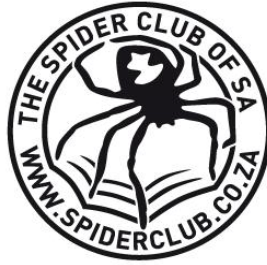


The Spider Club News



Editor: Joan Faiola

September 2010 - Vol.26 #3

SPRING IS HERE ENJOY THE SPIDERS!

(Spider Magic – by Joan du Toit)



Contents

		<i>Page No.</i>
<i>Who are we?</i>		<i>3</i>
<i>Mission Statement</i>		<i>3</i>
<i>Contact Details</i>		<i>3</i>
<i>From the Hub</i>	<i>Chairman's letter</i>	<i>4</i>
<i>From the Editor</i>		<i>4</i>
<i>Book News</i>	<i>Scorpions of the world</i>	<i>5</i>
	<i>Okavango Spiders</i>	<i>5</i>
<i>Events Reports:</i>	<i>Sammy Marks</i>	<i>6</i>
	<i>SCSA AGM</i>	<i>7</i>
<i>Scientific news & comment</i>	<i>A new Theraphosid paper from Richard Gallon</i>	<i>8</i>
	<i>Hogsback – harvestmen haven – Leon Lotz</i>	<i>10</i>
	<i>Scorpion that preys on quelea?</i>	<i>10</i>
	<i>Relocation of Baboon Spiders – the debate</i>	<i>11</i>
<i>Feature –</i>	<i>Introduction to Opiliones - By Ant West</i>	<i>15</i>
<i>Feature -</i>	<i>Interesting facts on Opiliones Stink glands - By Leon Lotz</i>	<i>17</i>
<i>Photo Gallery</i>	<i>Other African spiders</i>	<i>18</i>
<i>Special Feature</i>	<i>An unidentified Ctenid from Madagascar - Anne D'Oliveira</i>	<i>20</i>
<i>ARC and SANSA NEWS</i>		<i>22</i>
<i>Spider Club diary 2010/2011</i>		<i>23</i>
<i>Talks, lectures and presentations in Cape Town</i>	<i>Submitted by Norman Larsen</i>	<i>24</i>

DISCLAIMER

THE VIEWS OF THE AUTHORS IN THIS PUBLICATION DO NOT NECESSARILY COINCIDE WITH THOSE OF THE SPIDER CLUB OF SOUTHERN AFRICA.

Who are we?

The Spider Club of Southern Africa is a non-profit-making organisation. Our aim is to encourage an interest in arachnids – especially spiders and scorpions - and to promote this interest and the study of these animals by all suitable means.

Membership is open to anyone – people interested in joining the club may apply to any committee member for information.

Field outings, day visits, arachnid surveys and demonstrations, workshops and exhibits are arranged from time to time. A diary of events and outings is published at the end of this newsletter.

Mission Statement

“The Spider Club provides a fun, responsible, social learning experience, centred on spiders, their relatives and on nature in general.”

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Visit our website, and send us photos and news that we can post there!



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From the hub

Spring has sprung! And, just like many of our eight-legged friends, we Spider Club members are starting to stir in anticipation of another season of plenty, with exciting places to visit and arachnids galore. As daunting as it is for me to step into Astri's shoes, I'm greatly reassured knowing that our past Chairman is still keeping a guiding hand on the helm and we can count on her undiminished enthusiasm and involvement. I'd also like to thank the Committee for their commitment and support. Going into the summer of 2010/2011, we have so much to look forward to – from educational displays to field trips. This is the time when the Club really comes alive - I urge you all to have a careful look at the Diary section and plan ahead. Remember, it's *your* Club; the more you get involved, the more rewarding you'll find it!

Arachnologically yours



Alistair

From the Editor:

Winter's over, and at last we can get out there to enjoy the spiders, and all the other treasures of the veld. Please look at our really great programme (at the end of the newsletter) and make a plan to join in.

This month we welcome Alistair Mathie as our new chairman. I am sure he is going to do a great job. Thanks to Astri for all her efforts over the past two years.

This issue introduces Opiliones (harvestmen) to those who don't know these interesting and enigmatic creatures. Ant West and Leon Lotz share their insights with us. We also have lots of Baboon Spiders, including a debate around the conservation of this important group, and a major new paper from Richard Gallon. Patrick Gildenhuys is graciously sharing with us his wonderful Theraphosid photographs to enhance both items.

Go check out Anne D'Oliveira's amazing photography of a fantastic Ctenid on Page 20. Then, our photo gallery features spiders from beyond our borders, including a couple of pictures from Liberia.

I want to thank Norman Larsen in Cape Town for a schedule of arachnid events in the Mother City. I hope Norman keeps us up to date with the goings-on there, as our Cape Town based readers will appreciate it. See the last page of the newsletter, immediately after the diary.

As an editor I am very fortunate, as it has never been difficult to find material. Our members, scientists, and also the public, are always generous with their contributions. Thanks to every contributor for making my job easy, and ensuring that we always have something new and fresh to learn and enjoy.

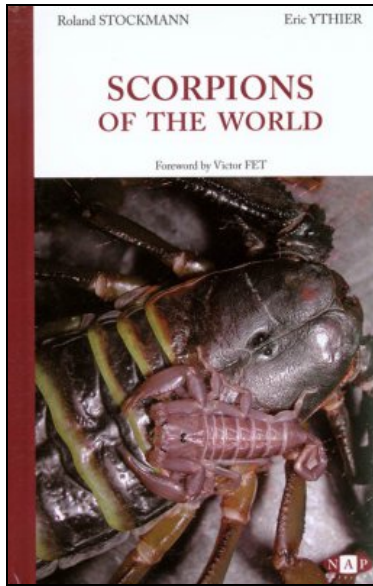
Best wishes

Joan

Book News

From Norman Larsen:

I have just received 'Scorpions of the world' by Roland Stockmann and Eric Ythier. I do not consider myself knowledgeable enough to review this book but here is my mouthful.



It appears a really wonderful publication with over 565 pages full of line drawings, keys, colour photographs, maps (including 107 African species) etc. The text discusses scorpion biology, morphology, palaeontology, taxonomy and various selected species from various regions of the world. A list of species, glossary and bibliography is included. John Visser and Norman Larsen provided a number of the Southern African images.

I can highly recommend this book to anyone interested in scorpions. It is filled with images never published in a book available to us enthusiasts before. My only gripe is that Hemiscorpiidae is preferred to Liochelidae.

