



# SANSA NEWSLETTER

## SANSA Newsletter 51

No. 51  
JULY-SEPT 2024



## First spiders described from South Africa in the 1700

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Interesting historical information on South African spiders is now available from the recently published South African National Spider List (Dippenaar-Schoeman et al., 2023). The first two species described from South Africa were *Pycnacantha tribulus* (Fabricius, 1781) and *Caerostris sexcuspidata* (Fabricius, 1793).



### *Pycnacantha tribulus*

(Fabricius, 1781), also known as the hedgehog spider, was the first spider species described 343 years ago from South Africa, but the locality was given only as "*Cap bona spei*."

This unique spider, with its very interesting behaviour, are now widely sampled in Southern Africa.

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The bark spider *Caerostris sexcuspidata* (Fabricius, 1793) was the second species described from South Africa 331 years ago. Again, no exact locality was provided.

This unique orb-web spiders are now commonly recorded from Cameroon, Ethiopia, Seychelles, Comoros and Madagascar.



## SOUTH AFRICAN SPIDERS - HISTORICAL BACKGROUND

The study of South African spiders was significantly influenced by colonial expansion and visiting scientists, who dispatched hundreds of specimens to museums in Belgium, France, Germany, and the United Kingdom. A notable example is the Second Anglo-Boer War (1899–1902), during which large consignments of mygalomorph spiders were sent from South Africa to the United Kingdom.

Based on type species and the type localities, only 1662 (73%) of South African spiders were originally described from South Africa. The remaining species were described elsewhere, usually from Southern Africa or other African countries.

TABLE 1. Number of South African species described between 1700 and 2024.

| YEARS | NO SPP. DESCRIBED | %    |
|-------|-------------------|------|
| 1700  | 2                 | 0.1  |
| 1800  | 165               | 9.9  |
| 1900  | 1042              | 62.7 |
| 2000  | 453               | 27.3 |
| TOTAL | 1662              | 100  |

**1700** = Only two Araneidae species were described during this period by Fabricius from South Africa (see page 1).

**1800** = 165 species (9.9%) were described during this period, mainly by scientists from abroad. E. Simon, who visited South Africa in 1895 to collect spiders, described 92 spp. (56%) during that period, and R. Pocock added 28 species.

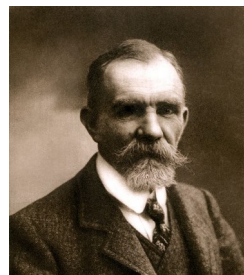
**1900** = 1042 species. Almost two-thirds of South African species were described during this period, with W. Purcell adding 216 species and J. Hewitt 99.

**2000** = 453 species were added during this period based on revisions, and during the last 24 years, 435 species were added. This was mainly due to modern taxonomic revisions, the training of several South African taxonomists and new appointments, and the efforts of taxonomists overseas.



The first mygalomorph species *Harpactira atra* was described by Latreille in 1832. Photo: Paul Taylor.

Many researchers were involved, but the five scientists below played a major role in describing 738 species of South African spiders in the 1800s and early 1900s.



**Eugène Simon** (1848–1924) was a French naturalist who worked particularly on insects, spiders, birds, and plants. He is by far the most prolific spider taxonomist in history, describing over 4,000 species, including **181** South African spider species.



**Reginald Pocock** (1863–1947) was an English zoologist at the British Museum who occasionally named spiders sent to them from South Africa. He was especially supplied with unknown specimens from Natal and Rhodesia. He has described **83** South African spider species.



**William Purcell** (1866–1919) was an English-born South African arachnologist and zoologist stationed at the South African Museum for ten years. He is regarded as the founder of modern araneology in South Africa and has described **216** South African spider species.



**John Hewitt** (1880–1961) was born in Grahamstown, South Africa. In 1909, he worked as an assistant curator at the Transvaal Museum in Pretoria. In 1910, he was appointed Director of the Albany Museum in Grahamstown, eventually retiring in 1958. He has described **99** South African spider species.



**Reginald Lawrence** (1897–1987) was born in George, Western Cape. He worked at the South African Museum in Cape Town from 1922 until 1935, when he became director of the Natal Museum in Pietermaritzburg and worked there until 1948. He remained a researcher and staff member of the same museum until 1986. He has described **159** South African spider species.

ACKNOWLEDGEMENT: Data and images from Wikipedia.



## SANSa TEAM MEMBERS REAL CITIZEN SCIENTISTS

The terms *citizen science* and *citizen scientists* were first used in the Oxford English Dictionary in June 2014. Citizen science is "scientific work undertaken by members of the general public, in collaboration with or under the direction of professional scientists and scientific institutions."

Science, in its essence, is the study or knowledge gained through careful observations and experiments. It's a systematic approach to understanding the physical world, nature, and natural phenomena in as much detail as possible. In South Africa, professional scientists typically hold a PhD. Therefore, it is crucial to maintain high standards when defining 'citizen scientists'. It's not just about identifying a few species on social media. To be recognized as a 'citizen scientist', one must significantly contribute to scientific projects by adding new information. The data collected must be of such a standard that it could be used to resolve and publish research. The important contributions of several individuals to SANSa's projects, as highlighted in SANSa Newsletters, underscore the value of citizen scientists in our scientific community.

When SANSa was initiated in 1997, several people contacted us to offer their assistance in collecting and documenting the arachnid fauna of South Africa. Over the years, they became SANSa team members involved in different SANSa projects. Unfortunately, we do not have the funding to pay them, but they receive some recognition in species named after them as they are usually the collector of the type specimens.

**DATA COLLECTING:** SANSa's primary goal is to document the arachnid fauna of South Africa. The involvement of SANSa team members, who are stationed throughout the country, significantly expands the spatial and temporal coverage of SANSa, providing more comprehensive datasets. We have provided them with bottles, alcohol, and permits to collect specimens. The importance of their contributions lies not only in the occasional specimen they collect, but in their regular and long-term commitment to collecting, often over several months or even years.

**SCIENTIFIC DISCOVERY:** During these surveys, unexpected discoveries are often made. New or rare species are collected, and new distribution records of species are added. Also, their ability to observe and watch species over time contributes to the publication of new habitat and behaviour data.

**PHOTOGRAPHY:** Most of the SANSa team members not only sample specimens but also photograph them. This increases the value of their contributions, as specimens are available for taxonomic research as well as photographs of life specimens. This is very important as life colour is so different from alcohol specimens.

Unfortunately, the following three people are no longer with us, but I would like to acknowledge the important role they have played in SANSa projects.



Marie de Jager

The late Marie de Jager was one of the first people to offer her assistance and collect spiders for us. She was stationed at Middelburg in the Eastern Cape and travelled widely around the Eastern and Northern Cape sampling spiders. She was a good observer and made an especially important contribution to the behaviour of *Ammoxenus* and *Diores* species. She was the collector of the type specimen of *Diores termitophagus* and the following remark was made "Mrs M. de Jager made excellent observations of the feeding behaviour of *D. termitophagus*."

### CO-AUTHOR OF SCIENTIFIC ARTICLES

DIPPENAAR-SCHOEMAN A.S., **DE JAGER M.** & VAN DEN BERG A. 1996. Behaviour and biology of two species of termite-eating spiders, *Ammoxenus amthalodes* and *A. daedalus* (Araneae: Ammoxenidae), in South Africa. *African Plant Protection* 2: 15–17.

DIPPENAAR-SCHOEMAN A.S., **DE JAGER M.** & VAN DEN BERG A. 1996. *Ammoxenus* species (Araneae: Ammoxenidae) - specialist predators of harvester termites in South Africa. *African Plant Protection* 2: 103–109.

DIPPENAAR-SCHOEMAN A.S., LEROY A., **DE JAGER M.** & VAN DEN BERG A. 1999. Spider diversity of the Karoo National Park, South Africa (Arachnida: Araneae). *Koedoe* 42: 31–42.

DIPPENAAR-SCHOEMAN A.S., VAN DER WALT A.E., **DE JAGER M.**, LE ROUX E. & VAN DEN BERG A. 2005. The spiders of the Swartberg Nature Reserve in South Africa (Arachnida: Araneae). *Koedoe* 48: 77–86.

### SPECIES NAMED AFTER HER

*Loxosceles dejagerae* Lotz, 2017 (Sicariidae)



Zannie van der Walt

The late Zannie van der Walt was stationed at the Swartberg Nature Reserve in the Oudtshoorn district of the Western Cape Province. He collected spiders from the reserve over ten years, one of the first SANSa inventory projects for the Succulent and Fynbos Biomes spiders. The sampled specimens were available for taxonomic revisions, and *Tyrotama abysses* (Hersiliidae) was one of the new species he collected.

### CO-AUTHOR OF SCIENTIFIC ARTICLES

DIPPENAAR-SCHOEMAN A.S., **VAN DER WALT A.E.**, DE JAGER M., LE ROUX E. & VAN DEN BERG A. 2005. The spiders of the Swartberg Nature Reserve in South Africa (Arachnida: Araneae). *Koedoe* 48: 77–86.

### SPECIES NAMED AFTER HIM

*Heriaeus zanii* Van Niekerk & Dippenaar-Schoeman, 2013 (Thomisidae)

Unfortunately, several SANSa team members passed away before we could acknowledge their contribution. Therefore, since they are still alive, I have decided to recognize SANSa citizen scientists in the forthcoming newsletters. In this issue, please meet Allen Jones of the Free State (pp. 4-5), Reginald Christiaan of the Northern Cape (p. 6) and Peter Webb (p. 7).

## MEET ALLEN JONES—A SANSa TEAM MEMBER FROM THE FREE STATE

Allen Jones is one of the SANSa-recognized “Citizen Scientists.” Over 19 years, he has made important contributions to our knowledge of the behavior of grassland spiders in the Free State. In 2005, Allen contacted me for the first time to help him identify a spider. This was the beginning of a long-term sharing of spider information and photographs.

Allen Jones and Jennifer Lotter own Amohela-ho-Spitskop Country Retreat, a registered Conservancy that formed part of Mpetsane Conservation Estate (MCE) (28°48'S, 27°39'E), some 14 km from Clocolan in the Eastern Free State. A 230-million-year-old koppie, “Spitskop,” is an integral part of the estate and is home to a rich natural heritage of Flora and Fauna.

Allen, a retired engineer, is able to daily observe and photograph spiders. His mastery in capturing the intricate details of spider webs in the field, particularly in the early morning when the threads are adorned with dew, is unparalleled. His dedication has resulted in extensive photographic documentation of grassland spiders in the Free State, with thousands of photographs taken over the years. Allen has generously shared his work, donating over 1500 photographs to SANSa.

Allen's pioneering spirit led to the first discovery *Cyrtarachne ixoides* (Simon, 1870) in South Africa (Dippenaar-Schoeman & Jones, 2009). His groundbreaking observations have been the basis for 20 published articles dealing with several genera, such as *Argiope australis*, *Euprosthenops australis*, *Leucauge festiva*, *Neoscona moreli* and *N. triangula* with Allen serving as the author or co-author (see next page). His expertise was also recognized when he co-authored a poster presented at the AFRAS colloquium in 2011.

He started working on a checklist of MCE and invited members of SANSa to come and collect arachnids on MCE in March 2007. During the trip, more than 400 specimens, representing 30 families and 113 species, were collected. This contributed to a checklist of 138 species from 104 genera and 36 families that was published in 2021 (Dippenaar-Schoeman *et al.* 2021).

### SPECIES NAMED AFTER HIM

*Heriaeus allenjonesi* Van Niekerk & Dippenaar-Schoeman, 2013 (Thomisidae)

### NEW SPECIES FROM MPETSANE

*Eleleis haddadi* Rodrigues & Rheims, 2020



Allen and some SANSa team members sampling at Mpetsane Conservancy Estate on 8 March 2007. During that survey Charles Haddad collected a specimen that was described in 2020 as new - *Eleleis haddadi* Rodrigues & Rheims, 2020 (Prodidomidae).



Allen Jones in action on Mpetsane Conservancy.



Webs early in the morning showing their abundance in the Free State grassland.





## PUBLICATIONS AND HIGHLIGHTS

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- JONES A. 2010. Garbage line-web spiders. *SANSA Newsletter* no 11: 14.
- JONES A. 2012a. *Argiope* city. *SANSA Newsletter* 16: 6.
- JONES A. 2012b. Virtual museum—some interesting stories. *Argiope australis* webs from the Free State. *SANSA Newsletter* 16: 7.
- JONES A. 2016. Pisauridae *Euprosthenops australis* an insight. *SANSA Newsletter* 26: 6–7.
- JONES A. 2020. Spider pantry from Nelspruit. *SANSA Newsletter* 35: 17.
- JONES A. 2022. Field observations. Effect of frost on *Argiope* spiders in the Free State. *SANSA Newsletter* 42: 4.
- JONES A. 2023. Another one bites the dust. *SANSA Newsletter* 45: 3.
- JONES A. 2024a. The pink lady from the Free State. *SANSA Newsletter* 49: 10.
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- JONES A., DIPPENAAR-SCHOEMAN A.S. 2021. Notes on the orb-web spiders of Mpetsane Conservancy Estate in the Free State (Arachnida: Araneae) part 2. *SANSA Newsletter* 39: 14–18.
- JONES A. & DIPPENAAR-SCHOEMAN A.S. 2022. Notes on the red-spot *Neoscona triangula* (Keyserling, 1864) in South Africa (Araneae: Araneidae). *SANSA Newsletter* 41: 10–13.
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- DIPPENAAR-SCHOEMAN A.S., JONES A., HADDAD C.R., LOTZ L.N. 2008. SANSA surveys in the Free State: the spider fauna of the Mpetsane Conservation Estate (Arachnida: Araneae). *SANSA Newsletter* 4: 12.



Spider webs photographed at Mpetsane by Allen Jones.

- DIPPENAAR-SCHOEMAN A.S., JONES A., HADDAD C.R. & LOTZ L. 2021. Grassland spiders of the Mpetsane Conservation Estate in the Free State (Arachnida: Araneae). *SANSA Newsletter* 38: 22–31.
- DIPPENAAR-SCHOEMAN A.S., JONES A. & HADDAD C.R. 2021. Notes on the silver vlei spider *Leucauge festiva* (Blackwall, 1866) from South Africa (Araneae: Araneidae). *SANSA Newsletter* 40: 15–18.
- DIPPENAAR-SCHOEMAN A.S. & JONES A. 2022. More on the garden orb-web spider *Argiope australis* (Walckenaer, 1805) in South Africa (Araneae: Araneidae). *SANSA Newsletter* 40: 19–22.



