Wildlife Vets Namibia March 2021 Edition 36

NEWSLETTER MARCH

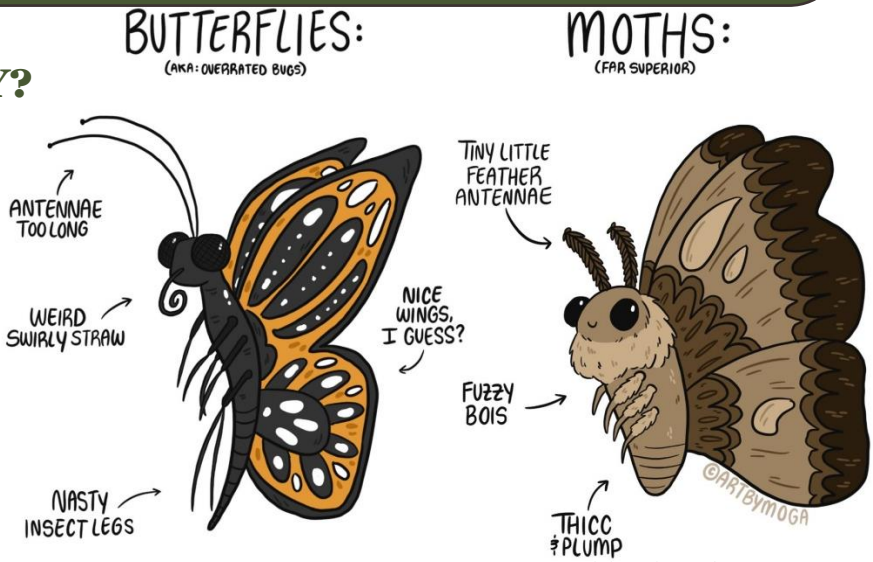
In this newsletter:

Dear clients,

In this newsletter you can read more about the difference between butterflies and moths, our new vaccination cards, and the Animal Crime Scene courses we presented so far this year. Lastly, we talk about Lumpy Skin Disease. We hope you enjoy reading this edition!

Kind regards, the Wildlife Vets Namibia team

A MOTH… OR A BUTTERFLY?



Can you tell the difference between a butterfly and moth? You might say 'ha, that's easy!', but we think there are some differences you might not have thought off. It is actually not always about the colour or the time of day. It is true that most butterflies are brightly coloured and day-active, and most moths are dull coloured and night-active, but there are brightly coloured and day-active moths, as well as dull butterflies. In nature, there are always exceptions to the rule 😉

All butterflies and moths belong to the *Lepidoptera* group, consisting over 165,000 species worldwide, of which only +/- 18,000 are butterfly species.

One thing you can look at, is the antenna. Most butterflies have club-shaped (long shaft and bulb at the end – bit like a golf club) antennas, while most moths have feathery or comb-like antennas. Most butterflies fold their wings vertically over their back, while moths usually hold them horizontally, hiding their abdomen.

During the pupal stage (between the larvae and adult stage) butterflies usually make chrysalises (a sort of exoskeleton that protects the developing butterfly), which are hard, smooth and silk less. Most moths make cocoons that are wrapped in silk.

The Plain Tiger butterfly (also called African Monarch - Danaus chrysippus) and the Speckled Emperor Moth (Gynanisa maja) male (males have feathered antennas, females don't).

© M. Bijsterbosch

VACCINATION CARDS

We have designed our own vaccination cards! We have two versions; one pets, and one for wildlife.

In the vaccination booklet for pets we can write the vaccinations, weight, deworming, spay/castration date and clinical examination in. In the vaccination & chip certificate booklet for wildlife we can write all the data of the animal in (e,g, DoB, chip, sire, dam etc.), vaccinations and treatments.

Please note that if you want us to vaccinate your pets when we are on your farm, please notify us beforehand, then we make sure we have the vaccines and the cards with us. Also, we have limited stock with us of both booklets, so if you want a substantial amount, please let us know beforehand as well.

ANIMAL CRIME SCENE AND EVIDENCE HANDLING COURSES

In March we presented the Animal Crime Scene course two times, the first one was held at the ISAP facility and lodge on Farm Ovita near Okahandja, the second one at Farm Kweekwal near Aroab.

When an animal has been poached, or you have a case of stock theft, it is important that the correct investigative approach is taken as soon as possible. Often the plice is unable to come out, or come late. By the time they finally arrive, most tracks and evidence are gone. Another issue that people do not always take the correct steps when it comes to crime scene handling and evidence collection. They find a bullet, pick it up and put it in their pocket and just like that... Their DNA is all over the evidence. Poor investigative techniques, as well as errors in crime scene processing and evidence collection and handling are amongst the main causes for poor arrest and conviction rates for these crimes. This course is designed to improve and augment the multi-disciplinary cooperation between first responders (e.g. farmers, APU, vets etc.) and the police and MEFT staff (it is not meant to make you a detective 😉). It is important to always notify the police in such cases.

