

The faunistic diversity of spiders (Arachnida: Araneae) of the South African Grassland Biome

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ABSTRACT

As part of the South African National Survey of Arachnida (SANSA), all available information on spider species distribution in the South African Grassland Biome was compiled. A total of 11 470 records from more than 900 point localities were sampled in the South African Grassland Biome until the end of 2011, representing 58 families, 275 genera and 792 described species. A further five families (Chummidae, Mysmenidae, Orsolobidae, Symphytognathidae and Theridiosomatidae) have been recorded from the biome but are only known from undescribed species. The most frequently recorded families are the Gnaphosidae (2504 records), Salticidae (1500 records) and Thomisidae (1197 records). The last decade has seen an exponential growth in the knowledge of spiders in South Africa, but there are certainly many more species that still have to be discovered and described. The most species-rich families are the Salticidae (112 spp.), followed by the Gnaphosidae (88 spp.), Thomisidae (72 spp.) and Araneidae (52 spp.). A rarity index, taking into account the endemism index and an abundance index, was determined to give a preliminary indication of the conservation importance of each species. The endemism index indicates that 58 species are endemic to the biome, while 38 species could be considered to be introduced, cosmopolitan, or having a distribution extending beyond the Afrotropical Region. Levels of endemism are highest for mygalomorph trapdoor spiders (7.14–50%) and selected araneomorph families with restricted dispersal capabilities (i.e. Archaeidae, Sicariidae and Scytodidae). A brief review of the published data of surveys from the biome and the patterns of spider assemblage structure in each is presented, together with information on the most species-rich spider families occurring in the biome.

Key words: conservation, diversity, endemic, habitat, survey

INTRODUCTION

Spiders (Arachnida: Araneae) can be considered a critical component of terrestrial biodiversity, and with more than 43 000 species already described (Dunlop & Penney, 2011; Platnick, 2012), the order ranks as the sixth most species rich in the phylum Arthropoda (Zhang, 2011). Spiders fulfil a critical function as faunal components of terrestrial ecosystems, as all species are predators and play an important role in the natural control of

populations of terrestrial invertebrates, particularly insects (Cardoso *et al.*, 2011). There has been a recent increase in the application of spiders as bio-indicators to measure ecological disturbance and pollution, which has raised the profile of the group and its importance as a surrogate taxon (Marc *et al.*, 1999; Cardoso *et al.*, 2011). As generalist predators, their importance as natural control agents of pest insects and mites in agroecosystems has also received increased attention during the last few decades (Riechert, 1999; Dippenaar-Schoeman *et al.*, in press).

The South African National Survey of Arachnida (SANSA) was launched in 1997 in accordance with the country's obligations to the Convention of Biological Diversity (CBD), with a specific focus on determining the biodiversity of the South African Arachnida. It is an umbrella project that was implemented at a national level in collaboration with researchers and institutions countrywide to document and unify information on arachnids. SANSA is providing essential data that is needed to address issues concerning the conservation and sustainable use of the arachnid fauna (Foord *et al.*, 2011a). As part of SANSA, a number of projects are underway to determine the diversity of the arachnid fauna of South Africa, which includes an inventory of the spider fauna of the different floral biomes. These projects recently culminated in the production of the First Atlas of South African Spiders (Dippenaar-Schoeman *et al.*, 2010), in which 2010 species from 71 families were reported from the country. Atlas data can be considered an important tool in biodiversity conservation as it offers reliable, high quality data that should be able to withstand public, scientific and legal scrutiny. This is despite challenges and tradeoffs between data quantity and quality, standardisation of sampling methods and sampling effort, and mismatches in the skills and expectations of data collectors and data users (Robertson *et al.*, 2010).

The aim of this study is to provide an overview of the diversity and present status of the spider fauna of the South African Grassland Biome, and follows on a paper dealing with the fauna of the Savanna Biome (Foord *et al.*, 2011b). A check list of spiders found in this biome is provided based on published records from scientific literature and identified museum specimens, together with data on the guilds each occupies, levels of endemism, a rarity index, and patterns of family and species richness. A review of the ecological and biodiversity literature published to date from the Grassland Biome is also presented.

BACKGROUND

Grasses (Poaceae) evolved during the Eocene, which coincided with the evolution and radiation of grazing herbivorous mammals on land (Bredenkamp *et al.*, 2002). During the Miocene, extensive drying of the African continent resulted in the expansion of drought resistant savannas and grasslands, and during the Cenozoic the vegetation of southern African changed into the equivalents of the modern day biomes (Scott *et al.*, 1997). In modern history, climate change, fire and anthropogenic disturbances have continued to facilitate the expansion of grassland and savanna habitats in South Africa (Breman *et al.*, in press). On the African continent, true grasslands now only occur in South Africa, the enclave of Lesotho and parts of Swaziland (Palmer & Ainslie, 2005; Mucina & Rutherford, 2006; Carbutt *et al.*, 2011), although grassy savannas are also prominent in East Africa (Reid *et al.*, 2005).

In South Africa, grasslands cover approximately a quarter of the total land surface and are distributed primarily on the central plateau, although they extend into most of the major biomes (forest, savanna, thicket and Nama Karoo) in the region (Fairbanks *et al.*, 2000; Palmer & Ainslie, 2005). Grasslands are primarily found in the summer rainfall areas, from sea level to altitudes above 3000 m, and cover large parts of the Gauteng, Mpumalanga, Free State and North West provinces, but also occur on high mountains and in patches in Limpopo and along the coast of the Eastern Cape and KwaZulu-Natal (Mucina & Rutherford, 2006).

The climate of grassland areas typically consists of warm, wet summers followed by cold, dry winters with heavy frosts. Frost, fire and grazing are some of the factors that prevent the spread of woody shrubs and trees, which are largely restricted to protected valleys, rocky areas, river margins and dense woodlands. As such, the vegetation is dominated by grass species, with many forbs also present (Carbutt *et al.*, 2011). Although there is considerable altitudinal variation within the biome, the topography is generally comprised of rolling hills and valleys, which are often characterised by the presence of wetlands, particularly at higher altitudes. Grasslands burn regularly, often every year, and the plants and animals are often adapted to survive fires (e.g. Fourie, 2010; Hugo-Coetzee & Avenant, 2011; Jansen *et al.*, in press). In their review of the ecological factors influencing arthropod diversity in grasslands, Joern & Laws (2013) identified the direct and indirect effects of grazing, fire and climate, interspecific interactions, above- and below-ground interactions and landscape-level effects as some of the most important effects.

The Grassland Biome is considered to have an extremely high biodiversity, second only to the Fynbos Biome (Low & Rebelo, 1996). It is one of the most seriously threatened vegetation types in South Africa, with more than 40% of the area covered by the biome irreversibly transformed (O'Connor & Kuyler, 2005). Most of South Africa's grasslands have

been irreversibly transformed and generally lack the ability to recover after severe disturbance (Smit *et al.*, 1997, Little *et al.*, 2005), and are being increasingly degraded through cumulative influences. Agricultural activities are largely responsible for this, with maize, sunflowers, sorghum and wheat extensively cultivated, and livestock farming resulting in overgrazing (Tainton, 1981; Neke & Du Plessis, 2004), extensive burning (Lubin & Crouch, 2003), plantation forestry (Van der Merwe *et al.*, 1996) and invasion by alien plant species (Mgobozi *et al.*, 2008) all impacting on the remaining grassland habitats. Furthermore, a considerable portion of this biome has been impacted by mining, industrial and urban development (Mentis & Huntley, 1982).

Unfortunately, only 2.8% of the biome is formally conserved (O'Connor & Kuyler, 2005), which makes any remaining untransformed grassland patches greatly significant from an ecological perspective, and thus highly irreplaceable (Egoh, 2009). Because large protected areas within the Grassland Biome are largely absent, the only two being the Golden Gate National Park and the Ukhahlamba-Drakensberg Transfrontier Conservation Area in the eastern montane areas, effective management and conservation of grasslands in smaller reserves and on private land is necessary to protect the highly endemic fauna and flora of this biome (Wessels *et al.*, 2003; Hamer & Slotow, 2008; McGeoch *et al.*, 2011).

MATERIALS AND METHODS

Information from databases

Data on spider species richness for the Grassland Biome of South Africa were obtained from existing datasets compiled for the First Atlas of the Spiders of South Africa (Dippenaar-Schoeman *et al.*, 2010). The atlas was based on the SANSA database, which contains three forms of data: 1) information on all the preserved specimens housed in natural history collections worldwide and published in the primary literature (15 500 records); 2) primary data of specimens housed in the National Collection of Arachnida (NCA) at the ARC – Plant Protection Research Institute (PPRI), Pretoria (45 000 records), as well as 3) a digital photographic database containing images of species recorded by the public (2300 records). These digital data are available online (www.arc.agric.za quick link SANSA, Virtual Museum). Only records from the Virtual Museum that could be accurately identified to species level, or for which the specimen was collected for identification, were included. Also included were unpublished M.Sc and Ph.D theses, and longer-term surveys that have been undertaken since the 1970's.

Field work

Spiders were sampled during field work that formed part of SANSA surveys, as well as various student projects that were undertaken between 1997 and 2011 at several grassland sites in South Africa. A large proportion of the specimens were collected by pitfall trapping, leaf litter sifting or active searching at the base of grass tussocks and under rocks, thus accounting primarily for ground-dwelling spiders. Plant-dwelling species were collected by beating and sweeping the vegetation or actively searching on vegetation and flowers. Grassland sampling occasionally included bycatch samples collected by Malaise traps and yellow, blue and white pan traps. Voucher specimens from these surveys are housed in the National Collection of Arachnida at the ARC – Plant Protection Research Institute in Pretoria (NCA), the National Museum in Bloemfontein (NMBA), Ditsong National Museum of Natural History in Pretoria (TMSA) and the KwaZulu-Natal Museum in Pietermaritzburg (NMSA).

The focused SANSA field surveys employed a standard protocol that was used to collect in historically poorly sampled degree-square grids. Due to limitations of manpower to conduct sampling and subsequent identification of material, only selected degree-square grids in the biome could be sampled, which explains the low number of records and species for large parts of the biome (Figs 1a-c). In each degree-square grid, four contrasting habitat types were identified by the field work manager and his assistants. In each habitat type the following sampling was carried out: 500 sweeps of grasses and/or other low-growing vegetation; 500 beats of woody plants (trees and shrubs); 50 pitfalls with preservative (ethanediol) set out in a straight line transect 2m apart and emptied after 3–4 days; 2 man-hours of active searching under rocks, logs, bark and spider webs, and 10 leaf litter sifting samples. In one habitat site selected by the field work manager, 2 hours of nocturnal active searching was conducted and 10 Winkler trap samples (emptied after 3–4 days) were taken. All of the collected material was preserved in 70% ethanol, sorted to morphospecies in the laboratory, and identified to species level, where possible. In total, 8 degree-square grids (out of a total 28 sampled during SANSA phase II) were sampled in the Grassland Biome. Most of the material collected is deposited in NCA and NMBA.

Guilds

Spiders employ different strategies for capturing prey. Based on the way they capture prey, spiders can be divided into two main guilds: web-dwellers and wanderers. The capture webs constructed by web-builders show considerable variation in general appearance, silk structure and site of construction. The following web types are constructed by spiders and detailed descriptions of each are given in Foord *et al.* (2011b): funnel-webs, gumfoot-webs, orb-webs, retreat-webs, sheet-webs and space-webs.

Wandering spiders can be broadly grouped into plant- or ground-dwellers. The plant-dwellers can be further classified according to the type of plant or part of the plant that they usually inhabit, for example grass, bark, foliage, flowers and seed, but unfortunately basic biological data is lacking for many species and we have decided not to attempt a further division of the plant-dwelling wanderers. Ground-wanderers are species that actively forage on the soil surface in search of prey, or construct burrows from which they ambush their prey.

Rarity index

A rarity index was calculated for each species based on two of the three rarity criteria proposed by Rabinowitz (1981), namely population size and distribution (Table 1). The endemicity value included six categories, ranging from known only from type locality to cosmopolitan or with a distribution beyond the borders of the Afrotropical Region, and was determined based on current distribution data available in the three sources described above during preparation of the First Atlas of the Spiders of South Africa. Estimates of population size were based on the number of collecting records known for each species and were divided into three categories (Table 1). Although these latter categories are essentially crude estimates of population sizes, they do provide a basis from which to work. The rarity index was calculated based on the sum of the values of these two criteria, and ranged from 1 (cosmopolitan and locally abundant) to 9 (known only from the type locality and possibly very rare). It is important to note that the rarity index presented here is only a preliminary value based on currently available data. Future sampling will lead to the discovery of additional populations of the majority of the species treated here (Appendix 1), which will inevitably lead to a decrease in the RI values for many species.

RESULTS

Species inventory and faunal composition

A total of 11 470 records representing 58 families, 275 genera and 792 described species have been documented to date from more than 900 point localities in the South African Grassland Biome (Appendix 1; Table 2). This only includes records that have been identified to species level. A further five families, i.e. Chummidae, Mysmenidae, Orsolobidae, Symphytognathidae and Theridiosomatidae, have been collected from the biome but are only known from undescribed species. Additionally, there is a large number of undescribed species known from the biome that are not included in the check list (Appendix 1), particularly in the families Agelenidae, Clubionidae, Linyphiidae, Lycosidae and Theridiidae, none of which have been subjected to extensive modern taxonomic revisions in South Africa. Based on our estimates of unidentified morphospecies in museum collections and from recent field work, it is plausible that at least 1000 species occur in this biome.

The distribution of collecting records amongst families (Table 2) is somewhat indicative of the sampling methodologies historically used to collect in the Grassland Biome and the likelihood of collecting these particular taxa. Gnaphosidae (2504 records) and Lycosidae (712 records) are readily collected using pitfall traps, litter sifting and hand collecting on the ground; foliage and grass sampled by beating and sweeping, respectively, regularly collects Araneidae (575 records), Miturgidae (707 records), Theridiidae (635 records) and Thomisidae (1197 records), while Salticidae (1500 records) are often collected using all five methods.

Distribution of records at species level is somewhat consistent with the family level patterns. Only seven species have been recorded on more than 250 occasions in the biome (Appendix 1): *Cheiracanthium furculatum* Karsch, 1879 (Miturgidae, 558 records), *Zelotes scrutatus* (O.P.-Cambridge, 1872) (Gnaphosidae, 374 records), *Latrodectus geometricus* C.L. Koch, 1841 (Theridiidae, 364 records), *Z. frenchi* Tucker, 1923 (359 records), *Z. fuligineus* (Purcell, 1907) (286 records), *Misumenops rubrodecoratus* Millot, 1942 (Thomisidae, 256 records) and *Palystes superciliosus* L. Koch, 1875 (Sparassidae, 253 records). Three of these species, *C. furculatum*, *L. geometricus* and *P. superciliosus*, are considered synanthropic and are regularly collected around human habitation, which may explain the proportionally large number of records of these species. A total of 211 species (26.74%) have only been recorded from the biome once and 122 species (15.46%) are known from only two records (Appendix 1). This proportion should decrease considerably with further collecting, particularly that focused on historically poorly sampled microhabitats.

Rarity index and endemism

Of the 792 species known from the Grassland Biome, 58 species (7.32%) are endemic to this vegetation type (Table 2). Not surprisingly, the highest levels of endemism are found in the mygalomorph trapdoor spider families Atypidae (50%), Ctenizidae (46.67%), Idiopidae (30.43%) and Nemesiidae (20%), and less mobile araneomorph taxa such as Archaeidae (33.33%), Palpimanidae (20%), Pholcidae (23.08%), Scytodidae (25%) and Sicariidae (33.33%).

The combined values of the abundance index (1–3), based on numbers sampled, and endemism index (0–6), indicate that 42 species (5.30%) have a rarity index value (RI) of 9, i.e. species that are only known from the type locality and that are very rare (1–3 specimens/locality), while 31 species have an RI value of eight and 42 species an RI value of seven (Appendix 1). A further 38 species (4.80%) collected from the biome can be considered to be introduced, cosmopolitan or with a distribution extending beyond the Afrotropical Region, and generally have RI scores of 1–3. Many of these species are synanthropic and of little conservation importance.

Guilds

The vast majority of the grassland species (605 spp., 76.38%) are free-living spiders, with 300 species (37.88%) actively hunting on the soil surface and 74 species (9.34%) constructing burrows from which they ambush prey. A further 231 species (29.17%) are preferential plant-dwellers, occurring on grasses and woody plants. Web-builders are represented by 187 spp. (23.61%), of which the largest proportion (80 spp., 10.10%) construct orb-webs. The remaining web-building guilds include the retreat-web builders (39 spp., 4.92%), sheet-web builders (30 spp., 3.79%), gumfoot-web builders (15 spp., 1.89%), space-web builders (13 spp., 1.64%) and the funnel-web builders (10 spp., 1.26%) (Appendix 1).

DISCUSSION

Sampling and taxonomic history and conservation implications

The current paper presents the first comprehensive synopsis of the spider fauna of the South African Grassland Biome, and provides much-needed baseline data for an order of arthropods occurring in the biome. While the total spider diversity in the biome is considerably lower than the 1230 species recorded from the Savanna Biome, one must bear in mind that this study was based on only 11 470 records, while that of the savanna involved

more than double the number of records (Foord *et al.*, 2011b). Thus, it would seem that with more comprehensive sampling (building on the recent SANSA phase II) and taxonomic emphasis on poorly known taxa in the future, the number of grassland species will increase considerably. As an example of this, a further five families have been collected in grasslands that were not included in these results, as they are only known from undescribed species. Furthermore, the use of litter sifting and canopy fogging as sampling techniques in future studies should be encouraged, as they have both been poorly utilised in past surveys and show considerable potential for the discovery of new taxa (e.g. Butler & Haddad, 2011; Haddad & Wesolowska, 2011; Wesolowska & Haddad, in press). Active searching at the base of grass tussocks and selection of pitfall trapping sites in areas with different soil characteristics are also likely to yield new and unusual grassland species (Foord *et al.*, 2011a).

