A checklist of the spiders (Arachnida, Araneae) of Gondwana Private Game Reserve, in the Western Cape, South Africa

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Abstract: This paper provides the first annotated species list of spiders presently known from Gondwana Private Game Reserve, a reserve recognised as a Cape Floral World Heritage Site in the Western Cape. A total of 148 species from 106 genera and 33 families were recorded and photographed. The most species-rich families are the Araneidae (32 spp.), Thomisidae (20 spp.) and Salticidae (17 spp.). Several species are possibly new to science. The conservation status and level of endemicity, based on their known distribution, are provided for each species.

Keywords: conservation, endemicity, Fynbos Biome, South African National Survey of Arachnida

INTRODUCTION

The Gondwana Private Game Reserve (GPGR) is situated on the south-western border of the Western Cape, South Africa, approximately 30 km from Mossel Bay. The reserve is recognised as a Cape Floral World Heritage Site in the Fynbos Biome. Despite the relatively small extent of coverage of the biome, about 6.7% in South Africa, it is regarded as a priority hotspot for conservation (Goldblatt, 1997).

As part of the South African National Survey of Arachnida (SANSA), several surveys have been undertaken in the Fynbos Biome and presently a total of 466 localities have been sampled in this biome, with >11 000 specimens recorded. Presently, 67 spider families represented by 1 014 spp. are known from the biome (Dippenaar-Schoeman *et al.,* 2015). To date, only a few studies have been published that focus on fynbos spider diversity: the Swartberg Nature Reserve (Dippenaar-Schoeman *et al*., 2005), De Hoop Nature Reserve (Haddad & Dippenaar-Schoeman, 2009); Cederberg Wilderness Area (Foord & Dippenaar-Schoeman, 2016); Bontebok National Park (Dippenaar-Schoeman *et al*., 2021), and Thyspunt (Dippenaar-Schoeman & Wiese, 2022).

Here we report on a survey that was undertaken in the GPGR with the aim to determine the spider diversity and to photograph all the species to generate the first species checklist. The conservation status and level of endemicity of each species sampled are provided that can serve as a reference for future studies in the Fynbos Biome.

MATERIAL AND METHODS

Study area: The GPGR covers 11 000 ha and is situated at the foot of the Langeberg mountains in the Western Cape province, South Africa (-34.089, 21.912) (Fig. 4). It is a core conservation area in the Fynbos Biome and it receives 400–690 mm of rainfall annually for the years 2017–2022. The vegetation can broadly be classified as fynbos (Figs 1–2), old pasturelands (grasslands) (Fig. 3), shale renosterveld, indigenous thickets, and invasive alien forests (black wattle).

Collecting methods: The Gondwana Conservation Foundation or GCF (under leadership of second author) is presently busy with surveys to determine the biodiversity of the fauna and flora of the reserve. Surveys are done through vegetation sweeps and *ad hoc* observations of species found on the vegetation. Specimens are collected, photographed, and released. Images are housed in iNaturalist (697 records). Identifications of species listed here were made by the first author.

Figure 1. Gondwana Game Reserve mixed fynbos. Photo credit: Jolandie Buck.

Figure 2. Gondwana Game Reserve wetland. Photo credit: Jolandie Buck.

Figure 3. Gondwana Game Reserve grassland. Photo credit: Jolandie Buck.

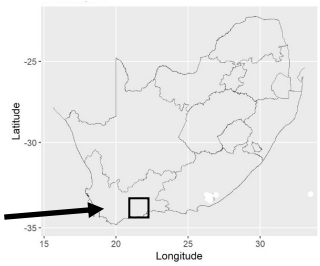

Figure 4. Map showing location of the Gondwana Private Game Reserve in the Western Cape.

The checklist includes additional species that were previously sampled from GPGR and now housed in the National Collection of Arachnida (NCA) at the Agricultural Research Council (Dippenaar-Schoeman *et al.,* 2015).

Endemicity value: The indices to assess the endemicity value and conservation status of each species are: 6—species only known from the type locality (GGR); 5—species known only from the Western Cape, a Western Cape endemic (WCE); 4—species known from the Western Cape and a adjoining province; 3—known from >three provinces, a South African endemic (SAE); 2—known from other countries in Southern Africa (STHE); 1—known from several countries in the Afrotropical Region (AE); 0—also from outside the Afrotropical Region (Foord *et al.,* 2020).

Conservation status: This value was determined for each species from a recent Red List assessment of spiders in South Africa (Foord *et al.,* 2020).

- LC: least concern, when species has a wide distribution;
- DD: data deficient, through either a lack of distribution data or taxonomic resources;
- NE: species not evaluated because they are immature or those that represent possible new species or undetermined taxa.
- EN: endangered.

RESULTS AND DISCUSSION

Numbers present: A total of 148 species in 106 genera and 33 families were recorded (Table 1; Appendix 1). Sixteen species could not be identified to species level as some specimens were immature and some were possibly new species or new records of species to South Africa (Appendix 1). The number of species collected compares well with other fynbos surveys, e.g. the Swartberg Nature Reserve, where 186 species were sampled (Dippenaar-Schoeman *et al*., 2005) and 184 species from the Bontebok National Park (Dippenaar-Schoeman *et al.*, 2021).

Of the 33 spider families collected from GPGR (Table 1; Appendix 1), the Araneidae (32 spp.), Thomisidae (20 spp.) and the Salticidae (17 spp.) were the most species-rich, while 14 families were only represented by a single species.

Conservation status: Of the 148 species sampled, 7 spp. (4.7%) are data deficient (DD), i.e., lacking taxonomic or distribution data. The majority of the species (124 spp., 83.8%) are listed as least concern (LC). They have a wide distribution with 61.5% of the species also known outside South Africa (Table 2). Seventeen of the species were not evaluated (NE), seven were immature, and ten may be new to science (Figs 6–12). Only one species, *Diores dowsetti* Jocqué, 1990 (Zodariidae), is listed as endangered due to the species having a small restricted distribution range (<5 000 km^2).

TABLE 1: Spider diversity of the Gondwana Private Game Reserve with the total number of families, genera (GEN) and species (SPP.).

FAMILIES	GEN	SPP.	FAMILIES	GEN	SPP.
Amaurobiidae	2	2	Palpimanidae	1	1
Araneidae	20	32	Philodromidae	3	3
Bemmeridae	1	1	Phyxelididae	2	2
Caponiidae	1	1	Pisauridae	4	5
Cheiracanthiidae	2	2	Salticidae	11	17
Clubionidae	1	2	Scytodidae	1	1
Corinnidae	1	1	Selenopidae	1	2
Ctenidae	1	1	Sparassidae	3	5
Deinopidae	1	1	Stasimopidae	1	1
Desidae	1	1	Tetragnathidae	2	3
Dictynidae	1	1	Theraphosidae	2	3
Eresidae	2	2	Theridiidae	10	11
Gallieniellidae	1	1	Thomisidae	12	20
Gnaphosidae	3	3	Trachelidae	1	1
Hahniidae	1	1	Zodariidae	3	4
Lycosidae	7	8	Zoropsidae	1	1
Oxyopidae	2	8		106	148

Species endemicity: A large percentage of species (49 spp., 33.1%) have a wide distribution throughout Africa, while 17 spp. (11.5%) are also found wider than Africa. A total of 25 spp. (16.9%) are endemics to Southern Africa, and only 57 spp. (38.5%) are South African endemics.

