

**Ecological (Terrestrial and Aquatic) Specialist Report for the layout of the
proposed Msenge Emoyeni Energy Facility**

WALKTHROUGH REPORT



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Aquatic & Environmental Management
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Acronyms and Abbreviations

ACED	African Clean Energy Developments
BAR	Basic Assessment Report
CARA	Conservation of Agricultural Resources Act (Act 43 of 1983)
CBA	Critical Biodiversity Area
EA	Environmental Authorisation
ECBCP	Eastern Cape Biodiversity Conservation Plan
EIAR	Environmental Impact Assessment Report
ESA	Ecological Support Area
kV	Kilovolt
LOO	Likelihood of Occurrence
NBA	National Biodiversity Assessment
NFA	National Forest Act (Act 84 of 1988)
NFEPA	National Freshwater Ecosystem Priority Areas
NEMBA	National Environmental Management: Biodiversity Act (Act 291 of 2009)
NPAES	National Protected Area Expansion Strategy
NWM5	National Wetland Map Version 5
OHPs	Overhead Powerlines
QDS	Quarter Degree Square
RAM	Risk Assessment Matrices
RRRG	Rhodes Restoration Research Group
SSC	Species of Special Concern
TBC	The Biodiversity Company
WEF	Wind Energy Facility
WTG	Wind Turbine Generator

1. Introduction

Scherman Environmental cc. was contracted by Nala Environmental to conduct a “walkthrough” of the 140MW Msenge Emoyeni Wind Energy Facility (WEF) site on behalf of Amakhala Emoyeni Renewable Energy (Pty) Ltd. Amakhala Emoyeni is developing the Msenge WEF and associated grid infrastructure project and is currently finalizing the required layouts and authorisations. An Environmental Authorisation (EA) exists for the windfarm, but designs, including final numbers of turbines and MW outputs, are now to be finalized by the developer. Updated layouts were provided to the team (dated 12.05.2022), as well as a request to ensure the following buffer areas were covered during the walkthrough.

- Roads & medium voltage (MV) cables: 150m either side of centreline
- Wind Turbine Generators (WTGs): 200m radius around turbine base

A property list was also provided. The walkthrough report builds on walkthrough notes based on a site survey undertaken on 12 and 13 May 2022 for the current layout for the Msenge WEF. The walkthrough notes were subsequently used to assist in micro-siting of WEF infrastructure outside of high sensitivity areas as identified by the specialist during the on-site survey. The final layout has been provided in the Addendum letter attached to this walkthrough report.

The following specialists undertook the assessment:

Member	Company/organization	Task
Dr Patsy Scherman	Scherman Environmental	Aquatic assessment
Michael Powell	Rhodes Restoration Research Group	Vegetation assessment
Dr Chad Keates	Rhodes University Entomology Dept	Terrestrial fauna
Nicholaus Huchzermeyer	Scherman Environmental Associate	Vegetation assessment, GIS and mapping

The following limitations are noted for the assessment:

- The surveys undertaken were restricted to the time available, but the team is confident that the properties were surveyed at a high enough level of confidence to satisfy the requirements of the walkthrough assessment.
- Recommendations and input on relocation and realignment of infrastructure have been limited to what is considered feasible by the specialist team.

Table 1.1 and **Figure 1.1** and below can be used to refer to the numbering of infrastructure throughout the report for ease of reference.

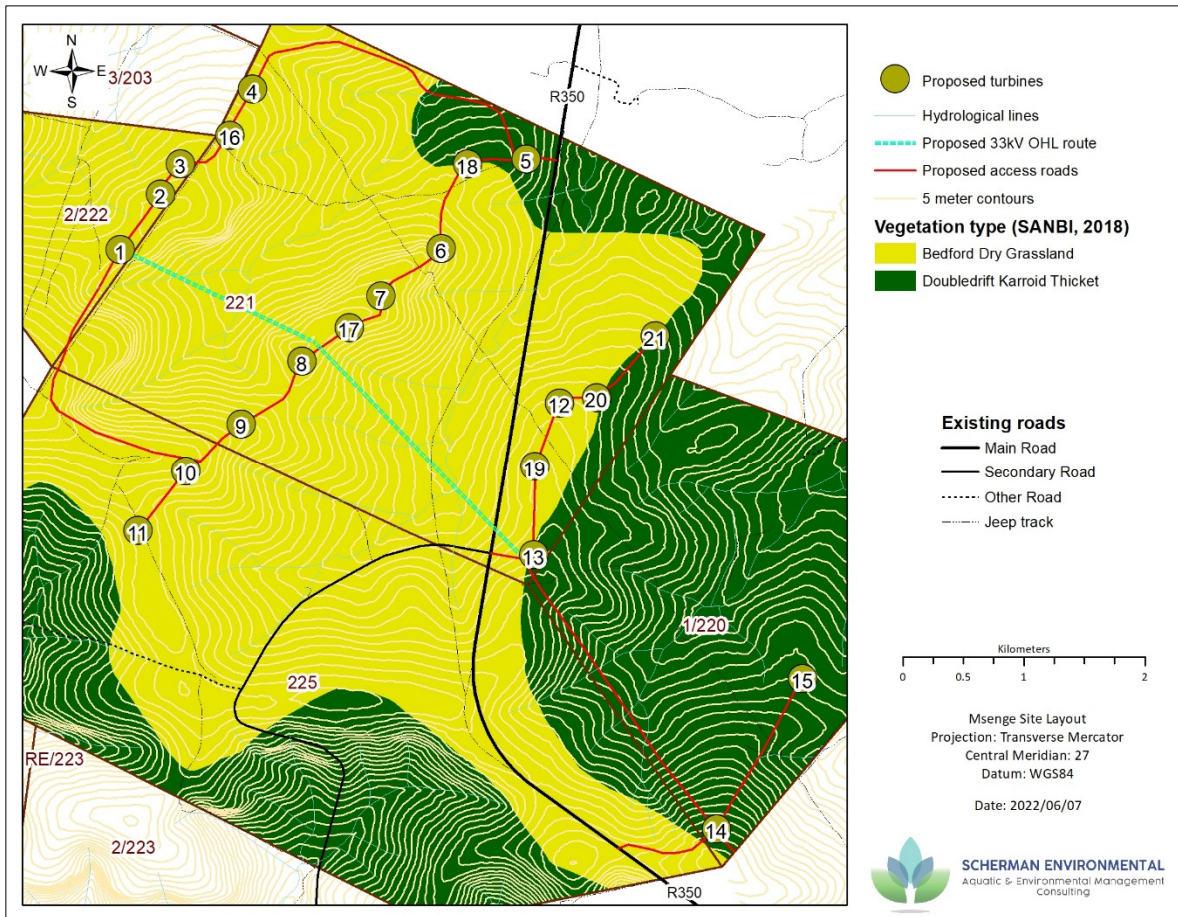


Figure 1.1. Proposed layout for the Msenge WEF and associated features

Table 1.1. Co-ordinates for each WTG in the current layout (as used for the walkthrough surveys)

WTG number	Latitude	Longitude	WTG number	Latitude	Longitude
1	32°52'51.44"S	26° 3'45.26"E	12	32°53'33.47"S	26° 6'4.46"E
2	32°52'36.60"S	26° 3'58.14"E	13	32°54'14.33"S	26° 5'55.79"E
3	32°52'28.53"S	26° 4'4.59"E	14	32°55'28.12"S	26° 6'53.30"E
4	32°52'8.77"S	26° 4'27.71"E	15	32°54'48.03"S	26° 7'21.06"E
5	32°52'28.09"S	26° 5'54.62"E	16	32°52'21.03"S	26° 4'20.40"E
6	32°52'51.87"S	26° 5'27.31"E	17	32°53'12.81"S	26° 4'57.75"E
7	32°53'4.38"S	26° 5'8.08"E	18	32°52'29.33"S	26° 5'35.86"E
8	32°53'21.73"S	26° 4'42.74"E	19	32°53'50.54"S	26° 5'56.43"E
9	32°53'38.41"S	26° 4'23.19"E	20	32°53'32.09"S	26° 6'16.29"E
10	32°53'50.97"S	26° 4'5.49"E	21	32°53'15.77"S	26° 6'35.05"E
11	32°54'6.91"S	26° 3'50.14"E			

2. Terrestrial Assessment

The proposed infrastructure as provided (**Figure 1.1**) includes 20 km of roads, 13 km of underground cables and 4 km of 33kV overhead powerlines (with a 150 m buffer either side of the centreline) and 21 turbines with a 200 m buffer around the turbine base.

2.1. Terrestrial flora

2.1.1. Introduction

A number of previous studies have been conducted (Savannah Environmental 2010, Hoare 2010, Savanna Environmental 2014, Scherman Colloty & Associates 2017, Nkurenkuru 2018 and The Biodiversity Company (TBC) 2020. Considering the results and recommendations from those studies, and once fieldwork was completed, we appreciate that many palatable and delicate species (including Species of Special Concern (SSC) have been decimated by decades of over-stocking. They are now limited to crevices, cracks and the protection of spinescent and woody nurse-plants. This makes searching for them time-consuming given the large buffer areas.

Wind Turbine Generators (WTGs) will be located in Dry Bedford Grasslands (SANBI 2018) and Double Drift Karroid Thicket (SANBI 2018) (**Figure 1.1**), with several localized sites of high botanical diversity (**Figure 2.1**. Localised sites of high botanical diversity in the form of bushclumps and exposed rocky outcrops) within the infrastructure buffer zones. These include rocky outcrops and bushclumps as shown in the sensitivity mapping section below.



Figure 2.1. Localised sites of high botanical diversity in the form of bushclumps and exposed rocky outcrops

2.1.2. Methodology

The layout of the proposed WEF was provided to the specialist team. A desktop assessment was conducted in which a thorough assessment of plant species listed for the associated vegetation types in the national threatened plant classification systems was conducted. In addition, previous reports pertaining to the Amakhala, Msenge and Iziduli Wind Energy Facilities were reviewed for additional plant species that may have been classified as SSC.

A field survey of the proposed infrastructure was conducted to familiarise the team with the terrain, the vegetation types, the habitat types, the species found in the proposed footprints and to assess the ecological status of the landscape. All SSC were listed. Potential SSC were systematically evaluated for Likelihood of Occurrence (LOO) based on distribution descriptions from the literature, various field guides, and botanical reference books.

2.1.3. Results and Discussion

General

None of the properties investigated showed grasslands or savanna in good ecological condition, which indicates a steady regime of overgrazing and insufficient resting to allow palatable species to persist in the landscape. At most of the sites visited, the ecological conditions indicated towards rangelands that require significant periods of rest.

Large areas of the property are experiencing several stages of bush encroachment (e.g. by *Vachellia karoo*), which will require a Bush Encroachment Management Plan. The excessive overgrazing has led to large areas of the property exhibiting disproportionately high % cover for the karroid bush species (*Chrysochoma ciliata*, *Pentzia incana*, *Eriocephalus sp.*, *Ruschia spp.* And *Stachys scabrida*). There has also been a steady reduction in the ratio of “increaser” to “decreaser” grass species resulting in lower productivity.

General vegetation

The vegetation classification for this study area has seen significant changes over the years. **Figure 2.2** below gives the location of the various infrastructure according to the Acocks (1988) vegetation classification. The bulk of the development footprint is covered with **Eastern Province Grassveld**, and typified by a wide range of grass species, isolated *V. karoo*¹ and a limited number of karroid shrubs (*Pentzia incana*, *Pelargonium abrantofolium*, *Euryops anthemoides*, *Cyanotis speciosa*, *Selago saxatilis*, *Nenax microphylla*, *Felicia muricata* and *Helichrysum dregeana*) which tend to increase with over-grazing. Acocks mentions no SSC mentioned for this vegetation type. Acocks lists *Crassula capitella* subsp. *Thrysifolia*² as a key succulent species. A section of **False Karroid Broken Veld** occurs in the study area. Typical species include *Euclea undulata*, *Pappea capensis*, *Cussonia spicata*, *V. karoo*, *Schotia afra* var. *afra*, *Aloe ferox*, *Pentzia incana*, *Chrysochoma ciliata*, *Ocimum*³ *burchelliana*, *Asparagus striatus*, *Drosanthemum lique* and *Drosanthemum hispidum*⁴.

¹ Species underlined in text indicate species listed in Appendix 1.

² Listed as Protected but not found in the fieldwork.

³ Previously *Becium burchellianum*

⁴ Species in red are currently listed as SSC.

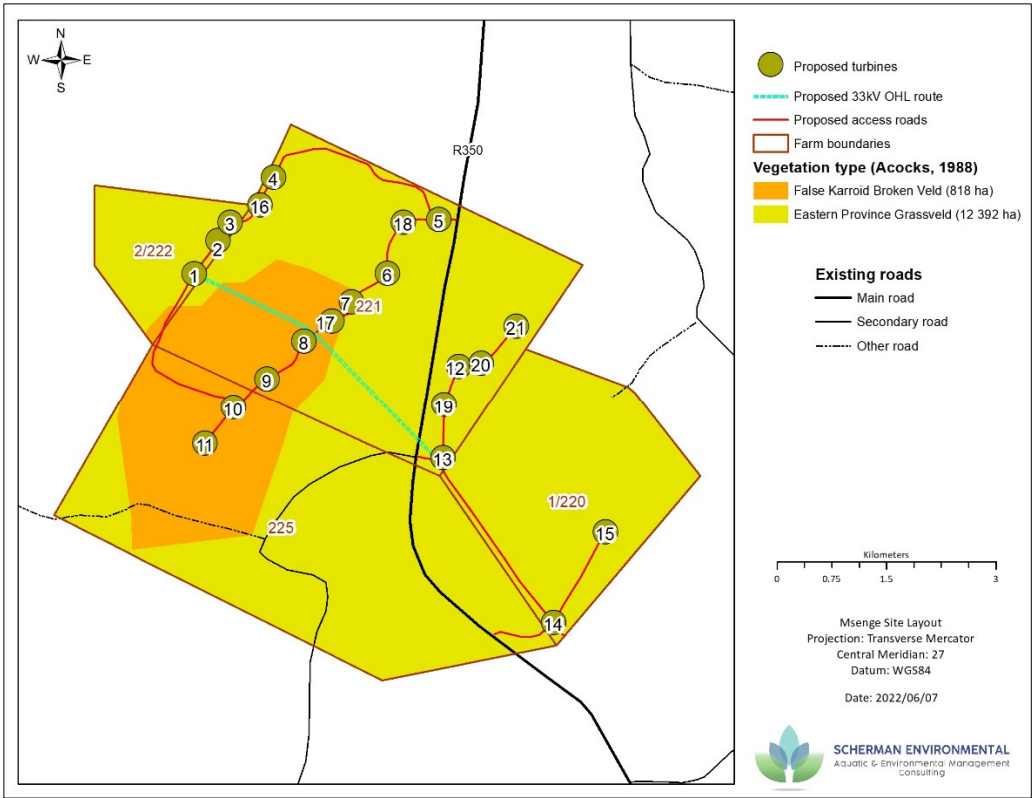


Figure 2.2. The vegetation classification for the study area as defined by Acocks (1988)

The work of Low & Rebelo (1996) saw the creation of the new Subtropical Thicket Biome. The only vegetation type in Low & Rebelo is outlined in **Figure 2.3**, but we were not able to locate the original descriptive texts.

