# THE THOMISIDAE

SOUTH AFRICA Part 1 A-Mo

DF

Compiled by A.S. Dippenaar-Schoeman, C.R. Haddad, S.H. Foord, & L. N. Lotz

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# THE THOMISIDAE OF SOUTH AFRICA

Dippenaar-Schoeman, A.S.<sup>125</sup>, Haddad, C.R.<sup>3</sup>, Foord, S.H.<sup>2</sup> & Lotz, L.N.<sup>4</sup> 2020. *South African National Survey of Arachnida Photo Identification Guide: The Thomisidae of South Africa* 2020 version 1; part 1: 1-62; part 2: 1-69; part 3: 1-79; part 4: 1-18. [228 pp.]

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## ABSTRACT

The family Thomisidae is speciose and 2146 species representing 170 genera are known (World Spider Catalog 2020). This cosmopolitan family shows a great morphological diversity which is reflected in its division into several subfamilies. From South Africa 38 genera represented by 143 species are presently known. Of the 38 genera 17 genera and 76 species (54%) have already been revised. Members of most of the Thomisidae genera are easily distributed by wind and 128 species (91%) are listed as Least Concern of which 35 species are South African endemics. Ten species are listed as Data Deficient and only three are of special concern. *Heriaeus muizenberg* Van Niekerk & Dippenaar-Schoeman, 2013 a Western Cape Endemic is Critical Rare; *Mystaria lindaicapensis* Lewis & Dippenaar-Schoeman, 2014 is Vulnarable and *Simorcus haddadi* Van Niekerk & Dippenaar-Schoeman, 2010 another Western Cape endemic is Near Threatened.

## ACKNOWLEDGEMENTS

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\* Not listed from South Africa in World Spider Catalog (2020)

## FAMILY THOMISIDAE Sundevall, 1833

The family is speciose and the world's fauna comprises 2146 species representing 170 genera (World Spider Catalog 2020). This cosmopolitan family shows a great morphological diversity which is reflected in its division into several subfamilies.

#### **COMMON NAMES:** Crab Spiders

**DIAGNOSTIC CHARACTERS**: Their body colour is variable, from brightly coloured (pink, green, yellow) to dark brown or grey with a mottled appearance; abdomen is frequently decorated with patterns. Carapace variable from semi-circular, ovoid to elongate, usually with simple erect setae; in some genera strong protuberances or eye tubercles present; eight eyes in two rows (4:4); lateral eyes are usually on tubercles that vary from rounded to distinct. Abdomen variable from round to ovoid to elongate; it sometimes extends caudally past the spinnerets. Legs directed sideways; legs I and II are usually longer than III and IV and the anterior legs frequently bear a series of strong spines on the tibiae and metatarsi.

**LIFE STYLE:** They are wanderers (plant and ground dwellers); free-living spiders found mainly on foliage with only a few genera living on the ground. Crab Spiders (Thomisidae) are sit-and-wait predators, associated mainly with foliage. They have lost their agility and have become semi-sedentary to excel as ambushers. With their cryptic colouration most species await their prey, usually on plants. They are mainly active during the day and their gait is sideways or crablike, hence their common name.

**TAXONOMY**: Several genera have been revised such as *Ansiae* (Dippenaar-Schoeman 1983), *Avelis* (Dippenaar-Schoeman 1986); *Heriaeus* (Van Niekerk & Dippenaar-Schoeman 2013); *Holopelus* (Dippenaar-Schoeman 1986); *Misumenops* (Dippenaar-Schoeman 1983); *Monaeses* (Dippenaar-Schoeman 1984); *Mystaria* (Lewis & Dippenaar-Schoeman 2014); *Parabomis* (Dippenaar-Schoeman in press); *Pherecydes* (Dippenaar-Schoeman 1980); *Runcinia* (Dippenaar-Schoeman 1980); *Smodicinus* (Dippenaar-Schoeman 1980); *Simorcus* (Van Niekerk & Dippenaar-Schoeman 2010); *Sylligma* (Honiball & Dippenaar-Schoeman 2011); *Thomisops* (Dippenaar-Schoeman 1989); *Thomisus* (Dippenaar-Schoeman 1983); *Tmarus* (Dippenaar-Schoeman 1985) and *Parabomis* (Dippenaar-Schoeman & Foord under review).





Stephanopinae

Strophiinae





Stiphropodinae





Dietinae

Thomisinae

## KEY TO THE SUBFAMILIES OF THE THOMISIDAE











Teeth on fang furrow

Borboropactus sp. P. Webb

Geraesta sp. P. Webb

Phrynarachne sp. B. Blake

Trichopagis sp. B. Blake



Simorcus sp. P. Webb	
ndites truncated; labium slightly longer than wide, rarely wider than long	





Stiphropella sp. K. Geldenhuys



Stiphropus sp. P. Webb

## **KEY TO THE SUBFAMILIES OF THE THOMISIDAE (CONTINUED)**

•	Setae not branched; tarsi I-II <	< metatarsi I-II
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4. Legs short and thick, without strong spines; patella long, nearly as long as tibiae, longer than metatarsi ......BOMINAE Genera: Avelis Simon, 1895; Holopelus Simon, 1886; Parabomis Kulczynski, 1901; Thomisops Karsch, 1879.









Avelis sp. P. Webb

Holopelus sp. L. Wiese

Parabomis sp. J. Wilkinson

Thomisops sp. B. Blake

- Legs longer, with strong spines; patellae short, shorter than tibiae or metatarsi ......5 •
- 5. Tarsi with claw tufts formed by tenant setae......DIETINAE

Genera: Hewittig Lessert, 1928; Oxytate L.Koch, 1878; Mystarig Lessert, 1919; Sylligma Simon, 1895; Zametopias Thorell, 1892.



Hewittia sp. A. Leroy



Oxytate sp. M. Rheeder





*Mystaria* sp. L. de Beer Sylligma sp. P. Webb

• Genera: Ansiae Lehtinen 2014; Camaricus Thorell, 1887; Cynathea Simon, 1895; Diaea Thorell, 1869; Firmicus Simon, 1864; Heriaeus Simon, 1875; Misumenops F. Pickard-Cambridge, 1900; Monaeses Thorell, 1869; Parasmodix Jézéquel, 1966; Pactactes Simon, 1895; Platythomisus Daleschall, 1859; Phaenopoma Simon, 1895; Pherecydes O. Pickard -Cambridge, 1883; Runcinia Simon, 1875; Smodicinus Simon, 1895; Synema Simon, 1864; Talaus Simon, 1886; Thomisus Walckenaer, 1805; Tmarus Simon, 1875; Xysticus C. L. Koch, 1835.

## KEY TO THE SUBFAMILIES OF THE THOMISIDAE (CONTINUED)



Ansiae sp. P. Webb



Camaricus sp. A. Saunders



**Cynathea** sp. PPRI



*Diaea* sp. B. Blake

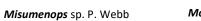


Firmicus sp. L. Oates



Heriaeus sp. L. de Beer







Monaeses sp. A. Saunders



*Ozyptila* sp. L.Wiese



Parasmodix



Pactates sp. A.Martin



Platythomisus sp. R. Harris



**Phaenopoma** sp. ASD



Pherecydes sp. A. Saunders



Runcinia sp. B. Blake

## KEY TO THE SUBFAMILIES OF THE THOMISIDAE (CONTINUED)



Smodicinus sp. B. Ashby



Synema sp. A. Saunders



*Talaus* sp. PPRI



Thomisus sp. D. Pelser



Tmarus sp. J. Wilkinson



Xysticus sp. A. Saunders

## **GENUS** ANSIEA Lehtinen, 2004

A small Afrotropical genus described by Lehtinen (2004) known from two species and a single sub species (World Spider Catalog 2020).

**COMMON NAMES**: Ansiae Crab Spiders

**TYPE SPECIES:** Misumena tuckeri Lessert, 1919.

**DIAGNOSTIC CHARACTERS:** Spiders of this genus have pale green to yellowish bodies sometimes with red patterns. Carapace as wide as long; low and slightly convex; surface clothed with numerous erect spiniform setae; eyes in two recurved rows; lateral on small tubercles; median ocular quadrangle wider than long. Abdomen round oval. Legs strong front legs; I and II with macro setae on tibiae and metatarsi. Male resemble female, same size but carapace with two widely spaced brown bands and legs banded.

**LIFE STYLE:** Free living plant dwellers. They ambush their prey in the blossoms of herbs, shrubs and trees.

TAXONOMY: South African species revised in Dippenaar-Schoeman (1983).





Ansiae tuckeri female from Kloof Photo P. Webb

Ansiae tuckeri female from Richards Bay Photo P. Webb





Ansiae tuckeri male s from Richards Bay male P. Webb



Ansiae tuckeri male Andrea Saunders

## Ansiae tuckeri (Lessert, 1919)

#### COMMON NAME: Tucker's Crab Spider/Tucker se Krapspinnekop

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** An African endemic described in 1919 as *Misumena tuckeri* from Tanzania. It has been recorded from several African countries. From South Africa known from all the provinces and protected in 11 protected areas (EOO=755 714 km<sup>2</sup>;AOO= 132 km<sup>2</sup>;1-1471 m a.s.l.). Due to the wide geographical range, the species is listed as being of Least Concern.

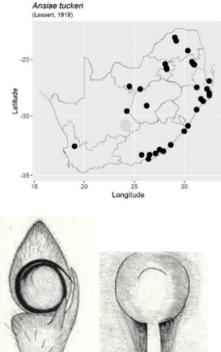
**LIFE STYLE**: They are free-living plant dwellers frequently found on flowers and grasses, common throughout South Africa. Sampled from Grassland, Savanna Thicket and Indian Ocean Coastal Belt (Foord et al. 2011; Haddad et al. 2013) as well as from avocado, macadamia and pine plantations (Dippenaar-Schoeman et al. 2013).

**GLOBAL DISTRIBUTION**: Democratic Republic of the Congo, Ivory Coast, Malawi, Sao Tomé, Tanzania, Zimbabwe and South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape:* Alexandria (-33.65, 26.4); Berlin (-32.88, 27.53); Fort Grey (-33.19, 27.12); Grahamstown (-33.3, 26.52); Mazeppa Bay (-32.47, 28.64); Mkambathi Nature Reserve (-31.32, 29.97); East London, Pineapple Research Station (-33.01, 27.9); Addo Elephant National Park (-33.32, 25.7). *Free State*: Bloemfontein (-29.11, 26.22); *Gauteng*: Rietondale Research Station (-25.74, 28.19); Tswaing Crater Nature Reserve (-25.42, 28.08); Irene Gem Village Field (-25.87, 28.22). *KwaZulu-Natal*: Chakaskraal (-29.45, 31.22); iSimangaliso Wetland Park: Hell's Gate (-28, 32.48); Lake St. Lucia (-28, 32.48), Mkuzi Game Reserve (-27.63, 32.25); Ithala Nature Reserve (-27.51, 31.23); Margate (-30.85, 30.36); Nyala Game Reserve (-28.72, 31.88); Ophathe Game Reserve (-28.52, 31.66); Tembe Elephant Park (-26.94, 32.47). *Limpopo*: Westphalia (-23.3, 29.18); Blouberg Nature Reserve (-22.99, 29.04); Lekgalameetse Nature Reserve (-24.2, 30.34). *Mpumalanga*: Brondal (-25.35, 30.84); Hendriksdal Plantation (-25.2, 30.75); Lowveld National Botanical Gardens (-25.47, 31); Nelspruit (-25.47, 30.96); Kruger National Park (-22.93, 31.02). *North West*: Bloemhof (-27.65, 25.59); Vryburg (Farm Weltevrede) (-27.41, 24.51). *Northern Cape:* Hopetown Farm Suffolk (-29.58, 24.24). *Western Cape:* Citrusdal (-32.59, 19.02).

**CONSERVATION MEASURES**: Recorded in >10 protected areas. No conservation actions are recommended.

TAXONOMIC NOTES: Revised by Dippenaar-Schoeman (1983). Known from both sexes.



Ansiae tuckeri male palp and epigynum after Dippenaar-Schoeman (1983)



Male palp Photo ASD



Ansiae tuckeri female from Kloof Photo P. Webb



Ansiae tuckeri male from Kloof Photo P. Webb



Ansiae tuckeri immature male from Kloof Photo P. Webb

## GENUS AVELIS Simon, 1895

A monotypic genus endemic to South Africa described by Simon (1895) (World Spider Catalog 2020).

COMMON NAMES: Avelis Crab Spiders

TYPE SPECIES: Avelis hystriculus Simon, 1895

**DIAGNOSTIC CHARACTERS**: Size: TL female and male < 3 mm. Colour tawny to reddish brown to dark brown with a grey-white to dark grey abdomen; legs reddish brown to dark brown. Carapace as wide as long; sides rounded; convex; clothed with numerous white setae which lie close to the body surface with longer setae scattered in between; row of setae on edge of posterior declivity. Abdomen as wide as long; clothed with long, dark club-shaped setae. Legs short; no great difference between legs length; clothed same type of setae as on body; patellae longer than metatarsi.

Male: very similar to female but little darker in colour. *Avelis* resembles the genera *Holopelus* and *Thomisops* in the shape of the body and legs. However, *Avelis* differs from both in lacking a densely spinulose area on the promargin of the chelicerae (Dippenaar-Schoeman 1986).

Avelis hystriculus female from Constantia Cape town Photo P. Webb

LIFE STYLE: Free living plant dwellers.

**TAXONOMY**: Revised by Dippenaar-Schoeman (1986).





Avelis hystriculus female from Cape Town Photo P. Webb

Avelis hystriculus female from Muizenberg Photo Heather

## Avelis hystriculus Simon, 1895

#### COMMON NAME: Avelis crab spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE**: A South African endemic described by Simon (1895) with type locality given only as "Prom. Borne Spei". The species has a wide distribution and has been sampled from numerous localities in five provinces including 10 protected areas (EOO=823 324 km2; AOO=100 km2; 1-1310 m a.s.l.). Due to the wide geographical range, the species is listed as being of Least Concern.

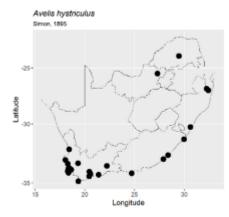
**LIFE STYLE**: They are free-living plant dwellers, frequently found on low growing vegetation. They have been sampled sweeping Fynbos, Grassland, Indian Ocean Coastal Belt, Thicket and Savanna Biome (Foord et al. 2011; Haddad et al. 2013).

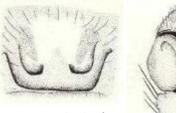
#### GLOBAL DISTRIBUTION: South Africa.

**DISTRIBUTION IN SOUTH AFRICA**: *Eastern Cape*: East London (-33.01, 27.9); Kei River Mouth (-32.68, 28.37); Mkambathi Nature Reserve (-31.32, 29.97); Thyspunt, 12 km WNW, Cape St Francis (-34.2056, 24.7083). *KwaZulu-Natal:* Sodwana Bay National Park (-27.55, 32.67); Vernon Crookes Nature Reserve (-30.27, 30.62); Tembe Elephant Park (-27.0337, 32.4245); Ndumo Game Reserve (-26.884, 32.253). *Limpopo:* Polokwane Nature Reserve (-23.9, 29.47). *North West*: Magaliesberg (-25.51, 27.31). *Western Cape*: Bellville (-33.9, 18.63); Ceres (-33.36, 19.31); De Hoop Nature Reserve (-34.45, 20.44); Fernkloof Nature Reserve (-34.86, 19.34); Kommetjie (-34.16, 18.34); Langebaan (-33.08, 18.04); Marloth Nature Reserve (-34.25, 20.57); Oudtshoorn (-33.59, 22.21); Bontebok National Park (-34.07, 20.45); Constantia (-34.02, 18.27); Houtbaai (-34.07, 18.38); Melkhoute Fontein 480 (-34.32, 21.38); Rondeberg 567(-33.4, 18.27); Blouberg Conservation Area(-33.77,18.45); Wolfhuis (-32.19, 18.42); Robben Island (-33.8, 18.35).

**CONSERVATION MEASURES**: Recorded in > 10 protected areas such as Mkambati Nature Reserve (Dippenaar-Schoeman et al. 2011); Polokwane Nature Reserve (Dippenaar et al. 2008); De Hoop Nature Reserve (Haddad & Dippenaar-Schoeman 2009); Tembe Elephant Park (Haddad et al. 2010) and Ndumo Game Reserve (Haddad et al. 2006). No conservation actions are recommended.

