there will also be training courses for the people.

Attitudes may shift as these changes, encouraged as forming part of the wilderness and tourism experience which is required from consumers, become socially acceptable and profitable. Although subsistence farming is something that will not easily completely die out due to new developments in the landscape, it might become less important as people’s focus might move towards tourism.

6.5) Conclusion

The Cederberg is being reimagined as a wilderness, conservation and tourism landscape, with powerful effects for local people. The focus in this chapter, as in the thesis as a whole, has been to better understand the position of the local communities in this socially constructed wilderness. Supplementing the detailed discussion of leopard conservation in Chapter Five, this chapter has used a wider lens to look at landscape transitions in the Cederberg and associated contestation and/or adaption. The chapter explored the value of tourism and rooibos tea production as interpreted by local subsistence farmers, identifying various sources of ongoing tension on the ground. The redefinition of this landscape is complicated for local farmers, as tourism and conservation and some of the associated landscape changes are clearly in conflict with local subsistence farmers' traditional way of living. Tourism is being held up as a source of livelihood, but there are frustrations. Whilst not overlooking examples of cooperative conservation such as the cedar tree conservation project, the new priorities in a reimagined Cederberg landscape require careful evaluation and genuinely engaged modes of interaction with local people, their heritage and their livelihood.



Chapter 7: Conclusion

This study has explored the way that the dynamics of ‘the domestic’ versus ‘the wild’ play out in the space of the Cederberg, a context where landscapes are being reimagined as places for tourism and conservation. Scholars working within the field of Animal Geographies have provided important insights for the study as it aimed to identify the various discourses and themes that shape local peoples’ socio-spatial perceptions regarding the environment in which they live. The work of geographers such as Philo (1995) and Whatmore and Thorne (1998) serves as a foundation in understanding how certain (wild) animals are treated in human-occupied spaces.

With the rising importance of ‘wildness’, local communities who have historically invested in livestock find themselves in a difficult position. Geographies of wilderness and wildness do not always sit easily with the maintenance of lifestyles where domestic livestock play an important role. Snijders (2014:176) notes that with the rise of conservation, “more measures have been promoted to convert (sets of) environmental entities into capital, while on the other hand rigid conservation frameworks have been adopted which interpret nature as an inalienable good that ought to be protected from and for humans”. In the Cederberg, small scale farmers are being encouraged to switch to activities more in tune with the reimagined landscape, such as tourism and rooibos tea production. The residents of old mission communities find themselves needing to respond to the priorities of others who define this space as ‘wild’. The thesis has unpacked the dynamics that exist in a context where domesticated animals and wild animals share space in a rural context.

This chapter attempts to draw together the findings from the thesis and provide some recommendations that could be of value within this contested space.

The overall aim of the thesis was to explore the way in which the increasing priority given to conservation and ‘wildness’ in Cederberg landscapes is impacting on local communities, and their responses to these shifts. Three specific objectives were outlined as follows:

1. To explore the politics of the domestic and the wild in the form of potential conflict between local subsistence farmers and conservation authorities with regards to resource management and land use (in particular, livestock keeping).

2. To investigate local livestock keepers' attitudes towards the leopards, as well as their stories of encounters with these animals.
3. To explore the responses of local residents to the reimagined conservation and tourism development priorities for the region.

The findings are summarised here under the relevant themes.

7.1) Resource management and land-use

In the course of the study, it was important to understand how the land is managed and who controls it. The dynamics within the environment are quite complex regarding the management of land and resources. Within the context of the Cederberg, there is a clear distinction between 'nature' and 'culture'. In this context, the Cederberg Wilderness Area, which is managed by CapeNature, is dominated by representations of 'nature' and 'wilderness', while the surrounding rural communities of the Wupperthal mission area regard their space as domesticated or representing 'culture'. These rural communities are located within a former mission where the communal land is owned by the Moravian Church and locals pay rent in order to occupy this land. However, this landscape as a whole is considered as a Mega Conservancy, namely the Greater Cederberg Biodiversity Corridor. The Moravian church of Wupperthal made the agreement to become part of the Mega Conservancy and they are in charge of the Moravian communities. Although Wupperthal itself is considered as a conservancy, it is not currently active.

According to Whatmore (1999:7), our relationships with nature are "unavoidably filtered through the categories, technologies and conventions of human representations". Nature is defined by the way in which humans imagine and think it should be. It is in this sense constructed in our minds. As discussed in Chapter Two, nature and culture are both social constructions, but often the whole of the Cederberg mountainous area is considered as wilderness/nature. In the landscape itself, the boundary which distinguishes 'nature' from 'culture' is a porous boundary. The porous boundary was set by CapeNature in the form of white rocks, which symbolise that it is prohibited for locals to cross into that area (the Cederberg Wilderness Area). The locals are well aware of the boundary and the consequences following from it; hence, they choose not to occupy land that is in the close vicinity of the boundary. However, the Cape Mountain Leopards move across the porous boundary of the formal Cederberg Wilderness Area to predate on the livestock (in particular, sheep) farmed by local residents.

Very often wild animals “violate” boundaries by entering inhabited spaces and thus threatening humans and their activities in the inhabited spaces. The permeability of these boundaries also implies that wildlife survival might be affected by the human activities in the inhabited spaces (Naughton-Treves, 2002), as well as the human reaction to the threat of wild animals crossing over in the inhabited space. With the realisation that nature is a socially constructed phenomenon, the garden metaphor arose to re-imagine new models for conservation. Hence, reimagining natural areas as gardens emphasises the mark of human utilisation in parks and reserves and permits a need for restoration and management of the environment (Naughton-Treves, 2002).