Editor's note: *Norman is being modest. However, Jonathan Leeming has promised us a review for the next issue of the newsletter.*

Some Okavango Spiders

Astri informs me that she and John have written a booklet on Spiders of the Okavango. This is an outcome of their trip last December. They had some hair raising adventures on that trip, but lived to tell the tale. Watch this space for more details.

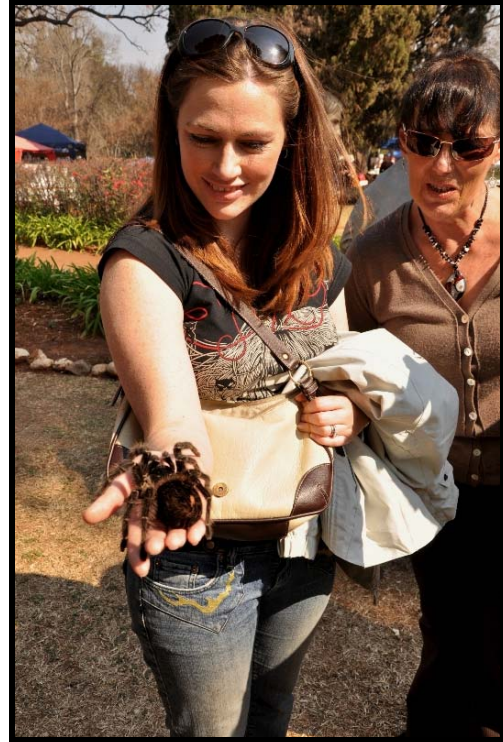


Events Reports

Sammy Marks Country Market – Sunday 8th August 2010

Report by Alistair Mathie

Held on the beautiful grounds of the historical Sammy Marks Museum, the Country Market is an annual event that usually draws a large crowd. This year, an advertising mix-up resulted in a smaller turnout than in previous years. Nonetheless, it was still pretty full and, in the warmth of a perfect Highveld winter's day, the SCSA stand was kept busy until late in the afternoon. Peet van der Ark's tarantulas were, as always, a great draw card for visitors who were then introduced to other spiders and scorpions - smaller but no less interesting for it. Among the eight-legged stars was Alet's *Opistacanthus sp.*, whose maternal instincts regrettably appeared to have fallen prey to her appetite. Besides Christy Mathie, Alet and Peet, it was great to welcome back Bertus Louw from KZN and Tony Rushton with his new bride Beatrix Weide who helped with manning the stall. We look forward to a much bigger turnout next year – hopefully, with more spiderers in attendance.



Above: Brave lady with enormous tarantula

Left: Our attractive stand in lovely surroundings

Photos courtesy Peet Van der Ark

Spider Club AGM –

Our AGM, held at the Nestle Centre at Walter Sisulu National Botanical Garden was well attended, and as usual, the serious business was over quickly. Astri stood down as Chairman but remains on the committee. Alistair Mathie is the new Chairman, and we welcome Peet Van der Ark. Unfortunately we lose Miemie Prinsloo, our longest standing member ever, Lloyd Grobler and Danie Smit.

Astri's address covered the events and activities of the year, and John Leroy entertained us with a wonderful show of spider macro-photography, in which there was a lot of spider sex! It included his stunning images of rain spiders copulating.

We then got down to the serious business of socializing and partaking of the wonderful spit braai supplied by Christy Mathie. As usual, Christy supplied amazing puddings for our delight!



SCIENTIFIC NEWS AND COMMENT

A new paper on African Theraphosids by Richard Gallon

On some Southern African Harpactirinae, with notes on the eumenophorines *Pelinobius muticus* Karsch, 1885 and *Monocentropella* Strand, 1907 (Araneae, Theraphosidae) by Richard C. Gallon in the Bulletin of the British Arachnological Society Volume 15 (2) 2010.

Richard Gallon addresses the taxonomy of five species of Southern African Harpactirinae, and two species of Eumenophorinae from East and West Africa in the above paper. We here report on the revisions to the Southern African species only.

Two new species were described from recent field trips by Gallon and others: *Harpactirella overdijki* sp. n. and *Idiothele mira* sp.n. The former, named after Mr Sjef van Overdijk, is distinguished from all other Southern African *Harpactirella* species by the female's fused spermathecae (organs in female spider for the storing of sperm), and in males, the squat, broad embolus (part of male palpal bulb carrying terminal part of sperm duct) contrasts with the more elongated emboli of other *Harpactirella*. The absence of proximal and medial tibial spines (proximal – nearest, and medial, midway, describing the position of the tibial spines in relation to the body) on legs III-IV distinguishes *H. overdijki* sp.n. from other sympatric *Harpactirella* species.

Idiothele mira's name is derived from *mira*, meaning wonderful, and refers to the sky blue coloration of the tarsi and metatarsi, which distinguishes *I. mira* sp.n. from *I. nigrofulva*. The carapace of *I. mira* is also more elongated than that of *I. nigrofulva*. The blue coloration results from a farinaceous substance in the integument (enveloping layer covering the body) rather than being associated with setae (stiff hairs). The blue colour is seen clearly in the photograph below.

I. nigrofulva itself is redescribed from its types and fresh topotypic material after having been rediscovered at its type locality – Barberton. (Topotype = a specimen taken from the type locality of that species).