TAXONOMIC NOTES: Revised by Dippenaar-Schoeman (1986). Known from both sexes.





Epigynum and palp after Dippenaar-Schoeman (1986



Epigynum Photo ASD



Avelis hystriculus female from Thyspunt Photo L. Wiese



Avelis hystriculus female from Constantia Cape Town Photo P. Webb

## GENUS BORBOROPACTUS Simon, 1884

The genus described by Simon (1884) is represented by 16 species and known from Africa, China and Indonesia (World Spider Catalog 2020). Wunderlich (2004) transferred the genus to the Borboropactidae but that elevation was rejected by Benjamin et al. (2008) and Benjamin (2011). Eight of the known species are African endemics and three species are known from South Africa.

**COMMON NAMES:** Borboropactus Crab Spiders

TYPE SPECIES: Borboropactus squalidus Simon, 1884

**DIAGNOSTIC CHARACTERS**: Size: TL female and male 7-8 mm. Carapace narrower in eye region ; fovea longitudinal. Abdomen roundish; integument coriaceus, covered with scales and club-shaped setae. Legs with femora thick and inflated; tibiae and metatarsi thick; with long setae in a double row below; front legs directed to the front and not sideways. These spiders are recognised by leg I and II that are very thick .

**LIFE STYLE:** They are free-living ground dwellers. They are found under logs among decaying leaves in damp areas. Due to the club-shaped setae covering their body, specimens are frequently covered with mud and sand particles adhering to the setae.

**TAXONOMY:** Not revised.



Borboropactus silvicola female from Lekgalameetse NR Photo P. Webb



Borboropactus silvicola female ventral view Photo ASD

## Borboropactus australis (Lawrence, 1937)

#### COMMON NAME: Zululand Borboropactus Crab Spider

#### CONSERVATION STATUS: DDT

**NATIONAL RATIONALE**: A KwaZulu-Natal endemic described by Lawrence (1937) as *Regillus australis* from Hluhluwe. It is a rare species and has only been sampled from a few localities in the province including two protected areas (EOO=6 369 km<sup>2</sup>; AOO=12 km<sup>2</sup>; 43-1129 m a.s.l.). The status of the species remains obscure. Some more sampling is needed to collect the male and to determine the species range. Therefore listed as Data Deficient for Taxonomic reasons.

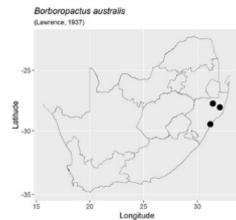
**LIFE STYLE**: Free-living ground dwellers found under logs among decaying leaves in damp areas in the Indian Ocean Coastal Belt and Savanna biomes (Foord et al. 2011).

#### GLOBAL DISTRIBUTION: South Africa.

DISTRIBUTION IN SOUTH AFRICA: *KwaZulu-Natal*: Hluhluwe Nature Reserve (-28.09, 32.1); Ngome State Forest (-27.78, 31.45); Umhlali (-29.47, 31.22).

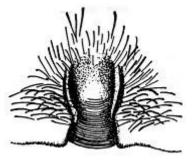
**CONSERVATION MEASURES**: Recorded from two protected areas: Hluhluwe Nature Reserve and Ngome State Forest (Van der Merwe et al. 1996). No conservation actions are recommended.

**TAXONOMIC NOTES**: Not revised, known from only the female.





Borboropactus australis female Photo C. Haddad



Epigynum after Lawrence (1937)

## Borboropactus silvicola (Lawrence, 1938)

#### COMMON NAME: East Coast Borboropactus Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE**: A South African endemic described by Lawrence (1938) as *Regillus silvicolus* from Port Shepstone. It is presently known from four South African provinces including eight protected areas (EOO= 132 793 km<sup>2</sup>; AOO=64 km<sup>2</sup>; 7-1362 m a.s.l.). Due to the wide geographical range, the species is listed as being of Least Concern.

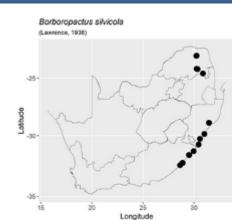
**LIFE STYLE:** Free-living ground dwellers found under logs among decaying leaves in damp areas. Sampled from Forest, Indian Ocean Coastal Belt, Savanna and Thicket biomes (Foord et al. 2011). It was also recorded from maize fields (Dippenaar-Schoeman et al. 2013).

#### GLOBAL DISTRIBUTION: South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape*: Cwebe Nature Reserve (-32.28, 28.9); Mazeppa Bay (-32.47, 28.64); Dwesa Nature Reserve (-32.27, 28.87); Mkambati Nature Reserve (-31.31, 29.96); Silaka Nature Reserve (-31.62, 29.49); Port St. Johns (-31.63, 29.53). . *KwaZulu-Natal*: Durban (-29.85, 31.01); Eshowe (-28.89, 31.47); Dlinza forest (-28.89, 31.45); Port Shepstone (-30.74, 30.44); Vernon Crookes Nature Reserve (-30.27, 30.57). *Limpopo:* Lekgalameetse Nature Reserve, Farm Balloon (-24.2, 30.34); Lekgalameetse Nature Reserve, Farm Malta (-24.17, 30.25); Entabeni Nature Reserve (-22.9920, 30.2570); Vhembe Biosphere Entabeni State Forest (-23.01, 30.23). *Mpumalanga*: Mariepskop (-24.58,30.87).

**CONSERVATION MEASURES:** Recorded in the following eight protected areas: Dwesa NR; Mkambati NR (Dippenaar-Schoeman et al. (2011); Cwebe NR; Silaka NR; Vernon Crookes NR; Lekgalameetse (Foord et al. 2016) and Entabeni State Forest and Dlinza forest. No conservation actions are recommended.

TAXONOMIC NOTES: Not revised, known from both sexes.



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Male palp and epigyne ASD

Borboropactus silvicola female from Lekgalameetse NR Photo P. Webb



Borboropactus silvicola showing rugose body Photo P. Webb

## Borboropactus squalidus Simon, 1884

#### COMMON NAME: Borboropactus Crab Spider

#### CONSERVATION STATUS: DDT

**NATIONAL RATIONALE:** An African endemic described by Simon (1884) from type locality given only as "Afrique austral, Zambèze". In South Africa species presently known only from two provinces including one protected area (EOO=9660 km<sup>2</sup>; AOO=16 km<sup>2</sup>; 17-164 m a.s.l.). The status of the species remains obscure. Some more sampling is needed to collect the male and to determine the species range. Therefore listed as Data Deficient for Taxonomic reasons.

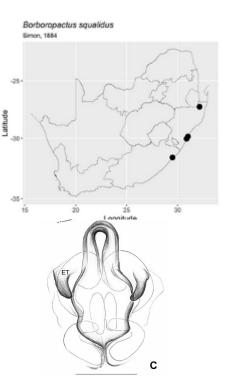
**LIFE STYLE:** Free-living ground dwellers sampled from the Indian Ocean Coastal Belt and Savanna biomes (Foord et al. 2011).

GLOBAL DISTRIBUTION: South, West and East Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape:* Silaka Nature Reserve (-31.62, 29.49). *KwaZulu-Natal*: Amanzimtoti (-30.04, 30.88); Durban, Merebank (-29.85, 31.01); Mfongosi (-27.28, 32.15).

**CONSERVATION MEASURES**: Recorded in the Silaka Nature Reserve. No conservation actions are recommended.

**TAXONOMIC NOTES**: Not revised. Benjamin (2011) provide some images. Known only from the female.



Epigynum after Benjamin (2011)



Borboropactus squalidus female dorsal view Photo ASD



Borboropactus squalidus female dorsal view Photo ASD

## **GENUS CAMARICUS Thorell, 1887**

The genus *Camaricus* is represented by 15 species and known from Africa, India to Indonesia, China and the Philippines (World Spider Catalog 2020). From Africa three species are known and from the Atlas region one and a subspecies.

**COMMON NAMES:** Camaricus Crab Spiders

TYPE SPECIES: Camaricus maugei (Walckenaer, 1837)

**DIAGNOSTIC CHARACTERS**: Size: TL female and male 7-9 mm. Carapace reddish brown; shiny; evenly convex dorsally; with black spots over the lateral eyes; median ocular quad-rangle wider than long, narrower anteriorly than posteriorly; anterior eye row slightly recurved; posterior eye row stronger recurved. Abdomen round, slightly flattened dorsally; decorated with distinct yellow and black patterns. Legs paler with distinct longitudinal bands or spots; leg I and II are not much longer than III and IV. Male resemble the female only slightly smaller; legs dark.

LIFE STYLE: They can be found on vegetation, usually in grass and in the herb layer.

**TAXONOMY:** Not revised





*Camaricus nigrotessalatus* from Pongola Photo Peter Webb

*Camaricus nigrotesselatus* female from Richardsbay Photo K. Stamhuis



*Camaricus nigrotessalatus* female Photo Andrea Sanders



*Camaricus nigrotesselatus* female from Clocolan Photo Allen Jones

## Camaricus nigrotesselatus Simon, 1895

#### COMMON NAME: Spotted Camaricus Crab Spider

#### **CONSERVATION STATUS:** LC

**NATIONAL RATIONALE:** An African endemic described in 1895 from Zambia. Recorded from eight African countries. Wide distribution throughout South Africa known from eight provinces including 11 protected areas (EOO=551 306 km2; AOO=128 km2; 7-1809 m a.s.l.). Due to the wide geographical range, the species is listed as being of Least Concern.

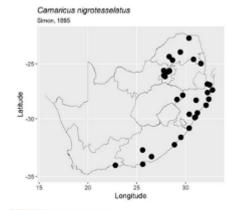
**LIFE STYLE:** Free-living plant dwellers found on vegetation, usually in grass and in the herb layer. Sampled from the Forest, Grassland, Indian Ocean Coastal Belt, Savanna and Thicket biomes (Foord et al. 2011; Haddad et al. 2013). The species was also sampled from tomato fields (Dippenaar-Schoeman et al. 2013).

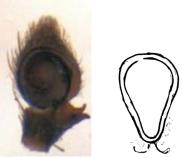
**GLOBAL DISTRIBUTION:** Democratic Republic of the Congo, Malawi, Mozambique, Namibia, Tonga, Zambia, Zimbabwe, South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape:* Dwesa Nature Reserve (-32.27, 28.87); Grahamstown (-33.3, 26.52); Port Elizabeth (-33.95, 25.61); Port St Johns (-31.63, 29.53); Somerset East (-32.73, 25.60). *Free State:* Harrismith (-28.27, 29.13). *Gauteng:* Florida (-26.18, 27.91); Krugersdorp/ Mogale (-26.09, 27.78); Pretoria/ Tshwane Sinoville (-25.74, 28.19); Roodeplaat Research Station (-25.66,28.35); Roodeplaatdam Nature Reserve (-25.64, 28.36. *KwaZulu-Natal*: Durban, Merebank (-29.85, 31.01); Empangeni (-28.33, 31.08); Kwambonambi (Farm Hagemons) (-28.33, 31.08); Ndumo Game Reserve(-26.87, 32.24); Pietermaritzburg (-29.6, 30.38); Richards Bay (-28.78, 32.1); iSimangaliso Wetland Park: Mkuzi Game Reserve (-27.63, 32.25); Sodwana Bay Nature Reserve (-27.4, 32.76);Tembe Elephant Park (-26.94, 32.47); Pietermaritzburg (-29.6, 30.38); Umbilo (-29.88, 30.96); Umhlali (-29.47, 31.22); Nyalazi plantation, St Lucia (-28.24, 32.39); Newcastle district, Moorfield Farm (-27.8759, 29.7083). *Limpopo:* Nylsvley Nature Reserve (-24.65, 28.67); Polokwane Nature Reserve (-23.9, 29.47); Waterberg (-24.33, 28.33); Nwanedi Nature Reserve (-22.59, 30.36). *Mpumalanga*: Kruger National Park (-24.98, 31.58); Blyde River Canyon Nature Reserve (-24.58, 30.82). North West: Buffelspoort Research Station (-25.62, 27.77). *Western Cape:* Sedgefield ( -34.03, 22.81).

.CONSERVATION MEASURES: Protected in >10 protected areas. No conservation actions are recommended.

TAXONOMIC NOTES: Not revised, known from both sexes.





*M*ale palp female epigynim Photo ASD



*Camaricus nigrotesselatus* female Photo J. Camry



*Camaricus nigrotesselatus fe*male from Photo Peter Webb



*Camaricus nigrotesselatus* male from Port Elizabeth Photo Martie Rheeder

## GENUS CYNATHEA Simon, 1895

A small genus described by Simon (1895) endemic to Africa and represented by three species. From South Africa only one species is known (World Spider Catalog 2020).

**COMMON NAMES**: Cynathea Crab Spiders

TYPE SPECIES Cynathea obliterata Simon, 1895

**DIAGNOSTIC CHARACTERS:** Size: TL female and male 3-4 mm, with males smaller than females. Carapace shiny dark in colour; longer than wide; slightly flattened; distinctly narrower in eye region; eyes not on tubercles; anterior eye rows either straight or slightly recurved; posterior row recurved; lateral eyes larger than median eyes; anterior lateral eyes largest and posterior median eyes smallest; median eyes much further from each other than from lateral eyes; clypeus narrow. Abdomen distinct with colourful abdominal pattern. Legs pale; long and fairly slender; leg I and II longer than II and IV; decorated with dark longitudinal bands; patella shorter than tibia or metatarsus; macro-setae on legs not very distinct; body setae simple and not branched.

**LIFE STYLE:** Found on vegetation usually in grass and in the herb layer.

**TAXONOMY:** Not revised



Cynathea sp. female Photo A. Lewis

## Cynathea bicolor Simon, 1895

#### COMMON NAME: Cynathea Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** An African endemic described by Simon (1895) from Senegal in 1895. It has been sampled from eight African countries. Not very common in South Africa and known from two provinces (EOO=38 685 km<sup>2</sup>; AOO=20 km<sup>2</sup>; 78-1163 m a.s.l.). Due to wide range listed as of Least Concern.

**LIFE STYLE:** Free-living plant dwellers found on shrubs and grasses. Sampled in the Indian Ocean Coastal Belt and Savanna biomes (Foord et al. 2011).

**GLOBAL DISTRIBUTION:** Gabon, Senegal, Zimbabwe, Angola, Nigeria, Malawi, Mozambique, South Africa.

**DISTRIBUTION IN SOUTH AFRICA:** *Eastern Cape:* Cala Ncora Dam (-31.52, 27.68). *KwaZulu-Natal*: Tembe Elephant Park (-26.94, 32.47); Empangeni (-28.72, 31.88); Jozini Dam (-27.42, 32.07); La Mercy (-29.63, 31.13).

**CONSERVATION MEASURES:** Recorded in the Tembe Elephant Park (Haddad et al. 2010). No conservation actions are recommended.

**TAXONOMIC NOTES:** Not revised, known from only male.

Cynethes bicolar Smor. 1985





*Cynathea bicolor* male palp Photo A. Lewis

*Cynathea bicolor* undescribed female microscope image Photo A. Lewis



Cynathea bicolor male microscope image Photo ASD

## **GENUS DIAEA Thorell, 1869**

The taxonomic position and boundaries of the genus *Diaea* have been a subject to debate in recent years. Lehtinen (2004) maintains that the genus *Diaea* is polyphyletic and that a worldwide revision of the taxon is necessary and he transferred *Diaea* with several genera to his newly erected tribe Diaeini within the Thomisinae. The members of the tribe are characterised by a more complex colour pattern and more complex male tibial apophysis and tegular structures, compared to Misumenini and Thomisini (Lehtinen 2004). The genus is represented by 44 species of which 11 species are known from Africa. From the Atlas region three species are known but several new species are suspected (World Spider Catalog 2020).

**COMMON NAMES**: Diaea Crab Spiders

**TYPE SPECIES**: Aranea dorsata Fabricius, 1777.

**DIAGNOSTIC CHARACTERS**: Size: TL female and male 4-5 mm, males are more slender than the females and their legs longer. Carapace can be white, yellow or green; sometimes darker around eye region; integument smooth, bearing simple, isolated setae; carapace moderately convex above, armed with long setae; lateral eyes on tubercles; both eye rows are recurved and almost the same length; posterior median eyes closer to each other than to posterior lateral eyes. Abdomen round in female, oval in males; white, yellow or green; usually decorated with darker spots or markings. Legs thin and slender usually same colour as carapace; sometimes banded (Dippenaar-Schoeman 2014).