Conflict arises in the Cederberg since it is not clear who takes responsibility when subsistence farmers lose livestock due to leopard predation. This is extremely frustrating to subsistence farmers, especially because they are not receiving support from the land authority, their church. Due to the fact that they are tenants and paying rent to the church, the subsistence farmers expect the church to be more supportive and help the people. This was vital, especially during the December 2016 fire. The community of Langkloof perceive that the church does not have much interest in them due to the fact that they are one of the smaller satellite communities, and this is also the case where people within Wupperthal itself and Langbome are unhappy about the actions (or lack thereof) of the church.

Also, the Langkloof community are disappointed by the lack of support by CapeNature and unhappy about the manner in which the issue of damages was managed. Leopards are not the only issue. As described in Chapter Six, the devastating fire in 2015 highlighted real tensions with CapeNature. Local people feel that there is no practical recognition of the threats to local livelihoods which have their origins in the wilderness area, and that the ‘traffic’ is only one way. Inadequate or no compensation was forthcoming following the fire which allegedly started in CapeNature’s Wilderness area, destroying tea plantations belonging to the Langkloof community.

For the communities of Wupperthal, cultivation is an important part of living off the land. However, it seems that certain land-use practices are discouraged or prohibited on church land and this is due to the shift to conservation and tourism as a priority. One respondent, Frans, claims that the conservation authority often prohibits local residents from making certain changes regarding land use (such as cutting down trees), due to the area having to be in its natural state for tourists.

A key point to emerge from the findings presented in Chapter Six, is that there is a mismatch between the Cederberg conceived as a wilderness landscape which should be left untouched, and the ethic of the Moravian mission dwellers who regard cultivation of the land as part of their God-given duty.

One factor mentioned by some of the respondents is that changes in the landscape are also making their sheep more vulnerable to attack by predators. Of particular importance is the expansion of rooibos tea production. The fenced rooibos tea camps make it easier for leopards to trap and attack their prey. Hennie's narrative, presented in Chapter Five, makes a clear connection between the rooibos tea production and the greater vulnerability of his sheep. Despite the fact that the sheep were only a few hundred meters away from his home, Hennie suffered a major loss of 40 sheep in just one night. The leopard succeeded in trapping the sheep against the fence of the tea camp, which is just a few hundred meters away from his house.

Naughton-Treves (2002: 490) cites animal geographies literature in arguing that "...nature/culture dualisms in Western thought have led to the creation of mutually exclusive spaces for both people and wildlife, with unfortunate consequences for both (Whatmore and Thorne 1998; Wolch and Emel 1998)". The mission communities find it difficult to adapt to these landscape changes, due to the challenges they face regarding their livelihoods and identities. The rural communities living on Moravian mission land continue to regard 'their' space as primarily domesticated and culturally inscribed by their histories and land-use practices. Hence, locals struggle to adapt to the fact that nature and its conservation is now being prioritised and conservation authorities encourage livelihoods which are more compatible with a 'wilderness' landscape. The conflict between understandings of 'nature' and 'culture' in this landscape ensures that issues of land-use and resource management raise conflict between rural communities and conservation authorities.

7.2) Locals and leopards: strained relationships with conservation authorities

The findings presented in Chapter Five show that leopard predation on livestock is a source of considerable tension and contestation between community members who are small scale stock farmers, and conservation authorities and advocates. It is clear from the findings that different people have different perceptions regarding the conservation of leopards in the Cederberg which are influenced by a variety of factors. Leopards have been classified under the category of elite wildlife and therefore, form a significant tourist attraction, especially to those who live in urban areas. Cape Mountain Leopards are also significantly endangered. Where the leopard

might be seen as a majestic animal by city people, it can also be identified as vermin or a pest by locals who share space with these wild animals.

As cited in Chase-Grey (2011: 77) conflict between humans and wildlife can be defined “as a competition over resources or space and can take the form of threats to human life, economic livelihood, property or recreation (Treves and Karanth 2003).” The findings in this study show that the suffering caused by livestock loss has a major impact on the standard of life that these livestock farmers can give their families. Whilst conducting the interviews a range of emotions were displayed by interviewees as they were sharing their experiences. Many of the subsistence farmers tried to resign themselves to the loss and attempted to deal with it through dark humour. There were however also respondents who were very frustrated and openly angry about the losses they have suffered. It is important to note that these animals are known as individuals to these farmers. Although they were eventually going to slaughter the animal themselves for consumption, the fact that they had to see their animals all torn apart really upsets them. Normally, the subsistence farmer slaughters his animal fast so that it would experience little pain of suffering. In Dirk’s response to leopard predation on his sheep it is very clear how farmers feel about their animals:

“So dit is nou my ding, hy verskeur en hy vermink my dier. Dit is nou wat hy vir my ‘n bietjie uh-uh-uh. As ek daar by die dinges kom man, nou-nou dan was hy nou miskien die nag tussen hulle gewees dan kom ek hier by ‘n skaap dan is hy nog lewendig. Hy’s vermink, hy’s ‘n stuk uitgebyt of hy het gate in gebyt. Nou moet ek hom kop afsny. Nou dit maak, verstreur my ‘n bietjie.” (Interview with Dirk, 3 July 2015)

[English translation] So this is my thing, he tears and mutilates my animal. This is why he makes me uh-uh-uh. If I get there, and perhaps he was there last night. Then when I get to my sheep it is still alive. He is mutilated, there’s a piece of his flesh missing or he is bitten full of holes. Then I have to slit its throat. Now this makes me ...this upsets me.

The subsistence farmers all had this sadness and sense of loss that went beyond the loss of the money, suggesting that the sheep are more than just livestock to be slaughtered at a later stage. These animals were domesticated and had meaning and value to the subsistence farmers. When they speak of their animals, the animal is clearly not just food for them, it was like a pet. For the farmers these experiences raise the conflict between the domestic and the wild. Since farmers are not in a position to retaliate and kill leopards, they are highly frustrated about the work of the conservation authorities, CapeNature and the Cape Leopard Trust (CLT).