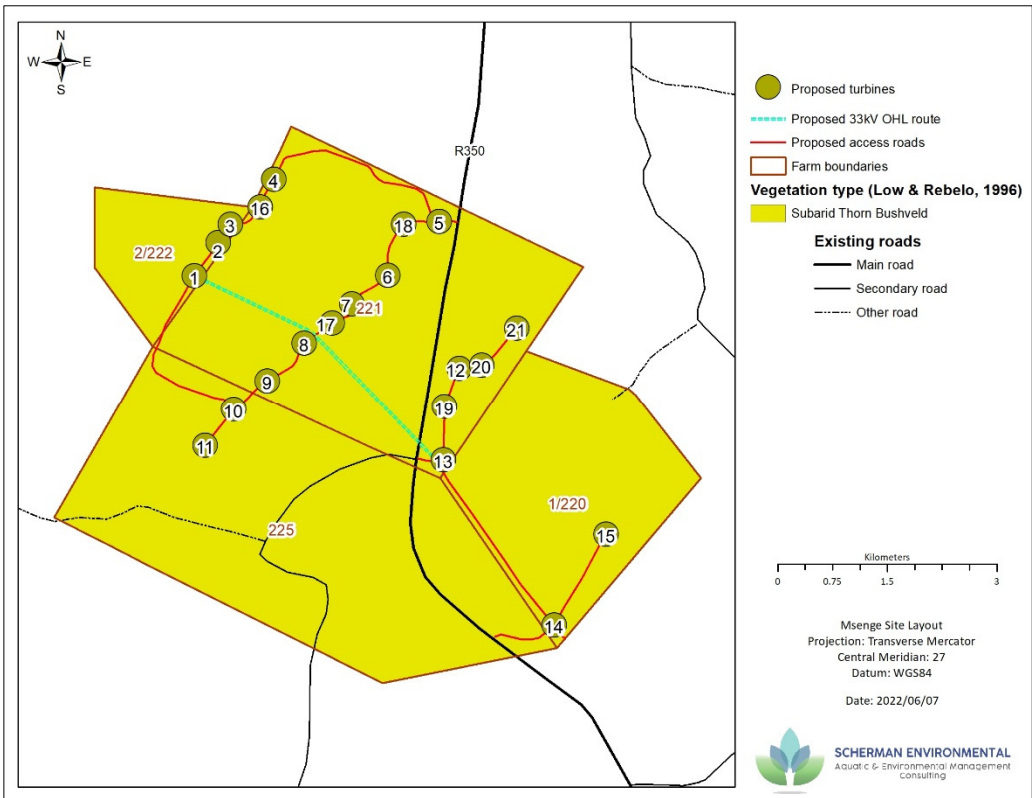


Figure 2.3. The vegetation classification for the study area as defined by Low and Rebelo (1996)

Hoare *et al.* (2006) list this vegetation type as a synonym for their “Eastern Cape Escarpment Thicket” and list the following as key species: *Aloe ferox*⁵, *Euphorbia tetragona*, *Vachellia karroo*, *Cussonia spicata*, *Olea europaea* subsp. *africana*, *Scutia myrtina*, *Buddleja Guriculata*, *Euclea crispa*, *E. undulata*, *Grewia occidentalis*, *Gymnosporia heterophylla*, *Hippobromus pauciflorus*, *Leucosidea sericea*⁶, *Myrsine africana*, *Rhus dentata*, *R. lucida*, *R. tomentosa*, *Scolopia zeyheri*, *Anthospermum rigidum* subsp. *Pumilum*, *Argyrolobium collinum*, *Asparagus striatus*, *Chaetacanthus setiger*⁷, *Felicia filifolia*, *F. muricata*, *Hermannia althaeoides*, *Lantana rugosa*, *Pelargonium alchemilloides*, *Phyllanthus maderaspatensis*, *Polygala fruticosa*, *Selago corymbosa*, *Solanum rigescens*, *Bergeranthus artus*, *Crassula obovata*, *Viscum rotundifolium*, *Asparagus aethiopicus*, *Plumbago auriculata*, *Senecio deltoideus* and a host of grass species.

Interestingly, the following succulents and bulbs are listed: *Stapelia glabricaulis*, *Drimia uniflora*, *Bulbine asphodeloides*, *Bulbine narcissifolia*, *Drimia intricata*. The key forbs include: *Cyanotis speciosa*, *Amaranthus praetermissus*, *Blepharis integrifolia*, var. *clarkei*, *Commelina africana*, *Dianthus caespitosus*, *Gerbera piloselloides*, *Hibiscus aethiopicus*, *H. pusillus*⁸, *Hypoestes aristata*, *Senecio retrorsus*, and *Sida ternata*. The key species in terms of SSC status are: 1) *Bergeranthus artus* whose range is Queenstown to Elliot and listed as **Vulnerable** (Dold & Victor 2005), and 2) *Stapelia glabricaulis* (which was reclassified as one of the 5 variations of *Stapelia hirsuta*, all of which are Least Concern).

The following milestone in South African vegetation classification (for this area) was from the Subtropical Thicket Ecosystem Project (STEP), which sought to improve on the spatial delineation and classification of the vegetation for the new Subtropical Thicket Biome. **Figure 2.4** below outlines these changes as detailed by Vlok *et al.* (2003).

⁵ Species underlined in text indicate species listed in Appendix 1.

⁶ The elevation at this study site is too low for this species.

⁷ Species changed to *Dyschoriste setigera* and is Least Concern (Kamandi 2006).

⁸ Species underlined in text indicate species listed in Appendix 1.

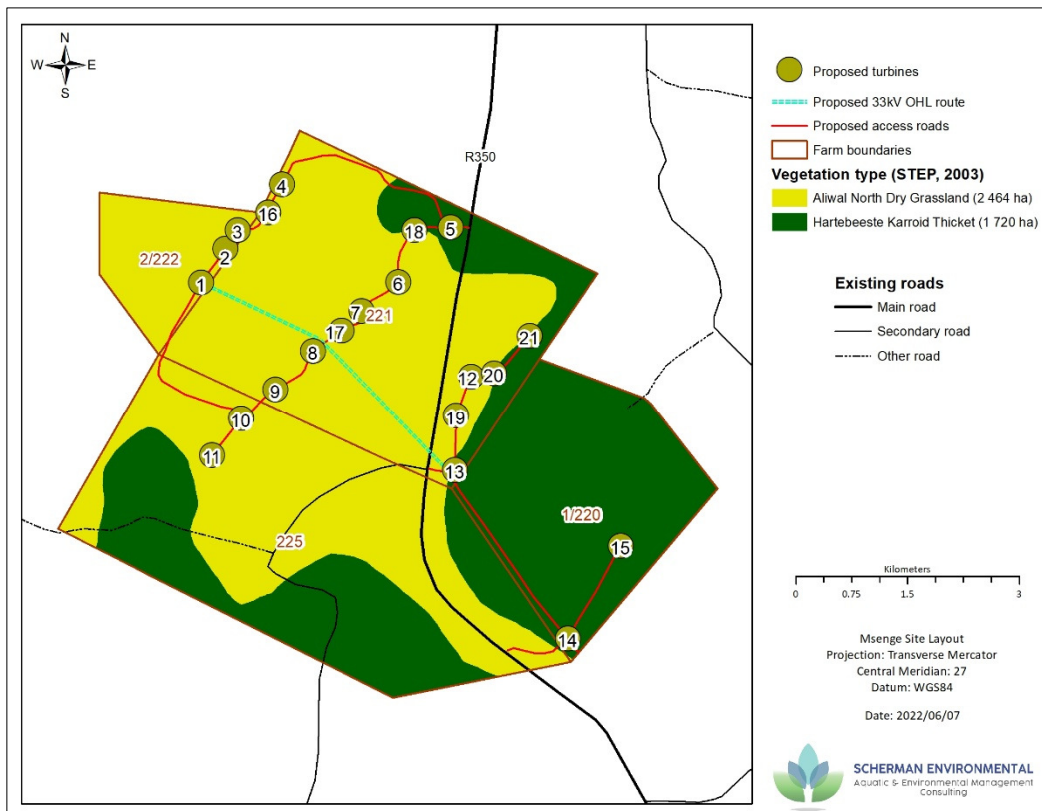


Figure 2.4. The distribution of vegetation types from the Subtropical Thicket Ecosystem Programme (STEP) Project (Vlok et al. 2003), in relation to the planned infrastructure

The Vlok *et al.* (2003) publication only provides the following:

Hartebeeste Karroid Thicket, 1) Character Species – *Papea capensis* and *Ocimum burchelliana*, and 2) dominant species – *Pentzia incana* and *Ocimum burchelliana*.

Vlok & Euston Brown (2002) provide slightly more information: The vegetation type is one of the mosaic forms with isolated bushclumps containing *P. capensis* and *Euphorbia tetragona*. They contend that most of the spekboom (*Portulacaria afra*) has been eliminated, together with the palatable grasses, due to injudicious livestock management. *V. karoo*⁹ occurs sporadically¹⁰, but the dominant vegetation is a karroid shrubland with *O. burchellianum*, *Gnidia cuneata*, *Eriocephalus africanus* and *Pentzia incana*. No SSC are mentioned.

The seminal work of Mucina & Rutherford (2006) significantly improved the national vegetation mapping efforts. Unfortunately, the fine resolution of the STEP mapping for Subtropical Thicket (122 distinct Thicket types Vlok *et al.* 2003) was lost and spatially distilled into 14 Thicket types. The biome was also renamed the **Albany Thicket Biome** (Hoare *et al.* 2006). **Figure 1.1** indicates that the entire development footprint for this report is restricted to **Bedford Dry Grasslands** and **Great Fish Thicket** (Mucina *et al.* 2006). The **Bedford Dry Grasslands** vegetation type is listed as by Mucina (*et al.* 2006) and Department of Forestry, Fisheries and the Environment (DFFE, 2021) as Least Threatened. **Great Fish Thicket** is listed as Least Concern by Mucina *et al.* (2006) but has subsequently been re-divided to reflect a host of vegetations classes: Fish Spekboom Thicket, Fish Thicket, Fish Valley Thicket, and the associated mosaic thicket types of Vlok *et al.* (2003): Crossroads Grassland Thicket, Doubledrift Karroid Thicket and Hartebeest Karroid Thicket. There are considerable areas of **Albany Alluvial Vegetation** in areas previously classified as Great Fish Thicket (see below).

⁹ Species underlined in text indicate species listed in Appendix 1.

¹⁰ Supports our contention that *V. karoo* is becoming a bush encroachment problem.

Bedford Dry Grasslands have, no formal conservation areas and only 1% of the vegetation conserved in private nature reserves. The typical species listed are very similar to those of Acocks (1988): A host of grass species, *Blepharis integrifolia*, *Commelina africana*, *Emex australis*, *Gazania krebsiana*, subsp. *krebsiana*, *Oxalis depressa*, *P. sidoides*, *Helichrysum rugulosum*, *Crassula expansa*, *V. karoo*, *Helichrysum dregeana*, *N. microphylla*, *Asparagus striatus*, *Chrysocoma ciliata*, *Euryops anthemoides*, *Hermannia anthemoides*, *F. muricata*, *Indigofera sessifolia*, *Jamesbittiana microphylla*, *Lycium cinereum*, *Molobodium burchellii*, *Pelargonium aridum*, *Talinum arnotii*, *Pentzia globosa*, *Selago fruticosa*, *S. saxatilis*, *Cotyledon orbiculata*, *Tephrosia capensis* var. *acutifolia* and *Limeun aethiopicum* and *Mestoklema tuberosum*¹¹.

Great Fish Thicket has 96% habitat remaining, is poorly conserved (6%) with the following species (Hoare et al. 2006):

Cyphostemma quinatum, *Pelargonium peltatum*, *Sarcostemma viminale*, *Asparagus multiflorus*, *A. racemosus*, *Capparis sepiaria* var. *citrifolia*, *Jasminum angulare*, *Plumbago auriculata*, *Rhoicissus digitata*, *Cyanotis speciosa*, *Hypoestes aristata*, *Salvia scabra*, *Abutilon sonneratianum*, *Aizoon qlinoides*, *Hibiscus pusillus*, *Lepidium africanum*, *Sida ternatam*, *Crassula expansa*, *Senecio radicans*, *Sansevieria hyacinthoides*, *Euphorbia triangularis*, *Aloe ferox*, *Euphorbia tetragona*, *Papea capensis*, *Vachellia natalitia*, *Boscia oleoides*¹², *Brachylaena ilicifolia*, *Cussonia spicata*, *Ozoroa mucronata*, *Ptaeroxylon obliquum*, *Schotia afra* var. *afra*, *Zanthoxylum capense*, *Euclea undulata*, *Allophylus decipiens*, *Azima tetracantha*, *Carissa bispinosa* subsp. *bispinosa*, *Coddia rudis*, *Diospyros scabrida* var. *cordata*, *Ehretia rigida*, *Flueggea verrucosa*, *Grewia occidentalis*, *Grewia robusta*, *Gymnosporia capitata*, *G. heterophylla*, *Hippobromus pauciflorus*, *Mystroxydon aethiopicum*, *Olea europaea* subsp. *africana*, *Putterlickia pyracantha*, *Searsia incisa*, *Searsia refracta*, *Scolopia zeyheri*, *Scutia myrtina*, *Asparagus striatus*, *Chaetacanthus setiger*, *Chrysocoma ciliata*, *Asparagus subulatus*, *Felicia muricata*, *Hermannia althaeoides*, *Indigofera sessilifolia*, *Leucas capensis*, *Limeum aethiopicum*, *Lycium cinereum*, *Phyllanthus maderaspatensis*, *Selago fruticosa*, *Crassula cordata*, *C. ovata*, *Portulacaria afra*¹³, *Aloiampelos tenuior*¹⁴, *Delosperma ecklonis*, *Kalanchoe rotundifolia*, *Mestoklema tuberosum*, *Tetradenia barberae*¹⁵, *Viscum rotundifolium*, and *Crassula perforata*.

¹¹ Species in red are currently listed as SSC.

¹² Hoare et al. (2006) lists *Boscia albitruca* but this species does not occur in the Eastern Cape.

¹³ Species underlined in text indicate species listed in Appendix 1.

¹⁴ Species in red are currently listed as SSC.

¹⁵ This species is listed as Rare (Van Jaarsveld & Potter), but restricted to dry coastal thickets between the Mbashe River and Fish River – hence unlikely in this study area.