Poster presented at the AFRAD Colloquium in 2011.



## MEET REGINALD CHRISTIAAN—A SANSa TEAM MEMBER FROM THE NORTHERN CAPE



Reginald Christiaan lives at Soebatsfontein in the Northern Cape. He contacted us in 2015 and offered to sample arachnids for SANSa. The Northern Province is still under-sampled, and he became involved in several projects sampling for different people. Due to his involvement and general knowledge of the area, he is now a para-ecologist and Environmental Monitor at SANParks. He has registered a project to document the arachnid fauna of the Namaqua National Park with the following aims:

- to enhance the knowledge of the distribution and habitat preferences of the spider and scorpion species in the park
- to provide this information to the park management for conservation planning and management
- to raise awareness among the park visitors and the broader public about the diversity and ecological value of these animals.

The project also addresses the need to survey the under-researched Succulent Karoo Biome to close the severe knowledge gaps on Arachnida in this area, which is renowned as a biodiversity hotspot.

Reginald received funding from SANBI, the University of Hamburg, and the ARC. His checklist so far lists 26 families and 61 species from the park. He is also a keen photographer and photographs specimens sampled.

Reginald also participates in scientific meetings, where he presents his research. At the AFRAS colloquium in 2017, he presented a poster on “Assessing biodiversity of spiders and scorpions in Namaqua National Park” (Fig. 1) and at the 19th Kimberley Biodiversity Research Symposium in September 2024 he is giving a poster on *Uroctea quinque-notata* (Fig. 2).

### SCIENTIFIC PARTICIPATION

CHRISTIAAN R. & DIPPENAAR-SCHOEMAN A.S. 2016. SANSa: Protected Areas - National Parks 2: Namaqua National Park. *SANSa Newsletter* 25: 5.

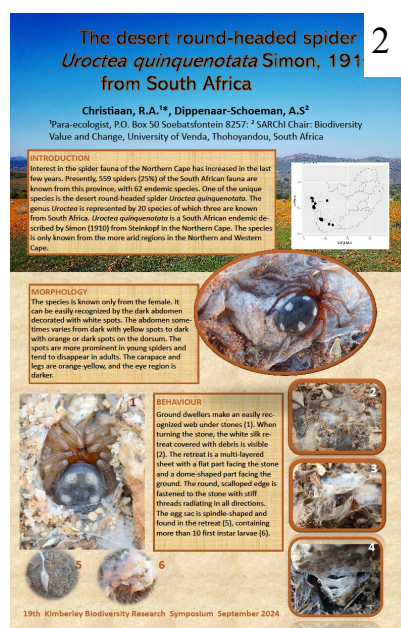
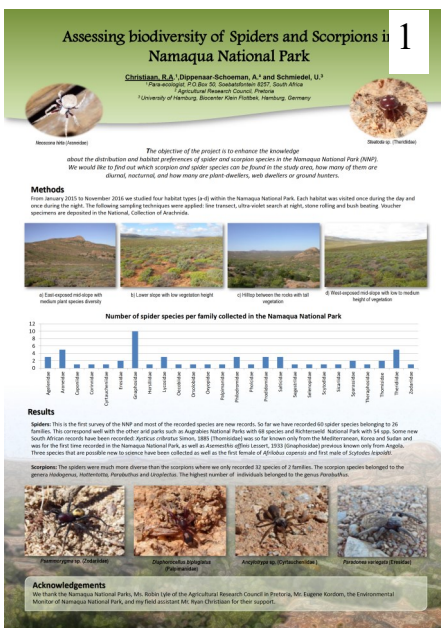
CHRISTIAAN R., DIPPENAAR-SCHOEMAN A.S. & SCHMIEDEL U. 2017. Assessing biodiversity of spiders and scorpions in Namaqua National Park. 12th Colloquium of the African Arachnology Society, ATKV Goudini Spa, Western Cape Province, 22–25 January 2017.

DIPPENAAR-SCHOEMAN A.S. & CHRISTIAAN R. 2024. Observations on the five-spot round-headed spider *Uroctea quinque-notata* Simon, 1910, from South Africa. *SANSa Newsletter* 50: 15–18. Zenodo <https://doi.org/10.5281/zeno.11526897>

DIPPENAAR-SCHOEMAN A.S., EICHHOFF A. & CHRISTIAAN R. IN PRESS). Observations on the huntsman spider *Olios correboni nigrifrons* Lawrence, 1928 from Southern Africa. *SANSa Newsletter* 51: 25–27.



Reginald sampling arachnids in the Namaqua National Park



In 2017 Reginald received a Kudu Award from the South African National Parks at their annual awards function.

## SANSA TEAM MEMBERS AS CITIZEN SCIENTISTS (continued)



Peter Webb was a true naturalist and citizen scientist with knowledge of most living creatures and plants. He loved to travel, and on weekends, he sampled and photographed arachnids and insects. His contribution was especially valuable because specimens were photographed, and the voucher specimens are deposited at the ARC.

He also frequently accompanied the SANSa teams to undertake surveys in nature reserves such as Aardvark, Ezemvelo Lekgalameetse, Roodeplaat, Rooipoort, Tswalu and Tswaing Crater. He also participated in a Bioblitz with the Lepidoptera people at Zandspruit, Lephahlale. His pet project was the six-year survey of a native grassland near Irene, where he sampled and photographed 270 species from this small area, showcasing the variety of his projects. Peter was involved in several projects in and around Pretoria and we hope to publish all the results in future newsletters. Peter contributed to 46 publications, only a few are listed below. He also participated in congresses and presented talks on spiders.

### CO-AUTHOR OF 46 SCIENTIFIC ARTICLES (a few listed below)

FOORD S.H., DIPPENAAR-SCHOEMAN A.S., JOCQUÉ R., HADDAD C.R., LYLE R. & WEBB P., 2016. South African National Survey of Arachnida: A checklist of the spiders (Arachnida, Araneae) of the Lekgalameetse Nature Reserve, Limpopo province, South Africa. *Koedoe* 58(1), 8 pages a1405.  
<http://dx.doi.org/10.4102/koedoe.v58i1.1405>

DIPPENAAR-SCHOEMAN A.S. & WEBB P. 2022. Gauteng Urban Surveys 1. Checklist of the spiders of the Faerie Glen Nature Reserve in Pretoria, South Africa (Arachnida, Araneae). *SANSa Newsletter* 41:26–34. <https://doi.org/10.5281/zenodo.6482651>

DIPPENAAR-SCHOEMAN A.S., LYLE R. & WEBB P. 2023. Gauteng urban area surveys 2. Checklist of the spiders of the Groenkloof Nature Reserve in Pretoria, South Africa (Arachnida, Araneae). *SANSa Newsletter* 47: 24–32.  
<https://doi.org/10.5281/zenodo.8421473>

DIPPENAAR-SCHOEMAN A.S. & WEBB P. 2024. A checklist of the spiders (Arachnida, Araneae) of the Roodeplaatdam Nature Reserve, South Africa *SANSa Newsletter* 50: 28–37). Zenodo. <https://doi.org/10.5281/zenodo.11526770>

DIPPENAAR-SCHOEMAN A.S., HADDAD C.R., FOORD S.H., LOTZ L.N. & WEBB P. 2022a. *The Araneidae of South Africa*. Version 2: part 1 (A–C). South African National Survey of Arachnida Photo Identification Guide, Irene, 74 pp. [doi:10.5281/zenodo.6326922](https://doi.org/10.5281/zenodo.6326922)

DIPPENAAR-SCHOEMAN A.S., HADDAD C.R., FOORD S.H., LOTZ L.N. & WEBB P. 2022b. *The Araneidae of South Africa*. Version 2: part 2 (E–Ne). South African National Survey of Arachnida Photo Identification Guide, Irene, 64 pp.  
<https://doi.org/10.5281/zenodo.6619195>

DIPPENAAR-SCHOEMAN A.S., HADDAD C.R., FOORD S.H., LOTZ L.N. & WEBB P. 2022c. *The Araneidae of South Africa*. Version 2: part 3 (Ne–U). South African National Survey of Arachnida Photo Identification Guide, Irene, 66 pp. [doi:10.5281/zenodo.6326991](https://doi.org/10.5281/zenodo.6326991)

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DIPPENAAR-SCHOEMAN A.S., LYLE R. & WEBB P. 2014. Photo gallery of the spiders (Arachnida: Araneae of Telperion Nature Reserve [poster]. 5th Annual Diamond Route research Conference 21 October, Johannesburg.

DIPPENAAR-SCHOEMAN A.S. & WEBB P. 2020. The rich spider diversity of the Gauteng Province: examining a small urban grassland patch. 13th Colloquium of the African Arachnology Society, ATKV Klein Kariba Limpopo, January 2020.

LYLE R., DIPPENAAR-SCHOEMAN A.S., DU TOIT J. & WEBB P. 2014. Increase in spider diversity of the Tswalu Kalahari Reserve, Northern Cape Province, and South Africa (paper). 4TH Diamond Route Research Conference, Johannesburg.

LYLE R., DIPPENAAR-SCHOEMAN A.S., MARAIS P. & WEBB P. 2014. Telperion an important link in the spider grassland survey [poster]. 5th Annual Diamond Route research Conference 21 October, Johannesburg.

LYLE R., DIPPENAAR-SCHOEMAN A.S. & WEBB P. 2015. Diamond Route reserves important for spider conservation in the Northern Cape. 6th Annual Diamond Route Research Conference [paper].

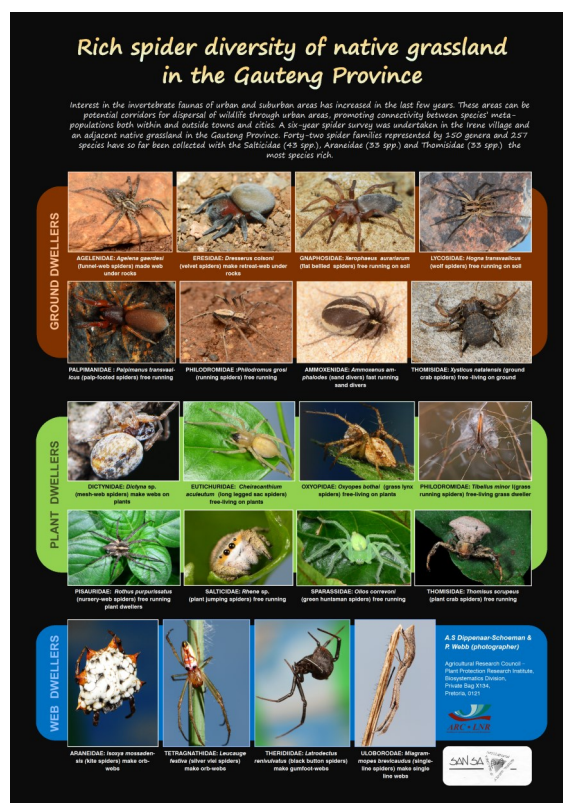
LYLE R., DIPPENAAR-SCHOEMAN A.S. & WEBB P. 2017. SANSa - a rich diversity of spiders collected from green urban areas of Tshwane/Pretoria. 12th Colloquium of the African Arachnology Society, ATKV Goudini Spa, 22-25 January 2017.

### SPECIES NAMED AFTER HIM

*Heriaeus peterwebbi* Van Niekerk & Dippenaar-Schoeman, 2013 (Thomisidae)

*Trachecymbius peterwebbi* Haddad & Lyle, 2024 (Trachelidae)

One of Peter's posters





NEW PUBLICATIONS

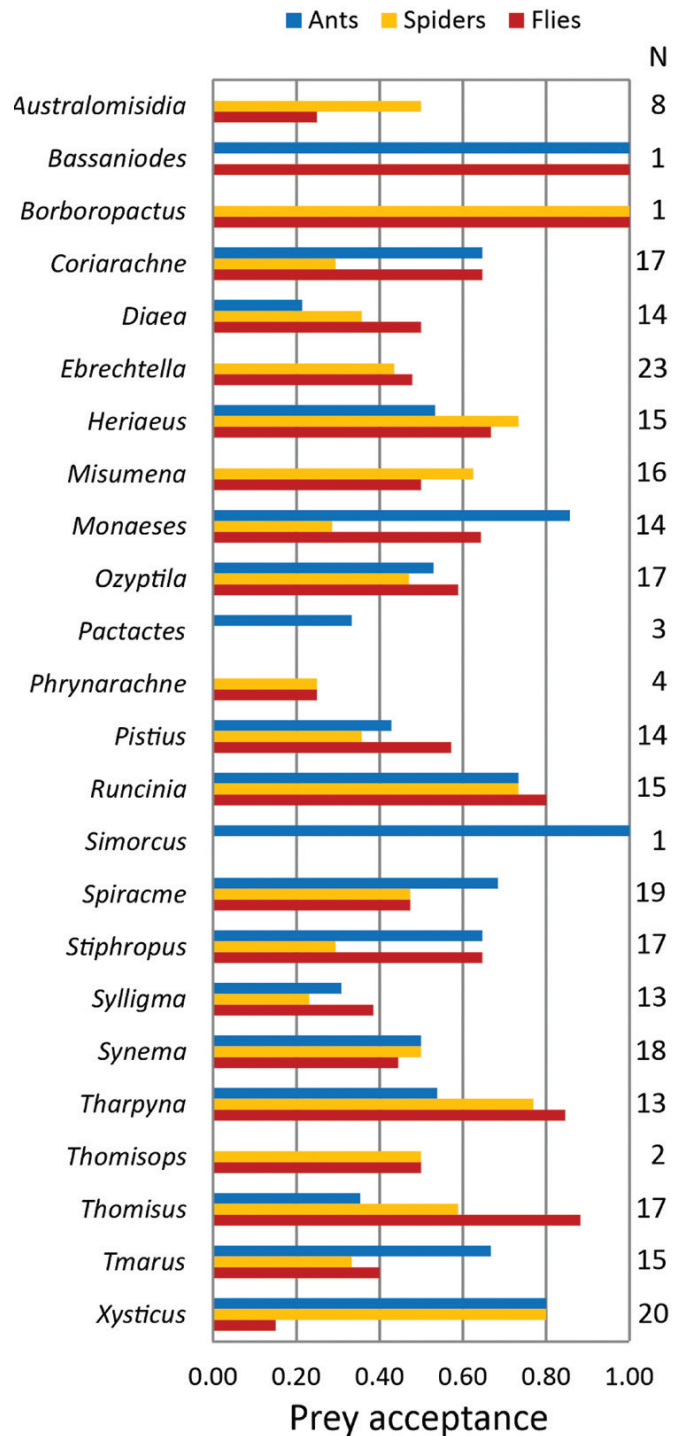
STANO PEKÁR, VLADIMÍRA ŠOLTYSOVÁ, RUAN BOOYSEN, MIQUEL ARNEDO. 2024. Evolution of spider- and ant-eating habits in crab spiders (Araneae: Thomisidae). *Zoological Journal of the Linnean Society*, 2024, XX, 1–12 <https://doi.org/10.1093/zoolinnean/zlae068>