CapeNature is the provincial conservation authority and the CLT is an NGO promoting leopard conservation, but the two work closely together and the CLT is seen as a conservation authority also.

During the interviews with local subsistence farmers, after I had explained my research interest, the respondents would always start their stories by commenting on the work of CLT first. Many of them raised the issues and concerns they had around the management of leopards in the Cederberg. Locals were very unhappy when they spoke about the work that the CLT is doing. They do not see or understand how it is solving the problem or helping them. Clearly they feel that the CLT is not doing enough to help them as humans to survive as well as doing what they have promised to do. According to the locals the CLT is not reaching out enough to the communities. They say there have been meetings, yet they are left with empty promises. The locals cannot understand how any of the conflict resolution is helping both parties, since the killing of leopards is prohibited. The “empty promises” claim is based on experience and trying to cooperate with the terms the CLT and locals agreed on regarding leopard information and encounters. The fact that the local subsistence farmers are not clear on whom to contact, serves to emphasize the lack of communication between the local subsistence farmers and the conservation authorities.

In identifying the discourses that emerged I was also sensitive to the manner in which stories were told and the body language of the local subsistence farmers. Emerging from the data is a sense of these farmers feeling that the leopards are classified as more valuable than their own lives and survival. The losses that they are increasingly experiencing are significant to them financially, but the matter goes further. They perceive that they are receiving little attention because of their living circumstances and race. While sitting with a huge domestic problem which is frustrating and damaging to their livelihoods, they currently have no will power to try and solve it, because of the way in which they are treated by the Cape Leopard Trust and CapeNature.

“My ding is, ons sit op ‘n afgeleë plekkie. Die ding is va die, ons is kleurlinge. Ons word nie eintlik raak gesien nie. Was dit miskien blanke mense wat skades gehad het sal hulle meer ingegaan het daarop, maar oor ons kleurlinge is. Klein plekkie’tjie hier rond, agtergeblewe sal ek maar nou sê, stel hulle nie belang nie... Ons is op ‘n klein plekkie en die mense vat ons nie kop toe nie.” (Interview with Klaas, 2015)

[English translation] My thing is, we live in a far-off place. The thing is this, we are coloureds. We are not even noticed. Maybe if it were white people who suffered from leopard attacks, they would've made more effort in the situation, but it's because we are coloureds. Small village, left behind I would say, therefore they don't really care... we live in a small village and they don't take us seriously.

In the Cederberg, the overall attitudes towards leopards were negative, but not because locals perceive that leopards don't belong in the area; rather the value given to the leopards by outsiders was more of a concern. Where some subsistence farmers classified leopards as vermin and said that the animal needs to be removed from the area, others acknowledge that the leopards are part of nature, part of the environment and deserving of respect.

7.2.1) The Cape Leopard Trust and attempts to reduce human-predator conflict

Chapter Two included a long section on the mitigation strategies for human-wildlife conflict, in particular human-predator conflict. Loveridge et al (2010) discuss in detail the question of "solving and mitigating human-felid conflicts", identifying seven strategies which they believe can contribute. These are: "designing conservation policy and building management capacity", "lethal control", "translocation", "protection of livestock and improved livestock husbandry", "compensation", "alternative livelihoods, benefit sharing, and stakeholder participation" and "zonation of land use". It is important to note that these strategies should not be seen as individual strategies, where only one might be the solution, but rather can be used as combinations in certain situations as well. According to Loveridge et al (2010), there is a need for conservationists to develop frameworks for implementing a thorough response to problem animals. These frameworks frequently incorporate the "creation of professional problem animal response teams and crafting of national policies and protocols for response to conflicts between humans and large felids"

Loveridge et al (2010) further argue that whilst every situation is unique, there should be a general protocol to which local wildlife managers can make decisions that create accountability as well as providing response teams with the necessary guidelines to implement when choosing the appropriate method – a critical first step in acting fast and efficiently to deal with problem animals.

This perspective from literature is useful in assessing the current status in terms of mitigation strategies by conservationists in the Cederberg. Unfortunately, it appears from the interview with the environmental educator that the fact that leopards are no longer killed by locals leads the CLT to believe that the human-wildlife conflict is more or less solved. For the CLT, as long as no leopards are being killed everything is harmonious in the Cederberg. This is not true because the problem still exists between the subsistence farmers and the leopards, but the fact that it is prohibited to kill leopards means that locals fear the penalties associated with leopards and have little choice but to accept that they might suffer a loss of livestock any time of the day. The resentment and unhappiness about this comes through in all the interviews.

According to the website, three main methods are used by the CLT to generate research on the leopards in the Cederberg and to inform mitigation strategies:

(<https://capeleopard.org.za/research/techniques>)

- Dietary Analysis
- The Cape Leopard Trust Trapping Techniques
- Camera Traps

There was quite widespread unhappiness about this approach. The scientific research on leopards done by the CLT claims to assist in reducing or rather solving the human-wildlife conflict. This is not effective, according to the local subsistence farmers. From the point of view of the local farmers, it seems that the work of the CLT through the above methods is implemented only to gather information on the ecology and behaviour of the leopards. These are not methods which can help to reduce the losses that the locals are suffering from. The CLT seems to focus on leopard killings and not on the actual relationship that they as an organisation have with the local subsistence farmers. Again, if no leopards are killed, it is assumed that no conflicts and the relationship between the two parties is considered very good (according to the CLT).

