

Celtis africana

Sterkfontein Country Estates

March/Maart 2015

Good day Sterkfonteinites and Celtis friends!

Slowly the season is turning and after this very hot and dry summer, I have to say I am looking forward to cooler weather!

At the risk of repeating myself - there is always something new and interesting on our Estate! On Saturday I got an mms from Carolien Botha (SCE 175) of a beautiful fungus in a tree near the entrance. As I was away on a charity drive since Friday, I could not wait to see this beautiful gift of nature for myself and on the way back we had to stop at the entrance to have a proper look. Intrigued, I looked it up in my guide on mushrooms of South Africa.

It turned out to be a *Laetiporus sulphurous* (synonym *Polyporus sulphurous*) known in English as “chicken of the woods”, “chicken mushroom” or “chicken fungus”! Apparently it is edible and in some countries considered to be a delicacy. The taste apparently resembles that of chicken (therefore its common name) but before you rush out to take a bite, **serious caution** should be taken. Only when it is very fresh and new should it be eaten and if one is unsure – rather go to Woollies or somewhere else for your mushrooms!

Some people may get a reaction from eating this mushroom, such as swollen lips, sometimes even nausea and vomiting, dizziness and disorientation. This could be due to bad allergic reactions to the mushroom’s protein or from toxins absorbed by the fungus from its host plant, or simply eating it when it is past its prime. It is advised therefore that people should only eat very fresh, young specimens, and start by eating a little at a time to see if it causes any bad reactions to its consumption. So if you are **not** a wild mushroom fundi – steer clear of it!

The negative thing of this fungus is that it can cause rotting from the core to its host and I think our road committee might have to watch this tree! This fungus can apparently come back year after year and if it does, it causes the core to become brittle. This brittleness in later stages ends in the collapse of the host tree, as it can no longer flex and bend in the wind. I am not sure how long such a process can take, but I think one should be aware of potential damage a fallen tree can cause to a passing car or pedestrian. It is unfortunate that it can do damage to a beautiful tree but it is still beautiful to look at. I suppose in densely treed places it is nature’s way in somehow thinning out trees to make place for other plants or other new growth.



Chicken Mushroom (Photo Carolien Botha, SCE175)

I have mentioned before that I think the world of insects is fascinating. One of them is the mantis, and though found all over the world in different sizes and colours; I have to share with you how interesting they really are. I call it the great white shark of the insect world, as, like the shark, it is a voracious, and even cruel predator with no mercy for its prey!

The mantis, or rather, as it is more popularly known, the praying mantis, is so interesting and I was quite in awe when I read up about it!

- The mantis has two grasping, spiked forelegs, also called “raptorial” legs (for obvious reasons!), which are used to catch their prey and hold it securely.

- The front part of the mantis' thorax is very flexible, allowing for a wide range of movement of the head and forelimbs while the remainder of the body remains more or less immobile. The neck is also very mobile – in some species it can rotate amazingly to almost 180°!
- Their compound eyes enable them to see for up to about 20 metres! The eyes are widely spaced, affording it a wide binocular field of vision and, at close range, precise stereoscopic (3D) vision!



Praying Mantis - note the spiked forelegs (Photo Elmarie Krige SCE129)

As it relies heavily on sight for hunting, this insect is mainly active during the day. However, many do fly at night and will be attracted to artificial light and the insects (prey) this attracts. This often when we see them.

Most mantises are exclusively predatory and the majority are ambush predators, although some ground or bark species will actively pursue their prey. The species that are ambush predators use their camouflage to sit still for long periods, unseen, awaiting prey. They can lash out with lightning speed when a target is within easy reach, using its grasping, spiked forelegs.

Now, for the gory details: it usually holds its prey with one “arm” between the head and thorax, and the other on the abdomen and if not resisting, the prey will be eaten alive! If the poor sucker that got caught, resists, the mantis will just eat the head first! The mantis doesn’t drain its prey’s body fluids - it simply slices and chews it with its mandibles, often leaving nothing but a few severed fragments such as limbs. This carnivorous insect is also known to be eating its own siblings in its first instar (stage) if no other prey is available!

These insects generally protect themselves by camouflage. Many make use of protective coloration, not only to protect it, but also to assist them in hunting. Many species, if directly threatened, will take an upright position, spread its forelegs and fan its wings in an attempt to look bigger. It will even strike with its forelegs and attempt to pinch or bite and some species may even produce a hissing sound. Even though they can bite, they are not poisonous.