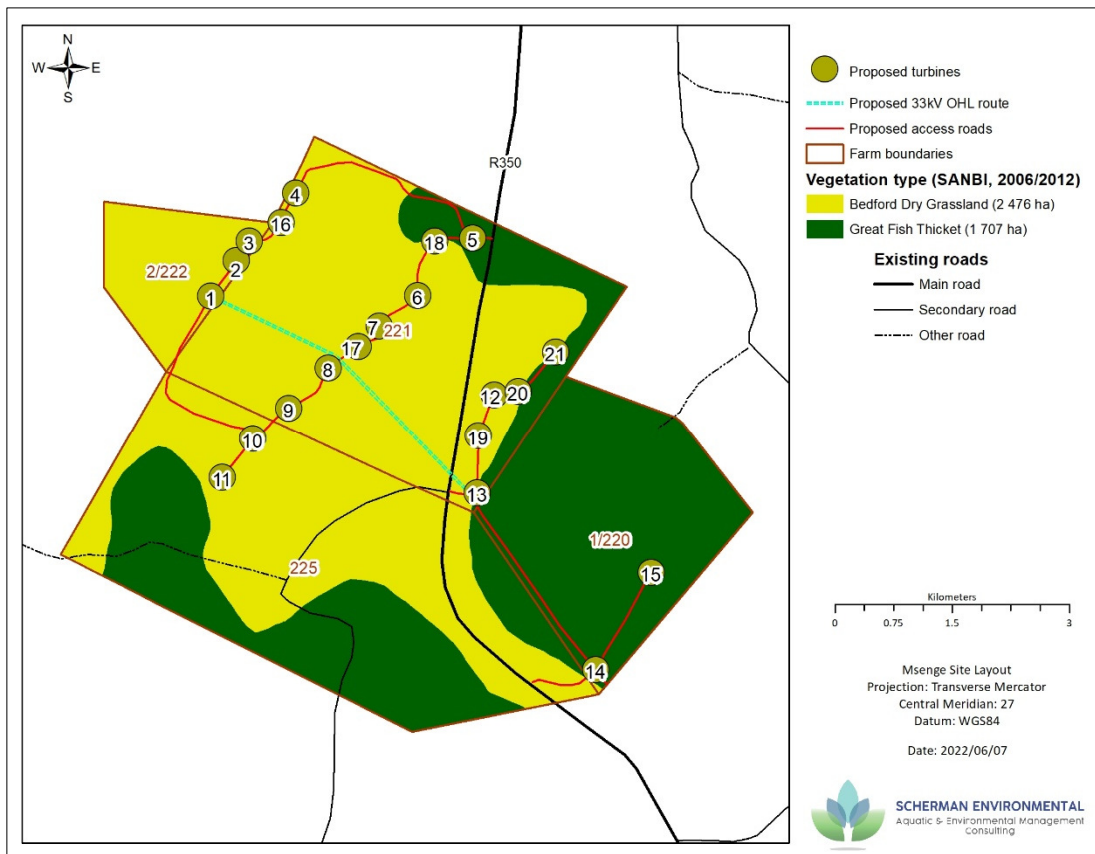


Figure 2.5. The distribution of vegetation types from the SANBI VegMap Project (Mucina & Rutherford 2006), in relation to the planned infrastructure

The recent changes to the national vegetation mapping for the Eastern Cape have largely been concentrated in the Albany Thicket Biome. The 14 thicket types listed by Hoare *et al.* (2006), have been expanded to 44 to reincorporate some of the thicket classes defined by Vlok¹⁶ *et al.* (2003). The study area does not reflect any solid thicket types in the development footprint (Figure 2.6 below), but lists the mosaic thicket type: Double Drift Karroid Thicket. This was previously absorbed into Great Fish Thicket (Hoare *et al.* 2006), but the boundaries for this vegetation type would be the same as in Mucina *et al.* (2006).

The same species listed Bedford Dry Grassland (Mucina *et al.* 2006), can be found listed above.

Double Drift Karroid Thicket (Grobler *et al.* 2018) has the following species:

*Pappea capensis*¹⁷, *Euphorbia tetragona*, *Schotia afra*, *Vachellia karoo*, *Portulacaria afra*, *Aloe striata*, *Aloiampelos tenuior*¹⁸, *Bulbine frutescens*, *Euphorbia curvirama*, *Euphorbia stellata*¹⁹, *Haworthia cooperi*, *Aloe ferox*, *Bulbine narcissifolia*, *Trachyandra giffenii*, *Aristida congesta*, *Digitaria argyrograpta*, *Themedeia triandra*, *Ocimum burchellianum*, *Eriocephalus africanus*, *Lasiosiphon meiserianus*, *Penzia incana*, *Pteronia incana*.

¹⁶ Largely restricted the “mosaic” thicket types.

¹⁷ Species underlined in text indicate species listed in Appendix 1.

¹⁸ Species in red are currently listed as SSC.

¹⁹ We would consider this species to be included as a SSC.

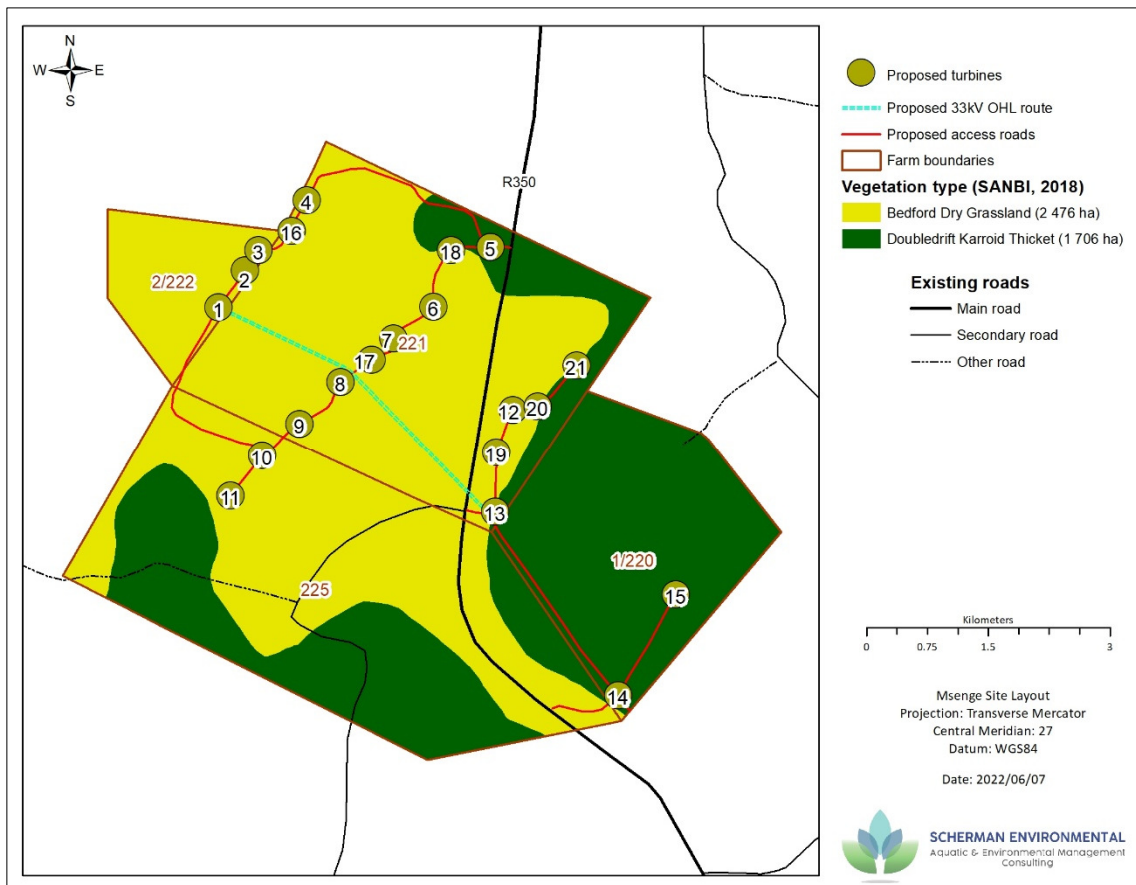


Figure 2.6. The distribution of vegetation types from the SANBI VegMap Project (SANBI 2018), in relation to the planned infrastructure

Plant species recorded

The fieldwork yielded nearly 200 species in the allocated field days (see Appendix 1 for the full species list). It should be emphasized that this list is a composite for the Msenge and Iziduli WEF properties. The list of species would have been considerably improved had the field work taken place in late spring or early summer.

Species of Special Concern (SSC)

There was evidence of mortality and some recruitment of *Euphorbia meloformis*, which is likely a function of the 5-year drought of 2014-2018 combined with overstocking. The future management of the landscape needs to factor in the historical context, which includes anthropogenically induced drought and overgrazing. Both these factors will negatively impact rare and endangered species. From **Figure 2.7** it would seem that this species is widely spread across the properties and the potential exists for individuals to occur at any of the infrastructure points or along any linear features.

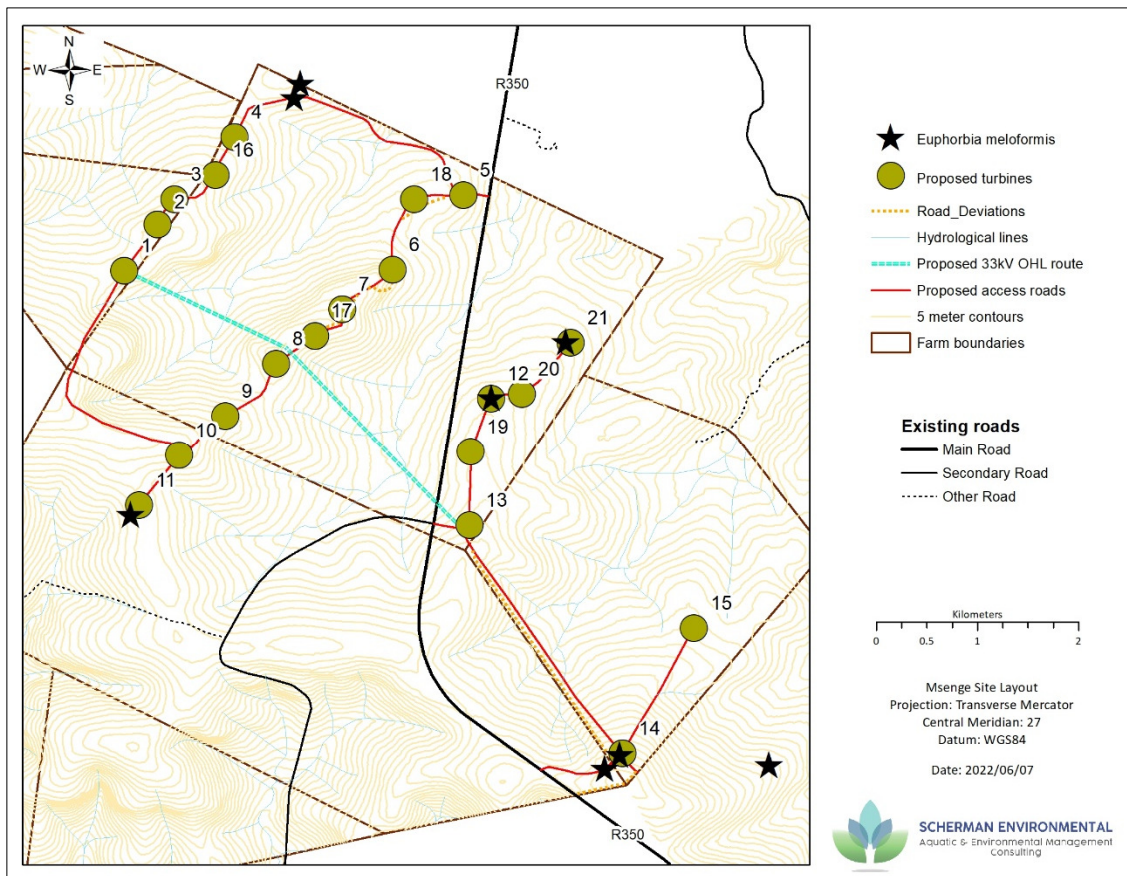


Figure 2.7. The distribution of *E. meloformis* individuals located during the fieldwork (2022)

Appendix 2 shows a rapid assessment of the SSC for the Msenge Wind Farm as listed by TBC (2020). The authors did provide a disclaimer that the field work was a “dry survey” and was limited to two days in the field. This walkthrough (12-13 May 2022) was neither a “wet survey” nor a “dry survey” as it was conducted in early autumn. The flowering time of some species and their cryptic habits could account for not being listed in our field survey (e.g. *Cyrtanthus*, *Nerine*, *Gladiolus* spp.).

In **Appendix 2**, the species highlighted as “NIL” in the column (Rhodes Restoration Research Group Likelihood of Occurrence (RRRG LOO)), yellow and bold are highly unlikely to occur anywhere close to the development zone and are a function of using a Quarter Degree Square (QDS) approach employed by the TBC, and not a habitat-specific probability rating²⁰. This method to select SSC is misleading and not helpful to the developer.

The species highlighted in **green** in **Appendix 2** would warrant careful consideration based on the LOO scores. These species are *Crinum campanulatum*, *Nerine huttonae*, *Mestoklema albanicum*, *E. meloformis*, *Disa lugens* and *Orthopterum waltoniae*.

Although *E. globosa*²¹ is indicated spatially on the maps in the TBC 2020 report, it is not reflected in the TBC (2020) report for SSC. This also applies to *Aloiampelos tenuoir*. *E. globosa* is regarded as Endangered but is also highly unlikely to occur on the property as these populations are coastal (Tony Dold, Albany Museum,

²⁰ It should be noted that a systematic search for plant species, especially to cover dry and wet seasons, would deliver a much more precise lists of species of special concern and ultimately save the developer in terms of reputational damage. A list of visually confirmed species is orders of magnitude more useful than a “maybe” list as indicated above.

²¹ Conservation status - Endangered B1ab(ii,iii,v)

Makhanda, pers. comm). The similarity between *E. globosa* and *E. tridentata* leads to errors in identification. The species occurring on Msenge has been confirmed by Dold of the Albany Museum as *E. tridentata*.

It should be noted that **Appendix 2** is a thorough assessment for the likelihood of occurrence for only the **Species of Special Concern** as identified by the **TBC (2020)**, as it was the most recent assessment.

The SSC as listed by Hoare (2010) is attached as **Appendix 3**, and only those highlighted yellow are likely to occur in the Msenge WEF footprint. The only species we found from this list was *Drimia altissima* which is abundant and carries a Least Concern status.

Some species need to be considered carefully and their conservation status needs to be taken into account, especially as to when it was last reviewed. *Euphorbia stellata* was linked exclusively to the rocky outcrops and listed as Least Concern, but the assessment which was done by Tony Dold and Janine Victor was completed in 2005. The severe drought, overgrazing and plant harvesting warrants a professional opinion during construction activities, which will require inclusion in a Search and Rescue Plan.

The Hoare list of all the species (Hoare 2010)²² most likely to occur in the study sites (based on his previous field work) is the most useful for assessing the impacts of the WEF and the specific infrastructure developments, on SSC. The list is provided as **Appendix 4** (less the duplicate records, grass species, moss species, weeds and alien invader plants). The species highlighted in yellow are SSC, and those in green are ones encountered in the study area in this year and correlates with the LOO score of 100 (%).

The field work conducted by Marianne Strobach (Savanna Environmental 2014) provided the most accurate list of field recorded SSC (see **Table 2.3** below).

Hoare (2010) also listed protected tree species (according the National Forests Act, NFA) that are likely to occur in the study area, but our assessment only concurs with one potential species (*Sideroxylon inerme*), which is further reason to avoid bushclumps and the associated permitting requirements. The full list with our assessment is provided in the **Table 2.1** below. In his and other authors' defense, it should be mentioned as a mitigating factor, that the study area has decreased for this report, when compared to the original Msenge EIA footprint.