Chapter Five discussed in detail the responses the subsistence farmers had when asked about the work of the CLT and how they assist communities. All of them responded with the same story regarding leopard attacks. The CLT or CapeNature team would come and set up a trap for the leopard. If the animal failed to return, they would just collect the trap again after a few days. If they did manage to trap the leopards, they would just check whether the leopard is healthy and take it into the wilderness area and set the leopard free.

This doesn't really help the situation because leopards are territorial and it would not take them long to return to their territory again. According to the subsistence farmers, the research conducted on the leopards does not really help them as subsistence farmers. He says that the only thing the methods provide is information on leopards, such as pictures of their movements and behaviour, which means nothing for the local subsistence farmers attempting to protect their livestock.

While the long-term strategy to mitigate this conflict has yet to be developed, the following methods suggested by the CLT can be seen as a 'quick fix'. Something that is temporary, because identifying specific strategies for this region is a complex method, which might take longer.

These methods include the following.

- “Jakkalsjaer”
- “Deadstop” collar
- “Protect a lamb” bell
- Donkeys
- Shepherd dog
- Kraal



Although farmers are highly frustrated regarding the methods suggested by CLT, when describing them, they still added some humour in the descriptions. One farmer described the Jakkalsjaer as a radio which the leopard dances to after some time, which indicates that the irritating noise it makes to keep wild animals away doesn't really help because they adapt to it easily. Another farmer was also sceptical about the use of the “protect a lamb” bell, even stating that far from protecting the lamb, it served to alert the leopards to its whereabouts. Their animals could get stuck in the bushes and they might not even be able to know where this animal is stuck and so it is the perfect snack for the wild animal in the area.

Although donkeys are seen as part of the mitigation strategies, this is ineffective, recently, there have been incidents of leopard attacks on donkeys: the leopards are adapting and attacking donkeys as well. Sheepdogs sound good, but are expensive. In the case of Hennie, after he lost 40 sheep he got offered a dog from the CLT to help protect his livestock. However, Hennie was not impressed since he was told he still needs to pay R3000 for a dog.

This is unrealistic. Someone from a rural community who is dependent on his livestock and crops can barely afford to hand out R100 for anything, but was expected to find R3000 after losing R40 000 he will never get back. It is not that simple to get a dog to protect your livestock. Hennie mentioned you need to train the dog and the dog needs to know every single lamb that you have or otherwise it will kill the lamb like it did in some cases. Also, leopards are not necessarily deterred by the dogs.

According to Loveridge et al (2010: 180), “historically, traditional livestock husbandry practices have sought to limit the availability of livestock to predator.” According to Linnell et al (2012), in Europe, Asia and Africa, shepherds are frequently accompanied by guard dogs to guard the livestock whilst they graze during the day, and at night the livestock are protected in enclosures.

The chief executive of the CLT mentioned that there are various projects underway, which include a voluntary herder working in some of the communities as well as building predator proof kraals. Linnell et al (2012:327) argue that large carnivores, particularly large felids, tend to be “extremely aggressive and persistent when entering night-time enclosures, either by jumping fences, squeezing through small openings, or using brute force (often aided by panicking the livestock that break down the enclosure wall from the inside”. Hence, it is often suggested that enclosures should be constructed with very solid materials and even a roof.

During the interview with the CLT’s Chief Executive Officer, the issue of compensation was also mentioned. She then suggested that insurance in the Cederberg could be community driven, that is the community would have their own fund which everyone would pay into. A farmer would then get money from this fund if they had livestock losses due to the main predator, the leopard. However, this could be complicated since one would have to make sure that the farmers have enough income in order to establish this. The suggestion in this regard is that locals should get more involved in tourism to generate income. In the meantime, the focus is on assisting the local people to improve their management system. The mitigation strategies discussed above are part of this.

Local knowledge is not currently drawn on in any meaningful sense. Stringer and Reed (2007) argue that by “hybridising these knowledges (Forsyth 1996; Nygren 1999) it may be possible for researchers and local communities, with their different understandings, to interact in order to produce more relevant and effective environmental policy and practice” (Reed, 2008: 2425).

Results from this thesis suggest that local subsistence farmers are not involved or consulted to address strategies for leopard conservation or for the mitigation of human-wildlife conflict. It appears that the CLT relies mainly on scientific research, lacking the humanistic approach in setting mitigation strategies. However, there are plans for this to change: it seems that for future projects the CLT will include more engagement with local subsistence farmers. This however would be very challenging due to the lack of trust and great disappointment and frustration that already exists among local subsistence farmers in the Cederberg.

7.3) Community involvement in conservation and tourism

An important aim of the study was to assess the levels of involvement of the community in conservation practices, focussing on leopard conservation. Not only was this study interested in leopards alone, but another focus was to explore levels of community involvement in tourism and any other conservation projects within the area. Tourism and conservation land-uses are presented as the future of the Cederberg, thus it is important to try to assess local people's attitudes to these changes.

As seen in Chapter Two, there have been global debates regarding the management of resources in protected areas, in particular to promote the involvement of local inhabitants to create more sustainable methods for conservation of resources and biodiversity. Community-based conservation initiatives and the concept as a whole has received a great deal of attention from academics in recent years. According to Loveridge et al (2010), moving towards co-management and stakeholder involvement often results in improvement in attitudes regarding conservation efforts on the part of local communities.

In the Cederberg, there are two significant projects in which the community is actively involved, namely Firewise and the cedar tree planting project. Respondents described the cedar tree project as the beginning of the relationship between CapeNature and the Heuningvlei community of Wupperthal. Just like the Cape Mountain Leopard, the Cedar tree has become an endangered species, which almost became extinct. The Cedar tree plays a significant role in this region because this region was named after the tree and therefore, it was important to preserve this species. This project has been ongoing for over two decades and every year more and more people take interest and participate in planting trees. It is evident to notice that different stakeholders of the Cederberg area contribute towards this project.