Nocturnal flight is especially important to males in search of the less-mobile females. Females are located by detecting their pheromones. By flying at night it also exposes mantises to fewer bird predators than by day. Now this is interesting: some species, when flying at night, are able to detect echolocation sounds produced by bats! Should the frequency begin to increase rapidly (indicating an approaching bat), they stop flying horizontally and begin a descending spiral toward the safety of the ground, often preceded by an aerial loop or spin, thus making it hard for a bat to detect/capture it. How amazing is that!

As far as reproduction is concerned – 90% of the predatory species of mantis participate in sexual cannibalism. The female may begin feeding by biting off the male’s head (as they do with regular prey), and if mating has begun, the male’s movements may become even more vigorous in its delivery of sperm. Now it’s not for me to teach you about the birds and the bees, but do yourselves a favour and go and look up how this whole story develops! After mating a female, depending on the species, will lay between 10 and 400 eggs. The eggs are typically deposited in a frothy mass, which is produced by glands in the female’s abdomen. This then hardens creating a protective type of capsule. The mantis goes through three stages of metamorphosis, namely egg, nymph and adult.

There is a lot more information available on this very interesting insect, but, I am afraid my letter will be way too long, so do yourselves a favour and read more about it, you will be as amazed as I am!

There are just two more very interesting things I just **have** to mention about the mantis; one is that two separate martial arts (Kung Fu) have been developed in China

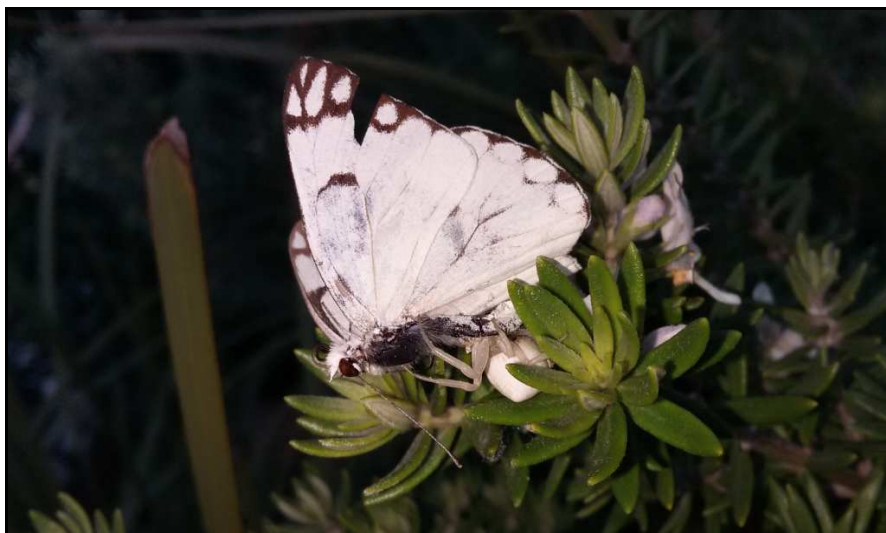
of which both strategies and movements are based on those of the mantis! The one was developed in the north of China and is aptly called 'Northern Praying Mantis' whilst the one that was developed in the south is called 'Southern Praying Mantis'. Both arts are very popular in China and have, in recent decades, even been imported to the West.

The other interesting fact about the mantis is the mythological aspect. In indigenous mythology the mantis is referred to as a god in Khoi and San in their traditional myths and practices. The Afrikaans word for mantis is *hottentotsgot* – literally meaning a god of the Khoi. In Greek the word "Mantis" is also the word for prophet or seer, and looking at the insect in its typical prayer-like posture with folded forelimbs, the connection is easily made.

For me, when I look at a mantis and its odd-shaped head, I always think that this is where the moviemakers of Hollywood got their idea of what an alien is "supposed" to look like!

Little Wing our juvenile eagle is still seen in our area – I do still see it on its favourite tree now and then, and it has been observed on the farm next to our Estate near aircraft hangers. Maybe it's trying to get its pilot's licence at long last? At this stage it is still the brownish colour and will only become darker much later. But, holy macaroni as I am writing this, I saw movement out of the corner of my eye and lo and behold there was Henrietta and Kgosì busy doing a beautiful dance in the sky! Little Wing was sitting close by on a bush and eventually took off towards Magalies in search of prey, riding the winds. I stormed outside and watched the adults in awe and after a while it seemed they went downwards – maybe to the next nesting site? Last year they built a nest in April but the chick did not make it, so hopefully they won't try doing it again with winter (and little food available for them) on our doorstep. Let's wait and see what happens!

