Greetings from sunny South Africa!

If you are reading this newsletter you are among the friends and families who six weeks ago bravely bid farewell to their daughters, sons, sweethearts, and friends as they took off on their adventure to the southern corner of faraway Africa. We, the staff of OTS South Africa, would like to reassure you of your decision of letting them go as they are all here in one piece and soaking up the wonders of life in South Africa. Enough time has passed now for us to build up a sizable collection of stories and photos to share with you in this newsletter so get comfortable; you're in for a ride!

Africa was showing off one of her dramatic deep orange sunsets when the jet-lagged and weary-eyed students pulled up to the gates of Pullen Farm. Just an hour outside of Nelspruit in Mpumalanga province, Pullen is a research farm owned by the University of the Witwatersrand and was to be our home for the first two weeks of the OTS 2014 Fall semester. Without dangerous game species and with an expansive hilly terrain, Pullen is the ideal place for the students to roam free and get to know their new environment and each other. During a mountain-top meeting with the program director, Dr Laurence Kruger, we discussed the dynamic nature of the OTS experience and answered any questions the students had about living in South Africa for the next 100 days. Although we would love to spend all our time outdoors, there was important academic content to cover here so the next few days were spent listening to lectures and partaking in workshops.

The semester consists of four core modules; biodiversity conservation, ecology, science skills, and history and culture and each of the modules are built upon throughout the course. An important part of living in South Africa is to understand a little about what makes this incredibly diverse country tick. Dr. Lannie Birch from the University of Western Cape runs the history and culture module and over the first few days in Pullen she exposed the students to the history of South Africa by exploring different cultural avenues such as films, art and music. Overlapping with this module was an exercise in the scientific process where students were set loose in the field and encouraged to observe natural phenomena, develop and test a simple hypotheses and present their findings. These few days also saw the students grappling with concepts such as the role of scientists in society, savanna ecology and a crash course in statistical analysis.

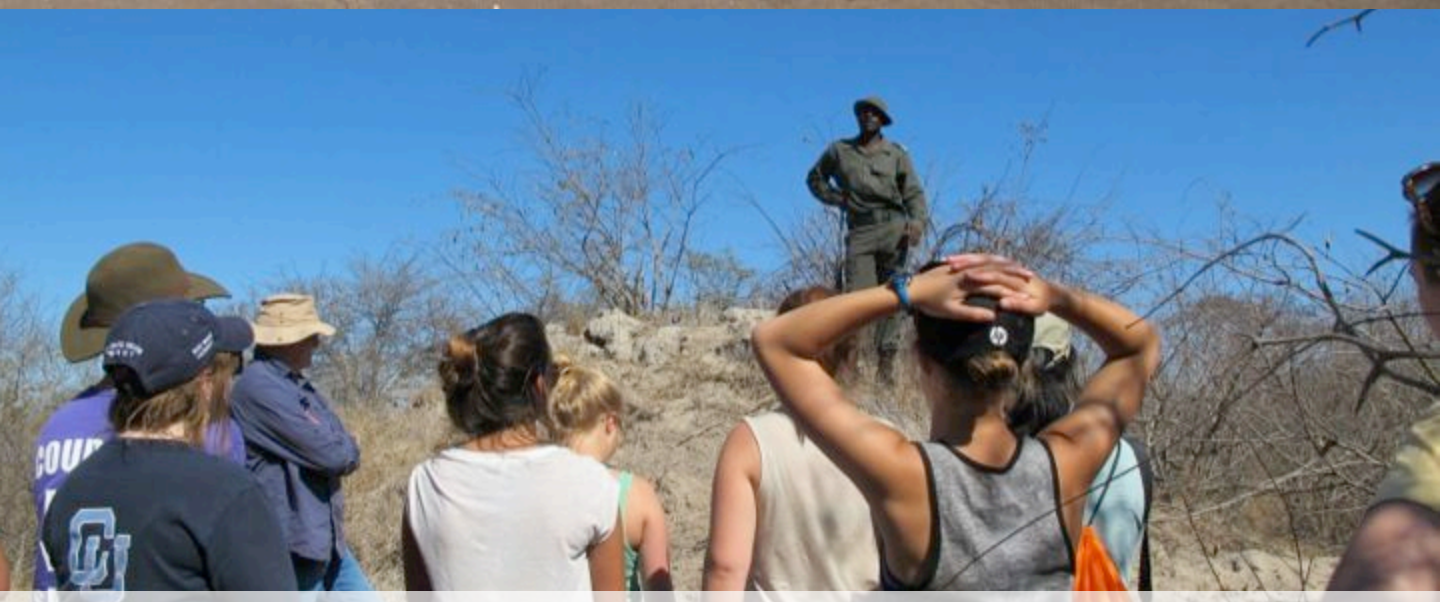
Background: Audra climbs her first savanna tree! Below: Jessica and Deanna measuring plant traits for their first mini-field project in Pullen

