

NEWSLETTER NOVEMBER

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Dear clients,

A message for those who are interested in our PM-course at AfriCat; the date has been shifted to 14 March 2020.

In this newsletter we explain why cats always, or at least usually..., land on their feet. We also tell you about an interesting PM-case we had, and we show and tell you more about our latest Angola trip! We hope you enjoy the newsletter!

All the best! Kind regards, Ulf and Mariska

THE CARACAL HAS LANDED...

We are sure you have seen those amazing videos of caracals jumping up in the air – catching a bird – and landing perfectly on its 4 feet again.... Or closer at home, your own pet cat! But how do cats always land on their feet? If you don't know what we are talking about, first have a look at this [amazing slow-motion video](#) of a caracal defying gravity! The video is part of the BBC One series.

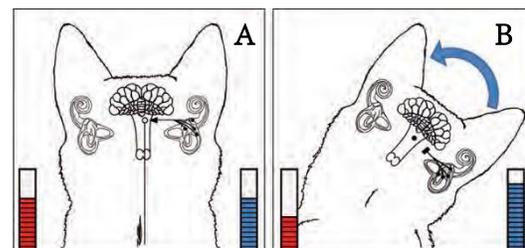
The driving force behind this phenomenon is what we call the 'cat righting reflex'. Cats are born with this reflex and have fully mastered the skill at age 7 weeks. The righting reflex corrects the body orientation when it is out of its normal upright position. The righting reflex starts at the vestibular system. This sensory system gives our brain information about motion, head position and spatial orientation. It helps us to keep in balance, maintain posture and stabilizes our head and body when we move. So when a cat is upside down when it falls, the vestibular system detects the body is not in the right position, and causes the head to move back, the rest of the body follows, and the cat lands on its feet.

When a cat falls, it swings its head horizontal, rearranges its rear, arches its back, splays its legs, and land on its feet

© [Agence Nature/Science Source](#)



Caracal landing © [DailyMail](#)



Schematic diagram of the vestibular system's (located in the ears) reaction to altered head position.

A) The vestibular system receives an equal input from the inner ears when the head is upright.

B) When the head is tilted, the vestibular system receive more input on the one side. This info is sent to the brain, and the body responds by straightening the body again.

© [Flegel, 2018](#)

Dead roan heifer. Note the bloated abdomen. All pictures in this article © M Bijsterbosch



ROAN POST-MORTEM

A few weeks ago, we were called out for a sick roan heifer. Two others had died previously. Upon arrival, 2-3 hours after the call-out, the roan was already dead, and a Post-Mortem (PM) was conducted. The roans were fed with a mix of boskos (bush feed) and some lucerne.

Post Mortem Findings

Despite the fact that the roan died at most 3 hours ago, it was very bloated. The mucous membranes of the eyes were of a blue/purple colouration, called cyanosis; it suggests a lack of oxygen in the blood. Upon opening the abdomen, we found a dilated rumen with small bleedings on the rumen wall. These bleedings, especially in combination with the blue mucous membranes, prove that the bloat happened before the animal died and that is was the likely cause of death. *How do we know this?* Simple:



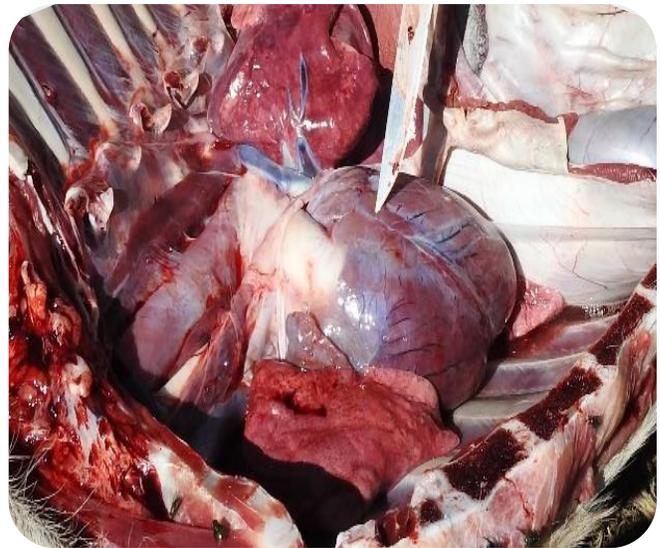
Blue (=cyanotic) mucous membranes

- ❦ Dead animals don't bleed but if the rumen wall in a living animal is stretched too far, the blood vessels in the wall rupture and result in bleeding in the wall.
- ❦ Cyanosis is a change in the blood seen in response to a lack of oxygen in living animals. This was caused by the bloat where the distended rumen puts pressure on the diaphragm, making breathing impossible.

