

OBELIXA'S WHEREABOUTS

Obelixa has really been hard to find recently. I went to E-Bay ghost town on many occasions since the last report in the newsletter but couldn't locate her signal. But luck was finally on my side in October. I found her at one of her former favourite spots, an old drainage pipe that runs underneath the historical railway line at E-Bay ghost town. This resting site is very close to one of the natal dens in the area.

The data download went as usual very well. Obelixa is generally a hyena that is easy to approach and I often can do the download while keeping her in sight, completely the opposite of Alaika, who always gives me a hard time (see below).

Evelyn, our Master's student, joined me for the download – it was a great experience for her, as we could observe Obelixa resting in front of the pipe for a long time. While downloading the data, we were alerted to some other movement close by in a bush by two jackals. It turned out to be another hyena, possibly a sub adult, who was tossing and turning in its resting site.

I was excited to plot the movement data on the map, as I really wanted to find out where Obelixa had been during the previous months. To my surprise, she had actually mostly been at the ghost town, where I had been looking for her, but she was deep inside the natal den, giving birth to a new litter of cubs and spending lots of time inside the den. What great news! I was not expecting her to give birth again, as her previous litter was only 13 months old at the time of the birth of the new cubs. So the sub adult that we spotted in the bush may have been one of Obelixa's older cubs.

The next download is planned for January 2013, by which time Obelixa should have moved the cubs to the larger communal den at the old E-Bay plant. The camera trap is still set-up there, so we will hopefully get some nice cub images soon.



Obelixa at her resting site (photo: Evelyn Capelin)

ALAIKA'S NAUGHTY OFFSPRING

Alaika likes to move her cubs regularly. We are trying to keep track, but sometimes it is difficult. There is a camera trap set-up at Jungle den permanently, but we don't have a camera trap at the saltpan den and only occasionally place two camera-traps at the den in the hills between the two seal colonies. Since September, Alaika has moved her cubs from Jungle Den to the den in the hills, to the saltpan den and back to the den in the hills. I eventually decided to set-up a camera trap at the active den to capture some images of the cubs.



HCO ScoutGuard 09.03.2012 00:14:07
Alaika's five months old cubs



HCO ScoutGuard 09.03.2012 17:22:26
Cub and sub adult in front of the den

The camera trap recorded lots of activity. The two cubs were playing outside the den a lot, even during the day. There was, as expected, also a lot of jackal activity. Other clan members, such as Helene and the two sub adult hyenas from Alaika's previous litter also visited the den – all during the first night and day...then disaster struck again.

I had planned to remove the camera trap before travelling overseas, but the hyenas were outside the den when I went there and I had to leave the trap there until

my return three weeks later. The den was not active any more on my return and I could already see from a distance that my camera trap was not where it was supposed to be any more. I feared the worst, but luckily, the hyenas had only managed to pull the camera and protective housing off the protective cage and it fell down inside the cage. From that day onwards, we only got cage-sky shots with the occasional hyena trying to rub itself on the cage or get the camera from the bottom photograph. At least I got a good shot of the culprit – as expected, one of the sub adults. They just can't leave my equipment alone.

At least the camera is still working, but I won't set it up near the den again soon. Still, on the day that the camera trap was working properly, we could very useful identification images and very good photos of the cubs including the stripe pattern on their forelegs, which we can use for their identification later.



HCO ScoutGuard 09.03.2012 17:26:59



HCO ScoutGuard 09.03.2012 17:28:00

VAN REENEN BAY HYENAS AND JACKALS

Eric and Jack wrote about the jackals at Van Reenen Bay in the last newsletter. They observed over 100 individual jackals at the colony between March and June this year. The number of seal pups available as food to jackals and also hyenas is usually very low before the beginning of the new pupping season in November. We expected the jackals to have a hard time, but I was very surprised to see brown hyenas carrying dead jackals away from the colony and also to find several jackal mortalities in the area. It could not be determined whether the jackals died of starvation, predation or other causes, but it is definitely not a good sign.



Bushnell
Brown hyenas carrying jackal carcasses away from the seal colony

09-30-2012 09:21:40



Bushnell

08-27-2012 07:27:44



Jackal carcass in front of the Van Reenen Bay research station



Bushnell

10-23-2012 10:22:52

ALAIKA'S HIDE AND SEEK GAME

I hadn't done a download of Alaika's data since May this year and it was time to look at her movement and her denning behaviour in more detail again. Alaika is always a tricky hyena to find, but I received her signal quickly once I arrived in her home range. I really thought that I would have luck this time and was looking forward to an easy and quick data transfer. The VHF signal was strong, but I could not trigger the UHF download. So I continued to move closer and closer into the direction of the signal. No luck. The transfer was not possible. However, I could not give up. There would be a way. It took me over an hour to finally arrive at a location where I could trigger the download. The signal strength was very, very good, so I relaxed. The data download would take about 40 minutes. Suddenly after about 10 minutes the data transfer was interrupted. I scanned the entire area to see whether I had disturbed Alaika and whether she was moving out of range. Nothing. I decided to even approach closer, moving into the direction of the initial signal. I could not find her. I assumed that she had moved out of range and quit the download programme. Once the programme closes, it usually takes a couple of minutes before the collar starts sending a VHF tracking signal again. I obviously did not expect to receive a signal, at least not a signal from close-by. But: there it was, a strong and clear signal, no change to when I triggered the download. It will remain a mystery where Alaika was hiding...