²² The list included seven moss species (Bryophytes), one fungi species, 33 weeds or declared aliens, 70 species with no species-level identification and 41 duplicate records.

Table 2.1. Protected Trees according to the National Forest Act, and predicted to possibly occur in the study site (Hoare 2010).

No	Genus	Species	SubSpecies	Family	SANBI Status	RRRG Comment	RRRG LOO	RRRG Found on site	Reference
1	<i>Catha</i>	<i>edulis</i>		Celastraceae	Least Concern	Found in dry woodland and on rocky outcrops.	HIGH	NO	Goldenhuis, C.J. & Victor, J.E. 2004. <i>Catha edulis</i> (Vahl) Forssk. ex Endl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25. Pooley 1997. The Complete Guide to Trees of Natal, Zululand and Transkei. Natal
2	<i>Curtisia</i>	<i>dentata</i>			Near Threatened A2d	Study area farms too dry to support this species	LOW	NO	Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2008. <i>Curtisia dentata</i> (Burm.f.) C.A.Sm. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
3	<i>Ocotea</i>	<i>bullata</i>			Endangered A2bd	Wide national distribution across many vegetation types but limited to cool dry evergreen forests, this site is too dry.	LOW	NO	Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M., Ngwenya, A.M. & Dold, A.P. 2008. <i>Ocotea bullata</i> (Burch.) Baill. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
4	<i>Pittosporum</i>	<i>viridifolium</i>			Least Concern		LOW	NO	Foden, W. & Potter, L. 2005. <i>Pittosporum viridiflorum</i> Sims. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/06/02
5	<i>Podocarpus</i>	<i>falcatus</i>		Podocarpaceae	Least Concern	Wide national distribution but limited to perennial rivers and moist forest. This study site is too dry	LOW	NO	Foden, W. & Potter, L. 2005. <i>Podocarpus falcatus</i> (Thunb.) R.Br. ex Mirb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
6	<i>Podocarpus</i>	<i>latifolius</i>		Podocarpaceae	Least Concern	Wide national distribution but limited to perennial rivers and moist forest. This study site is too dry	LOW	NO	Foden, W. & Potter, L. 2005. <i>Podocarpus latifolius</i> (Thunb.) R.Br. ex Mirb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25

7	<i>Prunus</i>	<i>africana</i>		Rosaceae	Vulnerable A4acd; C1+2a(i)	Wide national distribution across many vegetation types but limited to moist and coastal forests, this site is too dry.	LOW	NO	Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2008. <i>Prunus africana</i> (Hook.f.) Kalkman. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/2
8	<i>Sideroxylon</i>	<i>inerme</i>	<i>inerme</i>	Sapotaceae	Least Concern	Wide coastal distribution from N of Cape across the east coast into Mozambique	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Sideroxylon inerme</i> L. subsp. <i>inerme</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25

The same argument could be made for the stapeliad species. We only found a single species²³ (*Huernia thuretii*)²⁴, which was last assessed in 2005. *Euphorbia micracantha*²⁵ was almost exclusively seen in the protective environment of rocks and cracks. Similarly, *E. tridentata* was also situated in and around rocks, in dense grass tufts or under nurse plants (e.g. *Lycium* spp). *E. tridentata* is exceptionally sensitive to disturbance and the populations will have suffered with sustained high density grazing due to hoof action.

A number of plant species protected under the provincial legislation are located on the properties (e.g. *Tritonia strictifolia* and *Mestoklema tuberosum*). When assessing the previous fieldwork in terms of plant species, there appears to be a low level of overlap in terms of species listed (especially when it comes to the SSC). The Savannah Environmental (2010) report only list one species (*Encephalartos lehmanii*, the Karoo cycad). Many of the species (including SSC) listed in previous studies were not sighted (e.g. *Euphorbia globosa*).

A major key challenge for all but those at the murky frontlines of deep taxonomy, is to reconcile the outdated legislation for protected species (The Eastern Cape Provincial Ordinance of 1974), and the current taxonomy. It has led to some confusion in previous reports. The approach of providing blanket protection at the **plant family** level, makes it difficult to be compliant to the full extent of the law. A good example is the registration of Asclepiadaceae as “Protected”. When the taxonomist decided to move/change/rename the entire family to Apocyanaceae it becomes tricky to differentiate which species are now protected unless it was purely a family name change (which is often less likely). This implies back-tracking and sorted out the old-Asclepiadaceae from the old-Apocyanaceae.

To complicate matters further, a plant family could have a number of guilds all of which do not need formal protection. The Asclepiadaceae again provide a good example. While a significant portion of the genera and species in Apocyanaceae warrant formal protection (e.g. *Hoodia* spp.), others are close to weedy (e.g. *Cynachum*²⁶ spp.). The other problem family is Mesembranthemaceae which is now Aizoaceae.

Although the Iridaceae, Orchidaceae and Amaryllidaceae have not “moved” taxonomically, they have a large number of genera and species that could potentially occur in the development footprints. These will be discussed in detail in the Walkthrough Report for Msenge.

Table 2.2 is a list of SSC identified on, or adjacent to, the properties surveyed by this team during 2022. **Figure 2.8** shows examples of several SSC in the WEF footprint. It should be kept in mind that many of the species list as either sighted or could potentially occur in the previous studies warrant closer scrutiny for probability of occurring in the development zone. Other species such as *Euphorbia gorgonis* have not been assessed nationally and the precautionary principle should apply. These are sought after for the illegal plant trade and should be treated as a Species of Special Concern.

²³ *Stapelia grandiflora* was located on the adjacent Iziduli WEF

²⁴ Conservation status – Least Concern

²⁵ Conservation status – not listed on the SANBI (South African National Biodiversity Institute) database but Least Concern according to Möller & Becker (2019)

²⁶ *C. meyeri* and *C. zeyheri* are both listed as Vulnerable.



Figure 2.8. Examples of SSC in the WEF footprint

Table 2.2. Plant Species of Special Concern identified on or adjacent to the properties during the 2022 field visits.

No	Genus	species	Family	Provincial Conservation Status	Current Threat Status SANBI	Comment
1	<i>Aloe</i>	<i>maculata</i>	Asphodelaceae	Protected	Least Concern	
2	<i>Aloe</i>	<i>striata</i>	Asphodelaceae	Protected	Least Concern	
3	<i>Aloiiampelos</i>	<i>tenuior</i>	Asphodelaceae	Protected	Least Concern	
4	<i>Anacampseros</i>	<i>arachnoides</i>	Anacampserotaceae	Protected	Least Concern	
5	<i>Boophane</i>	<i>disticha</i>	Amaryllidaceae	Protected	Least Concern	
6	<i>Chasmatophyllum</i>	<i>musculinum</i>	Aizoaceae	Protected	Least Concern	
7	<i>Diascia</i>	<i>cuneata</i>	Scrophulariaceae	Protected	Least Concern	
8	<i>Duvalia</i>	<i>caespitosa</i>	Apocyanaceae	Protected	Least Concern	
9	<i>Duvalia</i>	<i>modesta</i>	Apocyanaceae	Protected	Least Concern	

No	Genus	species	Family	Provincial Conservation Status	Current Threat Status SANBI	Comment
10	<i>Euphorbia</i>	<i>meliformis</i>	Euphorbiaceae	Protected	Near Threatened. Protected under NEMBA (2007).	
11	<i>Faucaria</i>	<i>tuberculosa</i>	Aizoaceae	Protected	Least Concern	T. Dold believes the populations to be much more in danger and would classify them as Vulnerable
12	<i>Huernii</i>	<i>thurettii</i>	Apocyanaceae	Protected	Least Concern	
13	<i>Mestoklema</i>	<i>albanicum</i>	Aizoaceae	Protected	Near Threatened	
14	<i>Mestoklema</i>	<i>tuberosum</i>	Aizoaceae	Protected	Least Concern	
15	<i>Radamanthus</i>	<i>New species</i>	Hyacinthaceae		Not Determined	
16	<i>Rushcia</i>	<i>britteniae</i>	Aizoaceae	Protected	Least Concern	Being an undescribed species, T. Dold recommends Data Deficient
17	<i>Rushcia</i>	<i>cradockensis</i>	Aizoaceae	Protected	Least Concern	
18	<i>Stapelia</i>	<i>grandiflora</i>	Apocynaceae	Protected	Least Concern	
19	<i>Syringodea</i>	<i>bifucata</i>	Iridiaceae	Protected	Least Concern	
20	<i>Trichodiadema</i>	<i>introrsum</i>	Aizoaceae	Protected	Data Deficient	
21	<i>Trichodiadema</i>	<i>pomeridianum</i>	Aizoaceae	Protected	Least Concern	
22	<i>Trichodiadema</i>	<i>sp1.</i>	Aizoaceae	Protected		
23	<i>Tritonia</i>	<i>securigera</i>	Iridaceae	Protected	Least Concern	

The critical key message is that there are no species that are of Special Concern²⁷ that could not be relocated to a suitable site during the Search and Rescue Phase and hence there is no infrastructure that cannot proceed.

We would advocate that a number of species not currently listed as Species of SSC, that we found in field, also be included in search and rescue effort. The species are 1) highly susceptible to trampling from livestock and game, 2) have slow recruitment and limited dispersal capabilities, 3) popular in the illegal plant collectors trade, 4) national threat status is very outdated in many cases. *F. tuberculosa* and *H. thurettii*, are listed in the Table above. Key species such as *Euphorbia gorgonis* and *Euphorbia micracantha* have not yet been evaluated for conservation status.

Similarly, there will be species not listed as threatened or SSC, found by previous studies that we would advocate be included in a search and rescue programme.

Due to seasonality and the low probability of finding cryptic species during short field visits, the most prudent approach is to compile a composite list of all SSC encountered during all field visits, plus an inclusion of those species that are deemed highly likely to occur in the study area. For e.g. *Ceropegia linearis*, *Brachystelma huttonae*, *Ophiosnella arcuata* and *Ornithogalum nannoides* are all highly likely to occur in the study area, but have not yet been recorded (see **Table 2.3**).

²⁷ This would exclude *Sideroxylon inerme*.

Table 2.3. Species of Special Concern recorded in the Msenge-Iziduli field study sites from 2010 to 2022.

No	Genus	Species	Sub-species / Variation	RRRG (2022)	The Biodiversity Company (2020)	Scherman ²⁸ Colloty (2017)	Nkurenkuru (2018)	Hoare (2010) ²⁹	Savannah Environmental (2014)	Comment
1	<i>Aloe</i>	<i>humilis</i>							X	
2	<i>Aloe</i>	<i>maculata</i>		X					X	
3	<i>Aloe</i>	<i>striata</i>		X	X	X			X	
4	<i>Aloiampelos</i>	<i>tenuior</i>		X					X	
5	<i>Aloe</i>	<i>ferox</i>							X	Savannah report lists the species as protected by CITIES, and the 2013 NEMBA regulations
6	<i>Aloe</i>	<i>pluridens</i>								
7	<i>Ammocharis</i>	<i>coranica</i>		X					X	
8	<i>Anacampseros</i>	<i>arachnoides</i>		X			X		X	
9	<i>Berberanthus</i>	<i>addoensis</i>					X			
10	<i>Berberanthus</i>	<i>sp.</i>							X	
11	<i>Boophane</i>	<i>distichia</i>		X	X				X	
12	<i>Bulbine</i>	<i>sp.</i>							X	
13	<i>Carpobrotus</i>	<i>edulis</i>				X				
14	<i>Brachystelma</i>	<i>sp.</i>							X	
15	<i>Brunsvigia</i>	<i>radulosa</i>							X	
16	<i>Brunsvigia</i>	<i>gregaria</i>						X	X	
17	<i>Ceropegia</i>	<i>fimbriata</i>								
18	<i>Chasmatophyllum</i>	<i>musculinum</i>		X					X	
19	<i>Corycium</i>	<i>tricuspidatum</i>						X		
20	<i>Crassula</i>	<i>decidua</i>						X		
21	<i>Crinum</i>	<i>macowanii</i>						X	X	
22	<i>Delosperma</i>	<i>sp.</i>				X				
23	<i>Cyrtanthus</i>	<i>contractus</i>			X					
24	<i>Drosanthemum</i>	<i>hispidum</i>			X				X	
25	<i>Delosperma</i>	<i>adelaidensis</i>		X						
26	<i>Drimia</i>	<i>altissima</i>								Least concern and abundant (not protected provincially)

²⁸ Only three *Crassula* sp. are protected by the provincial ordinance (*C. columnaris*, *C. perfoliata*, *C. pyramidalis*)

²⁹ Hoare (2014) does not provide a list of species identified on the Msenge WEF *per se*, but an exhaustive list all plant species recorded for the study area from his previous studies, as well as a suggested list of protected tree species (National Forest Act) that are likely to occur. These will be assessed in detail in the Basic Assessment Report.

No	Genus	Species	Sub-species / Variation	RRRG (2022)	The Biodiversity Company (2020)	Scherman ²⁸ Colloty (2017)	Nkurenkuru (2018)	Hoare (2010) ²⁹	Savannah Environmental (2014)	Comment
27	<i>Diascia</i>	<i>cuneata</i>		X						Listed as Least Concern (Williams et al. 2016)
28	<i>Duvalia</i>	<i>caespitosa</i>		X						Less than 5 remaining populations, Uitenhage to Port Elizabeth, 20km from the coast (Moller & Becker 2019).
29	<i>Duvalia</i>	<i>sp.</i>			X					
30	<i>Duvalia</i>	<i>modesta</i>		X					X	Mistaken for <i>E. tridentata</i> .
31	<i>Encephalartos</i>	<i>lehmannii</i>						X		
32	<i>Euphorbia</i>	<i>globosa</i>			X					
33	<i>Euphorbia</i>	<i>gatbergensis</i>							X	Mistaken for <i>E. gorgonis</i> .
34	<i>Euphorbia</i>	<i>mauritanica</i>							X	Not protected with the Provincial Ordinance
35	<i>Euphorbia</i>	<i>gorgonis</i>		X						
36	<i>Euphorbia</i>	<i>meloformis</i>		X	X		X	X	X	
37	<i>Euphorbia</i>	<i>micrantha</i>		X			X		X ³⁰	
38	<i>Euphorbia</i>	<i>stellata</i>		X						
39	<i>Faucaria</i>	<i>tuberculosa</i>		X			X		X	
40	<i>Gasteria</i>	<i>sp.</i>							X	Only <i>Gasteria beckeri</i> is protected
41	<i>Glotiophyllum</i>	<i>longum</i>		X						
42	<i>Gomphocarpus</i>	<i>physocarpus</i>			X					
43	<i>Haemanthus</i>	<i>montanus</i>							X	
44	<i>Haemanthus</i>	<i>albiflos</i>		X	X ³¹					
45	<i>Haworthia</i>	<i>bolusii</i>							X	
46	<i>Hereroa</i>	<i>granulata</i>		X						
47	<i>Hermannia</i>	<i>violacea</i>						X		Listed as Rare, EC endemic and a narrow range
48	<i>Holothrix</i>	<i>sp.</i>			X					

³⁰ Listed as *E. micrantha*.