**ABSTRACT:** Spiders and ants are infrequent types of prey in the diet of spiders. Both spider- and ant-eating were found in thomisid (crab) spiders but their origin remains unclear. Our goal was to gather data on spider- and ant-eating habits in thomisid spiders, construct a family-level phylogeny, and estimate when these habits evolved. Using prey acceptance experiments, we found 21 spider- and 18 ant-eating genera; based on photographic evidence there were 14 spider- and 20 ant-eating genera; and based on literature there were six spider- and seven ant-eating genera. Altogether we found evidence for 28 spider- and 30 ant-eating genera. We performed the most extensive molecular phylogenetic analysis of Thomisidae to date, using representatives of 75 nominal genera. The resulting topology was congruent with previous studies: Thomisidae were shown to be monophyletic; the genus *Borboropactus* was identified as a sister group to the remaining thomisids; the current subfamilies emerged as para- or polyphyletic, and Aphantochilinae was monophyletic and rendered Strophinae paraphyletic within the ‘*Thomisus* clade’. Ancestral state reconstruction estimated both spider- and ant-eating as ancestral states, suggesting that common ancestors of Thomisidae were euryphagous predators that included spiders but also ants in their diet.

**Keywords:** ancestral state estimation; araneophagy; capture behaviour; crab spiders; myrmecophagy



*Simorcus cotti* female feeding on an ant.  
Photo C. Haddad.



Relative frequency of prey capture of three prey types (ants, spiders, flies) for 24 representatives of thomisid genera obtained from prey acceptance experiments. N is the total number of specimens per genus used.



## NEW PUBLICATIONS

YEKWAYO I. & MWABVU T. 2024. Age of *Eucalyptus* plantations differentially affects assemblages of surface-active arthropods. *African Journal of Ecology* 62:e13180. <https://doi.org/10.1111/aje.13180>

## ABSTRACT

Microhabitats and environmental conditions in eucalypts vary depending on the growth phase. Response of surface-active arthropods to eucalypt growth phases is unclear; yet, it can be an important contribution in forest management. Thus, we investigated the response of surface-active arthropods to three eucalypt age groups. We collected arthropods in a 7-month-old, 18-month-old, and 53-month-old eucalypts since planting. *Eucalyptus* age did not affect species richness. However, assemblages differed between the 53-month-old and 7-month-old eucalypts. Therefore, different eucalypt ages can enhance arthropod conservation, since they differ in terms of microhabitats and environmental conditions.



## CONGRATULATIONS



Dr. Hannelene Badenhorst

## CONGRATULATIONS

Hannelene Badenhorst obtained her PhD in Entomology at the Department of Zoology and Entomology, University of the Free State in 2024.

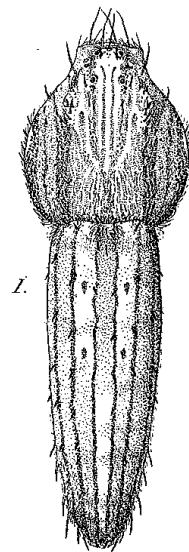
Her study dealt with "ECOLOGY AND DIVERSITY OF SPRINGTAILS AND SPIDERS IN THREE BIOMES IN CENTRAL SOUTH AFRICA."

COULD THIS BE *TIBITANUS*?

*Tibitanus* Simon, 1907 (Philodromidae) is represented by two African species *Tibitanus nomas* Simon, 1910 from Namibia and *T. sexlineatus* Simon, 1907 from Guinea-Bissau and Guinea. The only drawing of *T. sexlineatus* is by Millot (1942) and he listed the outstanding characters of the species as:

- abdomen with six dorso-longitudinal red bands bearing long setae on the narrow bands,
- leg II is much longer than the rest,
- the arrangement of the eyes with the anterior median eyes is three times farther apart from each other than from the lateral ones.

We compare this with images taken by Wynand Uys and Nicolette Josling.



*Tibitanus sexlineatus* after Millot (1942).



Photo by Nicolette Josling .



Female from Hoedspruit Photo by Wynand Uys.

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## FIELD OBSERVATIONS

## INTERESTING EGG SACS

**MIMETIDAE**

Cecile Roux submitted these images of a mimetid female busy constructing an egg sac.

**THERIDIIDAE (*PHORONCIDA*)**

Bruce Blake took these photographs of egg sacs of the very interesting *Phoroncidia* spp. Not only are the spiders strange but also their egg sacs.

**ZODARIIDAE (*CHARIOBAS*)**

Ferdie de Moor took these photographs of an egg sac of a *Chariobas* sp. The egg sac is deposited in a silk tube made in grasses.

**OXYOPIDAE**

Sally Adams took these photographs of the egg sacs of *Oxyopes* sp. The pink egg sac is made on a leaf.

**OXYOPIDAE**

Another photo by Sally Adams of the egg sacs of a *Oxyopes* sp. The egg sac is cream and it seems as if the base again was a leaf.





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STANO PEKÁR, VLADIMÍRA ŠOLTYSOVÁ, RUAN BOOYSEN, MIQUEL ARNEDO. 2024. Evolution of spider- and ant-eating habits in crab spiders (Araneae: Thomisidae). *Zoological Journal of the Linnean Society*, 2024, XX, 1–12.

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<https://doi.org/10.1111/aje.13180>



*Leucauge festiva* busy constructing her orb-web. Photo: Allen Jones

## INTERESTING COLOUR



Vida van der Walt photograph this *Thomisus citrinellus* female in the Pretoria Botanical Garden in Pretoria (Figs 1 & 2). The females of some *Thomisus* species are able to change colour from white to yellow to pink. But this “in between” colour are frequently not seen. Here a *Thomisus citrinellus* that is normally white with pink markings (Fig. 3) still have a yellow tint.

## Notes on the white running spider *Gephyrota glauca* (Jézéquel, 1966) from South Africa (Araneae: Philodromidae)

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**ABSTRACT:** *Gephyrota glauca* (Jézéquel, 1966) is an African endemic species known from the Ivory Coast, Cameroon, and South Africa. It is a plant-dwelling species frequently found on vegetation. This article provides information on its general morphology, behaviour, and distribution in South Africa, along with photographs of live specimens.

**Keywords:** biodiversity, conservation biography, South African National Survey of Arachnida.

### INTRODUCTION

Many Philodromidae were sampled during the South African National Survey of Arachnida (SANSA) (Dippenaar-Schoeman *et al.*, 2015). Six genera, represented by 34 species, are known from South Africa (Dippenaar-Schoeman *et al.*, 2022). Although large numbers of specimens were collected, many can still not be identified, and the number of genera and species might increase after revisions. Presently, only *Tibellus* Simon, 1875, has been revised (Van den Berg & Dippenaar-Schoeman, 1994).

The philodromid genus *Gephyrota* Strand, 1932 with the type species *Gephyra limbata* L. Koch, 1875 was described from Australia. However, the generic name *Gephyra* was preoccupied, and a replacement name, *Gephyrota*, was provided (Strand, 1932). Currently, seven species are recognized from Africa, Australia, India, and Vietnam (World Spider Catalog, 2024). Very little is still known about the genus, as six of the seven species are known only from their original descriptions made between 1875 and 1909, and three species' descriptions are based only on juvenile specimens.

Only *Gephyrota glauca*, described by Jézéquel (1966) from Ivory Coast, is known from both sexes. The species has been recorded from Cameroon and South Africa (Dippenaar-Schoeman *et al.*, 2022). This paper provides more information on their general behaviour, distribution, and morphology, and some colour variations are discussed based on photographs of live specimens.

### METHODS

Voucher specimens ( $n=45$ ) sampled during SANSA surveys are housed in the National Collection of Arachnida (NCA) at the Agricultural Research Council (ARC) in Pretoria. As part of SANSA requests for photographs of spiders for the SANSA Virtual Museum were made (Dippenaar-Schoeman *et al.*, 2012). Several sets of photographs of the species were received from the public.

### TAXONOMY

#### *Gephyrota glauca* (Jézéquel, 1966)

*Gephyra glauca* Jézéquel, 1966: 621 (mf).

*Gephyrota glauca* Brignoli, 1983: 599; Dippenaar-Schoeman *et al.*, 2022: 6.

**Diagnostic characteristics:** Size: TL females and males 4–6 mm. *Female* (Figs 1 & 2): Carapace with white border and two grey lateral bands; integument covered with a layer of dense white setae; clypeus with strong white setae on the border (Fig. 3). The carapace is round, wider than long, slightly narrower in eye region; cephalic region slightly raised; eyes equal-sized, both eye rows recurved; posterior eye row wider than anterior row with eyes equally spaced; anterior row with median eyes closer to anterior lateral eyes than to each other (Fig. 2). Abdomen white with integument covered with dense layer of setae (Fig. 4);



Figures 1–2. *Gephyrota glauca* female. 1. Female from Pretoria (Clarissa van Heerden). 2. Female from Hermannsburg (Peter Webb).



abdomen uniform white sometimes with scattered dark spots around apodemes; the edge of the abdomen sometimes with brownish red markings that vary from a few spots (Figs 4–7) to distinct markings (Fig. 8). The abdomen is oval, pointed towards spinnerets. Legs almost translucent and covered with dense white setae, leg II slightly longer than others. Epigyne: (Figs 9–10). *Male*: resembles female (Fig. 5). Palp. (Fig. 11).

## BEHAVIOUR

*Gephyrota glauca* is a plant-living spider that has a range of characteristic adaptations that facilitate life on bark, in grass, in flowers, among foliage or on seeds, and sometimes on the ground (Fig. 4). They were commonly found in sweep net and beating samples but also from pitfall traps. Haddad (2016) sampled them from *Vachellia xanthophloea* bark in the Ndumo Game Reserve. They feed on a variety of insects (Fig. 8). Their movements are erratic but swift, and their claw tufts and scopulae enable speedy movement on vegetation. Their laterigrade legs and flat bodies allow them to hide in crevices.

## HABITAT

The species has been collected in the Forest, Fynbos (Dippenaar-Schoeman *et al.*, 2024), Savanna (Foord *et al.*, 2011), Indian Ocean Coastal Belt and Thicket biomes. It was also sampled from macadamia and pistachio orchards, sunflower and tomatoes (Dippenaar-Schoeman *et al.*, 2013).

## DISTRIBUTION

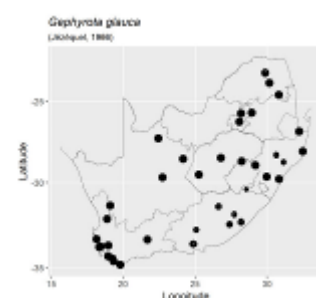
**GLOBAL DISTRIBUTION:** Cameroon, Ivory Coast, South Africa.  
*New records:* Pom Pom Camp, Okavango Delta (-19.578, 22.841 NCA); Zimbabwe (iNaturalist).

**DISTRIBUTION IN SOUTH AFRICA:** *Eastern Cape:* Addo Elephant National Park (-33.32, 25.72); East London (-33.01, 27.9); Onge-luksnek (-30.55, 28.57); East London (Pineapple Research Station) (-33.01, 27.9); Hogsback (-32.59, 26.92); Thyspunt, 12km WNW of Cape St Francis (-34.18, 24.74). *Free State:* Erfenis Dam Nature Reserve (-28.5, 26.8); Kalkfontein Dam Nature Reserve (-29.518, 25.268); Wyndford Guest Farm, Fouriesburg (-28.7, 28.24); Amanzi Nature Reserve (-28.62, 26.68); Mpetsane Conservation Estate (near Clocolan) (-28.80, 27.65). *Gauteng:* Pretoria/Tshwane (-25.74, 28.19); Klipriviersberg Nature Reserve (-26.27, 28.08); Pretoria National Botanical Garden (-25.74, 28.19); Irene (field opposite Gem Village) (-25.89, 28.23); Ezemvelo Nature Reserve (-25.700, 28.941). *KwaZulu-Natal:* Cathedral Peak (-28.94, 29.19); iSimangaliso Wetland Park: Hell's Gate (-28, 32.48); Ndumo Game Reserve (-26.87, 32.24); Kloof (-29.78, 30.83); Good Hope Plantation, Boston Midlands (-29.651, 29.976); Wakefield Farm (-29.4733, 29.8925); Vernon Crookes Nature Reserve (-30.27, 30.57). *Limpopo:* Lekgalameetse Nature Reserve (-23.82, 30.16); Little Leigh (Western Soutpansberg) (-22.9485, 29.86961); Medike Mountain Reserve (-22.994, 29.614). *Mpumalanga:* Blyde River Canyon Nature Reserve (-24.58, 30.82). *Northern Cape:* Nieuwoudtville (-31.37, 19.11); Prieska (-29.68, 22.74); Rooipoort Nature Reserve (-28.56, 24.16); Tswalu Game Reserve (-27.30, 22.44). *Western Cape:* Bloubergstrand (-33.77, 18.45);



Figures 3–11. *Gephyrota glauca* 3. Eye pattern dorsal view (P. Webb). 4. Female from Kalkfontein Dam Nature Reserve (N. Josling). 5. Male from Pretoria (Clarissa van Heerden). 6. Female from Hermannsburg (Peter Webb). 7. Female from Mpetsane Conservation Estate (Allen Jones). 8. Female (Wolf Avni). 9. A.S. Dippenaar-Schoeman. 10-11. After Jézéquel (1966).