**LIFE STYLE:** They are found on trees, shrubs and grasses and very commonly sampled beating and sweeping vegetation.

TAXONOMY: Not revised.



Diaea puncta female Photo: J. Wilkinson

Diaea rohani female Photo: P. Webb



Diaea puncta male Photo: P. Webb



Diaea rohani male Photo: P. Webb

## Diaea puncta Karsch, 1884

#### COMMON NAME: Spotted Diaea Crab Spider

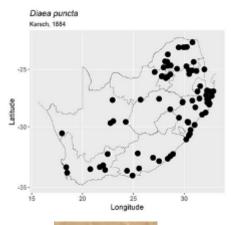
#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** An African endemic described in 1884 from Ilhéu das Rolas an island in São Tomé. The species has a wide distribution throughout Africa. From Atlas region known from Lesotho, Swaziland and South Africa. In South Africa known from all the provinces and protected in >10 protected areas (EOO=1 038 343 km<sup>2</sup>; AOO=316 km<sup>2</sup>; 4-2020 m a.s.l.). Due to the wide geographical range, the species is listed as being of Least Concern.

**LIFE STYLE**: Free-living plant dwellers and very commonly found on vegetation. Sampled from all the floral biomes except the Desert Biome (Foord et al. 2011; Haddad et al. 2013). Also sampled from crops including avocado, cotton, pistachio and strawberries. (Dippenaar-Schoeman et al. 2013).

**GLOBAL DISTRIBUTION**: Wide throughout Africa. In Southern Africa: Lesotho, South Africa and Swaziland.

DISTRIBUTION IN SOUTH AFRICA: Eastern Cape: Berlin (-32.88, 27.53); Cwebe Nature Reserve (-32.28, 28.9); Dunbrody (-33.47, 25.55); South slopes Hogsback Mountain (-32.59, 26.92); Jeffrey's Bay (-34.06, 24.91); Kei River Mouth (-32.68, 28.37); Mazeppa Bay (-32.47, 28.64); Mountain Zebra National Park (-32.24, 25.43); Umtamvuna (-31.07, 30.2); Smitskraal (-33.67, 24.38). Free State: Sandveld Nature Reserve (-27.68, 25.7); Golden Gate Highlands National Park(-28.5,28.62). Gauteng: Moloto Kwamalanga (-25.46, 28.63); Rietondale Research Station, Pretoria (-25.74,28.19); Roodeplaat Research Station (-25.66, 28.35); Suikerbosrand Nature Reserve (-27.59, 27.53); Groenkloof Nature Reserve (-25.78, 28.2). KwaZulu-Natal: Durban, Stamford Hill (-29.85, 31.01); Durban, Merebank (-29.83, 31.03); iSimangaliso Wetland Park: False Bay Park (-27.92, 32.27); Fanie's Island (-28.1, 32.45); Hell's Gate (-28, 32.48); Kosi Bay Nature Reserve (-26.93, 32.87); Lake Sibhayi (-27.35, 32.7); Mkuzi Game Reserve (-27.63, 32.25); Giant's Castle Nature Reserve (-29.23, 29.48); Port Shepstone (-30.74, 30.44); Mfongosi (-27.28, 32.15); Ndumo Game Reserve (-26.87, 32.24); Pietermaritzburg (various locations: Botanical Gardens; Town Bush; Town Bush Valley); Wylie Park (-29.6, 30.38); Phinda Game Reserve (-27.72, 32.38); Richards Bay (-28.78, 32.1); Tembe Elephant Park (-26.94, 32.47); Umlalazi Nature Reserve, 1.5 km E Mtunzini (-28.96, 31.76); Umzumbe (-30.61,30.54); Vryheid Nature Reserve (-27.75, 30.79); Farm Cascades, 10 km W Eshowe Kloof forest (-28.33, 31.08).





Diaea puncta female from Kloof Photo P. Webb



Diaea puncta male from Kloof Photo P. Webb

Epigynum after Jézéquel (1964).

Male palp Photo ASD

## Diaea puncta (continued)

*Limpopo:* Entabeni Nature Reserve (-22.99, 30.26); Lajuma Mountain Retreat (-23.03, 29.45); Mabula Nature Reserve (-24.84, 27.96); Makalali Nature Reserve (-24.34, 30.93); Nylstroom/Modimolle (-24.69, 28.4); Nylsvley Nature Reserve (-24.65, 28.67); Roodewal forest (-23.02, 30.03); Swadini Nature Reserve (-24.34, 30.93); Tshulu (Venda) (-22.58, 30.81); Vaalwater (-24.29, 28.11); Waterberg (-24.33, 28.33). *Mpumalanga:* Bourke's Luck (-25.09, 30.46); Kruger National Park: Skukuza (-25.00, 31.97); 5 km N Pretoriuskop (-25.15, 31.2); Sabie (-25.1, 30.78); Marble Hall (-24.96, 29.29); Steelpoort, Farm Helena (-24.73, 30.21); Schoemanskloof Pass (-25.42, 30.48). *North West:* Brits (-25.62, 27.77); Hartebeespoort Experimental Farm (-25.6, 27.82); Pilanesberg Nature Reserve (-25.25, 27.08). *Northern Cape*: Garies (-30.56, 17.97); Prieska (Green Valley Nuts Estate) (-29.68, 22.74); Remhoogte (-29.52, 23); Suffolk farm nr Hopetown (-29.58, 24.24). *Western Cape*: Anysberg (-33.53, 20.76); Darling (-33.37, 18.39); Karoo National Park (-32.28, 22.46); Oudtshoorn (-33.82, 18.48); Prince Albert (-33.22, 22.03); Swartberg Nature Reserve (-33.36, 21.69).

**CONSERVATION MEASURES**: Recorded in > 20 protected areas. No conservation actions are recommended.

TAXONOMIC NOTES: Not revised, known from both sexes.



*Diaea puncta* from Lekgalameetse NR Photo P. Webb



Diaea puncta from Lekgalameetse NR Photo P. Webb



Diaea puncta feeding Desiree Pelser



Diaea puncta male Photo P. Webb

## Diaea rohani Fage, 1923

#### COMMON NAME: Rohan's Diaea Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE**: A southern African endemic described from Angola by Fage (1923). In South Africa known from five provinces (EOO=112 308 km<sup>2</sup>; AOO=20 km<sup>2</sup>; 496-1844 m a.s.l.). Due to its wide geographical range, the species is therefore listed as Least Concern.

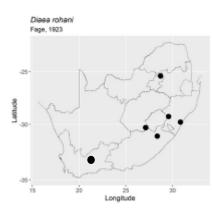
**LIFE STYLE:** Free-living plant dweller found on trees, shrubs and grasses in the Grassland and Savanna biomes.

GLOBAL DISTRIBUTION: Angola, South Africa.

**DISTRIBUTION IN SOUTH AFRICA:** *Eastern Cape:* Maclear (-31.08, 28.35). *Free State*: Zastron farm Opnek (-30.29, 27.09). *Gauteng:* KwaMhlanga (-25.42, 28.70). *KwaZulu-Natal*: Wakefield farm near Howick (-29.26, 29.56); Kloof (-29.78, 30.83). *Western Cape*: Aardvark NR (-33.4941, 21.0880).

**CONSERVATION MEASURES**: No known threats. Protected in the Aardvark Nature Reserve. Description of female needed.

TAXONOMIC NOTES: Not revised, known from only the male.





Male palp Photo ASD



*Diaea rohani* undescribed female from Aardvark NR Photo P. Webb



Diaea rohani male from Wakefield Photo P. Webb

## Diaea viridipes Strand, 1909

#### COMMON NAME: Six Spotted Diaea Crab Spider

#### CONSERVATION STATUS: DDT

**NATIONAL RATIONALE**: A Cape endemic described by Strand (1909) from Retreat flats near Cape Town. The species is known from the Eastern and Western Cape and protected in the Table Mountain National Park (EOO=18 465 km<sup>2</sup>; AOO= 16 km<sup>2</sup>; 7-1059 m a.s.l.). This species is taxonomically problematic as it has not been revised, furthermore there are no illustrations available. Therefore listed as Data Deficient for taxonomic reasons.

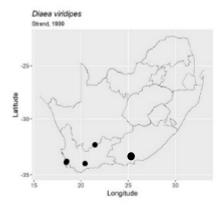
**LIFE STYLE:** Free-living plant dweller found on trees, shrubs and grasses in the Fynbos Biome.

#### GLOBAL DISTRIBUTION: South Africa.

**DISTRIBUTION IN SOUTH AFRICA:** *Eastern Cape*: Port Elizabeth (-33.95, 25.61). *Western Cape*: Cape Town Retreat flats (-32.36, 21.47); Tradouw Pass, Swellendam (-34.02, 20.42); Cape Town (-33.91, 18.42); Table Mountain National Park (-33.82, 18.48).

**CONSERVATION MEASURES:** Protected in the Table Mountain National Park (Dippenaar-Schoeman 2020). No conservation actions are recommended.

TAXONOMIC NOTES: Not revised, known from only the female. No illustrations available.





Diaea viridipes female Photo N. Dippenaar





Diaea viridipes female Photo: P. Webb



Diaea viridipes female Photo Martie Rheeder

#### UNDETERMINED



Wake field P. Webb

## Diaea spp.







Lephahlale P. Webb



Kloof P. Webb



Port Elizabeth Martie Rheeder



Cape Town Norman Larsen

## GENUS FIRMICUS Simon, 1895

The genus is represented by 17 species and two sub species of which 16 are known from Africa (World Spider Catalog 2020).

**COMMON NAMES:** Firmicus Crab Spiders

TYPE SPECIES: Firmicus bragantinus (Brito Capello, 1866)

**DIAGNOSTIC CHARACTERS:** Size: TL female and male 4-6 mm, male only slightly smaller. This genus can be recognised by their flattened body that is frequently elongated. Carapace flattened; narrower in eye region; tubercles of anterior lateral eyes shallow and clearly larger than posterior lateral eye tubercles; anterior lateral eyes larger than the other eyes; anterior eye row straight with the eyes equidistantly spaced while the posterior eye row is recurved; posterior median eyes distinctly closer to each other than to posterior lateral eyes. Abdomen flattened slightly elongated. Legs: leg I and II long, thick and spinuous.

LIFE STYLE: They are free-living plant dwellers more commonly found on trees.

TAXONOMY: Not revised.



Firmicus bipunctatus male Photo L. Oates



Firmicus bipunctatus female on leave Photo SANSA VM

## Firmicus abnormis (Lessert, 1923)

#### COMMON NAME: Firmicus Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE**: A South African endemic described in 1923 from Alicedale in the Eastern Cape. Known also from three provinces including three protected areas: (EOO= 422 558 km<sup>2</sup>; AOO= 52 km<sup>2</sup>; 61 358 m a.s.l.). Although the species is presently known only from one sex it has a wide geographical range and can be listed as Least Concern .

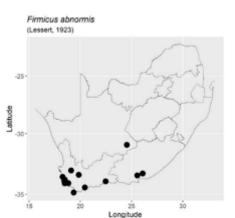
**LIFE STYLE**: Free-living plant dweller sampled from vegetation in the Fynbos and Thicket biomes.

#### GLOBAL DISTRIBUTION: South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape*: Dunbrody (-33.47, 25.55); Great Winterhoek Mts. (-33.07,19.09); Alicedale (-33.31, 26.08). *Northern Cape*: Hanover (-30.94, 24.53). *Western Cape*: Cape Town (-33.91, 18.42); De Hoop Nature Reserve (-34.45, 20.44); Matroosberg (-33.42, 19.84); St James Mountain (-34.11, 18.46).Great Winterhoek Mts. (-33.07, 19.09); Table Mountain National Park (-33.82, 18.48); Kirstenbosch National Garden (-33.67, 28.38); Strand (-34.1, 18.82); George (-33.95, 22.46); Fernkloof Nature Reserve (-34.86, 19.34).

**CONSERVATION MEASURES**: Protected in the following reserves: De Hoop Nature Reserve (Haddad & Dippenaar-Schoeman (2009) as well as from the Table Mountain National Park (Dippenaar-Schoeman 2020) and Kirstenbosch National Garden. No conservation actions are recommended.

**TAXONOMIC NOTES**: Not revised, known from only the male, with illustrations. This species possibly belong in *Synema*.

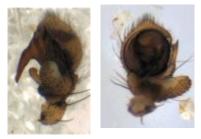




Firmicus abnormis female Photo P. Webb



Firmicus abnormis, dorsal and ventral view of male Photo A. Dippenaar-Schoeman



Firmicus abnormis, male palp Photo ASD

# Firmicus bipunctatus Capotisco. 1941

Firmicus bipunctatus male palp Photo ASD



Firmicus bipunctatus male Photo L. Oates



Firmicus bipunctatus female on leave close-up photo SANSA VM

## Firmicus bipunctatus Caporiacco, 1941

COMMON NAME: Ethiopian Green Firmicus Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE**: An African endemic described from Ethiopia in 1941. Known from six African countries. In South Africa it is known from four provinces including five protected areas (EOO=313 444 km<sup>2</sup>; AOO= 68 km<sup>2</sup>; 10-1780 m a.s.l.). Due to its wide geographical range, the species is listed as Least Concern.

**GLOBAL DISTRIBUTION**: Angola, Cameroon, Congo Republic, Mozambique, Sudan, South Africa.

**LIFESTYLE** :Free-living plant dwellers more commonly found on trees in the Indian Ocean Coastal Belt, Thicket and Savanna biomes.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape*: Patterson (-33.44, 25.98); East London, Pineapple Research Station (-33.01, 27.9); Port Alfred (-33.58, 26.89); Alexandria (-33.65, 26.4); Cwebe Nature Reserve (-32.28, 28.9); Gonubie (-32.94,28.01); Grahamstown Farm Gretna (-33.3, 26.52); Hogsback Amatola Mountains(-32.59, 26.92); Kei River Mouth (-32.68, 28.37); Patterson (-33.44, 25.98). *Free State*: Clarens, Farm Adullam (-28.51, 28.43). *Gauteng:* Kloofendal Nature Reserve (-25.364, 27.993). *KwaZulu-Natal*: Ndumo Nature Reserve (-26.87, 32.24); Manguzi (-27.58, 32.45); Richards Bay (15 km N) (-28.78 32.11); Harding Ngele Peak, Weza State Forest (-30.57, 29.88); Hluhluwe Hippo Pools (-28.02, 32.28); iSimangaliso Wetland park, Kosi Bay Nature Reserve (-26.93, 32.87); iSimangaliso Wetland park Lake Sibayi (-27.35, 32.70).

**CONSERVATION MEASURES:** No known threats. Recorded in the following protected areas: Cwebe Nature Reserve, Kloofendal Nature Reserve, Ndumo Nature Reserve (Haddad et al. 2006) and Kosi Bay Nature Reserve.

TAXONOMIC NOTES: Not revised, known from both sexes

## Firmicus bragantinus (Brito Capello, 1866)

#### COMMON NAME: White Spotted Firmicus Crab Spider

#### **CONSERVATION STATUS** : LC

**NATIONAL RATIONALE:** An African endemic described from Angola by Brito Capello (1866). It has since then been sampled from five African countries. From South Africa known from four provinces including six protected areas (EOO=577 377 km<sup>2</sup>; AOO= 52 km<sup>2</sup>; 15-1245 m a.s.l.). Due to wide range and no significant threats listed as of Least Concern.

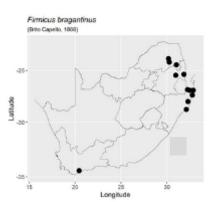
**LIFE STYLE:** Free-living plant dwellers more commonly found on trees in the Fynbos, Forest Indian Ocean Coastal Belt and Savanna biomes (Foord et al. 2011). Also sampled from avocado, citrus and grapefruit orchards (Dippenaar-Schoeman et al. 2013).

GLOBAL DISTRIBUTION: Angola, Congo Republic, Mozambique, Sudan, South Africa.

