

THE LIVES OF DOMESTIC DOGS (*CANIS AFRICANIS*) IN BOTSWANA

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Abstract

*The objective of this study is to document the roles, value, circumstances, and welfare management of domestic dogs (*Canis Africanis*) in Greater Maun, Botswana. Findings based on interviews with sixty participants, as well as key informant interviews and participant observation, reveal high incidence of dog ownership with dogs primarily used as guardians and companions at rural villages, cattle posts and urban homesteads. Dogs are particularly valued for their obedience to and security offered owners. Participants care for their dogs by providing them with food, allowing them free access to areas outside of homesteads, and accessing medical attention when necessary. Participants were pleased with veterinary care, sterilization and vaccination services provided by the local animal welfare organization and urge government to become more involved in dog-related services, laws and education for community members. Analysis of these findings reveals emerging trends related to changing dog roles, urbanization, regulation, and breeding are re-orienting dog roles and circumstances, as well as welfare management needs. Ultimately, this study establishes baseline data regarding human-dog relations and is positioned to inform community development and animal welfare efforts in Botswana.*

Key words: *Dogs, roles, welfare, human-dog relations*

INTRODUCTION

Free-roaming domestic dogs are ubiquitous in rural, peri-urban and urban areas throughout Southern Africa. Originally understood as the ‘mongrel progeny of settler dogs’ (Swart 2003:194), recent arguments posit that they are direct descendants of the Arabian wolf, domesticated 7000 years ago in Northern Africa and the Middle East (Gaubert et al. 2012). Early archeological evidence of domestic dog presence in southern Africa was found at Diamant in South Africa’s Limpopo Province (*circa* AD 570), approximately when migrants from Northern Africa came in contact with Khoi-San hunter-gatherers in the south (McCrinkle et al. 1999), and Bosutswe in central Botswana (*circa* AD 700) (Plug 1996 cited in Mitchell 2014). Contemporary ‘semiferal village dogs’ from many African regions have been confirmed as genetically distinct from non-indigenous dogs yet exhibiting complex population structures derived from early migrants to Africa followed by interbreeding with non-indigenous animals (Boyko et al. 2009).

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Broadly speaking, *Canis Africanis* are “smooth-coated, lightly built, with a slight forehead stop and pointed muzzle, large semi-pricked ears and a curled tail” (Swart 2003:194). They are well adapted to environmental conditions in Southern Africa given their high resistance to tropical diseases, low protein requirements, and physical traits geared to climatic conditions and landscape negotiation; they have proven themselves to as highly intelligent, quick and alert, obedient (Hall 2000). They fall under the classification of ‘primitive dog’ (Van Sittert & Swart 2003:140) or ‘land race’ (Maggs and Sealy 2008:37) and has undergone minimal or no artificial breeding selection by humans. Reclaiming of the indigenous *Canis Africanis* in post-colonial Africa – both in scholarship and practice – pivots on the idea that these dogs are uniquely adapted physically and mentally to local environmental conditions given natural selection, as well as the idea that these dogs are part of a living heritage of African culture, livelihood and landscape (see Van Sittert & Swart 2003). *Canis Africanis* are imagined and championed by some as creatures of the blood and the soil (Swart 2003).