I. nigrofulva was transferred from *Pterinochilus* by Gallon in 2002.



Above Left: *Idiothele mira*

Above right: *Harpactirella overdijki*

Both photos: courtesy Patrick Gildenhuys

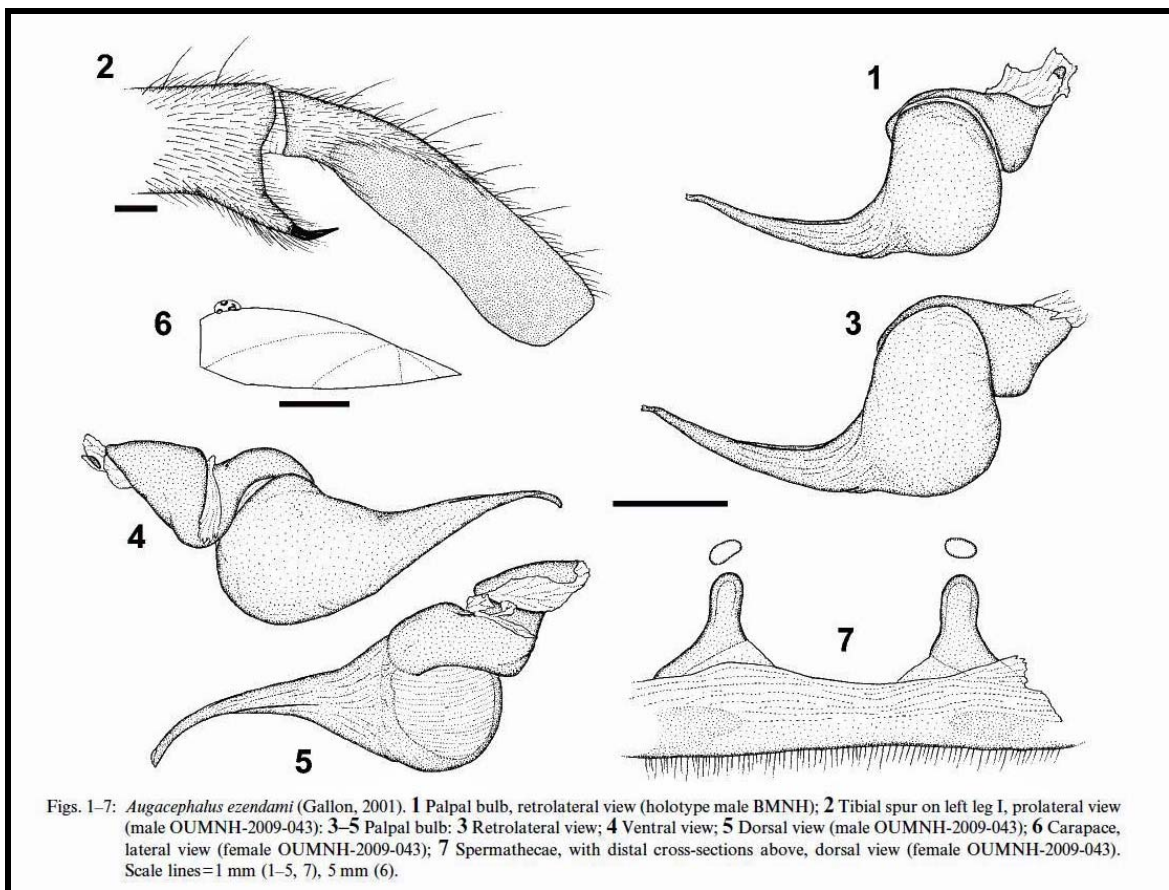
Gallon also transferred *Ceratogyrus ezendami* Gallon 2001 to *Augacephalus*, and diagnosed it from its two congeners (members of the same genus) *A. breyeri* and *A. junodi*. *Augacephalus ezendami* was originally assigned to *Ceratogyrus* from a single specimen of both sexes. New material from Mozambique shows that the female more closely resembles *Augacephalus*. The species has been re-described.

Ceratogyrus paulseni Gallon 2005 was only known from the female. The unknown male is now described. There is no foveal protuberance, and the fovea is transverse, and this distinguishes the male from all other

Ceratogyrus species. Two males of *C. paulseni* described here were reared to maturity from specimens collected alongside the type females.

The above synopsis does not do justice to this impressive paper, which contains comprehensive descriptions of the species, and is lavishly illustrated with photographs and drawings. Those interested in Theraphosids of Southern Africa should do themselves a favour and obtain a copy of this very interesting paper.

One of Richard's references was to a paper by Thomas Ezendam: "The Search for Blue Foot". The story contained therein is so engaging that we hope to be able to share it with you in the next issue.



Example of the exquisite drawings found in Richard Gallon's paper



Hogsback – a harvestmen haven

By L.N. Lotz – Head of Arachnology, National Museum, Bloemfontein

Charles Haddad, from the University of the Free State, recently collected a variety of harvestmen (Arachnida: Opiliones) at Hogsback during a fieldwork expedition. These specimens are now in the National Museum collection and have just been sorted and identified. The number of species identified from this single collection was staggering. A total of 16 species was collected from an area of about 4km² including two which are new undescribed species.

This inspired me to have a look at what species were previously known from the area. It turns out that nine of the species collected by Charles were previously known to occur at Hogsback, plus a further three species not included in his collection. This brings the total number of species for Hogsback to 19, of which two are new species and five new records for the area.

The species now known to occur at Hogsback are:

<i>Adaeulum godfreyi</i>	<i>Ceratontia setosa</i>	<i>Paradaeum rattrayi</i>
<i>Adaeulum brevidentatum</i>	<i>Graemontia denticelis</i>	<i>Paramontia n. sp.</i>
<i>Amatola dentifrons</i>	<i>Larifuga montanae</i>	<i>Purcellia n. sp.</i>
<i>Biacomontia truncatidens</i>	<i>Metabiantes pusulosus</i>	<i>Rhampsinitus capensis</i>
<i>Ceratontia reticulata</i>	<i>Monomontia atra</i>	<i>Roewerania guduana</i>
<i>Ceratontia rumpiana</i>	<i>Monomontia rattrayi</i>	<i>Roewerania lignicola</i>
<i>Ceratontia irregularis</i>		

The scorpion *Cheloctonus jonesii* preys on quelea?

The following paper by Lenny Vincent of California describes birds as a possible prey item for scorpions.

The scorpion *Cheloctonus jonesii* Pocock, 1892 (Scorpiones, Liochelidae) as a possible predator of the Red-billed Quelea, *Quelea quelea* Linnaeus, 1758 - by Leonard S. Vincent in the Bulletin of the British Arachnological Society Volume 15 (2) 2010.

The scorpion *Cheloctonus jonesii* is a medium-sized scorpion endemic to the eastern region of South Africa. These are docile scorpions with very mild venom. (Leeming 2003).

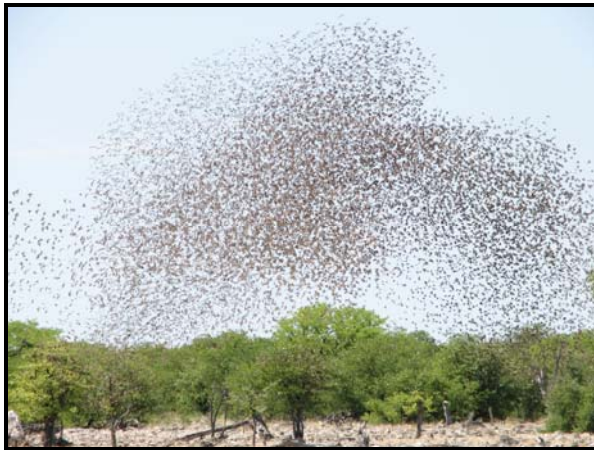
Leonard Vincent and Ty Breitman both of California, on a walk in the Kruger National Park, found up to eight Queleas each with one leg in a scorpion burrow, being gripped by a scorpion, within an area of approximately 20m. They managed to free one bird, which seemed to be unharmed, and another escaped. Unfortunately Vincent and Breitman could not stay in the area to observe whether the scorpions would exit their burrows to feed on the birds. Scorpions are known to feed on geckos, snakes, lizards and rodents, in addition to invertebrate prey.

