

NEWSLETTER APRIL

In this newsletter:

- 🐾 [Thick Skin](#)
- 🐾 [Namibia Stud Game Breeders Auction](#)
- 🐾 [Dehorning Mission](#)
- 🐾 [Giraffes and Lumpy Skin Disease \(LSD\)](#)

Dear clients,

We hope you are doing well! April is almost over, and it seems winter is arriving quickly this year. We begin with thick-skinned animals, do you know who has the thickest skin of all? We like to remind you of the upcoming game auction of Namibia Stud Game Breeders, to be held on 09 May. We hope to see you there! The next topic is on rhino dehorning. We conclude with last year's giraffe mortalities, which we believe were linked to Lumpy Skin Disease. We would love to hear your thoughts!

Kind regards, the Wildlife Vets Namibia team

THICK SKIN

People sometimes say it is good to have a 'thick skin' when you are face criticism or going through a tough time. But in the animal kingdom, a 'thick skin' is not just a saying, it is an important survival tool!

You may have heard the word '*pachyderms*', which literally means 'thick skin' (*pachys* = thick, *derma* = skin). Back in the 1700s, scientists grouped animals such as elephants, rhinos, hippos and tapirs together under the name *Pachydermata*, as they thought they belong together due to their thick skins, and their habit of being in and/or close to water (e.g. swimming or wallowing in water/mud). Later scientists realized that these animals did not share a common ancestor, they were just grouped together based on their appearance. Today, taxonomy (the science of classifying living things) is based on evolutionary lineage, so the name *Pachydermata* is no longer used. But in our everyday language we still often speak about pachyderms when we talk about the thick-skinned grey animals.

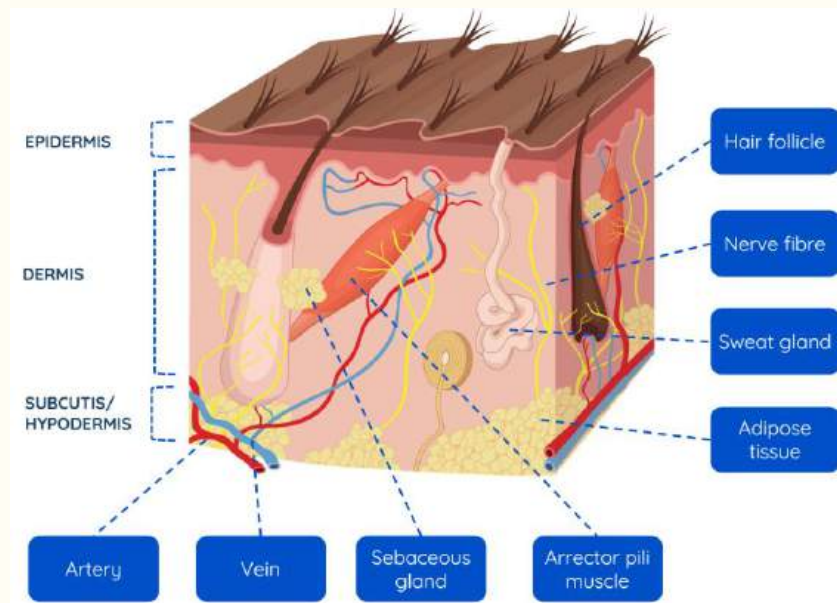
All skin, whether human or animal, has three layers:

- 🐾 **Epidermis** – A thin outer layer that acts as a barrier against the environment.
- 🐾 **Dermis** – The middle layer, which is rich in collagen and blood vessels. This is often where the thickness and toughness come from in animal skins.
- 🐾 **Hypodermis** – The deepest layer, which is made of fat and connective tissue. It provides insulation and cushioning.

Thick skinned animals have evolved with this special adaptation as a protective mechanism. Their thick skin acts like a natural armour against predators, injuries and insect bites. In Namibia for example, thick skin also helps to prevent dehydration by reducing water loss, and it protects against the extreme UV exposure.



I Have Thick Skin



Layers of the skin and associated structures

© [WVS Academy](#)



Have you ever wondered which species has the thickest skin of all? It is the whale shark! Their skin can reach around 10 cm (4 inches) in thickness! The skin has a rubbery consistency and offers protection and insulation. If you compare that to humans, our average skin thickness is about 1-2 mm, and our thickest skin (on the palms and soles) is only 3-4 mm thick!

Among land mammals, hippos have some of the thickest skin, which can reach up to 6 cm on the flanks and back. The epidermis is relatively thin, but the dermis beneath is very dense and tough. The skin makes up about 18% of their total body weight!

Elephants also have a thick skin, measuring up to 2.5 cm in some areas. Rhinos have skin around 1.5–2 cm thick, but here is the interesting part: even though elephants have thicker skin, it is harder to inject a rhino. The difference comes down to the skin structure, not just the thickness. Elephant skin is relatively porous and less compact, making it easier to penetrate. Rhino skin is densely collagen-packed, so it is tougher and more armour-like.