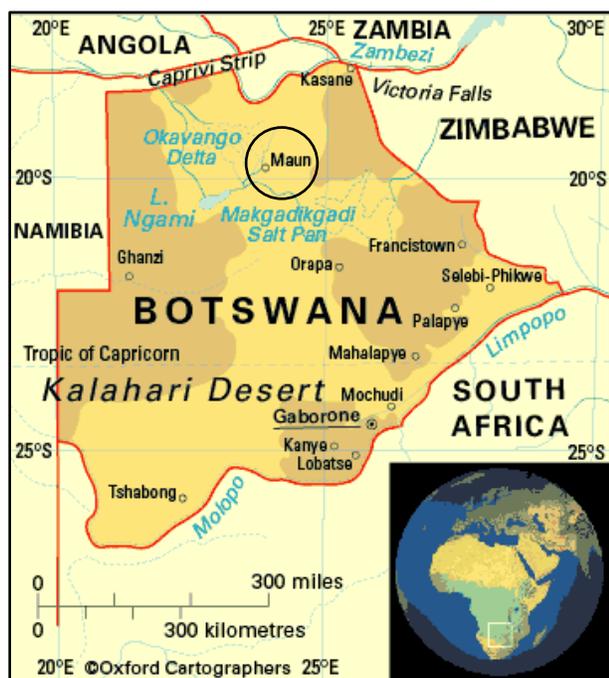
Domestic dogs are “integral to identity politics and practical workings of society” (Van Sittert and Swart 2003:169) with a notable presence across the African landscape (for example, some 40,000 reside in and around Maun according to the Maun Animal Welfare Society (MAWS)). Despite this, existing research on *Canis Africanis* (as domestic, feral, or community dogs) in academic scholarship and practitioner-oriented literature focuses primarily on disease transmission and related population control strategies (e.g. Bingham 2005; Butler et al. 2004; Perry 1993; Swanepoel et al. 1993). A few studies attest to dog value to humans primarily in economic and practical spheres given their role in hunting game, herding livestock, guarding property, and vermin control (McCrinkle et al. 1999; Mitchell 2014). Generally, however, little is known about the symbiotic relationships between humans and dogs in terms of people’s attitudes towards and benefits from dogs, and dogs’ behavioural responses towards people around the world (Ortolani *et al.* 2009), including Southern Africa. Notably, domestic dogs do not fit easily into established categories of agricultural animals (e.g. cattle, donkeys, chickens) or wild animals (e.g. elephants, lions, zebras) most usually associated with the African context and garnering scholarly and policy attention.

The objective of this preliminary study is to document the roles, value, circumstances, and welfare management of domestic dogs in Greater Maun, Botswana. Analysis of findings reveals emerging trends owing to contemporary changes in social, political and economic realms that are arguably re-orienting dog roles, value and circumstances, as well as welfare management needs. Ultimately, this study establishes baseline data regarding human-dog relations and is positioned to inform community development and animal welfare efforts in Botswana.

METHODS

Data collection took place in and around Maun, Ngamiland District, Botswana [Map 1] between May and July 2015, and consisted of key informant interviews, participant observation, and semi-structured interviews with local rural, peri-urban and urban residents.

Map 1: Maun, Botswana



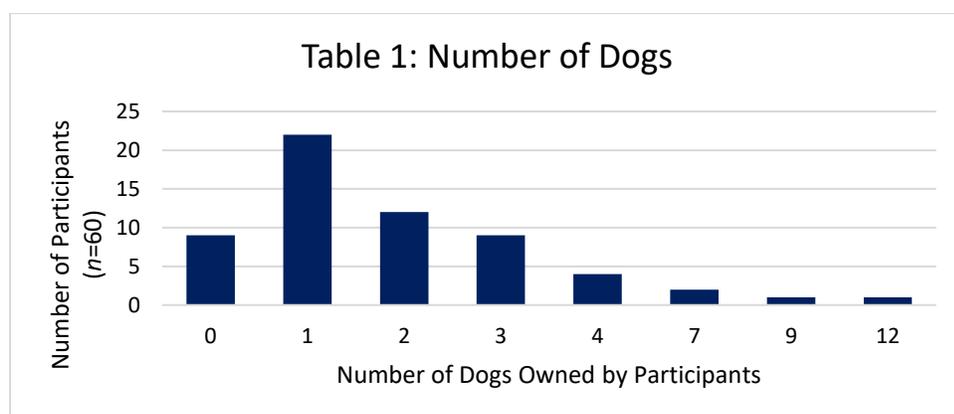
Source: http://www.net4nets.net/images/Botswana_Map.gif

