

at the castration clinic varied: 17 cited hands-on experience, 6 listed working with practitioners, 2 sophomores most enjoyed seeing repetition of the procedure, 1 senior liked interacting directly with the client, and 1 junior mentioned helping solve the unwanted horse issue. All but 1 strongly agreed that he or she would like to volunteer to participate as a supervising veterinarian after graduation.

Almost half of the owners of the equids participating in the first Castration Clinic stated they would not have castrated their stallions without the clinic, underscoring the community need for this form of assistance. Consequently, the Castration Clinic is a semi-annual event, to be held in a variety of locations around the state.

### Discussion

Equine castration is a procedure that is performed at least monthly by veterinarians working on horses, and is therefore a core skill for veterinary education [2]. Students interested in equine veterinary careers recognize that they will be expected to be able to perform an equine castration with little to moderate supervision upon graduation. Given the infrequent opportunity to see, much less perform, an equine castration in final-year rotations, the Castration Clinic provides an excellent opportunity for the veterinary students to increase their hands-on learning skills, knowledge, and confidence. The participating veterinary students rated the experience very highly and yet were eager to gain more experience, supporting the plans to make the castration clinic a semi-annual event.

Ethical solutions to animal welfare issues may be crowded out of the core curriculum in veterinary colleges despite strong student interest [3, 4]. Teaching hospital collaboration with animal shelters to enhance veterinary student learning is not a new concept and has been effectively utilized for teaching basic small-animal physical examination, behavioral assessment, surgical, and anesthetic skills [5, 6]. The combination of community service, meeting an equine welfare need, and promoting better training of veterinary students is an effective mix. The Castration Clinic provides live-animal surgical experience without the use of laboratory animals or a non-survival model, which trigger aversion to participation in students [7, 8]. Physical practice with a routine procedure on a live animal, as well as observing both anesthesia and surgery on multiple animals enhanced student understanding of anatomy as well as their technical skills.

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## WORKING WITH UNIVERSITIES: THE KENYA EXPERIENCE

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### Abstract

*Donkeys are a major source of transport and draught power in rural and peri-urban Kenya. Yet, despite their overt importance, their welfare needs and contribution to the economy are not appreciated [1]. The Kenya National Livestock Policy draft of May 2008 does not recognize the donkey as 'livestock' and thus its contribution to the economy.*

*In Kenya, the University of Nairobi (UoN) is the only institution that trains veterinarians, while the government-owned Animal Health and Industry Training Institutes (AHITI) train animal health technicians and Egerton University runs an animal sciences programme. The low economical status attached to the donkey has consequently made these institutions give minimal or no emphasis on the donkey.*

*Below is a description of the efforts made by the Donkey Sanctuary (DS) funded Donkey Health and Welfare Improvement Project Kenya (DHWIP) at the Kenya Society for Protection and Care of Animals (KSPCA) through universities to best equip future clinicians and persons working with donkeys with information on animal welfare and donkey medicine and management practices; to promote donkey welfare; and to contribute towards the development of a knowledge base on working donkeys in Kenya.*

### Introduction

The UoN is the only university in Kenya currently offering a degree in veterinary medicine; for this reason most of the project's collaborative work has been with this institution. Egerton University, located in Nakuru District, has an Animal Sciences and Agricultural Engineering Department which occasionally carries out joint projects with the DHWIP. Targeting the 2 has been strategic as the UoN trains future clinicians and animal health policy makers, while Egerton University has provided the project with an opportunity to work on harness and cart-related technology.

### Methods

#### *Use of guest lectures*

Since 2003, project veterinarians have held 2 guest lectures at the University of Nairobi attended by fourth- and final-year veterinary students 2003 [2]. The first lecture is essentially on general animal welfare. The World Society for the Protection of Animals (WSPA) module is utilized for this. The second lecture, usually a few months later, is on overview of donkey diseases, a documentation of the project's field clinicians' experiences detailing the common diseases, conditions, and their management. The sessions are largely pictorial presentations with a question-and-answer session.

Similarly, since 2006, guest lectures have been held at Egerton University on general animal welfare, donkey health, and general management [2]. These lectures target Animal Production students. The lectures are aimed at improving the knowledge base of the students and faculty members in donkey medicine, management, and welfare and on general animal welfare. In the long term the DHWIP hopes that the universities will take up these lectures or incorporate the content into the curriculum.