NAMIBIA STUD GAME BREEDERS GAME AUCTION

Not long anymore... **Saturday 09 May** the second Namibia Stud Game Breeders Game Auction will be held in Windhoek!

The recent rains have transformed most parts of Namibia to a lush and green country, and now is the perfect time to supplement your game populations by introducing new genetics sold on this auction. Doing so will result in stronger, healthier animals with improved survival rates and reproductive success.

All sellers on the Namibia Stud Game Breeders auction have built a strong reputation by consistently producing exceptional game with proven genetics. Don't miss the opportunity to invest in the future of your game!

The game auction will be held both online and on-site at the **Nedbank Sky Garden** in Windhoek (address: Nedbank Main Branch, Dr Frans Indongo Str Nr 12-20 – 7th floor). Registration starts at 11:00, the auction itself starts at 12:00. To register and bid online, download the Veewinkel app.

If you have questions, please feel free to contact:

Floors Nel	081 127 3428 (only WhatsApp)
Raymund Simon	081 411 0112



DEHORNING MISSION

Did you know that Namibia was the first country to dehorn their rhinos to protect them from poaching? It has been [proven](#) repeatedly that dehorning, even though a sad measure, does reduce the incentive for poachers. With less horn (remember, a stub is always left after dehorning), the rhino becomes a less valuable target. We are not saying that dehorning prevents poaching completely, but it has significantly reduced poaching rates.

Dehorning does not hurt the rhino. Rhino horn is made of keratin, the same material as human fingernails. Unlike antelope horns, rhinos do not have a bone in the centre of the horn. The horns grow from a tough, fibrous growth pad in the skin, called the growth pad (similar to the human nail bed) and are not attached to the skull. The outer horn contains no blood vessels or nerves. Only the growth pad is sensitive, which is why great care is taken to cut well above this area. This means that after a dehorning, a stub of horn is left. Since the growth pad remains intact, the horn regrows naturally. During dehorning, the rhino is fully sedated, and the procedure is not painful.

Are you a vet, nurse or technician? And interested in rhinos and conservation? Then join the Dehorning Mission! Together with Worldwide Vets and the Rhino Momma Project, we will give two week-long educational courses this year. For more information, have a look at the website: <https://www.worldwide-vets.org/Projects/rhino-dehorning-mission>



It is important to note that rhino horn grows at an average rate of 5-6 cm per year (front horn) and 2 cm per year (back horn) throughout the life of a rhino. To be an effective anti-poaching measure rhinos should be dehorned every few years. © M. Bijsterbosch

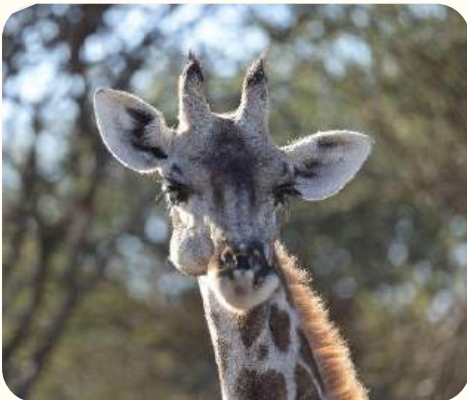
If you have rhinos that need dehorning, feel free to contact us! We are coordinating with groups that are keen to join a dehorning, and are willing to sponsor a significant portion of the associated costs.

GIRAFFES AND LUMPY SKIN DISEASE

You might remember that last year (+/- from mid-April until the end of May) we had a lot of giraffe mortalities in Namibia. Many farmers reported finding dead giraffes, and several reported seeing sick giraffes that were behaving abnormally. Here is a quick summary of the symptoms that were observed:

- 🐾 Physical signs: many farmers reported sick giraffes with drooping/hanging ears. A few observed excessive drooling, discharge from the eyes, and some reported that the giraffe seemed blind. Several giraffes had skin lesions, which looked like Lumpy Skin Disease.
- 🐾 Lethargy: giraffe stand motionless in the bush, showing no response to approaching vehicles or people.
- 🐾 Ataxia: giraffe appears to be 'drunk', stumbling over bushes and fences. Some indicate a staggered gait.

We compiled a video of several sick giraffes, if you would like to receive it per WhatsApp or email, please contact us.



Young heifer displaying lethargy and discharge from the eyes (end of May 2025). It seems she was blind and had a food bolus stuck in the mouth. The giraffe heifer had multiple skin lesions in the groin and inner thigh area. Left eye showed severe centralized corneal scarring, right eye was badly damaged with corneal laceration. She was in poor condition. © Karen Codling, AfriCat Foundation & M. Bijsterbosch.



Giraffe observed at Etosha Heights in April 2025, with lumps all over the body, discharge from eyes and mouth, hanging ears. It seemed to have a bone stuck in the mouth. The giraffe was found dead a few days later.