Cape Agulhas (-34.81, 19.81); Cederberg Wilderness Area (-32.16, 18.89); Fisherhaven, Hermanus District (-34.47, 19.27); Paarl (-33.71, 18.98); Swartberg Nature Reserve (-33.36, 21.69); Yzerfontein (-33.34, 18.16); Robben Island (-33.80, 18.35); Fernkloof Nature Reserve, Hermanus (-34.61, 19.34); Kogelberg Biosphere Reserve (-34.32, 18.96); Bloubergstrand (-33.77, 18.45); Uitzicht Annex Knysna (-34.00, 23.20); Robben Island (-33.80, 18.35).



## CONSERVATION

An African endemic described in 1966 from Ivory Coast and recorded from several African countries. In South Africa it has been recorded from eight provinces, including the following areas: Addo Elephant National Park (Dippenaar-Schoeman *et al.*, 2020); Hogsback (Haddad *et al.*, 2023); Thyspunt (Dippenaar-Schoeman & Wiese (2020); Erfenisdam Nature Reserve (Fourie *et al.*, 2013); Ndumo Game Reserve (Haddad, 2016); Tswalu Kalahari Reserve (Dippenaar-Schoeman *et al.*, 2018); Lekgalameetse Nature Reserve (Foord *et al.*, 2016). Due to its wide range it is listed as Least Concern.

## ACKNOWLEDGEMENT

I thank the following photographers for sharing their photographs: Allen Jones, the late Peter Webb, Wolf Avni, Nicolette Josling and Clarissa van Heerden and the late Stefan Foord for the map.

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## Observations on the ground running spider *Hirriusa arenacea* (Lawrence, 1927) from South Africa (Araneae: Philodromidae)

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**ABSTRACT:** *Hirriusa arenacea* is a Southern African spider described by Lawrence (1927) as *Hirrius arenaceus* from Namibia. They are small ground-running spiders frequently encountered in sandy areas on the soil surface. Information on their general morphology, behaviour, and distribution in South Africa, as well as photographs of live specimens, is provided.

**Keywords:** biodiversity, conservation biography, South African National Survey of Arachnida.

### INTRODUCTION

The family Philodromidae, also known as running crab spiders, comprises a world fauna of 529 species in 29 genera, but the family's systematics is far from complete (World Spider Catalog, 2024). Several philodromid genera are monotypic, represented by only a few specimens.

Philodromidae remains one of the numerous taxa of the Afrotropical Region that have yet to be subjected to revisionary work. Six genera represented by 34 species are presently known from South Africa (Dippenaar-Schoeman *et al.*, 2022, 2023), with only *Tibellus* Simon, 1875 that have been revised (Van den Berg, & Dippenaar-Schoeman, 1994). Members of the genus *Hirriusa* were frequently sampled during SANSa surveys (Dippenaar-Schoeman *et al.*, 2015). Simon (1895) described the genus *Hirrius*, but the name was preoccupied, and a replacement name was provided by Strand (1932).

Some *Hirriusa* specimens sampled during the surveys were identified as *Hirriusa arenacea* (Lawrence, 1927). As little is still known about them, more information is here provided on their general morphology, behaviour, and distribution. Colour variations are discussed based on photographs of live specimens.

### METHODS

Voucher specimens sampled ( $n=92$ ) collected during SANSa surveys are housed in the National Collection of Arachnida (NCA) at the Agricultural Research Council (ARC) in Pretoria. SANSa made requests for photographs of spiders for the SANSa Virtual Museum (Dippenaar-Schoeman *et al.*, 2012), and several photographs of the species were received from the public.

### TAXONOMY

#### *Hirriusa arenacea* (Lawrence, 1927)

*Hirrius arenaceus* Lawrence, 1927: 38 (mf); Lessert, 1933: 125 (f).

*Hirriusa arenacea* Dippenaar-Schoeman *et al.*, 2022: 9–10;  
Dippenaar-Schoeman, 2023: 174.

**Diagnostic characteristics:** (Figs 1 & 2). Size: TL females 7–8 mm, male 6–7 mm. *Female*: cryptic; carapace brown, with broad paler median band; bordered by two broad darker bands from posterior eyes to posterior edge; margin with narrow pale margin broadening towards poster edge; whitish transverse band separating the anterior and posterior rows of eyes (Fig. 3); clypeus with a roughly triangular whitish marking (Fig. 7); row of strong setae on edge (Fig. 5). Carapace slightly flattened, as wide as long; sub-oval in outline; thoracic region evenly rounded, sloping gently posteriorly; fovea not very distinct. Eyes: 8 in 2 rows (4:4) (Figs 3, 7); both rows recurved; anterior row more so; median ocular quadrangle longer than wide, narrower anteriorly (Figs 5, 7); anterior eyes larger than posterior eyes (Fig. 3).



Figures 1–3. *Hirriusa arenacea* from Aardvark Nature Reserve. 1. Female, dorsal view. 2. Male, dorsal view. 3. Female lateral view. Photos: Peter Webb.



Figures 4–8. *Hirriusa arenacea*. 4. Female from Aardvark Nature Reserve, body dorsal view. 5. Male from Aardvark Nature Reserve, body dorsal view. 6. Male body dorsal view in alcohol. 7. Eye pattern, anterior view. 8. Integument. Photos: 4,5,7. Peter Webb. 6. ASD. 8. Rudy Jocqué.

Sternum and coxae yellow. Abdomen oval; covered with squamous setae plumose at their bases (Fig. 7); sometimes smaller patches of strong white-tipped setae present in patches of brown or yellowish setae (Fig. 4). According to Lawrence (1927) this species shows a fair amount of variation, some specimens being more darker coloured than others and in some the abdomens are almost without markings. There is also variation in the shape of the epigyne as seen in Figs 9–12. Legs slender, arranged sideways, similar in length variegated; with dense setae. *Male*: (Figs 2, 5, 6) resemble the female in shape and colour but with slightly smaller bodies and with the legs longer and slender (Figs 16–17). The male palp (Figs 13–15).

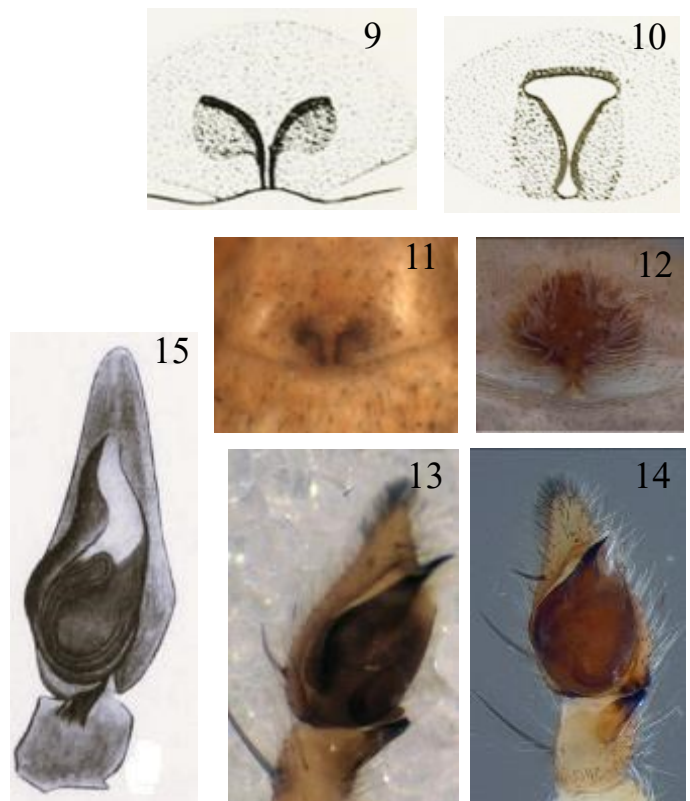
## LIFESTYLE

They are small ground-running spiders frequently encountered in sandy areas on the soil surface and, owing to their cryptic colouration, they are well camouflaged and not easily seen. Their movements are erratic but swift and their claw tufts and scopulae enabling speedy movement. Their laterigrade legs and flat bodies also allow them to hide in crevices. The egg-sacs are covered with sand and deposited under stones or debris on the ground.

*Hirriusa arenacea* are known from the more arid regions in South Africa, Botswana and Namibia. They were frequently collected from pitfall traps in Desert, Fynbos (Dippenaar-Schoeman *et al.*, 2024), Grassland (Haddad *et al.*, 2013), Nama-Karoo, Savanna (Foord *et al.*, 2011), Succulent Karoo and Thicket biomes.

*Hirriusa arenacea* readily feed on the termites in the laboratory and may be an important predator of them. In the Northern Cape they were also sampled from pistachio orchards (Dippenaar-Schoeman *et al.*, 2013; Haddad *et al.*, 2004).

Several of the SANSa surveys where the species was recorded was undertaken in areas with a high termite activity: Dendron in the Limpopo Province (Dippenaar-Schoeman *et al.*, 1978); Benfontein Nature Reserve (Dippenaar-Schoeman & Haddad, 2023) and Tierberg Long Term Ecological Research site (Dippenaar-Schoeman *et al.*, 2022).



Figures 9–15. *Hirriusa arenacea*. 9–10. Line drawings of epigyne showing the variation. 11–12. Epigyne. 13–15. Male palp. Photos: 9,10. After Lawrence (1927). 15. After Lessert (1933). 13. ASD. 14. Rudy Jocqué.



Figures 16–17. Male from Aardvark Nature Reserve. Photos: Peter Webb.



## DISTRIBUTION

**GLOBAL DISTRIBUTION:** Namibia, Botswana, South Africa.

**DISTRIBUTION IN SOUTH AFRICA (Fig. 17):** **Eastern Cape:** Middelburg (-31.49, 24.99); Mountain Zebra National Park (-32.24, 25.43); Addo Elephant National Park (-33.32, 25.72); Cradock (-32.10, 25.37); Baviaanskloof Mega Reserve (-33.76, 24.81). **Free State:** Luckhoff, Farm Bankfontein-Nama Karoo veld (-30.063, 24.897); Golden Gate Highlands National Park (-28.31, 28.37); Bloemfontein (-29.08, 26.10); Qwa Qwa Nature Reserve, Spelonken (-28.28, 28.38); Allemanskraal Dam (-28.17, 27.10); Pinekloof (-29.14, 27.24); Groenhoeke (Berghut) (-30.16, 27.13). **Limpopo:** Ndengeza (-23.316, 30.411); Vyeboom (-23.1439, 30.3797); Goro Game Ranch near Vivo (-22.99, 29.43); Limpopo Valley, farm Stoke (-22.476, 29.870); Dendron, Farm Amsterdam (-23.367, 29.317). **Northern Cape:** Riemvasmaak (-28.53, 20.29); 4 km W of Hopetown (-29.62, 24.06); Klein Papkuil farm (-28.48, 23.72); Kimberley (-28.73, 24.76); Prieska, Green Valley Nuts Estate (-29.68, 22.74); Prieska (Farm Remhoogte) (-29.52, 23); Richtersveld Transfrontier National Park (-28.25, 17.17); Strydenburg, between Britstown and Hope-town (-29.95, 23.68); Tswalu Game Reserve (-27.30, 22.44); Benfontein, Game Reserve (-28.82, 24.82); Oryx Game Farm, Kuruman (-28.419, 22.175); Augrabies National Park (-28.66, 20.42). **North West:** Stella 30.5 km N (-26.29, 24.78); Kgaswane Mountain Reserve (-25.72, 27.18). **Western Cape:** Beaufort West from following farms: Farm 151b (-32.32, 22.44); Farm Alexanderskraal (-32.58, 22.71); Farm Bokvlei (-32.43, 22.35); Farm De Pannen (-32.61, 23.10); Farm Eerste Water (-32.61, 23.10); Farm Groot Kraanvogelfontein (-32.92, 22.64); Farm Juriesfontein (-32.53, 23.43); Farm Kantkraal (-33.28, 23.22); Karoo National Park (-32.28, 22.46); Aardvark Nature Reserve (-33.494, 21.088); Tierberg (-33.216, 22.033).

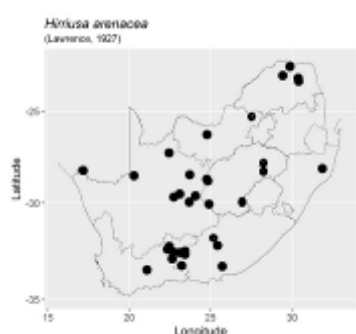


Figure 17. Distribution of *Hirriusa arenacea*.  
Credit: S. Foord.

## CONSERVATION MEASURES

The species has a wide distribution and has been recorded from six provinces. It has been collected from several protected areas such as Aardvark Nature Reserve (Figs 4 & 5, 16 & 17); Addo Elephant National Park (Dippenaar-Schoeman *et al.*, 2020); Baviaanskloof Mega Reserve (Dippenaar-Schoeman *et al.*, 2023); Benfontein Nature Reserve (Dippenaar-Schoeman & Haddad, 2023); Karoo National Park (Dippenaar-Schoeman *et al.*, 1999); Kgaswane Mountain Reserve (Dippenaar-Schoeman, 2023); Mountain Zebra National Park (Dippenaar-Schoeman & Lotz, 2023); Tswalu Game Reserve (Dippenaar-Schoeman *et al.*, 2018). No conservation actions are recommended.

## ACKNOWLEDGEMENT

I like to thank the following photographers for sharing their photographs: Allen Jones, the late Peter Webb and Rudy Jocqué, and the late Stefan Foord for the map.

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## Observations on the running spider *Suemus punctatus* Lawrence, 1938 from South Africa (Araneae: Philodromidae)

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**ABSTRACT:** *Suemus punctatus* Lawrence, 1938, is known from Eswatini, Mozambique, South Africa, and Zimbabwe. They are free-living plant dwellers found on grasses and occasionally on shrubs. Their movements are erratic, and using their claw tufts and scopulae, they can move about swiftly on the vegetation. Information on their general morphology, behaviour, and distribution in South Africa, with photographs of live specimens, is provided.

