

# *NEWSLETTER OCTOBER*

Dear clients,

The days are getting longer and hotter, that also means that the game capture season is coming to an end, and our busy season is over. To inform you, we had a couple of odd rabies cases, so we urge you to be on the look-out for rabies signs in wildlife. Furthermore, you can read a summary of our latest article, about how change drives feeding behavior of animals. This article is freely available in the Documents-section on our website.

Kind regards, Ulf

## *GAME CAPTURE SEASON ENDING*

In Namibia we are bound to a game capture season, where animals may only be captured and translocated from February (north)/March (south) until the end of September (north)/October (south). In some cases an extension can be arranged at the Ministry of Environment and Tourism (MET) until the end of October. Besides the fact that it is too hot to catch and transport animals outside of the season, animals are often in poor condition - following the long dry season. In addition, many females are heavily pregnant or have young calves at foot.

For us this means our busy season is over, but it also means we have more time for our clients 😊. We can still assist you with jobs within your farm boundaries (preferably early mornings when it is a bit cooler for the animals), and we have more time for consultation work. We can advise you on various topics, such as game- veld- and disease management, what species to introduce, genetics etc. Do not hesitate to contact us!



## ***RABIES***

During September we have seen a couple of odd rabies cases. On the 15<sup>th</sup> we performed a post-mortem examination on a rhino calf near Etosha. Before it died it showed strange behaviour (ran away from his mother, was often found near/sitting in water without drinking, walking with an arched back and muscle tremors). Lab results proved that the calf was rabies positive. On the 23<sup>rd</sup> we examined two sick wild dog puppies at Erindi. The next day one of the pups died, and lab results were once again positive for rabies. The other pup died a couple of days later. Both dogs were depressed, did not eat or drink but hardly showed any other symptoms – not the typical signs of aggression normally associated with rabies! On the 26<sup>th</sup> of September an aardvark from the Karibib area was presented to the Rhino Park Veterinary Clinic with signs of ataxia (inability to stand and walk in a straight line) and progressive weakness. It failed to respond to intensive treatment and was euthanased. The aardvark also tested positive for rabies.

### **WHY DO WE WRITE ABOUT RABIES YET AGAIN?**

- 🐾 We believe the above cases to be only the second rhino and the first aardvark being diagnosed with rabies, proving the point that all mammals are susceptible.
- 🐾 We firmly believe that these cases are different from the kudu/eland rabies outbreaks because it is very likely that the vector here was possibly a predator and that disease transmission was caused by a bite. We thus urge you to be on the lookout for jackals, bat eared foxes etc displaying abnormal behaviour!!

We urge you to look out for animals showing signs of rabies and inform us. Symptoms in animals infected with rabies are:

- 🐾 Unusual behaviour; domestic animals become wild, wild animals become tame
- 🐾 Nervous signs; staggering, hindquarter paralysis, restless, changed tone of voice
- 🐾 Often found near water because animals lose the ability to swallow, show excessive drooling and usually die of thirst and dehydration.



**During examination of the two sick wild dog pups suspicions were raised for rabies, but you can only be sure after the brain is tested. We gave the pups several antibiotics, supportive drugs and placed them on a drip. But sadly, they never had a chance as rabies is fatal.**

**The African wild dogs are annually vaccinated with normal dog vaccines (incl. rabies) but these pups were still too young to be vaccinated.**

**African wild dog pups, and animals like bat-eared foxes, are very susceptible to many of the dog diseases and even from the vaccines they can get very sick. Pups from these species are only vaccinated when they are about 4-6 months.**

## Euthanize

Rabies is fatal and there is no treatment. When you suspect an animal to have rabies, the best we can do is euthanize. When shooting a rabid animal, never shoot it in the head or upper neck but rather go for the heart. When the animal is dead, remove the head from the body (be aware to wear gloves and that you don't get blood splatters in your eyes or mouth!). NEVER take out the brain - this and the salivary glands is where the virus is highly concentrated! If you have small wounds/scratches on your hand, you can get infected by handling these tissues!