© Martina Küsters – Giraffe Conservation Foundation

The mortalities were reported across central Namibia; west and north of Okahandja, extending to Omaruru and Waterberg. Additional reports came from farms southwest, south, and east of Okaukuejo (Etosha NP), Outjo, and towards Maroelaboom. Rumours also suggested giraffe mortalities inside Etosha National Park.



We unfortunately received too few samples and completed questionnaires to determine the exact cause of the giraffe mortalities. However, the clinical signs in many giraffe strongly points to Lumpy Skin Disease (LSD). We ruled out several other possibilities:

- 🐾 Since the mortalities occurred over a very wide area with dramatically different vegetation types, plant poisoning seemed extremely unlikely.
- 🐾 Some people suggested rabies, which we eliminated since multiple giraffes tested negative.
- 🐾 Others mentioned lightning strike, however, lightning strike will kill instantly while many sick giraffe were seen outside periods of rain.

We therefore believe the mortalities were due to an outbreak of LSD. We experienced a very good raining season which also resulted in abnormally high numbers of insects (esp. flies, midges and mosquitos). Of the 14 questionnaires we received, 71.4% of the farmers observed an increased number of mosquitos/biting flies/midges in the months April and May, compared with 2024. At the same time, several LSD outbreaks were recorded in cattle in northern Namibia. Importantly, the giraffe mortalities stopped with the onset of the first cold spells in winter, which coincided with a dramatic reduction in insect numbers. This further supports our opinion that an insect-borne disease such as LSD was the likely cause.

There have been a few reports of LSD in single giraffe, however, this is the first time that a large-scale outbreak the disease, as seen in Namibia in 2025 has been reported. Other than the one giraffe in our study, we had multiple farmers report having seen sick or dead giraffe with typical LSD skin lesions. Sheep and goats, as well as other African wild ungulates, with the exception of impala and springbuck, seem to be resistant to the disease, however, quite a few ungulates on other continents can get the disease.

What is Lumpy Skin Disease (LSD)?

LSD is a disease caused by a (capri)pox virus, and causes nodular (growth of abnormal tissue) skin lesions on the body. Humans cannot become infected with LSD. This disease is common all over Africa and is currently spreading into Europe, Russia, Middle East and Asia.

The disease is mostly spread via arthropods acting as mechanical vectors. These include biting flies (e.g. the stable fly *Stomoxys calcitrans*), mosquitoes and *Culicoides* midges. 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, calves drinking milk) is another potential route, but not yet fully understood.

How fast and how severe an outbreak becomes, depends on the number and activity of local insect vectors. Outbreaks often spike during warm, wet weather when these insects are more common. When new outbreaks appear far away, they are usually linked to the movement of infected animals rather than insects. The LSD virus may remain viable for up to a month in dried skin crusts and five months in semen.

What are the signs of LSD?

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 0.5 cm to 5 cm 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.

LSD does not always show, up to 50% of cases in an outbreak are subclinical – meaning the animals do not 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.



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

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. PCR (Polymerase Chain Reaction is a test that detects the genetic material of a virus) is often used to confirm the diagnosis and to differentiate between different strains of the virus.

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. Good summer rains with high insect loads should be an urgent warning sign of a possible LSD outbreak. Prevention in cattle is easily done by vaccinating 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. Consider culling severely affected animals within a herd to limit the spread of the disease in your herd. Remember, the virus can survive for weeks in the skin of culled animals!

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 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 susceptible), 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.

It is known that giraffes can get LSD. In 1970 a giraffe calf in South Africa was [experimentally](#) injected with the LSD virus, and died with typical symptoms and lesions of the disease. The LSD virus also has been isolated from a giraffe that died in a [Vietnamese zoo](#). While giraffes are susceptible, mortality is not always guaranteed. It depends on the severity of infection, insect vector pressure, and overall health of the animal.

We urge farmers to please contact us if you experience any mortalities and/or see sick giraffes on your farm. Like last year, we had a good rainy season, but fortunately we have not seen the same high insect numbers, and reports of LSD in cattle have been very low. With the cold spells already setting in, we are hopeful that we won't experience the mortalities as we have seen last year.



Lumpy Skin Disease in a springbuck, showing nodules over the face and neck. © [Dr Martin Malan](#)



Dr Ulf Tubbesing

✉ ulf@wildlifelivetsnamibia.com

☎ +264 (0)81 128 0350

📘 Facebook: [Wildlife Vets Namibia](#)

Dr Maximilian Krings

✉ max@wildlifelivetsnamibia.com

☎ +264 (0)81 760 0577

📷 Instagram: [@wildlife_vets_namibia](#)

Mariska Bijsterbosch

✉ mariska@wildlifelivetsnamibia.com

☎ +264 (0)81 382 8473

📺 YouTube: [Wildlife Vets Namibia](#)