Another interesting photo taken by Garfield; remember the movie Blue Water White Death? In this case it is white death of another kind - a white butterfly falling prey to a white spider!



Have a look at the picture of the ant lion in the Afrikaans section. I wrote in detail about this interesting insect in the *Celtis africana* of March 2014 with a photo.

Till next month, Sterkfontein greetings to all!

Just for fun:

Q: Why did the Fungi leave the party?

A: There wasn't mushroom.

Q: What room has no doors, no walls, no floor and no ceiling?

A: A mushroom.

Goeiedag Sterkfonteiners en Celtis vriende!

Stadig maar seker beweeg ons nader aan herfs en ek moet sê, na 'n baie warm, droë somer sien ek nogal uit na die koeler weer van die najaar.

Ek mag dalk klink of ek myself herhaal, maar ja - daar is regtig altyd iets interessants op ons Estate waaroor ek dadelik wil nalees! Saterdagoggend kry ek 'n mms van Carolien Botha (SCE175) met 'n foto van 'n pragtige fungus in 'n boom naby die ingang. By die tyd het meeste van julle seker al die pragtige knewel raakgesien. Ek was vanaf Vrydag by 'n fondsinsamelingsprojek en kon nie wag om self die wonder te gaan bekyk nie. Toe ek dit eers sien, moes ek dit dadelik in my veldgids gaan opsoek.

Dit blyk toe 'n *Laetiporus sulphurous* (sinoniem *Polyporus sulphurous*) of swaelrakswam te wees. Die Engelse benoeming van "chicken of the woods" is meer beskrywend aangesien die eetbare sampioen glo na hoender smaak. In seker lande word dit glo as 'n lekkerny beskou en vegetariërs eet dit glo graag juis vanweë die smaak. Maar voor julle nou almal storm om 'n stukkie te gaan afsny om te proe – wees **uiters** versigtig. As jy nie 'n kenner is nie, bly liefsweg – koop maar jou sampioene liefsweg by Woollies of so!

Mens kan buitendien glo slegs die heel varsste en nuutste dele eet. Daar is ook mense wat erge reaksies met die eet daarvan kan toon soos opgeswelde lippe, naarheid en braking - selfs duiseligheid en disoriëntasie kan ervaar word. Die reaksies kan wees as gevolg van allergie vir die sampioen se proteïene of ook toksiene wat deur die fungus van sy gasheer plant geabsorbeer het. Soms is dit eenvoudig 'n geval van dat dit geëet is as die fungus nie meer so vars is nie. Dus, as jy nie seker is

nie, eet eers 'n klein stukkie op 'n slag en kyk hoe jy daarop reageer. Beter nog, as jy nou nie 'n sampioenkenner is nie – bly weg!



Swaelrakswam - Eng. Chicken mushroom (Foto Garfield Krige SCE129)

Ongelukkig is hierdie sampioen die oorsaak van kernvrot in sy gasheer. Dit kan glo jaar na jaar herhaaldelik terugkeer na die gasheer en dan 'n tipe brosheid of verkrummeling in die kern veroorsaak en soos mens kan dink, sal dit op die ou einde versoorzaak dat die boom breek. Omdat die kern verswak is sal dit nie in wind kan swaai en buig nie maar eenvoudig breek. Hoe lank so proses kan duur weet ek nie, maar ek dink ons padkomitee sal die boom dalk moet dophou.

Dink nou as die boom skielik eendag omval op 'n verbykomende kar of voetganger – groot skade! Dis jammer dat so mooi natuurverskynsel die dood van 'n uitgegroeide boom kan veroorsaak, maar natuur het haar eie gang en persoonlik dink ek maar dis die manier om ouer bome uit te dun in erg oorgroeide vleie en sulke areas en om plek te maak vir nuwe groei en plante. Ek sê mos altyd niks bestaan sommer net nie, daar is 'n besliste doel en plek vir elke liewe ding op aarde.

Ek het al baie genoem dat die wêreld van insekte vir my absoluut fassinerend is. Een insek wat my aandag altyd baie hou is die bidsprinkaan of hottentotsgot. Dis 'n insek wat wêreldwyd in verskillende groottes en kleure voorkom. Ek noem hulle sommer die widdoodshaai van die insekwêreld, want soos die haai, is hierdie insek 'n meedoënlose en selfs wrede jagter, met geen genade vir sy arme prooi nie!