The course is 2.5 days. We always start with a lecture in where we introduce the complexity of crime scenes. Then we have a lecture about DNA, which is getting more and more important in solving cases. Namibia might still be a bit behind, but progress is being made. It is easy to accidently leave your DNA on a crime scene, so we explain how this can happen, and how you should avoid this. Then we put quite some emphasis on photography, after all, your photos are the eyes of the police and judge. The saying a picture says more than a 1000 words is truly applicable here, but then you must know how to make a proper photo of the crime scene and its evidence. Therefore, we spend quite some time on practising with the camera.

The next day we continued with lectures, about how to handle a crime scene (we give a 7-step protocol) and a rather big lecture on evidence. We explain which types of evidence are there, and how you should handle, collect and store this. We also include a lecture on body language; how should you behave in court? In this lecture we also give some guidelines to check if somebody is lying. This is however not so easy to figure out… Then, a lecture on court appearance and writing reports is given., and the last lecture is about doing a forensic Post-Mortem, where we try to make clear when you can do a PM, or must call in a vet. The practical part of the day consists of getting evidence on foot- and tyre prints. We photograph these both, which is actually quite difficult. We give a few tips and tricks to take better photos. Then we also make a casting of a footprint, which gives you a long-lasting piece of evidence of the perpetrator. We also make an imprint of a tyre.

On the final day, everything comes together, and we investigate a staged crime scene from A to Z. The participants now must do everything themselves. They start to divide the group in teams and decide who is taking on what role. The crime scene must be secured, and examined for possible evidence. Evidence must be photographed, and collected in a proper way. At the end, they have to hand it over to 'the police'.



We believe the courses were a success, and hope trust the participants learned a lot! We would like to thank all participants for joining the course, and ISAP, Ovita and Farm Kweekwal for hosting the course!

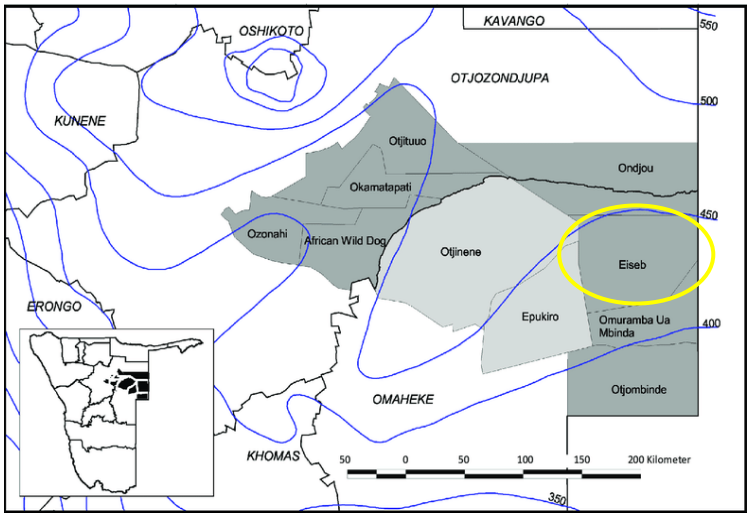
Our next Animal Crime Scene course is 09-11 April at Kifaru Bush Camp, bear Outjo. If you would like to join, feel free to contact us! If you sent an email to mariska@wildlifevetsnamibia.com, we will sent you the course outline with more information.

Besides the Animal Crime Scene course, we also present the **Post-Mortem course**, on 07-08 April at Kifaru. In this 1.5 day course we teach the participants how to perform a systematic and thorough Post-Mortem. All to often we get a photo of a liver or lung, with the question: 'why did my cow/sable die?' It's very difficult for us to say this, since we don't have the whole picture. Therefore, we teach the participants a bit about the organs and what they do (in a basic manner), how to take proper photos, and how to collect samples. If you know how to do a PM in a proper way, you can acquire much more information, and your vet will be better able to help you. This course is suitable for both wildlife- ad livestock farmers/managers.

WILDLIFE VETS NAMIBIA

LUMPY SKIN DISEASE

In the Eiseb Block of the Omaheke region in eastern Namibia an outbreak of Lumpy Skin Disease was recorded on 12 February 2021. So far 31 cattle at 10 different homesteads have been affected, according to Dr. Albertina Shilongo, Chief Veterinary Officer. To prevent further spread, all cattle movement and cattle gatherings in the Eiseb Block has been suspended, and farmers are urged to vaccinate their cattle.



Eiseb is located in the east of Namibia, close to the Botswana border © B.J. Strohbach

What is Lumpy Skin Disease?

Lumpy skin disease (LSD) is a viral infection in cattle and buffalo, caused by a capripox virus. It originates from Africa, but over the years it has spread to the Middle East, Asia and eastern Europe.

