

THE ROLE OF ZOOLOGICAL EXTERNSHIP PROGRAMMES TO PROMOTE WILDLIFE MEDICINE AND MANAGEMENT IN THE MIDDLE EAST: A CASE STUDY FROM DUBAI FALCON HOSPITAL AND WADI AL SAFA WILDLIFE CENTRE

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This article reviews the experiences of the authors of running (TB, DO'D, AS) and participating (A-LC) in an externship programme at Dubai Falcon Hospital and Wadi al Safa Wildlife Center from 2003 to 2011.

Practical skills: Externships were hosted at the Dubai Falcon Hospital (DFH) and the Wadi al Safa Wildlife Center (WASWC) and emphasized practical training in falcon and wildlife medicine and management. During this time 34 externs, were involved in activities at DFH, falcon breeding projects and wildlife collections. The wildlife collections comprise over 250 different species and manage important regional breeding programmes for carnivores and ungulates. To give an idea of the cases seen at the hospital: 50% were raptors, 20% were other birds (owls, bustards, stone curlew, pigeons, waterfowl, pheasants) and 30% were mammals (oryx, gazelle, ungulates, cheetah, sand foxes, hares) plus a smattering of miscellaneous native wildlife including green and hawksbill turtles undergoing rehabilitation at the Dubai Turtle Rehabilitation project. Externs learnt a wide range of practical skills. In the hospital every extern learnt to endoscope a bird and in the field externs experienced first-hand the mass capture of hoofstock through a Tamer handling system.

Research projects: Externs participated in clinical research and most published papers in scientific journals. Projects investigated an aspect of a clinical or management problem. The objective of the research was to improve the understanding of clinical conditions in a region where there is poor history of wildlife health research. Laboratory costs were generously covered by a close working relationship with the Central Veterinary Research Laboratory and from sponsorship of some projects by HH Sheikh Hamdan bin Rashid al Maktoum.

Projects covered a wide range of species and included: urine analysis in falcons, assessment of aspergillus test in falcons, foot and mouth and PPR vaccine trials in oryx, H5 influenza vaccination trials in zoo species, viral investigations in pigeons and gamebirds, mycoplasma surveys, blood gas values in oryx and falcons, nutritional assessment of flamingos, bustards and falcons, voriconazole pharmacology in falcons, electrophoresis of falcons, cheetah and ungulates and serology surveys of raptors and wildlife for brucellosis, Q-fever, avian influenza and encephalomyocarditis virus. A list of projects is presented in the web-based version of this article.

Costs and benefits of running an externship programme: Externs paid for their travel costs, but were provided with food and accommodation. The benefits to DFH were; 1) practical with an additional pair of hands to help with cases and 2) analytical with the benefits of the research projects. Most externs selected for the programme were qualified veterinarians who were able to manage cases independently. The externship had an informal link with the MSc in Wild Animal Health run at the Zoological Society of London. This not only meant that the 'externs' were up to date with their knowledge, but they were 'hungry' for practical experience and were motivated to complete a research project. Learning is a two way street and those of us working at DFH and WASWC learnt from 'our' externs who came with interesting work and life experiences. Two academic theses, 16 peer reviewed and 22 conference papers and non-peer-reviewed articles were published. A further 14 papers are being finalised by externs.

What does the extern gain from the programme?: Being an extern at DFH is an excellent way to pick up new skills in avian medicine and surgery. The opportunity to take care of a range of species, from cheetahs to swans and baboons to giraffes and back to falcons and oryx and gazelles, is thrilling and teaches you about animal specific diseases and medical conditions. Being a wildlife veterinarian is about learning how to deal with the unknown and this externship is a good way to gain confidence in this field. The research project is not only a perfect way to use analytical skills, but also helps answer practical questions with regards to veterinary treatment. These projects also help to raise awareness about wildlife health in the region. The externship is an open door to a network of professionals, who are happy to share their passion.

What does the wildlife manager gain from the programme?: As an animal manager, one is always striving to maintain and improve the conditions of the animals within your collection. The lack of fresh ideas and intelligent discussion about the evolving fields of animal management and veterinary care can lead to professional isolation which over time could negatively impact the care of the collections animals. We have found that when externs are involved in the treatment of sick animals they bring fresh ideas and ask those questions which we sometimes forget or have taken for granted.

All DFH externs have been given the opportunity to be involved with exotic animal medicine. One of the questions asked of the externs is, "Do you find the work with the exotic animals beneficial"? Many have stated that they did not expect to have such a varied role (species wise), but in all cases they have always said that it was an excellent opportunity to broaden their skill base. In return, we get help during routine veterinary procedures, as well as those new ideas which are so important in improving our care protocols.



Conclusions : Our programme has contributed to falcon medicine and wildlife health in the region and we encourage other institutions to consider establishing externship programmes.

Editors Note:

A fully referenced version is available for download on the WMENews website.