Mark Anderson, Director of Birdlife South Africa, comments:

Red-billed Queleas provide food for a wide-variety of animals, including snakes, hornbills, raptors and even lions. These birds breed in large numbers, and when the fledglings leave the nest they are easy pickings for many predators. The most interesting predators I have witnessed are armoured ground crickets and they were literally eating the chicks alive.

Alistair Mathie, Spider Club of SA, adds:

*Scorpions are opportunists and, depending on the species, have been known to feed on geckos, snakes, lizards and rodents, in addition to invertebrate prey. This is a first for me, but under the circumstances it's not hard to understand. As the picture demonstrates, quelea flock densely in very large numbers. If a flock were to land on a patch of ground full of scorpion burrows (and **Cheloctonus jonesii** are known for highly concentrated populations; up to 2 per square metre in places) the chances of the little birds stepping into the holes and being grabbed by the pincers are extremely good. Adults would have been able to pull free, but by an amazing coincidence the juveniles' strength relative to the scorpions' appears to have been on a par (the birds were disadvantaged by the awkwardness of their position and the scorpions were wedged in for extra leverage). The foot of a juvenile bird stepping into the burrow would be just like a big locust's leg to a scorpion and **C. jonesii** would grab on reflex and hold on. The bird's struggles would confirm to the scorpion that there was a meal in the offing. If the birds had been just a tiny bit stronger, the scorpions would have definitely given up after a while – poking a twig down a burrow and playing tug o'war with a scorpion bears this out. The scorpions must have felt they were in with a fighting chance to hang on that long! Who knows, if the ants hadn't got there first, maybe they would have been dining on quelea drumsticks?*



**Above: Flocking quelea at waterhole.
Photo courtesy Alistair Rae**



Above: Partially excavated burrow of *C. jonesii* showing scorpion's palp grasping the leg of a quelea. Photo: by permission Lenny Vincent.

RELOCATION OF BABOON SPIDERS – THE DEBATE

On-going research has indicated that Baboon Spiders are probably able to build a new burrow if the old one is destroyed. This overturns the popular belief that Baboon Spiders can only build one burrow in their lifetime. The new-found facts open a can of worms, because developers could argue that Baboon Spiders could be relocated to enable development to go ahead.

IAN ENGELBRECHT FROM GAUTENG NATURE CONSERVATION EXPLAINS THE CONSERVATION VIEWPOINT:

We (i.e., those of us in Gauteng Nature Conservation involved with the EIA process) often have proposals from developers, or even environmental consultants, to move threatened or rare species away from areas that are proposed for development. Developers see translocation as a solution when the presence of such species will impact negatively on their development ambitions for a site.



Augacephalus junodi:

**Above – burrow : At right – female
Photos courtesy Patrick Gildenhuys**

This is extremely problematic for us for a number of reasons. Many of these species are threatened by habitat destruction. Moving individuals out of suitable habitat and then destroying that habitat only exacerbates the problem. Moving animals out of one population and into another can also cause problems. If the population in the area where animals will be translocated to is at, or near, carrying capacity of that environment, adding a whole lot of new individuals can push the population past this limit and potentially cause the collapse of the population. In most cases with invertebrates, we simply don't know enough about the population dynamics of the species involved to predict the likely outcomes of such population level effects. There are also potential negative genetic effects, known as outbreeding depression, that can result from moving individuals of the same species between populations. By mixing individuals from different populations that are very subtly adapted to their specific local environmental conditions, the resulting offspring are ill adapted as a result of the mixing. This problem of outbreeding depression should always be considered in the case of reintroducing illegally collected baboon spiders to the wild as it is unlikely that one would be able to find out where they originally came from.

I think the issue with baboon spiders is that there was a widely held belief for a long time these animals are not able to construct new burrows for themselves in the wild if they are moved, and thus they could not be relocated. The theory that I was given to support this was that baby baboon spiders are able to construct burrows because they have a rastellum, a specialized scraping structure on the front of the chelicerae used for digging, which they use to construct a burrow which they live in for the rest of their lives. The rastellum is lost as they get older, and the spider is only able to enlarge the burrow as it grows. This theory is incorrect as baby baboon spiders do not have a rastellum, and baboon spiders of all ages

are able to burrow by digging in the soil with their fangs. Furthermore, Martin Paulsen found that adult female *Harpactira hamiltoni*, a species widespread on the Highveld grasslands, actively move to find new burrows every two years or so. Conversely, he also found that *Augacephalus junodi*, a savanna species, does not move and appears to live in one burrow for its whole life.

In conclusion there are a number of observations, including the results of the project at Hoedspruit, Martin Paulsen's studies, and observations of burrowing behavior in captivity, that indicate that baboon spiders can be translocated and can potentially construct new burrows or occupy burrows made for them. However, translocation should not be viewed as a viable strategy for conservation as it has potentially significant negative population and genetic impacts. Species threatened by habitat destruction must be conserved by conserving suitable habitat for those species.

NICO J GROBLER OF GAUTENG NATURE CONSERVATION - ECOLOGICAL DECISION SUPPORT - GAVE HIS OPINION FROM THE ECOLOGICAL STANDPOINT

My comment below is from the perspective of a regional ecologist and not as an Arachnida expert.

I fully support the emphasis on the protection of habitat, rather than resources spent on translocation efforts which have their own array of risks and consequences that cannot be predicted accurately because of the limited knowledge base of the species, as noted by Ian.

On a speculative note, I often see emphasis on the species itself, meaning we scrutinize the species itself in terms of its biology, adaptations, taxonomy and feeding and breeding behaviour to predict the outcome of any translocation effort, but the direct / indirect *relationships* between different species in a habitat are often overlooked.