When considering the distribution of records, genera and species documented from the Grassland Biome (Figs 1a-c), it is clear that the highest values for each category are concentrated around some of the major urban centres in the biome: Bloemfontein in the central Free State, Johannesburg and Pretoria in Gauteng Province, and Witbank (Emalahleni) in Mpumalanga Province. This corresponds largely with the distribution of available human resources that are available to undertake arachnological research, as well as volunteer collectors that have contributed to SANSA. Despite the considerable increase in sampling during the last decade, large areas in the biome remain neglected, and a considerable number of quarter-degree squares have yet to be sampled, particularly in the North West, Free State, Eastern Cape and Mpumalanga Provinces (Fig. 1a). This highlights the need for further sampling effort in this biome to provide basic baseline biodiversity data and material for taxonomic study.

The historical distribution of grassland records indicates that between 1976 and 2005 fewer than 500 records were sampled per year in the biome (Fig. 2a). Since the start of SANSA phase II there has been a marked increase in sampling in the biome as part of the field work component of the project, as well as from student projects in the Free State and Mpumalanga provinces, in particular. The baseline biodiversity studies conducted in the alpine grasslands of KwaZulu-Natal as part of the Maluti-Drakensberg Transfrontier Project also made a significant contribution in generating material from these grasslands.

Consistent with patterns in the Savanna Biome (Foord *et al.*, 2011b), the taxonomic descriptions of species recorded from the Grassland Biome reached a peak during the late 1800's and early 1900's (Fig. 2b), largely due to the descriptive work of arachnologists

including Eugene Simon, Roger de Lessert, Embrik Strand, Reginald Pocock, William Purcell, George and Elizabeth Peckham, John Hewitt, Roger Tucker and Reginald Lawrence (Appendix 1). However, only a small proportion of the species that they described are grassland endemics, of which the majority are trapdoor spiders described by Hewitt (1913, 1915a,b, 1916, 1919) and Tucker (1917). From 1950 onwards there was a considerable drop in the description of new species, although the recent increase in taxonomic studies of South African spiders during the last two decades has seen a slight increase in the number of new species described (Fig. 2b). Significantly, a sizable proportion of these species are endemics, comparable to the number of endemics described in the era of maximum taxonomic productivity (Fig. 2c). Considering the drastic increase in number of records sampled during the last decade and the poor taxonomic resolution of several families, it is likely that a large number of new species (some endemic) will be described in the future, especially when the proportion of new species to described species in certain genera (e.g. Lotz, 2003; Haddad & Lyle, 2008; Lyle & Haddad, 2010) and families (e.g. Griswold, 1990; Haddad & Wesolowska, 2011) that are subjected to revision is considered. This is supported by the lack of an asymptote in both the accumulation curves for total grassland species richness (Fig. 2b) and grassland endemics (Fig. 2c).

Determining which species are of conservation concern is problematic, considering the degree of undersampling in large areas of the biome. Further sampling is clearly needed to generate additional distribution data for the apparently rare species, particularly those in RI categories 8 and 9. Indeed, many of the species with a RI score of 7 and 8 are not biome endemics and have also been recorded in the Savanna, Nama Karoo or Forest biomes (Dippenaar-Schoeman *et al.*, 2010). It has been suggested (Foord *et al.*, 2011b) that species with a RI score of six and higher should be assessed for Red Data listing under IUCN requirements due to their often restricted distributions and small population sizes. While such a conservation assessment will afford potentially threatened species some protection, their status should be reviewed at a later stage when more data has been generated from the biome.

Protected areas (PA) play an important role in conserving suitable habitats for spider populations. Although large PA within the Grassland Biome are largely absent, SANSA surveys have been undertaken or are presently underway in several PA in the Gauteng, Free State, Mpumalanga and Eastern Cape provinces. This includes surveys in several reserves, including the Erfenis Dam Nature Reserve (Fourie, 2010; Fourie *et al.*, in press), Mkambati Nature Reserve (Dippenaar-Schoeman *et al.*, 2011), Verloren Vallei Nature Reserve (Jansen *et al.*, in press), two botanical gardens (e.g. Butler & Haddad, 2011; Neethling & Haddad, in

review) and several caves (Dippenaar-Schoeman & Myburgh, 2009; Durand *et al.*, 2012). Unpublished surveys from PA in which >50 species have so far been recorded include the following nature reserves: Abe Bailey, Enzemvelo, Kloofendal, Sandveld, Suikerbosrand, Tussen-die-Riviere, Willem Pretorius and Witbank. Continued sampling in PA will provide important data to monitor spider populations and species of conservation concern, and provide additional locality data to evaluate the conservation status of species from the biome.

Patterns of spider assemblage composition

Very few published studies exist on the spider fauna of the Grassland Biome, the majority of which were undertaken in the Free State Province (Table 3). Regarding spider abundance, the ground-dwelling fauna is dominated by Gnaphosidae (Lotz *et al.*, 1991; Van den Berg & Dippenaar-Schoeman, 1991) or Lycosidae (Jansen *et al.*, in press), that of abandoned termitaria by Gnaphosidae and Salticidae (Haddad & Dippenaar-Schoeman, 2002, 2006), and leaf litter assemblages by Amaurobiidae and Gnaphosidae (Butler & Haddad, 2011). Gnaphosidae and Salticidae were often the most species-rich ground-dwelling families in the aforementioned studies. For some families not only is the habitat structure crucial, but that in combination with the presence of particular prey may play a key role in determining their distribution. For example, species of the genus *Ammoxenus* Simon, 1893 (Ammoxenidae) are obligate termite eaters and require high densities of these insects, in combination with loose sand in which they dive to hide (Van den Berg & Dippenaar-Schoeman, 1991; Dippenaar-Schoeman *et al.*, 1996a,b). Such ideal conditions are frequently found in the Grassland Biome.

The dominant grass-dwelling families apparently vary geographically and according to grassland type. In the drier grasslands of the central Free State, the numerically dominant grass-dwelling families include Thomisidae, Philodromidae, Salticidae and Araneidae, although the abundance of each may vary between different grassland types (Haddad, 2005; Fourie *et al.*, in press). The most species-rich families were the Thomisidae and Araneidae, with the Salticidae, Philodromidae, Linyphiidae and Theridiidae varying in richness between the two surveys. In contrast, the fauna of moist coastal grasslands in the Eastern Cape are dominated by Araneidae, Salticidae and Theridiidae, while Philodromidae and Thomisidae are much lower in abundance (Dippenaar-Schoeman *et al.*, 2011). The most species-rich families were the Theridiidae, Salticidae, Thomisidae and Araneidae.

The foliage-dwelling fauna is dominated by Philodromidae, Salticidae, Araneidae, Theridiidae, Miturgidae and Thomisidae in abundance, although family dominance varies

considerably between sites and between tree species in the biome (Fourie *et al.*, in press; Neethling & Haddad, in review). The most species-rich families are the Salticidae, Araneidae and Thomisidae. The latter two studies showed very conflicting results as to the significance of vegetation structure in shaping spider assemblages. Fourie *et al.* (in press) found much lower abundance and species richness of spiders on *Searsia lancea* than on *Acacia karroo* and *Searsia ciliata*, while Neethling & Haddad (in review) found no significant differences in abundance and species richness between four tree species (*A. karroo*, *S. lancea*, *Buddleja saligna* and *Olea europaea africana*) sampled in the central Free State. Thus, it seems that local microclimatic and habitat factors may play a significant role in shaping the assemblages associated with woody vegetation.

Several surveys of spiders in agroecosystems in the Grassland Biome have been undertaken but only a few of them have been published (Dippenaar-Schoeman *et al.*, in press). Although maize is an important crop in South Africa, little is known of the spiders found on this crop. Midega *et al.* (2005) sampled ground-dwelling spiders in maize fields in the Grassland Biome using a combination of pitfall traps and soil samples. They collected a total of 284 spiders, with the Lycosidae the most abundant family. A second, unpublished survey was undertaken on the farm Buiteplaas in the Delmas district in Mpumalanga Province, South Africa during the 2004–2005 and 2005–2006 summer growing seasons. Three treatments were evaluated, namely Bt maize, conventionally sprayed maize, and unsprayed maize. Pitfall traps were used to sample the spiders (M. van Jaarsveld, personal communication). Fourteen families were collected, representing 32 genera and 38 species. The Linyphiidae, represented by four species, occurred in the highest numbers, with the Lycosidae, represented only by *Pardosa crassipalpis* Purcell, 1904, second. In maize, the most abundant linyphiids were *Limoneta sirimoni* (Bosmans, 1979), *Meioneta habra* Locket, 1968 and *Ostearius melanopygius* (O.P.-Cambridge, 1879) (Dippenaar-Schoeman *et al.*, in press).

Several surveys have been undertaken in the tomato-producing areas of the Limpopo, North West and Gauteng Provinces in search of biological control agents of tomato pests (Krüger & Dippenaar-Schoeman, 2000). During these surveys, a total of 356 spiders were sampled, representing 16 families, 50 genera and 62 species. Araneidae was the most species rich and abundant family collected. Leslie & Boreham (1981) used cross-over electrophoresis on the stomach contents of arthropods sampled on sugar cane, and determined that ants and spiders were the commonest predators that fed on the sugarcane borer, *Eldana saccharina* Walker, 1865 (Lepidoptera: Pyralidae).

In many areas of Africa, the planting of exotic trees has superseded the area covered by indigenous forests. Two spider surveys in pine plantations that occur in the Grassland Biome have been undertaken in South Africa to date. The first was done at Sabie in the Mpumalanga Province (Van den Berg & Dippenaar-Schoeman, 1988). Of the 1484 spiders collected, 38.54% belonged to Clubionidae, 12.94% to the Lycosidae, 9.97% to the Tetragnathidae and 8.22% Salticidae. A second survey was undertaken in pine plantations, indigenous forests and grassland at Ngome State Forest on the escarpment of northern KwaZulu-Natal (Van der Merwe *et al.*, 1996). A total of 9360 spiders represented by 136 species were trapped in the five habitats sampled, of which grassland had the highest family diversity (28) and species richness (89 spp.). Pine had the lowest spider diversity while grassland had the highest spider diversity

Dominant families and genera

Patterns of species richness in the Grassland Biome are somewhat consistent with the number of records for each family, but are not directly correlated. While Gnaphosidae has been recorded on the largest number of occasions (2504 records), it is the second most species-rich family (88 spp.). The most species-rich family is the Salticidae (112 spp.), despite being represented by approximately 40% fewer records than Gnaphosidae (1500 records). This could partly be explained by the prominence of certain species of Gnaphosidae in pitfall surveys that dominate the total number of records of grassland species, as mentioned above. While three gnaphosid species have been collected on more than 250 occasions each in the biome, no salticids have been recorded this frequently (Appendix 1). Other diverse families include the Thomisidae (72 spp.) and Araneidae (52 spp.), which are also well represented in terms of number of records from the biome. These same four families are also the most species-rich in the Savanna Biome of South Africa (Foord *et al.*, 2011b), suggesting that patterns of family richness are not necessarily an artefact of the habitat characteristics of a particular biome, but may be consistent at a regional scale. Although the Linyphiidae (4461 spp.) and Theridiidae (2513 spp.) rank as the second and fourth most diverse families globally (Dunlop & Penney, 2011), they are very poorly represented in the Grassland Biome, with only 18 and 15 species respectively. However, many more specimens of both families have been sampled in the biome, but could not be identified to species level and are probably undescribed. This underrepresentation is indicative of the gross taxonomic impediment of these families rather than actual species diversity. In both cases there is a large number of

undescribed species not only known from grasslands, but also from the other biomes in South Africa.

Salticidae: jumping spiders are globally the most diverse spider family, with approximately 5500 species in nearly 600 genera (Dunlop & Penney, 2011). They are diurnally active hunters preying on a variety of arthropods and are, for the most part, generalist predators. Certain African species have evolved specialised diets and may feed on termites (Wesołowska & Cumming, 1999, 2002; Wesołowska & Haddad, 2002; Haddad & Wesołowska, 2006), ants (Pekár & Haddad, 2011), blood-fed mosquitoes (e.g. Jackson *et al.*, 2005; Nelson *et al.*, 2005; Nelson & Jackson, 2006) or other spiders (e.g. Jackson & Hallas, 1986; Li *et al.*, 1997). When not actively hunting, jumping spiders usually rest in silk retreats constructed under rocks and logs, in grass inflorescences, in leaves or under bark. Similar retreats are used by females for the construction of their egg cases, which are often guarded by the female until the spiderlings disperse (e.g. Haddad & Louw, 2006). Several ground-dwelling grassland species are cryptically coloured (e.g. *Phlegra* Simon, 1876, *Langona* Simon, 1901 and *Evarcha* Simon, 1902) and some grass-dwelling species have pale colouration and/or elongate bodies (e.g. *Festucula* Simon, 1901 spp., *Thyene thyenioides* (Lessert, 1925) and *Evarcha flagellaris* Haddad & Wesołowska, 2011) to enhance their survival in their preferred microhabitats (Haddad & Wesołowska, 2011).

Jumping spiders are collected from all of the strata in grassland habitats and are a moderately prominent component of spider assemblages in all of the surveys conducted thus far (Table 3), where they are consistently one of the more abundant (2.34–21.1%) and species-rich (3–12 spp.) families collected. A considerable proportion of the 112 species (39 genera) recorded from the biome are endemics (12 spp., 10.71%), but this can be partly attributed to the recent description of several species from the biome that are only known from a few localities (Wesołowska, 2001, 2003; Haddad & Wesołowska, 2011; Wesołowska & Haddad, in press). Despite the recent progress made in describing the jumping spider fauna of central South Africa, new species continue to be discovered in grassland habitats. It is likely that further sampling in this biome will yield additional species and new records, and a projected 150 species may occur in the biome.

Gnaphosidae: flat-bellied ground spiders are the sixth most diverse family globally, with 2147 species described in 123 genera (Dunlop & Penney, 2011). Their proportionately high representation in grassland habitats is indicative of the success and radiation of the family in

the subtropical and temperate latitudes and their prominence in the more arid grassland, savanna and karoo habitats that dominate southern Africa. Ground spiders are predominantly nocturnal generalist predators, and are mainly associated with the soil surface, although certain genera such as *Aphantaulax* Simon, 1878 are sometimes also collected in trees and grasses (e.g. Neethling & Haddad, in review). Many species construct a fine silk retreat in leaf litter or under rocks and logs on the soil surface in which they rest during the day. These resting retreats are also used as sites for moulting and, in some cases, for egg sac production. There are several undescribed species of the genus *Micaria* Westring, 1851 that occur in the Grassland Biome, all of which are generalised mimics of ants.

Gnaphosids are a very prominent component of the ground-dwelling fauna in grasslands, and often dominate abundance in surveys. In central Free State grasslands, Lotz *et al.* (1991) found gnaphosids most abundant during a pitfall-trapping survey (34.86%), Haddad & Dippenaar-Schoeman (2002, 2006) found them dominating the spider fauna in abandoned *Trinervitermes trinervoides* (Sjöstedt, 1911) termitaria (37.87%), and Butler & Haddad (2011) found Gnaphosidae to be the most abundant family in leaf litter of three woody tree species (26.88%). In the moist grasslands of Mpumalanga, however, they only contributed 8.98% of the ground-dwelling fauna sampled in pitfall traps; here Lycosidae were very strongly dominant, representing nearly 65% of the fauna (Jansen *et al.*, in press). In northern Gauteng, a study on the spider predators of harvester termites found that 55% of the fauna sampled were gnaphosids; several genera (*Asemesthes* Simon, 1887, *Drassodes* Westring, 1851 and *Zelotes* Gistel, 1848 spp.) are closely associated with termites in several regions in South Africa (Van den Berg & Dippenaar-Schoeman, 1991). Many of the gnaphosids recorded from grasslands are not particularly habitat specific, and have also been recorded from savanna and/or Nama Karoo habitats, in particular. Only six species (6.82%) are endemic to the biome.

Thomisidae: crab spiders are free-living spiders that are predominantly found on grasses, herbs and the foliage and bark of woody plants, although certain genera (e.g. *Xysticus*) are predominantly ground-dwelling. Globally, they are the fifth most species-rich family, with 2183 species described in 190 genera (Dunlop & Penney, 2011). Many genera occurring in the Grassland Biome have morphological adaptations that enable them to successfully utilise particular microhabitats. *Monaeses* Thorell, 1869 and *Runcinia* Simon, 1875 are elongate, somewhat flattened spiders with cryptic colouration that are regularly collected from grasses (Dippenaar-Schoeman, 1980, 1983, 1984). *Tmarus* Simon, 1875 are flattened brown or grey

spiders that often rest on the bark or branches of trees, where they are effectively camouflaged (Dippenaar-Schoeman, 1985), while some *Thomisus* Walckenaer, 1805 spp. are very well known for their ability to change colour using integumental ommachromes (varying from white to pink and bright yellow) and are regularly encountered on flowers or grasses (Dippenaar-Schoeman, 1983; Heiling *et al.*, 2005a,b; Théry & Casas, 2009). Thomisids are ambush predators that usually rest on a suitable substrate and wait for approaching prey (Morse, 1984; Rocha-Filho & Rinaldi, 2011), and are usually regarded as generalist predators (e.g. Romero & Vasconcellos-Neto, 2003; Guseinov, 2006). Thomisids usually do not construct a resting retreat, only a retreat to shelter the eggs. Some genera, e.g. *Mystaria*, hang from vegetation at night using a dragline to avoid foraging nocturnal predators. Most grass-living thomisids construct a retreat in the inflorescences of grasses, wherein they deposit the egg sac, and in many genera (e.g. *Monaeses*, *Runcinia* and *Thomisus*) they guard the egg sac.

