

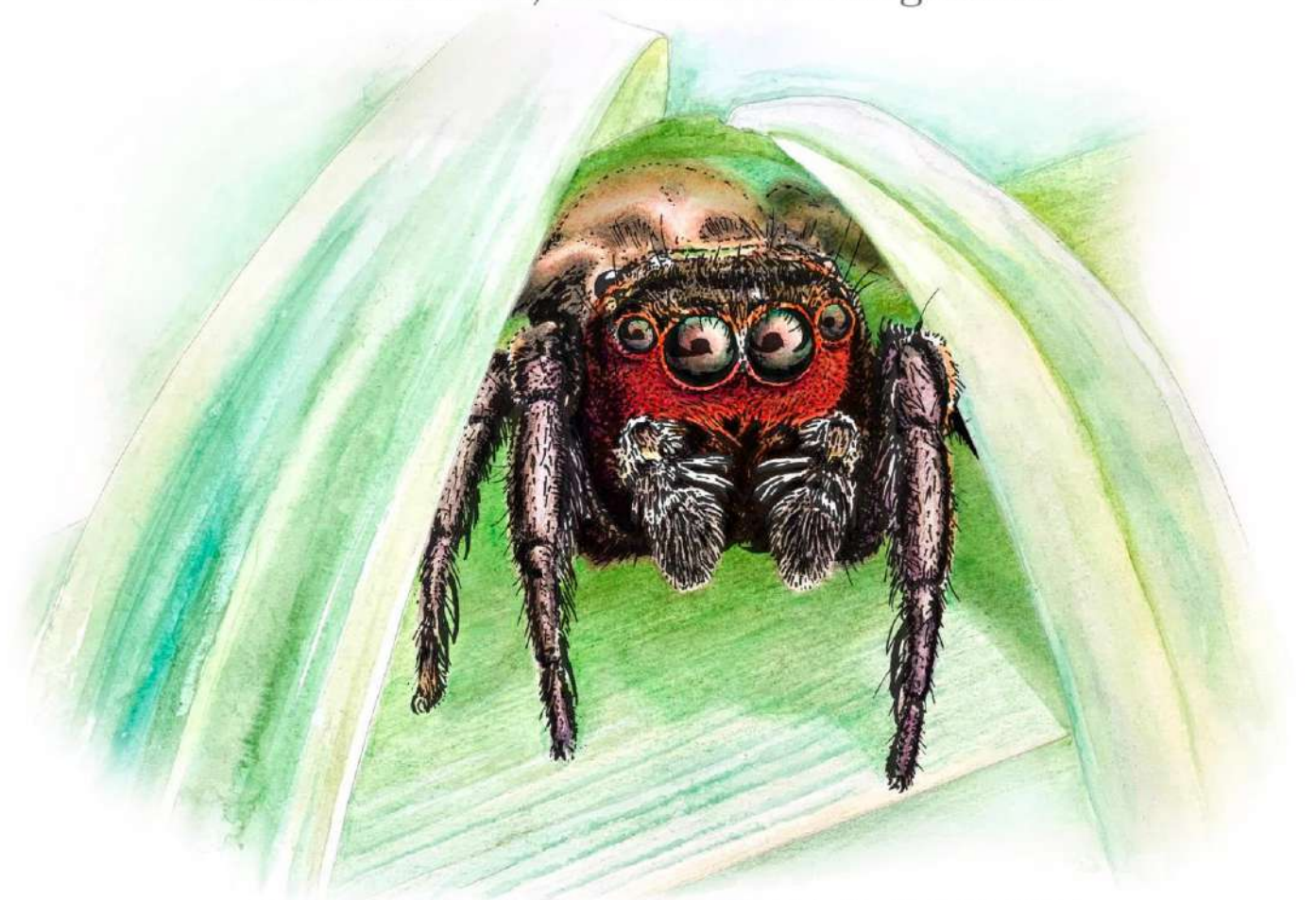
The Spider Club NEWS

December 2022



Vol. 38, No. 4

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



SUMMER EDITION

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About the Spider Club

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

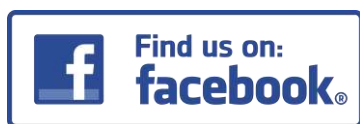
Membership is open to anyone. People interested in joining the club may apply to any committee member for information.

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.

Contact us

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at "The Spider Club of Southern Africa"

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Our sincere gratitude goes to the following people for this edition of the newsletter:

- All the photographers of the photos used in this edition. Without you, these pages would be very dull.
- Astri Leroy, of course, for all her contributions, and informing me of any new content, as well as the entire SCSA Committee (Roulla, Jarrod, Henning, Desiré, Ruan, Joanie, Caren, and Jèan-Pierre) for their contributions.
- Jeanne van Aswegen, my colleague at Grammar Guardians and superior half, for proofreading the newsletter.
- Everyone on SCSA for all the interesting content.
- All the readers of this newsletter, and all the positive feedback we receive. Of course, keep the negative feedback coming, so that we can improve on this newsletter. All the readers of this newsletter, and all the positive feedback we receive. Of course, keep the negative feedback coming, so that we can improve on this newsletter.

From the Hub



This is my first editorial since our matriarch, Astri Leroy, resigned as chairperson of the Spider Club. I will miss reading her editorials, even though she never thought people actually read what she had to say. While she has “retired”, she is still on the committee as a member and consultant for us inexperienced members, and also points me to material I can use in the newsletter.

I would love if “ordinary” members and non-members also contribute to the newsletter. This contribution can be in the form of the following:

- Short arachnid-related news (for the Snippets section).
- A review of a book, movie, documentary, website, etc. related to spiders/arachnids.
- Interesting observations (any photos or observations of anything out of the ordinary).
- Reviews or a short write-up of Spider Club events, like spider walks.
- Feature articles (something longer) about anything related to spiders or other arachnids.
- Anything humorous (for the On a Lighter Note section), such as funny posts, memes, or cartoons.

If you want to contribute, or have suggestions, please send them to me at rudolphsteinkampf@gmail.com, or to info@spiderclub.co.za. Our membership currently stands at 616 members (thanks to Roulla, who meticulously updates this list). I would love to say that our readership is that high, but I suspect only a very small percentage of them actually read the newsletter (or at least look at the pretty pictures), which brings me to another request. If you actually read the newsletter, please let us know. We would like to get a better idea of our readership, and to know that all our effort is not in vain. In the future, we might move the newsletter to our website so that we can better keep track of how many people read the newsletter.

On a different note, this month we held our third Spider of the Year (SOTY) contest, where people choose their favourite Spider of the Month (SOTM). Unlike for SOTM winners, we offer prize money for the top three SOTY winners. This was my second win in three years, and both from photos of spiders that Ruan Booysen found in KwaZulu-Natal. The first year’s prize money was given to him, since it wouldn’t feel right for me to take the Spider Club’s money (back then, Ruan wasn’t on the Spider Club committee yet). In the second year, I came in second, and the money was donated to Ubuntu Wildlife Trust. For this year, I offered Ruan half of the money for finding the spider, but he insisted that I donate the entire sum to Ubuntu Wildlife Trust, which also focuses on spider conservation, with specific focus on the Phinda button spider (*Latrodectus umbukwane*), which was described in 2019 by two of Ubuntu’s trustees: Barbara Garcia-Wright and Clinton Dean Wright.

Ruan has played an integral part in my spider photography, and also educating others as well as myself. One cannot always learn from photos alone, and to observe the behaviour of the rarer spiders, how they move, etc., one has to travel to find them. Since he lives not too far away from me, he always offers to bring me some of his more interesting finds from his fieldwork all over South Africa to photograph. Unfortunately that also means that they are photographed outside their natural habitat. I always try to photograph spiders in situ, but that’s not always possible, especially with collected specimens of spiders

from places I've never been. Anyway, thank you, Ruan, for playing a major role in my second SOTY. I'm sure you'll get your chance in the near future.

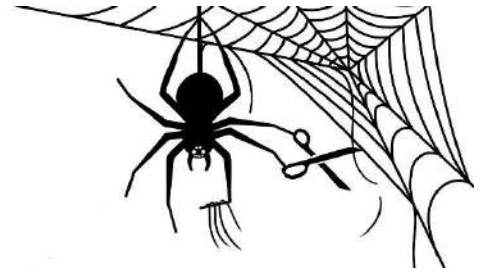
Sometimes it seems like I know a lot, but in many cases, I get help from other Spider Club members; some on Facebook, and others via email. Some are from overseas, with a strong interest in and knowledge of Southern African spiders, some are on iNaturalist, and others are local but not on Facebook, such as Ansie Dippenaar-Schoeman and Charles Haddad, who are always happy to help. With the help from people more knowledgeable than me, as well as from our committee members, admins, moderators, etc., I feel confident in leading the Spider Club for many years.

Thank you to all of you.

May all of our members and readers have a wonderful festive season, and may 2023 bring you all good fortune, and beautiful spiders!

- Rudi Steenkamp -

Snippets



New webmaster

Desiré Pelser has resigned as our “webmaster” (she never liked that word, and preferred to be called “website person” or “web designer”). It’s a sad loss, but she agreed to stay on the committee and offer any other help she can. Fortunately, we still had our previous webmaster, Jèan-Pierre Schutte, on the committee, and he agreed to take over the role. Thank you, JP, and thank you, Desiré, for all the hard work you’ve done on the website and constantly updating and maintaining it.

Green jellybean spider mystery solved?



A green jellybean spider from Vernon Crookes Nature Reserve. Photo: Rudi Steenkamp.

The spider we used to call the green jellybean theridiid (genera like *Meotipa* and *Chrysso* were suggested) is most likely not a theridiid at all, but rather a synotaxid. Ansie Dippenaar-Schoeman consulted an article by Ingi Agnarsson (2003), and noticed some striking similarities, not only regarding the spider’s morphology, but also their characteristic egg sac, which Ansie refers to as a “bird nest egg sac” (see upcoming SANSA

Newsletter 44). While *Synotaxus* was suggested, Charles Griswold mentioned that *Synotaxus* spp. have a characteristic “chicken wire web”, which has been absent in all the South African specimens observed. Rather, they all seemed to have a few strands of silk underneath leaves, and the spiders were never observed in a web.

While there are still a few mysteries regarding these spiders, at least we seem to be getting closer to a conclusion. Some mature specimens have been collected, which will help to eventually describe these spiders. If Synotaxidae, it will be the first record of these spiders in Africa.

No more *Deinopsis* spp. in Africa



Asianopsis sp., previously *Deinopsis* sp. Photo: Andrea Sander.

In a recent article by Chamberland *et al.* (2022)¹, all our African *Deinopsis* spp. (ogre-faced net-casting spiders) were moved to *Asianopsis*. This includes our four recorded species (*A. anchietae*, *A. aspectans*, *A. cornigera*, and *A. cylindrica*). The genus *Asianopsis* was created by Lin *et al.* (2020)² and now includes all the “ogre-faced”

¹ Chamberland, L., Agnarsson, I., Quayle, I. L., Ruddy, T., Starrett, J. & Bond, J. E. (2022). Biogeography and eye size evolution of the ogre-faced spiders. *Scientific Reports* 12(17769): 1-15. [doi:10.1038/s41598-022-22157-5](https://doi.org/10.1038/s41598-022-22157-5)

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² Lin, Y., Shao, L., Hänggi, A., Caleb, J.T.D., Koh, J.K.H. Jäger, P. & Li, S. (2020). *Asianopsis* gen. nov., a new genus of the spider family Deinopidae from Asia. *ZooKeys*, 911: 67-99.

deinopids from Africa, Australia, Asia, and the South Pacific, as well as a few from Central America. Apart from some morphological differences between *Asianopis* and *Deinopis*, molecular data found that the species in the Eastern Hemisphere have more in common with the smaller-eyed *Menneus* spp. from South Africa than with the *Deinopis* spp. from the Western Hemisphere. Blest *et al.* (2017)³ also suggested that *Menneus* posterior median eyes (PMEs) were possibly an ancestral form of the enlarged *Deinopis* PMEs.

Brancus species no more



Vicirionessa mustela. Photo: Rudi Steenkamp.