Although Pullen was a lecture heavy two weeks it was by no means all work and no play. On one of their days off the students were split into teams of five and challenged to the famous OTS AmaZing Race! For a few hours students could be found racing across the farm, climbing trees, jumping into slimy ponds, and solving riddles all to make it to the finish line!

Above: Lily, Audra, Chris, Caroline and Alexa celebrate the end of the race, Left: Ben and Bennett wading through a pond for a clue, Right: Kelly, Nicole, Jaina and Ben– team scorpion! Below: The whole OTS crew

Pullen Farm served us well but after two weeks it was time to immerse ourselves in the wild. Driving over the Crocodile River into the Kruger National Park (KNP) for the first time is always one of the most exciting moments of the course. Hippos, crocodiles, elephants, rhinos, giraffe, buffalo and kudu, all within the first 30 minutes of our arrival! The Crocodile River (cleverly named because of the abundance of crocodiles which laze along it's banks) forms the southern boundary of the KNP, a reserve of about 2 million ha (roughly the size of New Jersey) that is situated in northeastern South Africa, and borders Mozambique in the east and touches on Zimbabwe in the north. Kruger is about 350 km from north to south (217 miles), with an average width of 60km. Its big, it's a savanna, its home to a number of big and hairys, and it's quite warm this time of year.

Above: The OTS convoy filled with 25 deliriously excited students enters KNP. Bottom: Phillip lectures the students about safety in the field



We headed north from Malelane Gate towards our base at Skukuza rest camp, stopping on the way for an introductory field walk through the surrounding landscapes. Philip Mhalava, our gameguard extraordinaire, gave the students the run down on how to work safely in a big five area, and what to do if you find yourself in the company of dangerous game. After the relatively benign Pullen Farm where little in the way of dangerous game is found (barring the occasional snake encounter which Nate knows all too much about), it was the first opportunity to view and work around the big five, so students were pretty excited!

The main focus of our week in Skukuza was the Kruger Long Term Research Initiative (KLTRI) Projects. These are a set of predefined research projects that align with long-term research and monitoring objectives of the SANParks science managers. These simple projects provide the perfect opportunity for students to engage in research for the first time, and for the more experienced young scientists, these projects also allow for advanced analyses and the potential to publish the long term data sets. This way the students are not only gaining valuable experience in conducting research, but their work has the potential to influence management in some way. The projects this year included assessing seasonal changes in waterbird diversity and feeding behaviour, the use of automated sound recorder and identifiers in bird monitoring, measuring thermoregulation in termite mounds, finding out what disperses Marula seeds, assessing the spread of an alien invasive snail in the Sabie river, and identifying what drives the formation of "grazing lawns" in the park. Students chose which projects interested them most and set off in groups for three consecutive days of field work to gather data to answer these questions. Although hot and tiring, fieldwork is seriously rewarding especially when you see elephants and rhino in the field, and there is nothing better than jumping into a cool swimming pool after a day of contributing to science! Of course, Skukuza was not all work... the students also spent plenty of time on (the almost mandatory) game drives, playing soccer and frisbee in the afternoons and spending time at the dam, saluting the sun in the true South African way.