Do we know enough about the *species assemblages* in the new area selected for translocation? A habitat always consists of other species as well that will influence intra / inter species relationships, which again relates to stability, viability and resilience of a total habitat... Are all habitats identical or similar enough to ignore the difference between habitats regarding the presence of other symbionts (organisms in a symbiotic relationship)?

Predator / prey relationships (also relate to "carrying capacity" as Ian noted), parasite / host relationships, among others come to my mind. (Parasitism tends to increase in stressed ecosystems)

The regulator (government) is often in the predicament to allow an action with a wildlife species, or in this case a "rescue" exercise (with good intentions) that may turn out to be ineffective or even disastrous after a certain time period, but the action is irreversible and has set a precedent. This precedent will be pushed to the utmost on legal grounds if it favours profitable development projects. This is how the *principle of "biodiversity offsets"* can be misused, legally.

PATRICK GILDENHUYS AUTHOR OF "BABOONS SPIDERS OF SOUTHERN AFRICA" WROTE:

The situation described by Nico and Ian relates to a complete relocation of a species, into a new area, and I agree with what they have both said.

This is why I am completely against the re-introduction of confiscated spiders, that would unlikely (as Ian said) have precise GPS co-ordinates of where they were collected, and could indeed have disastrous effects if introduced into an area even "pretty" close to where they were found.

However, the "Golden brown baboon spider" relocation project that has been referred to does not mean moving spiders from one area to another area. Perhaps you could give some input into a situation such as this one:

The people in the Hoedspruit area are concerned about developments that have been given the green

light, and potentially mean the obliteration of various species, but the one they're concerned about, is obviously the golden brown baboon spider.

From my understanding, the people responsible for the relocation of the spiders, would inspect an area inside of a development site, that has been marked for building, and pinpoint any burrows of spiders that are directly in the way of the proposed building area, and move them a few metres away, and try and re-establish them into a pre/man-made starter burrow.

Would this still affect:

intra/inter species relationships?

there are hundreds of burrows in the "bigger development area", and none would be added, or subtracted from the total, only repositioned, and the habitat would be identical.

predator/prey relationships?

I'm not too concerned with the politics behind why and how these projects can and could affect the regulator's (government's) public standing, but am concerned about the well-being of these animals, and would like to try and find (help with) ways to lessen the impact on these protected spiders by development.

NORMAN LARSEN, ASSOCIATE ARACHNOLOGIST AT IZIKO MUSEUM CAPE TOWN, added:

The bottom line is to protect the habitat at all cost with the relocation only as a very last resort. This works very well with plants on the Cape Peninsula. Developers must realise that our natural and cultural assets need to be preserved for the obvious reasons. Taking one link out of the chain can lead to extinction of both fauna and flora.

NICO GROBLER REPLIED:

Yes I agree with the statements of Norman and Patrick as well because we are all clearly conservationists at heart, speaking to each other here....

Norman, developers are the manifestation of human nature, and given the opportunity of huge profits, the selfish gene kicks in! The development will continue. The value systems in our society have not nearly reached the stage where biodiversity will be regarded a higher value in our legal system than the human need for prosperity, private possession, basic human needs, job creation, etc.

Example: diamonds have absolutely nothing to do with *life* but are so effectively regulated that large expanses of landscape are set aside with serious access restrictions (Namib, Namakwa & Kaoko regions), just to protect a commodity that indicates your affluent status. Our legal system is the cause of this. Not even the current illegal slaughter of rhinos (153 just during this year) raises much of a concern.

Of course developers "must realize" as you said, but altruism is not what rules our society. Plants of the *Cape Peninsula* is not a comparative example (faunal issues very different) and that region have shown trends in land transformation during the last 50 years that are as bad as anywhere else, despite you thinking that translocation works "very well" in that region. The window of observation is anyway very limited and short, a mere second in terms of time periods needed for ecological processes to illustrate their outcomes.

Regulation is necessary, and that is what Ian and I try to explain, the consequence of legalizing a "rescue" with a permit (which could now be a written record of a "wrong" decision which can forever be referred to), with a species that will actually spread the message that all is not lost and development is not really so bad after all!

Patrick, the politics behind the scenes can be daunting and it is more complex than you think. It actually

rules all outcomes. A permit to approve any rescue action is often seen as condoning the development by a Nature Conservation Department.

Patrick, I cannot answer your questions, and you will probably be right, we have to do something, something like you suggested. Who carries the accountability of approving that permit?

IAN ENGELBRECHT REPLIED TO PATRICK AS FOLLOWS:

The situation he described by Patrick, where individual spiders are moved away from the areas where houses are going to put and set up in new burrows in adjacent areas, but still on site, has the same overall effect of increasing the population density as I described above. This occurs because the number of individuals stays the same, but the total area of habitat (which supplies prey, predators, etc) is decreased. We don't have any idea of what the impact of increased population densities of baboon spiders would be, for the spiders themselves or for other species they interact with, because we know so little about recruitment, survival, competition, etc, for these species. However, I think the points that Nico has raised regarding precedent setting are critical to the discussion. Regardless of how far you move specimens, be it under a permit or a Record of Decision issued for a development, developers will use that precedent in future development applications. They will even use such precedents to argue for moving other species as well, on the same principle.

Another aspect of this discussion which we should consider is the motivation for wanting to move baboon spiders in these situations. Baboon spiders are protected from overutilization (i.e. over-collecting for the pet trade) by various legislation, but there is no indication that there are any threatened or endangered baboon spider species (yet). *Augacephalus junodi*, the subject of the experiment at Hoedspruit, is very widely distributed and well protected in the Kruger Park and many other protected areas. So why move them away from developments? Do we want to do it out of compassion, or is it a justified conservation activity? Given the potential dangers described, we must be careful not to confuse the two.



Left: *Harpactira hamiltoni*, a common Highveld species.

Photo courtesy Patrick Gildenhuys



MY INTRODUCTION TO OPILIONES

STORY AND PHOTOS BY ANT WEST

My introduction to **Opiliones** was purely coincidental. Whilst photographing insectivorous plants in the Northern Cedarberg, in poor light conditions one cold August afternoon, I spotted what I thought was a small spider scurrying across the sand, so took a set of super close-up pics for later review. (I love spiders and scorpions and will stop what I'm doing to have a look at any I see).

When I saw the froglike eyes of this 5mm long creature (their average length is about 7mm) with multi-segmented legs which seemed to bend in any direction, on my laptop screen later that night, I was amazed, and was immediately hooked on what has become a new passion.