DISTRIBUTION IN SOUTH Africa: *KwaZulu-Natal*: Ndumo Nature Reserve (-26.87, 32.24); Richards Bay (-28.78, 32.1); iSimangaliso Wetland Park: Sodwana Bay National Park (-27.4, 32.76); Tembe Elephant Park (-26.94, 32.47); iSimangaliso, Kosi Bay Nature Reserve (-26.93 32.87); iSimangaliso Wetland park, False Bay Park (-27.92, 32.27); Hluhluwe Hippo Pools (-28.02, 32.28). *Limpopo*: Tzaneen (-23.82, 30.16); Kapama Game Reserve (-24.43, 31.03); Lekgalameetse Nature Reserve (-24.17, 30.25). *Mpumalanga*: Burgers Hall (-32.02, 31.08); Nelspruit (-25.47, 30.96); Kruger National Park (-22.93, 31.02); Ngwenya Lodge (-25.38, 31.85). *Western Cape*: De Hoop Nature Reserve (-34.45, 20.44).

**CONSERVATION MEASURES:** Recorded in protected areas such as Lekgalameetse Nature Reserve (Foord et al. 2016); Tembe Elephant Park (Haddad et al. 2010); Ndumo Nature Reserve (Haddad et al. 2006) and De Hoop Nature Reserve (Haddad & Dippenaar-Schoeman (2009). No conservation actions are recommended.

TAXONOMIC NOTES: Not revised known from both sexes.





Epigynum Photo ASD



Male palp Photo A. Lewis





*Firmicus bragantinus* female Photo Vida vd Walt



Firmicus bragantinus male Photo ASD

## GENUS GERAESTA Simon, 1889

The genus *Geraesta* Simon, 1889 is restricted to the Afrotropical Region and currently comprises six species (World Spider Catalog 2020). The two African species was previously misplaced in *Stephanopis*. Only one species known from South Africa.

**COMMON NAMES**: Geraesta Crab Spiders

**TYPE SPECIES**: Geraesta hirta Simon, 1889

**DIAGNOSTIC CHARACTERS:** Size: TL female and male 5-7 mm, males slightly smaller. Colour: varies from brightly coloured (pink, green, yellow) to dark brown or grey with a mottled appearance. Carapace varies from semi-circular, ovoid to elongate, usually with simple erect setae; eye tubercles are present. Abdomen varies in shape from round to ovoid to elongate; distinct abdominal tubercles (*Thomisus*-like) and frequently decorated with patterns. Legs frequently with series of strong spines on the tibiae and metatarsi of the anterior legs. They can easily be confused with *Borboropactus*.

**LIFE STYLE:** *Geraesta congoensis* are plant-dwellers that are more commonly found on shrubs and herbs, but occasionally also from tree canopies. With their green colour they are well camouflaged and blend in with the vegetation. They are usually sampled with sweeping and beating of vegetation. They have mainly been sampled from the Savanna and Forest Biomes.

**TAXONOMY**: Revised by Benjamin (2015).



Geraesta congoensis female from Kloof Photo P. Webb

## Geraesta congoensis (Lessert, 1943)

#### COMMON NAME: Green Geraesta Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** An African endemic described by Lessert (1943) as *Stephanopis congoensis* from the Democratic Republic of the Congo. It is known from four African countries. In South Africa known from four provinces and protected in five protected areas (EOO= 347 540 km<sup>2</sup>; AOO= 52 km<sup>2</sup>; 4-1842 m a.s.l.). Due to its wide geographical range, the species is therefore listed as Least Concern.

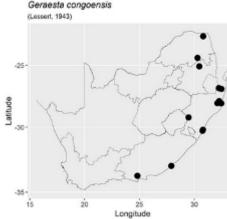
**LIFE STYLE:** Geraesta congoensis are plant-dwellers that are more commonly found on shrubs and herbs, but occasionally also from tree canopies. With their green colour they are well camouflaged and blend in with the vegetation. A rare species sampled with sweep nets from plants in the Indian Ocean Coastal Belt, Thicket and Savanna biomes.

**GLOBAL DISTRIBUTION**: Ivory Coast, Democratic Republic of the Congo, Botswana, South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape*: Baviaanskloof Nature Reserve (-33.76, 24.81); East London (-33.01, 27.9). *KwaZulu-Natal*: iSimangaliso Wetland Park: False Bay Park (-27.92, 32.27); Fanie's Island (-28.1, 32.45); Giant's Castle Nature Reserve (-29.23, 29.48); Hluhluwe Nature Reserve (-28.09, 32.1); Ndumo Game Reserve (-26.87, 32.24); Scottburgh (-30.28, 30.75); Tembe Elephant Park (-26.94, 32.47); Umkomaas (-30.2, 30.8). *Limpopo:* Penge (-24.38, 30.29); Tshulu Camp (Venda) (-22.5780, 30.8086). *Mpumalanga:* Bourke's Luck (-25.09, 30.46).

**CONSERVATION MEASURES**: Recorded in the following five reserves: Baviaanskloof Nature Reserve ; Giant's Castle Nature Reserve, Hluhluwe Nature Reserve; Ndumo Game Reserve (Haddad et al. 2006) and Tembe Elephant Park (Haddad et al. 2010). No conservation actions are recommended.

TAXONOMIC NOTES: Revised by Benjamin (2015). Known from both sexes.





Male palp Photo A. Lewis



Epigynum Photo ASD



Geraesta congoensis female from Kloof Photo P. Webb



Geraesta congoensis male from Kloof Photo P. Webb

**GENUS HERIAEUS Simon, 1875** 

The genus *Heriaeus described by Simon(1875)* is represented by 36 species of which 14 are known from Africa. South Africa is represented by 10 species (World Spider Catalog 2020).

**COMMON NAMES:** Heriaeus Crab Spiders

TYPE SPECIES: Thomisus hirtus Latreille, 1819

**DIAGNOSTIC CHARACTERS:** Size: TL female and male 4-5 mm, males slightly smaller. The genus can be recognized by the integument bearing different types of setae that vary from long white erect setae to a combination of numerous short, club-shaped or blunt-tipped abdominal setae. Their colour varies from grey-white to pale green with a pinkish tint. Carapace as wide as long narrower in eye region; both eye rows recurved; eyes on tubercles, with the lateral tubercles larger than the median ones. Abdomen round to oval with indistinct markings. Legs same colour as carapace.

LIFE STYLE: Free living plant and ground dwellers.

TAXONOMY: Revised by Van Niekerk & Dippenaar-Schoeman (2013).



Heriaeus peterwebbi female Photo Len de Beer



Heriaeus copricola male from Irene Photo Peter Webb

## Heriaeus allenjonesi Van Niekerk & Dippenaar-Schoeman, 2013

#### COMMON NAME: Allen's Hairy Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE**: A South African endemic described in 2013 from Bloemfontein. The species is also known from three provinces and protected in two reserves: Benfontein Nature Reserve and Erfenis Dam Nature Reserve (EOO=219 076 km<sup>2</sup>; OO=32 km<sup>2</sup>; 582-1399 m a.s.l.). Due to its wide geographical range, the species is listed as Least Concern.

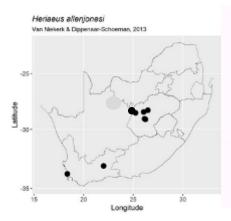
**LIFE STYLE:** Free-living plant dwellers. Most of the specimens have been sampled from the Grassland and Fynbos biomes with pitfall traps from the soil surface from a variety of habitats ranging from rocky hillsides, gravel plains to the shore of a dam while some were sampled by sweeping grassland

#### GLOBAL DISTRIBUTION: South Africa.

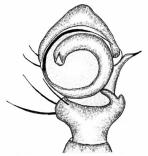
DISTRIBUTION IN SOUTH AFRICA: *Free State*: Deelhoek Farm, Bloemfontein (-29.11, 26.22); Erfenis Dam Nat Reserve (-28.30, 26.48); Bloemfontein, Naval Hill(-29.06, 26.14); Brandfort, Florisbad (-28.46, 26.05); Boshoff (-28.53, 25.23); Amanzi Nature Reserve (-28.62, 26.68). *Northern Cape:* Benfontein Nature Reserve (-27.42, 23.30). *Western Cape*: Prins Albert, Farm Tierberg (-33.13, 22.01); Robben Island (-33.8, 18.35)

**CONSERVATION MEASURES**: Recorded in the following two reserves: Benfontein Nature Reserve, Amanzi Nature Reserve (Haddad & Butler 2018) and Erfenis Dam Nature Reserve (Fourie et al. 2013). No conservation actions are recommended.

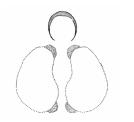
**TAXONOMIC NOTES:** Revised by Niekerk van & Dippenaar-Schoeman (2013). Known from both sexes.







Male palp after Van Niekerk & Dippenaar-Schoeman (2013).



Epigynum after Van Niekerk & Dippenaar-Schoeman (2013).

Heriaeus allenjonesi female Photo ASD



Heriaeus allenjonesi female abdomen Photo ASD

## Heriaeus copricola Van Niekerk & Dippenaar-Schoeman, 2013

#### COMMON NAME: Ground Hairy Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** A southern African endemic described by Van Niekerk & Dippenaar-Schoeman (2013) from Pietermaritzburg in KwaZulu-Natal. Known from Lesotho and South Africa. In South Africa the species is known from four provinces including four protected areas (EOO=208 875 km<sup>2</sup>; AOO= 40 km<sup>2</sup>; 418-2066 m a.s.l.). Due to its wide geographical range, the species is listed as Least Concern.

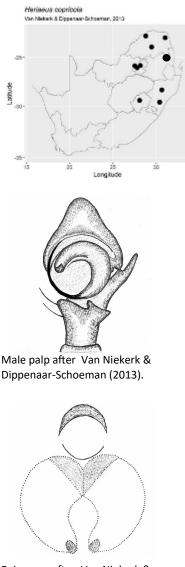
**LIFE STYLE**: Free living ground dwellers. Most specimens were collected with pitfall traps in the Grassland and Savanna biomes. *Heriaeus copricola* was commonly sampled in Irene on the ground surface in grassland

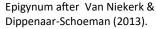
#### GLOBAL DISTRIBUTION: Lesotho and South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Gauteng*: Krugersdorp (-26.09, 27.78); Magaliesberg, Farm Nooitgedacht, 4171Q (-25.878, 27524); Irene (field opposite Gem Village) (-25.85, 28.16). *KwaZulu-Natal:* Pietermaritzburg (-29.60, 30.38); Scottsville (-29. 60, 30.40); Isandlwane Nature Reserve (-28.359, 30.64). *Limpopo*: Polokwane Nature Reserve (-23.9, 29.47); Mogalakwena Nature Reserve (-22,739, 28.779). *Mpumalanga*: Kruger National Park (-22.93, 31.02).

**CONSERVATION MEASURES:** Recorded in the following three reserves: Isandlwane Nature Reserve; Polokwane Nature Reserve (Dippenaar et al. 2008); Mogalakwena Nature Reserve as well as Kruger National Park (Dippenaar-Schoeman & Leroy A 2003). No conservation actions are recommended.

**TAXONOMIC NOTES**: Revised by Niekerk van & Dippenaar-Schoeman (2013). Known from both sexes.







Heriaeus copricola male from Irene Photo Peter Webb



Heriaeus copricola female from Irene Photo Peter Webb

## Heriaeus crassispinus Lawrence, 1942

#### COMMON NAME: Bushy Leg Hairy Crab Spider

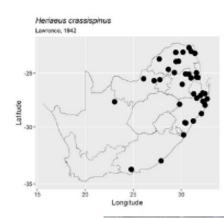
#### CONSERVATION STATUS: LC

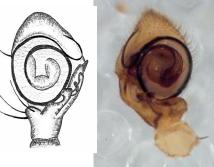
**NATIONAL RATIONALE:** An African endemic described by Lawrence (1942) from Pietermaritzburg in KwaZulu-Natal. The species is presently known from eight African countries. In South Africa it has a wide distribution found in six of the provinces where it is protected in >10 protected areas (EOO=722 631 km<sup>2</sup>; AOO=164 km<sup>2</sup>; 7-1698 m a.s.l.). Due to the wide geographical range, the species is listed as being of Least Concern.

**LIFE STYLE:** Free living ground and plant dwellers. This species was sampled from a variety of habitats ranging from coastal dunes, orchards (avocados), forests (Brachystegia woodland), palm tree forest, grassland, riverine sweet thorn and *Acacia nigrescens* woodland Occurs in the Forest, Grassland, Indian Ocean Coastal Belt, Savanna and Thicket biomes. (Foord et al. 2011).

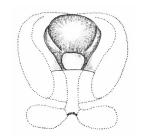
**GLOBAL DISTRIBUTION:** Burundi, Ethiopia, Democratic Republic of the Congo, Malawi, Rwanda, Zimbabwe, Swaziland and South Africa.

DISTRIBUTION IN SOUTH AFRICA: Eastern Cape: Keurkloof, Farm Ferndale (-33.76, 24.81); East London Pineapple Research Station (-33.01, 27.9); Baviaanskloof Nature Reserve (-33.75, 24.80). KwaZulu-Natal: Ingwavuma (-27.12, 32.01); Ndumo Game Reserve (-26.87, 32.24); Phinda Game Reserve (-27.72, 32.38); Richards Bay (-28.78, 32.1); Tembe Elephant Park (-26.94, 32.47); iUmhlali, Sheffield Beach (-29.46, 31.26); iSimangaliso Wetland Park: Hell's Gate (-28.01, 32.48); iSimangaliso Wetland Park: Mkuzi Game Reserve (-27.63, 32.25); iSimangaliso Wetland Park: Lake Sibayi (-27.416, 32.710); Mpushini (-29.628, 30.478); Pongola, Farm Vergeval (-27.35, 31.61); Oribi Gorge Nature Reserve (-30.71, 30.26); Pietermaritzburg (-29.60, 30.38); Newcastle district, Normandien Farms (-27.923, 29.829). Limpopo: Kruger National Park (-22.93, 31.02); Polokwane Nature Reserve (-23.9, 29.47); Sovenga Hill (-23.88, 29.73); Tshulu Camp Venda (-22.580, 30.809); Vhembe Biosphere Vhuvha (-23.001, 30.183); Western Soutpansberg (-23.022, 29.434); Lhuvhondo Nature Reserve (-23.038, 29.442); Nylsvley Nature Reserve (-24.65, 28.67); Ellisras/ Lephalale (-23.67, 27.71). *Mpumalanga*: Kruger National Park, Shingwedzi (-23.12, 31.43); Marble Hall (-24.96, 29.29); Bergvliet Forest Station (-25.1, 30.78); Hall & Sons, 10 km NE Nelspruit)(-25.43, 31.01); Kruger National Park: Makhuthwanini (-25.38, 31.6); Kruger National Park





Male palp after Van Niekerk & Dippenaar-Schoeman (2013).



Epigynum after Van Niekerk & Dippenaar-Schoeman (2013).



Heriaeus crassispinus male from Lephahlale Photo Peter Webb



Heriaeus crassispinus female Lephahlale Photo Peter Webb

# Heriaeus crassispinus (continued)

Skukuza (-24.98,31.60); Kruger National Park Lwakahle 08 (-25.43,31.75); Lowveld National Botanical Gardens (-25.47, 31.03); Lydenburg(-25.09, 30.46); Carolina(-26.06, 30.11). *North West:* Rustenburg Nature Reserve (-25.72, 27.18); Brits(-25.62, 27.77); Buffelspoort Research Station(-25.75, 27.483); Zeerust(-25.53, 26.08). *Northern Cape*: Kathu (-27.69, 23.06).

**CONSERVATION MEASURES:** Recorded in >10 protected areas such as Nylsvley Nature Reserve (Dippenaar-Schoeman et al. 2009); Kruger National Park (Dippenaar-Schoeman 2020). No conservation actions are recommended.

**TAXONOMIC NOTES:** Revised by Niekerk van & Dippenaar-Schoeman (2013). Known from both sexes.



Heriaeus crassispinus male from Lephahlale Photo Peter Webb



Heriaeus crassispinus male habitus Photo Robin Lyle

# Heriaeus foordi Van Niekerk & Dippenaar-Schoeman, 2013

### COMMON NAME: Foord's Hairy Crab Spider

#### **CONSERVATION STATUS:** LC

**NATIONAL RATIONALE:** A South African endemic described in 2013 from Atherstone Nature Reserve in Limpopo. The species is also known from three provinces and protected in four protected areas (E00=209 607 km<sup>2</sup>; AOO=20 km<sup>2</sup>; 47-1331 m a.s.l.). Due to the wide geographical range, the species is listed as being of Least Concern.