**Keywords:** biodiversity, conservation biography, South African National Survey of Arachnida

### INTRODUCTION

One of the little-known philodromid genera is *Suemus* Simon, 1895. Five species of *Suemus* are known, of which three are based on juvenile specimens including the type species *Suemus atomarius* described from Sierra Leone. Two species have been recorded from Vietnam and three from Africa (World Spider Catalog, 2024). Only *Suemus punctatus* Lawrence, 1938, known from both sexes, is known from Southern Africa.

Many Philodromidae were sampled during the South African National Survey of Arachnida (SANSa) (Dippenaar-Schoeman *et al.*, 2015), and some specimens were identified as *S. punctatus*.

Here, *S. punctatus* is discussed, and more information is provided on their general morphology, behaviour, and distribution. Some colour variations are discussed based on photographs of live specimens.

### METHODS

Voucher specimens sampled ( $n=35$ ) collected during SANSa surveys are housed in the National Collection of Arachnida (NCA) at the Agricultural Research Council (ARC) in Pretoria. SANSa requested photographs of spiders for the SANSa Virtual Museum (Dippenaar-Schoeman *et al.*, 2012), and several photographs of the species were received from the public.

### TAXONOMY

#### *Suemus punctatus* Lawrence, 1938

*Suemus punctatus* Lawrence, 1938: 490 (m); Lawrence, 1942: 166 (f); Dippenaar-Schoeman *et al.*, 2022: 24, p. 23 (mf).

**Diagnostic characteristics:** *Female*. Size: TL females 6–7mm. Body cryptic; carapace creamish brown, with broad paler median band; bordered by two broad darker bands from posterior eyes to posterior edge; margin with narrow pale margin broadening towards posterior edge (Fig. 1). Carapace slightly flattened, as wide as long; sub-oval in outline; thoracic region evenly rounded (Fig. 2), sloping gently posteriorly; fovea not very distinct; with spotted appearance seen in alcohol material (Fig 5 & 6). Eyes: 8 in 2 rows (4:4) (Fig. 5); both rows recurved; posterior row more strongly; median ocular quadrangle wider than long, narrower anteriorly; eyes small same size (Fig. 4). Abdomen oval; covered with dense pale setae layer (Figs 1 & 5); dorsum decorated with five small dark spots (Figs 1, 5 & 6). Legs the same colour as carapace; decorated with numerous dark spots; slender, arranged sideways, legs II slightly longer than rest. Epigyne shows several degrees of variation (Figs 9 & 10). *Male*. Total length 4–5 mm. Male bright orange-yellow, decorated with numerous dark setae and spots (Figs 4 & 7). Carapace flattened, a little longer than wide. Abdomen variable (Figs 7 & 8) with or without black spots. Legs long and slender; spotted; distal leg segments dark (Figs 3 & 13). Male palp (Figs 9 & 12).



Figures 1–4. *Suemus punctatus* 1. Female, dorsal view. 2. Female, anterior view. 3. Male dorsal view from Ukuwela NR. 4. Male eye pattern, anterior view. Photos: 1–4. Ruan Booysen.

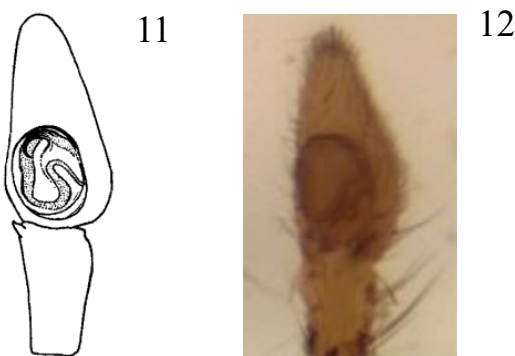


Figures 5–8. *Suemus punctatus*. 5 & 6. Female dorsal view, in alcohol. 7. Male dorsal view, in alcohol. 8. Drawing of abdomen. Credits: 5-7. ASD. 8. After Lawrence, 1938.

## DISTRIBUTION

**GLOBAL DISTRIBUTION:** Eswatini, Mozambique, South Africa, Zimbabwe.

**DISTRIBUTION IN SOUTH AFRICA** (Fig. 14). **Gauteng:** Bronkhorst-spruit (Farm Onverwacht) (-25.8, 28.74); Groenkloof Nature Reserve (-25.78, 28.20); Hammanskraal (-25.41, 28.27). **KwaZulu-Natal:** Dukuduku Forest Station (-28.37; 32.23); Ndumo Game Reserve (-26.87, 32.24); Richards Bay (15 km N) (-28.78, 32.1); Ndumo Game Reserve (-26.94, 32.47); Pietermaritzburg (-29.6, 30.38); Umhlali (-29.47, 31.22). **Limpopo:** Blouberg Nature Reserve (-22.99, 29.04); Kruger National Park: Shingwedzi (20km SE) (-22.93, 31.02); Pafuri (-22.46, 31.3); Lhuvhondo Nature Reserve (-23.03, 29.45); Pafuri (Waller's Camp) (-22.42, 30.91); Polokwane Nature Reserve (-23.9, 29.47); University of Limpopo, Sovenga Hill, (-24.17, 29); Roedtan (-24.6, 29.08); Springbok Flats (Tuinplaas) (-24.9, 28.73). **Mpumalanga:** Burgers Hall (-25.02, 31.08); Kruger National Park (-24.98, 31.58); Kruger National Park (Skukuza) (-25, 31.97); Kruger National Park, Mopani, Tsendze (-23.691, 31.518); Lapalala Wilderness Game Reserve (-23.84, 28.26); Graskop, 30 km N (-24.93, 30.84); Kruger National Park Lwakahle 08 (-25.43, 31.75); Kruger National Park, Vutomi 09 (-24.61, 31.79). **Northern Cape:** Eselsfontein Farm, S of Grootdrink (-28.62, 21.68); Hopetown (Suffolk Farm) (-29.58, 24.24). **Western Cape:** De Hoop Nature Reserve (-34.45, 20.44); Gouritsmond (Borrelfontein) (-34.34, 21.87); Fernkloof Nature Reserve (-34.61, 19.34); Robben Island (-33.8076, 18.3712); Oudtshoorn (-33.59, 22.21).



Figures 9–13. *Suemus punctatus*. 9 & 10. Epigyne. 11 & 12. Male palp. 13. Male from Hammanskraal. Credits: 9 After Lawrence (1938). 11. After Lawrence (1942). 10 & 12. ASD. 13. Vida van der Walt.

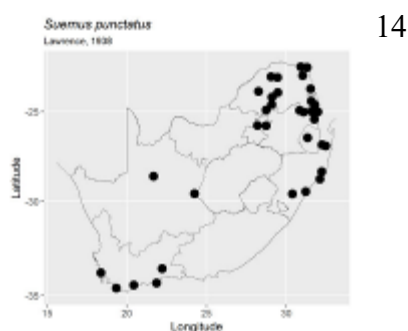


Figure 14. Known distribution of *Suemus punctatus*. Credit: S. Foord.



## LIFESTYLE

*Suemus punctatus* are small running spiders frequently encountered on vegetation. Their movements are erratic but swift, and their claw tufts and scopulae enable speedy movement. Their laterigrade legs and flat bodies also allow them to hide in crevices. The egg sacs are usually deposited on leaves.

They were sampled with sweeping and beating vegetation but were also sampled with pitfall traps from the Fynbos (Dippenaar-Schoeman *et al.*, 2024), Grassland (Haddad *et al.*, 2013), Indian Ocean Coastal Belt, Forest, Nama Karoo, Savanna (Foord *et al.*, 2011) and Thicket biomes.

## CONSERVATION MEASURES

Protected in several protected areas such as Groenkloof Nature Reserve (Dippenaar-Schoeman *et al.*, 2023); Ndumo Game Reserve (Haddad & Dippenaar-Schoeman, 2006); Blouberg Nature Reserve (Foord *et al.*, 2019); Polokwane Nature Reserve (Dippenaar *et al.*, 2008); De Hoop Nature Reserve (Haddad & Dippenaar-Schoeman, 2009). No conservation actions are recommended.

## ACKNOWLEDGEMENT

We like to thank Vida van der Walt for her photograph and the late Stefan Foord for the map.

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# Observations on *Chresiona invalida* (Simon, 1898) (Araneae: Macrobulnidae) from South Africa

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**ABSTRACT:** Little is known about the genus *Chresiona* Simon, 1903, represented by three South African species, but known only from females. *Chresiona invalida* (Simon, 1898) are free-running ground dwellers that make retreats under rocks and stones. The general morphology of live specimens is discussed, along with notes on their behaviour, distribution, and conservation status.

**Keywords:** biodiversity, conservation geography distribution, South African National Survey of Arachnida (SANSa)

## INTRODUCTION

The Macrobulnidae, represented by 26 genera and about 91 species, occurs worldwide (World Spider Catalog, 2024). The family comprises five genera and 16 species from South Africa including the genus *Chumma* Jocqué, 2001 that were recently described. Little is known about the other four genera *Chresiona* Simon, 1903, *Macrobulnus* Tullgren, 1901, *Obatala* Lehtinen, 1967 and *Pseudauximus* Simon, 1902. They are all listed in the subfamily Macrobulninae (Almeida-Silva, 2013).

Many specimens were sampled and identified as Macrobulninae as part of the South African National Survey of Arachnida (SANSa) (Dippenaar-Schoeman *et al.*, 2015). The African genera are not yet revised, and still problematic. Most specimens sampled were identified to belong to the genus *Chresiona*. *Chresiona* was first described in the Agelenidae but then transferred to the Amaurobiidae by Lehtinen (1967) and then to the Macrobulnidae by Gorneau *et al.*, (2023). The genus is represented by three South African species but known only from females.

Here, we report on *Chresiona invalida* (Simon, 1898) a species originally described from Pretoria. The general morphology of live specimens is discussed with notes of their behaviour, distribution and conservation status.

## METHODS

Voucher specimens sampled ( $n=35$ ) during SANSa surveys are housed in the National Collection of Arachnida (NCA) at the Agricultural Research Council (ARC) in Pretoria.

## TAXONOMY

### *Chresiona invalida* (Simon, 1898)

*Cybaeus invalidus* Simon, 1898: 5 (f).

*Chresiona invalida* Lehtinen, 1967: 222; Dippenaar-Schoeman, *et al.*, 2021: 7.

**Diagnostic characteristics: Female.** Total body size 3–5 mm. The carapace is pale brown with two darker mediolateral bands from the eye region to near the carapace posterior edge (Fig. 1), with a narrow dark band around the edge (Figs 2, 5). The carapace is longer than wide; the cephalic region is only slightly elevated; the fovea is a slight depression. Eight eyes in two rows; anterior median eyes round; smaller than the lateral eyes; posterior lateral and median eyes same size. Abdomen oval, pale cream with dark markings; with deposits of guanine (Fig. 2); abdominal pattern consisting of a narrow median band covering the anterior half of the abdomen; posterior half with a series of 4–5 chevrons; rest abdomen with black spots and bands; abdomen colour variable (Figs 6 & 7); cribellum absent. Legs with dark annulations (Figs 2, 6, 7); three-clawed. Female epigynum has a semi-circular projection with posterior edge thickened (Figs 7–8). Male unknown.



Figure 1. *Chresiona invalida* female from Wyndford Farm near Fouriesburg. Photo: Peter Webb.



**DISTRIBUTION IN SOUTH AFRICA (Fig. 14):** **Eastern Cape:** Addo National Park (-33.32, 25.72); Rhodes (-30.87, 27.94); Thyspunt (-34.19, 24.71). **Free State:** Wyndford farm, Fouriesburg (-28.61, 28.23). **Gauteng:** Pretoria National Botanical Garden (-25.74, 28.19); Suikerbosrand Nature Reserve (-25.8, 28.77); Groenkloof Nature Reserve (-25.47, 28.12); Bronkhorstspuit (-25.82, 28.87). **KwaZulu-Natal:** Sani Pass (-29.62, 29.37). **Limpopo:** Blouberg Nature Reserve (-22.99, 29.04); Little Leigh (Western Soutpansberg) (-22.949, 29.870). **Mpumalanga:** Ohrigstad (-24.74, 30.58); Machadodorp, Elmshoogte Plantation (-25.66, 30.26); Belfast (-25.69, 30.04). **Western Cape:** Elgin (-34.16, 19.06); Greater Simonsberg Conservancy, Delheim (-33.52, 18.53); Table Mountain National Park (-33.82, 18.48); Kirstenbosch National Botanical Garden (33.58, 18.25).

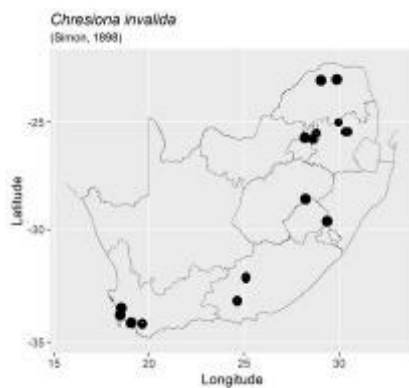


Figure 14. Known distribution of *Chresiona invalida*. Credit: S. Foord.

## LIFESTYLE

*Chresiona invalida* are small, free-running spiders that usually live on the ground under logs, inside leaf litter or moss, or in moss patches on trees. The second author sampled the species very regularly over years from vegetation at the Wyndford Farm in the Free State.

During the SANSA surveys, specimens were sampled with sweeping and beating vegetation but also with pitfall traps from the Fynbos (Dippenaar-Schoeman *et al.*, 2024), Grassland (Haddad *et al.*, 2013), Savanna (Foord *et al.*, 2011), and Thicket biomes.

## CONSERVATION

Protected in several protected areas such as Addo National Park (Dippenaar-Schoeman *et al.*, 2020); Thyspunt (Dippenaar-Schoeman & Wiese, 2022); Suikerbosrand Nature Reserve (Dippenaar-Schoeman & Van Zyl, 2023); Groenkloof Nature Reserve (Dippenaar-Schoeman *et al.*, 2023b); Blouberg Nature Reserve (Foord *et al.*, 2019); Kirstenbosch National Botanical Garden (Dippenaar-Schoeman *et al.*, 2023a) and Table Mountain National Park (Haddad & Dippenaar-Schoeman, 2024). The male of this species has been sampled but still needs to be described. No conservation actions are recommended.

## ACKNOWLEDGEMENT

We would like to thank Linda Wiese for her photograph and the late Stefan Foord for the map.