Ek was verstom oor die hoe, wat en waarom van die bidsprinkaan toe ek eers bietjie begin nalees oor dit.

- Die bidsprinkaan se twee voorbene het skerp hake waarmee prooi vasgegryp en vasgehou word.
- Die borsgedeelte van die bidsprinkaan is baie beweegbaar en maak dat die insek oor 'n wye reeks van bewegings beskik – soveel so dat die hele lyf amper bewegingloos kan wees terwyl die kop en “arms” afsonderlik beweeg. Die insek se nek is ook baie beweegbaar en kan in sekere spesies 'n ongelooflike bykans 180 grade draai!
- Die saamgestelde oë stel hul in staat om tot 20 meter ver te kan sien. Die oë is ook wyd uitmekaar gespaseer sodat die insek oor 'n wyehoek sig (amper soos met 'n verkyker) beskik en van naby beskik dit oor presiese, stereoskopiese (3D) sig – absoluut merkwaardig!

Omdat dit amper uitsluitlik op jag van prooi staatmaak vir voedsel, is die insek hoofsaaklik aktief gedurende die dag. Hulle kan wel snags rondvlieg en omdat buiteligte snags baie insekte (dus hul prooi) lok, is mens net geneig om hulle dan eerder raak te sien.

Meeste bidsprinkane is eksklusief jagters en hoewel meeste hul prooi vang deur lokvalle te stel, is daar tog sekere spesies wat hul prooi aktief sal agternasit. Die soort wat hul prooi in lokvalle vang, kan met hul kamoefleerleure vir lang tye ongemerk en doodstil sit. Sou 'n prooi naderkom sal die insek blitssnel - letterlik in 'n oogwenk, dit vasgryp en vashou met die skerp hake aan die voorbene.

Die aardigheid van die bidsprinkaan se manier van jag, is dat die arme prooi nou vasgehou word tussen die kop en bors met die een “voorarm” en die ander “voorarm” hou die lyf vas terwyl die arme ding lewendig verslind word. Sou die prooi te veel spartel word die kop eenvoudig eerste opgeëet! Die insek suig nie die prooi leeg nie, maar “sny” letterlik skywe van die prooi af en eet dit stukkie vir stukkie totdat miskien 'n been of poot oorbly na die bloeddorstige fees. Die bidsprinkaan is ook bekend daarvoor om in hul eerste fase (na hul uitgebroei het), hul eie broers en susters te verslind as daar nie gou genoeg ander prooi beskikbaar is nie.

Hierdie insek se kleure verskaf hul die nodige kamoeflering om hulself te beskerm en die kleure maak ook dat hul prooi hul nie maklik raaksien nie. Party soorte sal, as hul bedreig word, in 'n regop posisie kom, voorbene gesper en die vlerke oop om groter te probeer lyk. Hulle sal ook met die voorbene 'n aanval loods en selfs knyp of byt en sommige maak selfs 'n siggeluid. Alhoewel hul seer kan byt, is hul byt nie giftig nie.

Deurdadig hulle snags kan vlieg, beskerm dit die hottentotsgot ook teen voëls wat hul andersins sou vang. Die wyfies kan oor die algemeen nie so goed vlieg soos die mannetjies en daarom is dit ook belangrik dat die mannetjies wel saans kan vlieg om so wyfies te soek. Die wyfies word opgespoor deur middel van feromone wat afgeskei word. Natuurlik word bidsprinkane snags ook nie maklik raakgesien deur hul predatore nie.



Kleurryke bidspriekaan (foto Elmarie Krige SCE129)

Wat nou baie interessant is, is dat sekere spesies, as hulle snags vlieg, die ultrasoniese klankgolwe van vlermuise kan waarneem. As die golwe 'n voorwerp soos 'n insek (prooi) tref kaats dit 'n weerklank (eggo) terug. Nou sou die frekwensie van hierdie golwe toeneem en dus aandui dat 'n vlermuis naderkom, hou die bidspriekaan op met horisontaal vlieg. Dan begin dit in 'n afwaartse spiraal na die veiligheid van die grond te beweeg. Hierdie beweging word baiekeer voorafgegaan

deur 'n sirkel- of tolbeweging wat dit vir die vlermuis moeilik maak om die insek op te spoor of te vang. Nou hoe uitsonderlik is dit nou nie!