There are presently 15 of the GPGR species endemic to the Western Cape and 12 near endemics, but at this stage no species are endemic to the reserve. However, some of the 16 species not evaluated might be new to science.

TABLE 2: Conservation status and endemicity of the spider species sampled at the Gondwana Private Game Reserve.

DISTRIBUTION	SPP.	%
CONSERVATION STATUS		
DD data deficient	7	4.7
LC least concern	123	83.2
NE not evaluated	17	11.4
EN Endangered	1	0.7
ENDEMICITY		
0 – Africa and wider (C)	17	11.5
1 – Africa endemics (AE)	49	33.1
2 – Southern African endemics (STHE)	25	16.9
3 – South African endemics (SAE)	15	10.1
4 – South African endemics (SAE): two adjacent provinces	12	8.1
5 –Western Cape endemics (WCE)	14	9.5
6 – Gondwana Private Game Reserve (GPGR)	0	0

CONCLUSION

This survey contributes to our knowledge on the geographical distribution of spider species in the Fynbos Biome. Although this paper probably represents only a portion of the spider fauna present, we hope this information will stimulate further interest and research.

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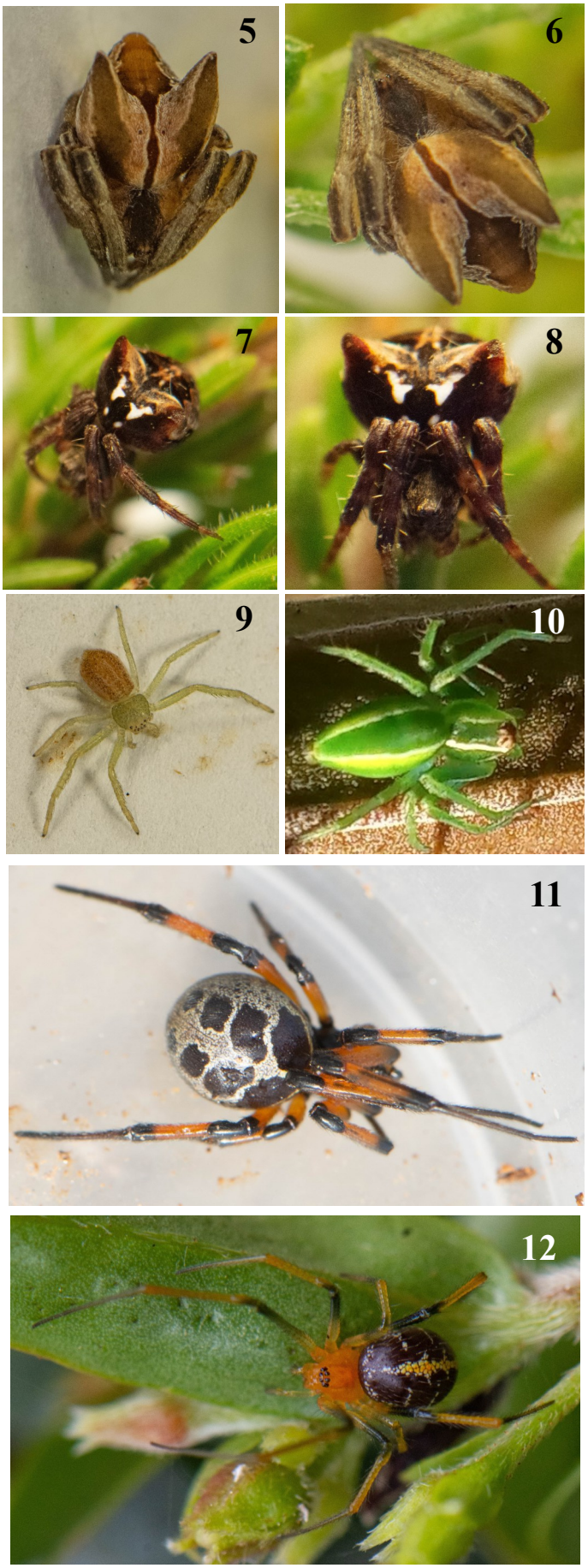

Figures 5–12. Undetermined species from Gondwana Private Game Reserve. 5–8. Araneidae species. 9. New Philodromidae genus. 10. Undescribed *Oxyopes* sp. 11. Theridiidae sp. 1 cf. *Spinembolia*. 12. Theridiidae *Ruborridion* sp. new. Photo credits: Jolandie Buck.

Figures 12–26. Species from Gondwana Private Game Reserve. 12–19 Araneidae spp. 12. *Isoxya semiflava*. 13. *Araneus coccinella.* 14. *Gasteracantha sanguinolenta.* 15. *Pycnacantha tribulus.* 16. *Neoscona hirta.* 17. *Argiope trifasciata.* 18. *Cyclosa insulana.* 19. *Gea infuscata.* 20. *Gandanameno fumosa* (Eresidae). 21. *Caponia capensis* (Caponiidae). 22. *Aphantaulax stationis* (Gnaphosidae). 23. *Drassodella quinquelabecula* (Gallieniellidae). 24. *Phaenopoma nigropunctatum* (Thomisidae). 25. *Thyene bucculenta* (Salticidae). 26. *Rhene capensis* (Salticidae). Photo credits: Jolandie Buck.

Fig-

APPENDIX 1: Spiders of Gondwana Private Game Reserve (GPGR) listing their endemicity (END), conservation status (CON), and country endemicity (CEND).