Fourteen key informants with expert knowledge on the context of domestic dogs in the Maun area were interviewed. These included government officials from the Department of Wildlife and National Parks, the Northwest District Council, the Police Department, and veterinarians with the Ministry of Agriculture; individuals from relevant local organizations including the Maun Animal Welfare Society (MAWS), The Botswana Society for the Prevention of Cruelty to Animals (BSPCA), and Cheetah Conservation Botswana (CCB); and private veterinarians. Participant observation was undertaken to investigate the circumstances of dogs, human-canine relations, and dog management. Observations were undertaken in Maun proper (including the MAWS clinic) and during village-based outreach clinics with MAWS. Data were collected via participation in activities, casual conversation, field notes, photographs, and videos.

Sixty semi-structured interviews were conducted with residents of Greater Maun using an opportunistic and snowball sampling strategy. Twenty-eight participants were located in Maun proper, 16 in villages, and 16 at cattle posts. Of the Maun interviews, 12 occurred in each of two urban wards in different locations in town, namely Sanyedi and Boseja, while four were with dog owners whose dogs were sterilized at the MAWS clinic. Of the village interviews, eight occurred in the village of Sherobe located 40 kilometres northeast of Maun and eight in Kareng located 100 kilometres southwest of Maun. The cattle post interviews occurred within a 40 kilometre radius of Maun along the Boro, Sherobe, Sehithwa, and Chanogoa roads. Interviews were conducted either in English, Setswana, or a combination of both, and proceeded with the assistance of a local translator. Participants were asked questions regarding their own dogs (e.g. number, sex, reproductive status, purpose or role, whether they were free roaming, and what they were fed); dogs in general (e.g. if they saw stray dogs, if dogs were ever a nuisance, and about dogs' potential to transmit diseases, or attack livestock or people); dog health (if they saw sick, hungry, or injured

dogs, how long dogs lived, what they died from, and how well people took care of their dogs); dog value (e.g. if/how dogs are important to them, and if/how dogs play an important role in Botswana); and dog management (is there a dog population problem, what should be done to manage dogs, what they thought about sterilization or MAWS' programs, and what could be done to help people manage/care for their dogs).

Demographic information was also recorded, such as year of birth, gender, and socio-economic status³. The average age of participants was 46. Forty-five percent of participants were male and 55% female. In terms of socio-economic status, 35.5% were classified as low, 53.4% as middle, and 12.1% as high. Nine participants (15%) had no dogs, and the average number of dogs per household was two; the highest number of dogs owned by one participant was 12 (see Table 1). Fifty-five percent of owned were male, and 44.9% were female. Fifty-two percent of dogs were sterilized.



Interviews were recorded with written notes or a digital recorder, transcribed, and analyzed through thematic coding in NVivo software. At the end of the field season preliminary results, in Setswana, along with pictures of participants and/or their dogs, were mailed to all individuals who left their address for this purpose. A research report was submitted to the Botswana Ministry of Wildlife and National Parks and Department of Wildlife and National Parks as required by the granted research permit [#EWT 8/36/4 XXX (35)]. Ethics approval was confirmed from the Research Ethics Board, University of Guelph, Canada.

FINDINGS

Roles

Regarding dog roles (see Table 2), the vast majority of participants with dogs (88.2%) used them for guarding or security. This was for protecting themselves or their families against human intruders and wild animals, as well as protecting their yards or property against theft. For example,

³ Socio-economic status was classified based on the criteria developed in Hiemstra-Van der Horst and Hovorka (2008, p. 3338) based on residence: “small ‘hut’-type homes built of traditional materials were taken to indicate low-income status; mid-sized homes constructed with cement-plastered cinderblocks and steel roofing were taken to indicate middle-income households, and large-walled compounds with sizeable houses built of higher-cost materials such as red brick were taken to indicate high household income”.

participants said: “when I’m at work, I know that my house is safe, because of my dogs” (P010); “my dog is always protecting me, when I am sleeping I know that my dog is sleeping at the door, in front of the door so nothing can come inside of my house... when I have dog, I feel I am secure. It is like I am having a security in my gate” (P031); and “at the cattle post, the herd boys they are using the dog as a friend to accompanying themselves...So if there is dogs they can help you by guarding you and your properties” (P016).