Thomisids are generally rare on the soil surface and leaf litter, and are absent from abandoned termitaria in the Grassland Biome (Lotz *et al.*, 1991; Haddad & Dippenaar-Schoeman, 2002, 2006; Butler & Haddad, 2011; Jansen *et al.*, in press). In contrast, they are one of the dominant families in terms of species richness and abundance on grass (Haddad, 2005; Fourie *et al.*, in press) and from the foliage of woody plants (Fourie *et al.*, in press; Neethling & Haddad, in review) in central the Free State. While species-rich in coastal grasslands, they are not particularly abundant (Dippenaar-Schoeman *et al.*, 2011).

Araneidae: orb-web spiders are the third largest spider family with more than 3000 described species in 185 genera (Dunlop & Penney, 2011). They are perhaps best known for their construction of often symmetrical orb-webs, comprising threads radiating from a central hub and a spiral of capture threads (Blackledge *et al.*, 2011). The majority of species are nocturnally active, spinning their webs at dusk and consuming them at dawn, thereby recycling their silk. Some genera, e.g. *Argiope* Audouin, 1826 and *Cyclosa* Menge, 1866, are diurnal and their webs are more permanent structures. Several diurnal taxa include decorative structures in their webs, including stabilimenta and various types of debris, which are thought to play a role in camouflage, prey attraction or serve as a warning signal to flying predators as to the presence of the web (Scharff & Coddington, 1997; Théry & Casas, 2009). Some species construct a retreat above the orb-web, in which the females also deposit their egg sacs. Species occurring in the Grassland Biome are often cream to brown in colour, sometimes with longitudinal stripes or other markings on the abdomen, e.g. *Kilima decens* (Blackwall, 1866) and *Neoscona moreli* (Vinson, 1863). Members of the genus *Pycnacantha*

Blackwall, 1865 have strongly spined abdomens to camouflage on grass inflorescences, while *Caerostris* Thorell, 1868 and *Cyphalonotus* Simon, 1895 have a coarse integument and abdominal tubercles as adaptations for crypsis on the bark of trees.

Several genera in the Cyrtarachninae are known from the Grassland Biome. Some have evolved specialised behaviour, reducing or adapting the structure of their orb-webs and using aggressive chemical mimicry to attract male moths as prey (Dippenaar-Schoeman & Leroy, 2006; Leroy *et al.*, 1998; Roff & Dippenaar-Schoeman, 2004). A member of the genus *Cyrtarachne* Thorell, 1868 has been discovered in the Free State that constructs a modified orb-web known as a spanning thread web (Stowe, 1986). This is a basic orb-web, but the web diameter, sticky spiral spacing and viscid thread diameter differs from that of the typical orb-webs. The viscid threads are studded with large droplets that are very effective in catching prey that comes into contact with them. Each of the short threads between the radii is known as a spanning thread and is unique in that it breaks when prey comes in contact with it (Dippenaar-Schoeman & Jones, 2008).

Araneids are prominent components of the grass- and tree-dwelling spider communities in the Grassland Biome. In two studies in central Free State grassland they formed 14.77% (9 spp.) and 21.77% (13 spp.) of the grass-dwelling fauna, respectively (Haddad, 2005; Fourie *et al.*, in press). In coastal grasslands in the Eastern Cape they represented nearly 40% of the spider fauna collected by sweep-netting and were represented by 12 species (Dippenaar-Schoeman *et al.*, 2011). They formed 14.3% and 17.7% of the total fauna in two studies of foliage-dwelling spiders in the central Free State, being represented by 10 and nine species, respectively (Fourie *et al.*, in press; Neethling & Haddad, in review).

Lycosidae: Forty-one species of wolf spiders have been found in the Grassland Biome (Appendix 1) and the most regularly recorded species, *Pardosa crassipalpis* Purcell, 1904 (194 records), was recorded in abundance from crops, e.g. maize and sugar cane, and is considered an agrobiont species (Dippenaar-Schoeman *et al.*, in press). Lycosids are cursorial hunters and are usually observed running on the ground or hiding under dry leaves, and they are only occasionally collected on the leaves and flowers of short herbaceous plants and grasses. Lycosid spiders apparently radiated in parallel with the diversification and dominance of grasses since the Miocene, and are much more common in open habitats than in closed ones, although some of the more basal taxa are web-building forest species (Jocqué & Alderweireldt, 2006). Lycosidae are rare in dense forest and are apparently replaced by Ctenidae, which are the main large-sized free roaming hunters in that habitat (Jocqué &

Alderweireldt, 2006). While this may be true for the forests of tropical and subtropical Africa, data from the NCA indicate that the temperate Afromontane forests of South Africa are more strongly dominated by Zoropsidae in the southern half of the country, while Ctenidae are more prominent in Afromontane forests in the northern half of the country, savanna and some coastal forests; Lycosidae are generally scarce or absent. Lycosids represent a total of 64.3% of the ground fauna from five sites in Afromontane grassland in Mpumalanga (Jansen *et al.*, in press), 27.73% of the ground-dwelling (Lotz *et al.*, 1991) and 11.4% of the leaf litter fauna in the central Free State (Butler & Haddad, 2011), but are uncommon in abandoned *T. trinervoides* termite mounds (Haddad & Dippenaar-Schoeman, 2002, 2006).

Genera: The most diverse genera recorded from the Grassland Biome, represented by 10 or more species, include *Zelotes* (Gnaphosidae, 25 spp.), *Heliophanus* C.L. Koch, 1833 (Salticidae, 20 spp.), *Anyphops* Benoit, 1968 (Selenopidae, 18 spp.), *Stasimopus* Simon, 1892 (Ctenizidae, 15 spp.) and *Xerophaeus* Purcell, 1907 (Gnaphosidae, 14 spp.). Two genera are represented by 13 species each (*Neoscona* Simon, 1864, Araneidae; *Thomisus*, Thomisidae), three by 11 species each (*Clubiona* Latreille, 1804, Clubionidae; *Oxyopes* Latreille, 1804, Oxyopidae; *Theuma* Simon, 1893, Prodidomidae) and two by 10 species each (*Ancylotrypa* Simon, 1889, Cyrtaucheniidae; *Cheiramiona* Lotz & Dippenaar-Schoeman, 1999, Miturgidae). Most of these genera also feature amongst the most diverse for the Savanna Biome (Foord *et al.*, 2011b).

Concluding remarks

The South African Grassland Biome harbours a rich diversity of spiders, although the persistent taxonomic impediment of the African spider fauna contributes to an underestimation of its true richness. A considerable proportion of the species present have morphological, behavioural and/or physiological adaptations to survive in this habitat. The recent increase in ecological studies in the biome during the last decade has only scratched the surface of the factors affecting spider assemblages in grasslands, and there is considerable scope for expansion of ecological and biodiversity research.

Perhaps the greatest obstacle to the effective conservation of grassland spiders is the small proportion of undisturbed natural grasslands that are formally protected, estimated at 2.8% of the area by O'Connor & Kuyler (2005). It is clear that this area is unlikely to be

expanded greatly in the foreseeable future despite it being the biome requiring the largest addition of land to reach conservation targets (Carbutt *et al.*, 2011), which is largely due to the importance of central South Africa as an economic, agricultural and mining hub. Therefore, the natural grasslands utilised for livestock and wildlife farming can be considered as critical in providing suitable habitats for spiders and other organisms, and should be carefully managed by landowners to reduce degradation through overgrazing, excessive fire management, erosion and alien plant invasions, all of which could potentially impact the fauna negatively.

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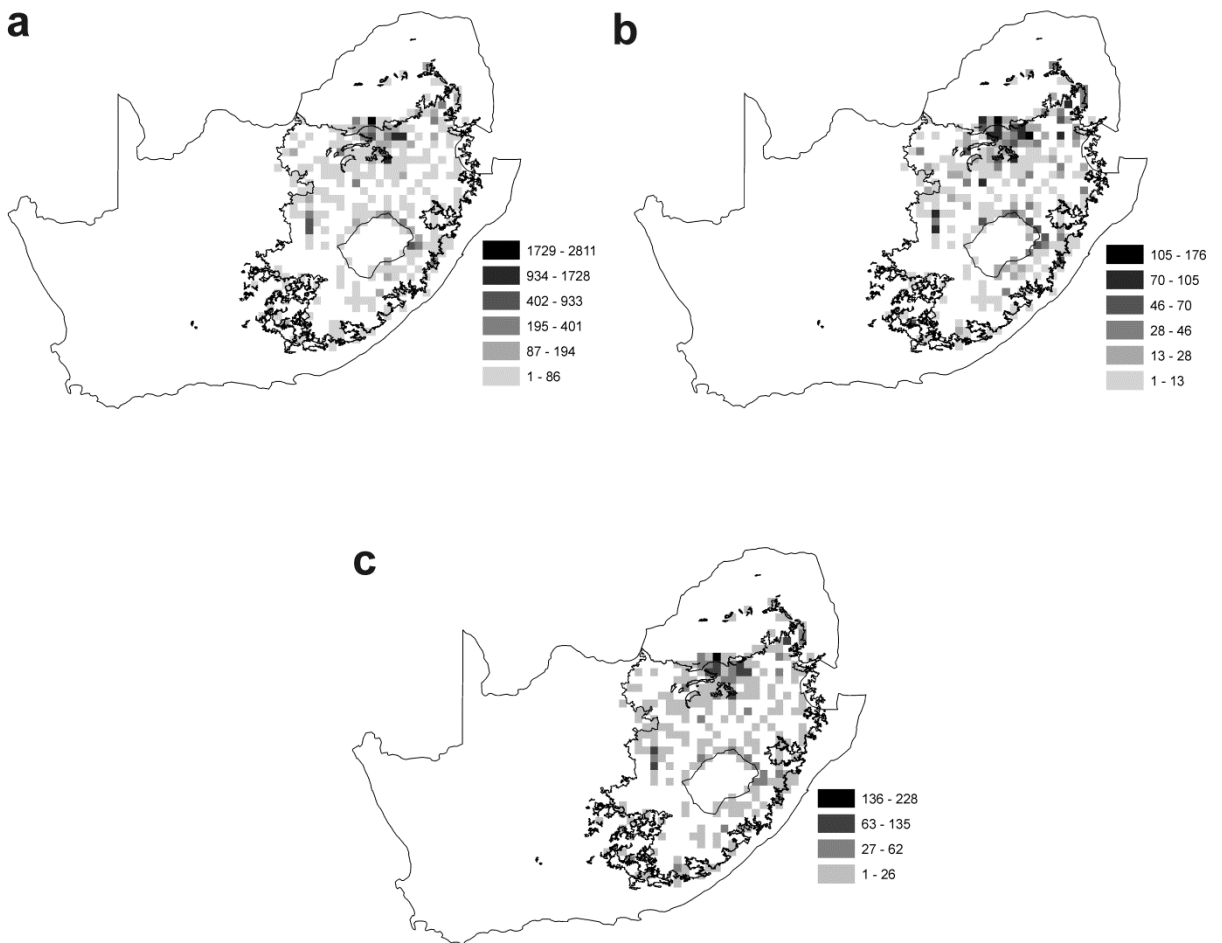


Figure 1. (a) Number of records, (b) genera, and (c) species per quarter-degree square in the Grassland Biome of South Africa.

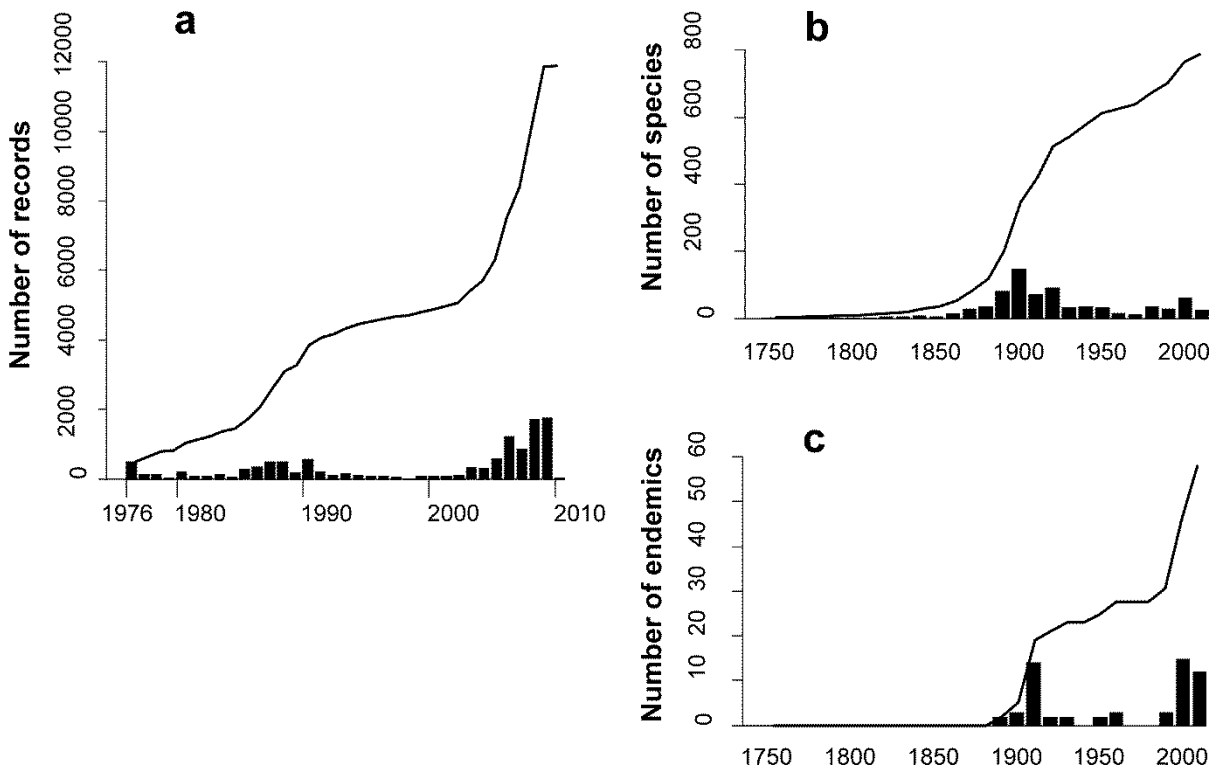


Figure 2. (a) Number of accessions per year deposited in the ARC – National Collection of Arachnida (NCA) since its inception in 1976 from the Grassland Biome of South Africa; (b) Number of species and (c) number of endemic species recorded from the Grassland Biome of South Africa, arranged by decade in which each was described. Lines represent the respective accumulation curves, ending at 792 species and 58 endemic species, respectively.

Table 1: Index values reflecting distribution data (level of endemism) and abundance data of each spider species scored for the Grassland Biome.

