

'It's in my blood now': the satisfaction of rangers working in Queen Elizabeth National Park, Uganda

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Abstract Investigating the human dimension of conservation science warrants an interdisciplinary approach. Criminologists and criminal justice scholars have begun to empirically examine various issues that are directly related to conservation, including wildlife law enforcement. This qualitative study of job satisfaction among law enforcement rangers in a protected area in Uganda contributes to both criminal justice and conservation science. Based on interviews and participant observation we identified four main themes that contributed positively to the job satisfaction of rangers: their role in aiding Uganda's conservation efforts and national development; financial stability and familial support; conducting frontline work and establishing ownership of the Park; and opportunities for personal and social development. We discuss the implications of our findings for Park management capacity building as well as for future interdisciplinary and qualitative scholarship in conservation science.

Keywords Human dimension, interdisciplinary, job satisfaction, park management, policing, qualitative research, Uganda, wildlife law enforcement

Introduction

As the social and political aspects of conservation policy are often as important as the ecological and environmental elements, an interdisciplinary approach is needed to understand these processes better (cf. Brechin et al., 2002; Mascia et al., 2003; Adams, 2007). Criminologists and criminal justice scholars have examined topics relevant to conservation science, including poaching (e.g. Moreto & Lemieux, 2015b) and illegal wildlife markets (e.g. Warchol et al., 2003; Moreto & Lemieux, 2015a). Additionally, the development of sub-fields within the discipline, such as conservation (Gibbs et al., 2010) and green criminology (South & Brisman, 2013), as well as the adaptation of

established criminological approaches (e.g. situational crime prevention; Pires & Moreto, 2011; Lemieux, 2014) provide further impetus for criminology and criminal justice scholars to investigate conservation-related topics.

This study contributes to the interdisciplinary agenda of both criminal justice and conservation science by examining the perceptions and opinions of those responsible for the front-line protection of protected areas: law enforcement rangers (hereafter, rangers). Despite their central role in protected area management, there is sparse research with an explicit focus on this population. Similar to the literature on policing, research on rangers may yield significant and contextually appropriate knowledge.

Job satisfaction is one of the most widely studied areas of organizational behaviour. Locke (1969) referred to job satisfaction as 'the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values' (p. 316). Spector (1997), conceptualizing job satisfaction as an attitudinal variable, defined it as 'how people feel about their jobs... the extent which people like (satisfaction) or dislike (dissatisfaction) their jobs' (p. 2). Greene (1989) described how 'job satisfaction and dissatisfaction are not seen as unitary concepts; rather they are a composite of the individual's assessment of many factors associated with work and the workplace' (p. 172).

To date, the majority of research investigating job satisfaction has been based on questionnaires and has largely been quantitative (Spector, 1997). Moreover, measuring job satisfaction through a single-item, global measure compared to specific facet measures has further highlighted the complexity of conducting job satisfaction research (c.f. Scarpello & Campbell, 1983; Highhouse & Becker, 1993). Arguably, studies that incorporate qualitative methods may further illuminate the topic by identifying themes that are underrepresented, categorized incorrectly, or simply unknown. Furthermore, qualitative assessments may identify specific factors that influence job satisfaction within a particular line of work, especially occupations that involve substantial task autonomy and independence from direct supervision.

Policing is widely considered to be intrinsically stressful because of the distinct characteristics of the job (e.g. encountering armed suspects), and has therefore been the focus of much attention from researchers (e.g. Toch, 2002). Scholars have examined the role of demographic variables in influencing job satisfaction, including gender (Buzawa, 1984; Dantzker & Kubin, 1998; Zhao et al., 1999), race (Johnson, 2012), education (Zhao et al., 1999), and years

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Received 16 February 2016. Revision requested 16 March 2016.

Accepted 15 April 2016. First published online 21 June 2016.

of service and rank (Zhao et al., 1999; Johnson, 2012). However, research suggests that the strongest predictors of officer job satisfaction relate to job-related characteristics, with numerous themes identified within the literature (e.g. job task features, organizational environment). In particular, officer job satisfaction has been found to be positively linked to autonomy, feedback, perceptions of societal contribution, task identity and significance, perceived organizational support, peer support, career orientation, affirmative job challenges, assignment categories, and congruency between officers and their supervisors (Greene, 1989; Lurigio & Skogan, 1994; Hoath et al., 1998; Zhao et al., 1999; Halsted et al., 2000; Miller et al., 2009; White et al., 2010; Johnson, 2012; Ingram & Lee, 2015). Studies that have incorporated personality and community characteristics further support the influence of self-efficacy on officer job satisfaction (Miller et al., 2009; Jo & Shim, 2015).