The virus is closely related to the pox virus of sheep and goats, and causes nodular (growth of abnormal tissue) skin lesions on the body. Humans cannot become infected with LSD.

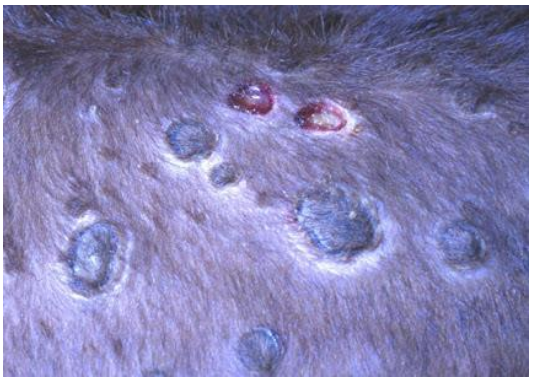
How do animals get Lumpy Skin Disease?

LSD is mainly spread by biting insects such as biting flies and mosquitos. From experiments we know that certain species of hard ticks are also capable of transmitting the disease. Infection via contact (saliva, direct contact, contaminated food, calve drinking milk) is another potential route, but not yet fully understood.

What are the signs of Lumpy Skin Disease?

Animals infected with LSD first develop a fever, are lethargic and unwilling to eat, have excessive tearing and salivation, nasal discharge and swollen lymph nodes. This is followed by the formation of large, firm skin-nodules from 0.5cm to 5cm in diameter. They can be found all over the body, but particularly around the head, neck, udder, scrotum and perineum (the area between the anus and genitals). There can be just some nodules, but it can also be hundreds. When the nodules ulcerate (break open) fluid will leak out.

Secondary infection can become a problem, and the nodules can start forming pus and can become necrotic (cells are dying off). In severely affected animals these lesions can spread to the respiratory and gastrointestinal tract. Especially dairy cattle in peak production can become severely affected, and will show a marked decrease in milk production.



Cattle with nodules caused by the LSD virus. From left to right © African Farming, Noah's Arkive, PIADC, Farmers weekly

LSD does not always show, up to 50% of cases in an outbreak are subclinical – meaning the animals don't show any signs. The mortality rate usually remains below 10%, but due to a reduced milk yield, loss of condition and a reduced value of the hide the economic losses can be severe.

Flies are both a nuisance as well as carriers of disease. They commonly spread eye infections from one animal to the next. We use fly traps as an eco-friendly means of controlling fly numbers in intensive management areas (e.g. around feeding and working areas). After the smelly powder is mixed with water, the trap is put out. After a while the mixture attracts flies which enter the trap through a fine mesh funnel which prevents them from leaving. Eventually, the trap is literally filled with flies and needs to be emptied. Rather than buying new bait packets, one can place a piece of meat into the water. Once it starts rotting, it will attract flies again. © U. Tubbesing

Diagnosis

LSD is a notifiable disease, so if you detect any signs of LSD, you must notify your state veterinarian. The veterinarian can make a diagnosis by taking a skin sample. Pseudo-lumpy skin disease, which is caused by a herpesvirus, may show similar symptoms as LSD, and *Dermatophilus congolensis* also causes skin nodules, so it is important that the veterinarian checks and sends samples to the lab.

Treatment and Prevention

There is no treatment for LSD. Non-specific treatment with antibiotics, anti-inflammatory drugs and vitamins may be required to treat secondary bacterial infections and to bring the fever down.

Most important is to prevent LSD, and this is easily done by vaccinating your cattle with the attenuated Neethling strain vaccine. This vaccine contains a weakened version of LSD. After injection, the body will produce antibodies, and will make the animal immune for LSD. All cattle from 6 months and older should be vaccinated annually, preferably before the rainy season.

Another important aspect to prevent diseases transmitted by flies is to control the flies. Have fly traps around the kraal and dip/spray cattle with an insecticide.

Lumpy Skin Disease in a springbuck, showing nodules over the face and neck. © Dr Martin Malan

Lumpy Skin Disease and wildlife?

There is very little data available on role of wildlife in the spread of LSD. In general, the capripox-viruses are very host-specific, meaning that it is living solely in one species of host. Natural infections have been reported in Asian water buffalo in Egypt in 1988. Interestingly, these buffalo got less sick from it. Clinical signs of LSD in impala and giraffe have been demonstrated after they were injected with the LSD virus. In several other studies researchers checked for antibodies against the capripox-virus, and found that blue and black wildebeest, springbuck, eland, impala, African buffalo (current research suggest that African buffalo are probably not, or only slightly sucesptible), kudu, waterbuck, reedbuck and giraffe had some form of antibodies in their blood samples. This might mean that the animal has been infected, but not necessarily transmitted the virus. The actual number of wild ruminants that are/have been infected with LSD might be higher than we think, as observing skin lesions in wildlife is often difficult, and they likely are more prone to be caught by predators – leading to a lack of reports of LSD in wildlife.

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