Endemism value

6	Endemic – known only from type locality / one locality only in the Grassland Biome
5	Known from one province only, wider than type locality
4	Known only from two adjoining provinces
3	South Africa, known from more than two provinces or two disjunct provinces
2	Southern Africa (south of Zambezi and Kunene Rivers)
1	Afrotropical Region
0	Cosmopolitan or introduced

Local abundance value

3	Very rare: 1–3 specimens/locality
2	Rare: 4–10 specimens/locality
1	Abundant: 10–20 specimens/locality

Table 2: Summary of the family diversity, proportion of endemic species and number of collecting records of spiders from the Grassland Biome of South Africa

FAMILY	Total species	% of total	Endemic species	% of total	Total records	% of total	Average records/species
Agelenidae	6	0.76	0	0.00	27	0.24	4.50
Amaurobiidae	2	0.25	0	0.00	18	0.16	9.00
Ammoxenidae	5	0.63	0	0.00	257	2.24	51.40
Araneidae	52	6.59	1	1.96	575	5.01	11.06
Archaeidae	3	0.38	1	33.33	5	0.04	1.67
Atypidae	2	0.25	1	50.00	15	0.13	7.50
Barychelidae	1	0.13	0	0.00	1	0.01	1.00
Caponiidae	3	0.38	0	0.00	36	0.31	12.00
Clubionidae	11	1.39	0	0.00	46	0.40	4.18
Corinnidae	26	3.30	3	11.54	376	3.28	14.46
Ctenidae	1	0.13	0	0.00	1	0.01	1.00
Ctenizidae	15	1.90	7	46.67	99	0.86	6.60
Cyatholipidae	2	0.25	0	0.00	14	0.12	7.00
Cyrtachenidae	14	1.77	1	7.14	203	1.77	14.50
Deinopidae	3	0.38	0	0.00	11	0.10	3.67
Desidae	1	0.13	0	0.00	4	0.03	4.00
Dictynidae	2	0.25	0	0.00	4	0.03	2.00
Dipluridae	4	0.51	0	0.00	10	0.09	2.50
Dysderidae	1	0.13	0	0.00	4	0.03	4.00
Eresidae	13	1.65	0	0.00	66	0.58	5.08
Gallieniellidae	2	0.25	0	0.00	8	0.07	4.00
Gnaphosidae	88	11.15	6	6.82	2504	21.83	28.45
Hahniidae	2	0.25	0	0.00	81	0.71	40.50
Hersiliidae	4	0.51	0	0.00	40	0.35	10.00
Idiopidae	23	2.92	7	30.43	106	0.92	4.61
Linyphiidae	18	2.28	0	0.00	376	3.28	20.89
Liocranidae	3	0.38	0	0.00	24	0.21	8.00
Lycosidae	41	5.20	3	7.32	712	6.21	17.37
Microstigmatidae	2	0.25	0	0.00	31	0.27	15.50
Migidae	4	0.51	0	0.00	10	0.09	2.50
Mimetidae	3	0.38	0	0.00	10	0.09	3.33
Miturgidae	17	2.15	2	11.76	707	6.16	41.59
Nemesiidae	5	0.63	1	20.00	31	0.27	6.20
Nephilidae	4	0.51	0	0.00	86	0.75	21.50
Oecobiidae	3	0.38	0	0.00	21	0.18	7.00
Oonopidae	2	0.25	0	0.00	9	0.08	4.50
Oxyopidae	18	2.28	0	0.00	61	0.53	3.39
Palpimanidae	5	0.63	1	20.00	21	0.18	4.20
Penestomidae	1	0.13	0	0.00	7	0.06	7.00
Philodromidae	15	1.90	0	0.00	158	1.38	10.53
Pholcidae	13	1.65	3	23.08	120	1.05	9.23
Phyxelididae	15	1.90	1	6.67	153	1.33	10.20

Pisauridae	16	2.03	0	0.00	70	0.61	4.38
Prodidomidae	13	1.65	0	0.00	33	0.29	2.54
Salticidae	112	14.20	12	10.71	1500	13.08	13.39
Scytodidae	8	1.01	2	25.00	22	0.19	2.75
Segestriidae	2	0.25	0	0.00	2	0.02	1.00
Selenopidae	21	2.66	1	4.76	66	0.58	3.14
Sicariidae	3	0.38	1	33.33	30	0.26	10.00
Sparassidae	16	2.03	1	6.25	310	2.70	19.38
Tetragnathidae	16	2.03	0	0.00	129	1.12	8.06
Theraphosidae	10	1.27	0	0.00	107	0.93	10.70
Theridiidae	15	1.90	0	0.00	635	5.54	42.33
Thomisidae	72	9.13	0	0.00	1197	10.44	16.63
Trochanteriidae	3	0.38	0	0.00	50	0.44	16.67
Uloboriidae	5	0.63	0	0.00	46	0.40	9.20
Zodariidae	19	2.41	2	10.53	185	1.61	9.74
Zoropsidae	6	0.76	1	16.67	40	0.35	6.67
TOTAL	792	100.00	58	7.32	11 470	100.00	—

Table 3: Summary of spider family, generic and species richness for published studies from the Grassland Biome of South Africa.

Province	Habitat stratum	Method	Fam.	Gen.	Spp.	References
Eastern Cape	Grass	Sweeping, hand collecting, pan traps, Malaise traps	27	68	97	Dippenaar-Schoeman <i>et al.</i> (2011)
Free State	Ground	Pitfalls	31	–	–	Lotz <i>et al.</i> (1991)
	Leaf litter	Sifting	26	52	56	Butler & Haddad (2011)
	Termitaria	Excavation	21	60	82	Haddad & Dippenaar-Schoeman (2002, 2006a)
	Grass	Sweeping	16	45	57	Haddad (2005)
	Grass	Sweeping	15	59	82	Fourie <i>et al.</i> (in review)
	Foliage	Beating	17	43	52	Fourie <i>et al.</i> (in review)
Gauteng	Foliage	Beating	17	42	54	Neethling & Haddad (in review)
	Ground	Pitfalls	21	41	55	Van den Berg & Dippenaar-Schoeman (1991)
	Ground	Pitfalls	28	–	89	Van der Merwe <i>et al.</i> (1996)
Mpumulanga	Ground	Pitfalls	26	60	86	Jansen <i>et al.</i> (in press)
North West	Ground	Pitfalls, soil samples	9	–	34	Midega <i>et al.</i> (2008)

Appendix 1: Check list of the spiders found in the Grassland Biome of South Africa, indicating their guilds, number of collecting records and status as South African (SAE) and Grassland (GE) endemic species (1 = endemic, 0 = wider distribution). Index values are given as per Table 1 for distribution data (DIS) and relative abundance (ABUN), as well as the combined rarity index values (RI). Grassland endemics (GE = 1) are highlighted in light grey, and cosmopolitan/introduced species or those with a distribution beyond the Afrotropical Region (DIS = 0) are highlighted in dark grey. Guild abbreviations: OWB, orb-web builder; BGW, burrow-dwelling ground wanderer; FPW, free-living plant wanderer; FWB, funnel-web builder; RWB, retreat-web builder; FGW, free-living ground wanderer; GWB, gumfoot-web builder; SHWB, sheet-web builder; SPWB, space-web builder.

	Guild	Records	SAE	GE	DIS	ABUN	RI
1. Agelenidae							
<i>Benoitia deserticola</i> (Simon, 1910)	FWB	1	0	0	2	2	4
<i>Benoitia ocellata</i> (Pocock, 1900)	FWB	18	0	0	2	1	3
<i>Benoitia raymondeae</i> (Lessert, 1915)	FWB	3	0	0	1	2	3
<i>Mistaria leucopyga</i> (Pavesi, 1883)	FWB	1	0	0	1	1	2
<i>Olorunia punctata</i> Lehtinen, 1967	FWB	2	0	0	1	1	2
<i>Tegenaria domestica</i> (Clerck, 1757)	FWB	2	0	0	0	2	2
2. Amaurobiidae							
<i>Chresiona invalida</i> (Simon, 1898)	RWB	5	1	0	3	3	6
<i>Macrobunus caffer</i> (Simon, 1898)	RWB	13	1	0	3	2	5
3. Ammoxenidae							
<i>Ammoxenus amphalodes</i> Dippenaar & Meyer, 1980	FGW	177	1	0	3	1	4
<i>Ammoxenus coccineus</i> Simon, 1893	FGW	2	0	0	2	1	3
<i>Ammoxenus pentheri</i> Simon, 1896	FGW	11	0	0	2	1	3
<i>Ammoxenus psammodromus</i> Simon, 1910	FGW	56	0	0	2	2	4
<i>Rastellus florisbad</i> Platnick & Griffin, 1990	FGW	11	1	0	5	2	7
4. Araneidae							
<i>Aethriscus olivaceus</i> Pocock, 1902	OWB	2	0	0	1	2	3
<i>Araneus apricus</i> (Karsch, 1884)	OWB	11	0	0	1	1	2
<i>Araneus legonensis</i> Grasshoff & Edmunds, 1979	OWB	1	0	0	1	2	3
<i>Araneus nigroquadratus</i> Lawrence, 1937	OWB	5	0	0	2	1	3
<i>Argiope aurocineta</i> Pocock, 1898	OWB	1	0	0	1	1	2
<i>Argiope australis</i> (Walckenaer, 1805)	OWB	46	0	0	1	1	2
<i>Argiope lobata</i> (Pallas, 1772)	OWB	6	0	0	1	2	3
<i>Argiope trifasciata</i> (Forsskål, 1775)	OWB	11	0	0	1	1	2
<i>Caerostris corticosa</i> Pocock, 1902	OWB	3	0	0	2	2	4
<i>Caerostris sexcuspidata</i> (Fabricius, 1793)	OWB	17	0	0	1	1	2
<i>Cladomelea akermani</i> Hewitt, 1923	OWB	3	1	0	5	3	8
<i>Cladomelea debeeri</i> Roff & Dippenaar-Schoeman, 2005	OWB	1	1	1	6	3	9
<i>Cyclosa insulana</i> (Costa, 1834)	OWB	5	0	0	1	1	2
<i>Cyclosa oculata</i> (Walckenaer, 1802)	OWB	2	0	0	1	1	1
<i>Cyphalonotus larvatus</i> (Simon, 1881)	OWB	3	0	0	1	1	2
<i>Cyrtarachne ixidioides</i> (Simon, 1871)	OWB	3	0	0	1	3	4
<i>Cyrtophora citricola</i> (Forsskål, 1775)	OWB	43	0	0	0	1	1
<i>Gasteracantha milvodes</i> Butler, 1873	OWB	1	0	0	1	1	2
<i>Gasteracantha sanguinolenta</i> C.L. Koch, 1844	OWB	6	0	0	1	1	2
<i>Gasteracantha versicolor</i> (Walckenaer, 1842)	OWB	7	0	0	1	1	2
<i>Hypsosinga lithyphantoides</i> Caporiacco, 1947	OWB	7	0	0	1	1	2
<i>Isoxya cicatricosa</i> (C.L. Koch, 1844)	OWB	5	0	0	1	1	2
<i>Isoxya mucronata</i> (Walckenaer, 1842)	OWB	1	0	0	1	2	3
<i>Isoxya stuhlmanni</i> (Bösenberg & Lenz, 1885)	OWB	5	0	0	1	1	2
<i>Isoxya tabulata</i> (Thorell, 1859)	OWB	2	0	0	1	1	2
<i>Isoxya yatesi</i> Emerit, 1973	OWB	1	1	0	4	3	7
<i>Kilima decens</i> (Blackwall, 1866)	OWB	31	0	0	1	1	2
<i>Lipocrea longissima</i> (Simon, 1881)	OWB	12	0	0	1	1	2
<i>Nemoscolus cotti</i> Lessert, 1933	OWB	5	0	0	1	2	3
<i>Nemoscolus elongatus</i> Lawrence, 1947	OWB	3	1	0	3	1	4
<i>Nemoscolus tubicola</i> (Simon, 1887)	OWB	1	0	0	2	1	3
<i>Nemoscolus vigintipunctatus</i> Simon, 1897	OWB	9	1	0	3	1	4

<i>Neoscona alberti</i> (Strand, 1913)	OWB	1	0	0	1	3	4
<i>Neoscona blondeli</i> (Simon, 1885)	OWB	47	0	0	1	1	2
<i>Neoscona chiarinii</i> (Pavesi, 1883)	OWB	1	1	0	1	3	4
<i>Neoscona hirta</i> (C.L. Koch, 1844)	OWB	5	0	0	1	1	2
<i>Neoscona moreli</i> (Vinson, 1863)	OWB	45	0	0	1	1	2
<i>Neoscona penicillipes</i> (Karsch, 1879)	OWB	1	0	0	1	1	2
<i>Neoscona quincasea</i> Roberts, 1983	OWB	3	0	0	1	1	2
<i>Neoscona rapta</i> (Thorell, 1899)	OWB	1	0	0	1	1	2
<i>Neoscona rufipalpis</i> (Lucas, 1858)	OWB	9	0	0	1	1	2
<i>Neoscona subfusca</i> (C.L.Koch, 1837)	OWB	119	0	0	1	1	2
<i>Neoscona theisi theisiella</i> (Tullgren, 1910)	OWB	2	0	0	1	2	3
<i>Neoscona triangula</i> (Keyserling, 1864)	OWB	34	0	0	1	1	2
<i>Neoscona vigilans</i> (Blackwall, 1865)	OWB	10	0	0	1	1	2
<i>Paraplectana thornstoni</i> (Blackwall, 1865)	OWB	1	0	0	1	3	4
<i>Pararaneus cyrtoscapus</i> (Pocock, 1898)	OWB	10	0	0	1	1	2
<i>Pararaneus spectator</i> (Karsch, 1886)	OWB	10	0	0	1	1	2
<i>Poltys furcifer</i> Simon, 1881	OWB	2	0	0	1	1	2
<i>Pycnacantha tribulus</i> (Fabricius, 1781)	OWB	13	0	0	2	1	3
<i>Singa albodorsata</i> Kauri, 1950	OWB	1	1	0	3	2	5
<i>Singa lawrencei</i> (Lessert, 1930)	OWB	1	0	0	1	2	3

5. Archaetidae

<i>Afrarchaea godfreyi</i> (Hewitt, 1919)	FGW	2	0	0	1	2	3
<i>Afrarchaea harveyi</i> Lotz, 2003	FGW	2	1	1	6	3	9
<i>Eriauchenius cornutus</i> (Lotz, 2003)	FGW	1	1	0	4	3	7

6. Atypidae

<i>Calommata meridionalis</i> Fourie, Haddad & Jocqué, 2011	BGW	14	1	1	5	2	7
<i>Calommata transvaalica</i> Hewitt, 1916	BGW	1	1	0	4	2	6

7. Barychelidae

<i>Pisenor arcturus</i> (Tucker, 1917)	BGW	1	0	0	2	2	4
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8. Caponiidae

<i>Caponia chelifera</i> Lessert, 1936	FGW	1	0	0	2	1	3
<i>Caponia hastifera</i> Purcell, 1904	FGW	25	0	0	2	2	4
<i>Caponia spiralifera</i> Purcell, 1904	FGW	10	1	0	3	2	5

9. Clubionidae

<i>Clubiona abbajensis</i> Strand, 1906	FPW	1	0	0	1	1	2
<i>Clubiona africana</i> Lessert, 1921	FPW	21	0	0	1	1	2
<i>Clubiona bevisi</i> Lessert, 1923	FPW	3	1	0	3	2	5
<i>Clubiona citricolor</i> Lawrence, 1952	FPW	1	1	0	4	3	7
<i>Clubiona durbana</i> Roewer, 1951	FPW	1	1	0	4	2	6
<i>Clubiona lawrencei</i> Roewer, 1951	FPW	1	1	0	3	2	5
<i>Clubiona pongolensis</i> Lawrence, 1952	FPW	2	1	0	3	2	5
<i>Clubiona pupillaris</i> Lawrence, 1938	FPW	2	1	0	3	1	4
<i>Clubiona sigillata</i> Lawrence, 1952	FPW	2	1	0	4	2	6
<i>Clubiona vachoni</i> Lawrence, 1952	FPW	11	1	0	5	2	7
<i>Clubiona valens</i> Simon, 1897	FPW	1	1	0	5	3	8

10. Corinnidae

<i>Afroceto arca</i> Lyle & Haddad, 2010	FGW	24	0	0	2	1	3
<i>Afroceto croeseri</i> Lyle & Haddad, 2010	FGW	1	1	0	4	3	7
<i>Afroceto gracilis</i> Lyle & Haddad, 2010	FGW	5	1	1	5	2	7
<i>Afroceto martini</i> (Simon, 1897)	FPW	31	0	0	1	1	2
<i>Afroceto plana</i> Lyle & Haddad, 2010	FPW	3	0	0	1	2	3
<i>Austrophaea zebra</i> Lawrence, 1952	FGW	2	1	0	4	2	6
<i>Cambalida dippenaarae</i> Haddad, 2012	FGW	7	0	0	1	1	2
<i>Cambalida fulvipes</i> (Simon, 1896)	FGW	19	0	0	1	1	2
<i>Copa flavoplumosa</i> Simon, 1885	FGW	25	0	0	1	1	2

<i>Copuetta lacustris</i> (Strand, 1916)	FPW	49	0	0	1	1	2
<i>Copuetta lotzi</i> Haddad, in press	FGW	13	1	0	3	1	4
<i>Corinnomma semiglabrum</i> (Simon, 1896)	FGW	3	0	0	1	1	2
<i>Fuchibotulus kigelia</i> Haddad & Lyle, 2008	FGW	7	0	0	2	1	3
<i>Graptartia mutillica</i> Haddad, 2004	FGW	69	0	0	1	1	2
<i>Graptartia tropicalis</i> Haddad, 2004	FGW	12	0	0	1	1	2
<i>Hortipes schoemanae</i> Bosselaers & Jocqué, 2000	FGW	1	1	0	2	2	4
<i>Merenius alberti</i> Lessert, 1923	FGW	3	0	0	2	1	3
<i>Orthobula radiata</i> Simon, 1897	FGW	10	0	0	1	1	2
<i>Poachelas montanus</i> Haddad & Lyle, 2008	FGW	2	1	1	6	3	9
<i>Poachelas striatus</i> Haddad & Lyle, 2008	FGW	27	1	0	3	1	4
<i>Pronophaea natalica</i> Simon, 1897	FGW	12	1	0	3	1	4
<i>Pronophaea proxima</i> (Lessert, 1923)	FGW	1	1	0	5	3	8
<i>Spinotrachelas montanus</i> Haddad, Neethling & Lyle, 2011	FGW	3	1	0	4	2	6
<i>Thysanina absolva</i> Lyle & Haddad, 2006	FGW	32	1	1	5	2	7
<i>Trachelas pusillus</i> Lessert, 1923	FGW	13	0	0	1	1	2
<i>Trachelas schenkeli</i> Lessert, 1923	FPW	2	0	0	2	1	3

11. Ctenidae

<i>Ctenus parvoculatus</i> Benoit, 1979	FGW	1	1	0	3	1	4
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12. Ctenizidae

<i>Stasimopus bimaculatus</i> Purcell, 1903	BGW	1	1	0	3	3	6
<i>Stasimopus coronatus</i> Hewitt, 1915	BGW	4	1	0	3	3	6
<i>Stasimopus dreyeri</i> Hewitt, 1915	BGW	2	1	1	6	3	9
<i>Stasimopus filmeri</i> Engelbrecht & Prendini, 2012	BGW	6	1	1	6	1	7
<i>Stasimopus gigas</i> Hewitt, 1915	BGW	1	1	1	6	3	9
<i>Stasimopus hewitti</i> Engelbrecht & Prendini, 2012	BGW	9	1	0	5	3	8
<i>Stasimopus minor</i> Hewitt, 1915	BGW	9	1	1	6	3	9
<i>Stasimopus nanus</i> Tucker, 1917	BGW	1	1	1	6	3	9
<i>Stasimopus nigellus</i> Pocock, 1902	BGW	7	1	0	3	3	6
<i>Stasimopus obscurus</i> Purcell, 1908	BGW	1	0	0	2	3	5
<i>Stasimopus oculatus</i> Pocock, 1897	BGW	38	1	0	3	1	4
<i>Stasimopus qumbu</i> Hewitt, 1913	BGW	2	1	1	6	3	9
<i>Stasimopus robertsi</i> Hewitt, 1910	BGW	14	1	0	4	1	5
<i>Stasimopus rufidens</i> (Ausserer, 1871)	BGW	2	1	0	5	3	8
<i>Stasimopus suffuscus</i> Hewitt, 1916	BGW	2	1	1	6	3	9

