

OI Jogi, Ltd.

August, 1996

A note from Tom

One year ago I came to OI Jogi with a simply worded but very complex mandate. "Get OI Jogi involved in conservation." During the first meeting I stressed education and research programs. Also as a veterinarian I would be responsible for the health of both wild and domestic animals. Here is where we are today.

Background:

OI Jogi Ltd. consists of a fenced 13,000 acre game reserve and a contiguous 50,000 acre ranch, located north of Mt. Kenya in Laikipia 26 miles north of the equator. The altitude varies from 5600' to 7200'. The land can best be described as semi-arid savanna.

A large number of wildlife inhabit OI Jogi. On the reserve are black rhino, white rhino, cheetah, Grevy's zebra, gerenuk, warthog and a host of others. On the ranch are large numbers of free ranging animals including elephants and lions. Over 250 wild species of birds have been recorded. A captive wildlife collection of 120+ specimens is maintained as well as 1500 Boran cattle, 250 camels, horses, dogs, cats and poultry.

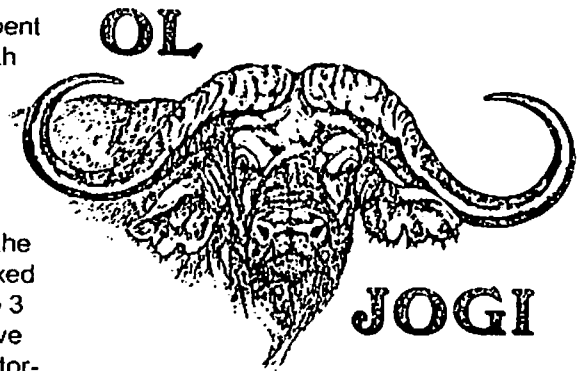
The veterinary facilities consist of a laboratory, surgery suite, 2 darting systems, padded recovery room and animal holding area. On-site there are an animal health technician, wildlife biologist, game warden, rangers, trackers and an animal curator. Also available are a well equipped workshop, vehicles, light aircraft, 24 hour power and comfortable sleeping quarters.

Clinical Veterinary

A portion of my time is spent on maintaining good animal health of all creatures on OI Jogi. With a commercial cattle and camel ranch, fenced wildlife reserve, free-ranging wildlife, an animal orphanage, and a collection of horses, dogs, and cats all under the one umbrella it creates a very mixed practice. The activities divide into 3 areas: clinical medicine, preventive medicine and wildlife health monitoring.

Clinical medicine: On the clinical side it is very simple. There is one vet and one technician which means 24 hours on call all the time. A radio call can come at any time, and could be anything: camel, horse, monkey, parrot, crane, snake, dog, cat, eland, sunni, cheetah or leopard. We treat them all. The types of cases are as varied as the animals. Patients that have been admitted to the clinic included Tawny Eagles, suni, leopard, Kori Bustard, Fire Finch, ostrich, duck, dogs, cats, wildebeest calf, zebra foal, and cattle. Our vehicle is capable of field operations and carries ample equipment to provide mobile services. We collaborate with Kenya Wildlife Service in 2 ways: assisting them in their field operations when multiple veterinarians are needed, and providing veterinary service for wildlife cases in the Laikipia area including the Sweetwater's Chimpanzee Reserve. In addition a local practitioner in Nanyuki has access to our surgical facilities whenever needed.

Preventive medicine: All the captive wild animals are vaccinated in accordance with recommendations of the American Association of Zoo Veterinarians. Internal and external



parasite monitoring require fecal examinations performed no less than 2 times per year and regular visual examinations for external parasites.

To improve cattle production a vaccination program has been instituted. All 1994 and 1995 heifers have received brucellosis vaccine and a 5 way anti-Clostridial vaccine. As of May '96 all heifers and steers are being vaccinated at weaning. Other preventive medicine practices instituted are navel dipping with iodine for all newborn cattle and camels, monthly fecal examinations for internal parasites of all cattle and camel herds, and equipping each holding corral with a fly trap to reduce the numbers of biting flies that can transmit disease.