Right: *Caddella jocque*,
Cedarberg, Western Cape.

Photo: © Anthony West



Thanks to Astri Leroy who put me in touch with Dr Ansie Dippenaar-Schoeman and Prof Leon Lotz, who were so friendly and eager to assist with information and the identification of this and other specimens I photographed, I became more aware of this incredibly interesting order of Arachnida: **Opiliones**, Harvestmen, (The original) Daddy Longlegs – though not related to Cellar Spiders or the Crane Fly.

It turns out that its one of the least researched arachnid group, certainly in SA. The scientists tell us that as at 2006, over 6 400 species had been discovered, worldwide, but it is estimated that this number could be closer to about 10 000!

So I ask – where are they all hiding? ... and where have they been all my life? Considering the number of species and the fact that fossil records suggest they have been on the planet since 400 million years ago, it's even more mind-boggling that these creatures are not seen every day by most people. It seems that most are nocturnal, although both species I have encountered were seen in low light conditions during the day.

The arachnid order Opiliones are not classified as spiders, which belong to the order *Araneae*. They do not have venom glands or spin silk. They have exceptionally long legs in relation to their body size. Their bodies have only two apparent sections: the 10-segmented abdomen and cephalothorax, which are broadly joined (spiders have 2 sections).

Their feeding apparatus, known as *stomotheca*, differs from that of spiders, indicating that they are able to ingest chunks of food. Spiders, on the other hand convert their food to liquid.

Another very interesting fact - and the thing that originally caught my eye (pun intended) is that they have only one pair of eyes, in the middle of their heads, orientated sideways. However, some species found in caves and termite nests in Brazil, have no eyes.

Right:
Phalangiidae:
Rhompsinitus leighi -
Dlinza Forest KZN – view of
head parts

Photo: © Anthony West



Opiliones also have a pair of glands for defence, which produce a noxious-smelling liquid when threatened. Opiliones have a gonopore on the ventral cephalothorax, and copulation is direct as the male has a penis, while the female has an ovipositor. All species lay eggs.

A unique feature of harvestmen is that in some species the male is solely responsible for guarding the eggs resulting from multiple partners, often against egg-eating females, and subjecting the eggs to regular cleaning. The eggs can hatch from 20 days, up to almost half a year after being laid.

Harvestmen need from four to eight nymph stages to reach maturity, with six the most common. Many species are omnivorous, eating primarily small insects and all kinds of plant material and fungi; some are scavengers, feeding upon dead organisms, bird dung and other fecal material. This broad range is quite unusual in arachnids, which are usually pure predators. Most hunting harvestmen ambush their prey, although active hunting is also found.

Harvestmen / Opiliones are a scientifically neglected group, worldwide. So my article creates an opportunity for like-minded enthusiasts, such as members of this club to take an interest and submit findings. Look for them, photograph them and send specimens to Prof Leon Lotz at the University of Free State, or Dr Ansie Dippenaar-Schoeman at the Agricultural Research Council.

Some of my own photographs are included here, with thanks to Prof Leon Lotz and Dr Ansie Dippenaar-Schoeman for identification.

Websites and references:

AFRAD (African Arachnida Database) <http://www.arc.agric.za/home.asp?pid=3235>

Agricultural Research Council: <http://www.arc.agric.za/>

Wikipedia – Opiliones: <http://en.wikipedia.org/wiki/Opiliones>

INTERESTING FACTS ON THE STINK GLANDS OF OPILIONES

– Lawrence, 1953. Biology of the cryptic fauna of forests. A.A. Balkema, Cape Town. –

“Odoriferous or stink glands are found in both sexes of all species of harvest-spiders (Opiliones) and in their nature they are very similar to those of millipedes. There is a single pair of glands which open at the margin of the cephalothorax above the coxa of the second leg; in the larger South African Laniatores, such as *Larifugella natalensis*, the opening is protected and partly covered by a large flattened tubercle or process of the coxa. As in the case of certain millipedes the liquid secretion of the glands can in some species be discharged in the form of a fine jet to a distance of more than an inch from the animal (Lawrence, 1937); in most harvest-spiders however it merely flows out of the gland opening. How the liquid is forced out in the form of a jet is difficult to explain seeing that the glands, which are situated close to the opening, have no muscular covering though there is a special muscle which can regulate the size of the gland-opening itself; it may be effected partly by the compression exerted by the coxa of the second leg or by structures connected with it. The colour of the secretion is bright yellow or reddish-brown; it is highly volatile and on evaporation leaves a whitish coloured powdery deposit. The smell is acrid and unpleasant resembling that of iodiform or freshly cut horse-radish, and may cause a smarting sensation in the eyes if a drop is brought too close to them.”

Information supplied by Leon Lotz, head of the Arachnology Department at of the National Museum in Bloemfontein.



**Phalangiidae:
Rhomsinitus leighi
– Dlinza Forest KZN**

Photo: © Anthony West

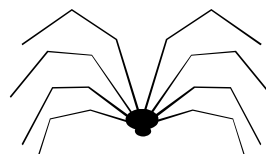


PHOTO GALLERY – OTHER AFRICAN SPIDERS

Our website seems to be the resource of choice for people who need to have a spider identified. In addition, friends send us photos for ID. Lately we are getting queries about spiders from further afield. Below are photos from Liberia, Namibia, and Mozambique.



Rachel Holmes, who is a volunteer in Liberia, took the picture on the left, of *Nephila turneri*. Rachel and her husband Jim are originally from Canada, and Rachel takes her camera with her everywhere.

Rachel's friend Andrew Parker took this picture of *Nephila constricta* at Firestone Golf Club near Monrovia, Liberia. He said its size was as big as a hand stretched out, maybe 4-5". It was up high between two trees, Maybe 12-15' high. Rubber trees all over the place, as well as what they call 'cotton trees'. The temperature is always around 30 deg Celsius in the area.



Judd Kinkel found this tiny spider in gravel on his recent trip to Namibia. Ansie Dippenaar-Schoeman had it identified as **Gnaphosidae: Asemesthes sp.** which is apparently quite common in Namibia. This beautiful little spider could not have been bigger than three or four millimetres! Judd said that he caught a movement and investigated.

Right: Judd also found the *Selenops* sp. on the right in Namibia, feeding on a Solifugid in the genus *Biton*. This was confirmed by Tharina Bird, who was visiting ARC at the time we made our query to Ansie Dippenaar, and who also confirmed the ID of the previous spider.



