

LIVESTOCK AND WILDLIFE HEALTH TRAINING WORKSHOP HELD IN KENYA

John E Cooper

A grant from the Institute of Animal Technology (IAT) in Britain permitted me, in collaboration with my wife and Kenyan colleagues, to help organise a Workshop in Kenya, in July 2010.

The Workshop was held at Kwale, on the Coast of Kenya, 1000km from Nairobi, on Tuesday 27 July. The theme for the day was “Livestock and Wildlife Health” but the lectures also covered aspects of environmental (ecosystem) health and discussed the relevance of this to humans. This was one of a series of training programmes held in Kwale District over the past four years, all of which have been orientated towards the provision of theoretical and practical tuition, including the use of field equipment and techniques, to local people.

The venue for the workshop, Kwale Town, with a population of about 5000, is the administrative centre for Kwale District on the coast (Coast Province) of Kenya. The local people are poor and rely on agriculture, both livestock and crops, to maintain themselves and their families. Kwale is important to local small-scale farmers from locations such as Golini and Kinango who use the town and its weekly market to sell produce.

Registration took place on the verandah outside the lecture-room. A display of books, reprints, leaflets and laminated boards offered those who arrived early much to read and all participants received in their pack of Course Notes copies of literature provided by the British Veterinary Association (BVA), the BVA’s Animal Welfare Foundation (AWF), the Morris Animal Foundation (MAF), the Humane Slaughter Association (HSA) and the Universities Federation for Animal Welfare (UFAW).

The Workshop was chaired by Dr Ronald Nderingo, DVO Kwale. The Proceedings started with prayers, one Christian and one Muslim, each led by a registrant. The theme of the workshop was explained by Professor John E Cooper, who stressed that the emphasis of the day’s activities was on “health”, rather than “disease”. Health was a positive concept that could, increasingly, be measured. It implied wholeness and, indeed, the English word “health” itself had such an origin, illustrated in the expression “hale and hearty”. In Swahili a state of physical, mental and spiritual well-being was expressed in the word “uzima” which also meant “whole” or “complete”. The health of ecosystems, of environments, could be adversely affected by such factors as social strife and uncontrolled population expansion.

The morning was devoted to lectures and discussion. Dr Nderingo spoke about the health of domestic livestock and stressed how this could be compromised by infectious diseases or their vectors. The movement of livestock and wildlife played an important part in the spread of, especially, pathogenic protozoa and viruses.

The second speaker was Mr Paul Musila, Manager of the Mwaluganje Elephant Sanctuary (MES). He explained the history of the MES which, together with the adjacent Shimba Hills National Reserve, forms the Shimba Hills Ecosystem. The Sanctuary was created in 1993 when local landowners agreed to pool resources and to turn what was previously poor agricultural land into a reserve. Income from visitors’ fees had, originally, been considerable, but in recent years had declined, in part because of security warnings to foreign nationals by some, rather ill-informed, western countries.

The health of the animals in the MES – and, indeed, of the whole Shimba Hills Ecosystem – is threatened by a number of factors. These included encroachment by local people in

search of plants, firewood and fish and by a rise in the numbers of animals, especially elephants, as a result of migration from elsewhere. Under such circumstances, habitats quickly become degraded, parasites multiply and complex interrelationships between animals, plants and their environment start to disintegrate.

Mrs Margaret E Cooper, a lawyer with special interests in animals and conservation, gave the next lecture. She reminded her audience of the different levels of legislation that were relevant to the conservation, health and welfare of animals. These ranged from local (Kenyan) laws that provided protection to certain wildlife, or controlled the movement of cattle, to international agreements, such as CITES and the Bonn Convention.

Following a break for refreshments, Professor John E Cooper, a comparative pathologist and wildlife veterinarian, outlined the assessment of health and welfare of animals. He demonstrated this using a live local chicken, emphasising that the methods used – assessment of environment/management, observation, clinical examination and the laboratory examination of faeces, blood and other samples, were common to work with both domesticated and wild species.

The next speaker was Dr Francis Awich, DVO Kinango, whose subject was animal welfare. Dr Awich spoke with feeling about the need to treat livestock humanely. This was not just on account of legal and ethical considerations (“Protection of animals is an important aspect of any developed society and reflects the degree of moral and cultural maturity”) but also because good welfare would be important if Kenya were to export animal products to the European Union.

The morning finished with unprepared contributions by some of the registrants. Dr Esther Kioko, Senior Research Scientist at the National Museums of Kenya (NMK), spoke about the importance of “wadudu” (invertebrates) in terms of biodiversity and their contribution to the health of humans and the environment. Her colleague, Dr Patrick Muthoka, described the use of seed banks and the importance of international collaboration to ensure that important genetic material from plants was properly stored, catalogued and made available for future generations. Mr Bernard Ogwoka, Assistant Research Officer with KWS discussed the importance of monitoring the health of Kenya’s wildlife and Mr Hamisi Salim Dzilla, Chairman of the local community conservation group, outlined the work that he and his colleagues were doing, including the planting of trees and the production of honey.

After lunch in a local restaurant, the group went to Shamba Musa, an area of land on an extensive ridge overlooking the Mwaluganje Elephant Sanctuary. Here cattle and goats are grazed in close proximity to terrain where there is wildlife in a protected area. The group discussed actual and potential conflicts between humans, domestic livestock and wildlife with particular reference to elephants and baboons.

The practical session was in two parts – the handling of live animals and the examination of samples (blood, faeces and metazoan parasites) taken from them. A local farmer who grazes his cattle, sheep and goats along the ridge brought along animals for inspection. Armed with a bow and arrow, ostensibly to protect his stock from predators, he described to the group his methods of management and pointed out animals that were unwell and, in his view, needed veterinary attention. These were carefully observed before being examined. Some were lame, some excessively thin and others mildly pyrexia, with enlarged lymph nodes. All harboured large numbers of Rhipicephalus and other ticks.

Blood and faeces collected from these animals, together with other samples from an ongoing student project on baboons, were examined using field methods. An experienced veterinary laboratory technician demonstrated how to prepare and stain thick and thin blood smears.

These smears, from cattle and a goat, subsequently were found to harbour two species of Trypanosoma and an Anaplasma sp. Two visiting veterinary students, who were studying nematodes of baboons, showed the group how to examine faeces for helminth parasites using specialised techniques. The centrifuges used for the demonstration were hand-operated and the source of energy for the microscopes was the sun. These practical demonstrations were complemented with a display of field equipment – inexpensive, often lightweight, items that could be used in locations, such as Shamba Musa, which lacks electricity and a reliable supply of water.

The day culminated with thanks to all those who has organised and assisted with the day's programme and the presentation of certificates to registrants.

This workshop provided both theoretical and practical training for key support staff, in particular (but not exclusively) animal health assistants and fieldworkers. Such people are the backbone of the animal health services in Kenya and thereby contribute substantially to the country's economy and development.

I am most grateful to the IAT for their support which helped make this event a success. Ms Sally Dowsett designed Course Notes and other material. Dr Ronald Nderingo gave much help and encouragement.

My wife and I should both like to thank Mrs Anne de Souza for her accommodation and hospitality at the Coast and Mr Joseph Ali for his help with driving, the setting-up of the lecture-room and the careful writing of delegates' names on certificates.

JEC 01/01/11