It was mentioned that CapeNature sponsors the cedar tree seeds to the privately owned Boesmans Kloof, and Boesmans Kloof will plant it in pots until it is ready to replant in May.

The community is particularly proud of this project. It gives them the opportunity to take care of nature, of their environment and the fields that they call home. This is a project where the broader community is actively participating in nature conservation.

In the area of Langkloof, the subsistence farmers highlighted the FireWise project as the project in which they are most involved with CapeNature. However, the timing might have influenced their view on this project. They described FireWise as the only project where there were strategies for working together in what to do when a fire breaks out. However, due to the fire outbreak in December 2017, the subsistence farmers have been disappointed by the (lack of) support of CapeNature. The difference between these two projects is that the Cedar Tree project is something that the community take ownership of in, that they are extremely active in, where the Firewise project is more about disaster management and how they as a community can contribute to it.

Rooibos tea was historically grown at Wupperthal, but in recent decades there has been a major expansion due to the growth of the market both locally and internationally. As the rooibos tea production is growing within the communities, it has become a lot more socially acceptable for locals to use land for rooibos tea plantations rather than for cultivating crops. This once isolated and traditional community has now become a landscape where networking with broader society is important, especially for tourism and rooibos marketing activities. The Wupperthal communities produce the tea locally and outsource to different overseas markets. The local market is also interested, and there is a link to tourism. For example, Rooibos Cosmetics was established as a community development project, providing employment for at least five women of the Wuppethal community to produce natural skin products containing rooibos and ingredients such as shea butter, honey, and lemon grass.

Landscape change associated with rooibos tea production is viewed positively by other actors in the Cederberg. The expansion of rooibos tea is viewed positively by the Cape Leopard Trust, for example, because they hope it may provide locals with an alternative livelihood to livestock-keeping which brings them into conflict with leopards.

During my interview with the CEO of Cape Leopard Trust, she mentioned that because the rooibos tea industry is now such a big focus in the community, there should be more emphasis on providing support to the community to assist in economic development. She feels that the rooibos tea industry should do more to promote this.

The Cederberg Heritage Route was established by CapeNature to give exposure to the mission lands as a tourist destination, as well as to develop and empower local communities to be creative and innovative so that they could provide different tourism products to the tourist on the Heritage Route. The Cederberg Heritage Route includes a collection of six community-based hiking trails. These communities of Wupperthal are closer to the border of CapeNature and therefore, they are mainly involved in providing a tourism product. There is a clear distinction between the communities that are more involved in this Heritage project and the rest of the communities. Communities such as Kleinvlei and Heuningvlei are more developed than the other communities. Heuningvlei in particular is a good example of a successful community involvement project. The Community Conservation Officer explained that the Cederberg Heritage Route has been helping community members to establish their own tourism businesses through opening their houses for accommodation, catering and donky cart rides.

Traditionally, Wupperthal has been a tourism hotspot and locals were quite proud of their history and culture within the village. Although alcohol abuse remains a serious problem within the area, it is the lack of commitment from several entities, which led to the poor tourist image of Wupperthal itself. This has left some buildings in the village completely neglected. However, the satellite communities such as Heuningvlei, Kleinvlei, and Langkloof are some communities that are more committed to taking up tourism-based opportunities and have a reasonably good relationship with the neighbouring Cederberg Wilderness Area (CapeNature). Respondents from these communities were also more open to discussing conservation within their areas. It was in Heuningvlei, for example, where respondents spoke about the successful Cedar tree planting project. This project again emphasised the good understanding that the local community has with CapeNature.

7.4) Recommendations

As discussed in Chapter Two, it is important to include both parties affected when it comes to conserving wildlife and protecting the environment. Although the whole of the Cederberg is considered as a wilderness area, the land which the humans occupy is rightfully entitled to them through their historical connection with the mission. Keeping livestock is an important part of local culture and livelihood. The CLT acknowledges that it is important for them to focus on methods for keeping livestock safe before moving towards other alternative solutions, such as monetary approaches (compensation). The CLT works in many different areas, therefore; their methods are based on a tried and tested approach.

Although they have much in store for the Cederberg with regards to strategies to reduce human-wildlife conflict/keeping livestock safe, this research suggests that the basics of building a relationship with the community first have been somewhat lacking.

The CLT has been operating since 2004 and yet they do not have a relationship with local subsistence farmers. The local subsistence farmers feel that it is due to their race and background that their voices and livelihood are not seen as significant. There is a huge communication gap between conservation authorities and local subsistence farmers. Although the CLT is planning on reaching out and working with the communities where the need is greatest, it would be more efficient if they could include all of the satellite communities just to start and build that relationship by means of communication.

The case described where residents of Heiveld were at a loss as to who to contact with regard to leopard predation, made it clear that subsistence farmers are unsure what steps to follow when they need assistance with regards to leopard queries. Also, the subsistence farmers do not have an understanding of how the CLT operates. Therefore, it is important for the CLT to visit all the communities and engage more deeply with the subsistence farmers. There is a great need for both the subsistence farmers and the CLT to be proactive in protecting the livestock instead of being reactive to livestock losses. A great way of building that relationship with the different satellite communities would be for the community to assign a community leader to be in regular contact with the CLT. This contact could include updates on the work of CLT in the Cederberg, any queries, complaints or suggestions from subsistence farmers. It is the CLT's duty to make sure that they build a strong relationship with the local communities in order to receive full cooperation from them.

The community members long for this relationship, even if it starts with just showing interest. Officials from CapeNature could also play a more productive role in this regard.