Job satisfaction among wildlife law enforcement personnel is rarely investigated. Charles (1982) identified several reasons why rangers in Yellowstone National Park, USA, enjoyed their job, including working outdoors, earning a salary, contributing to conservation and interacting with people. Palmer & Bryant (1985) found that the majority of respondents in a sample of game wardens in Virginia, USA, were highly satisfied with their job and attributed this to the lack of constant supervision, variety of work tasks, autonomy in work performance, and the link between their outdoors orientation and the open-air working environment. Studies in Kentucky (Eliason, 2006) and Montana (Eliason, 2014), USA, reified these early examples, finding the majority of officers were satisfied with their job because of the independence and flexibility they were afforded, with participants indicating they enjoyed the outdoors and the diversity of their duties, liked interacting with people, took pride in stopping criminal activity in protected areas, and saw value in protecting wildlife. Only one study has explicitly explored job satisfaction of wildlife law enforcement officers in an African context (Ogunjinmi et al., 2008). Eighty rangers were surveyed at a game reserve in Nigeria, and the majority (87.5%) were dissatisfied with their job. The main reasons were low pay, especially considering the hazards of the job; infrequent promotions; lack of proper equipment; no provisions for rangers' health; and the risk of injury or death at the hands of poachers.

Job satisfaction, however, is more complex and nuanced than simply being the inverse of dissatisfaction. Ogunjinmi et al. (2008) framed their study primarily on factors that promote job dissatisfaction, and thus their findings provide little insight into what factors contribute to enjoyment and satisfaction. This distinction is crucial because it informs processes such as recruitment and retention; for example, certain aspects of job satisfaction might have been deterministic in self-selecting into this dangerous and difficult career. Greater understanding of officer-level perceptions could



FIG. 1 Location of Queen Elizabeth National Park in Uganda.

help to highlight and reinforce positive organizational examples. Jachmann & Billiouw (1997), for instance, outlined a system that offered cash rewards for Zambian anti-poaching rangers who made arrests and confiscated ivory. This type of programme suggests that reinforcing greater self-efficacy in combination with financial incentives could promote job satisfaction among rangers, and quantifiably increase their performance.

We investigated the perceptions of rangers' and supervisors' job satisfaction in a Ugandan protected area. Given the exploratory objectives of the study, we employed an ethnographic case study approach based on semi-structured interviews and participant observation. Unlike previous studies that have focused on elements that lead to different sources and manifestations of job dissatisfaction or stress, we explicitly examined rangers' positive perceptions and opinions of their job. We concentrate on providing an in-depth overview of aspects of the job that 'uplift' rangers (Hart et al., 1994). Furthermore, we attempt to contribute to the overall law enforcement job satisfaction literature as well as the methodological scope of conservation science by examining the issue utilizing qualitative methods. Findings from this research contribute to informed policy discussions for protected area management and capacity building by contextualizing the realities of the work of front-line personnel.

Study area

Located in the south-west of Uganda and bordering the Democratic Republic of Congo, Queen Elizabeth National Park (1,978 km²; Fig. 1) is part of the greater Queen Elizabeth Conservation Area. The Uganda Wildlife Authority is the governing agency responsible for the monitoring and management of the country's protected areas,

and this study focuses on the Authority's law enforcement department. In Queen Elizabeth National Park the law enforcement department is responsible for traditional policing duties, including patrols and investigations, but rangers also engage in other activities. In particular, they are responsible for guarding and security duties, data collection, and in some situations community sensitization (alongside the community conservation rangers). Given their extensive and at times on-call responsibilities (e.g. ambush patrols or responding to problem species; Moreto & Matusiak, *in press*), rangers live at the Park headquarters or at one of the 25 ranger outposts, gates or sub-headquarters.

Methods

Data were collected during September and October 2012. Similar to early policing research that relied on qualitative methods and provided policing scholars the opportunity 'to be educated by their research subjects' (Hassell, 2006, p. 63), an ethnographic case study approach was utilized to reveal the unique interrelated nature of the rangers' occupational and personal lives. WDM immersed himself 'in the day-to-day lives of the people' being studied (Creswell, 2003, p. 90) and gathered data from open-ended semi-structured interviews and participant observations. Furthermore, we operated from a grounded theory perspective, which is an inductive and iterative approach that generates theory from 'within the data themselves' (Charmaz, 2006, p. 2).

Purposeful operational construct sampling was used to select respondents. Drawn from an administrative staff list ($n = 79$), 20 rangers were selected randomly to participate in the study. Random selection facilitated equal opportunity for all rangers to be involved, reduced selectivity bias (Patton, 2002) and assuaged potential concerns of respondents. Additionally, four supervisors were recruited opportunistically, giving a total of 24 study participants (c. 30.4% of the total population).

Interviews were conducted privately in three settings: the respondent's home, a conference room at Park headquarters, or the home of the assistant warden of law enforcement. Interviews lasted c. 1–3 hours and were audio recorded (two respondents declined to be recorded but consented to be interviewed). All voice recordings and notes were uploaded to a laptop, kept in a secured bag, and locked in WDM's room. All respondents were male, 23–54 years old ($\chi = 33.8$). The majority were married (87.5%) and had children (79.2%). On average, respondents had been working with the Uganda Wildlife Authority for just over 9 years, and within the Park for just over 8 years.