In a recent revision of 105 species of jumping spiders from the Ivory Coast by Wesolowska and Russell-Smith (2022)⁴, found by J-C Ledoux in 1974 to 1975, three new genera were created: *Pulcherula*, *Sphericula*, and *Vicirionessa*. This revision affects two of our species, both in the genus *Brancus*. *Brancus mustelus* was moved to *Vicirionessa mustela*, and *Brancus muticus* was moved to *Thyene mutica*. The genera *Pulcherula* and *Sphericula* are monotypic and contain only one species, while *Vicirionessa* contains 12 species.

Bolas spider “bounces” and “spins” to spread pheromones to attract moths



Cladomelea akermani. Photo: Suncana Bradley.

A recent study by Diaz and Roff (2022)⁵ found that the grassland bolas spider (*Cladomelea akermani*; Araneidae) uses “bouncing” and “spinning” to spread the pheromones on their “bolas” thread farther. These spiders use species-specific pheromones to attract male moths at night, which they then catch in flight by swinging a bolas (a silk thread with glue droplets, often only one drop at the end). Diaz and Roff (2022) found through a computational fluid dynamics model of airflow that in addition to spinning the bolas to distribute pheromones, the spider also sometimes bounces its legs, which “creates areas of low pressure which forces the pheromones around to move away from the spider. This effect, similar to a rotating baseball, except that now occurs in both directions as the spider alternates, is known as the Magnus effect” (Diaz & Roff, 2022). The bouncing movement also increases the speed of the bolas’ swing. They also found that this behaviour is not as effective in a tree as opposed to in the open field, because it does little to affect the natural airflow. This explains the reason why bolas spiders found in trees often do not spin and bounce.

³ Blest, A.D., Williams, D.S. & Kao, L. (1980). The posterior median eyes of the deinopid spider *Menneus*. *Cell and Tissue Research*, 211: 391-403.

⁴ Wesolowska, W. & Russell-Smith, A. (2022). Jumping spiders from Ivory Coast collected by J.-C. Ledoux (Araneae,

Salticidae). *European Journal of Taxonomy*, 841: 1-143. doi:10.5852/ejt.2022.841.1943

⁵ Diaz, C. Jr. & Roff, J. (2022). Mechanics of the prey capture technique of the South African grassland bolas spider, *Cladomelea akermani*. *Insects*, 13(12): 1118.

Possible use of spider silk in the pharmaceutical industry

Stefan Grip from the Swedish University of Agricultural Sciences recently sent us this email:

“As you mention I haven’t been working with spider silk since my dissertation 14 years ago (can’t believe how many years gone by) and I’m not up to speed, but as you know an investor came into the project quite early to commercialize. You can say that the research now is divided into two groups. Anna is involved in more academic research and another group is affiliated to the company Spiber Technologies (<https://spiber.se/>) where the lead researcher is My Hedhammar. They have a lot of interesting and quite recent publications (<https://spiber.se/publications/>), for instance in Nature Communications <https://doi.org/10.1038/s41467-021-27464-5>.

As I understand the company’s research is that they have two focus areas – Spiber biomaterials and a product called Spiber SolvNT.

What we early realised, even during my time in the project, was that mammalian cells grow very well on artificial spider silk. Therefore you can cultivate difficult cells grown on spider silk. What the project also has focused on is to functionalize the silk even further by changing the amino acids in the protein through genetic manipulation in vitro. In this way you can target what cells you want to optimize for growth.

One huge aim for the project is treating diabetes by cultivating Langerhans islets cells (Beta cells) that produce insulin. The goal is to make insulin-producing beta cells form islets in the petri dish grown on functionalized spider silk, and then be transplanted into the patient.

The SolvNT-product is based on the spider silk N-terminal domain that was first documented through Annas and my initial research. The N-terminal is thought to be important to keep the spider silk protein in solution despite high concentrations within the gland of the spider. Therefore the idea for SolvNT's area of usage is

to facilitate protein production within the pharmaceutical industry when producing recombinant proteins that easily aggregate and is difficult to keep in high concentrations.

I don’t believe there is a commercial production yet and the company isn’t earning any money but nowadays they have a lot of interested early investors.”

All You Need to Know About Spiders book



A new book on spiders, titled “All You Need to Know About Spiders”, by Nentwig, Ansorg, Bolzern, Frick, Ganske, Hänggi, Kropf, and Stäubli, is available. The book is written by scientists, but is aimed at the common public,

specifically people who want to learn more about spiders. It can be purchased as an ebook or hard copy for about R400 at <https://link.springer.com/book/10.1007/978-3-030-90881-2>. Hopefully someone will purchase the book so that we can review it for a future newsletter.

Peter Weygoldt obituary

As many of you know, Peter Weygoldt, a respected zoologist, passed away last year at the age of 88. While he worked on several taxa, in the field of arachnology he will be remembered for his work on Amblypygi (tailless whip scorpions) and Pseudoscorpiones (false/book scorpions), as well as some work on Uropygi/Thelyphonida (whip spiders). The International Society for Arachnology (ISA) recently circulated a detailed obituary for Peter, beautifully written by Gabriele Uhl (see page 8).

Obituary for Peter Weygoldt

24.04.1933 – 23.10.2021



Peter Weygoldt, in his garden in Münstertal, June 2020.
Photo: Sylvia Weygoldt

Peter Johann Hennig Weygoldt was born in Wilhelmshaven as the son of Hanna Weygoldt, née Wienholz and Walter Weygoldt. He was moved around a lot in the early years of his life - from Bremen, to Berlin, Brandenburg, Kolberg and back to Bremen. He attended elementary schools in Kiel and Berlin, and from 1943-1945 he attended several secondary schools in Neubrandenburg and also in Kolberg (now Poland), where he lived with his mother and sister on a farm with relatives. He changed schools more than ten times. The many moves had to do with the fact that his father took up a career in the military. He was a major of the general staff in the air force, became a lieutenant colonel in 1939 and was killed in action in Riga in September 1943 during the Second World War. His mother fled from Kolberg to Bremen-St. Magnus with Peter and his sister, who was three years younger. In Bremen-Vegesack, Peter passed the Abitur at

the Gerhard-Rohlf-Gymnasium on 09 February 1952 with a grade of very good in biology.

As a child, Peter was already very interested in animals. He often caught animals to keep and observe in terraria and aquaria and later set them free again. For instance, he kept and observed crickets, beetles, newts and adders. His first publication on the keeping and breeding of freshwater shrimps in aquaria dates back to his time at high school. Peter was out and about by bicycle a lot, searching roadside ditches and pond banks and turning over stones and tree trunks. He was a young ranger and initially planned to become a forester. He was advised against this because he did not have the money for a moped, which would have been needed for the training. His mother worked as a physical therapist in Bremen, and her financial means were limited. She nevertheless wanted to give her children a good education. Peter started studying biology at the Christian Albrechts University in Kiel in 1952, partly because he could live there with his aunt. Unable to afford the fare, Peter cycled all the way from Kiel to Bremen (over 200 kms) to visit his mother and sister.

In the course of his 6-year studies, Peter also studied for a year at the Albert Ludwig University in Freiburg, where he was inspired by the behavioural scientist and founder of the journal *Ethology*, Otto Köhler, and also got to know the limnologist Dr. Hans-Joachim Elster. Elster had headed the initially private hydrobiological station in Falkau in the Black Forest since 1948. He offered limnological courses for the University of Freiburg, as well as excursions to various Black Forest lakes, which Peter enjoyed taking part in. On one occasion, Peter explored the lakes Windgefällweiher and Schluchsee by jumping in from a boat with diving goggles with Peter Götz, who later became a professor for zoology in Berlin. The two shared a long-life friendship. Back in Kiel, he worked on developmental processes in

crustaceans under August Remane and Rolf Siewing. On 19.02.1958 he passed the oral doctoral examination and received a very good (Opus valde laudabils) for the dissertation. He wrote his dissertation on the subject of "The embryonic development of the amphipod *Gammarus pulex pulex* (L)". His experience in rearing animals in terraria and aquaria and his patient powers of observation were certainly an advantage and also shaped his interest in developmental biology, reproductive biology and behavioural research.

After his doctoral studies, he was then offered a position as a research assistant within the frame of a DFG project by Prof. Rolf Siewing. Peter took up this position on 01.06.1957. At that time, by the way, one received a salary of 500 DM for such a staff position. In April 1960, he moved back to southern Germany, where he worked at the Institute for Lake Constance Research, probably arranged by or supervised by Elster. His task was pure literature work, which he did not like very much. In the meantime, Prof. Werner Ulrich of the Free University of Berlin had become aware of Peter and offered him an assistantship. Peter happily moved to Berlin where he worked from 1 November 1960 to October 1965 as a research assistant at the chair of Prof. W. Ulrich, the founder of the archicoelomata theory. Peter habilitated on 14 February 1964 on "Comparative embryological studies on pseudoscorpions (Chelonethi)". He collected the pseudoscorpions, for instance, on the dunes of the North Sea, on islands in the Baltic Sea and on site in the bee house of the FU Berlin. Publications from the time in Berlin show the variety of topics Peter worked on: developmental biology and neurobiology of ostracods, isopods and "higher" crustaceans as well as comparative studies of developmental biological processes in arthropods. He placed the latter in a phylogenetic context. This diversity and also the interest in phylogenetic observation permeates Peter's work.

Peter was seeking an opportunity to go abroad and was invited to the Duke University Marine Laboratory in Beaufort, North Carolina. In the meanwhile, however, Peter had met Prof. Bernhard Hassenstein, who was offered a chair at Freiburg University in 1960 as Otto Köhler's

successor. Hassenstein supported Peter, and so he was offered a permanent position in Freiburg. Peter was now in a dilemma of a very particular kind. He had to choose between a permanent position in Freiburg and a longer research stay at the Duke Marine Laboratory. The solution was unusual. He went to Beaufort and the position in Freiburg was reserved for him for the course of two years.

Peter did research in Beaufort from October 1965 to April 1967 as a research associate with John DeForest Costlow on the development of crustaceans. Costlow was particularly interested in developmental biology and ecotoxicology, which he investigated mainly on crustaceans (shrimps, swimming crabs, barnacles) and bryozoans. Peter was to advance the histological study of the development and metamorphosis of crab larvae there, and was particularly concerned with neurosecretion. The latter, as he wrote in a letter, does not seem to have worked out well, so he worked on a skin gland, the Y-organ, and other organ systems of crustaceans, and continued to work on pseudoscorpions. To search for pseudoscorpions, he used lunch breaks and, on days off, caught pseudoscorpions on the small islands off the coast of North Carolina, in the dunes and under bark in the pine forests. While searching for pseudoscorpions on a collecting trip to Florida, he then came across his first amblypygid and collected several specimens to observe their mating behaviour and development. At that time, very little was known about the taxonomy, systematics and behaviour of amblypygids, and it appealed to him to learn more about these strange animals and to make a comparison with the pseudoscorpions. The excursion to the amblypygids was supposed to be just a side project, but in the following years it increasingly became a central topic of his research. In addition to his work on crustaceans, pseudoscorpions and amblypygids, he also caught and observed *Anolis*, garter snakes and scarlet king snakes during his time in Beaufort - typical of his great interest in the diversity of forms of life. Later, he always liked to tell how to distinguish king snakes from the almost identically coloured

poisonous coral snakes: by the colour sequence and not just by the bite.

Beaufort was also a pivotal place in Peter Weygoldt's private life. He was well known in the small coastal town, not only because he came from Germany, but also because he could be spotted in all sorts of impossible places, crouching in the ditch, for example, looking for something whose significance one could not imagine. In 1966, Sylvia Möhring was staying with her parents in Beaufort and the two got in touch. Just two months later they were married. Sylvia's interest in wildlife was an important bonding element for the two during their 55-year marriage. Sylvia shared his enthusiasm and joined him on many collecting trips. On their first trip together, their honeymoon, they drove to Florida and then across the West Coast to Washington State. In Florida, of course, they also collected, this time amblypygids. The precious animals were cared for in the hotel room, but unfortunately, they died in a very cold night at the Grand Canyon.

Before moving to Freiburg, a research stay at the Friday Harbour Laboratories of the University of Washington in Seattle was added from May to September 1967. There Peter continued his research on the development of crustaceans and the biology of pseudoscorpions and taught on the embryology of invertebrates. From September 1967, he moved to the senior assistant position held for him at the Biological Institute I (Zoology) of the University of Freiburg. On 21.12.1978 he was appointed associate professor.