FAMILIES	SPECIES	END	CON	CEND
AMAUROBIIDAE	*Chresiona* sp. immature		NE	
	Chumma gastroperforata Jocqué, 2001	4	LC	SAE
ARANEIDAE	*Arachnura scorpionoides* Vinson, 1863	1	LC	AE
	Araneus coccinella Pocock, 1898 (Fig. 12)	3	LC	SAE
	Araneus haploscapella (Strand, 1907)	3	DD	SAE
	Araneus nigroquadratus Lawrence, 1937	2	LC	STHE
	Argiope australis (Walckenaer, 1805)	1	LC	AE
	Argiope trifasciata (Forsskål, 1775) (Fig. 17)	0	LC	C
	Caerostris corticosa Pocock, 1902	2	LC	STHE
	Caerostris sexcuspidata (Fabricius, 1793)	1	LC	AE
	Cyclosa insulana (Costa, 1834) (Fig. 18)	0	LC	C
	Cyclosa oculata (Walckenaer, 1802)	0	LC	C
	Cyrtophora citricola (Forsskål, 1775)	0	LC	C
	Gasteracantha sanguinolenta C.L. Koch, 1844 (Fig. 14)	1	LC	AE
	Gea infuscata Tullgren, 1910 (Fig. 19)	1	LC	AE
	Hypsacantha crucimaculata (Dahl, 1914)	1	LC	AE
	Isoxya cicatricosa (C.L. Koch, 1844)	1	LC	AE
	Isoxya semiflava Simon, 1887 (Fig. 12)	1	LC	AE
	Larinia natalensis (Grasshoff, 1971)	3	LC	SAE
	Nemoscolus tubicola (Simon, 1887)	2	LC	STHE
	Neoscona hirta (C.L. Koch, 1844) (Fig. 16)	1	LC	AE
	Neoscona moreli (Vinson, 1863)	0	LC	C
	Neoscona novella (Simon, 1907)	1	LC	AE
	Neoscona rufipalpis (Lucas, 1858)	1	LC	AE
	Neoscona subfusca (C.L. Koch, 1837)	0	LC	C
	Neoscona theisi theisiella (Tullgren, 1910)	1	LC	AE
	Pararaneus cyrtoscapus (Pocock, 1898)	1	LC	AE
	Paraplectana sp. immature		NE	
	Poltys sp. immature		NE	
	Pycnacantha tribulus (Fabricius, 1781) (Fig. 15)	2	LC	STHE
	Trichonephila fenestrata (Thorell, 1859)	2	LC	STHE
	Zygiella x-notata (Clerck, 1757)	0	LC	C
	Araneidae sp. 1 (undetermined new?) (Figs 5–6)		NE	
	Araneidae sp. 2 (undetermined new?) (Figs 7–8)		NE	
BEMMERIDAE	*Homostola reticulata* (Purcell, 1902)	5	DD	SAE
CAPONIIDAE	*Caponia capensis* Purcell, 1904 (Fig. 21)	2	LC	STHE
CHEIRACANTHIIDAE	*Cheiracanthium africanum* Lessert, 1921	1	LC	AE
	Cheiramiona clavigera (Simon, 1897)	3	LC	SAE
CLUBIONIDAE	*Clubiona abbajensis* Strand, 1906	1	LC	AE
	Clubiona sp. immature		NE	
CORINNIDAE	*Apochinomma* sp. new		NE	
CTENIDAE	*Ctenus parvoculatus* Benoit, 1979	3	LC	SAE
DEINOPIDAE	*Menneus capensis* (Purcell, 1904)	5	LC	SAE
DESIDAE	*Badumna longinqua* (L. Koch, 1867)	0	LC	C
DICTYNIDAE	*Shango capicola* (Strand, 1909)	5	DD	SAE
ERESIDAE	*Gandanameno fumosa* (C.L. Koch, 1837) (Fig. 20)	3	LC	SAE
	Stegodyphus mimosarum Pavesi, 1883	1	LC	AE

FAMILIES	SPECIES	END	CON	CEND
GALLIENIELLIDAE	*Drassodella quinquelabecula* Tucker, 1923 (Fig. 23)	5	LC	SAE
GNAPHOSIDAE	*Aphantaulax stationis* Tucker, 1923 (Fig. 22)	2	LC	STHE
	Pterotricha auris (Tucker, 1923)	3	LC	SAE
	Scotophaeus relegatus Purcell, 1907	2	LC	STHE
HAHNIIDAE	*Hahnia clathrata* Simon, 1898	2	LC	STHE
LYCOSIDAE	*Arctosa promontorii* (Purcell, 1900)	3	LC	SAE
	Hippasa funerea Lessert, 1925	2	LC	STHE
	Hogna bimaculata (Purcell, 1903)	2	LC	STHE
	Pardosa crassipalpis Purcell, 1903	2	LC	STHE
	Proevippa biampliata (Purcell, 1903)	2	LC	STHE
	Proevippa bruneipes (Purcell, 1903)	2	LC	STHE
	Pterartoria subcrucifera (Purcell, 1903)	4	LC	SAE
	Trabea purcelli Roewer, 1951	1	LC	AE
OXYOPIDAE	*Hamataliwa kulczynskii* (Lessert, 1915)	1	LC	AE
	Oxyopes affinis Lessert, 1915	1	LC	AE
	Oxyopes bothai Lessert, 1915	1	LC	AE
	Oxyopes morpho sp. 3 (new) (Fig. 10)	2	LC	STHE
	Oxyopes hoggi Lessert, 1915	1	LC	AE
	Oxyopes russoi Caporiacco, 1940	1	LC	AE
	Oxyopes vogelsangeri Lessert, 1946	1	LC	AE
	Oxyopes sp. immature		NE	
PALPIMANIDAE	*Palpimanus capensis* Simon, 1893	3	LC	SAE
PHILODROMIDAE	*Philodromus guineensis* Millot, 1941	1	LC	AE
	New genus n. sp. (Fig. 9)		NE	
	Tibellus hollidayi Lawrence, 1952	1	LC	AE
PHYXELIDIDAE	*Namaquarachne tropata* Griswold, 1990	5	LC	SAE
	Vidole capensis (Pocock, 1900)	3	LC	SAE
PISAURIDAE	*Chiasmopes lineatus* (Pocock, 1898)	1	LC	AE
	Chiasmopes namaquensis (Roewer, 1955)	2	LC	STHE
	Euprosthenopsis pulchella (Pocock, 1902)	2	LC	STHE
	Nilus massajae (Pavesi, 1883)	1	LC	AE
	Rothus aethiopicus (Pavesi, 1883)	1	LC	AE
SALTICIDAE	*Baryphas ahenus* Simon, 1902	1	LC	AE
	Evarcha denticulata Haddad & Wesołowska, 2013	4	LC	SAE
	Heliophanus capensis Wesołowska, 1986	4	LC	SAE
	Heliophanus capicola Simon, 1901	2	LC	STHE
	Heliophanus claviger Simon, 1901	4	LC	SAE
	Heliophanus insperatus Wesołowska, 1986	1	LC	AE
	Heliophanus peckhami Simon, 1902	5	LC	SAE
	Massagris honesta Wesołowska, 1993	4	LC	SAE
	Myrmarachne sp. immature		NE	
	Natta chionogaster (Simon, 1901)	1	LC	AE
	Oviballus vidae Azarkina & Haddad, 2020	3	LC	SAE
	Pseudicius africanus Peckham & Peckham, 1903	2	LC	STHE
	Pellenes modicus Wesołowska & Russell-Smith, 2000	1	LC	AE
	Rhene capensis Strand, 1909 (Fig. 26)	5	DD	SAE