Data were also collected through participant observation. During the data collection period WDM lived with and amongst the ranger population at the Katunguru headquarters in the Park, where he observed and participated in the daily activities of the rangers (Spradley, 1980), and was thus

able to reaffirm or refute information provided by respondents. Furthermore, by conducting on-site research WDM was able to interact with rangers in various capacities, including participating in foot patrols and informal discussions, which helped to establish trust and rapport.

In total, c. 500 hours of participant observation was completed within the 2-month study period, including 70 hours of participant observation during routine foot patrols. This estimate does not include the time spent sleeping, conducting personal errands or completing other aspects of the study (e.g. formal interviews). The approximate time frame presented here is probably a conservative estimate, given the immersed nature of the study. Participant observation data were recorded through field notes and WDM's narrative reflections, which helped provide a comprehensive overview of daily events and offered an opportunity to identify recurring themes during data collection.

Data from interviews and participant observations were transcribed, uploaded into the qualitative data analysis software *NVivo 10* (QSR International, Melbourne, Australia), and analysed using a two-step process. Initial (or open) coding (Saldaña, 2009), which involves dividing data into sections to identify similarities or differences, was followed by pattern coding, which identified overarching themes or constructs (Miles & Huberman, 1994). Quotations were chosen as the most illustrative of respondents' perceptions and experiences and are presented with minimal alterations (i.e. addition of conjunctive words or phrases). This protocol was approved by both the Rutgers University Institutional Review Board (IRB: 12-737) and the Uganda National Council for Science and Technology (Ref: SS 2758).

Results

Study participants identified a number of factors that contributed to their job satisfaction, and, overall, most respondents enjoyed being a ranger. In general, four overarching (but not mutually exclusive) themes were identified: role in aiding Uganda's conservation efforts and national development; financial stability and familial support; conducting front-line work and establishing ownership of the Park; and opportunities for personal and social development. Excerpts from interviews are presented to illustrate these themes. Additional supporting quotations are provided in [Table 1](#).

Role in aiding Uganda's conservation efforts and national development

Analogous to research on wildlife law enforcement in the USA, most respondents enjoyed being a ranger because of the role they played in Uganda's conservation efforts. Most rangers were proud of being considered the front-line

TABLE 1 Quotes from interviews with rangers (n = 24) in Queen Elizabeth National Park, Uganda (Fig. 1), during September–October 2012, illustrating how various factors contributed to their job satisfaction.

Role in conservation & conserving for future generations

You're being a ranger, you're conserving. You have sacrificed yourself to come & conserve. To make sure that our animals are protected. The plants are protected & everything. So, when you come in, you also move with them (animals) & you will love it. (R006)

The visitors (tourists) enjoy seeing the animals in the wild [. . .] It is better for me to be a scout (ranger). To ensure that these animals are protected. (R001)

We protect, we conserve [. . .] And we are conserving for what? For generations. The grands (ancestors), grands, & the grands of a long time ago also came & they conserved. They also left for us [the wildlife]. We all see those things (wildlife). And that's why we conserve for generations. So, we need to make sure we protect. (R017)

I conserve the environment, so that maybe next time, my kid can see what I've been conserving. (R015)

I'm protecting them (wildlife) so that tomorrow, my children also will grow & come to see them. That's why I like it [. . .] Now I'm a ranger. Most important to protect these ones (wildlife) for the [future] generation. I need to protect them. To conserve them. (R008)

National development

I'm conserving for generations. Yeah, I want to see my kids in 20 years come to see the elephants surviving, to see the buffalo. And, you know, this job is a good job for that. (R003)

If these favourable attractions exist, so many people would want to spend their money here [and] would leave a lot [of money]. This would benefit the nation. (R002)

I've known how the wildlife is important to the nation. Like when the tourists come, there's money they pay. That is like foreign exchange that is given to the government & it's helping our fellow Ugandans. Our fellow countrymen. (R009)

That's why the government earns a lot of money. So it's my role to protect the source of our revenues. So, I like my job. I'm proud to protect the source. (R003)

Financial stability & familial support

[It] pays me salary. (R013)

I'm earning some money. (R016)

I'm happy with the money [&] earning a living. (R022)

It is a good job because when the month ends, you get your money. (R012)

I'm getting something to help my family. (R009)

My mother, I'm catering for (supporting) her very much [&] so even the people in the village say, 'Ah! You see now! The woman suffered [in the past], but now at least enjoying. And it's because of [her son] being a ranger!' (R015)

The most rewarding part of my job, of course, I get salary. And when I get salary, I use it to develop myself. I see it is rewarding because I have developed myself. Currently, as I talk, I also in middle class [. . .] Why can't I be happy with the job I'm having? I told you that small house I have, I have a hen there. My kids get the eggs. They slaughter the chicken, they don't buy [the chicken]. I told you, they bought a cow [. . .] Those are achievements! Those are the benefits of the work I'm doing & I'm happy about it [. . .] I feel happy for the organization that I'm working [for]. (R005)