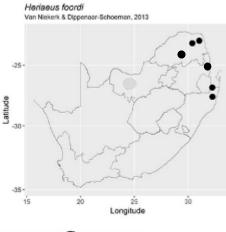
**LIFE STYLE:** Free living ground and plant dwellers. Species found in low vegetation. Collected from yellow pan traps and pitfall traps as well as sweeping of vegetation in the Savanna Biome.

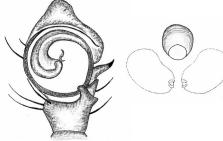
### GLOBAL DISTRIBUTION: South Africa.

**DISTRIBUTION IN SOUTH AFRICA:** *Limpopo*: Atherstone Nature Reserve (-26.75, 24.42); Vyeboom (-23.144, 30.380); Klein Kariba (-24.88, 28.29). *KwaZulu-Natal*: iSimangaliso Wetland park, Mkuze Game Reserve (-27.63, 32.25); Ndumo Game Reserve, Crocodile farm (-26.87, 32.24). *Mpumalanga:* Kruger National Park, Makhuthwanini (-25.38, 31.6).

**CONSERVATION MEASURES**: Recorded in the following protected areas: Atherstone NR; Mkuze Game Reserve, Ndumo Game Reserve (Haddad et al. 2006) as well as Kruger National Park (Dippenaar-Schoeman 2020). No conservation actions are recommended.

**TAXONOMIC NOTES:** Revised by Niekerk van & Dippenaar-Schoeman (2013). Known from both sexes.





Male palp of epigynum after Van Niekerk & Dippenaar-Schoeman (2013).





*Heriaeus foordi* male from Klein Kariba Photo Peter Webb

Heriaeus foordi male dorsal view microscope image photo ASD

### Heriaeus muizenberg Van Niekerk & Dippenaar-Schoeman, 2013

#### COMMON NAME: Muizenberg Hairy Crab Spider

#### CONSERVATION STATUS: CR

**NATIONAL RATIONALE**: A Western Cape Province endemic described in 2013 and known only from type locality Muizenberg, Cape Peninsula (EOO=4 km<sup>2</sup>; AOO=4 km<sup>2</sup>). The species is known only from the male sampled in 1991 from the type locality. Although only known from one sex this species only known site is under threat of development and the ongoing loss of its coastal dune haitat, therefore listed as Critically Endangered under criterion B.

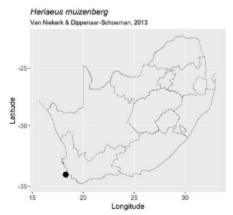
**LIFE STYLE:** Male collected on coastal dunes in the Fynbos during September and October.

GLOBAL DISTRIBUTION: South Africa.

**DISTRIBUTION IN SOUTH AFRICA:** *Western Cape*: Muizenberg, Cape Peninsula (-34.06, 18.27).

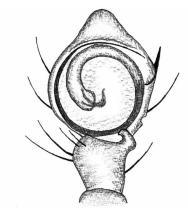
**CONSERVATION MEASURES**: Species threatened by ongoing loss of habitat to housing development. More sampling needed.

**TAXONOMIC NOTES:** Known from only the male (Van Niekerk& Dippenaar-Schoeman 2013).

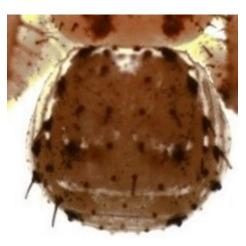




Heriaeus muizenberg male dorsal Photo ASD



Male palp after Van Niekerk & Dippenaar-Schoeman (2013).



Heriaeus muizenberg male abdomen Photo ASD

# Heriaeus peterwebbi Van Niekerk & Dippenaar-Schoeman, 2013

### COMMON NAME: Peter's Hairy Crab Spider

### CONSERVATION STATUS: LC

**NATIONAL RATIONALE**: A Southern African endemic described in 2013 from Blouberg Nature Reserve in Limpopo. The species has also been sampled from Namibia. In South Africa it has a wide distribution throughout five provinces including four protected areas (EOO=80524 km<sup>2</sup>; AOO= 36 km<sup>2</sup>; 816-1457 m a.s.l.). Due to the wide geographical range, the species is listed as being of Least Concern.

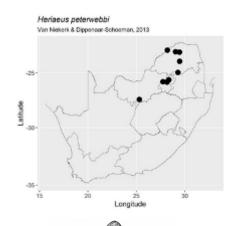
**LIFE STYLE:** This species was collected from the ground as well as plants, such as grasses, thorn trees and crops such as cotton and strawberries. Sampled from the Savanna and Grassland biomes.

### GLOBAL DISTRIBUTION: Namibia, South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Free State:* Swartrus (- 27.45, 25.30). *Gauteng:* Irene Veld, field opposite Gem Village (-25.85, 28.16); Roodeplaat Dam Nature Reserve (-25.64, 28.36). *Limpopo:* Blouberg Nature Reserve (-22.99, 29.04); Polokwane Nature Reserve (-23.9, 29.47); Lhuvhondo Nature Reserve (-23.03, 29.45), Swartwater, Vis-water Farm (- 22.85, 28.19). *North West*: Skeerpoort(-25.81, 27.75). *Mpumalanga*: Marble Hall (-24.96, 29.29).

**CONSERVATION MEASURES**: Recorded in the following protected areas: Roodeplaat Dam Nature Reserve (Dippenaar-Schoeman et al. 1989); Blouberg Nature Reserve (Foord et al. 2019; Polokwane Nature Reserve (Dippenaar et al. 2008) and Lhuvhondo Nature Reserve. No conservation actions are recommended.

TAXONOMIC NOTES: Known from both sexes (Van Niekerk & Dippenaar-Schoeman 2013).



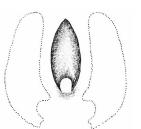


Heriaeus peterwebbi female Photo Len de Beer



Heriaeus peterwebbi female Photo Les Oates

Male palp after Van Niekerk &



Dippenaar-Schoeman (2013).

Epigynum after Van Niekerk & Dippenaar-Schoeman (2013).

### Heriaeus sossusvlei Van Niekerk & Dippenaar-Schoeman, 2013

### COMMON NAME: : Sossusvlei Hairy Crab Spider

### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** A southern African endemic described in 2013 from Sossusvlei in Namibia. Also sampled from South Africa from the Western Cape. This species is however under collected and suspected to occur in more localities in South Africa (EOO=4 km<sup>2</sup>; AOO=4 km<sup>2</sup>; 778 m a.s.l.). Due to its wide geographical range in southern Africa, the species is therefore listed as Least Concern.

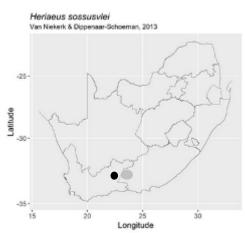
**LIFE STYLE:** Free living plant dwellers sampled from arid regions from plants and from pitfall traps in the Nama Karoo Biome.

GLOBAL DISTRIBUTION: Namibia, South Africa.

DISTRIBUTION IN SOUTH AFRICA: Western Cape: Beaufort West, Bokvlei Farm (- 32.73, 23.59).

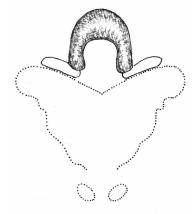
**CONSERVATION MEASURES**: Not recorded in protected area, more sampling needed.

**TAXONOMIC NOTES**: Revised by Niekerk van & Dippenaar-Schoeman (2013). Known from only the female.





Heriaeus sossusvlei female photo SANSA VM



Epigynum after Van Niekerk & Dippenaar-Schoeman (2013).

# Heriaeus transvaalicus Simon, 1895

### COMMON NAME: Transvaal Hairy Crab Spider

### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** A South African endemic described by Simon (1895) from Makapan in Limpopo. Also known also from North West including three protected areas (EOO=23 581 km<sup>2</sup>; AOO=20 km<sup>2</sup>; 894-1556 m a.s.l.). Due to its wide geographic range, the species is therefore listed as Least Concern.

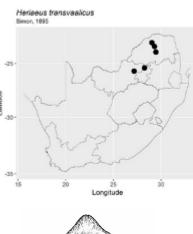
**LIFE STYLE:** Free living plant dwellers. All the specimens were collected by sweeping grassland, false grassland, woodland and open savanna (Foord et al. 2011). Females were collected from January to May and adult males in March.

### GLOBAL DISTRIBUTION: South Africa.

**DISTRIBUTION IN SOUTH AFRICA**: *Limpopo:* Blouberg Nature Reserve (-22.99, 29.04); Polokwane Nature Reserve (-23.9,29.47); Makapan (-25.41, 28.27); Dendron Farm Amsterdam (-23.37, 29.32). *North West*: Rustenburg Nature Reserve (-25.72, 27.18).

**CONSERVATION MEASURES**: Recorded in the following three reserves: Polokwane Nature Reserve (Dippenaar et al. 2008), Blouberg Nature Reserve (Foord et al. 2019) and Rustenburg Nature Reserve. No conservation actions are recommended.

TAXONOMIC NOTES: Known from both sexes.





Male palp after Van Niekerk & Dippenaar-Schoeman (2013).



Epigynum after Van Niekerk & Dippenaar-Schoeman (2013).



*Heriaeus transvaalicus* female Photo Robin Lyle



Heriaeus transvaalicus female abdomen microscope image photo ASD

### **COMMON NAME**: Xander's Hairy Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE**: An African endemic described in 2013 from Tanzania. Also sampled from South Africa from two provinces including two protected areas (EOO=5 87 7km<sup>2</sup>; AOO=12 km<sup>2</sup>; 83-469 m a.s.l.). This species is under collected and is suspected to occur in more African countries. Due to its wide geographical range, the species is listed as Least Concern.

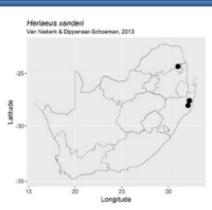
**LIFE STYLE:** Collected on grass and trees in the Savanna biome. Females were collected in April, July, November and December and males in September and November.

#### GLOBAL DISTRIBUTION: Tanzania, South Africa.

**DISTRIBUTION IN SOUTH AFRICA**: *KwaZulu-Natal*: Mkhuze Game Reserve (-27.63, 32.25); Hluhluwe Nature Reserve (-28.09, 32.1). *Mpumalanga:* Klaserie, Bokmakierie Game Farm (-24.33, 31.02).

**CONSERVATION MEASURES**: Recorded in the following two reserves: Mkhuze Game Reserve and Hluhluwe Nature Reserve. No conservation actions are recommended.

**TAXONOMIC NOTES**: Known from both sexes (Niekerk van & Dippenaar-Schoeman 2013).







Male palp after Van Niekerk & Dippenaar-Schoeman (2013).



Epigynum after Van Niekerk & Dippenaar-Schoeman (2013).

Heriaeus xanderi female microscope image Photo ASD



*Heriaeus xanderi* female abdomen microscope image Photo ASD

# Heriaeus xanderi Van Niekerk & Dippenaar-Schoeman, 2013

Heriaeus zani

Van Niekerk & Dippenaar-Schoeman, 2013

Heriaeus zanii Van Niekerk & Dippenaar-Schoeman, 2013

COMMON NAME: Zani's Hairy Crab Spider

### **CONSERVATION STATUS:** LC

**NATIONAL RATIONALE**: A South African endemic described in 2013 from Vanrhynsdorp in the Western Cape. Known from three provinces including two reserves (EOO=340 349 km<sup>2</sup>; AOO=64 km<sup>2</sup>; 26-1389 m a.s.l.). Due to its wide geographical range, the species is therefore listed as Least Concern.

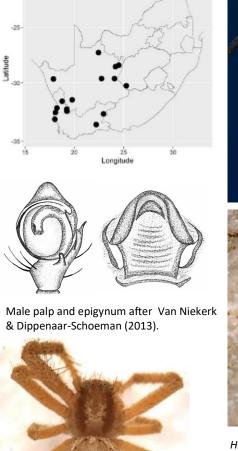
**LIFE STYLE:** Collected on the ground, leaf litter and plants, such as *Othonna cylindrical* and *Arctotis* species. Females were collected from August to October and males during March, September to December.

### GLOBAL DISTRIBUTION: South Africa.

**DISTRIBUTION IN SOUTH AFRICA:** *Free State*: Philippolis, PK Le Roux Dam (-30.25, 25.27); Boshof, Table Farm 242 (-28.43, 24.5). *Northern Cape*: Prieska, Green Valley Nuts, (-29.62, 22.75); Springbok (-29.66, 17.88); Hopetown (-29.62, 24.06); Tswalu Kalahari Reserve (-27.3,22.44); Rooipoort Nature Reserve (-28.561, 24.162). *Western Cape:* Beaufort West, Eerste Water farm (-32.69I, 22.96); Clanwilliam, Skerpheuwel (-32.18, 18.23); Vredenburg, Olifants Kraal(-32.57, 18.09); Cederberg Wilderness area 522 m a.s.l. (-32.2795, 19.2192); Cederberg Wilderness Area 1152 m asl, (-32.46, 19.24); Calvinia, 10 km N of Loeriesfontein (-31.48, 19.77); Jakobsbay (-33.15, 18.03); Van Rhynsdorp (-31.6, 18.75); Oudtshoorn (-33.59, 22.21).

**CONSERVATION MEASURES:** Recorded in the following two reserves: Tswalu Nature Reserve (Dippenaar-Schoeman et al. 2018), Rooipoort Nature Reserve as well as the Cederberg Wilderness Area (Foord & Dippenaar-Schoeman 2016). No conservation actions are recommended.

**TAXONOMIC NOTES:** Known from both sexes (Van Niekerk & Dippenaar-Schoeman (2013).





Heriaeus zanii female from Aardvark NR Photo Peter Webb

Heriaeus zanii female microscope image Photo ASD

### GENUS HEWITTIA Lessert, 1928

A monotypic genus described by Lessert (1928) from the Democratic Republic of the Congo World Spider Catalog (2020).

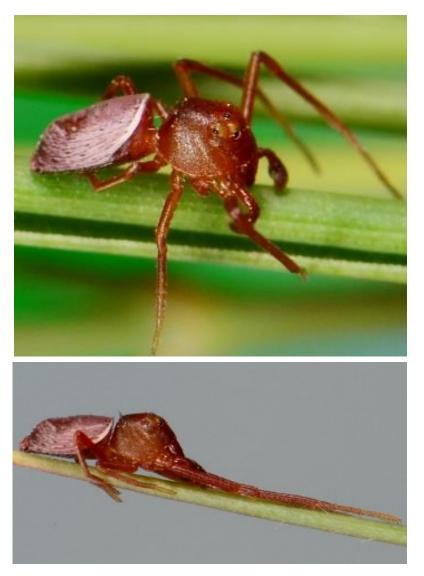
**COMMON NAMES**: Hewittia Crab Spiders

TYPE SPECIES: Hewittia gracilis Lessert, 1928

**DIAGNOSTIC CHARACTERS:** Size: TL female and male 4-5 mm. Carapace varies from blackish brown to yellowish brown; high, anteriorly sloping carapace that is longer than wide; eyes arranged in two rows with the median eyes closer to the lateral eyes than to each other. Abdomen decorated with white lines and black patches. Legs are similar colour as carapace (Dippenaar-Schoeman (2014).

**LIFE STYLE**: Free living plant dwellers. Although widely distributed they are not very common. They are collected by beating and sweep netting grasses and shrubs.

TAXONOMY: Not revised.



Hewittia gracilis male Photo: Peter Webb

# Hewittia gracilis Lessert, 1928

### COMMON NAME: Hewittia Crab Spider

### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** An African endemic described in 1928 from the Democratic Republic of the Congo. Presently the species is known from nine African countries. In South Africa the species has a wide distribution and has been recorded from eight provinces including more than 10 protected areas (EOO=697 498 km<sup>2</sup>; AOO=72 km<sup>2</sup>; 9-1842 m a.s.l.). Although the species is presently known only from one sex it has a wide geographical range and can therefore be listed as Least Concern.

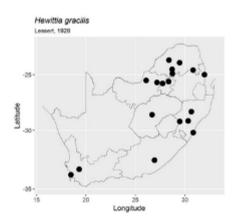
**LIFE STYLE:** They are free-living plant dwellers and have been collected by beating and sweep netting grasses and shrubs (Foord et al. 2011; Haddad et al. 2013).