Even though the roan, at first glance, appeared to be in a fair condition, the PM revealed the animal to be in a severe state of starvation. This deduction was made because the last body fat reserves had been used up and replaced by a semi-transparent jelly like substance. These last fat reserves are around the coronary groove in the heart (the groove on the outer surface of the heart marking the division between the atria and the ventricles), fat around the kidneys, behind the eyes and in the omentum (the normally fat laced thin membrane covering the intestines).



The yellow circles indicate small bleedings on the rumen wall, this is due to bloating of the rumen. The small picture shows the same condition in a sable, here the bleedings on the rumen wall are even more pronounced.

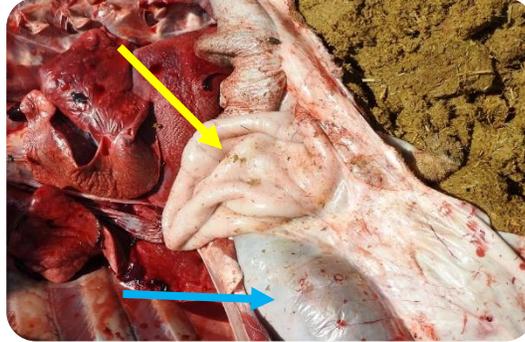


In an animal with a good body condition, you normally find fat around the heart. In this case there was no fat, meaning the body has resorbed all the body fat. The body does not get enough nutrients in to sustain for example growth and a normal body function.

When we opened the rumen (grootpens), as well as the omasum (blaarpens) and abomasum (melkpens) were impacted with dry stomach content whilst the reticulum (ruitjiespens) was completely empty. The duodenum (first part of the small intestines flowing from the abomasum) was completely empty, indicating that no food was passing through.



The omentum normally should be laced with fat, but there was none in this roan



Yellow arrow: reticulum, blue arrow: omasum



Dry, impacted rumen content

Cause of death

Malnutrition and starvation, resulting in abnormal rumen function, bloat and suffocation.

How can an animal die of starvation when its stomach is full?

The fact that the fore stomachs were completely full and impacted, but the food did not pass through to the small intestines, suggests poor digestibility of the food.

These animals were on a diet which contained a lot of boskos. This late in the season most of the residual bush (on boskos producing farms) tends to be dry, have no more leaves and thus very likely contains too much lignin. Lignin provides strength to plant's structure, but is indigestible for the microorganisms in the rumen. As plants get older, their cells become more lignified, reducing its digestibility.

The food was thus difficult to digest, leading to impaction and a disturbance of the micro-organisms in the rumen. The micro-organisms could not handle the food, and the stomachs got blocked, which impaired rumen movement and eructation. The end result was starvation and disturbance of the rumen flora, leading to bloat with eventually suffocation and death.

What to do?

We strongly advise all boskos users to ensure that the bush currently being used is still suitable for boskos production. Strict supervision of the cutting and production process is essential to avoid similar complications as described above.

If you believe the bush quality to be inferior, rather reduce the boskos intake (or stop it gradually if the quality is really poor) and start feeding good-quality lucerne, grass hay or game pellets. Remember that pelleted food is scientifically balanced and good value for money when compared to the current price of grass or lucerne per bale. A few grams of full maize corn is a valuable energy supplement but introduce this gradually to prevent rumen acidosis (read more about maize supplementation in our [August-2019 newsletter](#)). Dependent on the food that is given, a good-quality lick is also beneficial, especially in these difficult times.

Do you want to learn more about how to do a PM by yourself? Sign up for our PM course!

14 March 2020, AfriCat Okonjima.

Sent an email to mariska@wildlifevetsnamibia.com to receive a course outline with more info!

If at all doable, use Browse Plus, a tannin inhibiting digestive modifier that allows grazing and especially browsing animals to better utilise normally unpalatable and poor quality grass and browse.



ANGOLA TRIP

A few weeks ago, we translocated game to two private game parks in Angola – here a report on the last translocation. With a total of 4 game trucks, we took a total of 89 animals; giraffe, waterbuck, lechwe, impala, zebra and sable to a lush and green new home close to Quibala.

All animals were captured on Namibian game farms by either dart immobilization or boma capture. The first days hard driving took us to Oshikango, and the following morning we crossed into Angola at Santa Clara. Luckily the weather was very much in our favour (overcast and relatively cool). While waiting for the normal border formalities to be completed, we gave the animals water and food.