Yeah, I like being a ranger because it has boosted my support to my family. It has supported my family. It has changed my life [. . .] Yeah, I'll always get money monthly. I've constructed [a house back in the village]. Yes, I now have somewhere to sleep. Compared to those days when I was not having a job. (R019)

I know that my kid will also be more educated than me. You never know, he may be a warden [some day]! [laughs] Or if not a warden, executive director [of the Uganda Wildlife Authority]. They have increased the salary, so that I can get enough money to take him to schools. (R015)

Physical fitness & patrol work

Being on the ground, I like it. Because one: it keeps you physically fit. You'll be fit because you walk long distance. (R019)

[Patrolling] makes somebody physically fit! You are really physically [fit] [. . .] Because the way I patrol, I don't need exercise. The exercise I'm doing [while on patrol] is enough! [laughs]. (R011)

I enjoy patrols [the] most [because] it's my job. It's in my blood now! All the years I've worked, it's in my blood! (R018)

I feel good to strengthen myself at work. I feel physically fit every time, because being a ranger, you do go on patrol. Being on patrol, it will achieve your mission as a ranger [. . .] Of course, if you move [you will be] physically fit. You feel okay! Yeah, you feel okay. If you sweat, ah! You find your bones keep strong. (R007)

TABLE 1 (Cont.)

I'm proud of being a ranger. Putting on my uniform, getting my gun, & going on duty. When I'm on duty, I am proud! (R004)

Encountering wildlife

I like [being a ranger] because I have learned many things which have been hidden from me since my childhood. When I joined as a ranger, I saw very many things which I have never seen. I have never seen like seeing the elephants physically, these lions, leopards. Actually, I appreciate being a ranger because I would have maybe died without seeing them. (R012)

I've liked wildlife from [my] school days. (R021)

I like to be a ranger because the time I was still in the school, [I was] just studying about the national park, game reserves, & these animals. But now since I'm a ranger, I've seen the goodness in those animal. I've seen them physically. That is why I like it (job). (R008)

Ownership of the Park

I have had very good exposure, yes. Initially in my place (home village) we didn't think there was value in conservation. Like the Ugandan kob, the only animals that we used to know was the Ugandan kobs & crested crane because they appear on our coat of arms. But the rest, we thought that was food, eh! [...] The interaction I've had with wildlife has made me know that these animals are of value. Because now with the appreciation I have, it's not that they are only creatures that need to be protected. You know they're like our helpless brothers that need our hand. (R002)

The most thing that is good for me to make patrols. You see these animals. The environment that we are controlling. It is like a cattle keeper who has cows [&] goats. If he finds one goat missing, he doesn't feel alright [...] Even we rangers, this is what we mostly feel. I feel comfortable if I go to patrol & meet some groups of Ugandan kobs, buffaloes, elephants. [If] I get them in plenty, I feel alright. (R020)

When I move like three nights, I don't come across something, then I'm happy. I say, I'm protecting! Those people (criminals) have started fearing. Ah, so I'm happy! [I] don't get demoralized, but become very happy. (R006)

You patrolled & you didn't get anything. That is very nice! You reach your house, you find the house is locked like the way you left it. For example, you [referring to the lead author] are in Uganda, you back to your country. I know you left your house in your country. You have locked it. You come back from Uganda, you go back to your country. You find your house is locked the way you locked it. How will you feel? You will feel okay! You will say, 'Ah! This is very nice! I found the way I locked my house. It is very nice!' But when you find that they have broken [into] the house, you'll feel bad. So the *Park* is *our* house! (R017)

Opportunities for education

At times even there's more knowledge. I have gone for courses, which I was not expecting before I joined the Park. 'Cause so far I have attended the course on radio communications. I have attended courses on wildlife health. I have attended courses like prosecuting. So like these things have assisted & I have more skills than when I joined the Park. (R009)

Being a ranger, you study a lot. You study a lot. When I came, I was not aware that in the forest we have these species. But I have studied a lot of geography here [...] So being a ranger, a field ranger, you study a lot. Academics. Movement of animals. Reproductive system of mammals. The movement of the fish in the lake. You study everything in the environment! So you have a lot of studies as a ranger. (R022)

Opportunities to travel

[I have] discover some new places where I have not reached before being a ranger. (R013)

Meeting new people

It has also made me know friends [...] People when they come, they don't look at people in gardens (in the villages). But the people who stand chances of getting friends, are *these* ones (the rangers). Because tourists come [here to the Park]. I wouldn't have met you [points to lead author], if I was really not attached to tourism conservation [laughs]. This I would say, this is a really rare field. A rare gift that I've got [...] I have managed to get really enriched with friends. (R002)

protection for Uganda's protected areas and wildlife, as exemplified by respondent R007: 'Since I'm a conservationist, I like being [able] to [help] control the resources of the people.'