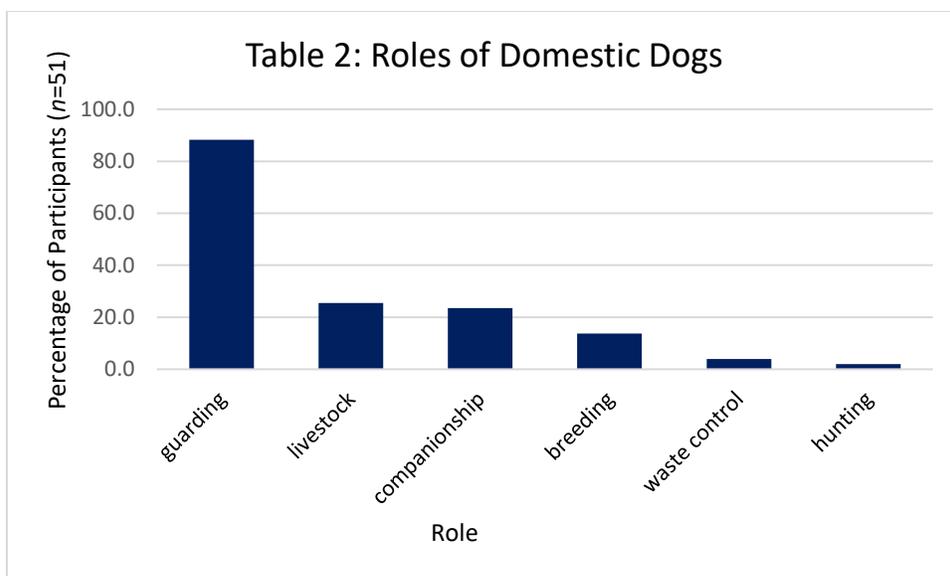
The second most prevalent use of dogs was in relation to livestock-related tasks, most often to guard goats against predators such as jackals, lions and hyena (25.5%). For example, participants said: “if you trained it, it can guard your livestock. If it sees like animals like jackals, fox, it can defend it from eating goats” (P023); “they are protecting my livestock from wild animals like hyena” (P039); and “there’s a Tswana way to train a dog, you take it when it is still a puppy, you put it in the kraal and you feed it there, when the goats go out to the bush, it going with them, and come back afternoon or evening with them” (P052).

The third most common role of dogs was companionship (23.5%) whereby dogs also served the purpose of keeping them company, acting as a friend or family-member. For example, participants said: “a dog is your friend. It’s the children’s friend too” (P001); “when the dog is not here, I am staying lonely, it’s like someone is missing in my life” (P031); “they give us company, it’s like child” (P058); and “a family is complete with a dog” (P034).

Fourth most prevalent use of dog was breeding for business (13.7%) such that participants indicated that they bred their dogs and sold them for money. For example, participants said: “you can benefit a lot from dogs, by selling them, and you make a lot of income” (P010); and “nowadays we can become a business person by using dogs, even this one, people want to buy it, like someone are hiring it for breeding, so it is good for business” (P016).

The fifth use of dogs was in waste management (3.9%) with participants noting that their dogs served a role in eating leftovers, so that they did not need to dispose of any extra food. They said: “if you have food you can give the leftovers to the dog rather than throwing them away” (P047); and “nothing can go to waste if you have dog. If they have a lot of food here, or prepare a lot of food, we can end up giving your dogs instead of throwing it away” (P060).