Once we were cleared to enter Angola, we drove non-stop until late at night, when we stopped for 3 hours of sleep. We then continued our journey past and took another break 100 km past Lubango to have breakfast and once again feed and water the animals. From now on we drove the last 700 km to the park almost non-stop since we wanted to offload the animals as quickly as possible. As our journey progressed deeper into Angola, it became greener and greener, amazing to see! We had a few big rain storms on the way – what a great experience for us rain starved Namibians (man and beast alike)!



Along one of our pit-stops we decided to feed the animals some fresh grass. Without asking, the local people came from nowhere and started to help cutting grass, and in no time we had a lot of grass to feed the animals. A wonderful experience, for us, the animals, but for sure also the locals!

Driving in Angola is tough, not just because of the long distance (around 1800 km), but also due to all the potholes! A straining job on our drivers! Especially with water filled pot holes after the rains it was difficult to assess how deep and dangerous they were. And when you are finally on speed after avoiding a pothole, another one comes along... Definitely not helpful to speedy travelling by truck...



We offloaded most animals that night, and some the next morning. One can only wonder what went through their minds when they set foot in this strange and lush green land with lots of water! When last did any of them see green grass? While running out of the trucks, the zebras already plucked the grass while galloping into their new home!



From left to right: Lechwes, giraffes, sables and waterbuck bull



From left to right: impalas, zebras



We would like to thank all those who were involved in this translocation, and a special thanks to our clients of course! We are sure the animals enjoy their new home to the fullest!

Of course, we made another video of this adventure, click [here](#) to watch it on YouTube!



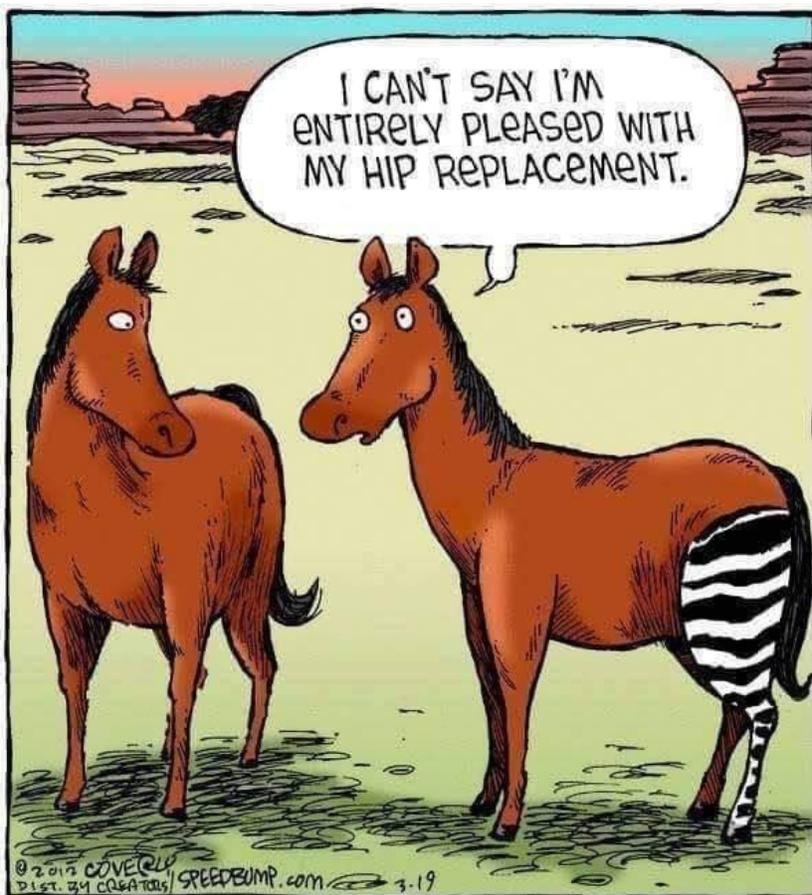
All pictures in this article
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M. Bijsterbosch & J. Silva



After this translocation, our Angola trip was not yet over. We were asked to present our (very first) post-mortem course on a farm near Lubango! Our lectures covered a wide range of topics including sample collection, anatomy, how to take proper PM photos, changes in the body after death, lesions etc. We also did a step by stem PM demonstration.

The course was attended by some farm workers and managers as well as 2 Angolan state veterinarians and was a success! This is demonstrated by regular e-mail contact where we receive PM reports and pictures which helped us solve quite a few health issues on the farm. We would like to thank the participants for their attention and cooperation.

Besides the PM course, we also did an overall farm inspection, where we had a good look at the dairy cattle, goats, game and other aspects of the farm. During this inspection we'd identify and address possible animal health and production issues, and give advice on how to improve certain things. We really enjoyed our time on the farm, Obrigado!



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