Respondents also referred to the long-term objectives for front-line conservation by referencing the Uganda Wildlife Authority's slogan of 'conserving for generations,' or as R009 put it, 'conserving for sustainability.' R013 stated, 'first of all, I like conservation. That's why I like to be a ranger, because I like conservation.' The Uganda Wildlife Authority's mandate contributed to the rangers' sense of

mission and job satisfaction, but some rangers also thought of their own children when referring to 'future generations'. They were protecting the wildlife not only to benefit the country and tourists but also so that their own children would have the opportunity to see Uganda's wildlife. Rangers recognized the importance of protected areas and wildlife in the economic development of the country, and felt that they personally contributed to national advancement.

Notably, rangers' sense of mission extended beyond the local and immediate setting of the Park and incorporated national development and sustainability. Moreover, the

additional personal drive associated with being responsible for conserving for future generations, including their own children, further entrenched the rangers' conservation-driven mission.

Financial stability and familial support

Although some rangers expressed dissatisfaction with the salary they received (Moreto, 2015), most respondents were content with the compensation, especially following the recent doubling of salaries across the organization. R011 said, 'I like to be a ranger because I'm getting money.' Another respondent explained how increased compensation boosted ranger morale: 'We have morale with that. We have the morale and this is why we are doing now our job seriously' (R006). Other respondents highlighted how earning a salary is instrumental to supporting their family: 'It's how I earn a living! So my family earns a living. It's my life' (R003). Rangers also explained how their salary helped them pay for their children's education; for example, R008 referred to 'getting the money for my family and school fees for my children,' and R014 said, '[By being a ranger] I'm gaining something [and] my children are going to school.'

Conducting frontline work and establishing ownership of the Park

Rangers need to have the physical capabilities, training and wherewithal to endure laborious foot patrols in dangerous settings. Despite the difficulties of foot patrols (Moreto, 2015), respondents cited the physical nature of the job as one of its appealing aspects, in part because it kept them in good shape; for example, one ranger stated, 'Yeah, patrol is good! It gives you physical fitness on the long routes that you travel. It gives you long, good exercises' (R006).

In addition to the health benefits of patrolling, patrols also helped to strengthen the overall conservation mission of the rangers. Similar to findings highlighting the importance of perceived 'real' police work (e.g. foot patrols; Van Mannen, 1978), rangers also expressed opinions regarding what constituted 'real' ranger work. Essentially, patrol work helped to confirm their *raison d'être* (i.e. ranger-based data collection, identifying illegal activities, and apprehending suspects; Cain, 1973) and provided them with a distinct role in the Uganda Wildlife Authority's conservation efforts.

Respondents also described how being a ranger fulfilled their lifelong ambition to personally experience and observe Ugandan wildlife, with many never having seen much wildlife prior to their employment. R001 explained how since his youth he wanted to 'enjoy these animals in their wilderness.' Participants also commented that a key factor contributing to job satisfaction was their ability to apply their education, or as one respondent stated: 'As a wildlife manager, I am

now practising what I learned in college. Now I'm putting it into practice.' He added, 'I love my work because of wildlife' (R009).

Rangers' lifelong interest in experiencing Uganda's wildlife, coupled with their role as front-line protectors of these species led to a sense of ownership and vested interest in the wildlife. It seems likely this ownership influences and/or is influenced by the aforementioned conservation-driven sense of mission. One ranger proclaimed how he enjoyed being 'responsible for protecting' wildlife, and even declared, 'those are my herds' (R009).

Ownership extended beyond the wildlife and was also discussed within the scope of the Park itself, as rangers viewed the Park as their home and were driven to protect it. Respondents expressed that whereas some of their fellow rangers would be disappointed with not finding illegal activities or encountering suspects during patrols, they considered the absence of such encounters to be a success, as this was indicative that they were performing their job effectively.

Opportunities for personal and social development

The final theme that emerged from the data involved opportunities for personal and social development. Rangers described how they would sometimes be provided with opportunities to attend seminars and courses that would help them become better professionals; for example, R012 mentioned how he had the opportunity to 'meet some seminars' and that he had 'learned many things now' that fostered his 'wildlife passion'. Notably, some rangers distinguished between vocational education (i.e. learning experientially on patrols) and academic-based education (i.e. seminars), and discussed how being exposed to day-to-day ranger activities and operations also provided important informal, on-the-job training.

In addition to opportunities for training and education, some respondents linked working as a ranger with opportunities to travel for training in other African countries or, via exchange programmes, in other protected areas around the world. In his response, R002 explained how being a ranger had 'given me personal benefit, eh! I've travelled!'

Respondents also described how they enjoyed meeting and interacting with visitors from Uganda and other countries. It was clear from interviews and informal discussions that rangers genuinely appreciated such interactions. R013 explained how being a ranger afforded 'friendship creation' opportunities, and R001 remarked how he liked interacting 'with visitors from various countries,' adding, 'I create a lot of friends in conservation.' R009 alluded to his participation in this study as an example of how being a ranger facilitated meeting new people: 'Like how we are here. We are friends. I didn't know you, but I have known you because of staying in the park.' He also commented, 'the best thing of being a

ranger is interacting with people from different places, like tourists [...] Yeah, the *mzungu's* (foreigners).'

