## EWSLETTER FEBRUARY

In this newsletter:

Now I see you (1#2)In the Air and on the Ground **Regional WhatsApp** groups The Omentum

#### Dear clients,

We start this newsletter with the difference between predator and prey eyes. Then we have two short sections about our work (up in the air and down on the ground!) and our regional WhatsApp groups. We close the newsletter with an interesting article about the omentum – do you know what this is? Kind regards, the Wildlife Vets Namibia team

### **NOW I SEE YOU!** (PART 1#2)

In this newsletter let's focus... literally, on the eyes! Have you ever thought about the position of the eyes in different species? For example the eyes of a lion are in the front, but the eyes of an impala are located on the sides. Of course this has a function, that has all to do with vision.

In general, predators have eyes in the front of the head. This gives them a larger binocular vision, which allows for better depth perception, and the ability to accurately judge distances. These are crucial abilities if you want to catch prey! At the same time, their field of view is more narrow, which helps to focus on the target prey. This also means they have a poorer peripheral vision (the vision outside of your focus point), and a larger 'blind spot'.

Prey animals typically have their eyes positioned on the sides of their heads. This strategic placement gives them a wide field of view (and thus better peripheral vision), enabling them to scan a larger area around them, which is of course important for detecting predators! The side positioning of the eyes also minimizes blind spots, which makes it harder for the predator to sneak up unnoticed. The downside is that they have poor eyesight directly in front of them. 💡 "Eyes in front, 9 hunt. Eyes on side, 9 hide."

The visual field is the entire area that a person or animal can see when they look straight ahead without moving

their eyes or head. If we look at cats, their visual field is estimated to be 200° (140° frontal binocular field and 2x 30° monocular fields on the side). Horses have a much larger visual field of around 355°. In humans the visual field spans about 180°. Keep an eye out (!) for the next newsletter, in where we dive a bit deeper into this topic!



 ${f Q}$  Binocular vision: both eyes are used together to focus on an object.

P Monocular (uniocular) vision: each eye is used independently to observe the surroundings.



Darting a sable with pilot Raymund from Simon Wildlife Services

#### IN THE AIR AND ON THE GROUND!

Did you know we can save you some serious \$\$ on helicopter- and professional time fees? This is because we work in a team; Ulf the vet in the helicopter, and Mariska the wildlife para-professional on the ground! This means we can work more animals in a shorter amount of time.

Mariska is qualified to handle, monitor and reverse the animal. Therefore, the helicopter can avoid landing every time an animal is immobilized. Depending on the ground team, the helicopter with Ulf can keep on darting, while Mariska and the ground team can handle the animals and wake them up. This way we can work more efficiently – and thus reduce both helicopter time, and professional time!

← Waking up a black impala ewe in a game truck

#### **REGIONAL WHATSAPP GROUPS**

Are you a member of our regional WhatsApp groups? Last year we did not make much use if it, simply because we were almost permanently booked! With this message we want to let you know the groups are still active, and we will use them to notify you when we are in the area (unless we already have other obligations and cannot stay longer in an area).

For those who do not know the groups, when we are called out to a certain area, we will notify the particular group. If you happen to have a job that needs to be done, you can jump in and save on kilometre fees. These groups will only be used to notify that we will be working in a specific area. To respect your privacy, we won't mention names or farms, just the area where we will be working in.

# Wildlife Vets Namibia WhatsApp groups

#### Join our regional WhatsApp groups! How does it work?



When we are called out to a farm, or have a prospective job in an area, we notify the group. If you happen to have a job that needs to be done and you want us to come, call us, or send a message.



Save km, Save \$\$ The more farms that join in on one trip, the cheaper the travel cost for all!



If you want us to come, or have a question, please contact us directly and do not use this group. We are sure you agree that there are already too many 'shot' groups toking up our time.

ʻchat'-groups taking up our time 😌

We have created groups for the following regions:

- <u>North of Windhoek</u> (e.g., Okahandja/Otjiwarongo/ Outjo/Tsumeb etc. area)
- <u>East of Windhoek</u> (e.g., Omitara/Witvlei/Gobabis etc. area)
- South-east of Windhoek (e.g., Dordabis/Nina etc. area)
- South of Windhoek (Rehoboth and south)



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Our regional groups are:

North of Windhoek East of Windhoek

South-east of Windhoek

South of Windhoek

Are you a farmer/farm

manager, and you want to be

added to one of the regional

groups? Or you want more info? Feel free to contact us!

www.wildlifevetsnamibia.com

## EVER HEARD OF THE OMENTUM, THE ABDOMINAL POLICEMAN??

We bet that most of our readers have never heard of the omentum! However, if we ask the Afrikaans speaking farmers and hunters in southern Africa if they know what "*pens vet*" or "*net vet*" is, they will immediately start drooling and think of the vital ingredient used to make "*skilpadjies*"; a culinary speciality in our part of the world!