Figures 2–5. *Chresiona invalida*. 2. Female from Bronkhorstspuit, dorsal view. 3–4. Epigyne. 5. Female from Groenkloof Nature Reserve. Photos: 2–5. Peter Webb. 3. ASD. 4. After Lehtinen (1967).



Figures 6–7. *Chresiona invalida* female showing the colour variation. 7. Female from Thyspunt (L. Wiese). 7. Female from Wyndford Farm (Peter Webb).

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## Observations on the black-faced huntsman spider *Olios correboni nigrifrons* Lawrence, 1928 from Southern Africa (Araneae: Sparassidae)

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**ABSTRACT:** *Olios correboni* Lessert, 1921 is an African endemic species described from Tanzania and the subspecies *Olios correboni nigrifrons* was described by Lawrence, 1928 from Namibia. The subspecies is also known from South Africa and Botswana. It is a nocturnal spider that wanders at night searching for prey. During the day, they are found in silk retreats made in different microhabitats. Observations on their general morphology, behaviour, and distribution with photographs of live specimens are provided.

**Keywords:** biodiversity, conservation biogeography, South African National Survey of Arachnida

### INTRODUCTION

Several *Olios* species were sampled during the South African National Survey of Arachnida (SANSa) (Dippenaar-Schoeman *et al.*, 2015). *Olios* Walckenaer, 1837 is known for 164 species and two subspecies (World Spider Catalog, 2024) and recorded from Africa, southern Europe, and Asia. The genus was revised by Jäger (2020) who recognized eight species groups and only 87 species. According to him many species are misplaced.

*Olios correboni* Lessert, 1921 described from Tanzania was recognized by Jäger (2020). Two subspecies *O. correboni choupangensis* Lessert, 1936 from Mozambique and *O. correboni nigrifrons* Lawrence, 1928 from Namibia are listed in the World Spider Catalog (2024) but not mentioned by Jäger (2020).

Lawrence (1928) description of *O. correboni nigrifrons* from a single female. However, several specimens were sampled during SANSa surveys corresponding to the description of the subspecies. Observations on their general morphology, behaviour, and distribution in Southern Africa with photographs of live specimens are provided here.

### TAXONOMY

***Olios correboni nigrifrons* Lawrence, 1928**

*Olios correboni nigrifrons* Lawrence, 1928: 249 (f); Dippenaar-Schoeman *et al.*, 2022: 19.

**Descriptive characters:** *Female:* TL 13–15 mm. Carapace fawn and bordered anteriorly by a transverse dark band covering the anterior row of eyes and part of the clypeus (Figs 1–2); carapace with dense white setae around the posterior eye row and occasionally with scattered spots (Fig. 4); chelicerae are black, bearing dark setae. Eyes are in two rows with the anterior row straight; anterior median eyes are less than their diameter apart and larger than the laterals; the posterior row is slightly procurved, with medians more than twice their diameter apart; posterior medians are distinctly smaller than anterior medians. Abdomen long oval; yellowish with median pale brown heart mark (Figs 4–5); some specimens pale with no distinct pattern, only occasionally with scattered grey setae; venter uniformly pale. Legs are the same colour as the carapace, with scattered faint spots; tarsi and metatarsi of I, II, and III, IV with dense slate-grey scopula; sometimes femur also with scattered scopula (Fig. 3). Epigyne as in Figs 6–7. Male unknown.



Figures 1–3. *Olios correboni nigrifrons* female. 1. Female in an old *Stegodyphus* retreat in Namibia (A. Eichhoff). 2. Female with egg sac from retreat under a stone from Paulshoek (R. Christiaan) 3. Female dorsal view from Namibia (A. Eichhoff).





Figures 4–7. *Olios correvoeni nigrifrons* female. 4. Dorsal view, alcohol specimen. 5. Dorsal view life specimen. 6–7. Epigyne. Credits: 4 & 6. ASD. 5., Anka Eichhoff. 7. After Lawrence (1928).

## METHODS

Voucher specimens sampled ( $n=26$ ) collected during SANSa surveys are housed in the National Collection of Arachnida (NCA) at the Agricultural Research Council (ARC) in Pretoria. SANSa request-photos of spiders for the SANSa Virtual Museum (Dippenaar-Schoeman *et al.*, 2012), and several photographs of the species were received from the public.

## DISTRIBUTION

**GLOBAL DISTRIBUTION:** Eswatini, **Botswana:** Okwa River (-22.43, 22.96); Kuke Pan (-22.00, 22.00); Molepolole (-24.40, 25.49).

**Namibia:** Farm Otjitambi (-19.48, 15.11); Farm Vergenoeg (-21.10, 18.18) and South Africa.

**DISTRIBUTION IN SOUTH AFRICA (Fig. 8):** **Eastern Cape:** Breakfast Vlei, above Kwancukunca stream (-33.08, 26.95); Middelburg (-31.49, 24.99); Mkambati Nature Reserve (31.31; 29.97). **Free State:** Amanzi Private Game Reserve (-28.62, 26.68); Bloemfontein (Farm Deelhoek) (-29.11, 26.22); Erfenis Dam Nature Reserve (-28.50, 26.80); Luckhoff (-29.73, 24.77); Koppiesdam Nature Reserve (-27.13, 27.42); Willem Pretorius Nature Reserve (-28.17, 27.12). **Gauteng:** Pretoria/Tshwane: Brooklyn (-25.77, 28.24); Moreleta Park (-25.81, 28.29); Barberspan (-26.62, 25.58). **KwaZulu-Natal:** Bonamanzi Nature Reserve (-28.02, 32.28); Ithala Nature Reserve (Doornkraal Camp) (-27.51, 31.23); Ndumo Game Reserve (Crocodile Farm) (-26.87, 32.24); iSimangaliso Wetland Park: Sodwana Bay National Park (Forest Station) (-27.4, 32.76); Hluhluwe (-28.02, 32.28). **Limpopo:** Blouberg Nature Reserve (-22.99, 29.04); Lajuma Mountain Retreat (-23.03, 29.45); Little Leigh (Western Soutpansberg) (-22.95, 29.87); Nylsvley Nature Reserve (-24.65, 28.67). **Mpumalanga:** Kruger National Park (Skukuza Camp) (-25.00, 31.97); Kruger National Park Pretoriuskop (-25.140, 31.208). **North West:** Barberspan (-26.62, 25.58); Swartbooisdrift, Black Rock (-25.27, 28.13). **Northern Cape:** Augrabies National Park (-28.53, 20.29); Namaqua National Park (-30.05, 17.35); Tswalu Game Reserve (-27.30, 22.44); Paulshoek, Kamiesberg (-30.366, 18.256). **Western Cape:** Botrivier (-34.21, 19.2); Prince Albert (Tierberg) (-33.22, 22.03).

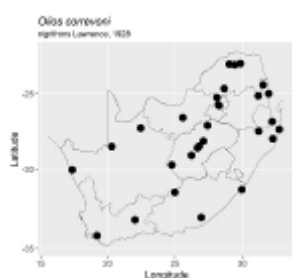


Figure 8. Known distribution in South Africa. Credit: S. Foord



Figures 9–13. *Olios correvoeni nigrifrons*. 9–10. Female with egg sac in silk retreat at Paulshoek (R. Christiaan). 11. Female in old spider nest. 12. Between plants. 13. From rolled up leaf. (11–13. A Eichhoff)



## CONSERVATION

The subspecies, is known from several southern African countries. It has also, as part of SANSa been sampled from all the nine provinces of South Africa and is included in several checklists: Mkam-bati Nature Reserve (Dippenaar-Schoeman et al. 2011); Erfenis Dam Nature Reserve (Fouche *et al.*, 2013); Blouberg Nature Reserve (Foord *et al.*, 2019); Nylsvley Nature Reserve (Dippenaar-Schoeman *et al.*, 2009); Tswalu Game Reserve (Dippenaar-Schoeman *et al.*, 2018); Augrabies National Park (Dippenaar-Schoeman *et al.*, 2021); Prince Albert, Tierberg (Dippenaar-Schoeman *et al.*, 2022) and Ndumo Game Reserve (Haddad *et al.*, 2006).

Although it is presently known only from one sex due to its vast geographical range, the subspecies is listed as being of least concern. When the African *Olios* fauna is revised, this subspecies will probably be recognized as a valid species.

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# A checklist of the spiders (Arachnida, Araneae) of the Golden Gate Highlands National Park, South Africa

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**ABSTRACT:** An annotated species list of spiders presently known from the Golden Gate Highlands National Park is provided. The checklist was compiled from the South African National Survey of Arachnida (SANSa) database and museum collections. Presently, 170 species from 40 families and 116 genera are protected in the park. The most species-rich families are the Salticidae (23 spp.), Thomisidae (20 spp.), and Araneidae (16 spp.) and Gnaphosidae with 14 spp., while 16 families are represented by singletons. The global distribution, endemism and conservation status for each species is provided. A large number of the species (91.6%) have a wide distribution range and are of Least Concern. Approximately 7% of the total South African spider fauna is protected in Golden Gate Highlands National Park, and 29.4 % of the species recorded are South African endemics and four species are Free State Province endemics.

**Keywords:** South African National Survey of Arachnida (SANSa), conservation, endemism, grassland

## INTRODUCTION

In 1997 the Agricultural Research Council registered a project (DIPSA 1296) at SANParks to determine the diversity of arachnids in the different parks. This forms part of the South African National Survey of Arachnida (SANSa) that was initiated in 1997 with the main aim to discover, describe and make an inventory of the South African arachnid fauna (Dippenaar-Schoeman *et al.*, 2015). Species distribution data are essential information needed for the conservation assessments to compile a Red Data List of the spiders of South Africa (Foord *et al.*, 2020) and to determine species already protected in parks and reserves.

SANParks was formed in 1926, and currently manages 20 parks covering > 3% of the total area of South Africa. In terms of the National Environmental Management: Protected Areas Act, 2003 (Act No 57 of 2003), the primary mandate of SANParks is to oversee the conservation of South Africa's biodiversity, landscapes and associated heritage assets through a system of national parks.

During the years several major arachnid surveys were undertaken in the national parks of which the results of 11 parks has been published (Table 1). The current study presents the results of data from the spiders sampled in the Golden Gate Highlands National Park (GGHNP) in the Free State Province (Figs 1 & 2). It includes information on the species' global distribution, endemism and conservation status.

## METHODS

**Study area and period:** The Golden Gate Highlands National Park (GGHNP) is located in the eastern Free State (28°31'S, 28°37'E). In 1963, 47.92 km<sup>2</sup> were proclaimed as a national park. In 1981, the park was enlarged to 62.41 km<sup>2</sup> and in 1988, it was enlarged to 116.33 km<sup>2</sup>. The park was joined with the neighbouring QwaQwa National Park and the amalgamation was completed in 2007, increasing the park's area to 340 km<sup>2</sup>. GGHNP covers an area across the Rooiberg Mountain Range, which forms part of the greater Drakensberg–Maluti mountain system (Fig. 2). 'Golden Gate' refers to the sandstone cliffs found on either side of the valley at the Golden Gate dam in the Maluti Mountains.

The GGHNP falls within the Drakensberg World Heritage region, which boasts mixed heritage status owing to the presence of both culturally and naturally significant features (Grab *et al.*, 2011). The park is an area of rich highveld and montane grassland. It has more than 60 grass species and a large variety of bulbs and herbs. The park also has Afromontane forests and high-altitude Austro-Afro alpine grassland, which is scarce in South Africa.

Annual precipitation varies considerably across the region, but averages approximately 764 mm, of which most falls between November and April. Summer mean temperature ranges from 13 °C to 26 °C



Figures 1-2. The Golden Gate Highlands National Park (GGHNP) in the Free State Province (N. Dippenaar).



and winters temperature ranges from 1 °C to 15 °C). Frost is widespread during the winter months and snow occasionally falls on the higher peaks in the park.



Map 1. Map showing location of the Garden Route National Park.

**Sampling methods and identification:** Spiders were sampled during surveys undertaken by visiting arachnologists, staff of the National Museum in Bloemfontein and the Agricultural Research Institute (ARC) and students of the Free State University. Voucher specimens are housed in the National Museum in Bloemfontein and the National Collection of Arachnida at the ARC. Specimens were included in several taxonomic revisions.

**Conservation status:** The conservation status of each species was derived from a recent National Red List assessment of spiders in South Africa (Foord *et al.*, 2020) where spatial analysis on observed occurrences using functions for Extent of Occurrence (EOO), Area of Occupancy (AOO), and elevational range of the area of occupation was determined.

The assumed knowledge of the full range for all species based on their observed occurrences, and EOO was calculated as the minimum convex polygon around all occurrences, and the 2 km<sup>2</sup> cells occupied were used to calculate AOO. The distribution of threats across lineages was visualized using a mosaic plot, with the size of rectangles representing the proportion of species in a specific family represented within the categories: Data Deficient (DD), Least Concern (LC), (Table 3).

**Endemicity value:** The global distribution of each species was provided to determine the endemicity value of each species (Table 4). Values used to indicate species endemicity (E): 6— only known from the type locality (GGHNP); 5 – known from several localities in the Free State (FSE); 4 – known from Free State as well as an adjacent province; 3 – known from more than two provinces in South Africa (SAE); 2 – known from other Southern African countries (STHE); 1 – known from other countries in the Afrotropical Region (AE); 0 – also from countries outside the Afrotropical Region (CE).

## RESULTS AND DISCUSSION

**Numbers present:** A total of 170 species, 115 genera, from 41 families were recorded (Tables 2 & 4). Ten species could not be identified to species level as their taxonomy was still unresolved.

**Family diversity:** Of the 41 spider families collected from GGHNP (Tables 2 & 4), the most species-rich families were the Salticidae (23 spp.), Thomisidae (20 spp.), Araneidae (16 spp.) and Gnaphosidae with 14 spp. There was a very high proportion of singleton families (16), that is represented by a single species only. This pattern is consistent with the faunal composition of most of the other national parks (Table 1).