## Processing the head

This is highly infectious material and to avoid further human exposure, wrap the head in newspapers (to absorb body fluids), and then in a watertight plastic bag. Make sure that no juices can run out of this bag. Keep the bag cool (NOT frozen). It is important to properly label the bag (DANGER: POSSIBLE RABIES), so everybody handling the bag knows to handle the bag carefully. We have created a specific label that you can print and stick on the bag, it is attached to the email. Save this on your computer and print another copy whenever needed in the future. We can always resend it to you as well.

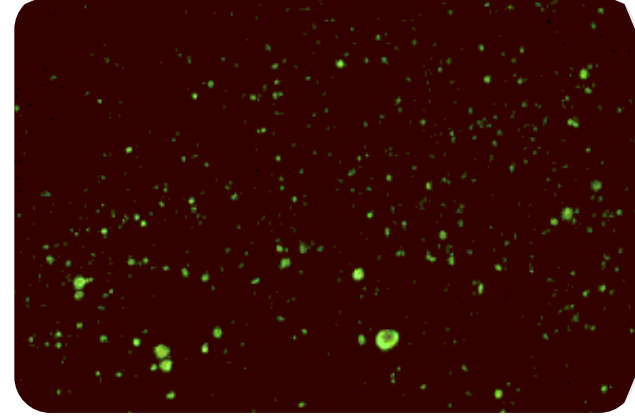
The head must be sent it to the State Veterinary Laboratory in Windhoek for rabies testing (PLEASE NOTE: The mentioned lab is currently out of reagents to do this test. Samples thus have to be couriered ON ICE to a South African lab for testing). It is thus best to work through your veterinarian as this usually speeds up the process.

## Human contact

When people had direct contact with a rabid animal, inform your doctor immediately, even when the lab results are not known yet. Inform the doctor about the intensity of the contact (was the person bitten or had he/she open wounds etc.) since this information is vital to determine the treatment intensity.

We strongly advice people that are in close contact with animals, to have themselves vaccinated on a regular basis. Also make sure your pets receive their annual vaccination against rabies.

**Rabies can be fatal, do not take chances with this viral disease!**



**A diagnosis of rabies can only be made when the virus is detected in the brain. Tissues infected with rabies are usually identified by an immunofluorescence staining using anti rabies monoclonal antibodies (Source: CDC)**

Click [here](#) to read more about rabies in kudu and eland



## ***CHANGE, THE DRIVER OF FEEDING BEHAVIOUR IN (WILD) ANIMALS***

**“Change is the only constant”** This proverb is best illustrated by nature. The wet season is followed by the dry season, abundant vegetation is followed by scarcity and the quality, palatability and toxicity of plants vary over time. At the same time the physiological status of the animals keeps changing; youngsters start of drinking milk and undergo changes in their digestive tract to digest plant matter. Females become pregnant, bulls mature. Then we also have natural disasters (floods, fire), and human intervention, for example in the form of fences (thereby blocking migration routes to greener pastures) or game re-introductions. All these aspects require changing nutritional needs of the animal to be satisfied.

Survival of the (wild) animal requires great adaptability. How do animals know which plants to eat, and which to avoid? Knowledge about the aspects influencing feeding behaviour and food selection will help you as a farmer to better understand and manage your game.

### **Instinctive forage behaviour**

Every animal has a genetic code which determines its dietary needs. This involves learned behaviour that has evolved over millennia, and experience; what an animal learns during its life.