During his time in Freiburg, he devoted himself intensively to amblypygids. Due to the fact that his wife's parents owned land in Brazil, he was able to extend his research on this group of animals to South America. On his very first journey, he found animals of two undescribed species. In his descriptions of species, he did not limit himself to morphological descriptions on fixed material, he tried to bring animals home alive and to observe and describe their reproductive behaviour in lovingly equipped terrariums. He had an unusually good knack for understanding the needs of the animals and they reproduced well. He was able to discover features that were previously unknown, for

example the complex and species-specific characteristics of the spermatophores deposited on the ground. Later, he wrote a review article on sperm transfer in arachnids, still an important reference today.

Also, in Brazil, Peter came into contact with the diversity of neotropical frog species. He spent many nights recording their calls and catching animals, which he brought back to Freiburg. There he then converted the terraria used for amblypygids into tropical-looking terraria for *Dendrobates*, *Phylomedusa* and *Pipa* frog species and, especially in the 1980s and early 1990s, worked almost exclusively on the reproductive biology of frogs. Visitors who did not know his predilection asked if there were songbirds in the house, because the calls of the tropical frogs resounded up from the lower floor into the living room like delicate birdsong. The works on tropical frogs are very beautiful studies of the behavioural ecology of these interesting animals. He also addressed environmental protection and environmental change, among others with his article on frogs as indicators of environmental degradation in Brazil.

During his time in Freiburg, in addition to more specific work on amblypygids, uropygids and tropical frogs, Peter published a number of papers that attracted worldwide attention and are still widely cited today. These are above all the works on "Morphology, Taxonomy and Phylogeny of the Chelicerata" (in co-authorship with Hannes Paulus) and on the "Embryology and Phylogeny of the Arthropoda". These works are increasingly cited again today in the frame of the discussion on the relationships between the chelicerate groups, e.g. whether the Xiphosura are the sister group of all other arachnids or whether they evolved within the arachnids.

After his retirement in September 1995, Peter turned his attention back to amblypygids in order to clarify some open questions related to the taxonomy and systematics of the animals. His last paper was published in 2013 - not on amblypygids, however, but on sperm transfer and maternal brood care in uropygids - in co-authorship with Siegfried Huber.

His research trips, which he undertook mainly in the frame of his amblypygid research, took him not only to Brazil, but also to Panama and Costa Rica, Kenya, Namibia, South Africa, and São Tomé, Seychelles, New Caledonia, Oman (Fig 1.) and Saudi Arabia. He meticulously prepared his trips and often started planning and contacting local zoologists more than a year before the trip. His wife Sylvia accompanied him on almost all his trips and helped him with the collecting, especially when their four children were a bit more independent. Sometimes one of their children also joined to help. The whip spiders were tracked down at night by the light of a torch - in hollow trees, in narrow caves, and on Rhodes even in the urban catacombs. Peter used only his hand and a cloth handkerchief to catch them. The hand-catching method was efficient because it allowed one to get into crevices that would not have been easily reached with a catching jar. Also, the first pair of legs of the whip spiders are so long that catching them by hand minimised the risk of injury to the animals. He also commented on the use of the handkerchief compared to the bare hand, saying that with the handkerchief the pedipalpal spines of the animals did not hurt quite as much. His wife Sylvia, who was also with him on the trip to Oman when Peter's mobility was already limited, crawled into the narrowest bat caves on a rope to catch the fast animals with her bare hand.

Peter Weygoldt was a modest person who usually kept a low profile in larger scientific discussions at the institute or during conferences. He also liked to avoid discussions in large groups. In conversation in smaller groups, however, he showed his well-founded knowledge and his lively interest in very different biological phenomena. Because of his reticence, he seems somewhat pale next to the full professors at the Freiburg Institute of Zoology Osche, Hassenstein and Sander. However, the international reputation of his thorough work was great and his work was groundbreaking. Much of what Peter researched is still "state of the art" today. For example, if someone is interested in pseudoscorpions or amblypygids, it is strongly recommended to read the respective books on the biology of the animal group by Weygoldt

(Biology of Pseudoscorpions, Harvard University Press 1969; Whip Spiders: Apollo Books 2000). He published in English as early as 1966. That was not at all self-evident at that time. Through his publications on the reproductive biology of the various animal groups, Peter inspired many young researchers worldwide, whether in the field of taxonomy, systematics, behavioural biology or phylogenetics. In 2013, Peter received the Simon Award of the International Society of Arachnology (ISA) for his life's work and was already accepted as an honorary member of the ISA in 2004 in the frame of the ISA meeting in Ghent.

Peter maintained a clearly regulated working day. In the mornings he was in his office at the institute, took care of the amblypygids that were kept in a small room right next to his office, gave lectures on the morphology and evolution of invertebrates, attended to organisational matters at the institute and went home again at about 11:30 a.m. where, after lunch and a nap, the research work began. Shortly after taking up the post in Freiburg, the family had bought a house in the beautiful Münstertal near Staufen with a very large plot of land. With much love, Peter and Sylvia laid out the large garden, that entailed a wooded area and several ponds. His large study on the lower floor led directly into the garden through a glass door. In this room were his desk and the many wonderfully furnished terrariums where he made the most amazing observations. It was a researcher's and thinker's room as one could only wish for.

In recent years, he could no longer deal with the animals because of a neuropathy that gradually worsened his condition and in about 2013 he gave up research. At first, he was still able to take care of the garden, but this became less and less possible. However, he always enjoyed sitting in the garden with his wife Sylvia when the weather was nice, watching animals and telling about the many changes in the garden over the years.

Peter died peacefully at his home at the age of 88 in the presence of his wife Sylvia. He leaves behind two daughters, two sons and eleven grandchildren, some of whom live nearby and

went in and out of the grandparents' home. He passed on his knowledge on natural history to his children and grandchildren, for example on how ant states are built, how to get field crickets out of their burrows with blades of grass or how to find sand crabs on the Pacific beach. His enthusiasm for wildlife lives on in his children and grandchildren and in the many scientists he inspired.

I myself got to know Peter - at that time of course still Prof. Weygoldt for me - as a lecturer in the large-scale practical course in zoology in Freiburg. In my diploma thesis and later also my doctoral thesis, I worked on mating strategies and sexual selection in spiders. I really enjoyed the independence that was possible in his group. If questions arose, he was there and gave it some thought - but he never pushed me to do anything. When it came to writing the first manuscripts, he helpfully commented on my texts and introduced me to the unwritten laws of publishing. He always took an interest in my postdoctoral period with its many changes of location and uncertain prospects until I became a permanent professor in Greifswald. And he

always took an interest in my growing family. His quiet support from afar did me good and encouraged me on my way. I am very grateful for that.

Gabriele Uhl, Greifswald

An appreciation of Peter Weygoldt's work with a list of publications can be found in the special volume of *Zoologischer Anzeiger* 273, where, in addition to an editorial, 22 original works can be found that relate to or were inspired by Peter Weygoldt's work.

<https://www.sciencedirect.com/journal/zoologischer-anzeiger/vol/273/suppl/C>

This is the translated text of the obituary (slightly edited) that was published by G. Uhl in German in the *Mitteilungen der Deutschen Zoologischen Gesellschaft: Zoologie* 2022

<https://www.dzge.de/publikationen/mitteilungen/>

Observations



Kathleen Havenga posted this stunning little artwork on Facebook:

You have to love my washline spiders' web designs! Everyday something new. 😊 It's a small all over greyish shy spider, was told it's an Australian House Spider. I have a few of them. 😊 Location Mossel Bay, WC.



Bruce Blake often photographs *Phoroncidia* spp. (mushroom comb-footed spiders) in his garden at his house in Amanzimtoti, KwaZulu-Natal, and has also won fifth place in the most recent Spider of the Month with a photo of one.

He also posted this photo of one with her egg sac, which bears a striking resemblance to a lacewing egg stalk. However, he said that they're bigger than lacewing eggs, with the "sphere about 2 mm and stalks anything from 10 - 20 mm".

Lacewings lay their eggs on stalks like this to keep the eggs safe from insects like ants that want to eat the eggs. This might be the same reason for these *Phoroncidia* spp. to do this.

It has long been known that the Australian grey house spider (*Badumna longinqua*; Desidae) has been spreading to the interior of South Africa. They have for many years been very common in the Cape coastal areas, but have been spotted in non-coastal areas as well, such as at a nursery in Bloemfontein, Free State. Here are a few other observations posted by members on the Facebook group.



Vanwyksdorp (Western Cape).
Photo: Marietjie Troxler



Polokwane (Limpopo).
Photo: Junior Janse van Vuuren



Gauteng.
Photo: Louwrens Aucamp

A rather interesting variation of a trashline orb weaver (*Cyclosa* sp.; Araneidae), posted by Este Blundell, somewhere in KwaZulu-Natal:





William Maliepaard photographed this hermit spider (*Nephilingis cruentata*; Araneidae) that caught a gecko. Photographed in Kosi Bay Nature Reserve. His post reads:

Ok, here some of my local hermit spider residents on my veranda who love the insects the lights attract at night... have about four of them currently and often have to relocate as their webs start getting a bit

hectic making walking outside a sticky adventure... This happened right behind me sitting there having my coffee yesterday morning and only discovered it when getting up for my second Americano... Not sure how Gecko got caught up but might have fallen off the wall... very unusual?

Here are two male “speckled” crowned lynx spiders (*Hamataliwa* sp.; Oxyopidae) posted on iNaturalist, both from KwaZulu-Natal. This is certainly one of the many undescribed species. The top two photos were posted by Mahomed Desai from Durban, and the bottom three photos by Corlien van Jaarsveld from Mthunzini.



Penni Warnke found two common daddy longlegs spiders (*Smeringopus* sp.; Pholcidae) at Mabalingwe, near Bela Bela in Limpopo, each with a small baboon spider (Harpactirinae) wrapped up in silk.

Pholcids are known to often catch other spiders because they have the advantage of using their very long legs to keep any defensive bites at bay while wrapping their prey, but the stark contrast of one of the scrawniest spiders feeding on one of the bulkiest spiders is quite impressive.



Kam-Yung Soh uploaded this photo on Facebook (on the Entomology group) of a predatory ribbon worm (*Geonemertes* sp.) feeding on a grass lynx spider (*Oxyopes* sp.). Spotted in Singapore, Malaysia.



Spider Walks

Western Cape:

Klipkoppies Nature Reserve, Malmesbury – 15 October 2022

By Nerine Schaper, Jillian Davis, and Cecile Roux



Attendees searching the fynbos at Klipkoppies Nature Reserve. Photo: Janet Pretorius.

The day started early at the Klipkoppies Nature Reserve. Wessel Pretorius gave us tips on methods used in the field to look for spiders and demonstrated them to us. The day was off to a good start; there were already so many spiders and we had barely moved from the parking area. There were also community nests in the close vicinity and within moments our hunting began.

The group stuck close together, with Wessel finding and identifying many spiders at the start. Once we all had our bearings, each person started to look around. The day was filled with excitement for us novices. With every spider found, we ran to Wessel for confirmation of an ID or an ID where we were not sure.

As the day progressed, we had some exciting finds. The ones that were the most exciting were the white *Latrodectus* and a trapdoor spider. You could see the excitement every time in Wessel's reaction when we found something exciting. But I have never seen anyone get so excited about those two finds. Everyone had so much fun.

Around midday our tummies were growling but we weren't ready to quit. We went off to get a bite to eat and quickly came back to continue the search. We found a few arid rain spiders (*Parapalystes*) in the afternoon and a grass snake. There were many other beautiful sights, not just spiders.

The group was really awesome. I think we had a great bunch of people. Cecile and Wessel were so amazing. We left late afternoon after 3 pm; hesitantly, but the rain was moving in. Apart from a windscreen wiper failure and a hair-raising trip home in the rain, it was a magnificent day.

Cannot wait to do it again soon.

- Nerine Schaper -



Wessel showing attendees an abandoned *Stegodyphus dumicola* nest.
Photo: Janet Pretorius.

including some females who clung tightly to their egg sacs (Lycosidae and Pholcidae), and several unusual and unique finds that really made the day worthwhile for our experts and the novices in the group.