13. Cyatholipidae

<i>Cyatholipus hirsutissimus</i> Simon, 1894	SHWB	8	1	0	3	3	6
<i>Ulwembua denticulata</i> Griswold, 1987	SHWB	6	1	0	3	2	5

14. Cyrtoucheniidae

<i>Ancylotrypa brevicornis</i> (Hewitt, 1919)	BGW	9	1	0	4	2	6
<i>Ancylotrypa brevipalpis</i> (Hewitt, 1916)	BGW	36	1	0	3	1	4
<i>Ancylotrypa dreyeri</i> (Hewitt, 1915)	BGW	8	1	1	6	3	9
<i>Ancylotrypa magnisigillata</i> (Hewitt, 1914)	BGW	2	1	0	5	3	8
<i>Ancylotrypa nigriceps</i> (Purcell, 1902)	BGW	7	1	0	3	2	5
<i>Ancylotrypa nuda</i> (Hewitt, 1916)	BGW	13	1	0	3	1	4
<i>Ancylotrypa pretoriae</i> (Hewitt, 1913)	BGW	64	1	0	3	1	4
<i>Ancylotrypa pusilla</i> Purcell, 1903	BGW	3	1	0	4	3	7
<i>Ancylotrypa spinosa</i> Simon, 1889	BGW	1	1	0	5	3	8
<i>Ancylotrypa zebra</i> (Simon, 1892)	BGW	14	1	0	3	2	5
<i>Homostola abernethyi</i> (Purcell, 1903)	BGW	1	1	0	5	3	8
<i>Homostola pardalina</i> (Hewitt, 1913)	BGW	5	1	0	3	2	5
<i>Homostola vulpecula</i> Simon, 1892	BGW	25	1	0	3	1	4
<i>Homostola zebrina</i> Purcell, 1902	BGW	15	0	0	2	1	3

15. Deinopidae

<i>Deinopsis cylindrica</i> Pocock, 1898	OWB	1	1	0	3	1	4
<i>Menneus camelus</i> Pocock, 1902	OWB	9	1	0	3	1	4

<i>Menneus dromedarius</i> Purcell, 1904	OWB	1	0	0	1	2	3
16. Desidae							
<i>Badumna longinqua</i> (L. Koch, 1867)	RWB	4	0	0	0	2	2
17. Dictynidae							
<i>Archaeodictyna ulova</i> Griswold & Meikle-Griswold, 1987	RWB	2	1	0	2	3	5
<i>Mashimo leleupi</i> Lehtinen, 1967	RWB	2	0	0	1	2	3
18. Dipluridae							
<i>Allothele caffer</i> (Pocock, 1902)	FWB	1	0	0	1	2	3
<i>Allothele malawi</i> Coyle, 1984	FWB	1	0	0	1	2	3
<i>Allothele teretis</i> Tucker, 1920	FWB	7	1	0	3	1	4
<i>Thelechoris striatipes</i> (Simon, 1889)	FWB	1	0	0	1	3	4
19. Dysderidae							
<i>Dysdera crocata</i> C.L. Koch, 1838	FGW	4	0	0	0	2	2
20. Eresidae							
<i>Dresserus colsoni</i> Tucker, 1920	RWB	6	1	0	3	1	4
<i>Dresserus kannemeyeri</i> Tucker, 1920	RWB	15	1	0	3	2	5
<i>Dresserus obscurus</i> Pocock, 1898	RWB	1	1	0	5	3	8
<i>Gandanameno purcelli</i> (Tucker, 1920)	RWB	1	1	0	3	2	5
<i>Gandanameno spenceri</i> (Pocock, 1900)	RWB	1	0	0	2	1	3
<i>Paradonea parva</i> (Tucker, 1920)	RWB	1	1	0	4	2	6
<i>Paradonea splendens</i> (Lawrence, 1936)	RWB	1	0	0	2	3	5
<i>Seothyra perelegans</i> Simon, 1906	RWB	2	1	0	4	3	7
<i>Seothyra semicoccinea</i> Simon, 1906	RWB	1	1	0	4	3	7
<i>Stegodyphus africanus</i> (Blackwall, 1866)	RWB	3	0	0	1	1	2
<i>Stegodyphus dumicola</i> Pocock, 1898	RWB	21	0	0	1	1	2
<i>Stegodyphus mimosarum</i> Pavesi, 1883	RWB	3	0	0	1	1	2
<i>Stegodyphus tentoriicola</i> Purcell, 1904	RWB	10	0	0	2	1	3
21. Gallieniellidae							
<i>Austrachelas incertus</i> Lawrence, 1938	FGW	6	1	0	4	2	6
<i>Austrachelas natalensis</i> Lawrence, 1942	FGW	2	1	0	5	2	7
22. Gnaphosidae							
<i>Amusia cataracta</i> Tucker, 1923	FGW	3	1	0	3	2	5
<i>Aphantaulax inornata</i> Tucker, 1923	FGW	1	0	0	2	1	3
<i>Aphantaulax signicollis</i> Tucker, 1923	FGW	1	0	0	2	2	4
<i>Asemesthes decoratus</i> Purcell, 1908	FGW	41	0	0	3	1	4
<i>Asemesthes lineatus</i> Tucker, 1923	FGW	4	0	0	2	2	4
<i>Asemesthes montanus</i> Tucker, 1923	FGW	2	0	0	2	2	4
<i>Asemesthes numisma</i> Tucker, 1923	FGW	2	0	0	2	2	4
<i>Asemesthes oconnori</i> Tucker, 1923	FGW	1	1	0	4	3	7
<i>Asemesthes paynteri</i> Tucker, 1923	FGW	2	1	0	3	2	5
<i>Asemesthes purcelli</i> Tucker, 1923	FGW	4	0	0	2	1	3
<i>Camillina aestus</i> Tucker, 1923	FGW	13	0	0	2	3	5
<i>Camillina capensis</i> Platnick & Murphy, 1987	FGW	11	1	0	3	2	5
<i>Camillina cordifera</i> (Tullgren, 1910)	FGW	128	0	0	1	1	2
<i>Camillina maun</i> Platnick & Murphy, 1987	FGW	59	0	0	2	1	3
<i>Camillina pavesii</i> (Simon, 1897)	FGW	7	0	0	2	2	4
<i>Camillina procurva</i> (Purcell, 1908)	FGW	3	0	0	2	1	3
<i>Camillina setosa</i> Tucker, 1923	FGW	1	1	0	3	2	5
<i>Drassodes bechuanicus</i> Tucker, 1923	FGW	6	0	0	2	2	4
<i>Drassodes caffreianus</i> Purcell, 1907	FGW	1	1	1	6	3	9
<i>Drassodes lophognathus</i> Purcell, 1907	FGW	19	1	0	3	1	4
<i>Drassodes masculus</i> Tucker, 1923	FGW	1	0	0	2	3	5
<i>Drassodes solitarius</i> Purcell, 1907	FGW	29	1	0	3	1	4
<i>Drassodes splendens</i> Tucker, 1923	FGW	15	1	0	2	1	3

<i>Drassodes stationis</i> Tucker, 1923	FGW	94	1	0	3	1	4
<i>Drassodes tessellatus</i> Purcell, 1907	FGW	1	1	0	3	2	5
<i>Drassodes tortuosus</i> Tucker, 1923	FGW	2	1	1	6	3	9
<i>Eilica lotzi</i> FitzPatrick, 2002	FGW	6	1	1	6	3	9
<i>Ibala arcus</i> (Tucker, 1923)	FGW	3	1	0	3	1	4
<i>Ibala lapidaria</i> (Lawrence, 1928)	FGW	1	0	0	2	3	5
<i>Latonigena africanus</i> Tucker, 1923	FGW	5	1	0	3	2	5
<i>Megamyrmaekion schreineri</i> Tucker, 1923	FGW	3	1	0	3	2	5
<i>Megamyrmaekion transvaalense</i> Tucker, 1923	FGW	15	1	0	3	1	4
<i>Nomisia transvaalica</i> Dalmas, 1921	FGW	1	1	1	6	3	9
<i>Nomisia tubula</i> (Tucker, 1923)	FGW	1	0	0	3	2	5
<i>Nomisia varia</i> (Tucker, 1923)	FGW	7	0	0	2	3	5
<i>Poecilochroa involuta</i> Tucker, 1923	FGW	2	1	0	3	2	5
<i>Scotophaeus marleyi</i> Tucker, 1923	FGW	2	1	0	3	2	5
<i>Scotophaeus natalensis</i> Lawrence, 1938	FGW	1	1	0	5	3	8
<i>Scotophaeus purcelli</i> Tucker, 1923	FGW	2	1	0	3	2	5
<i>Scotophaeus relegatus</i> Purcell, 1907	FGW	1	1	0	3	2	5
<i>Setaphis browni</i> (Tucker, 1923)	FGW	44	0	0	1	1	2
<i>Setaphis subtilis</i> (Simon, 1897)	FGW	103	0	0	1	1	2
<i>Smionia lineatipes</i> (Purcell, 1908)	FGW	3	1	0	3	2	5
<i>Trachyzelotes jaxartensis</i> (Kroneberg, 1875)	FGW	25	0	0	0	1	1
<i>Trephopoda aplanita</i> (Tucker, 1923)	FGW	3	1	0	3	3	6
<i>Trephopoda kannemeyeri</i> (Tucker, 1923)	FGW	4	1	0	3	2	5
<i>Trephopoda parvipalpa</i> (Tucker, 1923)	FGW	2	1	0	3	1	4
<i>Trichothyse hortensis</i> Tucker, 1923	FGW	2	0	0	2	3	5
<i>Urozelotes rusticus</i> (L.Koch, 1872)	FGW	9	0	0	0	2	2
<i>Xerophaeus appendiculatus</i> Purcell, 1907	FGW	6	1	0	3	1	4
<i>Xerophaeus aridus</i> Purcell, 1907	FGW	5	0	0	2	2	4
<i>Xerophaeus aurariarum</i> Purcell, 1907	FGW	3	1	0	3	1	4
<i>Xerophaeus bicavus</i> Tucker, 1923	FGW	11	1	0	3	1	4
<i>Xerophaeus biplagiatus</i> Tullgren, 1910	FGW	1	0	0	1	1	4
<i>Xerophaeus communis</i> Purcell, 1907	FGW	1	1	0	3	2	5
<i>Xerophaeus hottentottus</i> Purcell, 1908	FGW	1	1	0	3	2	5
<i>Xerophaeus longispinus</i> Purcell, 1908	FGW	2	1	0	4	3	7
<i>Xerophaeus patricki</i> Purcell, 1907	FGW	3	0	0	2	3	5
<i>Xerophaeus rostratus</i> Purcell, 1907	FGW	11	1	0	3	2	5
<i>Xerophaeus rubeus</i> Tucker, 1923	FGW	10	1	0	3	3	6
<i>Xerophaeus spoliator</i> Purcell, 1907	FGW	2	1	0	3	2	5
<i>Xerophaeus tenebrosus</i> Tucker, 1923	FGW	3	1	0	3	3	6
<i>Xerophaeus vickermani</i> Tucker, 1923	FGW	7	1	0	3	2	5
<i>Zelotes albanicus</i> (Hewitt, 1915)	FGW	12	1	0	3	1	4
<i>Zelotes bastardi</i> (Simon, 1896)	FGW	1	0	0	1	3	4
<i>Zelotes capensis</i> FitzPatrick, 2007	FGW	5	1	0	4	3	7
<i>Zelotes capsula</i> Tucker, 1923	FGW	1	1	0	3	2	5
<i>Zelotes corrugatus</i> (Purcell, 1907)	FGW	95	0	0	1	1	2
<i>Zelotes florisbad</i> FitzPatrick, 2007	FGW	21	1	1	6	3	9
<i>Zelotes frenchi</i> Tucker, 1923	FGW	359	0	0	2	1	3
<i>Zelotes fuliginus</i> (Purcell, 1907)	FGW	286	0	0	1	1	2
<i>Zelotes gooldi</i> (Purcell, 1907)	FGW	8	0	0	2	1	3
<i>Zelotes haplodrassoides</i> (Denis, 1955)	FGW	1	0	0	1	3	4
<i>Zelotes humilis</i> (Purcell, 1907)	FGW	193	0	0	2	1	3
<i>Zelotes invidus</i> (Purcell, 1907)	FGW	4	0	0	2	1	3
<i>Zelotes lavus</i> Tucker, 1923	FGW	30	0	0	2	1	3
<i>Zelotes lightfooti</i> (Purcell, 1907)	FGW	19	1	0	3	2	5
<i>Zelotes lotzi</i> FitzPatrick, 2007	FGW	6	1	0	3	3	6
<i>Zelotes mashonus</i> FitzPatrick, 2007	FGW	1	0	0	1	3	4
<i>Zelotes natalensis</i> Tucker, 1923	FGW	29	1	0	3	1	4
<i>Zelotes pallidipes</i> Tucker, 1923	FGW	2	0	0	2	3	5
<i>Zelotes qwabergensis</i> FitzPatrick, 2007	FGW	3	1	1	6	3	9
<i>Zelotes reduncus</i> (Purcell, 1907)	FGW	17	1	0	3	1	4
<i>Zelotes sclateri</i> Tucker, 1923	FGW	223	0	0	2	1	3

<i>Zelotes scrutatus</i> (O.P.-Cambridge, 1872)	FGW	374	0	0	1	1	2
<i>Zelotes tuckeri</i> Roewer, 1951	FGW	11	0	0	1	1	2
<i>Zelotes uquathus</i> FitzPatrick, 2007	FGW	9	1	0	3	2	5
<i>Zelotes zonognathus</i> (Purcell, 1907)	FGW	32	0	0	1	2	3

23. Hahniidae

<i>Hahnia laticeps</i> Simon, 1898	SHWB	54	1	0	3	2	5
<i>Hahnia tabulicola</i> Simon, 1898	SHWB	27	0	0	1	1	2

24. Hersiliidae

<i>Hersilia arborea</i> Lawrence, 1928	FPW	1	0	0	2	2	4
<i>Hersilia sericea</i> Pocock, 1898	FPW	2	0	0	1	1	2
<i>Hersilia setifrons</i> Lawrence, 1928	FPW	13	0	0	2	1	3
<i>Tyrotama australis</i> (Simon, 1893)	FGW	24	1	0	3	1	4

25. Idiopidae

<i>Ctenolophus cregoei</i> (Purcell, 1902)	BGW	4	1	0	3	2	5
<i>Ctenolophus fenoulheti</i> Hewitt, 1913	BGW	2	1	0	3	2	5
<i>Ctenolophus oomi</i> Hewitt, 1913	BGW	9	1	0	4	2	6
<i>Ctenolophus pectinipalpis</i> (Purcell, 1903)	BGW	6	1	0	5	3	8
<i>Galeosoma coronatum</i> Hewitt, 1915	BGW	6	1	0	4	3	7
<i>Galeosoma crinitum</i> Hewitt, 1919	BGW	1	1	1	6	3	9
<i>Galeosoma hirsutum</i> Hewitt, 1916	BGW	8	1	0	3	2	5
<i>Galeosoma pallidum</i> Hewitt, 1915	BGW	8	1	1	5	3	8
<i>Galeosoma pilosum</i> Hewitt, 1916	BGW	6	1	1	5	3	8
<i>Galeosoma planiscutatum</i> Hewitt, 1919	BGW	5	1	0	3	3	6
<i>Galeosoma robertsi</i> Hewitt, 1916	BGW	6	1	1	4	2	6
<i>Galeosoma scutatum</i> Purcell, 1903	BGW	3	1	0	4	3	7
<i>Gorgyrella schreineri</i> Purcell, 1903	BGW	4	1	0	3	1	4
<i>Idiops fryi</i> (Purcell, 1903)	BGW	4	1	0	3	2	5
<i>Idiops gunningi</i> Hewitt, 1913	BGW	4	1	0	4	3	7
<i>Idiops hamiltoni</i> (Pocock, 1902)	BGW	2	1	1	6	3	9
<i>Idiops hepburni</i> (Hewitt, 1919)	BGW	1	0	0	2	3	5
<i>Idiops monticola</i> (Hewitt, 1916)	BGW	4	1	0	3	1	4
<i>Idiops nigropilosus</i> (Hewitt, 1919)	BGW	2	1	1	6	3	9
<i>Idiops parvus</i> Hewitt, 1915	BGW	1	1	1	6	3	9
<i>Idiops pretoriae</i> (Pocock, 1898)	BGW	6	1	0	5	2	7
<i>Segregara abrahami</i> (Hewitt, 1913)	BGW	2	1	0	5	3	8
<i>Segregara transvaalensis</i> (Hewitt, 1913)	BGW	12	1	0	3	1	4