Finally, 2% of participants said that their dog was used for hunting. The traditional use of dogs was for hunting small game, but with the hunting ban imposed in 2014, any current use of dogs for hunting would be considered illegal poaching. This will be addressed at greater length in the discussion.



Values

Overall participants said that dogs played a very important, and often underappreciated, role in Botswana. They were valued for specific characteristics, as well as in general for their roles as guard and companion animals. One common characteristic dogs were valued for was obedience in not stealing food: “If you take care of your dog, you can even put food here or put meat here ... it cannot eat it without your permission” (P016). Another common characteristic prized in dogs was loyalty to serve only them. As one participant explained, he named his dog Naolame, or “my foot”, because the dog goes with him everywhere he goes. Finally, dogs were valued for their protectiveness or ability to provide security: “They actually kind of know their purpose, you know, because I kept them for security reasons, like most of the times during the day they sleep and then at night that is when they are on alert” (P008).

Participants also claimed that dogs had an important role to play in Botswana society by offering security by guarding people and property, and generally making people feel safe. For instance: “yes dogs are important in Botswana because they stop people from stealing your property when you are away” (P021); and “dog have a, play a very big role in our life in Botswana because, more especially us, our children are not here, are at school, so we stay in our dog, so if you are trying to beat me when my dog is here it will bite you” (P028).

Participants also felt that dogs played an important role in Botswana because people and dogs are meant to live in association: “they are very important because everywhere that there is people there are supposed to be dogs because those are the two animals which are living together” (P023); and “in Botswana, or in our cultural tradition, a family is complete with a dog. It is the most integral part of a family, you know we used to see that a family is incomplete if there is no dog barking” (P034). Further, participants claimed a sense of mutual benefit for dogs and humans alike: “a dog is like a child, an honest one, because if you take care of it, it can take care of you” (P028); and “We are taking care of them, and even them, they are taking care of us” (P051).

At the same time, however, participants noted that dogs are under-valued in Botswana. For instance: “people need to learn how to valued dogs like other animals. Dogs are not valued because they cannot be eaten” (P047); and “Some of the people they don’t see a dog as something worth taking care of” (P034). These issues with lack of appropriate care for dogs are discussed in greater depth in the next section, when we relay our findings on the circumstances of dogs and their quality of life.

Circumstances

Dog circumstances varied greatly, but there were some general trends in terms of ownership, owner care, health and quality of life.

In terms of ownership, dogs in and around Maun tend to be free-roaming and may be classified as “family dog” or “neighbourhood dogs”, according to the World Health Organization (WHO) classification (1988). Family dogs are fully dependent and semi-restricted as common in urban areas of Maun while neighbourhood dogs are semi-dependent and semi- or un-restricted as common in rural villages or cattle posts. Despite the common sights of dogs wandering independently and scavenging across the Greater Maun landscape, MAWS estimates that fewer than 20% of dogs in the area are unowned (stray or feral). Participants agreed that the vast majority of dogs were owned, and posited that unowned dogs were more common in town, congregating around butcher shops and the landfill.

In terms of owner care, participants provided food for their dogs, especially leftovers such as meat, maize meal, and bones, with only 9.8% of participants purchasing dog food/kibble and a few noting that their dogs also scavenged to find food for themselves. Participants tended to allow their dogs free access (72.9%) although they noted that dogs generally stayed in their yard or nearby within neighboring yards. Other participants kept dogs partially confined in a fenced yard or tied up for some portion of the day (14.6%) or kept dogs fully confined within cages, a fenced yard, or tied up (12.5%). Some participants had their dogs sterilized. Overall, 51.7% of dogs in the sample were sterilized with females (71.4%) sterilized more frequently than males (50%) to prevent overpopulation and to deter roaming or fighting tendencies respectively. Other participants did not wish to sterilize their dogs, indicating that they bred and sold dogs for income-generation, that it was against their religious beliefs, that they feared potential extinction of *Canis Africanis*, or that they believed sterilized dogs were less brave and thus less effective as guard dogs.