FAMILIES	SPECIES	END	CON	CEND
	Thyene bucculenta (Gerstäcker, 1873) (Fig. 25)	1	LC	AE
	Thyene inflata (Gerstäcker, 1873)	1	LC	AE
	Thyene thyenioides (Lessert, 1925)	1	LC	AE
SCYTODIDAE	*Scytodes cedri* Purcell, 1904	4	LC	SAE
SELENOPIDAE	*Anyphops atomarius* (Simon, 1887)	4	LC	SAE
	Anyphops sp. immature		NE	
SPARASSIDAE	*Olios chelifer* Lawrence, 1937	3	LC	SAE
	Palystes superciliosus L. Koch, 1875	2	LC	STHE
	Parapalystes lycosinus (Pocock, 1900)	4	LC	SAE
	Parapalystes megacephalus (C.L. Koch, 1845)	5	DD	SAE
	Parapalystes cf. *whiteae* (Pocock, 1902)		NE	
STASIMOPIDAE	*Stasimopus brevipalpis* Purcell, 1903	5	DD	SAE
TETRAGNATHIDAE	*Leucauge auronotum* Strand, 1907	3	LC	SAE
	Leucauge festiva (Blackwall, 1866)	1	LC	AE
	Tetragnatha demissa L. Koch, 1872	0	LC	C
THERAPHOSIDAE	*Harpactira cafreriana* (Walckenaer, 1837)	5	LC	SAE
	Harpactira namaquensis Purcell, 1902	4	LC	SAE
	Harpactirella domicola Purcell, 1903	5	LC	SAE
THERIDIIDAE	*Argyrodes argyrodes* (Walckenaer, 1841)	0	LC	C
	Euryopis episinoides (Walckenaer, 1847)	0	LC	C
	Latrodectus geometricus C.L. Koch, 1841	0	LC	C
	Latrodectus renivulvatus Dahl, 1902	1	LC	AE
	Phoroncidia capensis (Simon, 1895)	5	DD	SAE
	Ruborridion n.sp. (Fig. 12)		NE	
	Steatoda capensis Hann, 1990	0	LC	C
	Theridiidae sp. 1 cf. *Spinembolia* (Fig. 11)		NE	
	Theridiidae sp. 2 cf. *Macaridion*		NE	
	Theridiidae sp. 3 cf. *Dipoenura*		NE	
	Theridiidae sp. 4 cf. *Theridion*		NE	
THOMISIDAE	*Camaricus nigrotesselatus* Simon, 1895	1	LC	AE
	Diaea albicincta Pavesi, 1883	1	LC	AE
	Holopelus almiae Dippenaar-Schoeman, 1986	4	LC	SAE
	Monaeses paradoxus Lucas, 1864	0	LC	C
	Oxytate argenteooculata (Simon, 1886)	1	LC	AE
	Phaenopoma nigropunctatum (O.P.-Cambridge, 1883) (Fig. 24)	3	LC	SAE
	Pherecydes tuberculatus O.P.-Cambridge, 1883	2	LC	STHE
	Phrynarachne melloleitaoi Lessert, 1933	2	LC	STHE
	Runcinia flavida (Simon, 1881)	0	LC	C
	Synema imitatrix (Pavesi, 1883)	1	LC	AE
	Synema marlothi Dahl, 1907	2	LC	STHE
	Synema riflense Strand, 1909	3	LC	SAE
	Thomisus australis Comellini, 1957	1	LC	AE
	Thomisus blandus Karsch, 1880	1	LC	AE
	Thomisus citrinellus Simon, 1875	0	LC	C
	Thomisus dalmasi Lessert, 1919	1	LC	AE
	Thomisus daradioides Simon, 1890	0	LC	C

FAMILIES	SPECIES	END	CON	CEND
	Thomisus kalaharinus Lawrence, 1936	1	LC	AE
	Thomisus stenningi Pocock, 1900	1	LC	AE
	Tmarus foliatus Lessert, 1928	1	LC	AE
TRACHELIDAE	*Afroceto martini* (Simon, 1897)	2	LC	STHE
ZODARIIDAE	*Chariobas cylindraceus* Simon, 1893	1	LC	AE
	Chariobas lineatus Pocock, 1900	4	LC	SAE
	Cicynethus mossambicus Jocqué & Henrard, 2018	2	LC	STHE
	Diores dowsetti Jocqué, 1990	5	EN	SAE
ZOROPSIDAE	*Phanotea digitata* Griswold, 1994	5	LC	SAE

A checklist of the spiders (Arachnida, Araneae) of the Benfontein Nature Reserve in the Northern Cape province, South Africa

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ABSTRACT: The aim of this study was to compile the first checklist of the spider species in the Northern Cape province at the Benfontein Nature Reserve. Spiders were collected during different survey periods using different collecting methods to sample both the ground and field layers. In total, 36 families represented by 112 genera and 167 species have been collected so far. The most species-rich families are the Gnaphosidae (35 spp.) and Salticidae (21 spp.), followed by the Lycosidae (11 spp.) and Araneidae (11 spp.), while 10 families are represented by singletons. Information on endemicity value and conservation status are provided. Most of the species (92.2%) in the Benfontein Nature Reserve have a wide distribution with no known threats, with eight species that are data deficient and five were not evaluated. A large number of species (40.7%) are known throughout Southern Africa, while 21.6% of the species found in the reserve are African endemics, 49 spp. (29.3%) are South African endemics, and only four species (2.4%) are Northern Cape endemics.

Keywords: biodiversity, conservation, red list, South African National Survey of Arachnida

INTRODUCTION

The South African National Survey of Arachnida (SANSA) collates species distribution data that are essential information needed for the conservation assessments when compiling a Red Data List (Dippenaar-Schoeman *et al*., 2015; Foord *et al*., 2020). Survey data are needed to obtain species-specific information, and to determine new, rare, and/or endemic species and resources that are already in place in existing protected areas. The publication of these species checklists formed the basis of the first spider atlas (Dippenaar-Schoeman *et al*., 2010). The data are also used by the different provinces in their biodiversity assessments and action plans.

In South Africa, although the Northern Cape is the largest province (29.7%), it is still one of the poorest-sampled provinces, with only 490 spp. represented by 49 families known (Dippenaar-Schoeman *et al*., 2015). Several surveys have been conducted in the province but only a few checklists have been published such as spider diversity in pistachio orchards in the arid Northern Cape at Prieska (Haddad *et al*., 2004, 2005, 2008; Haddad & Dippenaar-Schoeman, 2005); spiders from the Tswalu Kalahari Game Reserve (Dippenaar-Schoeman *et al*., 2018), and the Augrabies National Park (Dippenaar-Schoeman *et al*., 2021).

The current study presents the results of SANSA sampling and by-catch sampling in the Benfontein Nature Reserve on the border of the Northern Cape and Free State. Benfontein Nature Reserve (BNR) forms part of the Diamond Route Reserves, a set of sites across South Africa that conserve biodiversity and provide education and sustainability opportunities through the De Beers Group of Companies, E. Oppenheimer and Son and Ponahalo Investments. It is currently being managed as a nature reserve. Information on spider guilds, their habitat preference, and endemicity index and conservation status are provided.