26. Linyphiidae

<i>Ceratinopsis irandensis</i> Locket & Russell-Smith, 1980	SHWB	1	0	0	1	3	4
<i>Ceratinopsis sinuata</i> Bosmans, 1988	SHWB	1	0	0	1	3	4
<i>Erigone irrita</i> Jocqué, 1984	SHWB	3	1	0	3	2	5
<i>Erigone prominens</i> Bösenberg & Strand, 1906	SHWB	1	0	0	0	3	3
<i>Limoneta sirimoni</i> (Bosmans, 1979)	SHWB	56	0	0	1	2	3
<i>Meioneta habra</i> Locket, 1968	SHWB	47	0	0	1	1	2
<i>Meioneta natalensis</i> Jocqué, 1984	SHWB	1	1	0	3	2	5
<i>Meioneta prosectoides</i> Locket & Russell-Smith, 1980	SHWB	1	0	0	1	3	4
<i>Metaleptyphantes familiaris</i> Jocqué, 1984	SHWB	59	1	0	3	2	5
<i>Metaleptyphantes perexiguus</i> (Simon & Fage, 1922)	SHWB	4	0	0	1	1	2
<i>Microctenonyx subitaneus</i> (O. P.-Cambridge, 1875)	SHWB	1	0	0	0	3	3
<i>Microlinyphia aethiopia</i> (Tullgren, 1910)	SHWB	1	0	0	1	3	4
<i>Microlinyphia sterilis</i> (Pavesi, 1883)	SHWB	62	0	0	0	1	1
<i>Ostearius melanopygius</i> (O.P.-Cambridge, 1879)	SHWB	118	0	0	0	1	1
<i>Pelecopsis janus</i> Jocqué, 1984	SHWB	14	0	0	2	1	3
<i>Tybaertiella convexa</i> (Holm, 1962)	SHWB	1	0	0	1	1	2
<i>Tybaertiella krugeri</i> (Simon, 1894)	SHWB	4	0	0	1	1	2
<i>Typhistes gloriosus</i> Jocqué, 1984	SHWB	1	1	0	5	3	8

27. Liocranidae

<i>Rhaeboctesis secundus</i> Tucker, 1920	FGW	6	1	0	3	3	6
<i>Rhaeboctesis transvaalensis</i> Tucker, 1920	FGW	6	1	0	3	3	6
<i>Rhaeboctesis trinotatus</i> Tucker, 1920	FGW	12	0	0	2	2	4

28. Lycosidae

<i>Allocosa lawrencei</i> (Roewer, 1951)	FGW	1	1	0	3	2	5
<i>Allocosa montana</i> Roewer, 1959	FGW	2	0	0	1	3	4
<i>Allocosa tuberculipalpa</i> (Caporriacco, 1940)	FGW	11	0	0	1	2	3
<i>Allocosa umtalica</i> (Purcell, 1903)	FGW	1	0	0	1	3	5
<i>Amblyothele albocincta</i> Simon, 1910	FGW	3	0	0	2	3	5
<i>Amblyothele latedissipata</i> Russell-Smith, Jocqué & Alderweireldt, 2009	FGW	9	0	0	1	2	3
<i>Evippomma squamulatum</i> (Simon, 1898)	FGW	66	0	0	2	1	3
<i>Foveosa adunca</i> Russell-Smith, Alderweireldt & Jocqué, 2007	FGW	10	1	0	3	2	5
<i>Foveosa foveolata</i> (Purcell, 1903)	FGW	65	0	0	1	1	2
<i>Hippasa australis</i> Lawrence, 1927	FWB	18	0	0	1	1	2
<i>Hippasa funerea</i> Lessert, 1925	FWB	15	0	0	2	1	3
<i>Hogna spenceri</i> (Pocock, 1898)	FGW	7	0	0	1	2	3
<i>Hogna transvaalica</i> (Simon, 1898)	FGW	2	1	0	3	2	5
<i>Lycosa connexa</i> Roewer, 1960	FGW	1	1	1	6	3	9
<i>Lycosa pachana</i> Pocock, 1898	FGW	5	0	0	1	2	3
<i>Minicosa neptuna</i> Alderweireldt & Jocqué, 2007	FGW	8	0	0	2	2	4
<i>Ocyale guttata</i> (Karsch, 1878)	FGW	1	0	0	1	2	3
<i>Pardosa clavipalpis</i> Purcell, 1903	FGW	22	0	0	2	1	3
<i>Pardosa crassipalpis</i> Purcell, 1904	FGW	194	0	0	2	1	3
<i>Pardosa injucunda</i> (O.P.-Cambridge, 1876)	FGW	2	0	0	1	3	4
<i>Pardosa leipoldti</i> Purcell, 1903	FGW	1	0	0	2	2	4
<i>Pardosa manubriata</i> Simon, 1898	FGW	1	0	0	2	1	3
<i>Pardosa nebulosa</i> (Roewer, 1960)	FGW	6	0	0	1	2	3
<i>Pardosa oncka</i> Lawrence, 1927	FGW	3	0	0	1	2	2
<i>Proevippa albiventris</i> (Simon, 1898)	FGW	14	0	0	2	1	3
<i>Proevippa biamplicata</i> (Purcell, 1903)	FGW	139	0	0	2	1	3
<i>Proevippa bruneipes</i> (Purcell, 1903)	FGW	2	0	0	3	2	5
<i>Proevippa fascicularis</i> (Purcell, 1903)	FGW	25	0	0	2	1	3
<i>Proevippa hirsuta</i> (Russell-Smith, 1981)	FGW	2	0	0	2	3	5
<i>Proevippa schreineri</i> (Purcell, 1903)	FGW	13	1	0	3	2	5
<i>Proevippa wanlessi</i> (Russell-Smith, 1981)	FGW	1	1	0	3	3	6
<i>Pterartoria flavolimbata</i> Purcell, 1903	FGW	1	1	0	3	3	6
<i>Schizocosa darlingi</i> (Pocock, 1898)	FGW	1	0	0	2	3	5
<i>Trabea natalensis</i> Russell-Smith, 1982	FGW	8	1	0	5	2	7
<i>Trabea ornatipalpis</i> Russell-Smith, 1982	FGW	2	1	0	3	3	6
<i>Trabea purcelli</i> Roewer, 1951	FGW	41	0	0	3	1	4
<i>Trabea rubriceps</i> Lawrence, 1952	FGW	3	1	0	3	2	5
<i>Trochosippa modesta</i> Roewer, 1960	FGW	1	1	1	6	3	9
<i>Trochosippa nigerrima</i> Roewer, 1960	FGW	1	1	1	6	3	9
<i>Zenonina albocaudata</i> Lawrence, 1952	FGW	2	1	0	4	2	6
<i>Zenonina mystacina</i> Simon, 1898	FGW	2	0	0	2	2	4

29. Microstigmatidae

<i>Microstigmata longipes</i> (Lawrence, 1938)	FGW	22	1	0	3	1	4
<i>Microstigmata ukhahlamba</i> Griswold, 1985	FGW	9	1	0	4	2	6

30. Migidae

<i>Moggridgea microps</i> Hewitt, 1915	BGW	1	0	0	2	2	4
<i>Moggridgea paucispina</i> Hewitt, 1916	BGW	2	1	0	3	2	5
<i>Moggridgea peringueyi</i> Simon, 1903	BGW	1	1	0	3	1	4
<i>Poecilomigas abrahami</i> (O. P.-Cambridge, 1889)	BGW	6	1	0	3	1	4

31. Mimetidae

<i>Ero capensis</i> Simon, 1895	FPW	1	1	0	3	2	5
<i>Ero lawrencei</i> Unzicker, 1966	FPW	2	1	0	4	2	6
<i>Mimetus natalensis</i> Lawrence, 1938	FPW	7	1	0	3	1	4

32. Miturgidae

<i>Cheiracanthium aculeutum</i> Simon, 1884	FPW	6	0	0	1	1	2
<i>Cheiracanthium africanum</i> Lessert, 1921	FPW	41	0	0	1	1	2
<i>Cheiracanthium furculatum</i> Karsch, 1879	FPW	558	0	0	1	1	2
<i>Cheiracanthium minshullae</i> Lotz, 2007	FPW	1	0	0	2	3	5
<i>Cheiracanthium shiluvanensis</i> Lotz, 2007	FPW	5	0	0	3	3	6
<i>Cheiracanthium vansoni</i> Lawrence, 1936	FPW	20	0	0	1	1	2
<i>Cheiramiona amarifontis</i> Lotz, 2002	FPW	1	1	0	4	2	6
<i>Cheiramiona collinita</i> (Lawrence, 1938)	FPW	5	1	0	5	2	7
<i>Cheiramiona filipes</i> (Simon, 1898)	FPW	6	0	0	2	2	4
<i>Cheiramiona florisbadensis</i> Lotz, 2002	FPW	15	0	0	2	1	3
<i>Cheiramiona fontanus</i> Lotz, 2003	FPW	3	1	1	6	3	9
<i>Cheiramiona krugerensis</i> Lotz, 2003	FPW	2	1	0	3	1	4
<i>Cheiramiona langi</i> Lotz, 2003	FPW	2	0	0	2	3	5
<i>Cheiramiona mlawula</i> Lotz, 2003	FPW	3	0	0	2	2	4
<i>Cheiramiona paradisis</i> Lotz, 2002	FPW	30	0	0	2	1	3
<i>Cheiramiona regis</i> Lotz, 2002	FPW	7	1	1	4	3	7
<i>Parapostenus hewitti</i> Lessert, 1923	FGW	2	1	0	4	2	6

33. Nemesiidae

<i>Entypesa schoutedeni</i> Benoit, 1965	BGW	4	1	0	3	2	5
<i>Hermacha bicolor</i> (Pocock, 1897)	BGW	23	1	0	5	2	7
<i>Hermacha mazoena</i> Hewitt, 1915	BGW	2	0	0	2	3	5
<i>Lepthercus dregei</i> Purcell, 1902	BGW	1	1	0	5	3	8
<i>Spiroctenus pilosus</i> Tucker, 1917	BGW	1	1	1	6	3	9

34. Nephilidae

<i>Nephila fenestrata</i> Thorell, 1859	OWB	57	0	0	1	1	2
<i>Nephila inaurata</i> (Walckenaer, 1841)	OWB	1	0	0	1	1	2
<i>Nephila senegalensis</i> (Walckenaer, 1842)	OWB	25	0	0	1	1	2
<i>Nephilengys cruentata</i> (Fabricius, 1775)	OWB	3	0	0	0	1	1

35. Oecobiidae

<i>Oecobius navus</i> Blackwall, 1859	RWB	19	0	0	0	1	1
<i>Oecobius putus</i> O. P.-Cambridge, 1876	RWB	1	0	0	0	3	3
<i>Uroecobius ecribellatus</i> Kullmann & Zimmermann, 1976	RWB	1	1	0	3	2	5

36. Oonopidae

<i>Opopaea mattica</i> Simon, 1893	FGW	5	1	0	3	3	6
<i>Opopaea speciosa</i> (Lawrence, 1952)	FGW	4	0	0	1	1	2

37. Oxyopidae

<i>Hamataliwa kulczynskii</i> (Lessert, 1915)	FPW	1	0	0	1	1	2
<i>Oxyopes affinis</i> Lessert, 1915	FPW	4	0	0	1	1	2
<i>Oxyopes bothai</i> Lessert, 1915	FPW	4	0	0	1	1	2
<i>Oxyopes flavipalpis</i> (Lucas, 1858)	FPW	1	0	0	1	1	2
<i>Oxyopes hoggi</i> Lessert, 1915	FPW	1	0	0	1	1	2
<i>Oxyopes jacksoni</i> Lessert, 1915	FPW	8	0	0	1	1	2
<i>Oxyopes longispinosus</i> Lawrence, 1938	FPW	3	1	0	3	1	4
<i>Oxyopes pallidecoloratus</i> Strand, 1906	FPW	2	0	0	1	1	2
<i>Oxyopes russoi</i> Caporiacco, 1940	FPW	4	0	0	1	1	2
<i>Oxyopes schenkeli</i> Lessert, 1927	FPW	4	0	0	1	1	2
<i>Oxyopes vanderysti</i> Lessert, 1946	FPW	1	0	0	1	3	4
<i>Oxyopes vogelsangeri</i> Lessert, 1946	FPW	2	0	0	1	2	3
<i>Peucetia maculifera</i> Pocock, 1900	FPW	7	0	0	2	1	3
<i>Peucetia nicolae</i> Van Niekerk & Dippenaar-Schoeman, 1994	FPW	1	1	0	4	1	5
<i>Peucetia pulchra</i> (Blackwall, 1865)	FPW	1	0	0	1	2	3
<i>Peucetia striata</i> Karsch, 1878	FPW	9	0	0	1	1	2
<i>Peucetia transvaalica</i> Simon, 1896	FPW	7	0	0	1	1	2
<i>Peucetia viridis</i> (Blackwall, 1858)	FPW	1	0	0	0	1	1

38. Palpimanidae

<i>Diaphorocellus biplagiatus</i> Simon, 1893	FGW	2	0	0	2	1	3
<i>Palpimanus armatus</i> Pocock, 1898	FGW	1	1	0	3	2	5
<i>Palpimanus capensis</i> Simon, 1893	FGW	1	1	0	3	2	5
<i>Palpimanus transvaalicus</i> Simon, 1893	FGW	16	1	0	3	1	4
<i>Palpimanus tuberculatus</i> Lawrence, 1952	FGW	1	1	1	6	3	9

39. Penestomidae

<i>Penestomus montanus</i> Miller, Griswold, Haddad, 2010	RWB	7	0	0	2	3	5
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40. Philodromidae

<i>Hirriusa arenacea</i> (Lawrence, 1927)	FGW	1	0	0	2	1	3
<i>Hirriusa bidentata</i> (Lawrence, 1927)	FGW	2	0	0	2	2	4
<i>Hirriusa variegata</i> (Simon, 1895)	FGW	3	1	0	3	1	4
<i>Philodromus bigibbus</i> (O.P.-Cambridge, 1876)	FPW	1	0	0	1	2	3
<i>Philodromus browningi</i> Lawrence, 1952	FPW	5	1	0	3	1	4
<i>Philodromus grosi</i> Lessert, 1943	FPW	1	0	0	1	2	3
<i>Philodromus guineensis</i> Millot, 1941	FPW	1	0	0	1	1	2
<i>Suemus punctatus</i> Lawrence, 1938	FGW	8	1	0	3	1	4
<i>Thanatus dorsilineatus</i> Jézéquel, 1964	FPW	9	0	0	1	1	2
<i>Thanatus vulgaris</i> Simon, 1870	FGW	19	0	0	0	1	1
<i>Tibellus gerhardi</i> Van den Berg & Dippenaar-Schoeman, 1994	FPW	1	0	0	1	2	3
<i>Tibellus hollidayi</i> Lawrence, 1952	FPW	55	0	0	1	1	2
<i>Tibellus kibonotensis</i> Lessert, 1919	FPW	4	0	0	1	2	3
<i>Tibellus minor</i> Lessert, 1919	FPW	47	0	0	1	1	2
<i>Tibellus seriepunctatus</i> Simon, 1907	FPW	1	0	0	1	3	4

41. Pholcidae

<i>Crossopriza lyoni</i> (Blackwall, 1867)	SPWB	1	0	0	0	3	3
<i>Quamtana bonamanzi</i> Huber, 2003	SPWB	1	1	0	3	2	5
<i>Quamtana filmeri</i> Huber, 2003	SPWB	5	0	0	2	3	5
<i>Quamtana hectori</i> Huber, 2003	SPWB	3	1	0	3	2	5
<i>Quamtana lotzi</i> Huber, 2003	SPWB	2	1	1	5	3	8
<i>Quamtana mabusai</i> Huber, 2003	SPWB	10	0	0	4	2	6
<i>Quamtana meyeri</i> Huber, 2003	SPWB	1	1	1	6	3	9
<i>Smeringopus badplaas</i> Huber, 2012	SPWB	1	1	0	4	2	6
<i>Smeringopus florisbad</i> Huber, 2012	SPWB	20	1	1	4	2	6
<i>Smeringopus koppies</i> Huber, 2012	SPWB	4	0	0	2	2	4
<i>Smeringopus lotzi</i> Huber, 2012	SPWB	21	1	0	3	1	4
<i>Smeringopus natalensis</i> Lawrence, 1947	SPWB	49	0	0	2	1	3
<i>Smeringopus ubicki</i> Huber, 2012	SPWB	2	1	0	4	2	6

42. Phyxelididae

<i>Phyxelida makapanensis</i> Simon, 1894	RWB	6	1	0	4	2	6
<i>Pongolania chrysonaria</i> Griswold, 1990	RWB	6	1	1	5	3	8
<i>Themacrys cavernicola</i> (Lawrence, 1939)	RWB	3	1	0	5	3	8
<i>Themacrys irrorata</i> Simon, 1906	RWB	3	1	0	4	2	6
<i>Themacrys monticola</i> (Lawrence, 1939)	RWB	21	1	0	4	2	6
<i>Themacrys silvicola</i> (Lawrence, 1938)	RWB	2	1	0	4	2	6
<i>Themacrys ukhahlamba</i> Griswold, 1990	RWB	4	1	0	5	3	8
<i>Vidole capensis</i> (Pocock, 1900)	RWB	3	1	0	3	1	4
<i>Vidole helicigyna</i> Griswold, 1990	RWB	5	1	0	5	3	8
<i>Vidole lyra</i> Griswold, 1990	RWB	2	1	0	3	2	5
<i>Vidole schreineri</i> (Purcell, 1904)	RWB	2	1	0	4	2	6
<i>Vidole sothoana</i> Griswold, 1990	RWB	91	0	0	2	1	3
<i>Xevioso aululata</i> Griswold, 1990	RWB	2	1	0	5	3	8
<i>Xeviosa lichmadina</i> Griswold, 1990	RWB	1	1	0	4	3	7
<i>Xevioso orthomeles</i> Griswold, 1990	RWB	2	0	0	2	2	4