Left: This tiny spider was photographed by Joan Faiola in Mozambique in January this year. Ansie Dippenaar informed us that this is an unnamed species that awaits description.



SCORPION & SPIDER TALKS, WALKS & COURSES

Jonathan Leeming, author of *Scorpions of Southern Africa*, invites you to learn more about these fascinating creatures at the following exciting and entertaining events:

Scorpion Presentation	Wendywood Sports Complex	30 Sept 2010
1 Day Spider & Scorpion Courses	Kloofendal Nature Reserve	24 Oct 2010, 16 Jan 2011, 6 Mar 2011
Morning Creepy Crawly Walks	Kloofendal Nature Reserve	23 Oct 2010, 5 Mar 2010
Evening Scorpion Hunt	Kloofendal Nature Reserve	14 Jan 2011
4-day Spider & Scorpion Course	Evening lectures in Paulshof Weekend practical (fieldwork) in Nylsvley Nature Reserve	12 & 14 Oct 2010 15-17 Oct 2010

For bookings or more information, please call Jonathan on 082 338 4381, email Jonathan@scorpions.co.za or visit www.scorpions.co.za

Events at Kloofendal can also be booked with Karin Spottiswoode; email SSpotty@Pixie.co.za or call 072 595 6991 / 011 674 2980

SPECIAL FEATURE



Unidentified Ctenid from Madagascar

ALL PHOTOS ANNE D'OLIVEIRA

The photos on the next two pages were taken by Anne D'Oliveira of the Johannesburg Camera Club. Anne said:

The spiders were in a cave in Ankarana, Madagascar - Tsingy country. There are hundreds of caves within the Ankarana area. We only visited the one during our trip in December 2008.

The spiders were just at the edge of the twilight zone within the cave, which because of the size of its entrance was about 20 metres in. There were many of these spiders on the vertical wall of the cave and most of them were featured next to **hanging nests**. The wall was low enough for me to reach up and take the photographs with my 100mm 2.8 macro lens.

Including their legs the spiders were about 150mm across as I remember. At the time I took them I had not yet met Astri and John and therefore was more interested in getting a good photograph than looking closely at the detail of the spider. I look at spiders in a different light since John's presentation to our club and my subsequent discussions with this lovely and interesting couple.

(CONTINUED ON NEXT PAGE)

Top left: view of face

Centre left: side view of spider

Bottom left: spider next to egg sac



Above: view of cave from above

Below: view from inside cave to outside



The last two images give some idea of the environment where the cave is situated and one from the edge of the inside of the cave looking outwards.

On the tour walk you are taken on a path that actually goes above the cave and when at the top of that hill you are actually standing above the cave but cannot see the sink beneath you. The path then starts to go down again and the picture was taken from a vantage point when you can first see the cave. The cave floor at that point is about 300 metres below. At the latter part of the sink there are steps that have been created - some 380 as it is quite steep near the bottom.

There are two entrances once you reach the bottom. The one on the right (facing) where a stream runs through, was not explored by us as you have to walk in the stream, which gets quite deep in parts (we were told). On the left side is a huge gaping hole. You climb up about 50 metres and then enter into the cave where we found the spiders."

Astri Leroy sent the photos overseas for identification by experts there. To date, no ID has been received. Given the sparse knowledge of Madagascar in general, this is not too surprising.



ARC AND SANSA NEWS

Ansie Dippenaar-Schoeman has asked that Spider Club members participate in SANSA activities, in any way, such as contributing photos to the Virtual Museum and arachnid stories for the SANSA newsletter.

The Virtual Museum is already showing great promise as a tool for arachnologists, amateur and otherwise. Go take a look.

We can forward the SANSA newsletter on request, but better still, you can ask them to place your e-mail address on the distribution list.

Contact ARC via their website – see the SANSA advertisement on this page.

Tel: (Arachnids) 012 356 9800

Systematics Projects:

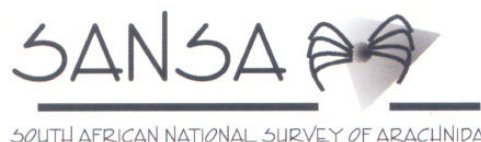
Philippa Franzini is doing a genetic study of Cyrtophora presently. She welcomes specimens. You can contact her on pznfranzini@gmail.com to find out more.

Petro Van Niekerk and Ansie Dippenaar-Schoeman are revising Heriaeus, and Thomisus, and are looking for any crab spiders as they are busy with revisions of several genera.

Please contact Ansie at dippenaar@arc.agric.za if you are able to help, and for more information.

Colloquium 2011

Don't forget the Colloquium in February next year! contact Petro at MaraisP@ARC.agric.za for details.



AIM: To document the spiders, scorpions and other arachnids of South Africa

HOW YOU CAN PARTICIPATE

We would like to invite everyone interested in spiders, scorpions and other arachnids to participate in this national effort to document the arachnids of South Africa. If you want to learn more about spiders, visit our website at:

**www.arc.agric.za
(see quick link SANSA)**

Photographs

Do you have a camera? Take digital photographs and submit it to our on-line virtual museum. We'll provide you with a name.

Collecting

Would you like to collect arachnids? We can provide you with bottles. All the material will be added to the National Arachnida Database.

Participating in collecting trips

Would you like to join us on one of our collecting trips and enjoy a fun week of collecting spiders and scorpions?

Collecting areas

Do you have a farm or are you managing a reserve? We will help you to obtain a checklist of arachnids present.

Please contact us. We need your support.

Contact:
Ansie Dippenaar-Schoeman
DippenaarA@arc.agric.za
Tel: 012 356 9824



SPIDER CLUB DIARY 2010/2011

2010

Tswaing Crater north of Pretoria 11th SEPTEMBER 8:30 for 9 a.m. to +- 3:30 p.m..

Map separate. This outing will be led jointly by The Spider Club of Southern Africa and Robin Lyle of the Ditsong Museum of Natural History (was Transvaal Museum). Robin will supply alcohol, vials and other collecting gear but if you have your own, please bring it along. All specimens will go to the museum collection with the exception of any adult tropical tent-web spiders, *Cyrtophora* sp. which will go to Philippa Franzini who is revising the genus. Cool drinks and snacks etc. are available at Tswaing but you may prefer to bring your own picnic lunch, liquid refreshments, etc., and wear good walking shoes and a sunhat and sunscreen - in fact the usual. It can be pretty hot inside the crater. There is an entrance fee which I think is R15 per adult. No booking necessary, just come along! Meet between 8:30 and 9 a.m.