### **Maternal influence**

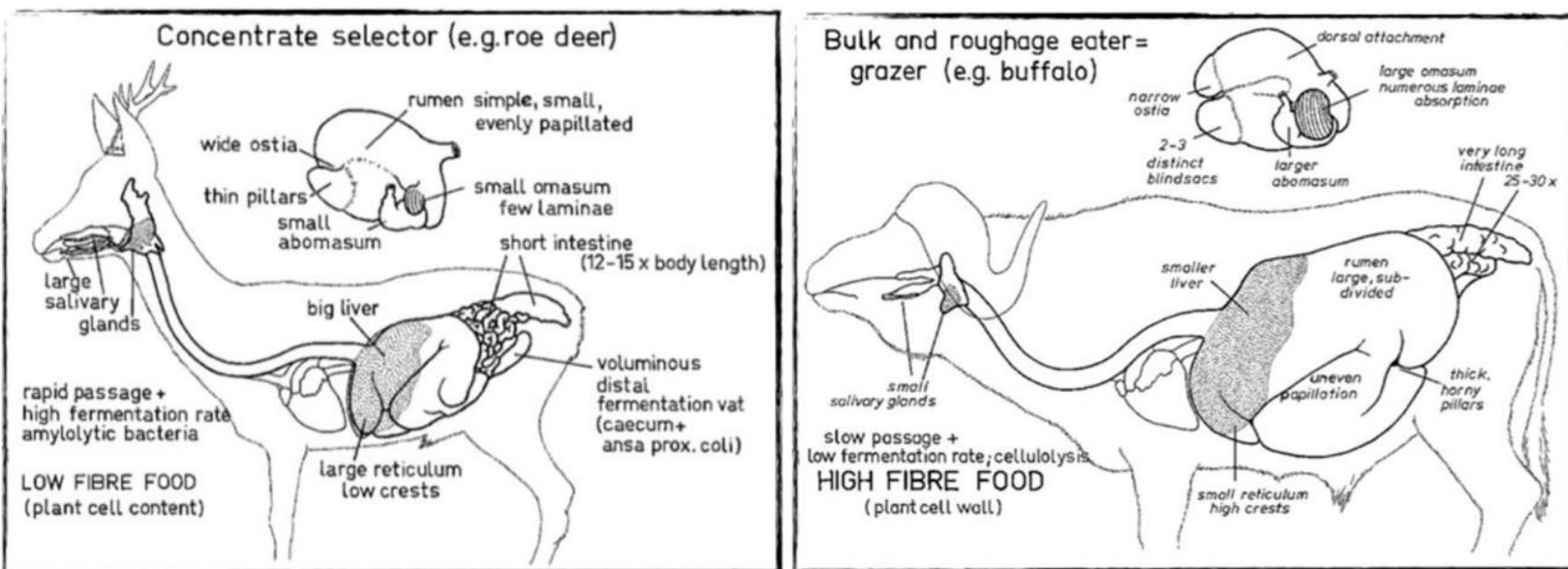
During the first months a mother provides milk to her young, but she also introduces it to safe and nutritious foods that occur in that particular environment. When the youngster gets weaned, it knows which plants are safe to eat.

Animals do get bored with familiar food, resulting in curiosity. Animals in good condition will be less inclined to try new foods, while those suffering from deficiencies will be quicker to explore other food. Adaptation also depends on the previous food situation. Relocated animals from a good pasture will do well on new good pastures, just like animals from a poor pasture quality will usually do OK, even when translocated to similar poor pasture. Frequently we find that relocated animals from a seemingly poor pasture to a good pasture (e.g. from the South to the North of Namibia) results in adaptational problems. These animals are often reluctant in ingesting large quantities of unknown plants. Initially they will search for their known food, and thus have a reduced food intake.

## Physiological adaptations to food

There are significant anatomical and functional differences between grazers and browsers. These differences have evolved over thousands of generations and help the species to better digest the food they eat. When needed, the digestive tract of an animal can even undergo changes to better adapt to a specific food that the animal is routinely exposed to.

This can range from increased rumen capacity (to better digest and tolerate high energy/ carbohydrate diets) to adaptations in the liver to detoxify poisonous plants (e.g. kudu in NW Namibia are able to eat the highly toxic *Euphorbia spp.*).



Comparison between a selective feeder (e.g. kudu) and a bulk grazer (e.g. buffalo) © [University of Idaho](#) (Note: zoom in (depending on the type of PDF viewer, type CTRL+Plus or click magnifying glass or plus button) to better view the text in the pictures)

## Supplementing for specific needs

When survival depends on change, animals will explore new options. Animals with nutritional deficiencies will seek out new 'foods' (plants, bones, soil, feces, wood, stones etc.) and, if possible, extend their home range (typically seen in the dry season). If these adaptations correct their deficiencies, the animal will create new food preferences.