- Jillian Davis -

Thank you Wessel Pretorius, Nerine Schaper, Cecile Roux, and Jarrod Todd for organising an exciting day and for discovering such a wide variety of spiders, some very unique, on my first spider walk. I'm hooked and am looking forward to the next Western Cape Spider Walk. Wessel's wonderful arachnid enthusiasm is totally addictive. I discovered that most spiders in the field are small, with a leg span of around 1 cm or less. Wessel demonstrated three techniques of finding spiders: shaking a plant, digging in the ground near plants and rocks, and how the specialists use a special sieve to sift leaf litter. Our group was a mix of shaking the plants and, especially Wessel, digging and chasing spiders on the ground.

We started off looking at a communal spider nest of *Stegodyphus dumicola* and later found several species of the same spider that lived independently in the same shrub (*Cyrtophora citricola*). An amazing variety of different spiders were found,



I enjoyed the Western Cape spider walk to the point of being sore and stiff the next day. It was wonderful to crawl about with fellow enthusiasts! I did not take nearly as many photos as I usually do; I guess I looked at the other cameras, was happy that the spiders would get photographed, leaving me free to scratch about under stones and shrubs, the part I love most. I was happy to see a *Heriaeus*, got closer to take a pic, and was photobombed by a lycosid!

- Cecile Roux -

Species list

FAMILY	GENUS/SPECIES
Agelenidae	Unknown
Amaurobiidae	<i>Chresiona</i> sp.
Araneidae	<i>Argiope trifasciata</i> <i>Cyclosa insulana</i> <i>Cyclosa</i> sp. <i>Cyrtophora citricola</i> <i>Neoscona</i> sp.
Clubionidae	<i>Clubiona</i> sp.
Dictynidae	cf. <i>Mashimo</i> sp.
Drymusidae	<i>Izithunzi</i> sp.
Eresidae	<i>Stegodyphus dumicola</i>
Gnaphosidae	<i>Amoxenus</i> sp. <i>Aphantaulex</i> sp. <i>Asemesthes</i> sp. <i>Megamyrmaekion</i> sp. Unknown. <i>Xerophaeus</i> sp. <i>Zelotes</i> sp.
Linyphiidae	<i>Microlinyphia sterilis</i> Unknown
Lycosidae	<i>Proevippa</i> sp. Unknown
Oonopidae	Unknown
Oxyopidae	<i>Hamataliwa</i> cf. <i>kulczynskii</i> <i>Oxyopes</i> sp.
Palpimanidae	<i>Palpimanus</i> sp.
Philodromidae	<i>Thanatus</i> sp. <i>Tibellus</i> sp.
Pholcidae	Unknown
Phyxelididae	cf. <i>Vidole</i> sp.
Pisauridae	<i>Cispus</i> sp. <i>Rothus</i> sp.
Prodidomidae	<i>Theuma</i> sp.
Salticidae	<i>Evarcha denticulata</i> <i>Evarcha</i> sp. <i>Heliophanus</i> sp. <i>Menemerus</i> cf. <i>zimbabwensis</i> <i>Pellenes tharinae</i> <i>Pseudicius</i> sp. <i>Thyene thyenoides</i>
Scytodidae	<i>Scytodes</i> sp.
Segestriidae	<i>Ariadna</i> sp.
Sparassidae	<i>Parapalystes</i> cf. <i>lycosinus</i> <i>Parapalystes</i> sp.
Tetragnathidae	<i>Leucauge</i> sp.
Theridiidae	cf. <i>Achaearanea</i> sp. <i>Latrodectus</i> cf. <i>pallidus</i> <i>Steatoda capensis</i> <i>Steatoda</i> sp. <i>Theridion</i> sp. Unknown
Thomisidae	<i>Heriaeus</i> sp. <i>Synema imitatrix</i> . <i>Thomisus</i> sp. <i>Xysticus</i> sp.
Trachelidae	<i>Afrocto</i> sp.
Trochanteriidae	<i>Platyoides</i> sp.
Uloboridae	<i>Uloborus</i> sp.
Zodariidae	<i>Diores</i> sp. <i>Systemoplacis</i> sp.

Spiders



Salticidae: (1) *Menemerus zimbabwensis*, (2) *Pellenes tharinae*; **Gnaphosidae:** (3) *Ammoxenus* sp., (4) *Asemesthes* sp., (5) *Megamyrmaekion* sp., (6) *Aphantaulax* sp.; **Theridiidae:** (7) *Latrodectus* cf. *pallidus*, (8-10) unknown (8 & 10 suspected to be *Theridion* spp. and 9 maybe *Achaearanea* sp.); **Oxyopidae:** (11) *Oxyopes* sp., (12) *Hamataliwa* cf. *kulczynskii*. Photos 1, 4, 5, 8, 9, 10, 11: Cecile Roux; Photos 2, 3, 6, 7, 12: Wessel Pretorius.



Thomisidae: (13) *Xysticus* sp., (14) cf. *Heriaeus* sp.; **Linyphiidae:** (15) Unknown sp., (16) *Microlinyphia sterilis*; **Other:** (17) Oonopidae, (18) *Palpimanus* sp., (19) *Diores* sp. Photos: Cecile Roux.

Gauteng:

ARC: Roodeplaat Campus – 16 October 2022

Only the species list and photos are available for this event.

Species list

FAMILY	GENUS/SPECIES
Agelenidae	Undetermined sp.
Araneidae	<i>Eriovixia excelsa</i> <i>Neoscona</i> sp.
Cheiracanthiidae	<i>Cheiracanthium</i> sp.
Clubionidae	<i>Clubiona</i> sp.
Eresidae	cf. <i>Dresserus</i> sp.
Gnaphosidae	<i>Zelotes</i> sp.
Lycosidae	cf. <i>Arctosa</i> sp. <i>Hogna</i> sp.
Oxyopidae	<i>Hamataliwa</i> cf. <i>rostrifrons</i> <i>Oxyopes</i> sp.
Pisauridae	<i>Cispius</i> sp. <i>Euprosthenopsis</i> sp. Undetermined sp.
Prodidomidae	cf. <i>Theuma</i> sp.
Phyxelididae	Undetermined sp.
Philodromidae	<i>Tibellus</i> sp.
Salticidae	<i>Heliophanus</i> sp. <i>Pignus simoni</i>
Selenopidae	<i>Anyphops</i> sp.
Sparassidae	<i>Palystes superciliosus</i>
Theraphosidae	<i>Brachionopus pretoriae</i>
Theridiidae	<i>Steatoda</i> sp. <i>Theridion</i> sp. cf. <i>Tidarren</i> sp.
Thomisidae	cf. <i>Misumenops</i> sp. <i>Oxytate argentooculata</i> <i>Synema</i> sp.
Uloboridae	<i>Uloborus plumipes</i>

Spiders



Oxyopidae: 1&2. Female and male *Oxyopes* sp.; 3. Crowned lynx spider (*Hamataliwa* cf. *rostrifrons*).
Thomisidae: 4. cf. *Misumenops* sp.; 5. *Synema* sp.; 6. *Oxytate argentooculata*. Photos: Jarrod Todd.



Pisauridae: 7. *Euprosthopsopsis* sp.; 8&9. Undetermined sp. 10. *Eriovixia excelsa* (Araneidae). 11. *Clubiona* sp. (Clubionidae). 12. cf. *Tidarren* sp. (Theridiidae). 13. cf. *Pseudicius* sp. (Salticidae). Photos: Jarrod Todd.

Mpumalanga:

Sterkspruit Nature Reserve – 23 October 2020

by Garrie Wright



Attendees pose in front of a waterfall in the Sterkspruit Nature Reserve.

The Joburgers (Astri and John Leroy, Jarrod Todd, and myself) decided to make a weekend of this spider walk and headed to Mpumalanga on Saturday afternoon. It was quite a challenging road trip as we encountered a number of storms and ultimately the treacherous roads that have developed in the province. It was definitely worth the trip though because the scenery that greeted us was just beautiful. Sterkspruit Nature Reserve is just a magical place to visit, with its beautiful rolling hills, a river, cliff faces and a waterfall.



Some nature scenes in Sterkspruit Nature Reserve. Photos: Garrie Wright.

After unpacking and settling in, we did what all of us arachnophiles tend to do and started lifting rocks, pavers, and looking under furniture and sweeping bushes and grass. I mean that's why we were there, right?

There was a little downpour as we were prepping our meals and eating, which I think was a blessing because as night fell, the floor was bustling with male spiders. Mostly front-eyed trapdoor spiders (Idiopidae), entypesids (burrowing mygalomorphs), and a couple of *Brachionopus* spp.

Vaughan Jessnitz (a local entomologist) decided to set up his light traps to attract moths and other insects. This was quite a treat as it attracted the most beautiful moths and insects. The spiders made the most of the gathering too. It was incredible learning from him not just because of his wealth of knowledge in Lepidoptery but also beetles (specifically dung beetles) and he is an incredible character too.

The following morning the excitement for the walk grew as the locals started arriving. The bakkie took us up to the starting point, which was a slight distance from our camp, Rooikat, and then we hiked to the waterfall. The landscape was very different to what he had experienced on the hillsides of Sterkspruit so far. It was well shaded and cool, although a little humid and quite mystical. We found a number of spiders that you would expect near water, such as Tetragnathidae (presumably *Metellina* sp.) and water wolf spiders (*Pirata* sp.; Lycosidae). For me, the find of the walk was the beetle crab spider (Mystaria sp.; Thomisidae) found by Fern Bain. Such a beautiful and vibrant little one!

Other arachnids found include:

- *Leucage auronotum* (silver marsh spider);
- *Mahemba hewitti* (orange grass orb-web spider);
- likely a *Maypaci* sp. (nursery web spider);
- *Neoscona* sp. juvenile (hairy field spider);
- a ctenid (tropical wolf/wandering spider); and
- *Cheloctonus intermedius* (intermediate creeper).

A huge thank you to Malcolm and Jonquil Bain for hosting us, to Jarrod Todd for organising such an amazing walk, and to Astri and John Leroy for taking us there and back. Sterkspruit Nature Reserve is certainly a little piece of heaven on earth and certainly a place I would return to.



Left: The bakkies that took attendees around Sterkspruit Nature Reserve. Photo: **Right:** Jarrod and Astri Leroy enjoying a stroll down the path. Photo: Vaughn Jessnitz.



Jarrod Todd in his element, and high in spirits as usual. Photos: Garrie Wright.

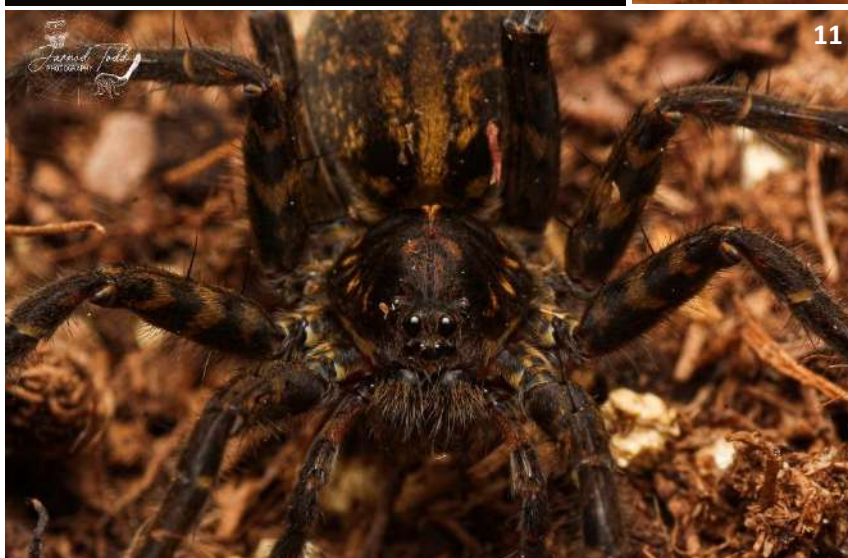
Species list

FAMILY	GENUS/SPECIES
Agelenidae	Undetermined sp.
Araneidae	<i>Mahemba hewitti</i> <i>Neoscona triangula</i> <i>Neoscona</i> sp.
Caponiidae	<i>Caponia</i> sp.
Cheiracanthiidae	<i>Cheiracanthium</i> sp.
Clubionidae	<i>Clubiona</i> sp.
Ctenidae	cf. <i>Anahita</i> sp.
Entypesidae	Undetermined sp.
Gnaphosidae	<i>Zelotes</i> sp.
Idiopidae	<i>Idiops</i> sp.
Lycosidae	<i>Arctosa</i> sp. cf. <i>Pirata</i> sp.
Oxyopidae	<i>Oxyopes</i> sp.
Palpimanidae	<i>Palpimanus</i> sp.
Philodromidae	<i>Philodromus</i> sp.
Phyxelididae	Undetermined sp.
Pisauridae	<i>Cispus</i> sp. <i>Euprosthropsis</i> sp. <i>Maypacius</i> sp.
Salticidae	<i>Heliophanus</i> sp.
Tetragnathidae	<i>Leucauge</i> sp. cf. <i>Metellina</i> sp.
Theraphosidae	<i>Brachionopus</i> sp.
Thomisidae	<i>Mystaria</i> sp.

