

## **TAWS Grant Report for Katherine Bunker** **Dental Disease in Working Equines in Morocco**

Morocco. The word conjures up vibrant visions of spice markets, colourful bazaars, stunning desert landscapes and majestic old Kasbahs. After five years of hard work the thought of taking time out after graduation to travel to Morocco and work for an equine charity had never seemed so good! Armed with text books and stethoscopes off I went. In 40 degree heat, I landed into the exciting chaos of Marrakech and was welcomed by the charity officials and taken to the refuge that was to be my home for the next month.

The Society for Protection of Animals Abroad (SPANNA) was established in 1923 and aims to provide free veterinary care to families living in some of the poorest areas of northern Africa. For these people, their animals are their livelihood and their survival depends on the animals working for them day in day out. If veterinary care is beyond their means, animals will often suffer unnecessarily despite the best intentions of their owners. This can have devastating effects on the families who rely upon them so heavily.

I spent my time working within SPANNA's clinic at Had Ouled Frej, a town two hours from Marrakech within one of Morocco's largest rural farming communities. The clinic holds a daily surgery where locals bring in their horses for examination and also runs a busy hospital facility. With some 'local' clients travelling 10km to see us, cases were frequently hospitalised to allow daily treatments to be administered without a round trip! I worked alongside the resident vet and team of technicians to examine and treat the queues of cases that lined up on a daily basis. Less than cooperative patients and an enormous language barrier made it a hugely challenging time! Basic animal husbandry knowledge was often lacking, resulting in poor animal welfare and suffering simply due to ignorance not cruelty. Two of the most common complaints were respiratory problems in animals left with nose bags attached all day, and traumatic wounds from ill fitting harnesses. Owners were very open to suggestions for improvements however, and the heartfelt thanks you received for your help was incredibly touching.

Alongside its work in the clinics, SPANNA is dedicated to providing sustainable improvements in animal welfare through education programmes and the development of preventative health care. During my time in Morocco, I carried out a pilot study on the prevalence of dental disease in equines presenting to the clinic. The aim was to develop a quick, effective and economical protocol for examination of animal's mouths. This is going to be used within a planned, larger scale study into the prevalence of dental disease within working animals in Morocco. Previous work throughout North Africa has shown a high prevalence of dental disease within the working equine population. A study carried out on 4889 working equines in North Africa found that in over 75% of animals examined, sharp edges or molar hooks were present on the teeth. Within the UK, associations have been found between the presence of dental disease and the development of colic. Dental disease has been identified as a risk factor for development of impaction colic in donkeys and was negatively associated with survival. It is hoped that by learning more about the prevalence of dental disorders within Morocco, the charity can develop a more targeted control scheme that will help increase awareness of the importance of teeth and improve dental health.

The population surveyed consisted of both hospitalised equines and a sample of those brought in for consultations over a four week period from 4<sup>th</sup> September 2006 until 28<sup>th</sup> September. The examination protocol we developed took approximately 15-30 minutes depending on the treatment required. Animals were given a brief clinical exam followed by a detailed dental exam using a hausmans gag. Any problems were recorded and then suitable treatment given.

The examination was practical and cost effective and could easily be accomplished alongside consultations without taking up too much time, which was a prime concern. Although not statistically significant, our findings agreed with previous work showing a high level of dental abnormalities with 86% of cases benefiting from some form of dental treatment. The most common abnormalities seen were disorders of wear. Sharp medial/ lateral points were seen in 66% cases and rostral/caudal hooks were seen in 28%. These conditions are easily treatable by manual rasping and this will improve mastication and efficiency of feed utilisation, improving quality of life. Dental rasping is routinely performed by technicians within the SPANA clinics and could represent a cost effective way of helping improve welfare in these animals.

Unfortunately, some of the cases presented to us had progressed to such a stage that it was impossible to correct them. Often these problems could have been prevented had the cases presented earlier for routine dental examinations. Owners were keen to do the best for their animals and by the end of my study, word of mouth had spread and people were already actively looking for signs of dental problems and asking for us to check their animal's mouth.

I found my time in Morocco hugely rewarding. These animals meant everything to their owners and to see people travel miles each day to deliver fresh forage to their hospitalised equid was incredibly moving. The work that the vets and technicians at SPANA are doing is making a real difference to the lives of people through improvements to the health of their animals. I feel very fortunate to have been able to contribute something and I look forward to returning in the future.

I would like to say a huge thank you to all the SPANA staff at Had Ouled Frej and Marrakech for their help during my stay. Their enthusiasm, optimism and dedication was a real inspiration! I would also like to thank to Karen Jones and Micheal Crane at SPANA for their help in organising my time in Morocco and their support whilst I was there, and to Liverpool University and TAWS for their generous support with funding.



**Figure 1. Typical Teeth**



**Figure 2. The Waiting Room**



**Figure 3. Treating a Wound**



**Figure 4. A Satisfied Custom**



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**Figure 5. At Work**



**Figure 6. The Team**