Edition 60

NEWSLETTER MARCH

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Dear clients,

In our March edition you can read more about scent glands in animals, and what they are used for. The second article is about Smart Parks, a company which has innovative techniques to monitor wildlife and keep track of your farm's infrastructure. The next article is about the oryx with the skin lesions, you might remember the photos of the January newsletter? We got the results back from the lab, and we would like to share them with you. Lastly, we would like to inform you about the Klawerberg & Vriende Veiling, and an interesting video by Mount Etjo on the rhino horn trade. Enjoy the newsletter! Kind regards, the Wildlife Vets Namibia team

SCENT GLANDS

Most mammals have scent glands. Scent glands produce substances containing pheromones and chemical 'signalling' compounds to transfer information to other animals.

Often animals use the glands to communicate and leave scents behind; they rub the gland against twigs or other objects for example. These scents are extremely complex and can contain over 40 different compounds. By depositing these scents, information about for example territory, dominance, social rank, mood and reproductive status is transferred to others. It might even be that some of the glands are able to produce anti-microbial compounds to fight of skin diseases.

A scent gland that is well visible to us is the pe-orbital gland, which are found under the eyes. They can be circular, as found in the wildebeest, or slit-like as seen in the duiker. Besides the pre-orbital glands, there are other external scent glands that animals use, such as the nasal glands (inside the nostril), interdigital glands (between the toes), the (meta) tarsal glands (on the hind legs), anal glands especially in carnivores and the preputial gland (on the inside the foreskin of the penis).

Scent glands are not the only way of communication. Many animals mark their territory by creating dung middens, while the reproductive status of an animal is usually transferred by urine. Communication via scent is a complex topic, and as of today it remains quite a mystery!



Circular pre-orbital gland in a blue wildebeest, and a slit-like pre-orbital gland in a common duiker © M. Bijsterbosch





Interdigital gland in a sable © M. Bijsterbosch

SMART PARKS

Recently we had an interesting Zoom conversation with Luuk Eikelboom from Smart Parks. We came into contact with Smart Parks via a lion collaring job we did with Gisela and Joe Noci, two conservationists specializing in (predator) tracking collars and drones. We asked Gisela and Joe on how we can best protect rhinos with (GPS) tracking devices, while keeping an eye on costs. They referred us to Smart Parks.

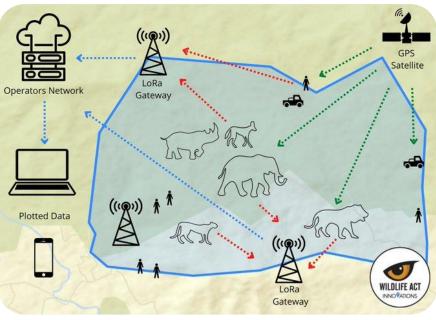


Smart Parks is a Dutch non-profit organisation that uses advanced network solutions

to conserve wildlife and to efficiently manage large park areas. It provides reserves and parks 24/7 real-time information on wildlife, rangers, vehicles and even infrastructure. Smart Parks is present in many African countries, such as Namibia, South-Africa, Botswana, Zimbabwe, Kenya, Tanzania, Malawi, Zambia and Mozambique.

Smart Parks has a great technique for working in remote areas, where there is often no 3 or 4G internet access. They build a local communication network; the network collects data from sensors that are distributed throughout the area. The data is then processed and provided to you via an app/website. It can provide real-time information about the location of animals, the location of your rangers and/or vehicles, the levels of your water tanks, which gates open when, a break in the fence etc.

The communication network that Smart Parks uses is called a LoRaWAN[®] network. LoRaWAN[®] is a sort of telecommunication network, that is designed for wireless long-range communication while using low power (LoRa stands for Long Range). This system sends small amounts of data over great distances, is almost undetectable by poachers, and runs on solar power. Because the LoRaWAN[®] technology requires very little power, the tracking devices can be made smaller than traditional satellite collars.