Spiders



1. Wandering spider (cf. *Anahita* sp.; Ctenidae). 2. Baboon spider (*Brachionopus* sp.; Theraphosidae). 3. Trapdoor spider (Entypesidae). 4. Front-eyed trapdoor spider (*Idiops* sp.; Idiopidae). 5. Silver marsh spider (*Leucauge* sp.; Tetragnathidae). 6. Beetle crab spider (*Mystaria* sp.; Thomisidae). Photos: Jarrod Todd.



7&8. Male and female water orb-web spiders (cf. *Metellina* sp.; Tetragnathidae). **9.** Grass orb-web spider (*Mahemba hewitti*; Araneidae). **10.** Hackled orb-web spider (*Uloborus* sp.; Uloboridae). **11.** Wolf spider (Lycosidae). **12.** Nursery-web spider (*Maypacius* sp.; Pisauridae). Photos: Jarrod Todd.

North West:

Klipdrift Dam – 20 November 2022

by Benanta Smit



So I finally got to go on my first spider walk on the weekend of 19 and 20 November, and what an amazing weekend it was. The official walk was the Sunday but everyone started arriving on Saturday. What a nice bunch of people we were. Jannie and Joanie arranged a nice braai next to Klipdrift Dam, where we did a mini night walk. A few nice spiders were found just around the camp site. The official walk was on Sunday, 20 November. We all gathered at Charl's Chalet for a quick "sign in" and gathered vials and nets. The day started nicely when Joanie found a grass huntsman (*Pseudomicrommata longipes*) with her egg sac. We all gathered again at the pool. The young ones went for a quick swim while we all placed our finds on the table to see what the day delivered. Jarrod took some really nice photos of our finds, while Joanie took some photos of the rest of us. Overall, it was a very successful weekend of spidering.



Left: Paul van der Walt inspecting some spiders on a tree while other attendees observe. **Right:** Charl du Plessis searching the grass and bushes around Klipdrift Dam for spiders. Photos: Joanie Beytell.

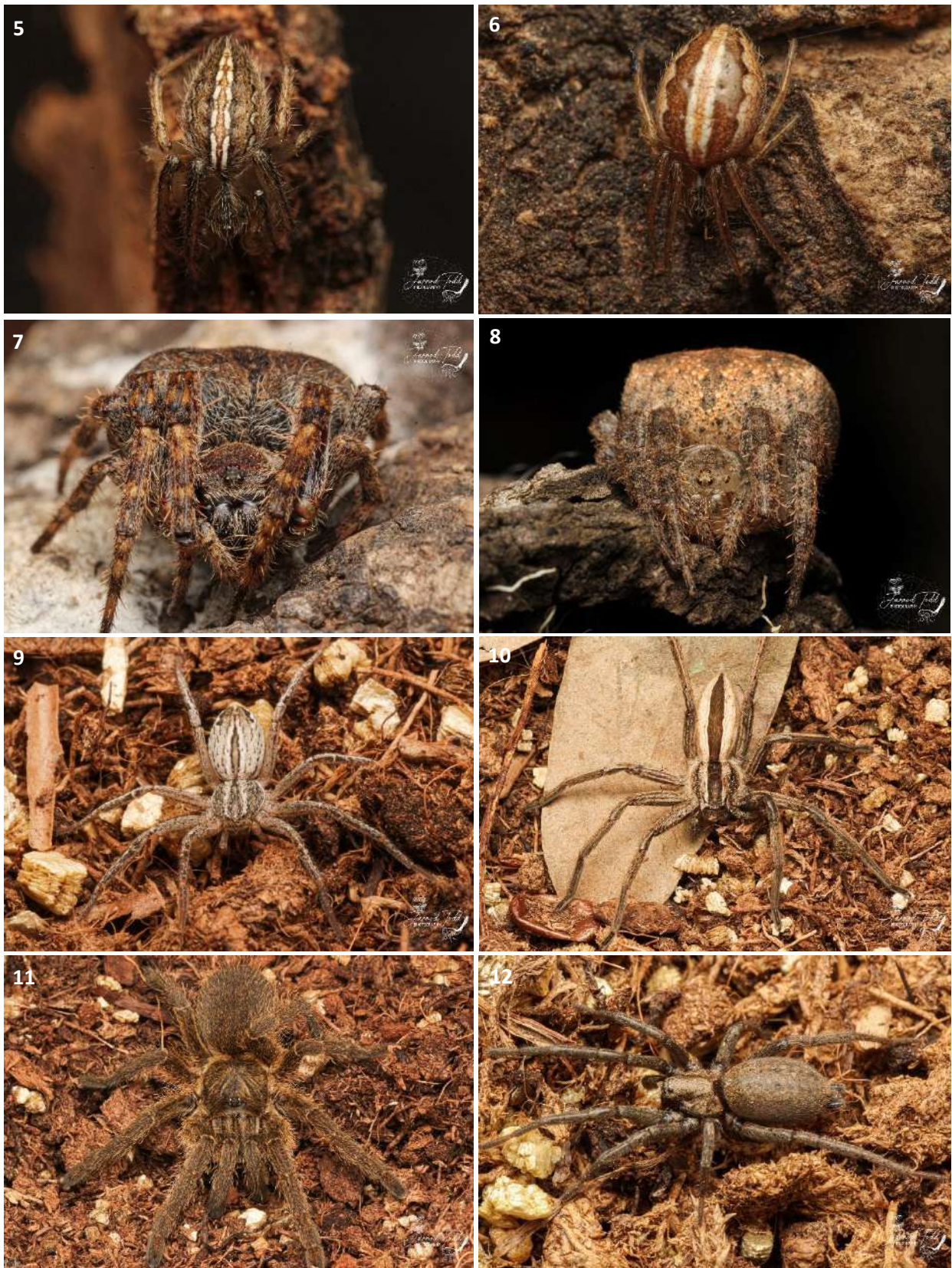


Top: Paul van der Walt's daughter, Lucy-Ann, looking over Klipdrift Dam. Photo: Paul van der Walt.
Bottom: At the sorting table, where the spiders that were found during the day were photographed and identified. Photos: Benanta Smit.

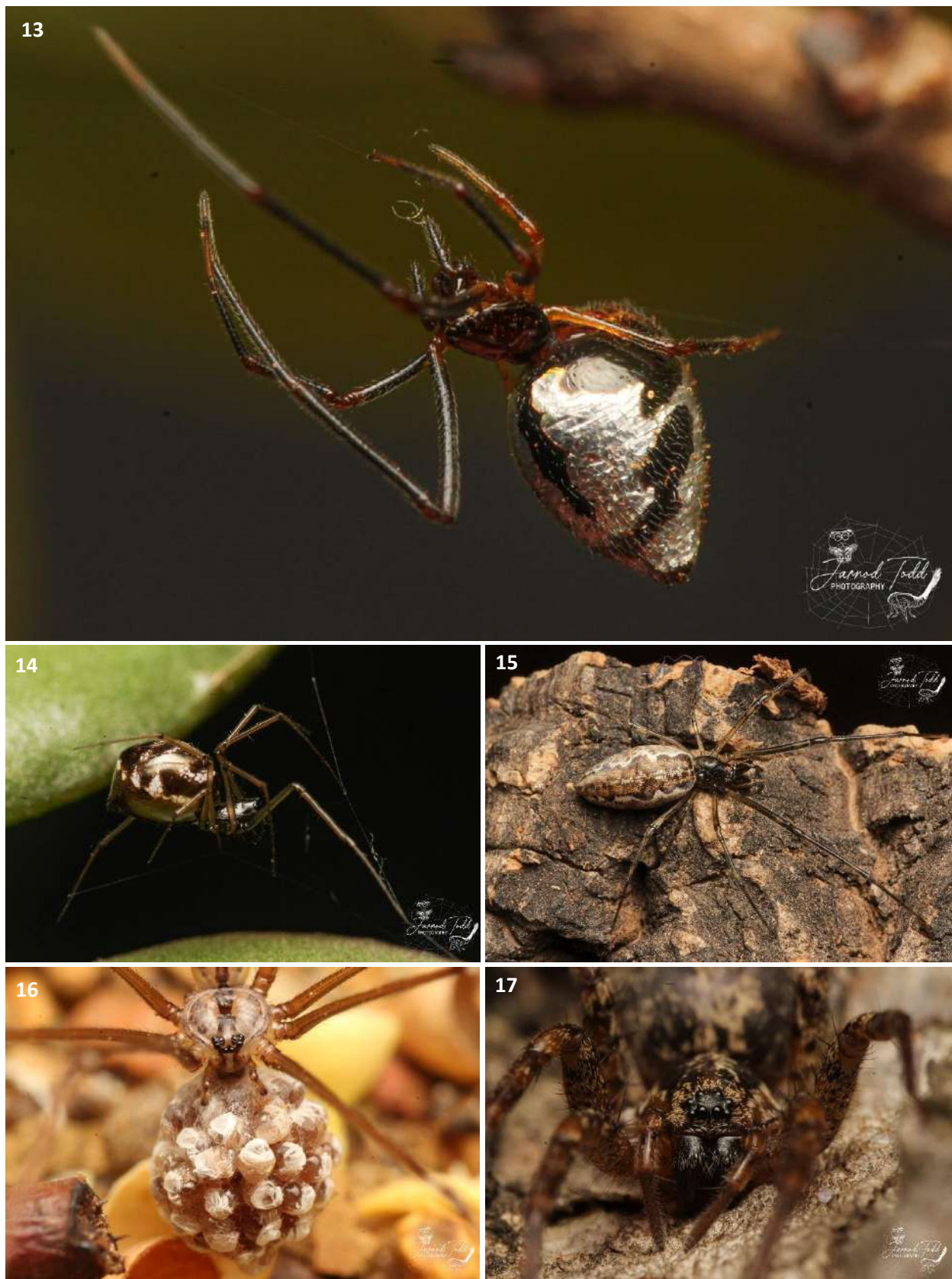
Spiders



Salticidae: (1) *Festucula* sp., (2&3) *Heliophanus* sp., (4) *Natta* sp., (5) *Pellenes* sp. Photos: Jarrod Todd.



Araneidae: (5&6) *Neoscona moreli*, (7) *Neoscona triangula*, (8) *Pararaneus* sp. **Other:** (9) *Thanatus* sp. (Philodromidae), (10) *Pseudomicrommata longipes* (Sparassidae), *Harpactira hamiltoni* (Theraphosidae), (12) cf. *Poecilochroa* sp. (Gnaphosidae). Photos: Jarrod Todd.



(13) *Argyroides argyroides* (Theridiidae), (14) *Microlinyphia sterilis* (Linyphiidae), (15) *Tetragnatha* sp. (Tetragnathidae), (16) *Smeringopus* sp. (Pholcidae), (17) *Copuetta* sp. (Corinnidae). Photos: Jarrod Todd.

Western Cape:

Global Village, Plettenberg Bay – 18 December 2022

by Vinia Zaayman (a.k.a. Lycan Paw)



A small stream running through Global Village in Plettenberg Bay.
Photo: Vinia Zaayman.

Believe it or not, but only three years ago I was terrified of spiders. I decided to learn more about them, since I didn't know which ones were a danger to me. And so, in my search for information, I was directed to The Spider Club of Southern Africa's Facebook page, which I have made my home. I was welcomed there, and have met some truly awesome people.