THE BROWN HYENA RESEARCH PROJECT TEAM WISHES YOU A

MERRY CHRISTMAS AND A HAPPY NEW YEAR

EVELYN CAPELIN

I arrived in Lüderitz at the end of August, eager to start work on my thesis for a Master's degree in Wildlife Biology and Conservation. Already my thesis had exceeded my expectations, as I was one of a very small number of students who were travelling abroad for their thesis work. I had contacted the Brown Hyena Research Project at the start of the year, and had discussed my thesis ideas with Ingrid who was extremely helpful and provided excellent feedback to my proposal. As my project was data-based I fully expected to stay based in Edinburgh, so I was delighted to be offered the chance to go to Namibia as well.

Brown hyenas are known to have fairly large home ranges and will walk long distances whilst foraging and looking for water sources. The aim of my project was to use existing data sets from several hyenas to see how weather variations and seasonal change affected how much hyenas moved daily, during the daytime and during the night (an important distinction as hyenas are nocturnal by nature). Using data from the Diaz point weather station, and information from the GPS collars of seven hyenas that Ingrid provided, I used data modelling to assess the factors that had the greatest influence on hyena movement. I ran a model for the combined hyena data sets, and also for each individual hyena.

The most common influencing factor was temperature, both during the day and at night, and wind direction, wind speed and season (which correspond to rainfall and temperature) were also often found to have a significant influence on how much a hyena travelled daily, although they didn't always have an effect on individual hyenas. Daytime movement was more likely to be influenced by the weather, possibly as hyenas are more likely to rest during the day, and so there is more likely to be a cause for daytime movement (such as moving to a cooler resting spot when the temperature gets too high).

One factor of note is pupping season, which showed a significant influence in the model for the combined data sets but in the individual models only had a significant influence on the daytime movement of one hyena, and didn't affect any night-time travelling. This was a surprise as the seal pups are an important food source for these hyenas and it was expected that their abundance or scarcity would have a greater effect on the distance travelled whilst foraging that would be present in the individual models. One potential reason for this could be due to the short collaring periods of some of the hyenas, where only one of the pupping quarters was covered preventing it from being included in these individual models, with the influence being detected in the combined model only.

I used GPS data to examine the effect of seasonal change on the size and movement of hyena home ranges. This analysis used GPS data from two additional hyenas, as well as the seven hyenas used in the travelling distance analysis. Using GIS software, I mapped the home ranges of each hyena during each season, as well as during the rainy and dry seasons and the pupping seasons. A statistical analysis showed that there was no significant change in size between any of the seasons, including the rain and pupping seasons. I also looked at the degree of overlap between seasonal home ranges, to see if there was any significant movement with seasonal change. I looked at the seasons that were most likely to have the greatest amount of variance between them; winter and summer, wet and dry, and peak- and off-pupping season. A smaller overlap signifies a greater movement of the range, with less than 0.5 considered the threshold for a significant lack of overlap. I used Cole's overlap coefficient to test the overlap on both the 90% (which shows the outer perimeter of the home range) and the 50% kernel (signifying the core of the home range). There was a high degree of overlap in the 90% kernel between all seasons, but two hyenas showed an overlap coefficient of less than 0.5 in the 50% kernel between seasons. Both these hyenas were breeding females, and this may have indicated a shift in dens, either between natal, or from a natal den to a communal den, and this may not have been due to seasonal change. The overall indication is that seasonal change does not influence home range size or the movement of the core area within that range.



Although my project was desk based, working with the project gave me an amazing opportunity to gain some unique field experience in the Sperrgebiet, a habitat unlike anywhere I had ever been before. I went with Ingrid to check and move camera traps, and helped find one of the hyenas to download data from her collar. I even had a chance to show off my hyena knowledge when a documentary team came to check out the area! I was also able to spend three weeks working with Sarah Edwards on her Human-Wildlife conflict study near Aus, which gave me invaluable practical experience, my first aardwolf sighting and a decent tan for when I returned to the UK in November. I helped set up camera traps, which included building a protective cage, and also set up rub stations and hair snares. It was fascinating to check sites and get an idea of what animals had been there in the last few days, either by seeing the camera trap photos or finding tracks, snagged hair, or even a missing rub station. One of the best moments was seeing some of the amazing photos from a camera trap I had helped set up.

Overall this experience had been one of, if not the greatest experience of my life. It was the first time I have been able to participate in ongoing long-term carnivore research, and I have learnt so much from it. I would like to give a huge thanks to Ingrid, as without her this amazing three months wouldn't have happened (and my thesis wouldn't have

been nearly as interesting!), and also to Sarah who taught me the ropes of living in the field. I've only been home a few weeks and already I want to come back and do it all over again.

CAMERA TRAP IMAGES HUMAN WILDLIFE CONFLICT STUDY



FUNDRAISING AND DONATIONS

Anna Bennett from the **Monarto Zoo** in Australia has raised AUD 600 through t-shirt sales. Thank you so much for your continuous support!

Margaret Manning and **Elizabeth Crawley** from Australia have donated AUD 100 and AUD 200 respectively. They visited the Brown Hyena Project a couple of months ago. Thank you so much for your interest and support.

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