Discussion

Our findings largely corroborate previous research and support the salience of concepts within the context of wildlife law enforcement job satisfaction. In general, our findings suggest that job satisfaction is associated with rangers' perceptions of their own personal contribution to conservation efforts, as well as the opportunities provided for personal development (e.g. education) and stability (e.g. salary). Unlike previous studies that have focused on detrimental factors (cf. Ogunjinmi et al., 2008; Moreto, 2015; Moreto et al., 2015), we highlight the positive elements of ranger work and workplace environment. In contrast, work environment is often perceived in the job satisfaction literature as an obstacle rather than 'a source of job enrichment' (Zhao et al., 1999, p. 157). Specifically, our findings indicate that rangers value specific operational aspects of the job (e.g. patrol) related to its professional (i.e. keeping the Park safe) and personal (i.e. providing physical fitness) impact. Findings also support previous policing research, illustrating that officers have a sense of mission grounded in action-oriented activities, morality, righteousness and duty (cf. Reiner, 2000; Loftus, 2010). Moreover, by working in an outdoor environment rangers experienced events (e.g. encountering wildlife) that otherwise may not have been available to them, and that provided them with opportunities to utilize their training.

Given the multidimensional nature of job satisfaction (cf. Zhao et al., 1999), the exploratory nature of this study yields several avenues for future research, including the link between ranger job satisfaction and specific demographic variables, including age, education and gender, as well as length of service and rank; the relationship between ranger job satisfaction and job performance, including potential moderating and mediating variables relating job satisfaction and job performance (Judge et al., 2001); and the relationship between job satisfaction and other central occupational attitudes, including job stress, motivation, staff turnover, and organizational commitment (cf. Lambert & Paoline, 2008). Our findings provide an initial assessment of the connection between job satisfaction and the affective, continuance and normative elements that result in organizational commitment (Meyer & Allen, 1991). Essentially, rangers may feel a stronger normative commitment to an organization if they establish a sense of ownership for the wildlife and the protected area, particularly in conjunction with a mission of conservation for future generations. Moreover, this research informs Park management about approaches that can increase employee satisfaction and bolster organizational commitment whilst reducing undesirable outcomes, including staff turnover and job stress.

The influence of distributive and procedural justice as they relate to organizational justice on ranger job satisfaction also merits future consideration. Given the potential role that rangers have in non-traditional law enforcement operations (e.g. community sensitization) within alternative approaches to protected area management (e.g. community-based conservation), a better understanding of how rangers' job satisfaction may influence such activities is needed. Previous policing research has found that officers' job satisfaction is related to whether they are more likely to be receptive to occupational and organizational changes and whether they would support a shift to community-oriented policing strategies (cf. Wycoff & Skogan, 1994; see also Moreto et al., 2016). Research should also examine potential similarities and differences amongst and between rangers from various departments (e.g. community conservation).

We acknowledge the limitations of this study. Like all qualitative research, the credibility and transferability of our findings must be assessed carefully (Lincoln & Guba, 1985). However, we believe that the prolonged immersion of WDM among the study participants promoted trust and rapport and reduced potential interaction effects or reactivity (Miles & Huberman, 1994). Additionally, living on-site with the rangers provided the opportunity to engage in confirmatory 'member checks' to verify preliminary interpretation of data (Lincoln & Guba, 1985). Moreover, by triangulating data from the interviews and participant observation we were able to corroborate and combine disparate data sources to establish a comprehensive understanding of the experiences of the rangers. Although our conclusions may not be generalizable to other protected areas, we assert they may be 'generalizable to theoretical propositions' (Yin, 2009, p. 15).

This study contributes to both the conservation science and criminal justice literature by examining a topic that has direct relevance to both fields. It also extends the methodological scope of both fields by providing a qualitative assessment of rangers operating within a protected area (cf. Drury et al., 2011; Copes & Miller, 2015), and supports the role of social scientists within the natural sciences and, in particular, the examination of human dimensions of conservation science. Whereas much of the previous literature describing the interplay between conservation policy and human interpersonal dynamics has centred on local communities, this study shows the importance of also considering the individuals at the forefront in the protection of protected areas and wildlife.

Acknowledgements

We thank the Uganda Wildlife Authority and the Uganda National Council for Science and Technology for reviewing and approving this study; the management at Queen Elizabeth National Park for allowing the study to be carried

out; and the study participants (and the overall ranger population) at the Park for their involvement, insight and forthrightness.