On 18 December, we had our very first spider walk, right here in my home town of Plettenberg Bay! My town has an abundance of spider life, and it didn't disappoint. It wasn't a very large gathering, only eight people in total, and we got soaked with rain, but I got to meet Jarrod from The Spider Club for the first time, so that was great. And I must say, what a lovely person! We learned a lot from him, and we found so many spiders in the short time we had, before we had to get out of the rain for fear of ruining his camera, and visibility was getting difficult too.

The terrain was a mix of indigenous trees, grasses, low-growing plants, and open "lawn", with a small stream running alongside all that. So we had a good choice of places to look for all different types of spiders. And oh boy, did we find a lot! Right in the parking lot we found a treasure trove of tropical tent-web spiders (*Cyrtophora citricola*). Every spiky succulent had at least three or more living in them! On those webs we also found some dewdrop spiders (*Argyrodes* sp.), which was a first for me to see. Being kleptoparasitic, they were using the tropical tent-web spiders' webs as their own.



More photos of the habitat at Global Village in Plettenberg Bay. Photos: Vinia Zaayman.

Another first for me was finding an *Araneus apricus* (green pea spider) but she went to hide too well for us to get photos of her. We also found a scorpion spider (*Platyoides* sp.), a long-jawed water orb weaver (*Tetragnatha* sp.), a fishing spider (*Nilus* sp.) spiderling, hairy field spiders (*Neoscona* spp.), some interesting Theridiidae, and a few very tiny orb weavers. There were quite a few saltis about as well, and one even jumped onto Jarrod's camera to hitch a ride. We only discovered the salti when he was trying to take a photo of a different spider, and the little salti was sitting where he needed to hold the camera to take the picture.

All in all, it was a very short, but very awesome day of finding spiders, and I can't wait to go to the next one in the area.

Spiders of the Northern Cape:

Raap en Skraap, Augrabies, Upington, and Brandvlei

by Cecile Roux



Top and bottom: The natural scenery and habitat at Raap en Skraap. Photos: Cecile Roux.



In June this year we did a lovely road trip up the N7, staying over at Raap en Skraap, Augrabies, a Kalahari farm north of Upington, and lastly Brandvlei. One would think that the veld would be quite lifeless, seeing that it was the cold, dry season. But these arid regions never fail to deliver. I love the spiders one finds in the dry western side of the country. They are well adapted to the scorching summers and freezing winters and most are beautifully camouflaged; disappearing against the dry grass, sand, and stone.

Raap en Skraap was a revelation. One leaves the N14 between Springbok and Upington and drives northwards, seemingly leaving civilization behind. After a long drive, one starts steeply descending into the Orange River valley, looking at the silent black koppies of Namibia in the distance. One of the most beautiful landscapes in the country, in my opinion. And suddenly

one is in the midst of a beehive of activity on a huge table grape and date farm! We spent one night there and I had the morning to explore the veld and koppies next to the guest cottage.

I stepped out on the dry sand between the yellow grasses, accompanied by two of the farm dogs, and it was no surprise that the first few spiders I saw were gnaphosids and a few *Peucetia* in the grass tufts. Closer to the koppie, the flatties (Selenopidae) showed themselves, along with *Thanatus*, and *Icius* and *Heliophanus* jumping spiders. Then a beauty showed up – a two-spotted palpimanid (*Diaphorocellus biplagiatus* – such a stunning and shy spider), followed by a lovely *Uroctea*.



Left: Two-spotted palp-footed spider (*Diaphorocellus biplagiatus*; Palpimanidae). **Right:** Desert round-headed spider (*Uroctea* sp.; Oecobiidae). Photos: Cecile Roux.

There were dictynids in the tall shrubs, hasty *Asemesthes* at my feet, and I found a beautifully marked *Arandisa* in her sand and silk retreat against a rock. I turned back and saw that the smaller dog was suddenly very interested in something under a slight overhang. I bent down to look and there was a huge six-eyed sand spider trying to get away from the dog. That was a spider with a presence! What a lovely find! Some other finds were beautiful palpimanids, *Scytodes*, and the inevitable *Smeringopus* here and there. Unfortunately we had to move on that afternoon, but I will go back, lured by the promise of one of the farm managers to take me beyond the koppies into unspoiled and mostly unexplored veld.



Left: Desert huntsman spider (*Arandisa* cf. *deserticola*; Sparassidae). **Right:** Six-eyed sand spider (*Hexophthalma* sp.; Sicariidae). Photos: Cecile Roux.

We arrived at Augrabies late afternoon, and there was only time for a short night walk in the howling wind of an unseasonal cold front moving in. We bundled up, took our torches, and saw a couple of *Cheiracanthium*, some salticids and *Asemesthes*, a *Clubiona* or two, and hordes of small spiders on the wooden walkway to the waterfall. The wind made photography difficult, but we managed to capture *Theridion*, Philodromidae, Dictynidae, and a few *Neoscona*. Lynx spiders scurried out of our way, and to end the evening, there was a beautiful large *Artema atlanta* in the kitchen sink!

The next morning my spidering plans were thwarted by pouring rain and flooded roads. I managed to snap a few salticids and selenopids before retreating to coffee and blankets. Later, during the afternoon, there was a sunny spell, still windy, but I explored a bit near our chalet. Lots of Agelenidae, Salticidae, *Steatoda*, *Asemesthes*, and other gnaphosids. I was delighted to find some sizable goblin spiders (Oonopidae), more palpimanids, and the highlight of the afternoon, a shy *Ibala*.

Early the next morning we met friends in Upington, who led the way to their family farm, Bloubos, north of Upington. I was back in my favourite part of the country. The red sand, the waving yellow grasses after a good rainy season, the larks calling, the cold crisp Kalahari air... I went out to explore and found some of my favourite Kalahari spiders. The very first ones were beautiful philodromids, *Hirriusa* sp. Their legs blur and disappear against the sand when they run, making them look like little balls rolling along!



Different types of running spiders (Philodromidae), including *Hirriusa*, *Thanatus*, and *Philodromus* spp. Photos: Cecile Roux.

Peucetia was abundant, the green lynx spiders that are always white or yellowish in the dry country. There were not that many *Oxyopes*, but I did spot some. There were many gnaphosids, some prodidomids, and quite a few *Thomisus* spp., showing that they don't need flowers to flourish! The small *Monaeses* was a surprise, and I was really happy to see a perfect little hairy *Heriaeus*.



Top: Two brown variations of green lynx spiders (*Peucetia* sp.; Oxyopidae). **Bottom left:** Hairy crab spider (*Heriaeus* sp.; Thomisidae). **Bottom right:** Tailed crab spider (*Monaeses* sp.; Thomisidae). Photos: Cecile Roux.

There were many salticids around; some *Heliophanus* and mostly *Euophrys*; nicely camouflaged against the sand with their reddish colouring. An *Icius insolitus* in a tree and a quite dark *Menemerus* were a change from the numerous *Euophrys*! The palpimanids also showed themselves shyly; it is sometimes hard to believe that they are such ferocious spider hunters, as they cower with their legs covering their carapaces when we disturb them. Wolf spiders were rushing about, as they do. I managed to get a few photos, though. I also found a few lovely *Proevippa*, some too fast to ID, and one beautiful large wolf spider that I found under a piece of wood in a shallow burrow in the mud of the farm dam. I saw a very small *Latrodectus*, possibly a black button, but too small to really identify. *Thanatus*, *Theridion* and a lovely light-coloured pholcid were also found.

It was time to head home, with a last overnight stop on a farm just north of Brandvlei. The silence, the wide horizons, the biting cold, and the sparse vegetation may be boring to some, but walking in the Boesmanland where the crunch of your footsteps on the grey slate is sometimes the only sound to be heard, is bliss. We did a quick sunset walkabout, where my slightly arachnophobic daughter lost a little of

her fear rushing from grass tuft to grass tuft to find a green lynx spider (again, not green at all) in almost every tuft! These light-coloured lynxes are so beautiful. *Thanatus* and a lovely variety of *Hirriusa* were also all over, and we found a huge brown button spider with stunning markings. There were many gnaphosids, and an unfortunately uncooperative spider that might be a liocranid – I will have to go back to search for more and get better photos! I did an early morning walk the next day before we left. Buntings and larks called and hopped about, a few salticids as well, and on that short walk I found a white-headed palpimanid, and three stunning black button spiders.



Top: Palp-footed spider (*Palpimanus* sp.; Palpimanidae). **Bottom:** Three different black button spiders (*Latrodectus* cf. *renivulvatus*). Photos: Cecile Roux.

What a way to end a wonderful trip! I hope to go back before the echoes of my footsteps fade away completely.

Anka se Goggastories

deur Anka Eichhoff

Astri het dit goed gedink dat ons weer 'n Afrikaanse stuk of twee in die nuusbrief insluit, en het my verwys na Anka Eichhoff se *Goggastories*, wat 'n paar stories oor spinnekoppe insluit. Die volgende paar stukke is direk vanaf Anka se blog. Om haar stories te lees, besoek haar webwerf by <https://www.kyffhauser.co.za/Goggastories.htm>



Spinnekopsy, 'n wonderwerk in die natuur

Spinnekopsy is een van die sewe wonders van die diereryk en die **sterkste natuurlike vesel** op hierdie planeet tot sover bekend. Kyk hoekom:

Hoe sterk is dit? Ongeveer 5-keer sterker as staal (gewigsgewys). Dis ook sterker as die sterkste sinteties vervaardigde vesel Kevlar, waarvan koeëlvaste onderbaadjies gemaak word.

Dit is **rekbaar** en kan amper met 'n derde van sy oorspronklike lengte verleng.



Dit is **waterdig**. Die grys kapokvoëltjies gebruik dit daarom, om hulle neste daarvan te vleg. Vroëer het die inheemse bevolking in hierdie neste hulle vuurmaakgoed gebêre of hulle tabak.

Daar is spinnekoppe, wat selfs onderwater-webbe bou, lugblasies daarin plaas vir genoeg asem en daarin bly.

Dit is baie **lig** en **fyn**; een draad spinnekopsy is in dikte ongeveer een tiende van die dikte van 'n menslike haar. Spinnekopsy is baie ligter as katoenvesel.

Dit kan **koue van tot -40 grade Celsius** uithou.

Dit is **omgewingsvriendelik** en **biologies afbreekbaar**.

Dit is **bestand teen fungi asook bakterië**. Nie net dit nie, dit kan gebruik word as substraat, waarop menslike selle weefsel kan opbou. Dit beteken, dat in die mediese navorsing daarna gestreef word, om in plaas van veloorplantings spinnekopsy te gebruik as aanhegting vir die vorming van nuwe vel. Hierdie navorsing is al redelik ver gevorder.

Die oudste spinnekopdraad wat tot nou toe gevind is, is ingesluit in amber van 120 miljoen jaar ouderdom. Dit bewys, dat hierdie prinsiep in die natuur **werk** en daarom vandag nog bestand het.



Spinnekopsy is 'n **proteïen**-verbinding, wat in spinnekoppe se spinkliere ontstaan. Dit is 'n vloeistof en word uit die spintepels aan die onderkant van die agterlyf getrek. Die rekking van die sy verander die molekulêre struktuur, sodat dit in 'n elastiese, rekbare struktuur vorm. Binne 'n kort tydjie kan spinnekoppe nogal baie sy produseer, die *Nephila* b.v. tot 300 m sy per dag. Web wat hulle nie meer nodig het nie, vreet hulle op en kan dit weer gebruik. Die sy word tydens vertering nie heeltemal afgebreek nie en is sodoende gou (omtrent na 30 minute) weer beskikbaar vir nuwe syproduksie.

Die web op die foto, ongeveer 60 cm lank en 30 -40 cm breed aan die bokant, was van 'n *Neoscona triangula*. Toe ek daar kom en pla, het sy dit binne 3 sekondes heeltemal opgevreet.

Spinnekoppe kan nie net sy produseer nie, hulle kan selfs tot ses verskillende soorte sy spin, afhangende waarvoor sy dit wil gebruik.