Met voortplanting van die spesies is dit ook bekend dat 90% van die hottentotsgot spesies seksuele kannibale is. Gedurende paring sal die wyfie begin deur die arme mannetjie se kop af te vreet – op dieselfde manier as wat hul met hul prooi maak! Hoe meer hy dan spartel, hoe meer sperm word vrygestel. Nou-ja, die wat wil kan gerus maar verder gaan oplees presies hoe en wat gebeur, hierdie is nou nie die plek vir 'n uitgebreide les oor die blommetjies en bytjies nie! Na paring plaasgevind het, sal die wyfie tussen tien en vierhonderd eiers lê. Die eiers word in 'n skuimerige massa gelê wat deur spesiale kliere wat in haar maag geleë is, afgeskei. Die storie verhard dan in 'n tipe kapsule wat dit beskerm teen predatore. Soos ander insekte gaan die bidsprinkaan ook deur drie metamorfoses naamlik eiers, nimf en volwasse.

Daar is soveel interessantheide omtrent hierdie insek maar ek is bevrees as ek alles moet skryf waarvan ek gelees het, sal die brief hopeloos te lank wees; gaan lees gerus bietjie na - ek glo julle sal net so verstom wees oor hierdie interessante insek.

Twee ander interessantheide wat ek egter **moet** noem is dit: in Sjina het twee aparte soorte gevegskunste (Kung Fu) wat op die bidsprinkaan se bewegings en strategieë gegrond is ontstaan! In die noordelik gedeelte van Sjina is die “Northern Praying Mantis” beweging en in die suide die “Southern Praying Mantis” beweging. Die soort gevegskuns is baie gewild in Sjina en het die afgelope dekades selfs na die Weste oorgespoel.

Die ander interessantheid is die mitologiese aspek van die insek. In die inheemse kultuur van die Khoi en San word die bidsprinkaan as 'n godheid gesien. Daarom ook die Afrikaanse benaming van hottentotsgot – letterlik god van die Khoi. In Grieks is die word vir die bidsprinkaan dieselfde as vir 'n profeet of siener. Kyk mens na die insek se tipiese houding waar dit met gevoude arms en al 'n biddende houding inneem, dan kan mens dit nogals verstaan.

As ek so na een van die bidsprinkane (veral die groenes!) met hul driehoekvormige koppe kyk, dan dink ek dis seker waar die Hollywood ouens hul idees vir hoe Marsmannetjies kastig sou lyk, gekry het!

Little Wing, ons jong arend, sien ek nog gereeld op sy/haar gunsteling boom en hy/sy word ook gereeld op die plaas langsaan gesien waar dit by die vliegtuigloods rondhang. Miskien wil hy/sy nou finaal sy/haar vlieglicensie kry! Maar terwyl ek hier sit en skryf sien ek pas uit die hoek van my oog bewegings en toe ek uitkyk is Henrietta en Kgosi besig met 'n lieflike dans in die lug, teen mekaar en weg van mekaar en kort daarna afdaal na 'n boom of iets! Man, ek raak so opgewonde ek storm hier uit met honde wat juigend saamblaf want hulle dink ons gaan nou stap. Ou Little Wing sit toe maar ewe bedroë op 'n bos om na 'n ruk op te styg Magalies se kant toe, al swenkend en duikend saam met die wind, sekerlik op soek na 'n laatmiddaghappie. Verlede jaar in April het die paar nesgebou en gepaar en gebroei en gedoen, maar daardie kleintjie het dit nie gemaak nie, so hopelik dink hulle nou

nie daaraan om weer so-iets met die naderende winter te probeer nie! Laat ons maar sien wat gebeur!

In die *Celtis africana* van Maart 2014 het ek in detail oor die mierleeu geskryf met 'n foto daarby. Hier is nog 'n duidelike foto van een!



(Foto Garfied Krige SCE129)

Loer ook bietjie boontoe in die Engelse gedeelte na die foto van die wit skoelappertjie wat deur 'n wit spinnekoppie gevang is.

Tot volgende maand, Sterkfontein groete aan almal!

Totsiens, goodbye, adios, ciao, yia sas en do svidaniya!

Erkennings: 'n Veldgids tot die Sampoene van Suid Afrika - Levin. H, Branch. M, Rappoport.S, Mitchell. D

Wikipedia

Praying Mantis - Frost. H

Field guide to the Insects of South Africa - Picker. M, Griffiths. C, Weaving.A

Tot volgende maand, Sterkfontein groete aan almal!

Totsiens, goodbye, adios, ciao, yia sas en do svidaniya!