43. Pisauridae

<i>Afropisaura rothiformis</i> (Strand, 1908)	FPW	1	0	0	1	2	3
<i>Chiasmopes hystrix</i> (Berland, 1922)	SHWB	2	0	0	1	3	4
<i>Chiasmopes lineatus</i> (Pocock, 1898)	SHWB	5	0	0	1	1	2
<i>Chiasmopes namaquensis</i> (Roewer, 1955)	SHWB	1	0	0	2	3	5
<i>Cispius kimbius</i> Blandin, 1978	SHWB	1	1	0	3	2	5
<i>Euprosthénops australis</i> Simon, 1898	FWB	5	0	0	1	1	2
<i>Euprosthénops bayaonianus</i> (Brito Capello, 1867)	FWB	4	0	0	1	1	2
<i>Euprosthénopsis armata</i> (Strand, 1913)	SHWB	1	0	0	1	3	4
<i>Euprosthénopsis pulchella</i> (Pocock, 1902)	SHWB	3	0	0	2	1	3
<i>Euprosthénopsis vuattouxi</i> Blandin, 1977	SHWB	3	0	0	1	1	2
<i>Maypaciús bilineatus</i> (Pavesi, 1895)	SHWB	1	0	0	1	2	3
<i>Nilus curtus</i> O.P.-Cambridge, 1876	FGW	2	0	0	1	1	2
<i>Nilus margaritatus</i> Pocock, 1898	FGW	4	0	0	1	2	3
<i>Nilus massajae</i> (Pavesi, 1883)	FGW	2	0	0	1	1	2
<i>Rothus purpurissatus</i> Simon, 1898	FPW	31	0	0	1	1	2
<i>Rothus vittatus</i> Simon, 1898	FPW	4	1	0	3	2	5

44. Prodidomidae

<i>Austrodomus scaber</i> (Purcell, 1904)	FGW	1	1	0	3	3	6
<i>Austrodomus zuluensis</i> Lawrence, 1947	FGW	2	1	0	3	2	5
<i>Theuma ababensis</i> Tucker, 1923	FGW	2	0	0	2	2	4
<i>Theuma capensis</i> Purcell, 1907	FGW	1	0	0	3	2	5
<i>Theuma cedri</i> Purcell, 1907	FGW	3	1	0	3	3	6
<i>Theuma elucubata</i> Tucker, 1923	FGW	2	1	0	3	2	5
<i>Theuma foveolata</i> Tucker, 1923	FGW	1	0	0	2	2	4
<i>Theuma fusca</i> Purcell, 1907	FGW	15	0	0	2	1	3
<i>Theuma maculata</i> Purcell, 1907	FGW	1	0	0	2	1	3
<i>Theuma parva</i> Purcell, 1907	FGW	1	0	0	2	2	4
<i>Theuma schreineri</i> Purcell, 1907	FGW	2	1	0	3	2	5
<i>Theuma schultzei</i> Purcell, 1908	FGW	1	1	0	3	2	5
<i>Theuma tragardhi</i> Lawrence, 1947	FGW	1	1	0	3	3	6

45. Salticidae

<i>Asemonea murphyae</i> Wanless, 1980	FGW	1	0	0	1	3	4
<i>Baryphas ahenus</i> Simon, 1902	FPW	46	0	0	1	1	2
<i>Branucus bevisi</i> Lessert, 1925	FPW	2	0	0	1	1	2
<i>Branucus mustelus</i> (Simon, 1902)	FPW	4	0	0	2	3	5
<i>Carrhotus singularis</i> Simon, 1902	FGW	2	1	0	4	3	7
<i>Cyrba boveyi</i> Lessert, 1933	FGW	1	0	0	1	2	3
<i>Cyrba lineata</i> Wanless, 1984	FGW	6	1	0	3	1	4
<i>Cyrba nigrimana</i> Simon, 1900	FGW	10	1	0	3	1	4
<i>Dendryphantés hararensis</i> Wesolowska & Cumming, 2008	FPW	11	0	0	2	3	5
<i>Dendryphantés purcelli</i> Peckham & Peckham, 1903	FPW	8	0	0	1	1	2
<i>Dendryphantés rafalskii</i> Wesolowska, 1999	FPW	1	0	0	2	3	5
<i>Evarcha dotata</i> (Peckham & Peckham, 1903)	FPW	4	0	0	1	1	2
<i>Evarcha flagellaris</i> Haddad & Wesolowska, 2011	FGW	7	1	0	3	2	5
<i>Evarcha prosimilis</i> Wesolowska & Cumming, 2008	FGW	82	0	0	1	1	2
<i>Evarcha vittula</i> Haddad & Wesolowska, 2011	FGW	18	1	0	4	2	6
<i>Festucula festuculaeformis</i> (Lessert, 1925)	FPW	2	0	0	1	2	3
<i>Festucula lawrencei</i> Lessert, 1933	FPW	2	0	0	1	1	2
<i>Goleba puella</i> (Simon, 1885)	FPW	1	0	0	1	2	3
<i>Habrocestum albimanum</i> Simon, 1901	FGW	2	1	0	4	3	7
<i>Harmochirus luculentus</i> Simon, 1885	FPW	1	0	0	1	2	3
<i>Hasarius adansonii</i> (Audouin, 1826)	FPW	12	0	0	0	1	1
<i>Heliophanus aberdarensis</i> Wesolowska, 1986	FPW	1	0	0	1	3	4
<i>Heliophanus charlesi</i> Wesolowska, 2003	FPW	4	1	0	3	2	5
<i>Heliophanus deamatus</i> Peckham & Peckham, 1903	FPW	3	0	0	1	3	4
<i>Heliophanus debilis</i> Simon, 1901	FPW	14	0	0	1	1	2
<i>Heliophanus demonstrativus</i> Wesolowska, 1986	FPW	1	0	0	1	2	3
<i>Heliophanus fasciatus</i> Wesolowska, 1986	FPW	5	0	0	1	3	4
<i>Heliophanus gladiator</i> Wesolowska, 1986	FPW	2	0	0	1	3	4

<i>Heliophanus hastatus</i> Wesolowska, 1986	FPW	18	0	0	2	1	3
<i>Heliophanus insperatus</i> Wesolowska, 1986	FPW	2	0	0	1	2	3
<i>Heliophanus modicus</i> Peckham & Peckham, 1903	FPW	3	0	0	1	2	3
<i>Heliophanus nanus</i> Wesolowska, 2003	FPW	18	1	0	4	2	6
<i>Heliophanus orchestra</i> Simon, 1885	FPW	6	0	0	1	2	3
<i>Heliophanus orchestroides</i> Lessert, 1925	FPW	5	0	0	1	3	4
<i>Heliophanus patellaris</i> Simon, 1901	FPW	3	1	0	3	2	5
<i>Heliophanus pistaciae</i> Wesolowska, 2003	FPW	33	0	0	2	1	3
<i>Heliophanus proszynskii</i> Wesolowska, 2003	FPW	12	1	0	3	2	5
<i>Heliophanus sororius</i> Wesolowska, 2003	FPW	3	1	1	6	3	9
<i>Heliophanus termitophagus</i> Wesolowska & Haddad, 2002	FGW	17	1	0	5	2	7
<i>Heliophanus thaleri</i> Wesolowska, 2009	FPW	1	1	1	6	3	9
<i>Heliophanus transvaalicus</i> Simon, 1901	FPW	11	1	0	3	2	5
<i>Holcolaetis vellerea</i> Simon, 1910	FPW	4	0	0	1	3	4
<i>Holcolaetis zuluensis</i> Lawrence, 1937	FPW	2	0	0	1	1	2
<i>Hyllus argyrotoxus</i> Simon, 1902	FPW	5	0	0	1	1	2
<i>Hyllus brevitarsis</i> Simon, 1902	FPW	4	0	0	1	1	2
<i>Hyllus treleaveni</i> Peckham & Peckham, 1902	FPW	6	0	0	1	1	2
<i>Icius insolidus</i> (Wesolowska, 1999)	FGW	22	0	0	2	1	3
<i>Icius pulchellus</i> Haddad & Wesolowska, 2011	FGW	2	1	1	6	3	9
<i>Langona hirsuta</i> Haddad & Wesolowska, 2011	FGW	86	1	0	4	2	6
<i>Langona lotzi</i> Haddad & Wesolowska, 2011	FGW	27	1	1	6	3	9
<i>Langona manicata</i> Simon, 1901	FGW	3	1	0	4	3	7
<i>Langona warchalowskii</i> Wesolowska, 2007	FGW	32	1	0	3	2	5
<i>Menemerus bifurcus</i> Wesolowska, 1999	FPW	6	0	0	2	3	5
<i>Menemerus bivittatus</i> (Dufour, 1831)	FPW	1	0	0	0	2	2
<i>Menemerus congoensis</i> Lessert, 1927	FPW	1	0	0	2	3	5
<i>Menemerus transvaalicus</i> Wesolowska, 1999	FPW	31	1	0	3	1	4
<i>Mexcala elegans</i> Peckham & Peckham, 1903	FGW	4	0	0	1	1	2
<i>Mexcala rufa</i> Peckham & Peckham, 1902	FGW	1	0	0	2	2	4
<i>Microheros termitophagus</i> Wesolowska & Cumming, 1999	FGW	32	0	0	2	2	4
<i>Mogrus mathisi</i> (Berland & Millot, 1941)	FPW	2	0	0	0	3	3
<i>Myrmarachne foreli</i> Lessert, 1925	FPW	1	0	0	1	2	3
<i>Myrmarachne inflatipalpis</i> Wanless, 1978	FPW	10	0	0	2	2	4
<i>Myrmarachne kiboschensis</i> Lessert, 1925	FGW	1	0	0	0	3	3
<i>Myrmarachne laurentina</i> Bacelar, 1953	FPW	1	0	0	2	2	4
<i>Myrmarachne leleupi</i> Wanless, 1978	FPW	2	1	0	3	2	5
<i>Myrmarachne marshalli</i> Peckham & Peckham, 1903	FPW	9	0	0	1	2	3
<i>Myrmarachne solitaria</i> Peckham & Peckham, 1903	FPW	3	0	0	2	1	3
<i>Myrmarachne uvira</i> Wanless, 1978	FGW	1	0	0	1	3	4
<i>Natta chionogaster</i> (Simon, 1901)	FGW	25	0	0	1	1	2
<i>Natta horizontalis</i> Karsch, 1879	FGW	30	0	0	1	1	2
<i>Nigorella hirsuta</i> Wesolowska, 2009	FGW	56	0	0	2	1	3
<i>Pellenes bulawayoensis</i> Wesolowska, 2000	FGW	93	0	0	2	1	3
<i>Pellenes epularis</i> (O.P.-Cambridge, 1872)	FGW	2	0	0	0	3	3
<i>Pellenes geniculatus</i> (Simon, 1868)	FGW	46	0	0	0	1	1
<i>Pellenes modicus</i> Wesolowska & Russell-Smith, 2000	FGW	19	0	0	1	2	3
<i>Pellenes tharinae</i> Wesolowska, 2006	FGW	95	0	0	2	1	3
<i>Phintella australis</i> (Simon, 1902)	FPW	1	1	0	3	2	5
<i>Phlegra bresnieri</i> (Lucas, 1846)	FGW	20	0	0	0	3	3
<i>Phlegra etosha</i> Logunov & Azarkina, 2006	FGW	4	0	0	2	3	5
<i>Phlegra karoo</i> Wesolowska, 2006	FGW	160	0	0	2	1	3
<i>Pignus simoni</i> (Peckham & Peckham, 1903)	FGW	29	0	0	2	1	3
<i>Plexippus paykulli</i> (Audouin, 1826)	FPW	1	0	0	0	3	3
<i>Portia schultzi</i> Karsch, 1878	FPW	5	0	0	1	1	2
<i>Pseudicius africanus</i> Peckham & Peckham, 1903	FPW	1	1	0	3	3	6
<i>Pseudicius dependens</i> Haddad & Wesolowska, 2011	FPW	12	1	0	4	2	6
<i>Pseudicius elegans</i> Wesolowska & Cumming, 2008	FPW	1	0	0	2	3	5
<i>Pseudicius gracilis</i> Haddad & Wesolowska, 2011	FPW	6	1	1	5	3	8
<i>Pseudicius karinae</i> Haddad & Wesolowska, 2011	FPW	4	1	1	6	3	9
<i>Pseudicius maculatus</i> Haddad & Wesolowska, 2011	FPW	6	1	1	6	3	9

<i>Pseudicius solitarius</i> Haddad & Wesolowska, 2011	FPW	3	1	1	6	3	9
<i>Rhene konradi</i> Wesolowska, 2009	FPW	6	1	1	5	2	7
<i>Rhene lingularis</i> Haddad & Wesolowska, 2011	FPW	10	1	1	5	3	8
<i>Schenkella modesta</i> Lessert, 1927	FPW	1	0	0	1	3	4
<i>Sonoita lightfooti</i> Peckham & Peckham, 1903	FPW	1	0	0	1	3	4
<i>Stenaelurillus guttiger</i> (Simon, 1901)	FGW	8	0	0	2	1	3
<i>Tanzania meridionalis</i> Haddad & Wesolowska, 2011	FGW	8	1	1	6	3	9
<i>Tanzania mkomaziensis</i> (Wesolowska & Russell-Smith, 2000)	FGW	1	0	0	1	3	4
<i>Thyene bucculenta</i> (Gerstäcker, 1873)	FPW	2	0	0	1	3	4
<i>Thyene coccineovittata</i> (Simon, 1885)	FPW	3	0	0	1	1	2
<i>Thyene dakarensis</i> (Berland & Millot, 1941)	FPW	2	0	0	1	3	4
<i>Thyene inflata</i> (Gerstäcker, 1873)	FPW	10	0	0	1	1	2
<i>Thyene natalii</i> Peckham & Peckham, 1903	FPW	14	0	0	1	1	2
<i>Thyene ogdeni</i> Peckham & Peckham, 1903	FPW	2	0	0	1	1	2
<i>Thyene semiargentea</i> (Simon, 1884)	FPW	19	0	0	1	2	3
<i>Thyene thyenioides</i> (Lessert, 1925)	FPW	24	0	0	1	2	3
<i>Thyenula armata</i> Wesolowska, 2001	FGW	32	1	1	6	3	9
<i>Thyenula aurantiaca</i> (Simon, 1902)	FGW	2	0	0	2	1	3
<i>Thyenula fidelis</i> Wesolowska & Haddad, 2009	FGW	2	0	0	2	2	4
<i>Thyenula juvenca</i> Simon, 1902	FPW	2	1	0	3	2	5
<i>Thyenula oranjensis</i> Wesolowska, 2001	FGW	20	1	0	4	3	7
<i>Tusitala barbata</i> Peckham & Peckham, 1902	FPW	19	0	0	1	1	2
<i>Tusitala hirsuta</i> Peckham & Peckham, 1902	FPW	9	0	0	1	2	3
46. Scytodidae							
<i>Scytodes caffra</i> Purcell, 1904	FGW	2	0	0	1	1	2
<i>Scytodes drakensbergensis</i> Lawrence, 1947	FGW	7	1	0	4	2	6
<i>Scytodes elizabethae</i> Purcell, 1904	FGW	7	1	0	3	3	6
<i>Scytodes flagellata</i> Purcell, 1904	FGW	1	1	0	3	2	5
<i>Scytodes fusca</i> Walckenaer, 1837	FGW	2	0	0	0	1	1
<i>Scytodes maritima</i> Lawrence, 1938	FGW	1	1	0	3	1	4
<i>Scytodes marshalli</i> Pocock, 1902	FGW	1	1	1	6	3	9
<i>Scytodes symmetrica</i> Lawrence, 1938	FGW	1	1	1	6	3	9
47. Segestriidae							
<i>Ariadna corticola</i> Lawrence, 1952	RWB	1	1	0	3	1	4
<i>Ariadna hottentotta</i> Purcell, 1908	RWB	1	1	0	3	3	6
48. Selenopidae							
<i>Anyphops barbertonensis</i> (Lawrence, 1940)	FGW	1	1	0	3	2	5
<i>Anyphops civicus</i> (Lawrence, 1940)	FGW	3	1	0	3	3	6
<i>Anyphops dubiosus</i> (Lawrence, 1952)	FGW	1	1	1	6	3	9
<i>Anyphops fitzsimonsi</i> (Lawrence, 1940)	FGW	1	1	0	5	2	7
<i>Anyphops hessei</i> (Lawrence, 1940)	FGW	1	1	0	4	2	6
<i>Anyphops immaculatus</i> (Lawrence, 1940)	FGW	2	1	0	3	3	6
<i>Anyphops lawrencei</i> (Roewer, 1951)	FGW	2	1	0	4	2	6
<i>Anyphops longipedatus</i> (Roewer, 1955)	FGW	4	1	0	4	3	7
<i>Anyphops marshalli</i> (Pocock, 1902)	FGW	1	1	0	5	3	8
<i>Anyphops natalensis</i> (Lawrence, 1940)	FGW	1	0	0	1	3	4
<i>Anyphops pococki</i> (Lawrence, 1940)	FGW	2	1	0	4	3	7
<i>Anyphops purcelli</i> (Lawrence, 1940)	FGW	1	1	0	4	3	7
<i>Anyphops rubicundus</i> (Lawrence, 1940)	FGW	1	1	0	3	2	5
<i>Anyphops septemspinatus</i> (Lawrence, 1937)	FGW	2	0	0	2	2	4
<i>Anyphops spenceri</i> (Pocock, 1896)	FGW	2	1	0	3	1	4
<i>Anyphops stauntoni</i> (Pocock, 1902)	FGW	2	0	0	1	1	2
<i>Anyphops transvaalicus</i> (Lawrence, 1940)	FGW	4	1	0	5	3	8
<i>Anyphops tuckeri</i> (Lawrence, 1940)	FGW	5	1	0	3	2	5
<i>Selenops feron</i> Corronca, 2002	FGW	1	0	0	1	3	4
<i>Selenops kruegeri</i> Lawrence, 1940	FGW	15	0	0	1	2	3
<i>Selenops radiatus</i> Latreille, 1819	FGW	14	0	0	0	1	1