Yebo Gogga at Wits 6TH - 10TH October

In October there is the Yebo Gogga amaBlomoBlomo display at the University of the Witwatersrand. Alistair is in charge of this. If you can give an hour or so of your time to help man our display **please contact Alistair on alistair.mathie@draftfcb.co.za or 078-109-7940**. It is loads of fun showing people that most arachnids are kind of nice and absolutely fascinating.

Elandsvlei Conservancy Sunday 7th November - 9 a.m. - + - 3 p.m.

Lat: 25° 59' 41.1'S
Lon: 28° 27' 45.1'E

From O.R. Tambo International airport turn north on the R21 and take the R25 to Bapsfontein. When reaching Bapsfontein turn right on the R50. Continue straight after the four way intersection (R25/R51) for just over 6kms till you reach a gravel road signposted Klein Zonderhout. Turn left on this road. After about 1.4 km turn left and continue on this road through the gates and onward towards the pans. The roads to the pans and around the pan are in good condition and can be travelled by a sedan car. There is a basic bird hide at the larger of the two pans.

Please bring your own picnic, etc. and be aware that there are no toilets.

Please book by 25th October, because we need to confirm number of people attending. Contact Joan at joanf@wol.co.za or 082 565 6025. Joan can also supply directions from Johannesburg or Pretoria.

Random Harvest Indigenous Nursery Saturday 13th November, 2010 - Spider talk and walk, 2:30 p.m.

Plot 57, College Road, Nooitgedacht.

For more details on Random Harvest, visit their website on www.random-harvest-nursery.co.za

Come early and enjoy the beautiful indigenous nursery, lunch at their tea garden and for those from far away there are B & B Cottages.

Directions from the N1

- From the N1 take the Beyers Naude Drive off-ramp and travel north along Beyers Naude Drive.
- From the Christian De Wet Road crossing (Northgate is towards your right) continue along Beyers Naude Drive for 8.2km.
- If you are travelling along Christian De Wet Road, turn left or right off Northumberland Ave. into Beyers Naude Drive.
- Pass Garden World Nursery on your right - our turn-off is 1.8km further on.
- Opposite Oakfield farm at Valdor Centre turn right into College Road.
- Continue for 2.2.km keeping right and following the small directional signs to Random Harvest Nursery.
- You will find us on the left.

Directions from the N14

From the N14 (Krugersdorp - Pretoria Highway) take the Randburg/Zwartkop off-ramp (NB Do not take the Randburg/Lanseria off-ramp.).

- Turn left towards Johannesburg along the extension of Beyers Naude Drive.
- Take the second tar road to your left at Valdor Centre into College Road
- Follow the directional signs (See above).

2011

Faerie Glen Nature Reserve, Pretoria: 22nd January 8:30 for 9 a.m. till whenever.

Meet in the parking lot in General Louis Botha Drive, Pretoria. Directions from the M1 (Danie Joubert Motorway): take the Lynnwood Road offramp going east (away from city centre), when you get to a major intersection at General Louis Botha Drive turn right into it. Parking for the reserve will be on your left. Alternatively take Atterbury Road turnoff, then left into General Louis Botha Drive when parking lot will (of course!) be on your right. No need to book, bring friends and family and enjoy this very pretty nature reserve with a variety of habitats and therefore a great variety of spiders. There is grassland, rocky outcrops and woodland. In the past we have found *Araneus coccinella* ladybird spiders in the grass.

AFRAS Colloquium. Rhemardo, near Mookgophong (Naboomspruit) 31st January - 4th February, 2011 Details available from Petro Marais at ARC - email her at maraisp@arc.agric.za

Willem Prinsloo Nature Reserve, Mhales Gate Environmental Education Centre about 7km Past the Maropeng Turnoff - 27th February, 2011.

I am still negotiating this one but it is a GREAT place because it is an interface between Highveld grassland and bushveld with big game, wonderful scenery, good birds, plants, a cave or two, etc. I am going to dangle the carrot of a booklet on spiders and scorpions of the area like the Okavango one for the Enviro education centre.

BENFONTEIN, DIAMOND ROUTE RESERVE, KIMBERLEY - LONG WEEKEND 18 - 21st March, 2011

We have been offered a four bedroom house on the reserve with all amenities as well as camping for any overflow. Booking will be on a first come first served basis. Directions will be given on booking or you can check the Diamond Route website.

Originally bought by De Beers in 1891 for its diamond reserves, Benfontein is today dedicated to the conservation of fauna and flora. Just 10 km south-east of Kimberley in the Northern Cape Province, Benfontein covers 11 000 hectares of arid terrain favoured by some unusual species. It is in a transitional zone where dry Karoo, grassland and Kalahari thornveld savanna meet,; species diversity at Benfontein is a big attraction. There are fantastic arachnids, I promise!

We have offered to take a group or groups of children on a spider and scorpion safari and will contact the McGregor Museum, the local branch of the Wildlife and Society and perhaps other local special interest groups to come walk with us and look at arachnids. But we will also make sure we have enough time to do some serious collecting and recording of what we find without the general public.

BOOKING ESSENTIAL: Astri at info@spiderclub.co.za, landline 011 958-0695 or cell 073-168-7187

TRIP TO TSHIPISE AREA, LIMPOPO 22nd - 27th April . Details to follow.

LIST OF TALKS, LECTURES AND PRESENTATIONS IN CAPE TOWN:

Kirstenbosch: Room to Grow Wednesday Talks -

Kirstenbosch National Botanic Garden: Norman Larsen Free Wednesday Talk

15 September 2010 10h30 - 11h30

Norman Larsen an arachnologist and photographer will talk about spiders

Cape Union Mart Adventure Centre Presentations - Pod 4 Canal Walk

Thursday 16th September at 18:30 Spider biology

Cape Union Mart Adventure Center Presentations - Pod 4 Canal Walk

Sunday 3rd Oct at 11:00 – 12:00 . Tarantula presentation for the children and their parents

Friends of Vrolijkheid Nature Reserve

Sat 30 October, 2010

Spider presentation by Norman Larsen at the Vrolijkheid hall, followed by a spider walk at the reserve.

Volunteer Wildfire Services – Open Day

Sat 4 December 2010, 09h00 – 16h00

Newlands Fire Base, Union Avenue, Newlands

Kirstenbosch National Botanic Garden: SANBI EXPO

24-26 March 2011 Thursday 09h00 – 16h00