





# NEWSLETTER DECEMBER

## In this newsletter:

-  [Merry Christmas](#)
-  [Sticky geckos](#)
-  [Courses in 2022](#)
-  [What a year... 2021!](#)

Dear clients,

Here is already the last newsletter of this year! In this newsletter we explain you the secret of the sticky gecko... We also give a preliminary schedule of courses planned for 2022, and lastly, our year overview! For us each job is a highlight, but then the newsletter would get a tad too long..., so we made a selection! We hope you like the newsletter, and enjoy the holidays!

Kind regards, the Wildlife Vets Namibia team

## MERRY CHRISTMAS AND A WONDERFUL 2022!

We all hoped with the start of 2021 Covid and all of its problems would disappear, but unfortunately this year appeared to be yet another challenging year for all of us. Nonetheless there remains a lot to be thankful for, and next year can only be an improvement from this year! We hope the rains will come soon and that this new Covid wave dies off quickly.

We want to thank you for your support this year – workwise, but perhaps even more on a personal level. All the messages, phone calls and support coming in after the fire accident has been heart-warming and of great moral support! We very much look forward to be of your assistance again in 2022! Take care, have a wonderful Christmas and let's make 2022 an amazing year!

Best regards, Ulf & Mariska



## STICKY GECKOS

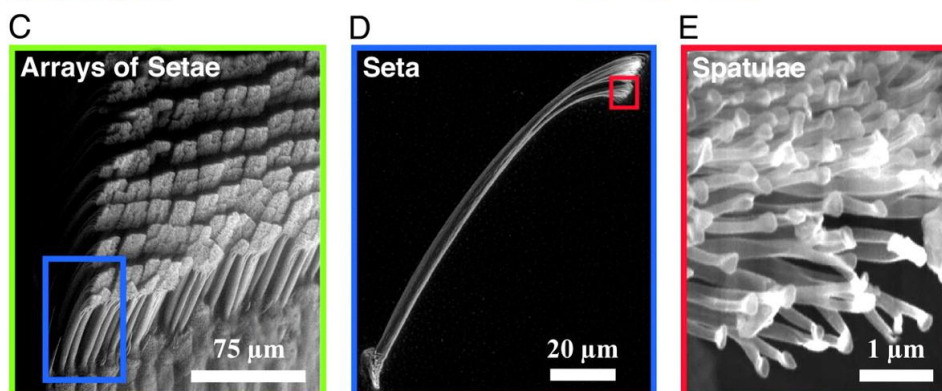
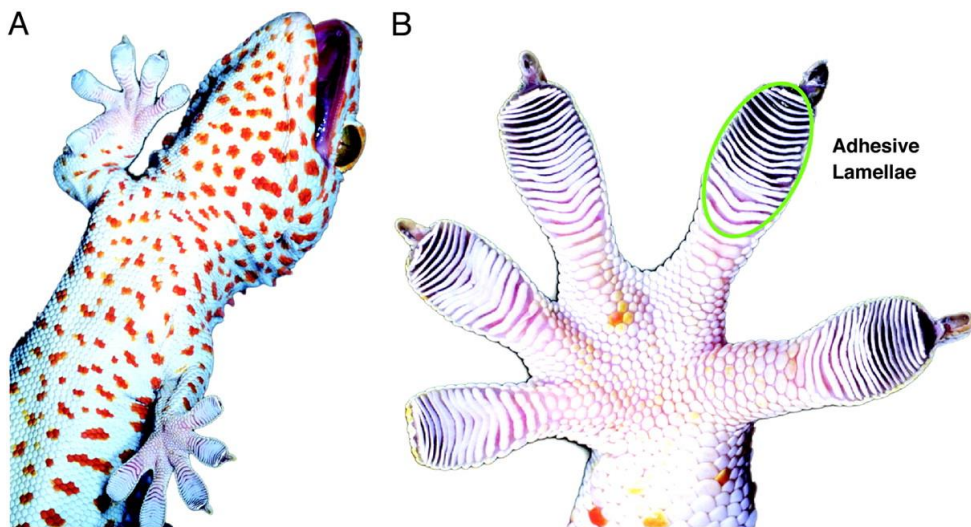
With summer the insects come, and with the insects, geckos follow. These fascinating creatures can climb walls and walk on ceilings as if its nothing. But how do they do that?

It turns out that geckos are able to stick and unstick themselves instantly, so they can run up and down a wall or ceiling without losing speed. The secret behind this is called the 'van der Waal forces' (those clever Dutchies 😊), which are tiny forces between molecules.

