NEWSLETTER JANUARY

In this newsletter:

- ***** Happy 2024
- Ruminants
- New Year's
 - Resolutions
- Klawerberg and Vriende Wild Veiling

Dear clients,

Happy 2024! Of course, also in the new year we continue to write our monthly newsletters! We enjoy making them, and we hope you enjoy reading them! If you ever have a question or a topic you want us to cover, let us know! In this first newsletter of the year, you can read about ruminants and their interesting abilities to convert plant material into useful nutrients. We have listed some New Year's Resolutions and we would like to inform you about the Klawerberg and Vriende Veiling, which is held 16 March 2024. Kind regards, the Wildlife Vets Namibia team.

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HAPPY 2024!

Here's to a fresh start in 2024! We can't wait to see what this new year will bring for all of us! The first thing we sincerely hope is that Namibia will be blessed with good widespread rains throughout the country!

We would like to thank you once more for your support over the years and we hope to be of your assistance again this year. Have a great 2024, in good health and lots of happiness!

Regards from the entire Wildlife Vets Namibia team

RUMINANTS

Antelopes, but also giraffes and buffalo can be seen lying down while they are busy chewing on something. Are they just being 'lazy eaters'? Not at all! These animals are so called 'ruminants'. The word "ruminant" comes from the Latin ruminare, which means "to chew over again". Ruminants are classified into three main feeding categories (the categories are not as straightforward though, remember, in nature there are always exceptions to the rule!):

- <u>Browsers</u> (sometimes called concentrate selectors) -Mainly feed on browse (leaves of trees and shrubs, forbs, flowers, fruits etc.)
- **Second Second S**
- Mixed or intermediate feeders Feed on a mixture of browse and grass

Plant material is not so easy to digest, it contains a lot of cellulose for example, a complex structure which is not easy to break down. Luckily for the ruminants, they have a whole army of micro-organisms (bacteria and specialised rumen protozoa) in their gut, working hard to convert plant material into nutrients that the animal can use.



Red hartebeest in Etosha NP © M. Bijsterbosch



In order for the micro-organisms to do their job, the food particles need to be as small as possible. This is why ruminants ruminate. *Rumination* is a process whereby food is brought up, chewed again, and swallowed again. It involves:

- Regurgitation (bringing swallowed food back into the mouth)
- **&** Remastication (chewing again)
- **Solution** Insalivation (mixing of food with saliva)
- **B** Deglutition (process of swallowing)

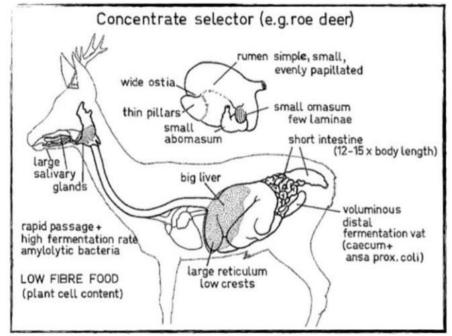
So, rumination allows the animal to chew the food 'more completely', and this in turn improves digestion. The smaller the pieces of food, the better the micro-organisms in the rumen can do their job. An advantage of this adaptation, is that the ruminant can spend more time resting, while looking out for predators. Animals can also stand while ruminating, but usually they lie down.

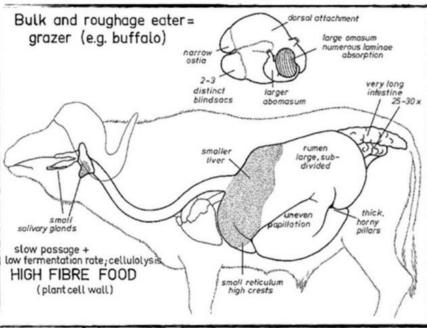
What is interesting, is that within ruminants there are a lot of anatomical and functional differences per species – these modifications have evolved in such a way that the most nutrients can be extracted from the food they eat. These differences go further than just the diet of an animal.

The mouth structure of an animal influences the bite size. For example, many grazers have wide muzzles, to maximize bite size. But at the same time, this wide muzzle limits them from selecting smaller, more nutritious grasses. Browsers on the other had usually have a narrower muzzle and a large mouth opening to strip of leaves. Giraffes have long tongues, and black rhino prehensile lips.

On average, the salivary glands are larger in browsers than in grazers. One explanation is that the larger salivary glands in browsers produce tannin-binding salivary proteins, that partly help to prevent tannins from reducing the protein digestibility. Browsers also have more liver tissue, a possible adaptation to the higher amount of chemicals in browse compared to grass.

When we look at their gut, we see that all ruminants have one or more portions of their gut 'dedicated' to house the micro-organisms. In the <u>rumen</u> (Afr. grootpens), micro-organisms digest the plant material; they breakdown plant components such as cellulose, which is then converted to glucose.