#### *Use of attachment programmes*

The project runs an attachment programme with the University of Nairobi. A minimum of 3 final-year students can

be attached at a time; the duration of attachment is usually 8 weeks. The programme entails field clinical exposure, assignments, and general academic discussions. All activities are under a veterinarian's supervision and guidance. The students are equipped with kit comprising a stethoscope, thermometer, and manual. The manual acts as a general guide, and is reviewed regularly with the aid of the students' input.

The project currently employs 2 veterinarians who were once attached to the project as students, their interest in donkey health and welfare having been generated by the attachment programme. Another former student, Dr Emali, a locum veterinarian at 'Pendo' Donkey Rescue and Education Centre, a local lobby group in Narok town, says: 'It was an eye opener to donkey needs and problems, it availed me the practical skill in handling and approaching sick donkeys.' The objective of the attachment programme is to give the students hands-on experience of donkey handling and disease diagnosis and management, and to employ animal welfare concepts in all these.

#### **Creation of a resource centre**

The DS/KSPCA has partnered with the University of Nairobi to establish a resource centre. It was opened recently but has not attained full operation. It acts as a mini-library with a bias on equines and is equipped with a computer for students to have online access to resources, e.g. Vet Stream used to provide information on donkey health and welfare. The aim of the resource centre is to create interest in donkey health and welfare issues, and success has been evidenced by the postgraduate non-intrusive research proposals on donkey health and welfare forwarded to the project. Titus Waiguru, a final-year student at the faculty says: 'It has helped in improving knowledge base on donkeys, making it easier to understand equine medicine and respond accordingly to cases during ambulatory classes.'

#### **Research grants**

The project staff field exposure and resultant data collected aids in identification of areas worthy of research. Proposals from the UoN on such are encouraged and sponsorship decided upon together with DS-UK staff. The most recent example of this is a collaborative research project on African Horse Sickness. Similar ventures are expected in the future as a contribution to the development of a knowledge base on working donkeys in Kenya and to benefit the health and welfare of donkeys worldwide.

#### **Use of prizes/awards**

The project has an initiative with the UoN to award the best students in general animal welfare and equine welfare. The awards are decided upon merit in related subjects and student initiative (out of class) in the same. The first award ceremony is to be held in 2010. The awards are aimed at promoting animal welfare within the faculty with the long-term aim of encouraging students to study both animal welfare and, in particular, equine welfare for the benefit of working equids in Africa.

By encouraging students to study welfare issues it is hoped that, as new graduates, they will begin to educate other veterinarians and animal owners in the benefits of improved welfare.

All final-year students are each provided with a stethoscope, thermometer, and a manual on donkey medicine and husbandry after the end of the second guest lecture.

#### **Harness and cart development projects**

The Nakuru-based Egerton University Agricultural Engineering Department has had minor projects involving harness development and cart modification. The ideal location of the institution, in an area with a large population of working donkeys, makes it possible for field trials as the development process continues with the participation of donkey owners in some of the exercises. Successful trials might be adopted for training engineering students at the University. The project has had 'rope harness' trials in villages around the university; feedback from the donkey owners has been favourable with some owners completely adopting the harness and others developing similar ones along the same principles using readily available local materials.

Other challenges in this endeavour include the improper fitting of the harness and the short lifespan of the rope harnesses. This has led to the need for development of a harness manual, which is currently in progress.

#### **Planned future endeavours with universities and other institutions**

- Guest lectures at the 3 Animal Health and Industry Training Institutes (AHITI) in Kenya. This initiative is targeted at the animal health certificate holders. This group can be found in most areas of the country even in the arid and semi-arid areas where donkey populations are relatively high and fewer veterinarians exist. The long-term goal is for each institution to incorporate the concepts into its curriculum.
- Attachment programmes for AHITI students
- Demonstrations and training of university students on routine procedures performed on the donkey, e.g. dental floating, castration, and farriery. This is to be done primarily in conjunction with the University of Nairobi's Faculty of Veterinary Medicine.
- Training of trainers. The DS-UK is to sponsor an appropriate Faculty of Veterinary Medicine candidate for 1 of the DS Continuous Professional Development courses.

#### **Conclusion**

The project's noble efforts have prompted the incorporation of Animal Welfare into the veterinary medicine curriculum of 2 universities and improved students' and lecturers' knowledge in donkey medicine and husbandry. This has opened up an opportunity for the improvement of the health and welfare of donkeys in Kenya and the general animal population through sustainable local institutions.

#### **Acknowledgement**

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#### **References**

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