The gecko's toes are covered with microscopically small hairs, called *setae*. These *setae* are organized in gill-like rows (lamellae), and each of them ends up in hundreds of fine spatula-like ends (see picture below). Each of these tiny *setae* produces a small interaction with the surface, and all together they create a reliable suction. So, what basically happens is that the gecko's *setae* molecules and the surface (e.g. wall) molecules interact with each other, and create an electromagnetic attraction, which allows the *setae* to stick.

The *setae* work on a nanoscale, and geckos are able to turn the 'stickiness' on and off instantly. The *setae* are not at a 90° angle, but are positioned in an oblique angle. If the *setae* bend to an angle which is more horizontal, the surface area that 'sticks' increases, and the gecko can support more weight. With a particular angled force, the *setae* are pushed into the "sticky" position, and without the force they 'unstick'. The forces on themselves are weak, but with millions of these *setae*, they are more than strong enough to let the gecko 'stick' to a wall.

To put this into perspective, if a gecko would use all of its 6.5 million *setae* at once, it could support around 130 kg! This interesting future inspires many engineers. The U.S. Department of Defence for example developed sticky handheld paddles, that help soldiers climb walls. Perhaps one day we can all be spiderman and climb walls 😊



*Here you see the structural hierarchy of the gecko's 'sticky feet' system.*

*A) A view from below of a tokay gecko, an Asian gecko species. B) A view of the foot from below, showing the lamellae. C) A small portion of the lamellae, showing individual setae. D & E) A nanostructure view of a single seta, which ends up in hundreds of spatula-like ends. © [Hansen & Autumn \(2005\)](#)*



## COURSES IN 2022

For 2022 we once again have some courses lined up! If you are interested in one or more courses, send an email to [mariska@wildlifevetsnamibia.com](mailto:mariska@wildlifevetsnamibia.com).

### Animal Crime Scene and Evidence Handling course

In the Animal Crime Scene Course we teach participants how to approach and handle a crime scene (e.g. poaching or stock theft) and evidence. We have two courses lined up, the first one is held 04-06 March at Etango Ranch (with professional photographer Dirk Heinrich), the second one is 04-06 May at Kifaru, near Outjo. You can combine this course at Kifaru with the Post-Mortem course, which is held directly before the Animal Crime Scene course. For more information, download the course outline [here](#), or contact us.

### Post-Mortem course

In the Post-Mortem (PM) course we teach you how to conduct a systematic and thorough PM examination yourself. We hope to present two courses next year, so far we have one venue confirmed for 11-12 May at Kifaru Bush Camp near Outjo, and we hope to announce the second venue soon. For more information, download the course outline [here](#), or contact us.

# Courses 2022



During the first quarter of 2022 we plan to present both the Post-Mortem course, and the Animal Crime Scene and Evidence Handling course. We are looking forward to presenting the courses, and hope to see you there!

### Animal crime scene and evidence handling course

In this course we discuss the proper approach to, and handling of a crime scene and its evidence. Emphasis is placed on wildlife and/or livestock-related crimes (esp. poaching & stock theft). During the lectures you will learn e.g. how to approach and handle crime scene, types of evidence, forensic photography, and maintaining the chain of evidence. We have a couple of practical sessions covering photography, evidence collection and crime scene handling.

For who: people that may become involved in crime directed against wildlife and/or livestock, e.g. farmers, managers, anti-poaching units, game rangers, reservists, police officers etc.

Duration: 1.5 days

### Course dates & venues

#### Animal Crime Scene and Evidence Handling course

Date: 04-06 March *Etango Ranch (opposite Int. Airport)*  
Course fee: N\$ 2840  
Accommodation fee: N\$ 1500 p.p. / 2 nights  
Professional photographer Dirk Heinrich will join us and give expert advice to all your photo-questions!

Date: 13-15 May *Kifaru Bush Camp (near Outjo)*  
Course fee: N\$ 2700  
Accommodation fee: N\$ 1300 p.p. / 2 nights

#### Post-Mortem course

Date: *To be determined*  
Course fee: N\$ 1700  
Accommodation fee:

Date: 11-12 May *Kifaru Bush Camp (near Outjo)*  
Course fee: N\$ 1700  
Accommodation fee: N\$ 750 p.p.p.n.

*All prices are excl. VAT.*

### Post-Mortem course

In this course we teach you the basic principles of doing a thorough and systematic PM. During the lectures we will teach you e.g. when (not) to do a PM, basic anatomy/physiology, sample collection, medical photography, lesion identification and at the end we guide you step by step through doing an actual thorough PM examination, including sample collection.

For who: Farmers (game and livestock), managers and other interested people.