**GLOBAL DISTRIBUTION:** Angola, Congo, Democratic Republic of the Congo, Ghana, Ivory Coast, Rwanda, Zimbabwe, Tanzania and South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape*: Hogsback (-32.59, 26.92). *Free State*: Amanzi Private Game Reserve (-28.62, 26.68). *Gauteng*: Roodeplaatdam Nature Reserve (-25.64, 28.36). *KwaZulu-Natal*: Giant's Castle Nature Reserve (-29.23, 29.48); Rietvlei (-29.18, 30.33); Mkomazi (-30.2, 30.83); Isandlwane Nature Reserve (-28.359, 30.64). *Limpopo:* Mosdene Nature Reserve (-24.52, 28.7); Polokwane Nature Reserve (-23.9, 29.47); Tuinplaas (-24.9, 28.73). *Mpumalanga*: Blyde River Canyon Nature Reserve (-24.58, 30.82); Kruger National Park (Skukuza) (-25.00, 31.97). *North West*: Rustenburg Nature Reserve (-25.72, 27.18); Skeerpoort (-25.81, 27.75); Zeerust (-25.53, 26.08). *Western Cape*: Table Mountain National Park (-33.82, 28.48); Kirstenbosch National Garden (-23.67, 28.38); 40 km NE Ceres, Touwsriver road (-33.36, 19.31)

**CONSERVATION MEASURES:** Recorded in eight protected areas such as: Roodeplaat Dam Nature Reserve (Dippenaar-Schoeman et al 1989); Polokwane Nature Reserve (Dippenaar et al. 2008), Kruger National Park (Dippenaar-Schoeman 2020) and Table Mountain National Park (2020). No conservation actions are recommended.

TAXONOMIC NOTES: Not revised, known from only the female.





Epigynum after Lessert (1928).



Hewittia gracilis female Photo:Astri Leroy



Hewittia gracilis undescribed male Photo: Peter



Hewittia gracilis female microscope image Photo ASD

### **GENUS HOLOPELIS Simon, 1886**

A small genus of spiders described by Simon (1886) represented by seven species of which four are known from Africa (World Spider Catalog (2020).

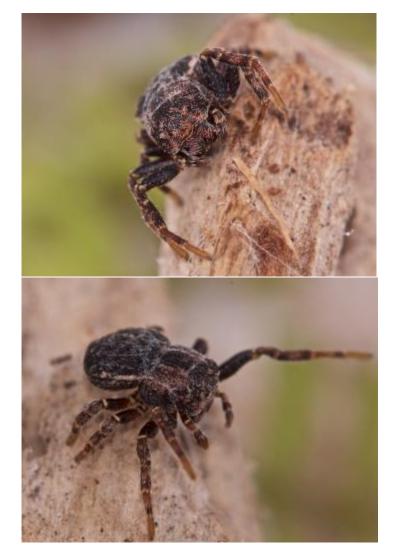
**COMMON NAMES**: Holopelus Crab Spiders

TYPE SPECIES: Holopelus bufoninus Simon, 1886

**DIAGNOSTIC CHARACTERS:** Size: TL female and male 3-4 mm. Colour: yellowish brown to reddish brown, sometimes with dark or paler patches. Carapace as wide as it is long; cubic in shape, sides rounded, anteriorly truncated, broad and obtuse; dorsal area elevated; flattened with a keeled posterior declivity; clothed with numerous polyp like tubercles each bearing a short club-shaped seta. Abdomen round; brown with polyp like tubercles. Legs are uniformly yellowish brown, distal part of each segment is white (Dippenaar-Schoeman 1986).

**LIFE STYLE:** They live mainly on grass and low shrubs. Their small and straw coloured bodies camouflage them extremely well. They are collected by beating and sweep netting grasses and shrubs. Although widely distributed they are not very common.

**TAXONOMY**: Revised by Dippenaar-Schoeman (1986).



Holopelus almiae male Photo Linda Wiese

# Holopelus albibarbis Simon, 1895

### COMMON NAME: Holopelus Crab Spider

### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** An African endemic described in 1895 from Stellenbosch in the Western Cape, South Africa. It has also been recorded from Bioko. This species is under collected and is suspected to occur in more African countries. In South Africa collected from three provinces including six protected areas (EOO=455 224 km<sup>2</sup>; AOO=80 km<sup>2</sup>; 6-1513 m a.s.l.). Due to its wide geographical range, the species is listed as Least Concern.

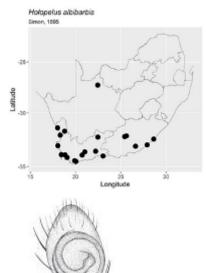
**LIFE STYLE:** A free-living plant dweller. It has been collected from trees (*Acacia karoo*) and low shrubs. Adults were collected in October and March from the Fynbos, Grassland, Savanna and Thicket biomes (Foord et al. 2011; Haddad et al. 2013).

GLOBAL DISTRIBUTION: Bioko; Macias Nguema (Fernando Póo), South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape:* Fort Brown Kudu Reserve (-33.13, 26.62); Mazeppa Bay (-32.47, 28.64); Mountain Zebra National Park (-32.24, 25.43); East London, Pineapple Research Station (-33.01, 27.9); Cradock (-32.17, 25.62). *Northern Cape*: Tswalu Game Reserve (-27.3, 22.44). *Western Cape:* Brand-se-Baai (-31.42, 18.01); Bredasdorp (-34.53, 20.04); Cape Town (-33.91, 18.42); Elgin (-34.16, 19.06); Karoo National Park (-32.28, 22.46); Keurboom Forest Reserve (-34.03, 23.03); Langebaan (-33.08, 18.04); Napier (-34.46, 19.89); Oudtshoorn (-33.59, 22.21); Stellenbosch (-33.93, 18.85); Gans Kop 136 (-33.65, 21.02); Tradouw Pass (-33.95, 20.72); Wiedou (-31.73, 18.78); Knysna (-34.03, 23.03); Cederberg Wilderness Area Lamberts Bay (-32.1, 18.31)

**CONSERVATION MEASURES:** Recorded in several protected areas such as: Fort Brown Kudu Reserve; Mountain Zebra National Park (Dippenaar-Schoeman 2006); Tswalu Game Reserve (Dippenaar-Schoeman et al. 2016); Karoo National Park (Dippenaar-Schoeman et al. 1999), Keurboom Forest Reserve and Cederberg Wilderness Area (Foord & Dippenaar-Schoeman 2016). No conservation actions are recommended.

TAXONOMIC NOTES: Revised by Dippenaar-Schoeman (1986). Known from both sexes.



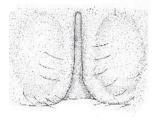


Holopelus albibarbis male Photo Peter Webb



Holopelus albibarbis female dprsal view Photo ASD

Male palp after Dippenaar-Schoeman (1986)



Epigynum after Dippenaar-Schoeman (1986)

# Holopelus almiae Dippenaar-Schoeman, 1986

### COMMON NAME: Almi's Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE**: A South African endemic species described in 1986 from Hermanus in the Western Cape. The species is also known from several localities in the Eastern Cape and Western Cape including several protected areas (EOO=93 972 km<sup>2</sup>; AOO=48 km<sup>2</sup>; 4-1002 m a.s.l.). Due to its wide geographical range, the species is therefore listed as Least Concern.

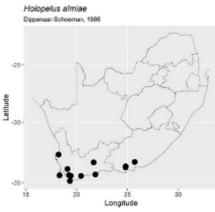
**LIFE STYLE:** They are free-living plant dwellers that live mainly on grass and low shrubs. Sampled from the Thicket and Fynbos biomes.

### GLOBAL DISTRIBUTION: South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape:* Addo Elephant National Park (-33.32, 25.72); Baviaanskloof Nature Reserve (-33.76, 24.81); Keurkloof (Farm Ferndale) (-33.68, 24.83). *Western Cape:* Borrelfontein, 8 km W of Gouritz Mouth (-34.33, 21.85); Cape Point (-34.41, 18.32); De Hoop Nature Reserve (-34.45, 20.44); Fernkloof Nature Reserve (-34.86, 19.34); Franschoek (-33.89, 19.1); Swartberg Nature Reserve (Gamkaskloof) (-33.35, 21.67); Hermanus (-34.4, 19.25); Stanford (-34.44, 19.43); Table Mountain National Park, Cape Point (-34.41, 18.32); Dwarskersbos (-32.7, 18.23).

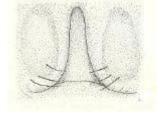
**CONSERVATION MEASURES**: Recorded in the following reserves: Baviaanskloof Nature Reserve; De Hoop Nature Reserve (Haddad & Dippenaar-Schoeman 2006); Fernkloof Nature Reserve; Swartberg Nature Reserve (Dippenaar-Schoeman et al. 2005) as well as the Addo Elephant National Park (Dippenaar-Schoeman et al. 2020) and Table Mountain National Park (Dippenaar-Schoeman et al. 2020). No conservation actions are recommended.

TAXONOMIC NOTES: Revised by Dippenaar-Schoeman (1986). Known from both sexes,





Male palp after Dippenaar-Schoeman (1986)



Epigynum after Dippenaar-Schoeman (1986)



Holopelus almiae male Photo Linda Wiese



Holopelus almiae female and male Photo ASD



Holopelus almiae female eye pattern Photo ASD

### GENUS MISUMENOPS F. O. Pickard-Cambridge, 1900

*Misumenops* is represented by 57 spp. of which only two are known from Africa and one from South Afrivca (World Spider Catalog 2020).

COMMON NAMES: Misumenps Crab Spiders

TYPE SPECIES: Misumenops maculissparsus (Keyserling, 1891)

**DIAGNOSTIC CHARACTERS**: Size: small spiders, 2-7 mm. Colour: yellow to pale green (green fades in alcohol to yellow); sometimes with red or brown patterns or lines on carapace and abdomen; legs I and II sometimes banded with red or brown. Carapace as wide as long; low and slightly convex; surface clothed with numerous erect spiniform setae; eyes in two recurved rows; lateral eyes larger than median eyes, situated on conjoined tubercles; clypeus vertical with 4 pairs of long primary setae on margin. Sternum heart-shaped. Abdomen round in dorsal view; flattened; clothed with numerous erect spiniform setae. Legs: anterior two pairs approximately equal in length and thickness; longer and stronger than posterior pairs; prolateral surface of femora I and II with strong setae; ventral surface of tibiae and metatarsi with double row of macro-setae. Male, sexual dimorphism in shape, size and colour (Dippenaar-Schoeman 1983).

LIFE STYLE: They inhabit grass, shrubs, flowers and trees.

TAXONOMY: Revised by Dippenaar-Schoeman (1983).





*Misumenops rubrodecoratus* female from Irene Photo P. Webb



*Misumenops rubrodecoratus* female Photo P. Webb

*Misumenops rubrodecoratus* female Photo V. vd Walt



Misumenops rubrodecoratus Photo P. Webb



Misumenops rubrodecoratus male from Irene Photo P. Webb

Misumenops rubrodecoratus Millot, 1942

### COMMON NAME: Red Back Crab Spider

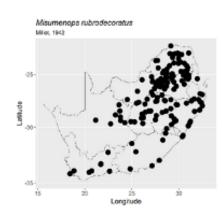
#### **CONSERVATION STATUS:** LC

NATIONAL RATIONALE: An African endemic described in 1942 from Guinea. Known throughout Africa. Recorded from Lesotho and South Africa. From South Africa known from all the provinces including >10 protected areas (EOO=2 642 730 km<sup>2</sup>; AOO=616 km<sup>2</sup>; 6-2020 m a.s.l.). Due to the wide geographical range, the species is listed as being of Least Concern.

**LIFE STYLE:** This species is by far the most common thomisid species yet recorded from South Africa. Adults were collected throughout the year, except in the winter months. They inhabit grass, shrubs, flowers and trees and were sampled from all the floral biomes except the desert (Foord et al. 2011; Haddad et al. 2013). It is the species most frequently encountered on crops such as avocado, citrus, cotton, kenaf, lucerne, macadamia, maize, pecans, pine plantations, pistachio, pumpkin, sugar cane, sunflower, strawberries, tomatoes (Dippenaar-Schoeman et al. 2013).

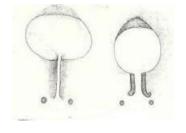
### GLOBAL DISTRIBUTION: Known throughout Africa.

DISTRIBUTION IN SOUTH AFRICA: Eastern Cape: Baviaanskloof Nature Reserve (-33.76, 24.81): Great Fish River Wetland Park (-33.48, 27.13); Middelburg (-31.49, 24.99); Mountain Zebra National Park (-32.24, 25.43); Ongeluksnek (-30.55, 28.57); East London (Pineapple Research Station) (-33.01, 27.9); Prentjiesberg (-31.18, 28.28); Qachas Nek (-30.12, 28.68). Free State: Bloemfontein (-29.11, 26.22); Bothaville (-27.38, 26.62); Mpetsane Conservation Estate (-28.92, 27.58); Edenville (Farm Lusthhof) (-27.55, 27.66); Erfenis Dam Nature Reserve (-28.5, 26.8); Fouriesburg (-28.61, 28.23); Golden Gate Nature Reserve (-28.5, 28.62); Harrismith (-28.27, 29.13); Oranjeville (-26.99, 28.2); Reddersburg (-29.64, 26.15); Soetdoring Nature Reserve (-29.05, 26.21); Vrede (-27.43, 29.13); Wesselsbron (-27.84, 26.38); Winburg (-28.49, 27). Gauteng: Abe Bailey Nature Reserve (-26.36, 27.4); Bon Accord (-25.62, 28.2); Bronkhorstspruit (-25.8, 28.74); Centurion (-25.85, 28.16); Ezemvelo Nature Reserve (-25.8, 28.77); Johannesburg (-26.2, 28.04); Kempton Park (-26.09, 28.23); Kloofendal Nature Reserve (-26.14, 27.86); Krugersdorp/ Mogale (-26.09, 27.78); Leeufontein Nature Reserve (Farm Rietfontein) (-25.38, 28.64); Magaliesburg(-25.99, 27.54); Midrand (-25.95, 28.14); Modderfontein (-26.08, 28.17); Moloto (-25.46, 28.63); Nigel (-26.42, 28.46); Norscott Nature Reserve (-26.2, 28.04); Pretoria: Onderstepoort (-25.74, 28.19), Pretoria National Botanical Garden (-25.74, 28.19); Rietondale Research Station (-25.74, 28.19), Rietvleidam Nature Reserve (-25.85, 28.16); Roodeplaat Research Station (-25.66, 28.35); Suikerbosrand Nature Reserve (-27.59, 27.53); Tswaing Crater (-25.42, 28.08); Wonderboom Nature Reserve (-25.69, 28.19).