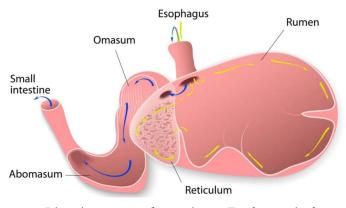


Comparison between a selective feeder (e.g., kudu) and a bulk grazer (e.g., buffalo) © <u>University of Idaho</u>



The next stomach, the <u>reticulum</u> (Afr. kleinpens / netpens) has a pouch-like structure, and determines whether the food is digested enough. When the food is not enough digested, the animal must ruminate. Grazers tend to have a larger, more muscular and divided rumen/reticulum to digest the cellulose more effectively.

The next stomach, the <u>omasum</u> (Afr. blaarpens) has many large folds, to create a big surface where water and other important nutrients are absorbed. The last stomach



Digestive system of a ruminant. Food goes via the esophagus (food pipe) into the stomach system ©
Raisingsheep.net

compartment, the <u>abomasum</u> (Afr. melkpens), is similar to that of humans. Here acid and digestive enzymes are produced, which kills bacteria and breaks down more nutrients (e.g., proteins). Browsers usually have a proportionally larger abomasum and a larger hindgut (caecum and colon) than grazers, to favour digest digestion of some of the plant cell contents.

Digestion and nutrient are vast and complex topics – and we have still much to learn! We hope you understand a bit more about ruminants now, but if you interested in reading more about feeding behaviour, have a look at our article '<u>Change, the driver of feeding behaviour in (wild) animals</u>'. For more information about feeding during drought situations, we kindly refer you to our article '<u>Feeding wildlife during a drought</u>'.

NEW YEAR'S RESOLUTIONS

And, do you have any New Year's resolutions? Ours is to be of even better assistance to you! To make the 2024 jobs as streamlined as possible, we would like to point out a number of things to you:

✓ If you have any **big jobs** planned for 2024, please inform us well in advance about when, and what needs to be done. Then we can make sure we book enough time for you, and bring the right drugs, equipment etc.

- ✓ If you have any **special requests**, please let us know in time. Sometimes we will need to pack extra kit or order products. Our car is big, but not big enough to carry all our kit around throughout the year ② Examples of special requests:
 - o Pet vaccinations
 - o Any kind of surgery (e.g., dog castration)
 - o Pregnancy diagnosis (we do not standard carry the ultrasound machine along, since this is a high value and sensitive machine)
 - Microscopic examination (as with the ultrasound machine, the microscope is sensitive equipment that we do not carry around all the time)
 - o Horn capping equipment. To protect horns against wearing off, we can put caps and/or sleeves over the horns.
- ✓ If antelope work needs to be done, please have **pipes** ready that we can put over the horns. This is to protect all those standing on the back of the bakkie.
- Putting caps on the horns of a sable bull.
 After these caps, we can also put sleeves over the caps for better protection. Please do let us know in advance if you want us to bring this kit along. © M. Bijsterbosch
- ✓ When you apply for your **game capture permits**, make sure you apply for all species, and include your management plan. This makes it easier for game dealers to buy your animals for the export market.





KLAWERBERG AND VRIENDE WILD VEILING 2024

After last year's succes, the Klawerberg en Vriende Veiling (Klawerberg and Friends Game Auction) is back! We have had a busy month so far, as we prepared many of the animals that will be on the game auction. And we can promise you... you certainly wont be dissapointed! This auction will offer buyers the opportunity to buy breeding animals with very impressive genetics! Klawerberg has rounded up some of the best game breeders of Namibia, so don't miss this opportunity to enhance your herds with top quality animals.

The catalogue auction will be held on **16 March 2024**, at the Midgard Country Estate near Okahandja. For more information, have a look at the <u>Klawerberg facebook page</u>, or visit their website: <u>www.klawerberg.com</u>.

If you want to sleep over (we highly recommend this; good company, delicious food and awesome rooms!), you can book your accommodation at Midgard via the Klawerberg website with a <u>nice discount</u>. And don't forget, if you come to the auction, you stand a chance to win a son of Titan, a striking 34"roan bull!

We hope to see you there on the 16^{th} of March!





Breeding Giants





















If animals made New Year's resolutions



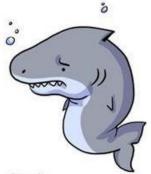
No need, I am already a vision of perfection.



LOVE EVERYTHING MORE.

ALSO MAYBE EAT SOME POOP.

I'LL DEFINITELY EAT SOME POOP.



Shark: Improve public image.



Rabbit: Make more rabbits.



Slug: Sneak into houses at night more, Don't let them see you but leave slime trails so they know you've been there.



T-Rex: Work on upper body strength, Also stop being dead,

anythingcomic.com

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