TABLE 1. Spider families (FAM) and species (SPP.) recorded from some of the national parks in South Africa with references.

| NATIONAL PARK  | FAM | SPP. | REFERENCES 183.8                         |
|----------------|-----|------|--|
| Addo           | 47  | 276  | Dippenaar-Schoeman <i>et al.</i> , 2020  |
| Augrabies      | 29  | 109  | Dippenaar-Schoeman <i>et al.</i> , 2021b |
| Bontebok       | 44  | 184  | Dippenaar-Schoeman <i>et al.</i> , 2021c |
| Garden Route   | 52  | 245  | Dippenaar-Schoeman <i>et al.</i> , 2024  |
| Golden Gate    | 41  | 170  | Dippenaar-Schoeman & Lotz (in press)     |
| Marakele       | 36  | 135  | Dippenaar-Schoeman <i>et al.</i> , 2021a |
| Mountain Zebra | 38  | 150  | Dippenaar-Schoeman & Lotz 2023           |
| Karoo          | 38  | 148  | Dippenaar-Schoeman <i>et al.</i> , 2024  |
| Kruger         | 50  | 152  | Dippenaar-Schoeman & Leroy, 2003         |
| Table Mountain | 50  | 261  | Haddad & Dippenaar-Schoeman, 2024        |

TABLE 2. Spider diversity of the Golden Gate Highlands National Park, with total number of families, genera (GEN) and species (SPP.) sampled.

| FAMILY           | GEN | SPP. | FAMILY         | GEN | SPP. |
|------------------|-----|------|----------------|-----|------|
| Agelenidae       | 1   | 1    | Palpimanidae   | 1   | 1    |
| Araneidae        | 11  | 16   | Philodromidae  | 4   | 7    |
| Bemmeridae       | 2   | 2    | Pholcidae      | 2   | 3    |
| Caponiidae       | 1   | 1    | Phyxelididae   | 1   | 1    |
| Cheiracanthiidae | 2   | 4    | Pisauridae     | 4   | 4    |
| Clubionidae      | 1   | 2    | Prodromidae    | 1   | 1    |
| Cyrtacheniidae   | 1   | 1    | Salticidae     | 15  | 23   |
| Deinopidae       | 1   | 1    | Scytodidae     | 1   | 2    |
| Dictynidae       | 1   | 1    | Segestriidae   | 1   | 1    |
| Entypesidae      | 1   | 1    | Selenopidae    | 1   | 6    |
| Eresidae         | 2   | 2    | Sicariidae     | 1   | 2    |
| Gnaphosidae      | 10  | 14   | Sparassidae    | 2   | 2    |
| Hahniidae        | 1   | 1    | Tetragnathidae | 3   | 6    |
| Hersiliidae      | 1   | 2    | Theraphosidae  | 1   | 1    |
| Linyphiidae      | 8   | 8    | Theridiidae    | 5   | 7    |
| Lycosidae        | 8   | 12   | Thomisidae     | 10  | 20   |
| Macrobnidae      | 2   | 2    | Trachelidae    | 2   | 2    |
| Miturgidae       | 1   | 1    | Trochanteridae | 1   | 1    |
| Orsolobidae      | 1   | 1    | Uloboridae     | 1   | 1    |
| Oxyopidae        | 2   | 5    | Zodariidae     | 1   | 1    |
|                  |     |      |                | 116 | 170  |

TABLE 3: Conservation status and endemicity of the spider species sampled at the Golden Gate Highlands National Park.

| Conservation status                                      | No. spp. | %    |
|--|----------|------|
| Not evaluated NE   | 10       | 6.5  |
| Data deficient DD  | 5        | 2.9  |
| Least concern LC   | 154      | 91.6 |
| Endemicity   |          |      |
| 0 – Africa and wider (C)                                 | 18       | 10.6 |
| 1 – African endemics (AE)                                | 64       | 37.6 |
| 2 – Southern African endemics (STHE)                     | 47       | 27.6 |
| 3 – South African endemics (SAE)                         | 22       | 12.9 |
| 4 – South African endemics (SAE): two adjacent provinces | 5        | 2.9  |
| 5 – Free State endemics (FSE)                            | 4        | 1.8  |
| 6 – Type locality  | 0        | 0    |

**Endemicity:** Seventeen species (10.12%) sampled at GGHP have a wide distribution wider than Africa, while 64 species (38.09%) are African endemics (AE) and 22 species (13.09%) are Southern African endemics and 31 species 18.45% are South African endemics.

Four species are Free State endemics, *Spiroctenus pilosus* Tucker, 1917 (Bemmeridae), *Ancylotrypa dreyeri* (Hewitt, 1915) (Cyrtau - cheniidae), *Smeringopus lotzi* Hubert, 2012 (Pholcidae) and *Tanzania meridionalis* Haddad & Wesolowska, 2011

GGHP are the type locality of five Salticidae species: *Heliophanus sororius* Wesolowska, 2003, *Langona lotzi* Haddad & Wesolowska, 2011, *Pseudicius maculatus* Haddad & Wesolowska, 2011, *Thyenula armata* Wesolowska, 2001 and *Thyenula oranjensis* Wesolowska, 2001. But they have a wide distribution and are not restricted to the park.

## ACKNOWLEDGEMENTS

This study is a product of the South African National Survey of Arachnida (SANSa) inventories of the South African National Parks. We thank Allen Jones and the late Peter Webb for the use of their photographs.

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*Kilima decens* (ARANEIDAE) (Allen Jones)



*Neoscona moreli* (ARANEIDAE) (Allen Jones)



*Neoscona triangula* (ARANEIDAE) (Allen Jones)



*Pycnacantha tribulus* (ARANEIDAE) (Allen Jones)



*Cheiramiona paradisus* (CHEIRACANTHIIDAE) (L. Lotz)



*Clubiona africana* (CLUBIONIDAE) (Allen Jones)



*Ancylotrypa dreyeri* (CYRTAUCHENIDAE) (Allen Jones)



*Hogna transvaalica* (LYCOSIDAE) (Allen Jones)



*Pardosa crassipalpis* (LYCOSIDAE) (Allen Jones)



*Gephyrota glauca* (PHILODROMIDAE) (Allen Jones)



*Tibellus minor* (PHILODROMIDAE) (Allen Jones)



*Rothus aethiopicus* (PISAURIDAE) (Allen Jones)



*Baryphas ahenus* (SALTICIDAE) (Allen Jones)



*Helaffricanus debilis* (SALTICIDAE) (Allen Jones)



*Loxosceles parramae* (SICARIIDAE) (Allen Jones)





18

*Leucauge decorata* (TETRAGNATHIDAE) (Allen Jones)



19

*Leucauge festiva* (TETRAGNATHIDAE) (Allen Jones)



20

*Tetragnatha keyserlingi* (TETRAGNATHIDAE) (A. Jones)



21

*Harpactira hamiltoni* (THERAPHOSIDAE) (Allen Jones)



22

*Latrodectus renivulvatus* (THERIDIIDAE) (Allen Jones)



23

*Steatoda capensis* (THERIDIIDAE) (Allen Jones)



24

*Misumenops rubrodecoratus* (THOMISIDAE) A. Jones



25

*Runcinia aethiops* (THOMISIDAE) (Allen Jones)



26

*Runcinia erythrina* (THOMISIDAE) (Allen Jones)



27

*Monaeses austrinus* THOMISIDAE) (Allen Jones)



28

*Thomisus daradioides* (THOMISIDAE) (Allen Jones)



29

*Thomisus stenningi* THOMISIDAE) (Allen Jones)



30

*Tmarus foliatus* THOMISIDAE) (Peter Webb)



31

*Xysticus mulleri* THOMISIDAE) (Allen Jones)



32

*Uloborus plumipes* (ULOBORIDAE) (Allen Jones)



TABLE 4: Spiders of Golden Gate National Park listing their endemicity (END), conservation status (CON), country endemicity (CEND).  
LC Least Concern, DD Data Deficient, VU Vulnerable, NE Not Evaluated, EN Endangered

| FAMILY   | END | CON | CEND | FAMILY  | END | CON | CEND |
|--|-----|-----|------|---|-----|-----|------|
| <b>AGELENIDAE</b>  |     |     |      | <i>Camillina cordifera</i> (Tullgren, 1910)                       | 1   | LC  | AE   |
| <i>Benoitia ocellata</i> (Pocock, 1900)                    | 1   | LC  | AE   | <i>Drassodes lophognathus</i> Purcell, 1907                       | 3   | LC  | SAE  |
| <b>ARANEIDAE</b>   |     |     |      | <i>Drassodes splendens</i> Tucker, 1923                           | 2   | LC  | STHE |
| <i>Argiope australis</i> (Walckenaer, 1805)                | 1   | LC  | AE   | <i>Micaria beaufortia</i> (Tucker, 1923)                          | 1   | LC  | AE   |
| <i>Argiope lobata</i> (Pallas, 1772)                       | 0   | LC  | C    | <i>Nomisio varia</i> (Tucker, 1923)                               | 2   | LC  | STHE |
| <i>Cyclosa insulana</i> (Costa, 1834)                      | 0   | LC  | C    | <i>Scotophaeus relegatus</i> Purcell, 1907                        | 2   | LC  | STHE |
| <i>Cyrtophora citricola</i> (Forsskål, 1775)               | 0   | LC  | C    | <i>Setaphis subtilis</i> (Simon, 1897)                            | 0   | LC  | C    |
| <i>Hypsosinga lithyphantoides</i> Caporiacco, 1947         | 1   | LC  | AE   | <i>Trichothyse africana</i> (Tucker, 1923)                        | 2   | LC  | STHE |
| <i>Kilima decens</i> (Blackwall, 1866) (Fig. 3)            | 1   | LC  | AE   | <i>Xerophaeus zuluensis</i> Lawrence, 1938                        | 3   | LC  | SAE  |
| <i>Larinia bifida</i> Tullgren, 1910                       | 1   | LC  | AE   | <i>Zelotes albanicus</i> (Hewitt, 1915)                           | 3   | LC  | SAE  |
| <i>Lipocrea longissima</i> (Simon, 1881)                   | 1   | LC  | AE   | <i>Zelotes fuliginus</i> (Purcell, 1907)                          | 1   | LC  | AE   |
| <i>Nemoscolus vigintipunctatus</i> Simon, 1897             | 2   | LC  | STHE | <i>Zelotes reduncus</i> (Purcell, 1907)                           | 2   | LC  | STHE |
| <i>Neoscona moreli</i> (Vinson, 1863) (Fig. 4)             | 1   | LC  | AE   | <i>Zelotes sclateri</i> Tucker, 1923                              | 2   | LC  | STHE |
| <i>Neoscona rapta</i> (Thorell, 1899)                      | 1   | LC  | AE   | <b>HAHNIIDAE</b>  |     |     |      |
| <i>Neoscona subfusca</i> (C.L. Koch, 1837)                 | 1   | LC  | AE   | <i>Hahnio tabulicola</i> Simon, 1898                              | 1   | LC  | AE   |
| <i>Neoscona triangula</i> (Keyserling, 1864) (Fig. 5)      | 1   | LC  | AE   | <b>HERSILIIDAE</b>  |     |     |      |
| <i>Pycnacantha tribulus</i> (Fabricius, 1781) (Fig. 6)     | 2   | LC  | STHE | <i>Tyrotama abyssus</i> Foord & Dippenaar-Schoeman, 2005          | 2   | LC  | STHE |
| <i>Trichonephila fenestrata</i> (Thorell, 1859)            | 2   | LC  | STHE | <i>Tyrotama australis</i> (Simon, 1893)                           | 2   | LC  | STHE |
| <i>Trichonephila senegalensis annulata</i> (Thorell, 1859) | 2   | LC  | STHE | <b>LINYPHIIDAE</b>  |     |     |      |
| <b>BEMMERIDAE</b>  |     |     |      | <i>Agyneta habra</i> (Locket, 1968)                               | 1   | LC  | AE   |
| <i>Homostola vulpecula</i> Simon, 1892                     | 3   | LC  | SAE  | <i>Ceratinopsis dippenaari</i> Jocqué, 1984                       | 3   | LC  | SAE  |
| <i>Spiroctenus pilosus</i> Tucker, 1917                    | 5   | DD  | SAE  | <i>Metaleptyphantes perexiguus</i> (Simon & Fage, 1922)           | 1   | LC  | AE   |
| <b>CAPONIIDAE</b>  |     |     |      | <i>Microlinyphia sterilis</i> (Pavesi, 1883)                      | 0   | LC  | C    |
| <i>Caponia hastifera</i> Purcell, 1904                     | 4   | LC  | SAE  | <i>Neriele natalensis</i> van Helsdingen, 1969                    | 3   | LC  | SAE  |
| <b>CHEIRACANTHIIDAE</b>                                    |     |     |      | <i>Ostearius melanopygius</i> (O.Pickard-Cambridge, 1880)         | 0   | LC  | C    |
| <i>Cheiracanthium africanum</i> Lessert, 1921              | 1   | LC  | AE   | <i>Pelecopsis janus</i> Jocqué, 1984                              | 2   | LC  | STHE |
| <i>Cheiracanthium furculatum</i> Karsch, 1879              | 1   | LC  | AE   | <i>Tybaertiella krugeri</i> (Simon, 1894)                         | 1   | LC  | AE   |
| <i>Cheiramiona paradisi</i> Lotz, 2003 (Fig. 7)            | 2   | LC  | STHE | <b>LYCOSIDAE</b>  |     |     |      |
| <i>Cheiramiona regis</i> Lotz, 2003                        | 4   | LC  | SAE  | <i>Allocosa aurata</i> (Purcell, 1903)                            | 3   | LC  | SAE  |
| <b>CLUBIONIDAE</b>   |     |     |      | <i>Evippomma squamulatum</i> (Simon, 1898)                        | 2   | LC  | STHE |
| <i>Clubiona africana</i> Lessert, 1921 (Fig. 8)            | 1   | LC  | AE   | <i>Foveosa adunca</i> Russell-Smith, Alderweireldt & Jocqué, 2007 | 3   | LC  | SAE  |
| <i>Clubiona bevisi</i> Lessert, 1923                       | 3   | LC  | SAE  | <i>Hippasa funerea</i> Lessert, 1925                              | 2   | LC  | STHE |
| <b>CYRTAUCHENIIDAE</b>                                     |     |     |      | <i>Hogna transvaalica</i> (Simon, 1898) (Fig. 10)                 | 3   | LC  | SAE  |
| <i>Ancylotrypa dreyeri</i> (Hewitt, 1915) (Fig. 9)         | 5   | DD  | SAE  | <i>Pardosa crassipalpis</i> Purcell, 1903 (Fig. 11)               | 2   | LC  | STHE |
| <b>DEINOPIIDAE</b>   |     |     |      | <i>Proevippa albiventris</i> (Simon, 1898)                        | 2   | LC  | STHE |
| <i>Menneus camelus</i> Pocock, 1902                        | 3   | LC  | SAE  | <i>Proevippa biamplicata</i> (Purcell, 1903)                      | 2   | LC  | STHE |
| <b>DICTYNIDAE</b>  |     |     |      | <i>Proevippa fascicularis</i> (Purcell, 1903)                     | 2   | LC  | STHE |
| <i>Archaeodictyna</i> sp. undetermined                     |     | NE  |      | <i>Proevippa schreineri</i> (Purcell, 1903)                       | 2   | LC  | STHE |
| <b>ENTYPESIDAE</b>   |     |     |      | <i>Trabea purcelli</i> Roewer, 1951                               | 1   | LC  | AE   |
| <i>Lepthercus kwazuluensis</i> Ríos-Tamayo & Lyle, 2020    | 3   | LC  | SAE  | <i>Trabea rubriceps</i> Lawrence, 1952                            | 2   | LC  | STHE |
| <b>ERESIDAE</b>  |     |     |      | <b>MACROBUNIDAE</b>   |     |     |      |
| <i>Dresserus kannemeyeri</i> Tucker, 1920                  | 4   | LC  | SAE  | <i>Chresiona invalida</i> (Simon, 1898)                           | 3   | LC  | SAE  |
| <i>Stegodyphus tentoriicola</i> Purcell, 1904              | 2   | LC  | STHE | <i>Pseudauximus</i> sp. (new?)                                    |     | NE  |      |
| <b>GNAPHOSIDAE</b>   |     |     |      | <b>MITURGIDAE</b>   |     |     |      |
| <i>Asemesthes lineatus</i> Purcell, 1908                   | 1   | LC  | AE   | <i>Parapostenus</i> sp.   |     | NE  |      |
|  |     |     |      | <b>ORSOLOBIDAE</b>  |     |     |      |
|  |     |     |      | <i>Azania lobus lawrencei</i> Griswold & Platnick, 1987           | 2   | LC  | STHE |