MATERIAL AND METHODS

Study area: BNR (-28.841, 24.851) is situated 14 km south-east of Kimberley and consists of flat plains on the central South African plateau at an altitude of about 1 180 m.a.s.l. with an area covering 11 000 ha (Figs 1 & 2).

It consist of a large calcrete pan (300 ha in size and c. 6 km in length) in the north-west that fills with water during good rains, creating a fertile shallow wetland. Specialised salt-tolerant plant communities surround the pan and two prominent drainage lines flow into it from the east. Away from the pan, the ground levels off and red Kalahari sand occurs to the south-east.

BNR is located in a transitional zone where Karoo, grassland and Kalahari thornveld savannah meet. The vegetation is mostly semi-open savanna of the Savanna Biome, with the Nama Karoo Biome present around the pan. There are three vegetation types: Highveld Salt Pans, Northern Upper Karoo, and Kimberley Thornveld. In the Kimberley Thornveld, the vegetation is generally open camel thorn *Vachellia erioloba* savanna in tall grass on deep red sands. The grass layer is complex and is dominated by *Eragrostis* species, silky grasses *Stipagrostis* species and stick grasses *Aristida* species. After good rains the flat country in the east becomes grassy, with red grass *Themeda triandra* and turpentine grass *Cymbopogon plurinodis* dominating.

Figure 1. Benfontein Nature Reserve

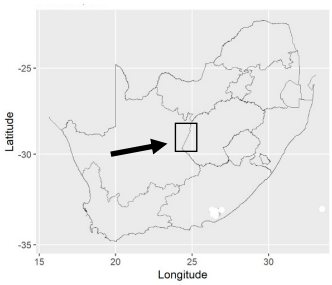

FIGURE 2: Map showing the location of the locality of the Benfontein Nature Reserve in the Northern Cape province.

Sampling method and period: Different surveys were undertaken over several years (1981–2018) (Table 1). The main focus was ground fauna sampling using pitfall traps. Identification was done by both authors. All the sampled material were deposited as voucher specimens at the National Collection of Arachnida (NCA) of the Agricultural Research Council in Pretoria. Only the generic names were included in the checklist when immature specimens were sampled and where some families lack taxonomic research to make species level identifications impossible.

TABLE 1: Surveys undertaken at the Benfontein Nature Reserve.

SURVEY TEAM	SAMPLING PROTOCOL	DATE
S. Erasmus (student)	Pitfall traps by-catch termite survey (by-catch)	1981 (12 months)
F. Dalerum	Pitfall traps sampling (by-catch)	2006–2011
C. Haddad	ad hoc sampling	2010
H. Badenhorst (student)	Pitfall traps sampling	2018

Endemicity value: The global distribution of species was used to determine the endemicity value of each species (Table 3).

Values used to indicate species endemicity (E):
6 – only known from the type locality (BNR);
5 – known from several localities in the Northern Cape (NCE);
4 – known from Northern Cape as well as a adjacent provinces;
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).

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 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^2 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 four categories: data deficient (DD), least concern (LC), rare, and threatened (Foord *et al*., 2020).

RESULTS AND DISCUSSION

Numbers present: A total of 167 species in 112 genera and 36 families were recorded (Tables 2 & 4). With the high number of pitfall traps used, the family Gnaphosidae was the most diverse family, with 35 species sampled, followed by the Salticidae with 21 species, and Araneidae and Lycosidae (11 spp.) (Table 2). Ten of the families are known only from a single species.

It compares well with the diversity of Tswalu Kalahari Reserve where 32 families represented by 108 genera and 136 species have been collected so far (Dippenaar-Schoeman *et al*., 2018).

TABLE 2: The spider families , genera (GEN) and species (SPP.) sampled at the Benfontein Nature Reserve in the Northern Cape, South Africa.

FAMILY	GEN	SPP.	FAMILY	GEN	SPP.
Agelenidae	3	4	Oxyopidae	2	3
Araneidae	8	11	Palpimanidae	2	2
Caponiidae	1	1	Philodromidae	5	5
Cheiracanthiidae	1	2	Pholcidae	2	4
Corinnidae	3	3	Phyxelididae	1	1
Ctenidae	1	1	Pisauridae	2	2
Cyrtaucheniidae	1	4	Prodidomidae	2	3
Dictynidae	1	1	Salticidae	10	21
Eresidae	3	4	Scytodidae	1	2
Gallieniellidae	1	1	Segestriidae	1	1
Gnaphosidae	14	35	Sicariidae	2	2
Hersiliidae	1	1	Sparassidae	2	2
Idiopidae	2	2	Theraphosidae	1	1
Linyphiidae	2	2	Theridiidae	5	7
Lycosidae	8	11	Thomisidae	8	9
Oecobiidae	1	1	Trachelidae	4	4
Oonopidae	4	5	Zodariidae	5	7
Orsolobidae	1	1	**36**	**112**	**167**

Conservation status: Most of the species 154 (92.2%) have a wide distribution range and are listed as Least Concern while eight species are Data Deficient, lacking distribution or taxonomic resolution (Table 3). Species of the three genera (*Castianeira*, *Dictyna,* and *Orchestina*) still lack taxonomic resolution and five were not evaluated. The Orsolobidae species sampled is possibly new to science (Table 4).

Species endemicity: A large percentage of species (36 spp., 21.6%) have a wide distribution throughout Africa, while 9 spp. (5.3%) are also found wider than Africa. A total of 68 spp. (40.7%) are endemics to Southern Africa and 49 spp. (29.3%) are South African endemics.

The following four species are endemic to the Northern Cape (Table 4): *Ancylotrypa namaquensis* Purcell, 1908), *A. pusilla* (Purcell, 1903) (Cyrtaucheniidae), *Cydrela friedlanderae* Hewitt, 1914, and *Cyrioctea lotzi* Jocqué, 2013 (Zodariidae), while *Opopaea gaborone* Saaristo & Marusik, 2008 (Oonopidae) is for the first time reported from South Africa. BNR is the type locality of *Austrachelas kalaharinus* Haddad, Lyle, Bosselaers & Ramirez, 2009.

TABLE 3: Conservation status and endemicity of the spider species sampled at Benfontein Nature Reserve.

CONSERVATION STATUS	SPP.	CODE	%
Data deficient (taxonomic reason or lack distribution data)	8	DD	4.8
Not evaluated (immature, new or undetermined)	5	NE	2.9
Least concern	154	LC	92.2
ENDEMICITY			
0 – Africa and wider (C)	9	LC	5.3
1 – African endemics (AE)	36	LC	21.6
2 – Southern African endemics (STHE)	68	LC	40.7
3 – South African endemics (SAE): More than three provinces	31	LC	18.6
4 – South African endemics (SAE): Two adjacent provinces	14	DD/LC	8.3
5 – Northern Cape endemics (NCE)	4	DD/LC	2.4
6 – Known only from type locality	0		0

CONCLUSION

This survey forms part of the SANSA survey for the Northern Cape province and, as such, represents new distribution records for 167 species. Although this paper probably represents only a portion of the spider fauna present, we hope this information will stimulate further interest and research. Established reserves, such as BNR, can make a substantial contribution towards invertebrate conservation. However, the contribution of existing reserves can only be highlighted through studies such as this.