Gebruik: •**Verspreiding**: Wanneer die kleintjies gereed is, om die nes te verlaat, klim hulle op 'n hoër geleë punt, neem 'n ↙punt-in-die-wind-posisie in, stel 'n breë syband vry en laat los die ondergrond om deur die wind weggedra te word. Die breë syband werk soos 'n valskerm. Hulle sweef tot 70 m bokant die grondoppervlak en word BAIE ver gedra; daar het al spinnekoppe op skepe beland 1500 km van die vasteland af. Volwasse spinnekoppe sysweef (dit word "ballooning" genoem) ook, bv. om te vlug.

•**Gids-, anker-, hang- en valdrade**: Gidsrade help om die weg te vind; die langste een wat ek gesien het, was 20 m lank, op 'n draadheining. Dit is deur 'n spinnekopmannetjie neergelê na 'n spinnekopwyfie. Die wyfies sit partykeer feromone (ruikgoed) op die gidslyne om die mannetjies die weg te wys.

Valdrade word gebruik, as die spinnekop homself laat val, bv. om vinnig weg te kom. Met ankerdrade word die web vasgeanker aan die tak/ klip/ substraat.

Daar is spinnekoppe, wat aan sy draad hang, terwyl dit vreet, as dit vervel of selfs by paring.

•Vir die **paringstyd** is syproduksie veral by die manlike dier noodsaaklik. Dit draai sy sperma in 'n spermapakkie toe. Van die spinnekopsoorte bied aan die wyfie 'n bruidgeskenk in die vorm van toegedraaide prooi, om haar dan te nader terwyl sy vreet. Somtyds is in die pakkie slegs kutienafvalle of selfs droë stukkie plantmateriaal, dus bedrogpakkies. Van die mannetjies probeer ook na paring om die kospakkie weer terug te

steel; ons sien, bedrog is nie net menslik nie! Ander spinnekopmannetjies bind die wyfie se pote vas voor paring om te verhoed dat sy hom kan bykom om hom te vreet.

- **Prooi** wat in die net beland **word toegespin** om te verhoed, dat dit kan loskom, dat die vangweb meer as nodig beskadig word en om dit langer vars (lewendig) te hou.

- 'n **Skuilplek** in die vorm van 'n sak, buis, tunnel, tent word dikwels gebou. Dit kan 'n tydelike skuilplek wees, of dis 'n skuiling waar die spinnekop sy hele lewe lank vertoef soos bv. by die versamelnesspinnekoppe (*Eresidae*).

- Eiers word in **kokonne** toegespin. Hierdie sy is besonders sterk en dig geweef en beskerm teen hitte en koue en vyande, veral parasiete soos wespes bv. wat hul eiers in die kokonne wil plaas.



- En laastens word dit gebruik om die **webbe** te bou. Die webbe se doel is die vang van prooi. Daar is menigte soorte webbe van verskeie argitektuur.

Spinnekoppe word ingedeel en geklassifiseer volgens hulle webbou en lewenswyse.

Voorbeelde daarvan lyk soos volg. Die basiese webvorm word soms ook aangepas om by die spinnekop se behoefte of leefwyse aan te pas. Wawielwebbe is bv. nie altyd rond nie,

soms is hulle half, soms driehoekig, soms selfs net een string.



Hierdie is 'n groot **wawielweb** van 'n tuin-wawiel-spinnekop (*Argiope* spp.) met 'n duidelik sigbare stabilimentum in die middel. Dit is 'n zigzag-lyn van dik sydraad. Die doel hiervan kan wees om die web te stabiliseer, om as skuilplek vir die spinnekop te dien of dalk om voëls se aandag daarop te trek, sodat hulle nie daarin vlieg nie.



Hierdie **doekweb** bedek die eierkokonne, dien as skuilplek en te gelyker tyd as vangweb. Doekwebbe kan plat webbe wees, maar dit kan ook om iets gedraai word, soos bv. die versamelnes-spinnekoppe doen. Die neste bestaan uit talle gange en kamers binne-in, wat omhul is met diverse lae doekweb.



Buiswebbe bestaan uit 'n buisvormige deel wat met sy uitgevoer is. Die buis sit in 'n gat in 'n tak, onder boombas of enige opening in 'n substraat. In die buis sit die spinnekop en wag vir prooi. Vanaf die ingangsgedeelte loop klikdrade straalsgewys uit, wat aan die substraat vasgemaak is. Die klikdrade waarsku die spinnekop in die buis van naderende prooi.



Tentwebbe is eintlik aangepaste wawielwebbe wat in 'n ruimteweb sit. Die kante of die middelpunt van die wawielweb word opgetrek om sodoene 'n hangmat (links) tent↓ te vorm.





Tregterwebbe is doekwebbe met 'n tregtervormige skuilplek. Dit is gewoonlik naby die grondoppervlak geleë of in struik. Die spinnekop (*Agelenidae*) skuil in die buis van die tregter en wag vir prooi wat op die doekweb beweeg.

Die verskillende webkonstruksies is menigvuldig en dien as behuising en/of vangnette vir prooi. Daar is selfs spinnekoppe wat 'n net oor prooi gooi en wat prooi met 'n gombolla gooi.



lok
en

Noemenswaardig is ook, dat party spinnekoppe hulle sy kan kleur.

Die bekendste is die *Nephila*- of goue wawiel-spinnekoppe. Die kleur van die baie groot web is goudgel. Die glinster van goudgeel webbe in die son insekte aan. Hierdie goudgeel sy is al tot sydoek gewef verwerk; dis seker die duurste en mooiste doek wat al vervaardig is.

Om spinnekopsy te spin en in doek te verwerk, is duisende *Nephilas* se web nodig, en ek dink in een jaar kan daar nie genoeg versamel word, om een baal sy te produseer nie.



Ander kleure wat ek al gesien het, is heldergeel, pienk, lig- en donkergroen en sy met 'n blou skynsel.

Daar is nog veel om uit te vind oor spinnekopsy, en beslis sal daar nog met groot verrassings vorendag gekom word met uitvindings oor en met hierdie kosbare rumateriaal.

Inligtingsbronne: GOGGAgids (Erik Holm, Ansie Dippenaar-Schoeman)

Spiders of the Grassland Biome (Ansie Dippenaar-Schoeman, Charles Haddard)

Spiders of the Savanna biome (Ansie Dippenaar, Stefan Foord, Charles Haddard)

Spiders of Southern Africa (Astri&John Leroy)

Filmer's Spiders (Martin Filmer revised by Norman Larsen)

The multiple disguises of spiders: web colour and decorations, body colour and movement (Mark Thèry, Jérôme Casas)

Spinnensex und mehr (Rainar Nitzsche)

<https://www.mnn.com/earth-matters/animals/blogs/captivating-facts-about-spider-silk> ,foto van sydoek

<http://ipfactly.com/9-amazing-facts-spider-silk/>

Teks en fotos: Anka Eichhoff

April 2020

Spider of the Month

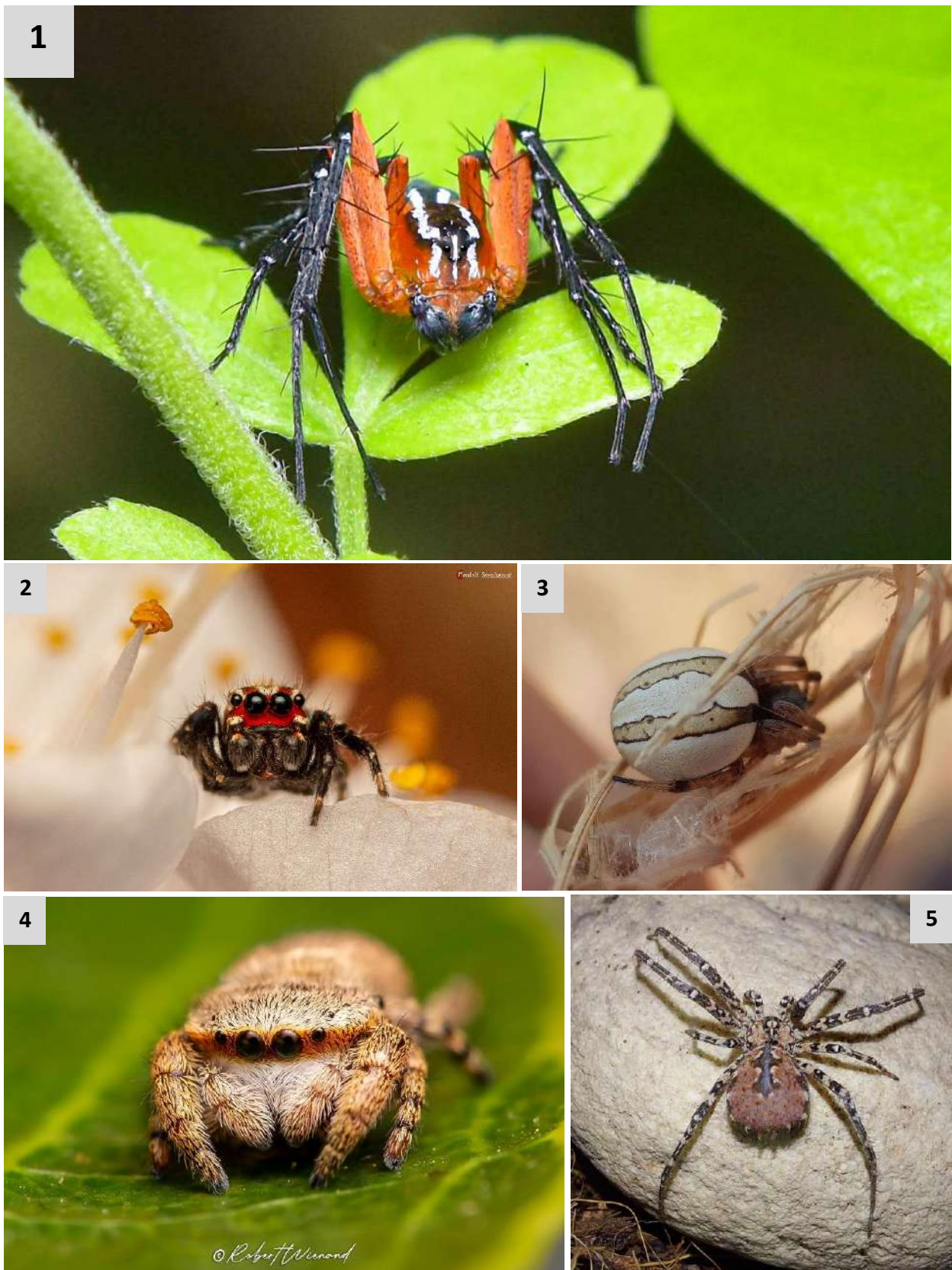
Here are the spiders of the month for October, November, and December. Members on our Facebook group nominate photos throughout the month, and at the beginning of each month, vote in a poll.

OCTOBER



(1) Chrysso comb-footed spider (*Chrysso* sp.; Theridiidae), Daniel Rautenbach. (2 & 3) Vida's sheep jumping spider, female and male (*Oviballus vidae*; Salticidae), Rudi Steenkamp. (4) Kite spider (*Gasteracantha* cf. *versicolor*; Araneidae), Tim Brammer. (5) Green lynx spider (*Peucetia* sp.; Oxyopidae), Rudi Steenkamp.

NOVEMBER



(1) Grass lynx spider (*Oxyopes* sp.; Oxyopidae), Corlien van Jaarsveld. (2) *Evarcha* jumping spider (*Evarcha prosimilis*; Salticidae), Rudi Steenkamp. (3) White-backed pajama spider (*Singa albidorsata*; Araneidae), Daniel Rautenbach. (4) Broad-headed jumping spider (*Rhene* cf. *konradi*; Salticidae), Robert Wienand. (5) Long-spinnered ground spider (*Tyrotama* cf. *australis*; Hersiliidae), Wessel Pretorius.

DECEMBER



(1) Ogre-faced net-casting spider (*Asianopis* sp.; Deinopidae), Rudi Steenkamp. (2) Spiky orb weaver (cf. *Araneus tatianae*; Araneidae), Rudi Steenkamp. (3) Decorated stumpy crab spider (*Thomisops pupa*; Thomisidae), Rudi Steenkamp. (4) Long-legged dandy jumping spider (*Portia schultzi*; Salticidae), Daniel Rautenbach. (5) Mushroom comb-footed spider (*Phoroncidia* sp.; Theridiidae), Bruce Blake.