| FAMILY   | END | CON | CEND |
|--|-----|-----|------|
| <b>ORSOLOBIDAE</b>   |     |     |      |
| <i>Azania lobus lawrencei</i> Griswold & Platnick, 1987    | 2   | LC  | STHE |
| <b>OXYOPIIDAE</b>  |     |     |      |
| <i>Oxyopes affinis</i> Lessert, 1915                       | 1   | LC  | AE   |
| <i>Oxyopes hoggi</i> Lessert, 1915                         | 1   | LC  | AE   |
| <i>Oxyopes jacksoni</i> Lessert, 1915                      | 1   | LC  | AE   |
| <i>Oxyopes pallidecoloratus</i> Strand, 1906               | 1   | LC  | AE   |
| <i>Peucetia striata</i> Karsch, 1878                       | 1   | LC  | AE   |
| <b>PALPIMANIDAE</b>  |     |     |      |
| <i>Palpimanus transvaalicus</i> Simon, 1893                | 3   | LC  | SAE  |
| <b>PHILODROMIDAE</b>                                       |     |     |      |
| <i>Gephyrota glauca</i> (Jézéquel, 1966) (Fig. 12)         | 1   | LC  | AE   |
| <i>Philodromus browningi</i> Lawrence, 1952                | 2   | LC  | STHE |
| <i>Philodromus guineensis</i> Millot, 1942                 | 1   | LC  | AE   |
| <i>Philodromus grosi</i> Lessert, 1943                     | 1   | LC  | AE   |
| <i>Thanatus vulgaris</i> Simon, 1870                       | 0   | LC  | C    |
| <i>Tibellus hollidayi</i> Lawrence, 1952                   | 1   | LC  | AE   |
| <i>Tibellus minor</i> Lessert, 1919 (Fig. 13)              | 1   | LC  | AE   |
| <b>PHOLCIDAE</b>   |     |     |      |
| <i>Quamtana filmeri</i> Huber, 2003                        | 4   | LC  | SAE  |
| <i>Smeringopus lotzi</i> Huber, 2012                       | 5   | DD  | SAE  |
| <i>Smeringopus natalensis</i> Lawrence, 1947               | 2   | LC  | STHE |
| <b>PHYXELIDIDAE</b>  |     |     |      |
| <i>Vidole sothoana</i> Griswold, 1990                      | 2   | LC  | STHE |
| <b>PISAURIDAE</b>  |     |     |      |
| <i>Chiasmopes lineatus</i> (Pocock, 1898)                  | 1   | LC  | AE   |
| <i>Euprosthenops australis</i> Simon, 1898                 | 1   | LC  | AE   |
| <i>Euprosthenopsis pulchella</i> (Pocock, 1902)            | 2   | LC  | STHE |
| <i>Rothus aethiopicus</i> (Pavesi, 1883) (Fig. 14)         | 1   | LC  | AE   |
| <b>PRODIDOMIDAE</b>  |     |     |      |
| <i>Theuma cedri</i> Purcell, 1907                          | 3   | LC  | SAE  |
| <b>SALTICIDAE</b>  |     |     |      |
| <i>Baryphas ahenus</i> Simon, 1902 (Fig. 15)               | 1   | LC  | AE   |
| <i>Dendryphantus hararensis</i> Wesolowska & Cumming, 2008 | 2   | LC  | STHE |
| <i>Dendryphantus purcelli</i> Peckham & Peckham, 1903      | 1   | LC  | AE   |
| <i>Evarcha prosimilis</i> Wesolowska & Cumming, 2008       | 1   | LC  | AE   |
| <i>Helafricanus debilis</i> (Simon, 1901) (Fig. 16)        | 1   | LC  | AE   |
| <i>Helafricanus hastatus</i> (Wesolowska, 1986)            | 1   | LC  | STHE |
| <i>Heliocapensis aberdarensis</i> (Wesolowska, 1986)       | 1   | LC  | AE   |
| <i>Heliocapensis charlesi</i> (Wesolowska, 2003)           | 3   | LC  | SAE  |
| <i>Heliophanus proszynskii</i> Wesolowska, 2003            | 2   | LC  | STHE |
| <i>Heliophanus sororius</i> Wesolowska, 2003 *             | 2   | LC  | STHE |
| <i>Langona lotzi</i> Haddad & Wesolowska, 2011*            | 2   | LC  | STHE |
| <i>Myrmarachne solitaria</i> Peckham & Peckham, 1903       | 2   | LC  | STHE |
| <i>Natta horizontalis</i> Karsch, 1879                     | 1   | LC  | AE   |
| <i>Pellenes modicus</i> Wesolowska & Russell-Smith, 2000   | 1   | LC  | AE   |
| <i>Phlegma</i> sp. (undetermined)                          |     | NE  |      |
| <i>Pseudicius maculatus</i> Haddad & Wesolowska, 2011      | 2   | LC  | STHE |
| <i>Rhene</i> sp.(undetermined)                             |     | NE  |      |

| FAMILY   | END | CON | CEND |
|--|-----|-----|------|
| <i>Tanzania meridionalis</i> Haddad & Wesolowska, 2011   | 5   | DD  | SAE  |
| <i>Thyene coccineovittata</i> (Simon, 1886)              | 1   | LC  | AE   |
| <i>Thyene thyenioides</i> (Lessert, 1925)                | 1   | LC  | AE   |
| <i>Thyenula armata</i> Wesolowska, 2001*                 | 2   | LC  | STHE |
| <i>Thyenula aurantiaca</i> (Simon, 1902)                 | 2   | LC  | STHE |
| <i>Thyenula oranjensis</i> Wesolowska, 2001*             | 3   | LC  | SAE  |
| <b>SCYTODIDAE</b>  |     |     |      |
| <i>Scytodes caffra</i> Purcell, 1904                     | 1   | LC  | AE   |
| <i>Scytodes drakensbergensis</i> Lawrence, 1947          | 4   | LC  | SAE  |
| <b>SEGESTRIIDAE</b>                                      |     |     |      |
| <i>Ariadna karrooica</i> Purcell, 1904                   | 3   | LC  | SAE  |
| <b>SELENOPIIDAE</b>                                      |     |     |      |
| <i>Anyphops barbertonensis</i> (Lawrence, 1940)          | 1   | LC  | AE   |
| <i>Anyphops barnardi</i> (Lawrence, 1940)                | 2   | LC  | STHE |
| <i>Anyphops broomi</i> (Pocock, 1900)                    | 3   | LC  | SAE  |
| <i>Anyphops karrooicus</i> (Lawrence, 1940)              | 3   | LC  | SAE  |
| <i>Anyphops lawrencei</i> (Roewer, 1951)                 | 2   | LC  | STHE |
| <i>Anyphops</i> sp.(new)                                 |     | NE  |      |
| <b>SICARIIDAE</b>  |     |     |      |
| <i>Loxosceles parramae</i> Newlands, 1981 (Fig. 17)      | 4   | LC  | SAE  |
| <i>Loxosceles similima</i> Lawrence, 1927                | 1   | LC  | AE   |
| <b>SPARASSIDAE</b>                                       |     |     |      |
| <i>Olios</i> sp. (immature)                              |     | NE  |      |
| <i>Palystes superciliosus</i> L. Koch, 1875              | 2   | LC  | STHE |
| <b>TETRAGNATHIDAE</b>                                    |     |     |      |
| <i>Diphya simoni</i> Kauri, 1950                         | 3   | LC  | SAE  |
| <i>Leucauge decorata</i> (Blackwall, 1864) (Fig. 18)     | 0   | LC  | C    |
| <i>Leucauge festiva</i> (Blackwall, 1866) (Fig. 19)      | 1   | LC  | AE   |
| <i>Tetragnatha bogotensis</i> Keyserling, 1865           | 0   | LC  | C    |
| <i>Tetragnatha ceylonica</i> O.P.-Cambridge, 1869        | 0   | LC  | C    |
| <i>Tetragnatha keyserlingi</i> Simon, 1890 (Fig. 20)     | 0   | LC  | C    |
| <b>THERAPHOSIDAE</b>                                     |     |     |      |
| <i>Harpactira hamiltoni</i> Pocock, 1902 (Fig. 21)       | 3   | LC  | SAE  |
| <b>THERIDIIDAE</b>                                       |     |     |      |
| <i>Episinus bilineatus</i> Simon, 1894                   | 2   | LC  | STHE |
| <i>Latrodectus renivulvatus</i> Dahl, 1902 (Fig. 22)     | 1   | LC  | AE   |
| <i>Steatoda capensis</i> Hann, 1990 (Fig. 23)            | 0   | LC  | C    |
| <i>Theridion</i> sp. 1 (undetermined)                    |     | NE  |      |
| <i>Theridion</i> sp. 2 (undetermined)                    |     | NE  |      |
| <i>Theridion</i> sp. 3 (undetermined)                    |     | NE  |      |
| <i>Tidarren cuneolatum</i> (Tullgren, 1910)              | 1   | LC  | AE   |
| <b>THOMISIDAE</b>  |     |     |      |
| <i>Diaea puncta</i> Karsch, 1884                         | 1   | LC  | AE   |
| <i>Misumenops rubrodecoratus</i> Millot, 1942 (Fig. 22)  | 1   | LC  | AE   |
| <i>Monaeses austrinus</i> Simon, 1910 (Fig. 25)          | 1   | LC  | AE   |
| <i>Monaeses paradoxus</i> (Lucas, 1846)                  | 0   | LC  | C    |
| <i>Monaeses pustulosus</i> Pavesi, 1895                  | 1   | LC  | AE   |
| <i>Monaeses quadrituberculatus</i> Lawrence, 1927        | 1   | LC  | AE   |
| <i>Oxytate concolor</i> (Caporiacco, 1947)               | 1   | LC  | AE   |
| <i>Pherecydes tuberculatus</i> O.Pickard-Cambridge, 1883 | 2   | LC  | STHE |
| <i>Runcinia aethiops</i> (Simon, 1901)( Fig. 23)         | 1   | LC  | AE   |



| FAMILY  | END | CON | CEND |
|---|-----|-----|------|
| <i>Runcinia erythrina</i> Jézéquel, 1964 (Fig. 24)            | 1   | LC  | AE   |
| <i>Runcinia flavida</i> (Simon, 1881)                         | 0   | LC  | C    |
| <i>Runcinia insecta</i> (L. Koch, 1875)                       | 0   | LC  | C    |
| <i>Synema simoneae</i> Lessert, 1919                          | 1   | LC  | AE   |
| <i>Synema vallotoni</i> Lessert, 1923                         | 2   | LC  | STHE |
| <i>Thomisus australis</i> Comellini, 1957                     | 1   | LC  | AE   |
| <i>Thomisus daradioides</i> Simon, 1890 (Fig. 26)             | 0   | LC  | C    |
| <i>Thomisus stenningi</i> Pocock, 1900 (Fig. 27)              | 1   | LC  | AE   |
| <i>Tmarus cameliformis</i> Millot, 1942                       | 1   | LC  | AE   |
| <i>Tmarus foliatus</i> Lessert, 1928 (Fig. 28)                | 1   | LC  | AE   |
| <i>Xysticus mulleri</i> Lawrence, 1952 (Fig. 29)              | 2   | LC  | STHE |
| <b>TRACHELIDAE</b>  |     |     |      |
| <i>Afrocto martini</i> (Simon, 1897)                          | 2   | LC  | STHE |
| <i>Capobula montana</i> Haddad et al. 2021                    | 2   | LC  | STHE |
| <b>TROCHANTERIIDAE</b>  |     |     |      |
| <i>Platyoides walteri</i> (Karsch, 1887)                      | 1   | LC  | AE   |
| <b>ULOBORIDAE</b>   |     |     |      |
| <i>Uloborus plumipes</i> Lucas, 1846 (Fig. 30)                | 0   | LC  | C    |
| <b>ZODARIIDAE</b>   |     |     |      |
| <i>Diores termitophagus</i> Jocqué & Dippenaar-Schoeman, 1992 | 4   | DD  | SAE  |