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Figures 3–17. Spiders from Benfontein Nature Reserve. **Caponiidae**: 3. *Caponia capensis*. **Cyrtaucheniidae**: 4. *Ancylotrypa pusilla.* 5. *Ancylotrypa pretoriae.* **Eresidae**: 6. *Seothyra fasciata.* **Araneidae**: 7. *Kilima decens.* **Eresidae**: 8. *Gandanameno spenceri.* **Gnaphosidae**: 9. *Ammoxenus coccineus.* 10. *Asemesthes oconnori.* 11. *Drassodes lophognathus.* 12. *Nomisia varia.* **Hersiliidae**: 13. *Tyrotama australis.* **Lycosidae**: 14. *Evippomma squamulatum.* 15. *Hogna schreineri.* **Philodromidae:** 16. *Hirriusa arenacea.* **Palpimanidae**: 17. *Diaphorocellus biplagiatus.* Photos: Peter Webb.

Figures 18–32. Spiders from Benfontein Nature Reserve. **Salticidae**: 18. *Baryphas ahenus.* 19. *Heliophanus pistaciae*. 20. *Natta chionogaster.* 21. *Pellenes bulawayoensis.* **Pisauridae**: 22. *Rothus aethiopicus.* **Prodidomidae**: 23. *Theuma foveolate.* **Sicariidae**: 24. *Hexophthalma hahni.* **Sparassidae**: 25. *Arandisa deserticola.* 26. *Eusparassus schoemanae.* **Thomisidae**: 27. *Pherecydes tuberculatus.* 28. *Thomisus stenningi.* 29. *Stiphropus affinis.* **Trachelidae**: 30. *Orthobula arca.* **Zodariidae**: 31. *Diores poweri.* 32. *Heradida loricata.* Photos: Peter Webb.

TABLE 4. Checklist of the spiders species recorded from the Benfontein Nature Reserve in the Northern Cape with information on their endemicity (END), conservation status (CON), country endemicity (CEND) and provincial endemics (PROVE). * possibly new species or new record.

FAMILY	SPECIES	END	CON	CEND
AGELENIDAE	*Agelena australis* Simon, 1896	1	LC	AE
	Agelena gaerdesi Roewer, 1955	2	LC	STHE
	Benoitia deserticola (Simon, 1910)	2	LC	STHE
	Mistaria zuluana (Roewer, 1955)	2	LC	STHE
ARANEIDAE	*Argiope australis* (Walckenaer, 1805)	1	LC	AE
	Caerostris sexcuspidata (Fabricius, 1793)	1	LC	AE
	Cyrtophora citricola (Forsskål, 1775)	0	LC	C
	Kilima decens (Blackwall, 1866) (Fig. 7)	1	LC	AE
	Larinia bifida Tullgren, 1910	1	LC	AE
	Larinia natalensis (Grasshoff, 1971)	3	LC	SAE
	Nemoscolus cotti Lessert, 1933	2	LC	STHE
	Neoscona blondeli (Simon, 1886)	1	LC	AE
	Neoscona subfusca (C.L. Koch, 1837)	1	LC	AE
	Neoscona triangula (Keyserling, 1864)	0	LC	C
	Zygiella x-notata (Clerck, 1757)	0	LC	C
CAPONIIDAE	*Caponia capensis* Purcell, 1904 (Fig. 3)	2	LC	STHE
CHEIRACANTHIIDAE	*Cheiramiona ferrumfontis* Lotz, 2002	4	LC	SAE
	Cheiramiona boschrandensis Lotz, 2015	4	DD	SAE
CORINNIDAE	*Castianeira* sp. (undetermined)		NE	
	Cambalida fulvipes Simon, 1896	1	LC	AE
	Copuetta lotzi Haddad, 2013	3	LC	SAE
CTENIDAE	*Ctenus spectabilis* Lessert, 1921	1	LC	AE
CYRTAUCHENIIDAE	*Ancylotrypa namaquensis* (Purcell, 1908)	5	LC	SAE
	Ancylotrypa pusilla (Purcell, 1903) (Fig. 4)	5	LC	SAE
	Ancylotrypa pretoriae (Hewitt, 1913) (Fig. 5)	3	LC	SAE
	Ancylotrypa sororum (Hewitt, 1916)	3	LC	SAE
DICTYNIDAE	*Dictyna* sp.(undetermined)		NE	
ERESIDAE	*Gandanameno spenceri* (Pocock, 1900) (Fig. 8)	2	LC	STHE
	Paradonea parva (Tucker, 1920)	2	LC	STHE
	Paradonea splendens (Lawrence, 1936)	3	DD	SAE
	Seothyra fasciata Purcell, 1904 (Fig. 6)	2	LC	STHE
GALLIENIELLIDAE	*Austrachelas kalaharinus* Haddad, Lyle, Bosselaers & Ramirez, 2009 HT*	4	DD	SAE
GNAPHOSIDAE	*Ammoxenus coccineus* Simon, 1893 (Fig. 9)	2	LC	STHE
	Aneplasa nigra Tucker, 1923	4	LC	SAE
	Asemesthes ceresicola Tucker, 1923	3	LC	SAE
	Asemesthes lineatus Purcell, 1908	1	LC	AE
	Asemesthes montanus Tucker, 1923	3	LC	SAE
	Asemesthes oconnori Tucker, 1923 (Fig. 10)	3	LC	SAE
	Asemesthes paynteri Tucker, 1923	3	LC	SAE
	Asemesthes purcelli Tucker, 1923	2	LC	STHE
	Camillina cordifera (Tullgren, 1910)	1	LC	AE
	Camillina maun Platnick & Murphy, 1987	1	LC	AE
	Drassodes ereptor Purcell, 1907	3	LC	SAE
	Drassodes lophognathus Purcell, 1907(Fig. 11)	3	LC	SAE
	Drassodes solitarius Purcell, 1907	2	LC	STHE
	Drassodes splendens Tucker, 1923	2	LC	STHE