Giraffe chewing on a bone. This behaviour is known as **Osteophagia**, meaning 'feeding on bone'. This provides animals with the necessary calcium and phosphorous (Photo © [Richard Du Toit/ Minden Pictures](#))

## Learning how to eat

Good food intake leads to good productivity (e.g. weight gain, high percentage pregnancy and calving rates, good quality trophy). Food intake is a 'function of bite size and rate, combined with time spend on grazing/browsing'. Animals that learn to increase their efficiency with bite rate and size will thus have an increased food intake and reach saturation earlier. With plenty of suitable food around, animals spend less time looking for food, have a more efficient food intake and thus improved production.

In the early learning stage animals sample little bits of lots of different plants; those associated with illness will be avoided in the future (same with us, when you got sick after eating a certain food, you will likely not want to eat it again). This, together with mom's teaching, are important protective mechanisms which explain why indigenous animals rarely eat and/or die of toxic plants, while newly reintroduced animals of the same species coming from a different area where the plant does not exist, may eat it and die of toxicity.

## Conclusion

Animals respond to excesses, deficits, and imbalances in their diets by cautiously sampling new foods and by making careful adjustments in their food intake in accord with flavour-feedback associations from the gut to the brain. Former dietary exposures cause physiological, morphological, and neurological changes inside the animal, which, in turn, strongly influence future dietary choices. Individual animals thus vary in their acceptance or rejection of certain foods.

A few things we should consider during the day-to-day management on a farm, when introducing game or when animals show abnormal foraging patterns:

- ❗ Where do animals come from, what vegetation were they used to? What will be their adaptation challenge after release? Ideally get animals from a similar area (vegetation-wise) and introduce animals early in the season (more food availability).
- ❗ How will the animal's experience with environmental conditions influence today's dietary choices? Usually translocated animals prefer to select known plants and will avoid unknown foods.
- ❗ Can the animal find all its dietary needs in the veld, or is supplemental feeding needed? Frequently, animals won't take the supplemental food when it's not used to it or does not need it.



- 🐾 Young animals are more eager to try new foods and learn new foraging skills more efficiently, so preferably introduce young animals.
- 🐾 What is the current physiological condition of the animal (pregnant, lactating, parasites) and how does this affect dietary choices? Be aware of early warning signs showing possible diet deficiencies; animals spending abnormal amount of time feeding, moving out of their traditional home range and ingesting strange foods. Other possible signs: reduced conception/pregnancy carried to full term, poor trophy quality, increased tendency to sustain fractures, dull hair coat and/or change in coat colour.

- 🐾 Game raised under intensive farming conditions are usually used to supplemental feeding. These animals should undergo a soft release in a small camp prior to introducing them into the whole farm.
- 🐾 When introducing new game, will you do a 'soft-release' or 'hard-release'? This depends on veld conditions and the background of the animals (intensive vs. extensive farming).
- 🐾 The smaller your camps, the less likely your animals can find all the vegetation needed to meet their dietary requirements. Then supplemental licks and feeding becomes important.

Click [here](#) to read the complete article, which is free to download from our website

## ***RHINO TRANSLOCATION TO THE DRC***

At the end of August, we successfully reintroduced rhinos to a reserve in the Democratic Republic of Congo (DRC). A month later, we translocated yet another group of rhinos! At the end of September we captured white rhinos on a Namibian game farm and reintroduced them to a reserve in the DRC. We transported the rhinos by air, and about 24 hours after the capture they were offloaded. Since South African and Namibian rhinos are heavily targeted by poachers, we greatly support the idea of creating several breeding populations in other countries. We are sure the rhinos are happy with the lush green grass and we are very proud to be part of this amazing project. Many thanks all the people in the DRC for making this reintroduction project happen! A big thanks also to the [Rhino Momma Project](#) and the crew of Namibia Airports Company for their contributions and support.



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