Alexa, Rhiannon, Chris, Blair and guard Onica pose with a termite mound, the focus of their KLTRI project

Ceci, Matt, Audra, Kyle and Caroline colecting invasive snails for their KLTRI project

Audra struggling to contain her excitement as she encounters an elephant in the field for the first time

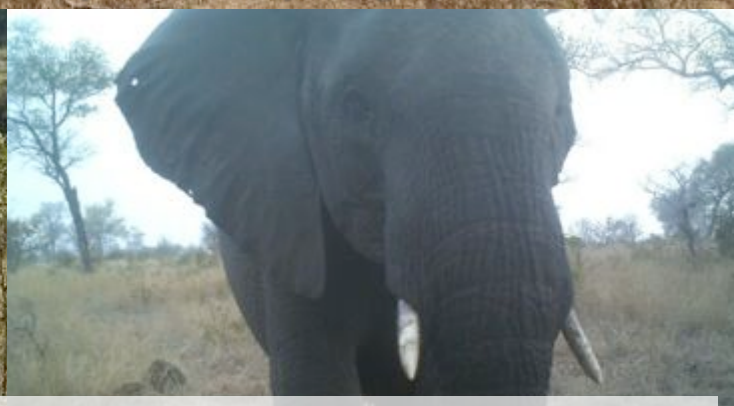
Always Be Game Driving

Here at OTS we take the sport of game driving very seriously. The motto, "you can sleep when you're dead" applies as game driving is best done in the early mornings. Here are a few photos the students have taken so far.

Clockwise from top left: Jessica, Allison, Ceci and friends as they enter KNP on their first game drive, a Bateleur eagle, lion, leopard, elephants and hippos, young jackals at play

In the third leg of the course, we drove up north from Skukuza and stayed at Tamboti tented camp. Roars of lions and laughing hyenas were heard every night at this beautiful camp located within the open tree savanna dominated by Tamboti and Marula trees. Mischievous honey badgers and curious genets were spotted around the camp almost every night. It was here that students were introduced to their first Faculty Field Project (FFP). FFP's give the students a chance to participate in research that is of special interest to visiting academics from a variety of South African universities. All students participate in the collection of all FFP data but each must choose one of the seven projects, which they write a detailed report on during the semester.

Top: A group of students follows Jeremy into a river bed- the perfect place to set a camera trap. Below: a selection of photos taken by the camera traps; an nyala, an elephant, honey badgers and a lion

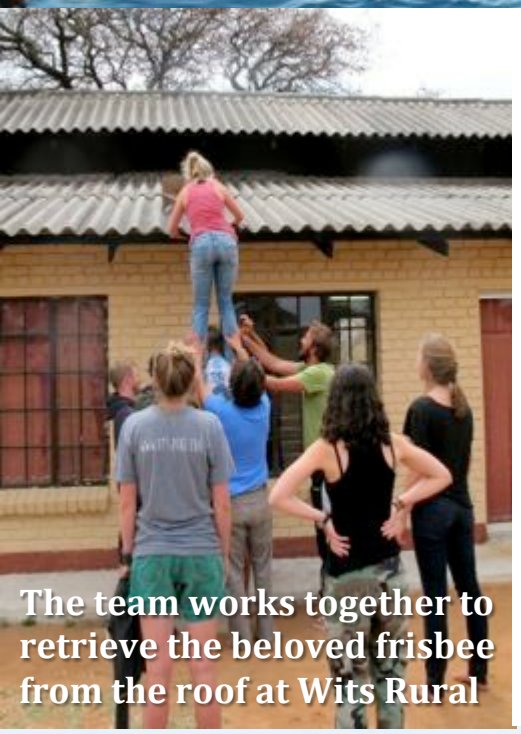


Jeremy Bolton, our visiting faculty, gave a lecture and ran a project on the use and applications of camera traps with a focus on how placement bias affects animal detections. The students then took to the field in groups of three and under the watchful eyes of our armed game guards each group mounted 3 cameras: one in a predefined random location, the second location chosen with small discretion allowed and the third with a large amount of discretion allowed. Camera traps were left out in the field for seven days and during that time students had lectures on ecology and conservation. Morning and evening game drives were offered and animals frequently spotted included leopards, lions, elephants and impalas.

On September 19th we departed Tamboti camp and the KNP. The drive to our next destination, Wits Rural facility, was not very long so the students had the chance to visit Mohololoholo wildlife rehabilitation centre. Moholoho takes in wild animals that were either causing problems in nearby areas or have fallen victim to snares. Although their aim is to rehabilitate and release these animals, this is often not an option so they remain in captivity at Mohololoholo where they act as ambassadors for their species. The students were treated to meeting a few of these animals including a cheetah named Rocket, Olive the baby rhino, numerous hungry vultures and the Youtube Star- Houdini the sneaky honey badger!