The omentum (or caul fat) is a large flat layer of fatty tissue which covers most of the abdominal organs. It is the first "organ" one encounters when opening any mammalian carcass. A detailed description of the macro- and microanatomic structure of the omentum and its important functions (yes, many functions!) in the body go far beyond the scope of this article. However, we believe that it is worth giving you a brief introduction to this amazing organ!

At face value, the omentum is just what it is called in Afrikaans, pens vet (abdominal fat), however, this just does not do it justice! It is not just a fat store, it is actually a very important <u>organ</u>. The omentum looks like tissue, but functions as an organ. Its size and weight varies greatly between species and is influenced by the health status of the animal.



Skilpadjie means tortoise in Afrikaans. This popular dish consist of sheep/lamb liver wrapped in 'pens vet' and is prepared on the braai. When done, they look like little tortoise shells. © U. Tubbesing

An organ is generally defined as a self-contained group of tissues that perform specific functions in the body.

On the left is a photo of the omentum in a nice fat sheep (excellent condition); clearly demonstrating its fat storing ability. The photo on the right shows a thin brownish membrane which is the omentum devoid of all fat, a clear indication that the animal is in a severe state of starvation and/or suffering from chronic disease.



On the next page we will discuss the functions of the omentum, and we will use an elephant that we treated as an example.





This elephant bull had a large wound, penetrating into the abdominal cavity © Manager of the reserve. The omentum (yellow arrow) moved to, and out of the wound to seal the hole, in an attempt to prevent the intestines from falling out of the wound, and dirt and infection from entering the abdominal cavity. When the elephant was immobilized, we found another, connecting wound. These wounds were likely caused by another elephant. © M. Bijsterbosch.

When there is an inflammation, infection and/or injury in the abdominal cavity, the omentum typically becomes <u>activated and migrates</u> to these areas. It wraps itself around the injured sites, physically isolating them from surrounding healthy tissue to minimise the spread of intra-abdominal infections. It then absorbs and <u>clears bacteria and contaminants</u> (e.g. leaking gut content) and provides <u>white blood cells</u> to help fight the local infection. This activated omentum <u>can rapidly grow in size</u> to more effectively do its job. This is well demonstrated in the case of the elephant, where we resected about 3 kg (!) of omentum hanging out of the wound. The actual omental plug that sealed the wound was not removed.



The omentum sealed the big wound, preventing intestines from falling out, and infections from coming in. The omentum that was outside was cut away, the wound was flushed and cleaned, and the elephant received long-acting broad-spectrum antibiotics and supportive vitamins. The wounds were closed with sutures of orthopaedic steel wire © M. Bijsterbosch. The elephant received a follow-up treatment a week later, and the wounds looked very good! Unfortunately, a few days later, the elephant was found dead, with what it seemed a new stab wound...

Other important biological functions of the omentum are:

- Neovascularization, a process that allows the omentum to provide the basis for new blood vessels forming in adjacent, injured tissue.
- Haemostasis, which involves organised blood clotting to prevent excessive bleeding after injury.
- Tissue healing, regeneration and even omentum cells transforming into different tissue.

These properties are frequently used during abdominal surgery to assist healing of compromised tissue (e.g. bruised tissue with poor blood supply) and prevent/localise possible leakage from say intestinal operation wounds. This is easily achieved by simply wrapping omentum around injured tissue. The activated omentum contains at least three distinct groups of cells that can facilitate regeneration of damaged tissue and can, amongst others, differentiate into heart muscle, lung epithelial cells, liver, pancreatic as well as nervous tissue cells.



Needless to say, this open up many exciting and promising applications in surgery! Other than the omental transposition mentioned above, the omentum is also used in the fields of cardiovascular, urogenital, orthopaedic, reconstructive as well as neurosurgery. There are many ongoing research projects exploring and refining the use of the healing properties of the omentum.

Did you ever thought that 'pens vet' was so awesome?!



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