FAMILY	SPECIES	END	CON	CEND
	Drassodes stationis Tucker, 1923	3	LC	SAE
	Echemus erutus Tucker, 1923	2	LC	STHE
	Ibala bilinearis (Tucker, 1923)	2	LC	STHE
	Ibala bulawayensis (Tucker, 1923)	2	LC	STHE
	Megamyrmaekion schreineri Tucker, 1923	2	LC	STHE
	Megamyrmaekion transvaalense Tucker, 1923	3	LC	SAE
	Micaria beaufortia Tucker, 1923	1	LC	AE
	Nomisia varia (Tucker, 1923) (Fig.12)	2	LC	STHE
	Rastellus deserticola Haddad, 2003	2	LC	STHE
	Setaphis browni (Tucker, 1923)	0	LC	C
	Xerophaeus aridus Purcell, 1907	2	LC	STHE
	Xerophaeus lightfooti Purcell, 1907	3	LC	SAE
	Xerophaeus spoliator Purcell, 1907	2	LC	STHE
	Xerophaeus spiralifer Purcell, 1907	4	LC	SAE
	Xerophaeus vickermani Tucker, 1923	3	LC	SAE
	Zelotes corrugatus (Purcell, 1907)	1	LC	AE
	Zelotes frenchi Tucker, 1923	2	LC	STHE
	Zelotes lavus Tucker, 1923	2	LC	STHE
	Zelotes sclateri Tucker, 1923	2	LC	STHE
	Zelotes scrutatus (O.P.-Cambridge, 1872)	1	LC	AE
	Zelotes tuckeri Roewer, 1951	1	LC	AE
HERSILIIDAE	*Tyrotama australis* (Simon, 1893) (Fig. 13)	2	LC	STHE
IDIOPIDAE	*Gorgyrella schreineri* Purcell, 1903	3	LC	SAE
	Idiops pullus Tucker, 1917	4	LC	SAE
LINYPHIIDAE	*Agyneta habra* (Locket, 1968)	1	LC	AE
	Pelecopsis janus Jocqué, 1984	2	LC	STHE
LYCOSIDAE	*Allocosa aurichelis* Roewer, 1959	4	DD	SAE
	Evippomma squamulatum (Simon, 1898) (Fig. 14)	2	LC	STHE
	Hogna schreineri (Purcell, 1903)	2	LC	STHE
	Hogna spenceri (Pocock, 1898) (Fig. 15)	1	LC	AE
	Hogna transvaalica (Simon, 1898)	3	LC	SAE
	Lycosa rimicola Purcell, 1903	4	DD	SAE
	Pardosa crassipalpis Purcell, 1903	2	LC	STHE
	Pardosa injucunda (O.P.-Cambridge, 1876)	1	LC	AE
	Proevippa albiventris (Simon, 1898)	2	LC	STHE
	Tricassa deserticola Simon, 1910	2	LC	STHE
	Zenonina mystacina Simon, 1898	2	LC	STHE
OECOBIIDAE	*Uroctea quinquenotata* Simon, 1910	4	LC	SAE
OONOPIDAE	*Dysderina speculifera* Simon, 1907	2	LC	STHE
	Gamasomorpha humicola Lawrence, 1947	3	LC	SAE
	Opopaea speciosa (Lawrence, 1952)	1	LC	AE
	Opopaea gaborone Saaristo & Marusik, 2008	2	LC	STHE
	Orchestina sp. (undetermined)		NE	
ORSOLOBIDAE	*Afrilobus* possible new sp.		NE	
OXYOPIDAE	*Oxyopes bothai* Lessert, 1915	1	LC	AE
	Oxyopes jacksoni Lessert, 1915	1	LC	AE
	Peucetia viridis (Blackwall, 1858)	1	LC	AE
PALPIMANIDAE	*Diaphorocellus biplagiatus* Simon, 1893	2	LC	STHE
	Palpimanus namaquensis Simon, 1910 (Fig. 17)	2	LC	STHE

FAMILY	SPECIES	END	CON	CEND
Philodromidae	*Hirriusa arenacea* (Lawrence, 1927) (Fig. 16)	2	LC	STHE
	Philodromus browningi Lawrence, 1952	2	LC	STHE
	Suemus punctatus Lawrence, 1938	2	LC	STHE
	Thanatus vulgaris Simon, 1870	0	LC	C
	Tibellus minor Lessert, 1919	1	LC	AE
Pholcidae	*Quamtana* sp. immature		NE	
	Smeringopus koppies Huber, 2012	2	LC	STHE
	Smeringopus lotzi Hubert, 2012	3	LC	SAE
	Smeringopus natalensis Lawrence, 1947	2	LC	STHE
Phyxelididae	*Vidole sothoana* Griswold, 1990	2	LC	STHE
Pisauridae	*Cispius kimbius* Blandin, 1978	2	LC	STHE
	Rothus aethiopicus (Pavesi, 1883) (Fig. 22)	1	LC	AE
Prodidomidae	*Austrodomus scaber* (Purcell, 1904)	2	LC	STHE
	Theuma foveolata Tucker, 1923 (Fig. 23)	2	LC	STHE
	Theuma maculata Purcell, 1907	2	LC	STHE
Salticidae	*Baryphas ahenus* Simon, 1902 (Fig. 18)	1	LC	AE
	Evarcha prosimilis Wesołowska & Cumming, 2008	1	LC	AE
	Heliophanus charlesi Wesołowska, 2003	3	LC	SAE
	Heliophanus debilis Simon, 1901	1	LC	AE
	Heliophanus nanus Wesołowska, 2003	2	LC	STHE
	Heliophanus pistaciae Wesołowska, 2003 (Fig. 19)	2	LC	STHE
	Heliophanus proszynskii Wesołowska, 2003	2	LC	STHE
	Heliophanus termitophagus Wesołowska & Haddad, 2002	4	LC	SAE
	Icius insolidus (Wesołowska, 1999)	2	LC	STHE
	Langona warchalowskii Wesołowska , 2007	2	LC	STHE
	Langona hirsuta Haddad & Wesołowska, 2011	3	LC	SAE
	Menemerus transvaalicus Wesołowska, 1999	2	LC	STHE
	Natta chionogaster (Simon, 1901) (Fig. 20)	1	LC	AE
	Pellenes bulawayoensis Wesołowska, 2000 (Fig. 21)	2	LC	STHE
	Pellenes geniculatus (Simon, 1868)	0	LC	C
	Pellenes modicus Wesołowska & Russell-Smith, 2000	2	LC	STHE
	Pellenes tharinae Wesołowska, 2007	3	LC	STHE
	Phlegra karoo Wesołowska, 2006	2	LC	STHE
	Psenuc dependens (Haddad & Wesołowska, 2011)	3	LC	SAE
	Thyene inflata (Gerstäcker, 1873)	1	LC	AE
	Thyene thyenioides (Lessert, 1925)	1	LC	AE
Scytodidae	*Scytodes arenacea* Purcell, 1904	2	LC	STHE
	Scytodes broomi Pocock, 1902	4	DD	SAE
Segestriidae	*Ariadna karrooica* Purcell, 1904	3	LC	SAE
Selenopidae	*Anyphops barnardi* (Lawrence, 1940)	2	LC	STHE
Sicariidae	*Hexophthalma hahni* (Karsch, 1878) (Fig. 24)	2	LC	STHE
	Loxosceles spinulosa Purcell, 1904	4	LC	SAE
Sparassidae	*Arandisa deserticola* Lawrence, 1938 (Fig. 25)	2	LC	STHE
	Eusparassus schoemanae Moradmand, 2013 (Fig. 26)	2	LC	STHE
Theraphosidae	*Idiothele nigrofulva* (Pocock, 1898)	2	LC	STHE
Theridiidae	*Enoplognatha inornata* O.P.-Cambridge, 1904	3	LC	SAE
	Enoplognatha molesta O.P.-Cambridge, 1904	3	LC	SAE
	Euryopis episinoides (Walckenaer, 1847)	0	LC	C
	Latrodectus geometricus C.L. Koch, 1841	0	LC	C
	Latrodectus renivulvatus Dahl, 1902	1	LC	AE