In conclusion, there is a desperate need for an understanding between the two parties to use the environment to the benefit of both parties. While it is difficult to work towards hybridity with wild animals such as leopards, strategic planning involving local knowledge and scientific facts can lead to a reduction of leopard attacks on livestock. Hence, there is a need to acknowledge locals and to respect their way of living as well as wanting to preserve the wild. Guarding the domestic should be given equal prominence in the context of the communities who live in the Cederberg.



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APPENDICES

APPENDIX A: INFORMATION SHEET

INFORMED CONSENT TO BE READ OUT TO POTENTIAL PARTICIPANTS

My name is Irené van Schalkwyk, student number 3222751, and I am from the Department of Geography, Environmental Studies and Tourism at the University of the Western Cape. As part of my Masters degree, I am conducting research regarding community involvement in conservation practices. I would like to invite interested local subsistence farmers to participate in the study.

The research is titled “The Call of Nature vs the Voice of Law: Local Community Involvement within Leopard Conservation Practices in the Cederberg”. I am seeking to provide insight on the effects that wildlife conservation and tourism has on the communities living adjacent to its boundaries as well as the incorporation of local people within conservation practices. In this case, focus shall be on livestock keepers and leopards. In addition, I am interested in exploring the different grazing patterns farmers use, whether they have changed it due to leopard attacks as well as to the popular areas in which leopards move freely.

I would like to ask permission for your participation in a few interview discussions planned for this project. Interview is to be conducted at the times we both agree and do not disturb your normal routine. I would also like to ask for permission to record our conversations. These recordings will be confidential and used solely for academic purposes. Any reproduction will not be done without your prior consent. The interview will be between 30-60 minutes including the time needed to complete the participatory map.

If you wish to contact me or my supervisor at any time, please do not hesitate to make use of the contact information as provided below.

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9 Jacobs Street
Diazville
Saldanha
7395
Mobile: 071 877 1945
or 027 482 1994 (Wupperthal)

Prof. Shirley Brooks
Department of Geography, Environmental
Studies and Tourism
Faculty of Arts
University of the Western Cape
Tel: 021 959 2425

Email: vanschalkwykirene09@gmail.com

Email: shirley.brooks2@gmail.com

APPENDIX B: CONSENT FORM

CONSENT FORM

Please kindly read the information provided below before making a knowledgeable decision regarding your participation in this study.

Please initial box

Project: The Call of Nature vs the Voice of Law: Local Community Involvement within Leopard Conservation Practices in the Cederberg

Researcher: Irené van Schalkwyk (3222751)

Supervisor: Prof. Shirley Brooks

- 1. I confirm that I have read and that I understand the information sheet explaining the above research project and confirm that I have had the opportunity to ask questions about the project.
- 2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason or negative consequences for me. In addition, should I not wish to answer any particular question or questions, I am free to decline.
- 3. I understand that the information given will be protected, e.g. by using pseudonyms for all the individuals interviewed and those mentioned in such interview.
- 4. I hereby give permission for an audio-recording of the interview.
- 5. I agree for the data collected from me to be used in this project and publications.
- 6. I agree to take part in the above research project.

DECLARATION

I..... (full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

Name of Participant
(Or legal representative)

Date

Signature

Name of person taking consent
(If different from lead researcher)

Date

Signature

Researcher

Date

Signature

APPENDIX C: INTERVIEW SCHEDULE

Local subsistence farmers

In order to gather as much information as possible regarding stories of leopard encounters, the manner in which it was handled, local farmers' attitudes and perceptions regarding leopards in the area, as well as their involvement in conservation practices and tourism, interviews were done in an unstructured manner. There were no specific questions, but rather key questions to revert back to the topic. Questions were asked depending on the information provided by the locals, since each experience were unique.

- Have you ever experienced any livestock loss due to leopard attacks?
- Can you tell me more or less when this loss occurred and how it was dealt with?
- How do you feel about leopards in this area?
- What is the main source of income in the area?
- How would you describe your relationship with the CLT and CapeNature?
- Are you satisfied with their work?
- How do you think this problem can be solved?
- What have learned over the years about leopards in your area?
- What would you do if you get the chance to face the leopard that cost you such a tremendous loss?
- How is this community involved in conservation within the area?
- How is tourism within this community?
- Who benefits from the tourism within the community?
- Is the community involved in any wildlife conservation strategies within the Wupperthal community?
- Were there any community-conservation projects within your community?

Environmental Educator of the CLT

Here I focused more on the work of the CLT regarding leopards in the Cederberg, especially the human- wildlife conflict. Focus was further placed on the perceptions of the CLT regarding their relationship with the local residents as well as the effectiveness of their scientific methods to solve human- wildlife conflict. Questions were kept simple to get the perspective from the CLT as an organisation instead of provoking the environmental educator to be defensive.

- Briefly, what is the Environmental Education programme about?
- Do you (CLT) include local children as well?
- How is the tourist activity in the Cederberg and what are some of the perception and reactions of locals towards it?
- How do you keep both the wildlife and local people safe?
- How do you measure/ manage leopard populations?
- The issue of the commercial farmers' vs the subsistence farmers, how do you approach these two stakeholders given their differences in security measures and capital bases?
- Is it a one size fits all method or a very specific method that aims at dealing with all parties in a different but more satisfying way?
- Can you tell me more about the Shepherd dog programme?
- Since your research is based on scientific methods, don't you think that the fact that you are dealing with humans as well, you need to have a humanistic approach, especially for the conflict part?
- There have been all kinds of covering on Cecil the Lion. Does it make your job harder to protect leopards given the keen eye media has on wildlife conservation?