Clockwise from top: Caroline realizes her dream of meeting a cheetah, Kelly makes friends with a vulture, and Rhiannon gets special attention from a young giraffe

As we head into South African summer and the days get longer and hotter its important to keep our cool, especially after a long day of field work. Students enjoying the pool at Orpen rest camp



The team works together to retrieve the beloved frisbee from the roof at Wits Rural

The students spent the next week at Wits Rural Facility which, like Pullen Farm, is a research site outside of Kruger owned and run by Wits University. The week was spent consolidating academic deliverables such as the KLTRI reports and receiving more lectures from resident faculty for the conservation and ecology modules. We were also lucky enough to be in the right place at the right time to attend an interesting seminar from Dr. Camille Parmesan, a globally renowned climate change specialist and nobel laureate who was visiting from the US.

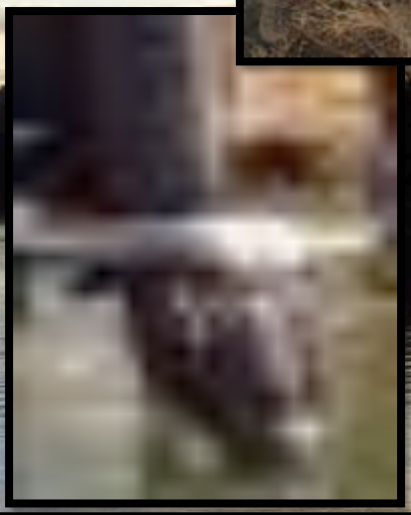
On their day off the students ventured up into the escarpment that forms the initial mountains of the Drakensburg range. There, they split into two groups; one went on a tour of the Blyde River Canyon and the other hiked a nearby mountain, but for both groups the day ended enjoying unusual pancakes in the small town of Graskop. During this week the students also recovered their camera traps to discover an array of animals that were caught in the act and prizes were awarded for the best captures!

Lily, Matt, Nate, Kyle, Hannah, Audra, Bennett, Nicole and Alexa hiking near Graskop

After a week out of the park, the students were certainly ready to get back into the wild and start game driving again. This desire was met with an eight hour game drive from Orpen gate all the way to our next destination, Shingwedzi rest camp in the north of the park. On this journey we crossed the mighty Olifants River and also officially entered the tropics as we drove over the line in the road marking the Tropic of Capricorn. As we drove the students noticed the change in landscape and vegetation as Shingwedzi truly lies in the heart of Mopane country.

The first two days in Shingwedzi were intense field days as we had two FFPs running at the same time. Leigh Combrink from the Endangered Wildlife Trust lead an FFP on Oxpeckers, which looked at the tick-feeding behavior of oxpecker birds on various host species such as impala, kudu and buffalo, and made use of the innovative Cybertracker software package, allowing the students to capture the data directly to their Smartphones! Running concurrently to this was an FFP lead by world renowned savanna ecologist, Prof William Bond who travelled from Cape Town to join us for these few days. As a vegetation specialist whose interest lies in the role of fire and herbivores in savanna ecosystems, it was no surprise to see William sending students up "koppies" (small hills), into recently burned areas and herbivore exclosures to sample plants species and discover patterns in vegetation composition. The students reveled in the opportunity to learn from these two faculty; one a hands-on practicing conservationist and the other a legendary ecologist.

Ukyoung and Audra take their job as vegetation surveyors very seriously



Oxpeckers feeding on a tolerant buffalo

Ben, Hannah, Kyle, Matt and Alexa fight for the frisbee on a dusty pitch in Shingwedzi

Once the field work was completed the students had the rest of the week to consolidate their academic work load including turning in their essay on the role of science in society. The last order of business before we left Shingwedzi was a 24 hour long ecology exam that took the form of an open-book essay. The students had to fend off vervet monkeys and resist the urge to play sports, bird watch and swim in the inviting pool as they buckled down for this important deliverable.

We are now moving even further north to the Venda village of Hamakuya where the students will experience rural African culture as they stay with a Venda family for three days. This cultural immersion will undoubtedly be contrasted with the journey to Johannesburg and then to Cape Town for their mid-term break. But now I'm getting ahead of myself so if you want to hear more about this African adventure semester, stay tuned for the next OTS newsletter!

Sincerely,
The OTS team (Jordan, Karen, Mdu, Don, Jason, Phillip, Lannie, Colleen and Laurence)