Instead of sending data to satellites, data (e.g. location of a animal with a collar), is sent to the LoRa® tower. From the tower, the data is sent to your laptop and/or phone. LoRa is designed to transmit tiny amounts of data over a long distance, thereby using little power. © <u>WildlifeACT Innovations</u>



A LoRaWAN tower being erected in the Central Tuli Block, a conservation area in southern Botswana. © <u>Smart Parks</u>



Another advantage of this network of towers, is that any tower can pick up the data, and will send it to your laptop/phone. For example, you have a rhino with a tracking device and it escapes. When your neighbour also has a tower, you can still follow the rhino, as the data is sent to the neighbouring tower. How far the tower can communicate depends obviously on the terrain, but in ideal situations the tower can cover up to 50-60 km far. If farms work together and invest in a couple of towers, huge areas can be covered.

There is an initial cost of setting up the tower(s), but once that is established, the tracking devices are much cheaper than the conventional satellite collars.

Visit the Smart Parks website; <u>https://www.smartparks.org/</u> for more information about the system, and about all the possibilities it could have for your farm. They have several videos which show their applications and uses for conservation areas. If you are interested, you are welcome to contact Luuk Eikelboom, his email is <u>luuk@smartparks.org</u>. He has been involved in several Smart Parks projects in Namibia.

ORYX WITH SKIN LESIONS

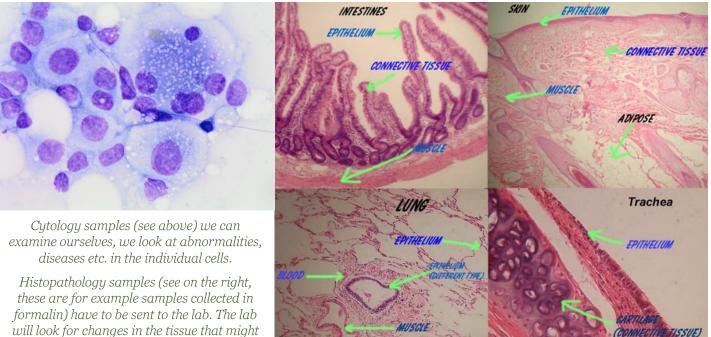
In our January newsletter we asked if people had seen skin lesions in game, such as shown on the photos below. We got replies from 7 farmers who also had seen such lesions, ranging from the Outjo, Otjiwarongo, Aroab and Steinhausen areas. We collected samples during the Post-Mortem examination and submitted them to the Pathcare veterinary lab in SA for histopathology examination. We now would like to share the results with you.





Not sure what histopathology means? Here is just a quick explanation! Histopathology is basically the microscopic examination of a piece of tissue, and the study and diagnoses of (possible) diseases in that tissue.

When we do a Post-Mortem, we collect samples. Some samples we collect for a *cytology examination*. These samples we press straight onto a microscope slide, and we can check these samples ourselves under the microscope. We then look at the individual cells. Other samples we collect in formalin, and these are for *histology examination*, which we cannot do this ourselves; these samples must go to the lab, where a specialist pathologist will then look at the whole architecture of the tissue.



explain a disease or abnormality.

The lab results showed that the hard masses of the oryx consist of *spindle cells*. These are cancerous tumours, a more common name that you might have heard of are *sarcoids*. Sarcoids are the most commonly seen skin tumours in horses, but have also been noted in dogs, and game species such as zebra, sable and giraffe. These tumours are usually not life-threatening, but can compromise the animal's function and welfare. Sarcoids can occur as single or multiple lesions and can have different forms, such as small wart-like lesions, but can also grow to become large growths consisting of fibrous, connective tissues.

Sarcoids are often caused by the bovine papilloma virus (BPV). We don't know if the sarcoids in this oryx have been caused by the BPV virus, additional tests would have to be done. Although we have much to learn on how the BPV spreads, it seems that it is not contagious, meaning it cannot spread directly from animal to animal. The disease might be indirectly spread by flies, but research so far only detected parts (DNA and proteins) of the virus on flies, and not the whole infectious virus itself. More research has to be done.