For the horses and donkeys African Horse Sickness, tetanus and rabies vaccines are being given to each animal. Internal parasite control consists of 3-4 times a year treatment combined with feces examinations to monitor treatment progress.

Lastly all dogs and cats: OI Jogi animals, staff animals and any strays that can be caught, are vaccinated for rabies and other appropriate infectious diseases. Internal parasites are being monitored and treated as needed.

Research

This land is an immense landscape whose pulse we barely understand. Eighty per cent of Kenya is classified as arid/semi-arid and increasingly people are being pushed into developing these marginal areas. There is much to track down, interpret, define and comprehend. The research program has 2 orientations: internally initiated work and collaborative projects. Due to time, staff and equipment constraints our own work tends to be simple in design and ambition. Therefore we encourage collaboration on more complex projects with other institutions that bring expertise to us while we provide access to the animals and their environment.

A foundation of environmental research has been provided over the past 5 years by Kimani Kuria, M.Sc. in Wildlife Biology from Moi University. Ambient temperature, rainfall, vegetation transect, plant disturbance plot and animal

WILDLIFE HEALTH MONITORING

In medicine this is a frontier. The question of what is normal and abnormal health in free ranging animals is open. At Ol Jogi all wild animals that can be, are sampled. Blood values from captured animals are recorded and samples frozen for future studies. Deceased specimens found are necropsied and samples collected in formalin. Individuals where cause of death can not be ascertained are submitted for microscopic examination.

Education Activities

Education is one of the keys to conservation, especially in this part of the world where ecosystem management has so much to offer. Ol Jogi is expanding its traditional educational activities and aggressively opening up new avenues.

In past years several Nairobi secondary schools have enjoyed animal observation experiences through sponsorship of the William Holden Foundation of Nanyuki. This year invitations were extended to secondary schools in the neighboring communities of Dol Dol and Nanyuki. One school took advantage of the access and enjoyed animal contact experience, wildlife viewing and ecosystem discussion accompanied by Kimani Kuria, Wildlife Biologist, and Matt Doering, Animal Curator. In the upcoming academic year formal invitations will be sent along with suggestions concerning using the visit as educational curriculum.

One new program involves clinical experience visits by senior students at the University of Nairobi Veterinary School. A schedule of exposure to cattle, horse, camel and wildlife medicine; arid land agriculture, ranch management, veterinary practice management and livestock/wildlife interfaces is being created. Two groups (18 students) from the class of 1996 spent over-

night visits this year. In the new academic year, groups from the class of 1997 will visit on 2 separate occasions to view animal health, ranch management and wildlife presence during dry and wet seasons.

An animal health technician, Josephat Murithi, a 1990 graduate of the Animal Health Technology Institute at Nyahururu, has been hired for training in veterinary technology. This will cover all aspects domestic, zoo, and wildlife animal health, clinical laboratory techniques and veterinary practice management. For his second six months he is embarking on a parasitology research project. He gave 3 lectures to the Ol Jogi Primary School on animal health, poultry management, and poultry diseases. This fulfills 2 purposes as both Mr. Murithi and the students are gaining experience. Further presentations involving wildlife are planned.

A program of externships for veterinary students has begun. Applications are accepted from Kenyan and international students. It is hoped that teams of Kenyan and international students can be formed so they can learn from each other. Both wild and domestic animal medicine will be explored during the externship. Each student will be required to perform a study project during his stay.

browse preference data form an impressive base line for further studies. Kimani has compiled and published a checklist of 250 species of birds seen at Ol Jogi. In addition he has been studying the uses of rhino footprint data. Presently, data are being summarized for potential publication.

In the veterinary field, monthly internal parasite

examinations are done of all 16 rhinos and all groups of cattle and camels. After a year's collection we will determine the need for deworming treatment and if strategic timing is possible. Another parasite study involves trypanosomiasis in camels, a common disease here. Healthy and sick camel blood parameters are being

Continued on Page 3

Continued from Page 2 established and fly traps have been placed to determine potential vectors. Unusual clinical cases are worth studying and during the past year one such case presented itself. A description entitled, "Uterine Prolapse in a Camel" has been accepted for publication in the *Journal of Camel Practice and Research*. Finally, each wild animal examined for disease or death contributes useful information. Any trends or significant findings will definitely be followed and published.