49. Sicariidae

<i>Loxosceles parramae</i> (Newlands, 1981)	FGW	6	1	0	3	1	4
<i>Loxosceles simillina</i> Lawrence, 1927	FGW	20	0	0	1	1	2
<i>Loxosceles speluncarum</i> Simon, 1893	FGW	4	1	1	5	3	8

50. Sparassidae

<i>Micrommata darlingi</i> Pocock, 1901	FGW	1	0	0	2	3	5
<i>Olios auricomis</i> (Simon, 1880)	FPW	6	0	0	1	2	3
<i>Olios biarmatus</i> Lessert, 1925	FPW	1	1	0	4	2	6
<i>Olios correvoeni</i> Lessert, 1921	FPW	7	0	0	2	1	3
<i>Olios machadoi</i> Lawrence, 1952	FPW	2	1	0	3	1	4
<i>Olios marshalli</i> (Pocock, 1898)	FPW	1	1	1	6	3	9
<i>Olios sjostedti</i> Lessert, 1921	FPW	1	0	0	1	3	4
<i>Palystes ansiedippenaarae</i> Croeser, 1996	FPW	2	1	0	4	3	7
<i>Palystes castaneus</i> (Latreille, 1819)	FPW	1	0	0	2	1	3
<i>Palystes crawshayi</i> Pocock, 1902	FPW	1	0	0	2	2	4
<i>Palystes karoensis</i> Croeser, 1996	FPW	2	1	0	3	1	4
<i>Palystes leroyorum</i> Croeser, 1996	FPW	17	1	0	3	3	6
<i>Palystes perornatus</i> Pocock, 1900	FPW	2	1	0	3	2	5
<i>Palystes superciliosus</i> L. Koch, 1875	FPW	253	0	0	2	1	3
<i>Panaretella minor</i> Lawrence, 1952	FPW	2	1	0	4	2	6
<i>Pseudomicrommata longipes</i> (Bösenberg & Lenz, 1895)	FPW	11	0	0	1	1	2

51. Tetragnathidae

<i>Leucauge auronotum</i> Strand, 1907	OWB	2	1	0	4	3	7
<i>Leucauge decorata</i> (Blackwall, 1864)	OWB	28	0	0	0	1	1
<i>Leucauge festiva</i> (Blackwall, 1866)	OWB	58	0	0	1	1	2
<i>Leucauge kibonotensis</i> Tullgren, 1910	OWB	1	0	0	1	1	2
<i>Leucauge levanderi</i> (Kulczynski, 1901)	OWB	4	0	0	1	1	2
<i>Leucauge medjensis</i> Lessert, 1930	OWB	1	0	0	1	2	3
<i>Meta meruensis</i> Tullgren, 1910	OWB	10	0	0	1	3	4
<i>Pachygnatha zappa</i> Bosmans & Bosselaers, 1994	OWB	1	0	0	1	2	3
<i>Tetragnatha boydi</i> O.P.-Cambridge, 1898	OWB	3	0	0	0	1	1
<i>Tetragnatha ceylonica</i> O.P.-Cambridge, 1869	OWB	1	0	0	0	1	1
<i>Tetragnatha demissa</i> L. Koch, 1872	OWB	1	0	0	0	1	1
<i>Tetragnatha isidis</i> (Simon, 1880)	OWB	1	0	0	0	2	2
<i>Tetragnatha maxillosa</i> Thorell, 1895	OWB	2	0	0	0	2	2
<i>Tetragnatha nitens</i> (Audouin, 1826)	OWB	13	0	0	0	2	2
<i>Tetragnatha subsquamata</i> Okuma, 1985	OWB	1	0	0	1	1	2
<i>Tetragnatha vermiformis</i> Emerton, 1884	OWB	2	0	0	0	2	2

52. Theraphosidae

<i>Augacephalus breyeri</i> (Hewitt, 1919)	BGW	1	0	0	2	1	3
<i>Augacephalus junodi</i> (Simon, 1904)	BGW	15	0	0	1	1	2
<i>Brachionopus pretoriae</i> Purcell, 1904	BGW	13	1	0	3	1	4
<i>Ceratogyrus brachycephalus</i> Hewitt, 1919	BGW	1	0	0	2	2	4
<i>Ceratogyrus darlingi</i> Pocock, 1897	BGW	10	0	0	2	1	3
<i>Harpactira gigas</i> Pocock, 1898	BGW	1	1	0	4	2	6
<i>Harpactira hamiltoni</i> Pocock, 1902	BGW	33	1	0	3	1	4
<i>Harpactira tigrina</i> Ausserer, 1875	BGW	2	1	0	4	2	6
<i>Idiothele nigrofulva</i> (Pocock, 1898)	BGW	21	0	0	3	1	4
<i>Pterinochilus lugardi</i> Pocock, 1900	BGW	10	0	0	1	1	2

53. Theridiidae

<i>Anelosimus nelsoni</i> Agnarsson, 2006	GWB	2	1	0	3	1	4
<i>Enoplognatha inornata</i> O.P.-Cambridge, 1904	GWB	1	1	0	3	2	5
<i>Enoplognatha molesta</i> O.P.-Cambridge, 1904	GWB	20	1	0	3	1	4
<i>Latrodectus cinctus</i> Blackwall, 1865	GWB	10	0	0	1	1	2
<i>Latrodectus geometricus</i> C.L. Koch, 1841	GWB	364	0	0	1	1	2
<i>Latrodectus indistinctus</i> O.P.-Cambridge, 1904	GWB	23	0	0	2	1	3
<i>Latrodectus renivulvatus</i> Dahl, 1902	GWB	109	0	0	1	1	2

<i>Latrodectus rhodesiensis</i> Mackay, 1972	GWB	11	0	0	2	2	4
<i>Phoroncidia eburnea</i> (Simon, 1895)	GWB	7	1	0	3	2	5
<i>Rhomphaea nasicus</i> (Simon, 1873)	GWB	1	0	0	2	3	5
<i>Steatoda capensis</i> Hann, 1990	GWB	48	0	0	1	1	2
<i>Steatoda erigoniformis</i> (O.P.-Cambridge, 1872)	GWB	9	0	0	0	2	2
<i>Theridion auberti</i> Simon, 1904	GWB	2	1	0	3	3	6
<i>Theridion piliphilum</i> Strand, 1907	GWB	2	1	0	3	2	5
<i>Theridion purcelli</i> O.P.-Cambridge, 1904	GWB	26	0	0	1	1	2
54. Thomisidae							
<i>Ansiae tuckeri</i> (Lessert, 1919)	FPW	3	0	0	1	1	2
<i>Avelis hystriculus</i> Simon, 1895	FPW	1	1	0	4	2	6
<i>Camaricus nigrotesselatus</i> Simon, 1895	FPW	2	0	0	1	1	2
<i>Diaea puncta</i> Karsch, 1884	FPW	11	0	0	1	1	2
<i>Heriaeus crassispinus</i> Lawrence, 1942	FPW	2	1	0	3	1	4
<i>Hewittia gracilis</i> Lessert, 1928	FPW	3	0	0	1	1	2
<i>Holopelus albibarbis</i> Simon, 1895	FPW	1	0	0	2	1	3
<i>Misumenops rubrodecoratus</i> Millot, 1942	FPW	256	0	0	1	1	2
<i>Monaeses austrinus</i> Simon, 1910	FPW	21	0	0	3	1	4
<i>Monaeses fuscus</i> Dippenaar-Schoeman, 1984	FPW	4	0	0	1	2	3
<i>Monaeses gibbus</i> Dippenaar-Schoeman, 1984	FPW	2	1	0	3	1	4
<i>Monaeses griseus</i> Pavesi, 1897	FPW	18	0	0	1	1	2
<i>Monaeses paradoxus</i> Lucas, 1864	FPW	24	0	0	1	1	2
<i>Monaeses pustulosus</i> Pavesi, 1895	FPW	11	0	0	1	1	2
<i>Monaeses quadrituberculatus</i> Lawrence, 1927	FPW	8	0	0	1	1	2
<i>Mystaria rufolimbata</i> Simon, 1895	FPW	1	0	0	1	3	4
<i>Oxytate argenteooculata</i> (Strand, 1886)	FPW	8	0	0	1	1	2
<i>Oxytate concolor</i> (Caporiacco, 1947)	FPW	3	0	0	1	2	3
<i>Pactactes compactus</i> Lawrence, 1947	FPW	5	1	0	3	1	4
<i>Pactactes trimaculatus</i> Simon, 1895	FPW	2	0	0	1	1	2
<i>Parabomis martini</i> Lawrence, 1928	FPW	5	0	0	1	1	2
<i>Parasmodix quadrituberculata</i> Jézéquel, 1966	FPW	1	0	0	1	2	3
<i>Pherecydes lucinae</i> Dippenaar-Schoeman, 1980	FPW	1	1	0	3	2	5
<i>Pherecydes nicolaasi</i> Dippenaar-Schoeman, 1980	FPW	2	1	0	3	2	5
<i>Pherecydes tuberculatus</i> O.P.-Cambridge, 1883	FPW	18	0	0	2	1	3
<i>Pherecydes zebra</i> Lawrence, 1927	FPW	1	0	0	2	1	3
<i>Phrynarachne melloleitaoi</i> Lessert, 1933	FPW	4	0	0	2	1	3
<i>Runcinia aethiops</i> (Simon, 1901)	FPW	60	0	0	1	1	2
<i>Runcinia affinis</i> Simon, 1897	FPW	21	0	0	0	1	1
<i>Runcinia depressa</i> Simon, 1906	FPW	3	0	0	1	1	2
<i>Runcinia erythrina</i> Jézéquel, 1964	FPW	97	0	0	1	1	2
<i>Runcinia flavida</i> (Simon, 1881)	FPW	58	0	0	1	1	2
<i>Runcinia grammica</i> (L. Koch, 1937)	FPW	5	0	0	0	1	1
<i>Runcinia johnstoni</i> Lessert, 1919	FPW	11	0	0	1	1	2
<i>Runcinia tropica</i> Simon, 1907	FPW	2	0	0	1	3	4
<i>Simorcus cotti</i> Lessert, 1936	FPW	4	0	0	1	1	2
<i>Simorcus lotzi</i> Van Niekerk & Dippenaar-Schoeman, 2010	FPW	7	0	0	2	3	5
<i>Stiphropus affinis</i> Lessert, 1923	FGW	13	1	0	3	2	5
<i>Synema decens</i> (Karsch, 1878)	FPW	2	1	0	3	1	4
<i>Synema diana</i> (Audouin, 1826)	FPW	1	0	0	1	2	3
<i>Synema imitator</i> (Pavesi, 1883)	FPW	20	0	0	1	1	2
<i>Synema langheldi</i> Dahl, 1907	FPW	1	0	0	1	2	3
<i>Synema marlothi</i> Dahl, 1907	FPW	2	0	0	3	2	5
<i>Synema nigrotibiale</i> Lessert, 1919	FPW	25	0	0	1	1	2
<i>Synema vallotoni</i> Lessert, 1923	FPW	8	0	0	2	2	4
<i>Thomisops bullatus</i> Simon, 1895	FPW	1	0	0	2	1	3
<i>Thomisops lesserti</i> Millot, 1941	FPW	1	0	0	1	3	4
<i>Thomisops melanopes</i> Dippenaar-Schoeman, 1989	FPW	1	1	0	3	2	5
<i>Thomisops pupa</i> Karsch, 1879	FPW	1	0	0	1	1	2
<i>Thomisops sulcatus</i> Simon, 1895	FPW	10	0	0	1	1	2
<i>Thomisus australis</i> Comellini, 1957	FPW	52	0	0	1	1	2

<i>Thomisus blandus</i> Karsch, 1880	FPW	20	0	0	1	1	2
<i>Thomisus citrinellus</i> Simon, 1875	FPW	11	0	0	1	1	2
<i>Thomisus congoensis</i> Comellini, 1957	FPW	1	0	0	1	1	2
<i>Thomisus dalmasi</i> Lessert, 1919	FPW	16	0	0	1	1	2
<i>Thomisus daradioides</i> Simon, 1890	FPW	10	0	0	1	1	2
<i>Thomisus granulatus</i> Karsch, 1880	FPW	6	0	0	1	1	2
<i>Thomisus kalaharinus</i> Lawrence, 1936	FPW	27	0	0	1	1	2
<i>Thomisus machadoi</i> Comellini, 1959	FPW	17	0	0	1	2	3
<i>Thomisus schultzei</i> Simon, 1910	FPW	4	0	0	2	2	4
<i>Thomisus scrupeus</i> (Simon, 1886)	FPW	9	0	0	1	1	2
<i>Thomisus spiculosus</i> Pocock, 1901	FPW	2	0	0	1	2	3
<i>Thomisus stenningi</i> Pocock, 1900	FPW	151	0	0	1	1	2
<i>Tmarus africanus</i> Lessert, 1919	FPW	1	0	0	1	1	2
<i>Tmarus cameliformis</i> Millot, 1942	FPW	9	0	0	1	1	2
<i>Tmarus comellini</i> Garcia-Neto, 1989	FPW	12	0	0	1	1	2
<i>Tmarus foliatus</i> Lessert, 1928	FPW	8	0	0	1	1	2
<i>Xysticus fagei</i> Lessert, 1919	FGW	1	0	0	1	2	3
<i>Xysticus mulleri</i> Lawrence, 1952	FGW	19	1	0	3	2	5
<i>Xysticus natalensis</i> Lawrence, 1938	FGW	22	0	0	2	1	3
<i>Xysticus tugelanus</i> Lawrence, 1942	FGW	15	1	0	3	2	5
<i>Xysticus urbensis</i> Lawrence, 1952	FGW	12	0	0	2	2	4

55. Trochanteriidae

<i>Platyoides leppanae</i> Pocock, 1902	FPW	2	0	0	1	2	3
<i>Platyoides pusillus</i> Pocock, 1898	FPW	2	0	0	1	2	3
<i>Platyoides walteri</i> (Karsch, 1886)	FPW	46	1	0	3	1	4

56. Uloboriidae

<i>Hyptiotes akermani</i> Wiehle, 1964	OWB	3	1	0	3	2	5
<i>Miagrammopes brevicaudus</i> O.P.-Cambridge, 1882	OWB	4	1	0	3	1	4
<i>Miagrammopes constrictus</i> Purcell, 1904	OWB	2	1	0	3	2	5
<i>Uloborus planipediis</i> Simon, 1896	OWB	1	0	0	1	2	3
<i>Uloborus plumipes</i> Lucas, 1846	OWB	36	0	0	1	1	2

57. Zodariidae

<i>Caesetius politus</i> (Simon, 1893)	FGW	2	1	0	3	3	6
<i>Caesetius spenceri</i> (Pocock, 1900)	FGW	1	1	0	5	3	8
<i>Capheris abrupta</i> Jocqué, 2009	FGW	6	0	0	2	3	5
<i>Capheris decorata</i> Simon, 1904	FGW	6	0	0	2	1	3
<i>Chariobas cylindraceus</i> Simon, 1893	FPW	1	0	0	1	1	2
<i>Chariobas lineatus</i> Pocock, 1900	FPW	1	1	0	4	2	6
<i>Cydrela spinimana</i> Pocock, 1898	FGW	12	1	0	5	2	7
<i>Diores annetteae</i> Jocqué, 1990	FGW	24	1	0	4	3	7
<i>Diores femoralis</i> Jocqué, 1990	FGW	53	1	1	4	3	7
<i>Diores pauper</i> Jocqué, 1990	FGW	13	1	1	6	3	9
<i>Diores poweri</i> Tucker, 1920	FGW	23	0	0	2	1	3
<i>Diores recurvatus</i> Jocqué, 1990	FGW	3	1	0	3	2	5
<i>Diores spinulosus</i> Jocqué, 1990	FGW	1	1	0	5	3	8
<i>Diores termitophagus</i> Jocqué & Dippenaar-Schoeman, 1992	FGW	1	1	0	5	3	8
<i>Diores triangulifer</i> Simon, 1910	FGW	11	0	0	2	2	4
<i>Heradida loricata</i> Simon, 1893	FGW	4	1	0	4	3	7
<i>Psammorygma aculeatum</i> (Karsch, 1878)	FGW	1	1	0	4	3	7
<i>Systemoplacis fagei</i> (Lawrence, 1936)	FGW	4	1	0	3	2	5
<i>Systemoplacis vandami</i> (Hewitt, 1916)	FGW	18	1	0	3	1	4

58. Zoropsidae

<i>Griswoldia melana</i> (Lawrence, 1938)	FGW	2	0	0	2	3	5
<i>Griswoldia natalensis</i> (Lawrence, 1938)	FGW	1	1	1	6	3	9
<i>Griswoldia punctata</i> (Lawrence, 1942)	FGW	18	1	0	5	1	6
<i>Griswoldia transversa</i> (Griswold, 1991)	FGW	1	1	0	5	3	8
<i>Griswoldia urbensis</i> (Lawrence, 1942)	FGW	14	1	0	4	1	5

Phanotea simoni Lawrence, 1951

FGW 4 1 0 5 3 8