Male palp after Dippenaar-Schoeman (1983)



Epigynum after Dippenaar-Schoeman (1983)



*Misumenops rubrodecoratus* female from Irene Photo P. Webb





*Misumenops rubrodecoratus* male from Irene Photo P. Webb

### Misumenops rubrodecoratus (continued)

KwaZulu-Natal: Cathedral Peak (-28.94, 29.19); Chakaskraal (-29.45, 31.22); Dukuduku Forest Station (-28.37, 32.23); Garden Castle (-29.75, 29.2); Giant's Castle Nature Reserve (-29.23, 29.48); Jozini (-27.42, 32.07); Kamberg Nature Reserve (-29.39, 29.67); La Mercy (-29.63, 31.13); iSimangaliso Wetland Park: Lake St. Lucia (-28, 32.48), Mkuzi Game Reserve (-27.63, 32.25); Loteni Nature Reserve (-29.47, 29.52); Louwsburg (-27.54, 31.32); Margate (-30.85, 30.36); Mtubatuba (-28.4, 32.18); Ndumo Game Reserve (-26.87, 32.24); Ophathe Game Reserve (-28.52, 31.66); Phinda Game Reserve (-27.72, 32.38); Pongola (Farm Vergeval) (-27.35, 31.61); Port Shepstone (-30.74, 30.44); Tembe Elephant Park (-26.94, 32.47); Vryheid Nature Reserve (-27.75, 30.79). Limpopo: Blouberg Nature Reserve (-22.99, 29.04); Dendron (Farm Amsterdam) (-23.37, 29.32); Ellisras/Lephalale (-23.67, 27.71); Gravelotte (-23.95, 30.57); Hoedspruit (-24.34, 30.93); Kruger National Park (-22.93, 31.02); Lajuma Mountain Retreat (-23.03, 29.45); Letaba Ranch (-23.82, 30.16); Levubu (-23.08, 30.28); Limpopo Valley Nature Reserve (-22.22, 29.13); Little Leigh (Western Soutpansberg) (-22.95, 29.87); Louis Trichardt (-23.04, 29.91); Magoebaskloof (-23.87, 30.01); Medikwe Heritage Site (-22.99, 29.61); Mica (-24.18, 30.82); Mosdene Nature Reserve (-24.52, 28.7); Nylstroom/Modimolle (-24.69, 28.4); Nylsvley Nature Reserve (-24.65, 28.67); Polokwane Nature Reserve (-23.9, 29.47); Potgietersrus/Mokopane (-24.17, 29); Roodewal Forest (-23.02, 30.03); Rust de Winter (-25.19, 28.63); Soekmekaar (-23.49, 29.94); Tuinplaas (-24.9, 28.73); Tzaneen (-23.82, 30.16); Warmbaths/Bela-Bela (-24.88, 28.29); Welgevonden Nature Reserve (-24.39, 27.78); Wolkberg Nature Reserve (-23.94, 29.95). *Mpumalanga:* Badplaas (-25.95, 30.56); Bethal (-26.44, 29.46); Blydepoort (-24.74, 30.58); Bourke's Luck (-25.09, 30.46); Brondal (-25.35, 30.84); Burgers Hall (-25.08, 31.06); Delmas (-26.14, 28.68); Dennilton (-25.3, 29.18); Glenwood (-29.87, 30.98); Graskop (-24.93, 30.84); Groblersdal (-25.16, 29.39); Hendriksdal Plantation (-25.2, 30.75); Hendrina (-26.15, 29.71); Komatipoort (-25.43, 31.94); Loskop Dam Nature Reserve (-25.46, 29.23); Marble Hall(-24.96, 29.29); Mariepskop (-24.58, 30.87); Middelburg (-25.76, 29.46); Nelspruit (-25.47, 30.96); Ohrigstad (-24.74, 30.58); Oudestad Research Station (-25.16, 29.39); Plaston (-25.34, 31.06); Sabie (-25.1, 30.78); Schagen (-25.43, 30.8); Steelpoort (-24.73, 30.21); Waterval Boven (-25.63, 30.32). North West: Barberspan (-26.62, 25.58); Brits (-25.62, 27.77); Buffelspoort Research Station (-25.62, 27.77); Pilanesberg Nature Reserve (-25.25, 27.08); Potchefstroom (-26.7, 27.09); Rustenburg (-25.65, 27.22); Rustenburg Nature Reserve (-25.72, 27.18); Vryburg (Farm Weltevrede) (-27.41, 24.51); Zeerust (-25.53, 26.08). Northern Cape: Douglas (-29.05, 23.77); Griekwastad (-28.85, 23.25); Kameeldrift (-29.38, 23.8); Kenhardt (-29.34, 21.15); Klein Papkuil farm (-28.48, 23.72); Prieska (-29.68, 22.74); Suffolk farm nr Hopetown (-29.58, 24.24). Western Cape: Gamkaberg Nature Reserve (-33.31, 21.71); Bontebok National Park (-34.07, 20.45); Karoo National Park (-32.28, 22.46); Simonstown (-34.19, 18.42); Stellenbosch (-33.93, 18.85); Swartberg Nature Reserve (-33.36, 21.69); Swartklip (-34.19, 18.42); Tradouw Pass (-33.95, 20.72); Wildernis National Park (-33.97, 22.62); Witsand Nature Reserve (-34.39, 20.85).

**CONSERVATION MEASURES:** Recorded in > 35 reserves. No conservation actions are recommended.

TAXONOMIC NOTES: Revised Dippenaar-Schoeman (1983). Known from both sexes.



Misumenops rubrodecoratus female from Irene Photo P. Webb



Misumenops rubrodecoratus female Photo Nicolette Josling

# **GENUS MONAESES Thorell, 1869**

A genus described by Thorell (1869) with a wide distribution represented by 27 species with nine species known from Africa and seven from the South Africa (World Spider Catalog 2020).

COMMON NAMES: Monaeses Grass Crab Spiders / Tailed Crab Spiders

TYPE SPECIES: Monastes paradoxus Lucas, 1846

**DIAGNOSTIC CHARACTERS:** Female small to medium-sized; male slightly smaller. Colour: body cream to dark brown or grey with a mottled appearance; abdomen frequently decorated with white longitudinal lines laterally. Carapace elongate; usually with simple, erect setae; eyes eight in 2 rows (4:4); lateral eyes usually on flat tubercles; posterior eye row evenly spaced. Abdomen long and slender; sides almost parallel; caudal part varies from short and not extending beyond the spinnerets, to very long and extending beyond the spinnerets; caudal extension covered with numerous folds, clothed with long setae; remainder of abdomen dorsally with long setae, arranged in rows. Legs laterigrade; legs I and II usually longer than III and IV; anterior legs with series of strong spines on tibiae and metatarsi (Dippenaar-Schoeman (1984).

**LIFE STYLE**: They are free-living plant dwellers. Their long, straw-coloured bodies provide excellent camouflage as they await their prey on grass. They are slow-moving and cling to the plants with outstretched legs – the first two pairs directed forward, the third and fourth pairs directed backwards along the axis of stems. Their robust front legs and potent venom enable them to capture and subdue prey that are up to twice their own size. Females attach their egg-sacs to tufts of grass (Dippenaar-Schoeman & Haddad 2013; Dippenaar-Schoeman & Van den Berg 2010).

TAXONOMY: Species in Southern Africa revised by Dippenaar-Schoeman (1984).



Monaeses paradoxus Photo Bruce Blake



Monaeses gibbus female from Pienaarsriver Photo Peter Webb



Monaeses austrinus male from Irene Photo P. Webb



Monaeses spp. Photo P. Webb

### Monaeses austrinus Simon, 1910

### COMMON NAME: White Band Monaeses Crab Spider

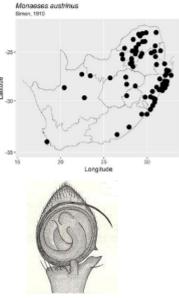
#### **CONSERVATION STATUS:** LC

**NATIONAL RATIONALE:** An African endemic species described by Simon (1910) with type locality given only as South Africa. The species has been sampled from five African countries. In South Africa known from all the provinces and it is well protected in more than 20 protected areas (EOO=988 120 km<sup>2</sup>; AOO=288 km<sup>2</sup>; 1-2253m a.s.l.). Due to its wide geographical range, the species is therefore listed as Least Concern.

**LIFE STYLE:** They inhabit grass and the low vegetation and are easily collected with a sweepnet. They are abundant in Forest, Indian Ocean Coastal Belt, Nama Karoo, Grass-land, Thicket and Savanna biomes. (Foord et al. 2011; Haddad et al. 2013). They were also sampled from cotton and pistachio plantations (Dippenaar –Schoeman et al. 2013). Females were collected in January, February, April and May and the males from November to April mainly from grass.

**GLOBAL DISTRIBUTION:** Botswana, Ivory Coast, Namibia, Zimbabwe, South Africa, Swaziland.

DISTRIBUTION IN SOUTH AFRICA: Eastern Cape: Grahamstown (-33.3, 26.52): Komga (-32.58, 27.9); Mkhambathi Nature Reserve (-31.32, 29.97); Mtambalala (-31.32, 29.36). Free State: Golden Gate Highlands National Park (-28.5, 28.62); Senekal (-28.32, 27.62); Sandveld Nature Reserve (-27.67, 25.72). Gautena: Groenkloof Nature Reserve (-25.78, 28.2); Heidelberg (-26.5, 28.36); Johannesburg (-26.2, 28.04); Kempton Park (-26.09, 28.23); Norscott Nature Reserve (-26.2, 28.04); Pretoria/Tshwane (-25.74, 28.19); Suikerbosrand Nature Reserve (-27.59, 27.53); Wonderboom Nature Reserve (-25.69, 28.19). KwaZulu-Natal: Drummond, Nagels Dam (-29.73, 30.73); Dukuduku Forest Station (-28.37, 32.23); Empangeni (Addison Park) (-28.72, 31.88); Enseleni Nature Reserve (-28.68, 32.05); Greytown (-29.05, 30.6); Hluhluwe (-28.02, 32.28); Hluhluwe Nature Reserve (-28.09, 32.1); Ifafa Beach (-30.45, 30.64); Illovo Beach (-30.12, 30.85); iSimangaliso Wetland Park: Sodwana Bay National Park (-27.4, 32.76); Jozini Dam (-27.42, 32.07); Makatini Flats (-27.25, 32.22); Margate (-30.85, 30.36); Mkhomazi State Forest (-29.62, 29.75); Mlawula Nature Reserve (-26.22, 32); Mtambalala (-31.32, 29.36); Mtambanana (-28.6, 31.73); Mtubatuba (-28.4, 32.18); Mtunzini (-28.96, 31.76); Ndumo Game Reserve (-26.87, 32.24); Ngoje Forest (-28.88, 31.38); Ngome State Forest (-27.78, 31.45); Nkandla Forest (-28.61, 31.09); Nyala Game Reserve(-28.72, 31.88); Pietermaritzburg, New England Road



Male palp after Dippenaar-Schoeman (1984)



Epigynum after Dippenaar-Schoeman (1984)



Monaeses austrinus female from Irene Photo P. Webb



Monaeses austrinus male from Irene Poto P. Webb

### Monaeses austrinus (continued)

Uvongo (-30.82, 30.39); Valley of Thousand Hills (-28, 32); Westville (-29.82, 30.92). *Limpopo:* Kruger National Park, 5 km N Pretoriuskop (-22.93, 31.02); Lajuma Mountain Retreat (-23.03, 29.45); Little Leigh (Western Soutpansberg) (-22.95, 29.87); Londolozi Game Reserve (-24.86, 31.53); Makalali Nature Reserve (-24.34, 30.93); Mosdene Nature Reserve (-24.52, 28.7); Polokwane Nature Reserve (-23.9, 29.47); Potgietersrus/ Mokopane (-24.17, 29); Rust de Winter (-25.19, 28.63); Sovenga Hill (-23.88, 29.73); Thabazimbi (-24.6, 27.38); Tuinplaas (-24.9, 28.73); Westphalia (-23.3, 29.18); Warmbaths/Bela -Bela (-24.88, 28.29). *Mpumalanga*: Bourke's Luck (-25.09, 30.46); Graskop (-24.93, 30.84); Groblersdal (-25.16, 29.39); Loskop Dam Nature Reserve (-25.46, 29.23); Nelspruit (-25.47, 30.96); Oudestad Research Station (-25.16, 29.39). *North West:* Pilanesberg Nature Reserve (-25.25, 27.08); Rustenburg Nature Reserve (-25.72, 27.18). *Northern Cape:* Kuruman (-27.46, 23.43); Prieska (Green Valley Nuts Estate) (-29.68, 22.74); Augrabies National Park (-28.66, 20.42); Tswalu Game Reserve (-27.3, 22.44). *Western Cape:* Table Mountain National Park, Cecilia Rooikat (-33.99, 18.42); Kirstenbosch National Garden (-33.67, 28.38).

**CONSERVATION MEASURES:** Recorded in >20 protected areas. No conservation actions are recommended.

TAXONOMIC NOTES: Revised by Dippenaar-Schoeman (1984). Known from both sexes.



Monaeses austrinus females from Irene Photo P. Webb



Monaeses austrinus male from Irene Photo P. Webb

# Monaeses fuscus Dippenaar-Schoeman, 1984

Monaeses fuscus enaur-Schoeman, 198

### COMMON NAME: Brown Monaeses Crab Spider

### **CONSERVATION STATUS:** LC

NATIONAL RATIONALE: A South African endemic described in 1984 from Halfway House in Gauteng. The species has also been sampled from five provinces and is presently protected in six reserves (EOO=367 012 km<sup>2</sup>; AOO=52 km<sup>2</sup>; 45-1842 m a.s.l.). Due to its wide geographical range, the species is listed as Least Concern.

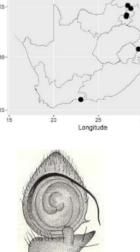
LIFE STYLE: They are mainly sampled from grass in the Forest, Indian Ocean Coastal Belt, Savanna and Grassland biomes (Foord et al. 2011; Haddad et al. 2013). The species has also been sampled from crops such as cotton and potato plants (Dippenaar-Schoeman et al. 2013).

### **GLOBAL DISTRIBUTION:** South Africa.

DISTRIBUTION IN SOUTH AFRICA: Gauteng: Halfway House (-25.99, 28.13); Irene field opposite Gem Village (-25.85, 28.16). KwaZulu-Natal: Giant's Castle Nature Reserve (-29.23, 29.48); Hluhluwe Nature Reserve (-28.09, 32.1); iSimangaliso Wetland Park: Kosi Bay Nature Reserve (-26.93, 32.87); Sodwana Bay National Park (-27.4, 32.76). Limpopo: Polokwane Nature Reserve (-23.9, 29.47); Rust de Winter (-25.19, 28.63); Warmbaths/Bela-Bela (-24.88, 28.29); Lekgalameetse Nature Reserve, Farm Malta (-24.17, 30.25). Mpumalanga: Nelspruit (-25.47, 30.96); Lydenburg (-25.09, 30.46). Western Cape: Knysna (-34.03, 23.03).

**CONSERVATION MEASURES**: Recorded from six protected areas such as Polokwane Nature Reserve (Dippenaar et al. 2008); Lekgalameetse Nature Reserve (Foord et al. 2016). No conservation actions are recommended.

**TAXONOMIC NOTES:** Known from both sexes (Dippenaar-Schoeman (1984).



Male palp after Dippenaar-Schoeman (1984)



Epigynum after Dippenaar-Schoeman (1984)



Monaeses fuscus male Photo P. Webb



Monaeses fuscus female Photo Les Oates



Monaeses fuscus female Photo P. Webb

Monaeses gibbus

### Monaeses gibbus Dippenaar-Schoeman, 1984

### COMMON NAME: Short Tail Moneases Crab Spider

#### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** A South African endemic described in 1984 from Umfolozi Nature Reserve in KwaZulu-Natal. The species are known from five provinces and occurs in more than 10 protected areas (EOO=240 661 km<sup>2</sup>; AOO=68 km<sup>2</sup>; 29-1332 m a.s.l.). Due to its wide geographical range, the species is listed as Least Concern.

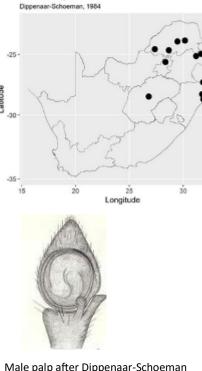
**LIFE STYLE:** Plant dwellers that are mainly sampled from grass in the Savanna, Indian Ocean Coastal Belt and Grassland biomes. (Foord et al. 2011; Haddad et al. 2013). Females have been collected in March and April and males in January and December.

### GLOBAL DISTRIBUTION: South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Free State*: Erfenis Dam Nature Reserve (-28.5, 26.8). *Gauteng:* Roodeplaatdam Nature Reserve (-25.64, 28.36). *KwaZulu-Natal*: Dukuduku Forest Station (-28.37,32.23); Empangeni (-28.72, 31.88); Hluhluwe Nature Reserve (-28.09, 32.1); Jozini Dam (-27.42, 32.07); Lebombo Mountains (-27.32, 31.85); iSimangaliso Wetland Park: Mkuzi Game Reserve (-27.63, 32.25); Ndumo Game Reserve (-26.87, 32.24); Nyala Game Reserve (-28.72, 31.88); Richards Bay (-28.78,32.1); Umfolozi Nature Reserve (-28.3, 31.76). *Limpopo:* Acacia Lodge Game Reserve (-24.56, 27.37); Letaba Estates (-23.82, 30.16); Nylsvley Nature Reserve (-24.65, 28.67); Polokwane Nature Reserve (-23.9, 29.47). *Mpumalanga*: Kruger National Park Pretoriuskop, Numbi (-25.14, 31.208); Kruger National Park, Skukuza (-24.95, 31.67).

**CONSERVATION MEASURES**: Recorded in nine protected areas such as Roodeplaatdam Nature Reserve (Dippenaar-Schoeman et al. 1989); Ndumo Game Reserve (Haddad et al 2006); Nylsvley Nature Reserve (Dippenaar-Schoeman et al. 2009); Polokwane Nature Reserve (Dippenaar et al. 2009) and Kruger National Park (Dippenaar-Schoeman 2020). No conservation actions are recommended.