³¹ Only listed as *Haemanthus* sp. but most likely *H. albiflos*.

No	Genus	Species	Sub-species / Variation	RRRG (2022)	The Biodiversity Company (2020)	Scherman ²⁸ Colloty (2017)	Nkurenkuru (2018)	Hoare (2010) ²⁹	Savannah Environmental (2014)	Comment
49	<i>Holothrix</i>	<i>macowaniana</i>						X		
50	<i>Huernia</i>	<i>brevirostris</i>			X		X			
51	<i>Huernia</i>	<i>kennedyana</i>						X		
52	<i>Huernia</i>	<i>thuretii</i>		X						
53	<i>Mestoklema</i>	<i>sp.</i>							X	
54	<i>Mestoklema</i>	<i>albanucum</i>		X						
55	<i>Mestoklema</i>	<i>tuberosum</i>		X						
56	<i>Moraea</i>	<i>sp.</i>			X				X	
57	<i>Nerine</i>	<i>huttonae</i>						X		
58	<i>Orbea</i>	<i>sp.</i>							X	
59	<i>Pachycarpus</i>	<i>Cf.</i>							X	
60	<i>Pachypodium</i>	<i>succulentum</i>		X			X		X	
61	<i>Pelargonium</i>	<i>sidoides</i> ³²			X		X		X ³³	Listed as Least Concern (De Castro et al. 2005)
62	<i>Radamanthus</i>	<i>sp.</i>		X						
63	<i>Ruschia</i>	<i>sp.</i>			X				X	
64	<i>Ruschia</i>	<i>brittainae</i>		X						
65	<i>Ruschia</i>	<i>cradockensis</i>		X						
66	<i>Scadoxus</i>	<i>puniceus</i>							X	
67	<i>Sideroxlon</i>	<i>inerme</i>	<i>inerme</i>			X				
68	<i>Stapelia</i>	<i>grandiflora</i>		X						
69	<i>Syringodea</i>	<i>bifucata</i>		X						
70	<i>Trichodiadema</i>	<i>introrosum</i>		X						
71	<i>Trichodiadema</i>	<i>sp.</i>							X	
72	<i>Trichodiadema</i>	<i>orientalis</i>					X			
73	<i>Trichodiadema</i>	<i>pormeridianum</i>		X						
74	<i>Tritonia</i>	<i>laxifolia</i>							X	
75	<i>Tritonia</i>	<i>securigera</i>		X						

³²Although listed in numerous reports as Protected – the species is Declining but has not other threat status.

³³ Savanna 2014 Environmental report suggests *P. sidoides* to be Protected in the NEMBA 2013 revised regulations.

Alien Invaders and Declared Weeds

The number of declared Alien Invader Plants is limited (*Opuntia ficus-indica*, *Opuntia aurantiaca*, *Opuntia megapotamica*), but their distributions are widespread and a significant threat to biodiversity and the rural economy. All *Opuntia* spp. found on the properties are listed as Category 1 according to the CARA regulations and mandatory removal is legally required.

Bush encroachment by *Vachellia karoo* is prominent on some properties and will require special attention. Overgrazing and over-browsing on some properties has led to excessive invasion by the karroid shrubs (**Figure 2.9**).



Figure 2.9. Rangeland invaded from overgrazing and over-browsing by *Ruschia* sp.

2.1.4. Conclusion

- The team concurs with TBC's ecological assessment that a green energy development on this property is ecologically much less detrimental than heavy and sustained livestock – provided that a proper and sustainable livestock management plan is implemented with veld condition assessments conducted every five years by a professional rangeland ecologist.
- Given the fact that the properties do have SSC, this can be turned to an advantage and would help the properties in the motivation for a Protected Environment (according to the National Environmental Management Biodiversity Act (NEMBA) regulations). It would also be prudent with the rising likelihood of land expropriation for the land reform agenda.
- The natural rangelands should be allowed to rest for a number of decades to allow for the regeneration of the seedbank and for a healthy vegetation cover to return with higher plant diversity (including all the Poaceae/grasses).
- Given sufficient rest, biomass accumulation will require an eco-friendly fire management plan, mimicking natural fire frequency regimes.
- Excessive grazing and browsing on this property have seriously impacted many of the thicket bushclumps on the ecotone between the Bedford Dry Grassland and the Double Drift Karroid Thicket.

Ideally these would need to be rehabilitated, but at the very least they should be monitored to see if there is natural recovery. The bushclumps are key elements for a natural functioning system.

- An additional recommendation is to reduce the size of buffer zones (designed in conjunction with the road and civil engineers). The reduced buffer zone should be conservative to make the search and rescue work feasible given the number of threatened and protected species which would require relocation. When the buffer zones have been designated, SSC that are transplantable (almost exclusively succulents) will need to be removed and planted in suitable habitats.
- The cactus infestations (but primarily the *O. aurantiaca* and *O. megapotamica*) require urgent intervention to reduce clearing costs which will escalate at an alarming rate.
- Wherever possible, roads and turbines should avoid bushclumps and rocky outcrops. In many cases the use of the existing tracks (close by) will save a 3m width of biodiversity along all the areas where old roads are proposed for use.
- Where footprints cannot be moved, all threatened or rare SSC³⁴ need to be spatially identified and relocated (e.g. *E. meloformis*). There may be a need for demarcated areas (red-taped) to prevent vehicle traffic and storage of materials. This would be key for the area identified for the substation.
- The disturbance footprint for the roadworks and infrastructure needs to be taken into account. For example, the impact of roadwork activity would be significantly reduced if it were a linear activity, and not a spiderweb over the terrain.
- The large number of SSC protected by provincial legislation will require the correct permits.

³⁴ A large number of the provincially protected species are not needing relocating due to their local abundance, lack of rarity or endemism, but will technically require permits for clearing.

2.2. Terrestrial fauna

2.2.1. Introduction

This Msenge Wind Farm has been the focus of several previous studies (Hoare, 2010, Nkurenkuru 2018, The Biodiversity Company (TBC) 2020), which were undertaken to elucidate the effect that the proposed infrastructure would have on the biotic and abiotic elements of the natural environment. This report, which focusses on the terrestrial fauna (mammals, herpetofauna, scorpions) seeks to determine the overall impact of the proposed infrastructure using previous reports and newly acquired field data.

At a glance, the majority of the proposed infrastructure has been placed within Bedford Dry Grassland, with sections of the peripheral infrastructure planned for Double Drift Karoo Thicket (SANBI 2018) (**Figure 1.1**). This is important to note as grassland, especially within the proposed area, is characterised as being a more homogeneous environment that supports lower densities and diversities of biodiversity. Evidence of this can be seen in DEDEAT's classification of the study site as an 'Other Natural Area', or 'ONA' (ECBCP, 2019). This means that under the current ECBCP Plan, the site has not been considered a priority area. Irrespective of this, the area still supports biodiversity and delivers ecosystem services (ECBCP, 2019) necessitating a thorough and comprehensive review of the both the area and the literature to ensure no unnecessary damage is brought to the natural areas found within the infrastructure footprint of the proposed wind farm.

2.2.2. Methodology

The main objective of the assessment was to assess the impact that the planned construction would have on the terrestrial fauna communities found near the wind turbines, road networks, overhead lines, substations, and all other infrastructure associated with the proposed project. The methodology is characterised by two main sections, the desktop assessment, and the field survey.

The desktop assessment of the area was produced using a multiplicity of sources that include, but are not limited to citizen science platforms, virtual museum records, previous reports, and published literature. The species list's compiled in the results section showcase the species that are likely to be found in the area. Whilst comprehensive, the lists provided represent an attempt to estimate the diversity of the area. Given that our understanding of the species compositions of the area is based largely on peoples understanding of the area, it is safe to assume that some species may be missing from the list. Extra effort has thus gone into assessing the Likelihood of Occurrence (LOO) for any species of conservation concern.

The field surveys were conducted during the months of March, April, and May 2022. The area around the proposed construction site was ground-truthed by foot to determine the relative faunal diversity and density of the area. The species accounts that follow represent an attempt to validate the desktop data and ground-truthing undertaken by previous consultants. It must be noted that due to time constraints, trapping was not conducted during this project. Small and meso-fauna such as rodents, reptiles and frogs were highly likely under-estimated during the field component of this study.

2.2.3. Results

Previous Reports

Hoare 2010

This report focused very little on the terrestrial fauna and only mentioned the potential threatened species that could be found on the property. No mention was made of animals that were visually encountered during walkthroughs of the property. The following threatened terrestrial species were discussed along with their

potential likelihood of occurrence (LOO): black rhino (*Diceros bicornis bicornis*) – no LOO, white-tailed rat (*Mystromus albicaudatus*) – medium LOO, samango monkey (*Cercopithecus labiatus*) – low LOO, giant bull frog (*Pyxicephalus adspersus*) – medium LOO and southern African python (*Python natalensis*).

Nkurenkuru 2018

This report built on the findings of the previous reports by adding refinements to the proposed threatened taxa list as well as providing more refined species lists because of site visits. The site visit resulted in 14 confirmed (direct or indirect encounter) and four unconfirmed (unconfirmed indirect sightings) mammal sightings. They also added five mammals to the list based on high likelihood of occurrence in the area. Four confirmed reptile sightings were also made. In addition to adding field observations, the reports clarified the CITES (the Convention on International Trade in Endangered Species of wild Fauna and Flora) and TOPS (Threatened or Protected Species) statuses of many of the organisms that occur in the region. Lastly the following red-listed species were added to the list based on their likelihood of occurrence: black-footed cat (*Felis nigripes*) – vulnerable, spectacled dormouse (*Graphiurus ocularis*) – near threatened, and karoo padloper (*Homopus boulengeri*) – near threatened. The likelihood of occurrence was also raised for the giant bull frog and white-tailed rat.

The Biodiversity Company 2020

The report created by The Biodiversity Company was the most thorough report done thus far with the most comprehensive desktop assessment and field survey. Using the sources afforded to them, the Biodiversity Company listed 81 mammal species that could occur in the area. On a regional basis, this represented one endangered (EN), four vulnerable (VU) and six near threatened (NT) mammals (SANBI, 2016). On a global scale, this represented one endangered, two vulnerable and five near threatened mammals (IUCN, 2017). The field surveys undertaken by TBC yielded 17 mammal records with two mammals of a global conservation concern being recorded in the area (IUCN 2017). These included the Mountain Reedbuck (*EN - Redunca fulvorufula*) and Leopard (*VU - Panthera pardus*). From a reptile perspective, the TBC's desktop assessment yielded eight species. None of these were of conservation concern. Field surveys of the area recorded seven species of reptile. None of these were of conservation concern either. Additionally, the desktop assessment of the amphibian communities found in the area yielded 25 potential species. According to IUCN (2017), three of these were of conservation concern, *Anhydrophryne rattrayi* (VU), *Cacosternum thorini* (EN) and *Vandijkophrynus amatolicus* (CR). The field surveys conducted by the TBC did not yield a single frog species.

Mammals

All potential Species

The mammal list (

Table 2.4) was compiled using the MammalMap (MammalMap, 2022), the IUCN Red List Spatial Data (IUCN, 2017) and the Biodiversity Company report (TBC, 2020). It must be noted that the Biodiversity Company Report was incredibly comprehensive and thus formed a strong base upon which we built our species list of the area. All together 81 species of mammal could occur in the area.

Table 2.4. List of mammals that may be found in the project area.

Species	Common name	Global conservation status (IUCN)
<i>Amblysomus hottentotus</i>	Hottentot's Golden Mole	LC
<i>Antidorcas marsupialis</i>	Springbok	LC
<i>Aonyx capensis</i>	Cape/African Clawless Otter	NT
<i>Atilax paludinosus</i>	Marsh/Water Mongoose	LC
<i>Canis mesomelas</i>	Black-backed Jackal	LC
<i>Caracal caracal</i>	Caracal	LC
<i>Chlorocebus pygerythrus</i>	Vervet monkey	LC
<i>Crocidura cyanea</i>	Reddish-grey Musk Shrew	LC
<i>Cryptomys hottentotus</i>	African Mole-rat	LC
<i>Cynictis penicillata</i>	Yellow Mongoose	LC
<i>Dendrohyrax arboreus</i>	Southern Tree Hyrax	LC
<i>Dendromus melanotis</i>	Grey Climbing Mouse	LC
<i>Dendromus mesomelas</i>	Brants' Climbing Mouse	LC
<i>Desmodillus auricularis</i>	Cape Short-eared Gerbil	LC
<i>Eidolon helvum</i>	African Straw-coloured Fruit-bat	NT
<i>Elephantulus rupestris</i>	Western Rock Sengi	LC
<i>Felis nigripes</i>	Black-footed Cat	VU
<i>Felis silvestris</i>	African Wildcat	LC
<i>Genetta genetta</i>	Common/Small-spotted Genet	LC
<i>Genetta tigrina</i>	Cape Genet	LC
<i>Grammomys cometes</i>	Mozambique Woodland Mouse/ Mozambique Thicket Rat	LC
<i>Graphiurus murinus</i>	Woodland Dormouse	LC
<i>Graphiurus ocellaris</i>	Spectacled Dormouse	LC
<i>Herpestes ichneumon</i>	Egyptian/Large Grey Mongoose	LC
<i>Herpestes pulverulentus</i>	Cape Grey Mongoose	LC
<i>Hydrictis maculicollis</i>	Spotted-necked Otter	NT
<i>Hystrix africae australis</i>	Cape Porcupine	LC
<i>Ichneumia albicauda</i>	White-tailed Mongoose	LC
<i>Ictonyx striatus</i>	Striped Polecat/Zorilla	LC
<i>Kerivoula lanosa</i>	Lesser Woolly Bat	LC
<i>Leptailurus serval</i>	Serval	LC
<i>Lepus saxatilis</i>	Cape Scrub Hare	LC
<i>Macrosclides proboscideus</i>	Karoo Round-eared Sengi	LC
<i>Mastomys natalensis</i>	Natal Multimammate Mouse	LC
<i>Mellivora capensis</i>	Honey Badger	LC
<i>Micaelamys namaquensis</i> (Aethomys)	Namaqua rock rat	LC
<i>Mus minutoides</i>	African Pygmy Mouse	LC
<i>Mus musculus</i>	House Mouse	LC
<i>Myosorex varius</i>	Forest Shrew	LC
<i>Myotis tricolor</i>	Cape Hairy Bat	LC
<i>Mystromys albicaudatus</i>	White-tailed Rat	VU