References

- ADAMS, W.M. (2007) Thinking like a Human: social science and the two cultures problem. *Oryx*, 41, 275–276.
- BRECHIN, S.R., WILSHUSEN, P.R., FORTWANGLER, C.L. & WEST, P.C. (2002) Beyond the square wheel: toward a more comprehensive understanding of biodiversity conservation as social and political process. *Society & Natural Resources*, 15, 41–64.
- BUZAWA, E.S. (1984) Determining patrol officer job satisfaction: the role of selected demographic and job-specific attitudes. *Criminology*, 22, 61–81.
- CAIN, M.E. (1973) *Society and the Policeman's Role*. Routledge & Kegan Paul Ltd, London, UK.
- CHARLES, M.T. (1982) The Yellowstone ranger: the social control and socialization of federal law enforcement officers. *Human Organization*, 41, 216–226.
- CHARMAZ, K. (2006) *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*. SAGE Publications, Thousand Oaks, USA.
- COPESE, H. & MILLER, J.M. (eds) (2015) *The Routledge Handbook of Qualitative Criminology*. Routledge, New York, USA.
- CRESWELL, J.W. (2003) *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, 3rd edition. SAGE Publications, Thousand Oaks, USA.
- DANTZKER, M.L. & KUBIN, B. (1998) Job satisfaction: the gender perspective among police officers. *American Journal of Criminal Justice*, 23, 19–31.
- DRURY, R., HOMEWOOD, K. & RANDALL, S. (2011) Less is more: the potential of qualitative approaches in conservation research. *Animal Conservation*, 14, 18–24.
- ELIASON, S.L. (2006) Factors influencing job satisfaction among state conservation officers. *Policing: An International Journal of Police Strategies and Management*, 29, 6–18.
- ELIASON, S.L. (2014) Life as a game warden: the good, the bad and the ugly. *International Journal of Police Science & Management*, 16, 196–204.
- GIBBS, C., GORE, M.L., MCGARRELL, E.F. & RIVERS, III, L. (2010) Introducing conservation criminology: towards interdisciplinary scholarship on environmental crimes and risks. *The British Journal of Criminology*, 50, 124–144.
- GREENE, J.R. (1989) Police officer job satisfaction and community perceptions: implications for community-oriented policing. *Journal of Research in Crime & Delinquency*, 26, 168–183.
- HALSTED, A.J., BROMLEY, M.L. & COCHRAN, J.K. (2000) The effects of work orientations on job satisfaction among sheriffs' deputies practicing community-oriented policing. *Policing: An International Journal of Police Strategies & Management*, 23, 82–104.
- HART, P.M., WEARING, A.J. & HEADEY, B. (1994) Perceived quality of life, personality, and work experiences: construct validation of the police daily hassles and uplifts scales. *Criminal Justice and Behavior*, 21, 283–311.
- HASSELL, K.D. (2006) *Police Organizational Cultures and Police Practices*. LFB Scholarly Publishing LLC, New York, USA.
- HIGHHOUSE, S. & BECKER, A.S. (1993) Facet measures and global job satisfaction. *Journal of Business and Psychology*, 8, 117–127.
- HOATH, D.R., SCHNEIDER, F.W. & STARR, M.W. (1998) Police job satisfaction as a function of career orientation and position tenure: implications for selection and community policing. *Journal of Criminal Justice*, 26, 337–347.
- INGRAM, J.R. & LEE, S.U. (2015) The effect of first-line supervision on patrol officer job satisfaction. *Police Quarterly*, 18, 193–219.
- JACHMANN, H. & BILLIOUW, M. (1997) Elephant poaching and law enforcement in the Central Luangwa Valley, Zambia. *Journal of Applied Ecology*, 34, 233–244.
- JO, Y. & SHIM, H.S. (2015) Determinants of police job satisfaction: does community matter? *International Journal of Law, Crime and Justice*, 43, 235–251.
- JOHNSON, R.R. (2012) Police officer job satisfaction: a multidimensional analysis. *Police Quarterly*, 15, 157–176.
- JUDGE, T.A., THORESEN, C.J., BONO, J.E. & PATTON, G.K. (2001) The job satisfaction–job performance relationship: a qualitative and quantitative review. *Psychological Bulletin*, 127, 376–407.
- LAMBERT, E.G. & PAOLINE, III, E.A. (2008) The influence of individual, job, and organizational characteristics on correctional staff job stress, job satisfaction, and organizational commitment. *Criminal Justice Review*, 33, 541–564.
- LEMIEUX, A.M. (ed.) (2014) *Situational Prevention of Poaching*. Routledge, New York, USA.
- LINCOLN, Y.S. & GUBA, E.G. (1985) *Naturalistic Inquiry*. SAGE Publications, Thousand Oaks, USA.
- LOCKE, E.A. (1969) What is job satisfaction? *Organizational Behavior and Human Performance*, 4, 309–336.
- LOFTUS, B. (2010) Police occupational culture: classic themes, altered times. *Policing & Society*, 20, 1–20.
- LURIGIO, A.J. & SKOGAN, W.G. (1994) Winning the hearts and minds of police officers: an assessment of staff perceptions of community policing in Chicago. *Crime & Delinquency*, 40, 315–330.
- MASCIA, M.B., BROSIUS, J.P., DOBSON, T.A., FORBES, B.C., HOROWITZ, L., MCKEAN, M.A. & TURNER, N.J. (2003) Conservation and the social sciences. *Conservation Biology*, 17, 649–650.
- MEYER, J.P. & ALLEN, N.J. (1991) A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1, 61–89.
- MILES, M. & HUBERMAN, A. (1994) *Qualitative Data Analysis*, 2nd edition. SAGE Publications, Thousand Oaks, USA.
- MILLER, H.A., MIRE, S. & KIM, B. (2009) Predictors of job satisfaction among police officers: does personality matter? *Journal of Criminal Justice*, 37, 419–426.
- MORETO, W.D. (2015) Occupational stress among law enforcement rangers: insights from Uganda. *Oryx*, <http://dx.doi.org/10.1017/S0030605315000356>.
- MORETO, W.D., BRUNSON, R.K. & BRAGA, A.A. (2015) 'Such misconducts don't make a good ranger': examining law enforcement ranger wrongdoing in Uganda. *The British Journal of Criminology*, 55, 359–380.
- MORETO, W.D., BRUNSON, R.K. & BRAGA, A.A. (2016) 'Anything we do, we have to include the communities': law enforcement rangers' attitudes towards and experiences of community–ranger relations in wildlife protected areas in Uganda. *The British Journal of Criminology*, <http://dx.doi.org/10.1093/bjc/azw032>.
- MORETO, W.D. & LEMIEUX, A.M. (2015a) From CRAVED to CAPTURED: introducing a product-based framework to examine illegal wildlife markets. *European Journal on Criminal Policy and Research*, 21, 303–320.
- MORETO, W.D. & LEMIEUX, A.M. (2015b) Poaching in Uganda: perspectives of law enforcement rangers. *Deviant Behavior*, 36, 853–873.
- MORETO, W.D. & MATUSIAK, M.C. (in press) 'We fight wrong doers': law enforcement rangers' roles, responsibilities, and patrol operations in Uganda. *Deviant Behavior*.
- OGUNJINMI, A.A., UMUNNA, M.O. & OGUNJINMI, K.O. (2008) Factors affecting job satisfaction of rangers in Yankari Game