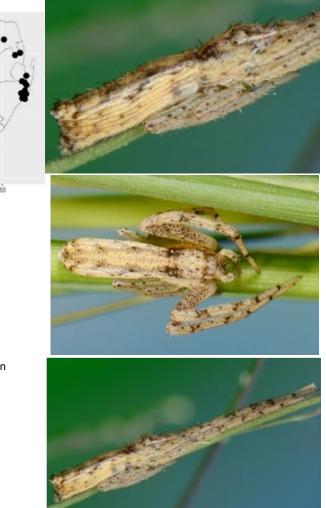
TAXONOMIC NOTES: Known from both sexes (Dippenaar-Schoeman 1984).



Male palp after Dippenaar-Schoeman (1984)



Epigynum after Dippenaar-Schoeman (1984)



Monaeses gibbus female from Pienaarsriver Photo Peter Webb

# Monaeses griseus Pavesi, 1897

### COMMON NAME: Griseus's Monaeses Crab Spider

### **CONSERVATION STATUS:** LC

**NATIONAL RATIONALE:** An African endemic described by Pavesi (1897) from Ethiopia. The species has been sampled from five African countries. In South Africa known from four provinces including five protected areas (EOO=110 093 km<sup>2</sup>; AOO=64 km<sup>2</sup>; 76-1902 m a.s.l.). Due to its wide geographical range, the species is therefore listed as Least Concern.

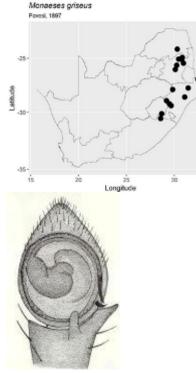
**LIFE STYLE:** They are free-living grass dwellers. Sampled from the Forest, Grassland, Savanna and Thicket biomes (Foord et al. 2011; Haddad et al. 2013)

GLOBAL DISTRIBUTION: Ethiopia, Namibia, Somalia, Sudan, South Africa.

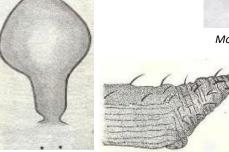
**DISTRIBUTION IN SOUTH AFRICA**: *Eastern Cape:* Ongeluksnek (-30.55, 28.57); Qachas Nek (-30.12, 28.68). *KwaZulu-Natal:* Ukhahlamba Research Station, Cathedral Peak (-28.94, 29.19); Giant's Castle Nature Reserve (-29.23, 29.48); Kamberg Nature Reserve (-29.39, 29.67); Ngome State Forest (-27.78, 31.45); Nkandla Forest (-28.61, 31.09); Newcastle district, Normandien Farms ( -27.923, 29.829); Tembe Elephant Park (-27.034, 32.425); Alverstone near Hillcrest (-29.77, 30.73). *Limpopo:* Lekgalameetse Nature Reserve, Farm The Downs (-24.14, 30.31). *Mpumalanga*: Bergvliet Forest Station (-25.1, 30.78); Graskop (-24.93, 30.84); Lydenburg, Long Tom Pass (-25.09, 30.46); Machadodorp, Swartkoppies-pruit (-25.66, 30.26); Nelspruit (-25.47, 30.96); Sabie (-25.1, 30.78); Carolina (-26.06, 30.11).

**CONSERVATION MEASURES**: Recorded in five protected areas such as Lekgalameetse Nature Reserve (Foord et al. 2016). No conservation actions are recommended.

**TAXONOMIC NOTES**: Revised by Dippenaar-Schoeman (1984). Known from both sexes.



Male palp after Dippenaar-Schoeman (1984)





Monaeses griseus female from Alverstone Photo P. Webb



Monaeases griseus from Alverstone Photo P. Webb

Epigynum and abdomen after Dippenaar-Schoeman (1984)

# Monaeses paradoxus Lucas, 1864

### COMMON NAME: Spotted Monaeses Crab Spider

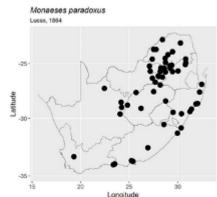
### CONSERVATION STATUS: LC

**NATIONAL RATIONALE:** A species with a very wide distribution that was described in 1864 from Algeria, sampled from various African counties as well as in Europe and Iran. From South Africa known from all the provinces (EOO=930 179 km<sup>2</sup>; AOO=224 km<sup>2</sup>; 1-1871m a.s.l.). Due to its wide global range, the species is listed as Least Concern.

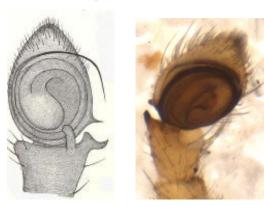
**LIFE STYLE:** They inhabit grass and the low vegetation and are easily collected with a sweepnet. They are abundant in Fynbos, Forest, Indian Ocean Coastal Belt, Nama Karoo, Succulent Karoo, Grassland and Savanna biomes (Foord et al. 2011; Haddad et al. 2013). Also sampled from cotton and pistachio orchards (Dippenaar-Schoeman et al. 2013). Adults were collected throughout the year, except in the winter months.

### GLOBAL DISTRIBUTION: Europe to Iran, Africa.

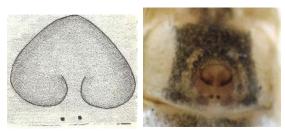
DISTRIBUTION IN SOUTH AFRICA: Eastern Cape: Groendal Forest (-33.7, 25.23); Hogsback (-32.59, 26.92); Mkambathi Nature Reserve (-31.32, 29.97); Ongeluksnek (-30.55, 28.57); Uitenhage (-33.76, 25.39); Tsitsikamma National Park, Storms River (-33.98, 23.52). Free State: Bloemfontein (-29.11, 26.22); Oranjeville (-26.99, 28.2). Sandveld Nature Reserve (-27.67, 25.72). Gauteng: Abe Bailey Nature Reserve (-26.36, 27.4); Bronkhorstspruit (-25.8, 28.74); Hammanskraal, Makapan (-25.41, 28.27); Lochvaal, Northshare (-26.73, 27.68); Melville Koppies (-26.17, 27.99); Moloto (Farm Enkeldoorn) (-25.46, 28.63); Norscott Nature Reserve (-26.2, 28.04); Pretoria/Tshwane (-25.74, 28.19); Rietondale Research Station, Pretoria (-25.74, 28.19); Springs (-26.25, 28.43); Suikerbosrand Nature Reserve (-27.59, 27.53). KwaZulu-Natal: Enseleni Nature Reserve (-28.68, 32.05); iSimangaliso Wetland Park: Mkuzi Game Reserve (-27.63, 32.25); Loteni Nature Reserve (-29.47, 29.52); Margate (-30.85, 30.36); Nyala Game Reserve (-28.72, 31.88); Pietermaritzburg (-29.6, 30.38); Shakaskraal (-29.41, 31.26); Tembe Elephant Park (-26.94, 32.47); Tugela River (-29.17, 31.42). Limpopo: Levubu (-23.08, 30.28); Maasstroom (Farm Al-te-ver) (-22.75, 28.43); Mosdene Nature Reserve (-24.52, 28.7); Polokwane Nature Reserve (-23.9, 29.47); Pietersburg/ Polokwane (-23.89, 29.46); Potgietersrus/Mokopane (-24.17, 29.0); Thabazimbi (Farm Elandsfontein) (-24.6, 27.38); Springbok Flats: Tuinplaas (-24.9, 28.73); Eenzaamheid 512 (-23.68, 27.53); Shepard's Tree Caravan Park (-23.68, 27.77); Mpumalanga: Belfast (-25.69, 30.04); Bergvliet Forest Station (-25.1, 30.78); Blyde River Canyon Nature Reserve (-24.58, 30.82); Graskop (-24.93, 30.84); Groblersdal (-25.16, 29.39); Loskop Dam Nature Reserve (-25.46, 29.23); Middelburg (-25.76, 29.46); Oudestad Experimental Farm (-25.2, 29.2).







Male palp after Dippenaar-Schoeman (1984)



Epigynum after Dippenaar-Schoeman (1984)



Monaeses paradoxus male and female Photo Peter Webb

### Monaeses paradoxus (continued)

North West: Pilanesberg Nature Reserve (-25.25, 27.08); Rustenburg Nature Reserve (-25.72, 27.18). Northern Cape: Hopetown (-29.62, 24.06); Plooysburg; (-29.02, 24.23); Tswalu Kalahari Reserve (-27.3, 22.44); Rooipoort Nature Reserve (-28.561, 24.162); Benfontein Nature reserve, Kimberley (- 28.82, 24.82). Western Cape: Plettenberg Bay (-34.06, 23.36); Ceres (-33.36, 19.31).

**CONSERVATION MEASURES:** Recorded in > 19 reserves No conservation actions are recommended.

TAXONOMIC NOTES: Revised by Dippenaar-Schoeman (1984). Known from both sexes.



Monaeses paradoxus Photo Bruce Blake



*Monaeses paradoxus* female Photo Peter Webb

# Monaeses pustulosus Pavesi, 1895

### COMMON NAME: Long Tail Monaeses Crab Spider

### **CONSERVATION STATUS:** LC

**NATIONAL RATIONALE:** An African endemic described in 1895 from Ethiopia. It has been sampled from ten African countries. In South Africa known from all the provinces and occurs in more than 10 protected areas (EOO=747 831 km<sup>2</sup>; AOO=140 km<sup>2</sup>; 1-2020 m a.s.l.). Due to its wide geographical range, the species is listed as Least Concern.

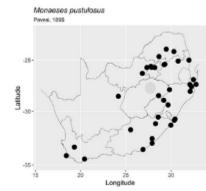
**LIFE STYLE:** They are mainly free-living grass dwellers sampled from both the Fynbos, Forest, Indian Ocean Coastal Belt, Nama Karoo, Savanna and Grassland biomes. (Foord et al. 2011; Haddad et al. 2013). Some have also been collected from trees such as *Dombeya* sp. at Nylsvley Nature Reserve (Dippenaar-Schoeman et al. 2009).

**GLOBAL DISTRIBUTION:** Ethiopia, Guinea, Upper Volta, Tanzania, Erithrea, Zimbabwe, Zaire, Kenya, Namibia and South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape*: East London (-33.01, 27.9); Komga (-32.58, 27.9); Ongeluksnek (-30.55, 28.57); Port Alfred (-33.58, 26.89); Prentjiesberg (-31.18, 28.28); Windy Ridge Game Reserve (-31.75, 25.53); Mkambathi Nture Reserve (-31.32, 29.97). *Free State:* Golden Gate Nature Reserve (-28.5, 28.62). *Gauteng:* Pretoria/ Tshwane (-25.74, 28.19); Suikerbosrand Nature Reserve (-27.59, 27.53). *KwaZulu-Natal:* Cathedral Peak (-28.94, 29.19); Hluhluwe Nature Reserve (-28.09, 32.1); iSimangaliso Wetland Park: Mkuzi Game Reserve (-27.63, 32.25), Sodwana Bay National Park (-27.4, 32.76); Jozini (-27.42, 32.07); Kamberg Nature Reserve (-29.39, 29.67); Margate (-30.85, 30.36); Port Shepstone (-30.74, 30.44); Tembe Elephant Park (-26.94, 32.47); Newcastle district, Normandien Farms (-27.923, 29.829). *Limpopo:* Nylsvley Nature Reserve (-24.65, 28.67); Polokwane Nature Reserve (-23.9, 29.47); Lekgalameetse, Farm The Downs (-24.14, 30.31). *Mpumalanga:* Kruger National Park, Skukuza (-25.00, 31.97); Loskop Dam Nature Reserve (-25.46, 29.23); Loskop Dam Resort (-25.42, 29.32); Sabie (-25.1, 30.78). *Northern Cape:* Rooipoort Nature Reserve (-28.561, 24.162); *North West:* Buffelspoort Research Station (-25.62, 27.77); Hartebeespoort (-25.72, 27.83); Kroondal (-25.75, 27.32); Ventersdorp ( -26.32, 26.82). *Western Cape:* Ceres (-33.36, 19.31); De Hoop Nature Reserve (-34.45, 20.44); Fish Hoek (-34.15, 18.42).

**CONSERVATION MEASURES:** Recorded in 14 protected areas. No conservation actions are recommended.

TAXONOMIC NOTES: Revised by Dippenaar-Schoeman (1984). Known from both sexes.





Male palp after Dippenaar-Schoeman (1984)



Epigynum after Dippenaar-Schoeman (1984)



Monaeses pustulosus female Photo Bruce Blake



Monaeses pustulosus female Photo Martie Rheeder



Monaeses pustulosus female Photo Andrea Saunders

### Monaeses quadrituberculatus Lawrence, 1927

#### COMMON NAME: Round Tail Monaeses Crab Spider

#### **CONSERVATION STATUS:** LC

**NATIONAL RATIONALE:** An African endemic described in 1927 from Namibia. Known from both sexes. Recorded from four African countries. In South Africa known from eight provinces including more than 10 protected areas (EOO=942 568 km<sup>2</sup>; AOO=128 km<sup>2</sup>; 29-2020 m a.s.l.). Due to its wide geographical range, the species is therefore listed as Least Concern.

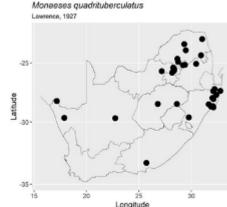
**LIFE STYLE:** They are mainly free-living grass dwellers sampled from the Desert, Forest, Indian Ocean Coastal Belt, Nama Karoo, Succulent Karoo, Savanna and Grassland biomes. (Foord et al. 2011) Some has also been collected from crops such as lucerne and pistachio orchards (Dippenaar-Schoeman et al. 2013).

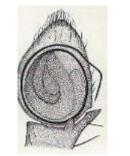
GLOBAL DISTRIBUTION: Tanzania, Botswana, Namibia, South Africa.

DISTRIBUTION IN SOUTH AFRICA: *Eastern Cape*: Addo Elephant National Park (-33.32, 25.72). *Free State:* Erfenis Dam Nature Reserve (-28.5, 26.8); Golden Gate Highland National Park (-28.5, 28.62). *Gauteng:* Hammanskraal (-25.41, 28.27); Pyramid near Pretoria/Tshwane (-25.54, 28.37); Roodeplaatdam Nature Reserve (-25.64, 28.36); Roodeplaat Research Station (-25.66, 28.35); Irene field opposite Gem Village (-25.85, 28.16). *KwaZulu-Natal:* Empangeni (-28.72, 31.88); Enseleni Nature Reserve (-28.68, 32.05); Hluhluwe Nature Reserve (-28.09, 32.1); Jozini (-27.42, 32.07); Makatini Flats (-27.25, 32.22); Mkhomazi State Forest (-29.62, 29.75); Nyala Game Reserve (-28.72, 31.88); Ophathe Game Reserve (-28.52, 31.66); Phinda Game Reserve (-27.72, 32.38); Richards Bay (-28.78, 32.1); iSimangaliso Wetland Park: Sodwana Bay National Park (-27.4, 32.76); Valley of Thousand Hills (-28.0, 32.0). *Limpopo:* Dendron (Farm Amsterdam) (-23.37, 29.32); Kruger National Park (-22.93, 31.02); Makalali Nature Reserve (-24.34, 30.93); Nylsvley Nature Reserve (-24.65, 28.67); Polokwane Nature Reserve (-23.9, 29.47); Springbok Flats: Tuinplaas (-24.9, 28.73). *Mpumalanga:* Bourke's Luck (-25.09, 30.46); Oudestad Experimental Farm (-25.2, 29.2); Oudestad (-25.16, 29.39). *North West*: Rustenburg Nature Reserve (-25.72, 27.18). *Northern Cape*: Prieska (-29.68, 22.74); Springbok (-29.66, 17.88); Richtersveld National Park (-28.25, 17.17).

**CONSERVATION MEASURES**: Recorded in the 12 protected areas. No conservation actions are recommended.

TAXONOMIC NOTES: Revised by Dippenaar-Schoeman (1984). Known from both sexes.

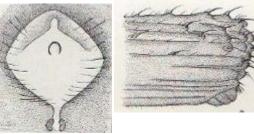




Male palp after Dippenaar-Schoeman (1984)



*Monaeses quadrituberculatus* female from Irene Photo: P. Webb



Epigynum and abdomen after Dippenaar-Schoeman