Species	Common name	Global conservation status (IUCN)
<i>Neoromicia capensis</i>	Cape Bat	LC
<i>Neoromicia zuluensis</i>	Aloe/Zulu Pipistrelle Bat	LC
<i>Nycteris thebaica</i>	Egyptian Slit-faced/Cape Long-eared Bat	LC
<i>Oreotragus oreotragus</i>	Klipspringer	LC
<i>Orycteropus afer</i>	Aardvark	LC
<i>Otocyon megalotis</i>	Bat-eared Fox	LC
<i>Otomys irroratus</i>	Southern African Vlei Rat	LC
<i>Otomys karoensis (saundersiae)</i>	Roberts' Vlei Rat	LC
<i>Otomys unisulcatus</i>	Karoo Vlei Rat	LC
<i>Panthera pardus</i>	Leopard	VU
<i>Papio ursinus</i>	Chacma Baboon	LC
<i>Parahyaena brunnea</i>	Brown Hyena	NT
<i>Pedetes capensis</i>	Springhare	LC
<i>Pelea capreolus</i>	Grey Rhebok	NT
<i>Phacochoerus africanus</i>	Common Warthog	LC
<i>Philantomba monticola</i>	Blue Duiker	LC
<i>Poecilogale albinucha</i>	African Striped Weasel	LC
<i>Potamochoerus larvatus</i>	Bushpig	LC
<i>Procavia capensis</i>	Rock Hyrax	LC
<i>Pronolagus saundersiae</i>	Hewitt's Red Rock Hare	LC
<i>Proteles cristata</i>	Aardwolf	LC
<i>Raphicerus campestris</i>	Steenbok	LC
<i>Raphicerus melanotis</i>	Cape Grysbok	LC
<i>Rattus rattus</i>	House Rat	LC
<i>Redunca fulvorufula</i>	Mountain Reedbuck	EN
<i>Rhodomys pumilio</i>	Four-striped Grass Mouse	LC
<i>Rhinolophus capensis</i>	Cape Horseshoe Bat	LC
<i>Rhinolophus clivus</i>	Geoffroy's Horseshoe Bat	LC
<i>Rousettus aegyptiacus</i>	Egyptian Fruit Bat	LC
<i>Saccostomus campestris</i>	South African Pouched Mouse	LC
<i>Scotophilus dinganii</i>	African Yellow Bat	LC
<i>Suncus varilla</i>	Lesser Dwarf Shrew	LC
<i>Suricata suricatta</i>	Meerkat	LC
<i>Sylvicapra grimmia</i>	Common Duiker	LC
<i>Syncerus caffer</i>	African Buffalo	NT
<i>Tadarida aegyptiaca</i>	Egyptian Free-tailed Bat	LC
<i>Thryonomys swinderianus</i>	Greater Cane Rat	LC
<i>Tragelaphus oryx</i>	Common Eland	LC
<i>Tragelaphus strepsiceros</i>	Greater Kudu	LC
<i>Vulpes chama</i>	Cape Fox	LC

Species of concern

According to the most recent global assessment (IUCN, 2017) one mammal is endangered, three are vulnerable and six are near threatened. The likelihood of occurrence (LOO) for the globally threatened taxa

are as follows: *Aonyx capensis* (high LOO), *Eidolon helvum* (medium LOO), *Felis nigripes* (high LOO), *Hydriectis maculicollis* (high LOO), *Mystromys albicaudatus* (low LOO), *Panthera pardus* (high LOO), *Parahyaena brunnea* (high LOO), *Pelea capreolus* (high LOO), *Redunca fulvorufula* (high LOO) and *Syncerus caffer* (low LOO). Our predicted LOO's are largely in agreement with those of TBC (2020), apart from the assessment of *Eidolon helvum*, which was assessed as having a low LOO according to TBC (2020).

Additionally, there are two differences between the global assessments of mammals between this report and TBC (2020). Firstly, TBC (2020) assessed the white-tailed rat (*Mystromys albicaudatus*) as endangered. Using the same source (IUCN, 2017), we recovered the species as vulnerable. We believe this to be the correct assessment as the species was downgraded from EN to VU in 1996, according to Avenant et al. (2019). Secondly, the status of African buffalo has been amended and the species has been added to our list because according to IUCN SSC Antelope Specialist Group (2019), the species is considered near threatened. Due to this species' high commercial value however, it has an incredibly low LOO. Lastly, Hoare (2010) added two species of concern (black rhino (*Diceros bicornis bicornis*) and Samango monkey (*Cercopithecus labiatus*)) to his report. Both of which have been omitted from **Table 2.5** as they are not expected to occur in the area.

Table 2.5. List of mammal species of Conservation Concern that may be found in the area with their associated global and conservation statuses.

Species	Common Name	Conservation Status IUCN (2017)	Likelihood of Occurrence (LOO)	
			TBC (2020)	Scherman Environmental (2022)
<i>Aonyx capensis</i>	Cape Clawless Otter	NT	High	High
<i>Eidolon helvum</i>	African Straw-colored Fruit Bat	NT	Low	Medium
<i>Felis nigripes</i>	Black-footed Cat	VU	High	High
<i>Hydriectis maculicollis</i>	Spotted-necked Otter	NT	High	High
<i>Mystromys albicaudatus</i>	White-tailed Rat	VU	Low	Low
<i>Panthera pardus</i>	Leopard	VU	High	High
<i>Parahyaena brunnea</i>	Brown Hyaena	NT	High	High
<i>Pelea capreolus</i>	Grey Rhebok	NT	High	High
<i>Redunca fulvorufula</i>	Mountain Reedbuck	EN	High	High
<i>Syncerus caffer</i>	African Buffalo	NT	Low	Low

Field Survey Results

Seventeen species of mammal were recorded in the project area during the survey; see **Table 2.6**. These observations were based on either direct visual encounters of live animals or by tracks and/or other signs. Only one of the species of concern was encountered. This was *Redunca fulvorufula* which is considered endangered (IUCN, 2017). Many of the species on the list are extra-limital and have been introduced to the area, and although not naturally occurring in the area have been included on the list for completeness.

Table 2.6. List of mammals encountered in the project area. Assessment Encounter denotes whether a species was encountered during this survey or on surveys undertaken by previous consultants.

Species	Common Name	Conservation Status IUCN (2017)	Assessment Encounter		
			TBC (2020)	Scherman Environmental (2022)	Nkurenkuru (2018)
<i>Aepyceros melampus</i>	Impala	LC	Yes	Yes	Yes
<i>Antidorcas marsupialis</i>	Springbok	LC	Yes	Yes	Yes
<i>Chlorocebus pygerythrus</i>	Vervet Monkey	LC	Yes	Yes	
<i>Cynictis penicillata</i>	Yellow Mongoose	LC	Yes	Yes	
<i>Damaliscus pygargus phillipsi</i>	Blesbok	LC		Yes	Yes
<i>Genetta genetta</i>	Small-spotted Genet	LC	Yes		
<i>Hystrix africae australis</i>	Cape Porcupine	LC	Yes		Yes
<i>Lepus saxatilis</i>	Scrub Hare	LC	Yes	Yes	Yes
<i>Orycteropus afer</i>	Aardvark	LC	Yes	Yes	Yes
<i>Panthera pardus</i>	Leopard	VU	Yes		
<i>Papio ursinus</i>	Chacma Baboon	LC	Yes	Yes	
<i>Pedetes capensis</i>	Springhare	LC	Yes	Yes	Yes
<i>Phacochoerus africanus</i>	Common Warthog	LC	Yes	Yes	Yes
<i>Procavia capensis</i>	Rock Hyrax	LC	Yes	Yes	
<i>Raphicerus campestris</i>	Steenbok	LC	Yes	Yes	Yes
<i>Redunca fulvorufula</i>	Mountain Reedbuck	EN	Yes	Yes	
<i>Suricata suricatta</i>	Suricate	LC	Yes	Yes	Yes
<i>Sylvicapra grimmia</i>	Common Duiker	LC	Yes		Yes
<i>Tragelaphus strepsiceros</i>	Greater Kudu	LC		Yes	Yes
<i>Kobus ellipsiprymnus</i>	Waterbuck	LC		Yes	
<i>Tragelaphus scriptus</i>	Bushbuck	LC		Yes	
<i>Cryptomys hottentotus</i>	African Mole Rat	LC			Yes
<i>Pronolagus saundersiae</i>	Red Rock Rabbit	LC			Yes
* <i>Gerbilliscus brantsii</i>	Highveld Gerbil	LC			Maybe
* <i>Mastomys natalensis</i>	Natal Multimammate Mouse	LC			Maybe
* <i>Malacothrix typica</i>	Large-eared Mouse	LC			Maybe
* <i>Desmodillus auricularis</i>	Cape Short-tailed Gerbil	LC			Maybe
		Species Count	17	17	14

*Tentative records from Nkurenkuro (2018) based on a lack of definitive evidence. They have not been included in the species count as they are not confirmed.

Recommendations

Based on the desktop assessment, all previous reports and all field sampling, the area has the potential to harbour just over 80 species of mammal, ten of which are of conservation concern globally (IUCN, 2017). While every effort should be made to protect the animals in this area, it must be noted that most of these animals will not be adversely affected by the planned infrastructure provided the mitigations, laid out in the Basic Assessment Report, are followed. This is because most of the animals of conservation concern are highly mobile and can avoid the dangers of construction given enough warning (mitigation: walkthrough to flush wildlife). Smaller mammals and fossorial mammals should also avoid harm provided they are removed from the immediate footprint of the project (mitigation: search and rescue). Additionally, much of the small and meso-mammal diversity and density are concentrated in interspersed rocky outcrops and drainage lines. Provided these areas are appropriately buffered and avoided (as per the mitigations), these animals should avoid harm. This applies directly to *Aonyx capensis* (NT) and *Hydrichtis maculicollis* (NT) that inhabit dams and drainage lines as well as *Mystromys albicaudatus*, which inhabits interspersed rocky outcrops and vegetation clumps (VU).

Reptiles

All potential Species

The reptile list (**Table 2.7**) was compiled using the application, HerpDistributionSA (Rebelo, 2021), which is an amalgamation of all the records from online repositories (ReptileMap, 2021 and iNaturalist, 2021) and physical specimen collections (Port Elizabeth Museum and McGregor Museum) collected before December 2021. All species recorded within QDS 3226CC on HerpDistributionSA were listed as potentially occurring within the study area. The list was also supplemented with species that may occur in the area based on their known distribution (Branch 1998, Marais 2004, Bates et al. 2014). Eighty species were listed for the area using the methodology listed above.

Table 2.7. List of reptiles that may be found in the project area.

Species	Common name	Conservation status (IUCN)
<i>Acontias breviceps</i>	Short-headed Legless Skink	LC
<i>Acontias gracilicauda</i>	Thin-tailed Legless Skink	LC
<i>Acontias orientalis</i>	Eastern Cape Legless Skink	LC
<i>Afroedura amatolica</i>	Amatola Flat Gecko	LC
<i>Afroedura karroica</i>	Karoo Flat Gecko	LC
<i>Afroedura tembulica*</i>	Tembu Flat Gecko	LC
<i>Afrotyphlops bibronii</i>	Bibron's Blind Snake	LC
<i>Agama aculeata</i>	Ground Agama	LC
<i>Agama atra</i>	Southern Rock Agama	LC
<i>Amplorhinus multimaculatus</i>	Many-spotted Snake	LC
<i>Aparallactus capensis</i>	Black-headed Centipede-eater	LC
<i>Bitis arietans</i>	Puff Adder	LC
<i>Boaedon capensis</i>	Brown House Snake	LC
<i>Bradypodion ventrale</i>	Southern Dwarf Chameleon	LC
<i>Causus rhombeatus</i>	Rhombic Night Adder	LC
<i>Chamaesaura aenea</i>	Coppery Grass Lizard	LC
<i>Chamaesaura anguina</i>	Cape Snake Lizard	LC

Species	Common name	Conservation status (IUCN)
<i>Chersina angulate</i>	Angulate Tortoise	LC
<i>Chondrodactylus bibronii</i>	Bibron's Gecko	LC
<i>Cordylus cordylus</i>	Cape Girdled Lizard	LC
<i>Crotaphopeltis hotamboeia</i>	Red-lipped Snake/ Red-lipped Herald	LC
<i>Dasypeltis scabra</i>	Rhombic Egg Eater	LC
<i>Dispholidus typus</i>	Boomslang	LC
<i>Duberria lutrix</i>	Common Slug Eater	LC
<i>Gerrhosaurus flavigularis</i>	Yellow-throated Plated Lizard	LC
<i>Goggia essexi</i>	Essexi Leaf-toed Gecko	LC
<i>Hemachatus haemachatus</i>	Rinkhals	LC
<i>Hemidactylus mabouia</i>	Common Tropical House Gecko	LC
<i>Homopus areolatus</i>	Parrot-beaked Tortoise/Padloper	LC
<i>Homopus boulengeri</i>	Karoo Padloper	NT
<i>Homopus femoralis</i>	Greater Padloper	LC
<i>Homoroselaps lacteus</i>	Spotted Harlequin Snake	LC
<i>Karusasaurus polyzonus</i>	Karoo Girdled Lizard	LC
<i>Lamprophis aurora</i>	Aurora Snake	LC
<i>Lamprophis fuscus</i>	Yellow-bellied House Snake	LC
<i>Lamprophis guttatus</i>	Spotted Rock Snake	LC
<i>Leptotyphlops conjunctus</i>	Cape Thread Snake	LC
<i>Leptotyphlops nigricans</i>	Black Thread Snake	LC
<i>Leptotyphlops scutifrons</i>	Peter's Thread Snake	LC
<i>Lycodonomorphus inornatus</i>	Olive Ground Snake	LC
<i>Lycodonomorphus laevisissimus</i>	Dusky-bellied Water Snake	LC
<i>Lycodonomorphus rufulus</i>	Brown Water Snake	LC
<i>Lycophidion capense</i>	Cape Wolf Snake	LC
<i>Lygodactylus capensis</i>	Common Dwarf Gecko	LC
<i>Macrelaps microlepidotus</i>	Natal Black Snake	LC
<i>Naja nivea</i>	Cape Cobra	LC
<i>Nucras lalandii</i>	Delalande's Sandveld Lizard	LC
<i>Nucras livida</i>	Karoo Sandveld Lizard	LC
<i>Nucras taeniolata</i>	Albany Sandveld Lizard	LC
<i>Pachydactylus capensis</i>	Cape Gecko	LC
<i>Pachydactylus maculatus</i>	Spotted Gecko	LC
<i>Pachydactylus mariquensis</i>	Common Banded Gecko	LC
<i>Pachydactylus oculatus</i>	Golden Spotted Gecko	LC
<i>Pedioplanis burchelli</i>	Burchell's Sand Lizard	LC
<i>Pedioplanis lineoocellata</i>	Spotted Sand Lizard	LC
<i>Pedioplanis namaquensis</i>	Namaqua Sand Lizard	LC
<i>Pelomedusa galeata</i>	South African Helmeted Terrapin	LC
<i>Philothamnus occidentalis</i>	South African Green Snake	LC
<i>Philothamnus semivariegatus</i>	Spotted Bush Snake	LC
<i>Prosymna sundevalli</i>	Sundevall's shovel-snout	LC
<i>Psammobates tentorius</i>	Tent Tortoise	LC
<i>Psammophis crucifer</i>	Cross-marked Whip Snake	LC
<i>Psammophis notostictus</i>	Karoo Sand Snake	LC

Species	Common name	Conservation status (IUCN)
<i>Psammophylax rhombeatus</i>	Spotted Skaapsteker	LC
<i>Pseudaspis cana</i>	Mole Snake	LC
<i>Pseudocordylus microlepidotus</i>	Cape Crag Lizard	LC
<i>Pseudocordylus subviridis</i>	Drakensberg Crag Lizard	LC
<i>Rhinotyphlops lalandei</i>	Delalande's Beaked Blind Snake	LC
<i>Stigmochelys pardalis</i>	Leopard Tortoise	LC
<i>Tetradactylus seps</i>	Short-legged Seps	LC
<i>Tetradactylus tetradactylus</i>	Cape Long-tailed Seps	LC
<i>Trachylepis capensis</i>	Cape Skink	LC
<i>Trachylepis homalocephala</i>	Red-sided Skink	LC
<i>Trachylepis punctatissima</i>	Speckled Rock Skink	LC
<i>Trachylepis sulcata</i>	Western Rock Skink	LC
<i>Trachylepis varia</i>	Eastern Variable Skink	LC
<i>Trachylepis variegata</i>	Variiegated Skink	LC
<i>Tropidosaura montana</i>	Common Mountain Lizard	LC
<i>Varanus albigularis</i>	Rock Monitor/White-throated Monitor	LC
<i>Varanus niloticus</i>	Nile Monitor	LC

Species of concern

Whilst TBC (2020) severely under-estimated the reptile diversity of the region, our more comprehensive desktop assessment yielded only one species of conservation concern. The only species of conservation concern that may occur in the area is the karoo padloper (*Homopus boulengeri*) which has been historically found in the adjacent Quarter Degree Cell (Rebelo, 2022). This species needs to be considered during the construction and operational phases of the planned infrastructure as they can be sensitive to habitat fragmentation and destruction given their reduced mobility when compared to more mobile taxa. The most notable omission from the category of 'conservation concern', for this report, was the southern African python (*Python natalensis*) from the Hoare (2010) report. The species has since been assessed as least concern and is very unlikely to be found in the area.