Participants indicated that they took good care of their dogs, usually emphasized by feeding them adequately, giving them medical attention when necessary, and treating them kindly or with affection. Other participants described the good care they provided for their own dogs, such as healthy food and clean dishes, or saying that some other people take good care of their dogs because they love dogs. As one participant summarizes: “my dogs are healthy, they are happy, because I give them love, and I give them food. I make sure that they are given medication well in time” (P010). Conversely, participants frequently mentioned inadequate care as a challenge for dogs in terms of food provision, veterinary care (e.g. vaccination, medical treatment of injury/illness), and emotional care. They posited that care was compromised for three reasons: (1) dogs not valued or worthy of care; (2) lack of owner financial resources; and (3) lack of knowledge about dog needs and care regimes. According to participants: “I don’t think of many people who take pains to buy food for their dogs, actually buy meat to cook for them, make sure that most of the time there’s enough” (P007); and “Some of the people...are not able to take care of them, because they are not able to provide... [and] they don’t have the knowledge of what it means to

take care of the dog” (P034). Further, participants felt the greatest risk to dogs was being hit by cars as they roam freely in town: “Some can die from car accident. Those dogs who are travelling too much, they can be hit by cars on the road there” (P050).

In terms of dog health and quality of life, participants claimed dog lifespan ranged from three to 22 years, with the average lifespan estimated at 12 years. Participants said that dogs usually died from diseases or being hit by cars. They also noted other common causes of mortality including snake bites, hunger, eating poisoned food (accidentally), and being killed by people intentionally by poisoning, hanging, being shot or being beaten to death. Intentional harm to dogs occurred when they were deemed a nuisance by stealing food or attacking livestock when roaming freely. The dog population in and around Maun was observed as relatively healthy with little incidence of low body condition scores, visible ribs, or obvious injury. MAWS confirmed this state of dog health, estimating that only 5% of dogs seen at the clinic over a two-week period registered poor body condition scores.

Welfare Management

Dog welfare management initiatives largely fall under the auspices of the Maun Animal Welfare Society (MAWS). Founded in 2003, MAWS aims to “prevent indiscriminate breeding, transmissible disease and human-inflicted cruelty in domestic animals via sterilisation, vaccination, and education” (MAWS 2015). The organization runs a veterinary care clinic in Maun proper, as well as regular outreach clinics in surrounding villages and cattle post areas; dogs are sterilized and vaccinated for free, often through a team of international veterinary volunteers. A private veterinarian is available in Maun for routine and emergency care while Ministry of Agriculture Veterinary Department provides rabies vaccinations for domestic dogs.

Participants (84.5%) were aware of MAWS services and programs. While some were confused or misinformed about MAWS in terms of when and how to access sterilization clinics, the majority of participants felt positive about MAWS contributions to dog welfare and management. Participants noted for example: “I think it is a well thought out, well-arranged program” (P007) and “it’s a very good thing, because if you don’t want to have puppies you can just take your dog there...it’s easy to control” (P010). Others claimed MAWS was having a positive impact on dog numbers and health: “in the past, there was scavenging dogs here, but now they are minimized...MAWS is doing very good work, very good management” (P005) and “nowadays it’s better because there is the MAWS, so if a dog is injured they can take it there” (P009) or “it’s a good program because they are preventing our dog from diseases” (P051). Some argued that MAWS should be given power to collect and rehome dogs who are ownerless and thus not receiving proper care.