FAMILY	SPECIES	END	CON	CEND
PHILODROMIDAE	*Hirriusa arenacea* (Lawrence, 1927)	2	LC	STHE
	Philodromus browningi Lawrence, 1952	2	LC	STHE
	Suemus punctatus Lawrence, 1938	2	LC	STHE
	Thanatus vulgaris Simon, 1870	0	LC	C
	Tibellus minor Lessert, 1919	1	LC	AE
PHOLCIDAE	*Quamtana* sp. immature		NE	
	Smeringopus koppies Huber, 2012	2	LC	STHE
	Smeringopus lotzi Hubert, 2012	3	LC	SAE
	Smeringopus natalensis Lawrence, 1947	2	LC	STHE
PHYXELIDIDAE	*Vidole sothoana* Griswold, 1990	2	LC	STHE
PISAURIDAE	*Cispius kimbius* Blandin, 1978	2	LC	STHE
	Rothus aethiopicus (Pavesi, 1883)	1	LC	AE
PRODIDOMIDAE	*Austrodomus scaber* (Purcell, 1904)	2	LC	STHE
	Theuma foveolata Tucker, 1923	2	LC	STHE
	Theuma maculata Purcell, 1907	2	LC	STHE
SALTICIDAE	*Baryphas ahenus* Simon, 1902	1	LC	AE
	Evarcha prosimilis Wesołowska & Cumming, 2008	1	LC	AE
	Heliophanus charlesi Wesołowska, 2003	3	LC	SAE
	Heliophanus debilis Simon, 1901	1	LC	AE
	Heliophanus nanus Wesołowska, 2003	2	LC	STHE
	Heliophanus pistaciae Wesołowska, 2003	2	LC	STHE
	Heliophanus proszynskii Wesołowska, 2003	2	LC	STHE
	Heliophanus termitophagus Wesołowska & Haddad, 2002	4	LC	SAE
	Icius insolidus (Wesołowska, 1999)	2	LC	STHE
	Langona warchalowskii Wesołowska , 2007	2	LC	STHE
	Langona hirsuta Haddad & Wesołowska, 2011	3	LC	SAE
	Menemerus transvaalicus Wesołowska, 1999	2	LC	STHE
	Natta chionogaster (Simon, 1901)	1	LC	AE
	Pellenes bulawayoensis Wesołowska, 2000	2	LC	STHE
	Pellenes geniculatus (Simon, 1868)	0	LC	C
	Pellenes modicus Wesołowska & Russell-Smith, 2000	2	LC	STHE
	Pellenes tharinae Wesołowska, 2007	3	LC	STHE
	Phlegra karoo Wesołowska, 2006	2	LC	STHE
	Psenuc dependens (Haddad & Wesołowska, 2011)	3	LC	SAE
	Thyene inflata (Gerstäcker, 1873)	1	LC	AE
	Thyene thyenioides (Lessert, 1925)	1	LC	AE
SCYTODIDAE	*Scytodes arenacea* Purcell, 1904	2	LC	STHE
	Scytodes broomi Pocock, 1902	4	DD	SAE
SEGESTRIIDAE	*Ariadna karrooica* Purcell, 1904	3	LC	SAE
SELENOPIDAE	*Anyphops barnardi* (Lawrence, 1940)	2	LC	STHE
SICARIIDAE	*Hexophthalma hahni* (Karsch, 1878)	2	LC	STHE
	Loxosceles spinulosa Purcell, 1904	4	LC	SAE
SPARASSIDAE	*Arandisa deserticola* Lawrence, 1938	2	LC	STHE
	Eusparassus schoemanae Moradmand, 2013	2	LC	STHE
THERAPHOSIDAE	*Idiothele nigrofulva* (Pocock, 1898)	2	LC	STHE
THERIDIIDAE	*Enoplognatha inornata* O.P.-Cambridge, 1904	3	LC	SAE
	Enoplognatha molesta O.P.-Cambridge, 1904	3	LC	SAE
	Euryopis episinoides (Walckenaer, 1847)	0	LC	C
	Latrodectus geometricus C.L. Koch, 1841	0	LC	C
	Latrodectus renivulvatus Dahl, 1902	1	LC	AE

FAMILY	SPECIES	END	CON	CEND
	Phoroncidia eburnea (Simon, 1895)	3	LC	SAE
	Theridion purcelli O.P.-Cambridge, 1904	3	LC	SAE
THOMISIDAE	*Heriaeus allenjonesi* Van Niekerk & Dippenaar-Schoeman, 2013	3	LC	SAE
	Misumenops rubrodecoratus Millot, 1942	1	LC	AE
	Monaeses paradoxus Lucas, 1864	0	LC	C
	Ozyptila caenosa Jézéquel, 1966	1	LC	AE
	Pherecydes tuberculatus O.P.-Cambridge, 1883 (Fig. 27)	2	LC	STHE
	Simorcus lotzi Van Niekerk & Dippenaar-Schoeman, 2010	2	LC	STHE
	Stiphropus affinis Lessert, 1923 (Fig. 29)	2	LC	STHE
	Thomisus kalaharinus Lawrence, 1936	1	LC	AE
	Thomisus stenningi Pocock, 1900 (Fig. 28)	1	LC	AE
TRACHELIDAE	*Afroceto africana* (Simon 1910)	2	LC	STHE
	Fuchibotulus kigelia Haddad & Lyle, 2008	2	LC	STHE
	Orthobula arca Haddad, Jin & Platnick, 2022 (Fig. 30)	4	LC	SAE
	Poachelas striatus Haddad & Lyle, 2008	3	LC	SAE
ZODARIIDAE	*Cydrela friedlanderae* Hewitt, 1914	5	DD	SAE
	Cydrela spinifrons Hewitt, 1915	3	LC	SAE
	Cyrioctea lotzi Jocqué, 2013	5	DD	SAE
	Diores poweri Tucker, 1920 (Fig. 31)	2	LC	STHE
	Diores triangulifer Simon, 1910	2	LC	STHE
	Heradida loricata Simon, 1893 (Fig. 32)	4	LC	SAE
	Ranops caprivi Jocqué, 1991	2	LC	STHE