Field Survey Results

Fifteen species of reptile were recorded in the project area during the survey; see **Table 2.8**. These observations were based on either direct visual encounters of live animals or by the remains of deceased animals. Although the survey recovered substantially more reptile species than all previous reports, no species found were of conservation concern.

Table 2.8. List of reptiles encountered in the project area. Assessment Encounter denotes whether a species was encountered during this survey or on surveys undertaken by previous consultants.

Species	Common Name	Conservation Status IUCN (2017)	Assessment Encounter		
			TBC (2020)	Scherman Environmental (2022)	Nkurenkuru (2018)
<i>Agama atra</i>	Southern Rock Agama	LC	Yes	Yes	Yes
<i>Boaedon capensis</i>	Brown House Snake	LC	Yes		

Species	Common Name	Conservation Status IUCN (2017)	Assessment Encounter		
			TBC (2020)	Scherman Environmental (2022)	Nkurenkuru (2018)
<i>Cordylus cordylus</i>	Cape Girdles Lizard	LC	Yes	Yes	
<i>Chersina angulata</i>	Angulate tortoise	LC		Yes	
<i>Stigmochelys pardalis</i>	Leopard Tortoise	LC	Yes	Yes	Yes
<i>Homopus areolatus</i>	Parrot-beaked padloper	LC		Yes	
<i>Karusasaurus polyzonus</i>	Karoo Girded Lizard	LC		Yes	
<i>Leptotyphlops nigricans</i>	Black Thread Snake	LC		Yes	
<i>Nucras lalandii</i>	Delalandes' Sandveld Lizard	LC		Yes	Yes
<i>Pachydactylus maculatus</i>	Spotted Gecko	LC	Yes	Yes	
<i>Psammophis notostictus</i>	Karoo Whip Snake	LC		Yes	
<i>Psammophylax rhombeatus</i>	Spotted Skaapsteker	LC		Yes	
<i>Pedioplanis lineocellata pulchella</i>	Common sand lizard	LC	Yes	Yes	
<i>Pedioplanis burchelli</i>	Burchell's Sand Lizard	LC		Yes	
<i>Pseudocordylus microlepidotus fasciatus</i> *	Karoo Crag Lizard	LC	Yes		
<i>Trachylepis varia</i>	Variable skink	LC		Yes	
<i>Trachylepis capensis</i>	Cape skink	LC		Yes	
<i>Varanus albigularis</i>	Rock Monitor	LC			Yes
		Species Count	7	15	4

* This record is most likely erroneous as the picture associated with the record is a mis-identified Karoo girdled lizard (*Karusasaurus polyzonus*).

Recommendations

Based on the desktop assessment, all previous reports and all field sampling, the area has the potential to harbour 80 species of reptile, one of which is of conservation concern globally. While every effort should be made to protect the animals in this area, it must be noted that most of these animals will not be badly affected by the planned infrastructure provided the mitigations, laid out in the Basic Assessment Report, are followed. Unlike the mammals, which tend to be larger and more mobile, reptiles are smaller and often occupy smaller home ranges. This means that they are more at risk than mammals when it comes to the construction phase as they may not be able to escape the heavy machinery fast enough to avoid harm. This is especially true of slow-moving tortoises and rupicolous lizards and snakes that would opt rather to hide than to flee in an instance of danger. Mitigations such as search, and rescue and walkthroughs will be an integral part of preventing harm to these reptiles.

Additionally, many if not most of the reptiles found in this area are closely associated with rocky outcrops. Provided, these areas are avoided (as per the mitigations set out in the Basic Assessment Report), there should be no negative impact on a large proportion of the reptiles on the property. For grassland specialists, such as grass lizards (*Chamaesaura*), seps (seps), and whip snakes (psammophiids), a walkthrough of the proposed line will be important to flush these often-fast-moving reptiles out of the immediate area. For slower-moving, wide ranging species such as tortoises, and more specifically the near threatened karoo padloper, search and rescue will be important as it will allow the safe relocation of the animals. Lastly, it must be noted that the termite mounds that characterize the Bedford Dry Grasslands likely harbour high densities and diversities of reptile, especially in the winter months. The construction of this wind farm will thus necessitate the destruction of large densities of termite mounds. It is tantamount to the approval of this project that these termite mounds are dismantled in a controlled way, prior to construction, to ensure that any reptiles using this refugia can be relocated safely out of the construction footprint. This will be discussed at length in the Basic Assessment Report. All reptiles that inhabit the riparian zones and drainage lines should be buffered by the buffer zones imposed on these areas and thus they need not be discussed here.

Amphibians

All potential Species

The amphibian list (**Table 2.9**) was compiled using the application, HerpDistributionSA (Rebelo, 2021), which is an amalgamation of all the records from online repositories (FrogMap, 2021 and iNaturalist, 2021) and physical specimen collections (Port Elizabeth Museum and McGregor Museum) collected before December 2021. All species recorded within QDS's 3226CC were listed as potentially occurring within the study area. The desktop assessment resulted in the recovery of 27 species. Although *Anhydrophryne rattrayi* (VU), *Cacosternum thorini* (EN) and *Vandijkophrynus amatolicus* (CR) have been recorded in the QDS, they are not considered to occur in the study area. They have been listed here to remain consistent with the above methodology.

Table 2.9. List of amphibians that may be found in the project area.

Species	Common name	Global conservation status (IUCN)
<i>Amietia delalandii</i>	Delalande's River Frog	LC
<i>Amietia fuscigula</i>	Dark-throated River Frog	LC
<i>Amietia poyntoni</i>	Poynton's River Frog	LC
<i>Anhydrophryne rattrayi</i>	Hogsback Frog/ Rattray's Forest Frog	VU
<i>Breviceps pentheri</i>	Thicket Rain Frog	LC
<i>Breviceps verrucosus</i>	Plaintive Rain Frog	LC
<i>Cacosternum boettgeri</i>	Boettger's Dainty Frog	LC
<i>Cacosternum nanum</i>	Bronze Caco	LC
<i>Cacosternum thorini</i>	Hogsback Caco	EN
<i>Hyperolius marmoratus</i>	Painted Reed Frog/ Marbled Reed Frog	LC
<i>Hyperolius semidiscus</i>	Yellow-striped Reed Frog	LC
<i>Kassina senegalensis</i>	Senegal Land Frog	LC
<i>Phrynobatrachus natalensis</i>	Natal Dwarf Puddle Frog	LC
<i>Poyntonophrynus vertebralis</i>	Southern Pygmy Toad	LC
<i>Ptychadena anchietae</i>	Plain Grass Frog	LC

Species	Common name	Global conservation status (IUCN)
<i>Pyxicephalus adspersus</i>	Giant Bullfrog	LC
<i>Sclerophrys capensis</i>	Raucous Toad	LC
<i>Sclerophrys pardalis</i>	Eastern Leopard Toad	LC
<i>Semnodactylus wealii</i>	Rattling Frog	LC
<i>Strongylopus fasciatus</i>	Striped Stream Frog	LC
<i>Strongylopus grayii</i>	Clicking Stream Frog/Gray's Stream Frog	LC
<i>Tomopterna adiastrata or tandyi</i>	Confused Sand Frog	LC
<i>Tomopterna delalandii</i>	Cape Sand Frog	LC
<i>Tomopterna natalensis</i>	Natal Sand Frog	LC
<i>Vandijkophrynus amatolicus</i>	Amathole Toad	CR
<i>Vandijkophrynus gariiepensis</i>	Karoo Toad	LC
<i>Xenopus laevis</i>	African Clawed Frog	LC

Species of concern

The Biodiversity Company (2020) recovered three amphibian species of conservation concern (*Anhydrophryne rattrayi*, *Cacosternum thorini* and *Vandijkophrynus amatolicus*). Whilst all three species were recovered within the same QDS as the proposed windfarm (and have thus been include in **Table 2.9**) they are not considered to occur in the study site as they are amatola endemics that have specialised habitat requirements that are not supported by the proposed study area. We thus disagree with TBC's (2020) assignment of all three species to a low LOO. These species are not considered further in this report. Another thing to note for the area is the status of the giant bullfrog (*Pyxicephalus adspersus*) as natural populations of this species are decreasing according to the most recent IUCN assessment (IUCN, 2017). The species is however considered least concern according to the most recent assessment (IUCN, 2017).

Field Survey Results

Five amphibians were recorded in the project area during the survey; see **Table 2.10**. These observations were based on direct visual encounters. No frog species of conservation concern was encountered; all five were of least concern (LC). No amphibians were recorded by previous specialists.

Table 2.10. List of amphibians encountered in the project area. Assessment Encounter denotes whether a species was encountered during this survey or on surveys undertaken by previous consultants.

Species	Common Name	Conservation Status IUCN (2017)	Assessment Encounter		
			TBC (2020)	Scherman Environmental (2022)	Nkurenkuru (2018)
<i>Cacosternum boettgeri</i>	Boettger's caco	LC		Yes	
<i>Semnodactylus wealii</i>	Rattling frog	LC		Yes	
<i>Tomopterna tandyi</i>	Tandy's sand frog	LC		Yes	
<i>Xenopus laevis</i>	Common platanna	LC		Yes	
<i>Sclerophrys capensis</i>	Raucous Toad	LC		Yes	
		Species Count	0	5	0

Recommendations

Based on the desktop assessment, all previous reports and all field sampling, the area has the potential to harbour just over 25 species of frog, none of which are of conservation concern globally. While every effort should be made to protect the animals in this area, it must be noted that most of these animals will not be adversely affected by the planned infrastructure provided the mitigations, laid out in the Basic Assessment Report, are followed. Unlike both the mammals and the reptiles, the majority of the frogs found on the property will be restricted to drainage lines, natural wetlands, dams and the areas directly adjacent to these waterbodies. Because of this, most of the frogs found on the property will benefit from the mandatory buffers afforded to all aquatic bodies on the property. Whilst most frogs are protected within the buffers, there is still a substantial amount of amphibian biodiversity that can be found in the grasslands (i.e. *Breviceps*) and rocky outcrops (i.e., *Sclerophrys*, *Cacosternum*, *Tomopterna*). To ensure the wellbeing of these animals, the mitigatory protocols (search and rescue, habitat walkthrough, rocky outcrop avoidance) discussed above, needs to be implemented across the property.

Roads that dissect watercourses need to strictly adhere to legislation to avoid siltation and water flow issues as this will severely impact the amphibian communities that rely on these systems for sustenance and to complete their life cycles. This is similarly true of aquatic invertebrates like fairy shrimp and copepods, which rely on the sporadic inundation within the drainage lines to complete their life cycles. Both the amphibians and the aquatic macroinvertebrates that can be found in the dwindling pockets of pristine habitat across the property (because of overgrazing, soil erosion, damming and siltation) should be protected over the entire course of the project. These organisms contribute to nutrient cycling, ecosystem functioning and food web health meaning that mitigatory protocols must be strictly adhered to when on site.

Scorpions

All Potential Species

The scorpion list (**Table 2.11**) was compiled using ScorpionMap (QDS 3226CC; ScorpionMap, 2022), iNaturalist (iNaturalist, 2022) and published literature. The desktop assessment resulted in five potential species for the area.

Table 2.11. List of scorpions that may be found in the project area.

Species	Common Name	Conservation Status IUCN (2017)
<i>Ophistothalmus latimanus</i>	Sideclaw Burrowing Scorpion	N/A
<i>Hadogenes gunningi</i>	Gunning's Rock Scorpion	N/A
<i>Parabuthus planicauda</i>	Drab Thicktail Scorpion	N/A
<i>Uroplectes triangulifer</i>	Highveld Lesser-thicktail Scorpion	N/A
<i>Uroplectes formosus</i>		

Species of Concern

None of the scorpion species from the proposed area have been assessed by the IUCN.

Field Survey Results

Four species of scorpion were recorded in the project area during the survey; see **Table 2.12**. These observations were based on direct visual encounters. No scorpions were recorded by previous specialists.

Table 2.12. List of scorpions encountered in the project area. Assessment Encounter denotes whether a species was encountered during this survey or on surveys undertaken by previous consultants.

Species	Common Name	Conservation Status IUCN (2017)	Assessment Encounter		
			TBC (2020)	Scherman Environmental (2022)	Nkurenkuru (2018)
<i>Ophistothalmus latimanus</i>	Sideclaw Burrowing Scorpion	NA		Yes	
<i>Hadogenes gunningi</i>	Gunning's Rock Scorpion	NA		Yes	
<i>Parabuthus planicauda</i>	Drab Thicktail Scorpion	NA		Yes	
<i>Uroplectes triangulifer</i>	Highveld Lesser-thicktail Scorpion	NA		Yes	
		Species Count	0	4	0

Recommendations

Although no species of concern have been recorded within the study area, it must be noted that scorpion density on the property is high, especially in the rocky areas. The scorpions found here are likely contribute to ecosystem functioning and food web health, making them an integral part of the ecosystem. It is thus tantamount to the authorisation of the project that mitigations are adhered to ensure that harm is not brought to the scorpion communities within the infrastructure footprint. As most of the species are limited to the rocky outcrops it is important that these areas are avoided (mitigation: buffers around rocky outcrops) and where this is not possible, search and rescue (mitigation: walkthrough of area prior to construction) implemented to relocate scorpions out of the infrastructure footprint. The windfarm's construction and operational phases will not have a substantial negative effect on scorpion biodiversity provided the aforementioned mitigations are adhered to.

2.2.4. Conclusion

In keeping with the assertions made by the vegetation team (of this project) we provisionally concur with TBC's Ecological Assessment that a green energy development on this property is ecologically more sustainable and less destructive than sustained and heavy grazing by livestock – provided the green energy project is ethically and scientifically sound.