Beyond MAWS veterinary care, sterilization and vaccination services, participants argued for government support and programs regarding domestic dogs. Some felt that government should assist with unowned dogs: “those dogs who doesn’t have owners, the government should take responsible, to see where they can take those dogs and keep them somewhere” (P048). Some felt there should be laws established concerning dog ownership and care regimes: “the people who are not able to provide much for their dogs should have a certain number, should have laws that bind pertaining to how many dogs they have to own” (P034); and “government should... make a permit for everyone who want to have a dog, so that you can tell them that, or interview them that you are able to take care of those dogs, this way they can allow you to have dogs” (P030). Finally, some felt that education was needed on dog welfare: “people need education...if people can be taught

about how to take care of their dogs, it can help [keep them healthy]” (P025). It was suggested that workshops could be offered: “at Kgotla, people are taught about something like cattle and some other animals, but they don’t teach people about dogs” (P025); and “there should be a meeting at the Kgotla so that they can talk to the owner of the dogs to take care of their dogs” (P040).

DISCUSSION

Findings reveal that *Canis Africanis* are part of a living heritage of Botswana culture, livelihood and landscape. Interviews with sixty participants in Greater Maun, as well as key informant interviews and participant observation, reveal an average of two dogs per household. Domestic dogs play an important role in people’s lives as guardians and companions at rural villages, cattle posts, and urban homesteads with particular value placed on their obedience to and sense of security for owners. Dogs in and around Maun appear well-cared for with few exhibiting poor body conditions. Participants claim to generally provide dogs with food, allow dogs free access to areas outside their homesteads, and access medical attention when necessary (including sterilization options). They also note that dogs are underappreciated in Botswana society and neglected in some instances, leading to dog death on account of disease and vehicle accidents. Participants were pleased with veterinary care, sterilization and vaccination services provided by MAWS; they urged government to be more involved in dog welfare and management through increased services, laws and education for community members.

Analysis of these findings reveals emerging trends owing to contemporary changes in social, political and economic realms that are arguably re-orienting dog roles and circumstances, as well as welfare management needs. These trends warrant further investigation in terms of their impact on dogs, humans and the local context.

First, the traditional role of dogs as hunters of small game for subsistence purposes (Swart 2003; Corrett 2014) has been curtailed recently given the Government of Botswana’s ban on hunting in 2014. Hence the primary use of dogs in and around Maun is guarding property or livestock, as well as companionship. Participants noted this shift: “before they were used for hunting, now the government of Botswana don’t allow anyone to hunt wild animals” (P028); and “nowadays the government banned hunting, so dogs aren’t used for that purpose anymore” (P053). *Canis Africanis* are known as exceptional hunters, traveling long distances with their owners and herding/guarding domestic stock threatened by predators (Hall 2000). Some participants lamented loss of this role: “these old hunting dogs were the best dogs” (P019). Another participant explained that he: “used to have a dog to hunt rabbits and small animals for food. Now dogs ... no longer have a purpose. Now dogs just bite people, steal food, and kill livestock” (P037). The extent to which people have stopped using dogs for hunting and the impact of the hunting ban on dog lives and people’s livelihoods more broadly remains underexplored.

Second, urbanization trends are changing human-dog relations in Greater Maun. The town proper has quadrupled its population between 1981 (*pop.* 14,925) and 2011 (*pop.* 60,263) (CSO 2016; also see Van der Horst-Heimstra and Hovorka 2008) and participants alluded to dogs living different lives in urban compared to urban areas. For example, participants noted dog role and type changed according to locale: “if you stay in town and you want to have a town dog, [then have a]

boerboel. This dog is very vicious ... and it is brave. It can bark so loudly that people can get scared, in cities” (P034). This threatening presence did not align with dogs living at cattle posts where *Canis Africanis* dogs were more prevalent and focused on deterring wild animals from livestock predation. Further, veterinarians noted that rural dogs tended to lead better lives than those in town: “In villages where dogs are free to roam the quality of life is quite good. Dogs are free to roam, forage, find their own water, escape heat etcetera so the five freedoms of animals are relatively well maintained”. Numerous participants agreed: “they are enjoying themselves at the cattle post, because there is not a lot of movement of people, no movement of car, so they are able to live in freedom here” (P051); and “the dogs is happy when it is at the cattle post because there, dogs [are] normally in charge in everything” (P028). Such urbanization trends were noted by McCrindle et al.’s (1999) study in South Africa where domestic dogs transitioned from scavenger and hunter in rural areas to human-fed guard and companion in urban areas.