Community Conservation Officer of CapeNature

Here I focused more on the work of CapeNature regarding the community involvement and their role that they play in tourism within the Wupperthal communities. Focus is rather placed on the perceptions of CapeNature regarding their relationship with local residents as well as the relationship between CapeNature and the CLT when it comes to leopard conservation. Questions are kept simple to get the perspective from CapeNature instead of provoking the community conservation officer to be defensive.

- Briefly, what does your job entail or what is your day-to-day work like?
- Do you know anything about the agreement between the Cederberg Conservancy and the Wupperthal community?
- Do you (CapeNature) have any environmental education/awareness programmes which involves the communities of Wupperthal?
- How would you describe the relationship between the community of Wupperthal and CapeNature?
- How often do you (CapeNature) meet or engage with the Wupperthal communities (on a yearly basis)?
- Do you work with the CLT when it comes to leopard conservation?
- How are you (CapeNature) involved in leopard conservation?
- Are you (CapeNature) involved in any mitigation strategies regarding human-wildlife conflict?
- What is tourism like in the Cederberg and what are some of the perceptions and reactions of local residents towards it?
- How are locals involved in tourism activities?
- Do you think the tourism activity in Wupperthal has the potential to grow?
- Do you think that tourism development can serve as an alternative livelihood when it comes to subsistence farming in the Cederberg?
- Does your (CapeNature) education and awareness programmes include any indigenous knowledge?
- Do you (CapeNature) have any future projects which promotes community upliftment or involvement?
- How did you (CapeNature) engage with the communities that was effected in the 2016 fire?

CEO of the CLT

Here I focused more on the work of the CLT regarding leopards in the Cederberg, especially the human- wildlife conflict. Focus was further placed on the perceptions of the CLT regarding their relationship with the local residents as well as the effectiveness of their scientific methods to solve human- wildlife conflict. Questions were kept simple to get the perspective from the CLT as an organisation instead of provoking the CEO to be defensive.

- Briefly, what does your job entail or what is your day-to-day work like?
- What is tourism like in the Cederberg and what are some of the perceptions and reactions of local residents towards it?
- How are locals involved in tourism activities?
- Do you think the tourism activity in Wupperthal has the potential to grow?
- How do you keep both the wildlife and local people safe?
- How do you manage/ measure leopard populations?
- In human- wildlife conflicts, how are people involved to solve this issue?
- Do you think that the management of human- wildlife conflict should include a humanistic approach as part of the resolution?
- Do you think that tourism development can serve as an alternative for compensation when it comes to leopard predation in the Cederberg?
- What effect does the new banning of leopard trophy hunting have on your work?

WESTERN CAPE

APPENDIX D: TOPOGRAPHY OF WUPPERTHAL



Figure 21: Wupperthal community in valley of the Cederberg mountains

(Photographer: Van Schalkwyk, 2017)

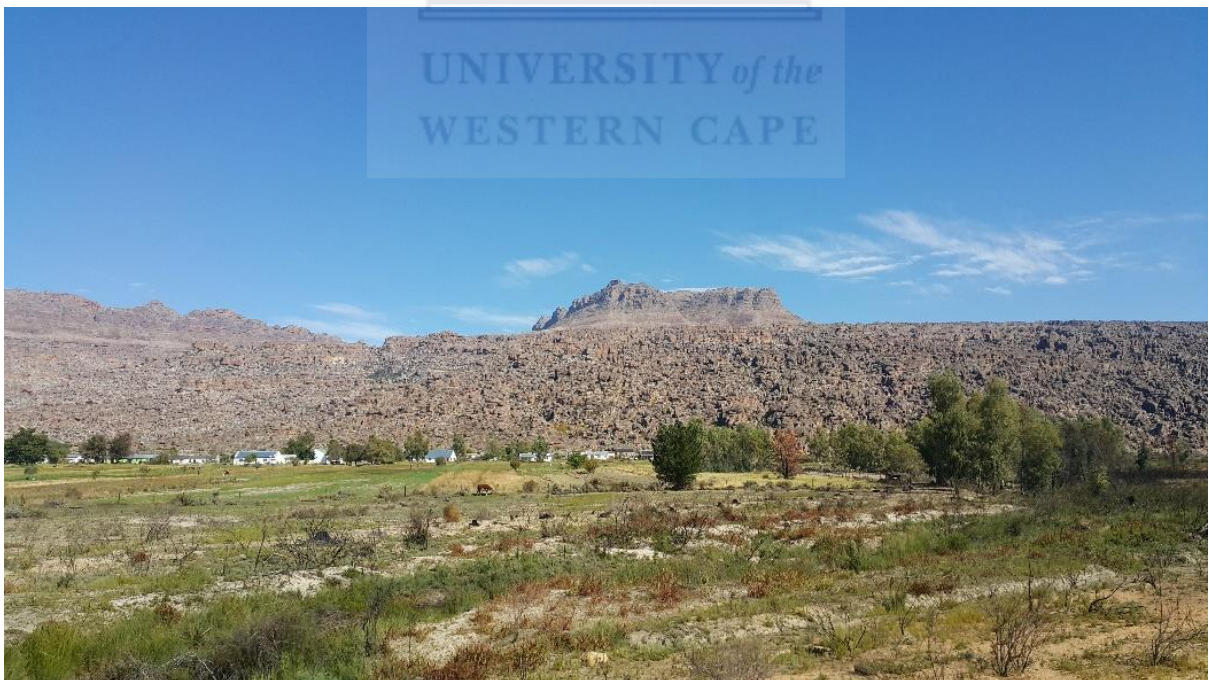


Figure 22: Langkloof community in the Cederberg

(Photographer: Van Schalkwyk, 2017)

APPENDIX E: HUMAN- WILDLIFE CONFLICT



Figure 23: Leopard caught in iron trap



Figure 24: Dead sheep after a leopard attack

Figures 23, 24 & 25 Source: <http://www.capeleopard.org.za/research/leopard/cederberg>