Duration: 1.5 days

### More info

Do you have questions, want to receive the more detailed course outline(s) or register? Sent an email to: [mariska@wildlifevetsnamibia.com](mailto:mariska@wildlifevetsnamibia.com)





## WHAT A YEAR... 2021!



*January This cheeky rhino calf on a green veld makes the year start off well!*

*February This cheetah had a sudden neurological problem; he was wobbly on his legs, head bobbing and uncoordinated. His situation was worrisome; he was taken to the clinic, and the next day we did an MRI on him. We suspected he was stung by a scorpion, but after lots of examinations we still did not get a conclusive diagnosis, and treating this semi-wild cheetah with medication was not so easy since he did not want to eat... After a week of spending loads of time with him, trying to make him eat and getting the tablets in, he was still unable to stand up. A decision had to be made; what is best for the cheetah?*



*As a miracle, the cheetah decided to stand up the next day! The whole clinic was cheering! Every day he was making progress and eating better and better, and after a few days he went back home to recover further in a special 'hospital camp'. We visited the cheetah a few weeks later, and he looked so much better! Some of the neurological signs were still present – a slight wobble when walking – but he was strong and fit enough to be back with his mates.*



*March An interesting month with lots of highlights! Sables, rhinos, lions, brown hyenas, cheetahs, you name it! On one of the jobs we immobilized several lions in the Kalahari. Some received a new tracking collar, and others got a birth-control implant. This implant suppresses fertility hormones, so the lions cannot reproduce anymore. To maintain a healthy prey base, it is important to keep this lion population under control.*



*March In the Sperrgebiet we got to assist the Brown Hyena Research Project with the immobilization of two brown hyenas. Both received a satellite collar. An exciting job, sitting between hundreds of seals while trying to dart these elusive animals!*





**March/April** We did three Animal Crime Scene and Evidence handling courses; at ISAP, at farm Kweekwal in the Kalahari and at Kifaru. In this course we teach farmers, managers, police reservists and other interested people how to secure a crime scene (e.g. poaching/stock theft), and how to handle evidence. We also did a PM course at Kifaru, where we taught participants to perform a basic PM examination themselves. We hope to do more courses next year! If you are interested, feel free to contact us!



**May** The spiral horned antelopes (eland, kudu, nyala) are traditionally a bit of a nightmare to dart, as they run for a long time. Fortunately, science does not stand still, and with new drug mixes we can reduce the 'downtime' considerably. We were able to handle this massive eland bull within 8 minutes!



**June** This vulture with a fractured radius and ulnae was brought to Rhino Park Veterinary Clinic by NARREC. Two long pins were drilled into the hollow center of the bone to bridge the fragments, and to make the fractures more stable. The 2<sup>nd</sup> x-ray was taken 4 weeks later, and you can see callus formation (orange circle), which joins the broken bones together. Soft callus is replaced by hard callus, and eventually the bones are healed again.







**July** This rhino bull was moved. To walk a rhino, we first dart it with immobilizing drugs. Once we can handle the rhino and have placed a face mask and ropes on, we partially reverse the immobilizing drugs. The rhino is then strong enough to walk, but not too awake to take a run with us (always a fine line... 😊). Once the rhino is in the trailer or crate, he gets more of this partial reversal. At offloading, the rhino receives a full antidote.



**August** More than 3000 km, from Namibia via Zambia to the DRC... We successfully translocated sables, roans, eland, nyalas and wildebeest to a beautiful reserve in South-East DRC. It was a challenging but very interesting trip! We can try to tell you all about it, but rather watch [this video](#) and see for yourself!



**August 23** August marks an all-time low of this year... During a veldfire on Ongos Ulf got seriously burned. But Ulf would not be Ulf if he would not surprise us all! Soon he got out of the hospital to recover at home. Again, we would like to thank you for all the wonderful messages. Thanks to your thoughts and prayers Ulf recovered even quicker, and is now fully back in the field again!



**October** We translocated sables, nyalas and lechwes over 2000 km from Namibia to a beautiful green game farm in central Angola. Watch the video [here!](#)







*November Education is key! Together with Dr Simone Herzog and Ms Juliette Erdtsieck, we attended the 'Small Rhino Workshop' in South-Africa. During this workshop, organized by Dr Douw Grobler, experts discussed how to handle a rhino orphan from A to Z. Many interesting topics passed by, and we are thrilled to be able to bring this knowledge home to Namibia.*

*A special thanks goes out to Dr Simone Herzog and Dr Douw Grobler for giving us this opportunity! We will do everything we can to spread our gained knowledge and assist as best as we can in rhino orphan cases!*

*December This impressive 46" oryx had a funny lump on his hump. We suspect it was an old horn injury, whereby part of the skin got necrotic and granulated excessively. Granulation is the development of new tissue and blood vessels in a wound during the healing process. In this case, excess granulation tissue started forming, which can actually hinder the healing process. The necrotic skin and excessive granulation tissue were cut away and the wound was cleaned.*



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