- Reserve, Bauchi, Nigeria. *Journal of Agriculture and Social Research*, 8, 1–9.
- PALMER, C.E. & BRYANT, C.D. (1985) Keepers of the King's deer: game wardens and the enforcement of fish and wildlife law. In *The Rural Workforce: Non-Agricultural Occupations in America* (eds C.D. Bryant, D.W. Shoemaker, J.K. Skipper, Jr & W.E. Snizek), pp. 111–137. Bergin & Garvey, Westport, USA.
- PATTON, M.Q. (2002) *Qualitative Research & Evaluation Methods*, 3rd edition. SAGE Publications: Thousand Oaks, USA.
- PIRES, S.F. & MORETO, W.D. (2011) Preventing wildlife crimes: solutions that can overcome the 'Tragedy of the Commons'. *European Journal on Criminal Policy and Research*, 17, 101–123.
- REINER, R. (2000) *The Politics of Police*, 3rd edition. Oxford University Press, Oxford, UK.
- SALDAÑA, J. (2009) *The Coding Manual for Qualitative Researchers*. SAGE Publications, Thousand Oaks, USA.
- SCARPELLO, V. & CAMPBELL, J.P. (1983) Job satisfaction: are all the parts there? *Personnel Psychology*, 36, 577–600.
- SOUTH, N. & BRISMAN, A. (eds) (2013) *Routledge International Handbook of Green Criminology*. Routledge, New York, USA.
- SPECTOR, P.E. (1997) *Job Satisfaction: Application, Assessment, Causes, and Consequences*. SAGE Publications, Thousand Oaks, USA.
- SPRADLEY, J.P. (1980) *Participant Observation*. Wadsworth, Belmont, USA.
- TOCH, H. (2002) *Stress in Policing*. American Psychological Association, Washington, DC, USA.
- VAN MANNEN, J. (1978) The asshole. In *Policing: A View from the Street* (eds P.K. Manning & J. Van Mannen), pp. 221–238. Goodyear Publishing Company, Santa Monica, USA.
- WARCHOL, G.L., ZUPAN, L.L. & CLACK, W. (2003) Transnational criminality: an analysis of the illegal wildlife market in southern Africa. *International Criminal Justice Review*, 13, 1–27.
- WHITE, M.D., COOPER, J.A., SAUNDERS, J. & RAGANELLA, A.J. (2010) Motivations for becoming a police officer: re-assessing officer attitudes and job satisfaction after six years on the street. *Journal of Criminal Justice*, 38, 520–530.
- WYCOFF, M.A. & SKOGAN, W.G. (1994) The effect of a community policing management style on officers' attitudes. *Crime & Delinquency*, 40, 371–383.
- YIN, R.K. (2009) *Case Study Research: Design and Methods*, 4th edition. SAGE Publications, Thousand Oaks, USA.
- ZHAO, J., THURMAN, Q. & HE, N. (1999) Sources of job satisfaction among police officers: a test of demographic and work environment models. *Justice Quarterly*, 16, 153–173.

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