Honourable Mention

These are a few spiders that didn't win Spider of the Month, but that deserve to be showcased.



1. Twig orb weaver (*Cyphalonotus larvatus*; Araneidae), Johan Heyns. 2. Jumping spider (cf. *Phlegra* sp.; Salticidae), Robert Wienand. 3. Mirror spider (*Thwaitesia* sp.; Theridiidae), Daniel Rautenbach. 4. Mesh-web spider (*Chumma* sp.; Amaurobiidae), Ruan Booysen. 5. Ground orb weaver (*Dippenaaria* sp.; Anapidae), Ruan Booysen. 6. Feather-legged crab spider (*Trichopagis* sp.; Thomisidae). 7. Jumping spider (Hispaniola sp.; Salticidae), Ruan Booysen. 8. Tree orb-web spider (*Clitaetra irenae*; Araneidae), Rudi Steenkamp.

Spider of the Year 2022

Here are the three winners of the Spider of the Year (SOTY). At the end of each year, members on the Facebook group vote for their favourite Spider of the Month (SOTM).

First place, with 80 votes, goes to Rudi Steenkamp for his ogre-faced net-casting spider (*Asianopis* sp.; Deinopidae). The spider was found by Ruan Booysen in Ndumo Game Reserve. The prize money of R1000 will be donated to Ubuntu Wildlife Trust, which also focuses on spider conservation and education.

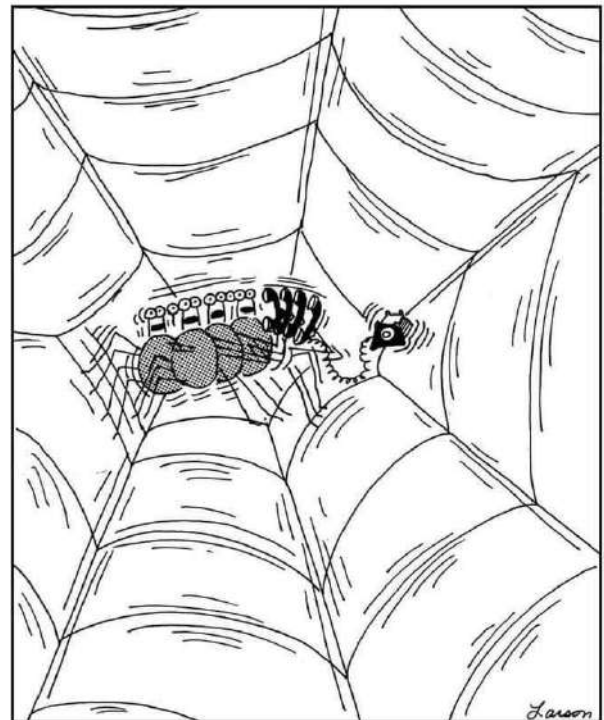
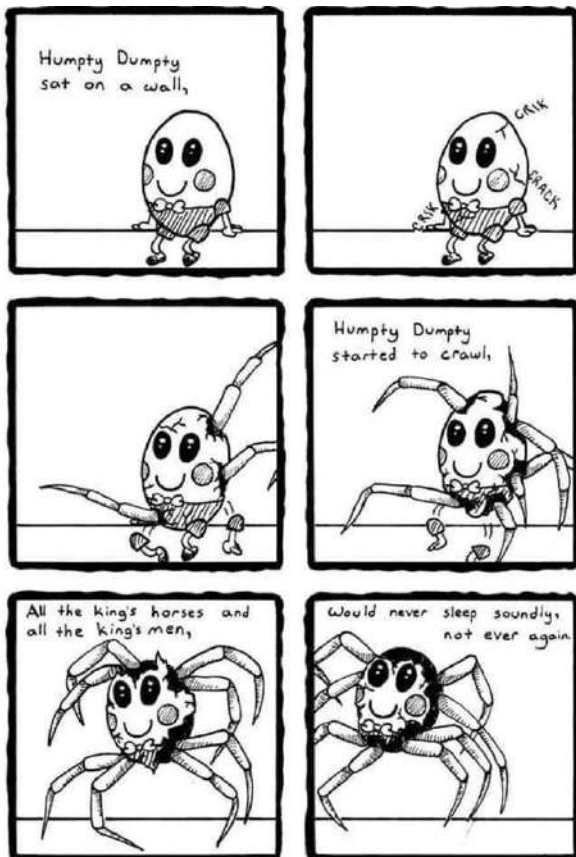
Second place (R500) goes to Desiré Pelser, who had three SOTMs running in this year's SOTY. She received 78 votes for her green lynx spider (*Peucetia* sp.), which was the January SOTM.

Third place (R300), with 77 votes, goes to Hannes Claassens for his hairy jumping spider (*Hyllus* sp.), which was the August SOTM. Remarkably, Hannes also came in third place in both the 2020 and 2021 SOTYs.



On a Lighter Note

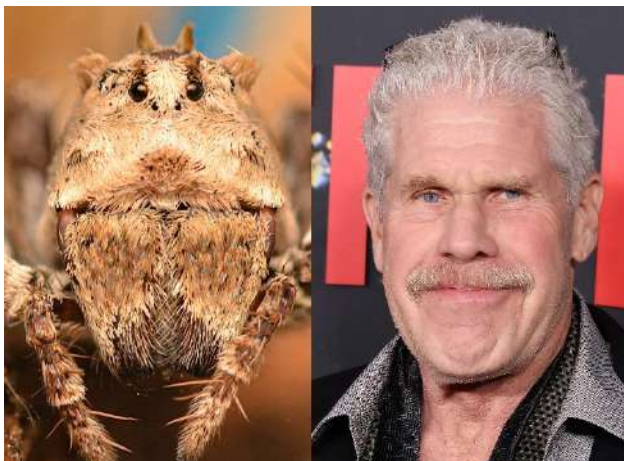
Like news bulletins on television, we like to conclude the newsletter on a lighter note. Here are a few “lighter” posts from Facebook (sorry, not that many this time):



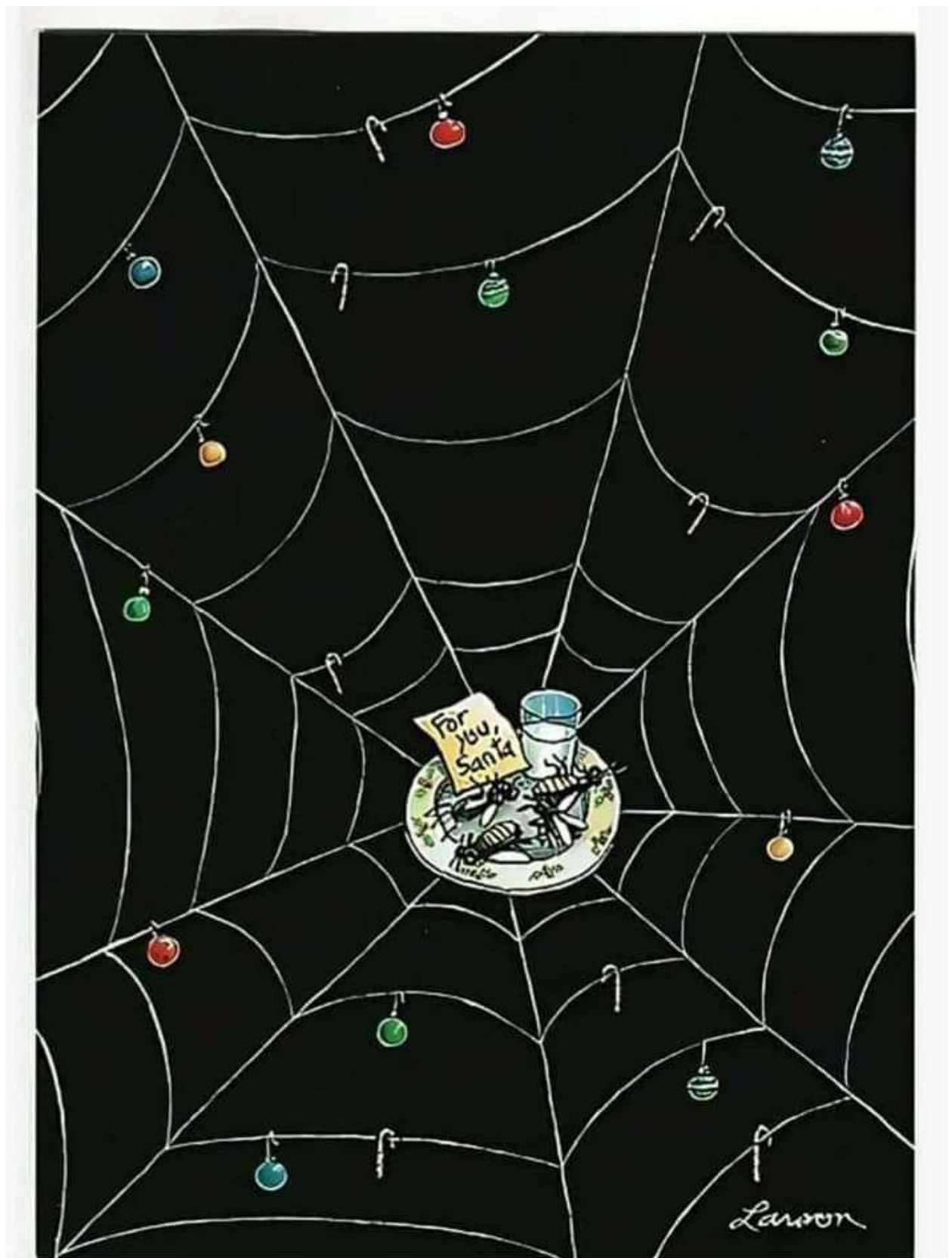
A post of jumping spiders in winter outfits was recently shared on social media. The earliest post can be traced back to Robert Weaver on the group “Midjourney Official”, but I’m not 100% sure if he’s the creator. See here: <https://web.facebook.com/groups/officialmidjourney/permalink/462828329342070> Personally, I feel that jumping spiders are cute enough and don’t need dog noses to make them cuter.



In November, we held a quick poll to choose the spider with the best “mo” (moustache) for Movember. These are the three that received the most likes. Photos 1 and 2 of the dandy jumping spider (*Portia schultzi*) were taken by Rudi Steenkamp, and Photo 3 of the crowned lynx spider (*Hamataliwa* sp.) was taken by Robert Wienand.



On the topic of “mos” and this undescribed *Hamataliwa* sp., which Ruan Booysen and Mike Vickers also found on their recent fieldwork to northern KwaZulu-Natal, I noticed that the spider bears a striking resemblance to Ron Perlman, who has incidentally also been compared to several cats, mostly Maine Coons.



SEASON'S GREETINGS!

Upcoming Events

DIARY 2022 www.spiderclub.co.za

We don't have any other confirmed events yet, but we will be hosting a few before the winter months arrive.

Please keep an eye on our Facebook group (<https://web.facebook.com/groups/101951926508391/>) or on our website (<https://www.spiderclub.co.za/events/category/events/>). Alternatively, register as a member of The Spider Club of Southern Africa (<https://www.spiderclub.co.za/register/>) to receive email notifications about any confirmed events.

*We charge for attendance at field and certain other events: **R100 per adult and R20 per child 11 years and under, cash only, with the option of paying R200 PER NUCLEAR FAMILY for annual subscription.** Some venues will also require an entrance fee that must be paid by each individual. For field trips we will supply vials, magnifiers, plastic pill bottles, and some other basic collecting equipment, but please bring your own if you have as well as any reference books, a picnic lunch, adequate water, a hat, and good walking shoes. **Book on info@spiderclub.co.za or 067 833 2191 or on our Facebook page.** When booking, please give us your cell phone number and we will set up a WhatsApp group for the event.*



Join our community on Facebook to meet like-minded people and stay updated on upcoming events
<https://www.facebook.com/groups/101951926508391/>

Watch this space!

Keep your eyes on your e-mail and our Facebook page as other events may be organised, sometimes at quite short notice. We will attempt to give you fair warning. And remember that Norman Larsen is at the Cape Union Mart Adventure Centre, Canal walk in Cape Town for the first three Saturdays and the last Sunday of the month between 11 am and 12 pm to demonstrate and talk about SPIDERS!