Treatment is possible, but depends on the severity and location of the sarcoids. Sarcoids can be removed surgically, by putting a ligature over them (tight band to cut off the blood supply), freezing (cryosurgery) or chemotherapy. These days we can also inject a vaccine into the tumour(s), but many injections might be needed which makes treatment often not feasible.





These are photos of a Hartmann zebra near Swakop poort that were sent in by a farmer. This mass is likely also a sarcoid.

So it shows, Post-Mortem examinations are important and can give you interesting results! In our Post-Mortem course we teach you over 1.5 days how you can conduct a thorough and systematic Post-Mortem examination yourself, how to collect appropriate samples and take proper photos. You can then submit these to your veterinarian who will evaluate the photos and process the samples. This will hopefully enable your vet to figure out why your animal has died from and should put him/her in a position to provide you with meaningful management advise. Our PM course is suitable for both game- and livestock farmers, as many diseases are the same. We would like to plan one or two courses this year, if you are interested, feel free to contact us.

KLAWERBERG & VRIENDE VEILING 2023

KLAWERBERG STUD GAME BREEDERS (PTY) LTD

In the last few weeks we have been busy on several farms to prepare animals for the Klawerberg & Vriende Veiling 2023. This catalogue auction will be held on 29 April 2023, at Midgard Country Estate near Okahandja.

This will be the first auction held by Klawerberg Stud Game Breeders, owned by Charl and Minkie du Toit, in conjunction with selected top game breeders (see below). We worked on several of these farms and can with good conscience say that this auction will offer buyers the opportunity to buy breeding animals with very impressive genetics! For more information, have a look at the <u>Klawerberg facebook page</u>, or visit their website: <u>www.klawerberg.com</u>. We hope to see you there on the 29th of April!



Kalahari Game Breeders





STUD GAME BREEDERS (PTY) LTD





malan meyer maritz











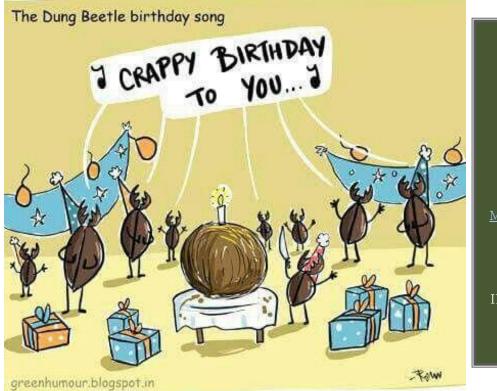
MOUNT ETJO RHINO ORPHANAGE AND LEGALIZING THE TRADE

Mount Etjo released a very powerful video about why we should legalize the rhino horn trade. As you may know from previous newsletters and social media posts, we are proponents of legalizing the horn trade. This video very well explains why we have come to this point. It is worth watching, and sharing with especially people from overseas, who often have no idea.

Honestly, we also don't like the idea of the rhino becoming a 'milking cow', harvested for their horns, which is in essence is a useless product. But what is the alternative? Despite all the measures and money being put into anti-poaching, we are fighting a loosing battle. Poaching figures are increasing drastically. To make matters worse, besides the poaching, habitat loss now plays a role, simply because people don't want to have rhinos anymore. So let's try the legal trade? It has worked for the crocodile, for the Vicuña? Many people in the western world don't know we can trim the rhino horn, and it grows back – this is a big difference compared to ivory. We must bring this message, as shown in this video, across to western politicians but also to the public. The better people are educated, the better their decisions will be.

This video was compiled by Reinhard Brönner, Redsand Films. Photo credit: Rudie de Klerk. We would like to thank Annette and Alex Oelofse for making this important video. Watch the video here on YouTube:

Mount Etjo Rhino Orphanage and Legalizing the Trade



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