In the spring we accomplished the first intercontinental transport of samples. Female white rhino stool was collected from 16 individuals at Lewa Conservancy, Solio Ranch, Mt. Kenya Game Ranch and Ol Jogi and sent for pregnancy determination to Ms. Beaux Berkeley at the Deaconess Research Institute in Billings, Montana. The results and the possibilities of the technology fascinated Kenyan participants. Discussions are ongoing to continue behavior/endocrine studies.

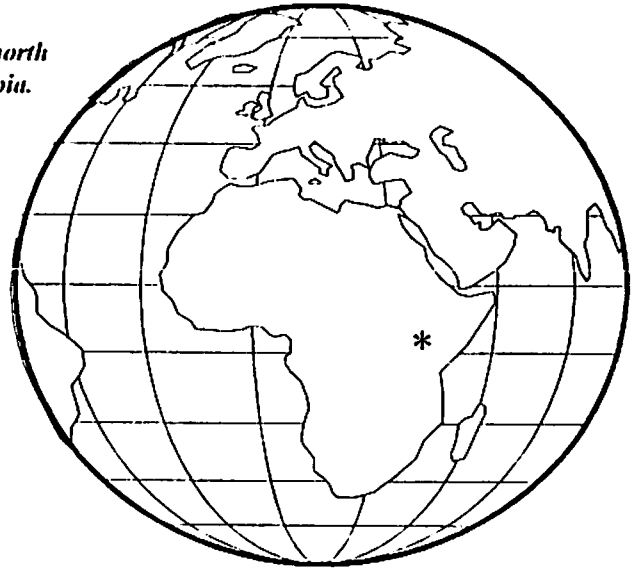
Many small scale collaborations are ongoing. As neighbor to Mpala Research Centre we are providing access for radio tracking studies of mongoose and will be contributing to a mist netting and leg banding study of bird communities with personnel from the Smithsonian Institute. Elephant skin samples are procured when possible for Dr. Nick Geogiardis's genetic research. The laboratory has

been utilized by Dawn Ek Dahl, a patas monkey researcher from Segera Ranch as well as by baboon researchers from Dr. Shirley Strum's project. A number of blood/bone marrow samples have been collected for heartwater research being

conducted by Dr. Nancy Kock at the University of Zimbabwe. Ol Jogi is providing a range finder to Hirola antelope researchers. Lastly a bank of frozen serum and fixed samples of tissues and parasites has begun for future requests.

Ol Jogi Ltd., 26 miles north of the equator in Laikipia.

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New Equipment

The veterinary and research department is strengthening its equipment inventory. Purchases are based on appropriateness for use in the field under difficult conditions. Portability and resistance to dust are carefully considered.

A laptop computer and printer were the first items to be acquired as being so necessary in today's world. ARKS and MEDARKS software from the International Species Information System is soon to be placed in action. The most important function of this system will be the ability to send animal health information from indigenous species for inclusion in this international data base.

For the clinical side a pulse oximeter was purchased. This instrument provides continuous measurement of heart rate and blood oxygen saturation. On 2 occasions this instrument has been used

with KWS during field operations and can be credited with saving the life of at least 1 elephant.

For research activities an electronic balance has been added in the laboratory which is able to weigh down to +/- 0.01 gram and is being used for quantitative parasite examinations and preparing reagents. In addition 2 liquid nitrogen tanks are available for deep freeze storage of biological samples. One of these is a "dry shipper" suitable for international transport of frozen samples.

The library continues to grow. Veterinary and wildlife disease journal subscriptions are being continued and inventoried. New publications have been acquired including: books from the International Livestock Research Institute, newsletters from IUCN/SSC specialist groups, a series of camel health and management books and scientific catalogs.