Third, potential regulatory trends associated with urbanization are focusing attention on dog mobility and fertility – a trend also noted by McCrindle et al. (1999). According to the Northwest District Council, Maun is poised to be reclassified as a town as opposed to a village. When this new designation comes into effect, legislative changes will follow, including a bylaw prohibiting the roaming of domestic animals such that: “An employee of the Council authorized thereto by the District Council Secretary may detain and remove to kennels or other premises owned by the Council any dog which is at large in a public place.” (Government of Botswana, Clause 5, Section 1, page 108). Furthermore, “the District Council Secretary may authorize the destruction of the dog prior to the expiration of the period of seven days referred to in this bye-law where he has reason to believe that it is genuinely abandoned or is without an owner” (Ibid.). Beyond mobility regulations, participants expressed worry about possible future decline of *Canis Africanis* as tied to tacit sterilization mandates. As one participants explained: “local dogs are being sterilized, they are being killed in other words. So they die...they’re not having puppies but biologically they are being killed, because when they are being sterilized they no longer produce, so it’s like the population, the main population of local dogs is kind of vanishing, slowly, slowly, slowly” (P034). McCrindle et al.’s (1999) study similarly revealed people’s fears associated with losing *Canis Africanis* – particularly given their hunting prowess – to sterilization mandates.

Fourth, breeding trends, stemming in part from the above discussed trends in dog roles, urbanization, and regulations, are shifting attention away from *Canis Africanis* to those breeds originating outside the African context. Increasingly, people are interested in novelty dogs offering traits associated with companionship and those fetching higher price-points on the (primarily urban) market. Nevertheless, participants emphasized three advantages of *Canis Africanis* and other breeds (especially Boerboels): the former require less care, are superior hunters, and are not bred and sold for income generation (thus have some innate value as ‘true African’ dogs). They noted, for example, “us Batswana we are afraid to have those [non-*Canis Africanis*] dogs because they need more care, special care, they cannot sleep anywhere like those ones, they need shelter, they need good medication, they need good food, so us Batswana we cannot be able to provide those things, is why we are having Tswana breed” (P058). They also noted: “Tswana breed is good for hunting” (P041) and “the bulldog is good for guarding the yard because that one is too aggressive than the Tswana breed” (P040). Finally, they noted: “[*Canis Africanis*] they are not good in business. Because lots of people, they don’t buy it. So they don’t buy it, like any other breed [e.g. Boerboel]” (P010).

Ultimately, these baseline data and emerging trends offer insights on human-dog relations in Botswana. Dogs and humans in Greater Maun are clearly entangled in symbiotic relationships grounded in mutual practical benefit and companionship. *Canis Africanis* are arguably symbolic reflections of Tswana identity as hunters and herders, offer tangible protection for property and resources procured through successful livelihood strategies, and adapt expertly to local environmental conditions. As such, *Canis Africanis* are part of Botswana culture, livelihood and landscape. Questions arise, however, in regards to how broader dynamics may shape human-dog relations in the future: *Will the decline of hunting dogs and emphasis on guarding dogs lead to a proliferation non-indigenous breeds? Will increasing urbanization and regulation enhance or compromise the health and well-being of dogs in rural, peri-urban and urban areas?* Questions also arise – from participants themselves – in regards to: *How might they best care for their dogs (in terms of e.g. vaccination regimens, nutrition requirements, sterilization options, and communication strategies)? What animal welfare interventions, preventative laws, and educational programs will ensure that dogs live robust and healthy lives?* Answering these questions with further research and practical management assessments are important next steps in continued understanding of human-dog relations and informing community development and animal welfare efforts in Botswana.

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