Figure 25: Leopard caught in fence encounter

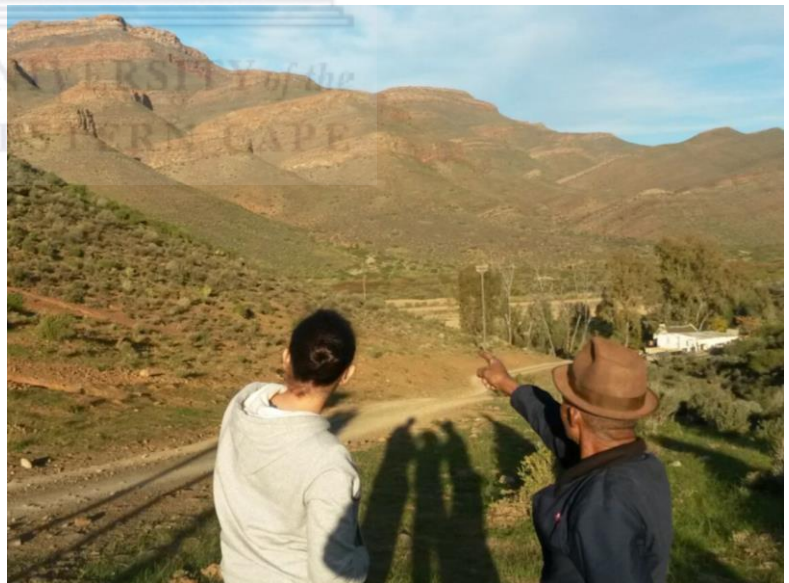


Figure 26: Identifying the location of a leopard attack scene during data collection

(Photographer: Lakey, 2015)

APPENDIX F: CAPE MOUNTAIN LEOPARD IN THE CEDERBERG

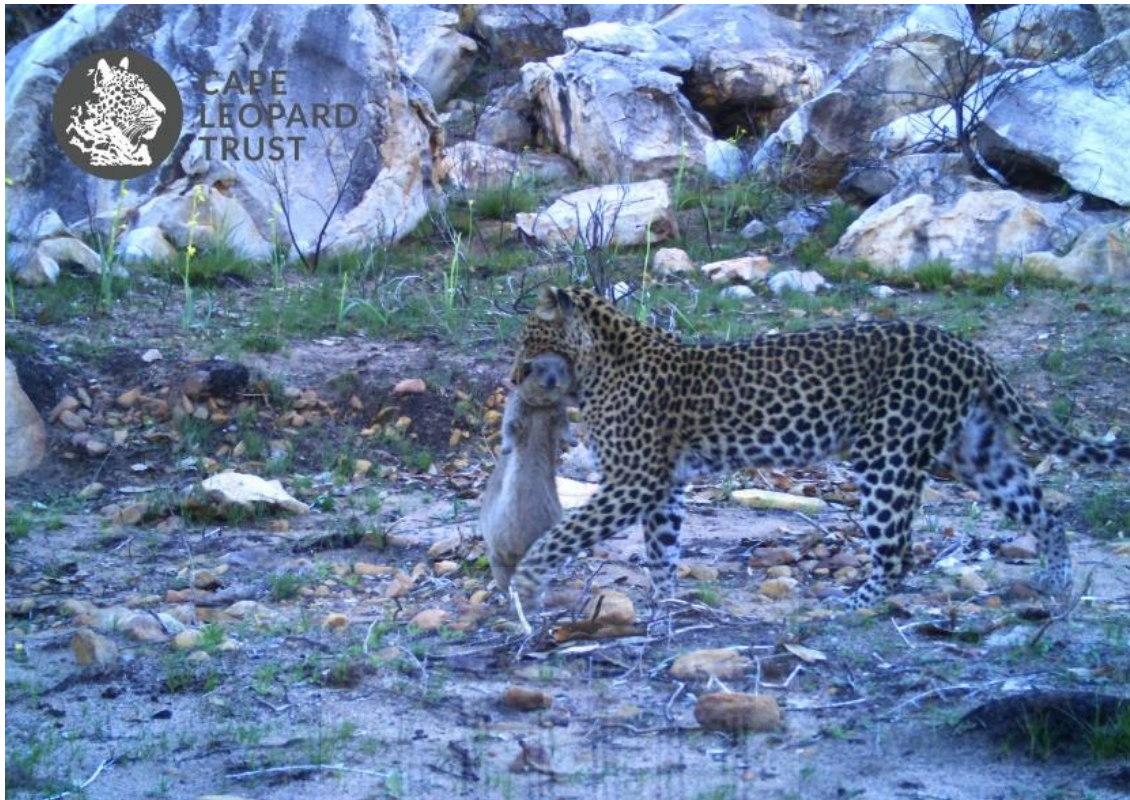


Figure 27: Cape rock hyrax caught by leopard in the Cederberg mountains



Figure 28: Leopard caught on camera trap in the Cederberg mountains



Figure 29: Leopard caught on camera trap in the Cederberg mountains

(Source:CEO of Cape Leopard Trust, 2018)

APPENDIX G: ETHICAL CLEARANCE LETTER



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26 April 2017

Ms I van Schalkwyk
Geography, Environmental Studies and Tourism
Faculty of Arts

Ethics Reference Number: HS17/3/31

Project Title: The call of nature or the voice of law: Local community involvement with leopard conservation practices in the Cederberg

Approval Period: 24 April 2017 – 24 April 2018

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval. Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

A handwritten signature in black ink that reads 'Josias'.

*Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape*

PROVISIONAL REC NUMBER - 130416-049