From a terrestrial fauna perspective, the area is dominated by widespread generalist species that do not appear to be restricted to small tracts of specialised habitat. This is especially true of the expansive homogeneous grassland that characterises most of the study area, given that much of the Msenge wind farm is found within Bedford Grassland, with only small pockets of Double Drift Karoid Thicket. It appears that animal densities are highest in the rocky outcrops and drainage lines, meaning that every effort should be made to minimize impact to these areas.

It appears that along certain areas of the line, road networks have been placed in the middle of rocky outcrops instead of along existing roads. Where possible, existing road networks should be utilised to ensure that least possible damage is being made to the environment. When it comes to sinking poles for power lines, poles should be sunk either side of rocky crops to preserve habitat for rupicolous³⁵ reptiles and mammals.

Whilst the grasslands represent a less ecologically damaging construction site when compared to the rocky outcrops and drainage lines, it must be noted that several species of herpetofauna and mammal utilise these spaces and should thus be considered during construction. A prime example are the meso-mammals such as *Suricata suricatta*, *Pedetes capensis*, *Hystrix africae australis* and *Orycteropus afer* that use the grasslands and the associated termite mounds for foraging and shelter. Reptiles and amphibians should also be considered as many if not most of the grassland adapted species utilise termite mounds for shelter.

In keeping with the recommendations of the vegetation team, it is recommended that search and rescue be implemented along the designated construction path. This applies to all road networks and turbine locations irrespective of homogeneity. This will include catching terrestrial fauna within the proposed construction zone and moving them to a suitable habitat adjacent to the construction site. An example of this would be the controlled dismantling of termite mounds as they are well known to harbour high densities of fauna in habitat poor areas (much like the overgrazed homogenous turbine locations throughout the property). This will be done in accordance with DEDEAT Operational Guideline 7 / 2003, that details the correct procedure for faunal and floral relocation.

The walkthrough of the property resulted in the direct/indirect sighting of 17 mammals, 15 reptile, five frogs and four scorpion species. The findings ratified many of the findings made by previous reports. It must however be noted that many of the mammals seen were extra-limital and were placed on the property, as opposed to occurring there naturally. The only species of conservation concern encountered during walkthroughs was the Mountain Reedbuck (*Redunca fulvorufula*), which is considered endangered regionally and internationally (SANBI, 2016; IUCN, 2017). The planned construction and operation of the infrastructure need to adhere to the mitigations highlighted here, and in the Basic Assessment Report are adhered to. If this is done it can be concluded with reasonable confidence that no terrestrial animal on the property will be unreasonably negatively affected by the construction of the Msenge windfarm.

2.3. Terrestrial sensitivity mapping and recommendations

2.3.1. National scale sensitivity

The National Protected Area Expansion Strategy (NPAES) presents a 20 year strategy for the expansion of protected areas in South Africa for improved ecosystem representation, ecological sustainability and resilience to climate change (DEA, 2016). The Msenge WEF does not fall within the NPAES (**Figure 2.10**).

³⁵ living among, inhabiting, or growing on rocks.

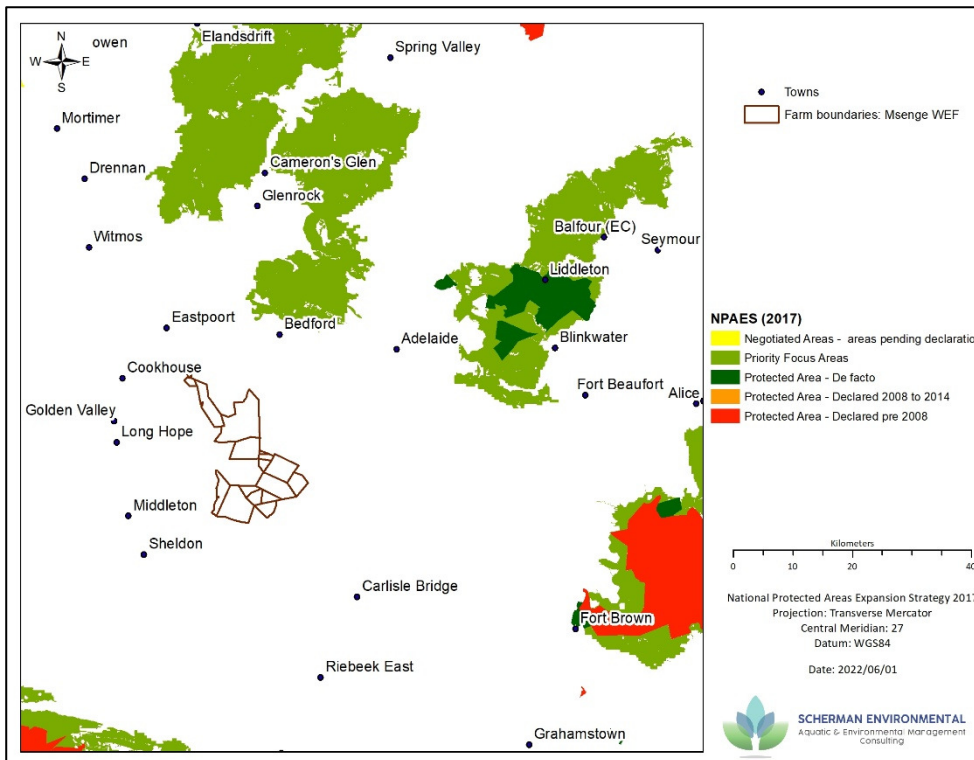


Figure 2.10. National Protected Area Expansion Strategy (2016) in relation to the Msenge WEF.

A Biodiversity Conservation Plan (BCP) is a provincial dataset that guides and informs land use and resource-use planning and decision making in order to preserve long-term functioning and health of priority areas outside of the protected areas network (ECBCP, 2019). These are known as Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs). The Msenge WEF does not fall within a CBA or ESA area (**Figure 2.11**) with the closest WTG (WTG15) located approximately 1 kilometre south west of an ESA. The Msenge WEF falls within “Other Natural Areas” which are in a natural or near natural state but have not been identified as priority areas in the current BCP (ECBCP, 2019). These areas still support biodiversity and deliver ecosystem services. Therefore, specialist’s recommendations on biodiversity rich habitats based on observations taken in the field should be taken note of.

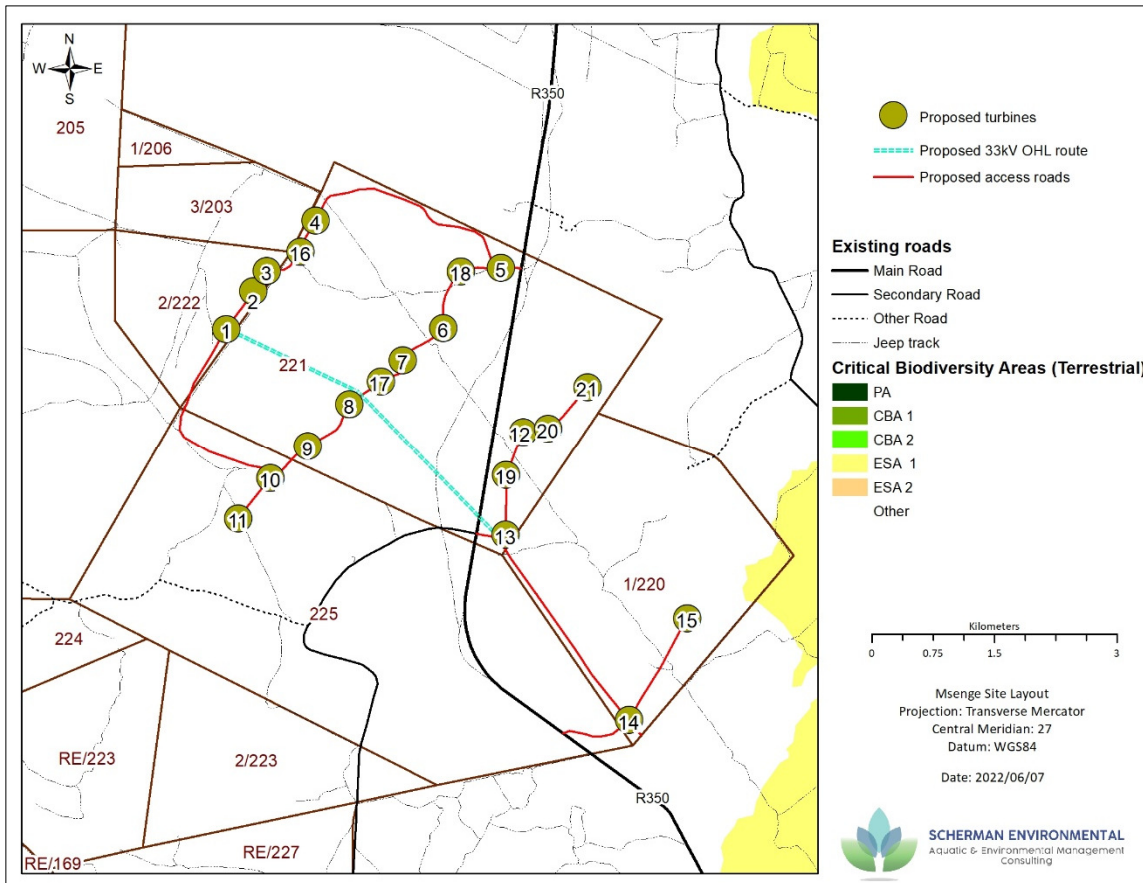


Figure 2.11. Critical Biodiversity Areas in relation to the Msenge WEF

2.3.2. Site locations and specialist recommendations

- Many of the roads appear to have been designed at the desktop level without a nuanced understanding of the micro-topography or micro-hydrology. The direct linear route between infrastructure is less desirable ecologically and could bring additional maintenance costs over the next two decades. The use of contours to minimise traversing steep slopes would decrease runoff and storm water management (likely to increase with climate change predictions), but also limit ecological impact.
- The alien invader *O. megapotamica* appears to be concentrating at the base of the existing Eskom pylons (**Figure 2.12**) and is likely to spread quickly with the increased vehicle traffic during construction. These populations are isolated and should be treated as soon as possible.
- In general, the roads are likely to have minimal impact on the ecology, but some SSC will require intensive search and rescue operations. The distribution map for the individuals of *E. meloformis* we encountered (**Figure 2.7**) clearly shows that they could occur at one of the proposed infrastructure sites. Furthermore, we located one individual for *Faucaria tuberculosa* close to WTG1. This species is regarded as **Vulnerable** (T. Dold, Albany Museum, pers. comm.) and the closest other known population is 5 km to the west.
- **Table 2.13** summarises the field ecological findings for each of the roads.

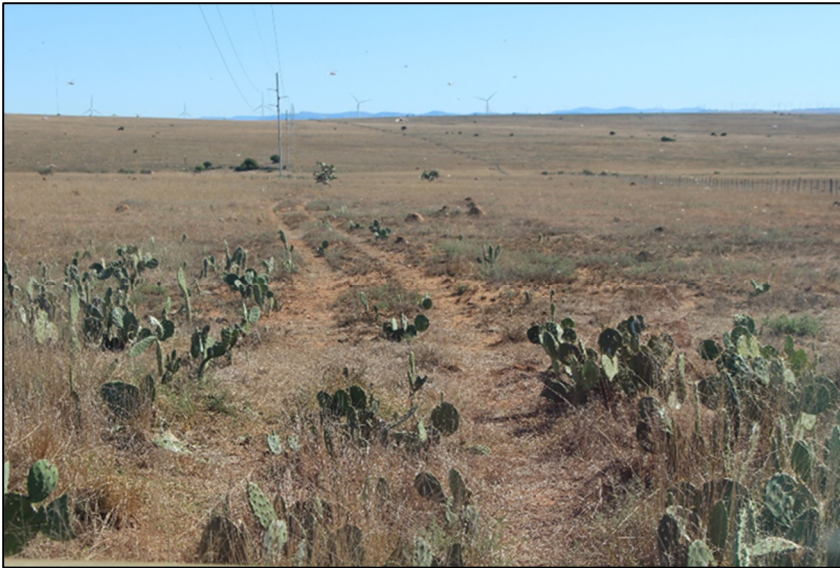


Figure 2.12. The isolated populations of the alien invader *O. megapotamica*

Table 2.13. Summary of the field ecological findings for the roads for Msenge WEF.

Road Unit	Over-grazed	Sheet erosion	High % soil cover	Low grass spp Diversity	AIPs present	Unit Location Suitable	Unit Location needs to move	Comment
WTG1 – WTG2						X		
WTG2 – WTG3						X		
WTG3 – WTG16						X		
WTG16 – WTG4						X		
WTG4 – WTG5	X				X	X		Potential to use existing track along boundary fence. River crossings need to minimise water flow impediments
WTG5 to R350						X		
WTG5 – WTG18							X	T18 should move to avoid rocky outcrops
WTG18 – WTG6						X		
WTG6 – WTG7	X						X	Avoid rocky outcrop and steep slope. See Deviation map for suggested route
WTG7 – WTG17							X	Reroute for the T7 moving
WTG17 – WTG8						X		
WTG8 – WTG9							X	Avoid rocky outcrop and tree island
WTG9 – WTG10	X		X	X	X	X		Avoid bushclumps and rocky outcrops along boundary fence between Farm 221 and 225. Avoid

Road Unit	Over-grazed	Sheet erosion	High % soil cover	Low grass spp Diversity	AIPs present	Unit Location Suitable	Unit Location needs to move	Comment
								rocky outcrop ~130m from the boundary fence of 221.
WTG10 – WTG11	X				X	X		Good location for the road
WTG1 – WTG10						X		
WTG13 to R350	X	X			X	X		Isolated bushclumps
WTG13 – WTG14	X	X	X	X	X		X	Several bushclumps, rocky outcrops and drainage lines. Recommend use a service road on Farm 225, close to R350, but avoiding bushclumps. If this is not possible due to landowner agreement issues, suggest moving the road closer to the property border
WTG14 – WTG15						X		
WTG14 to R350	X	X			X		X	Follow fence line to R350. Avoid rocky outcrops, tree islands and drainage line
WTG13 – WTG19	X	X			X	X		
WTG19 – WTG12	X		X	X	X	X		
WTG12 – WTG20						X		
WTG20 – WTG21	X	X	X		X	X		Avoid small scattered bushclumps

AIPs: Alien Invasive Plants

The vast majority of the Turbines are suitably located and the small number we recommend for relocation are short distances (~50m or less, except for WTG6). Summary findings for the turbines are shown on **Table 2.14**.

Table 2.14. Summary findings for the WTGs

Unit	Overgrazed	Sheet erosion	High % soil cover	Low grass ssp Diversity	AIPs present	Unit Location Suitable	Unit Location needs to move	Comment
T1	X		X	X		X		
T2	X		X			X		
T3						X		
T4	X			X		X		
T5	X	X	X		X	X		
T6	X	X	X		X		X	Proximity to rocky slope. Suggest move downslope 200m downslope (N) Suggested location: 32°52'46.85"S; 26° 5'27.11"E
T7	X						X	Proximity to rocky outcrop. Suggest move 120m upslope (SSW) Suggested location: 32°53'8.60"S; 26° 5'6.88"E
T8							X	Proximity to rocky outcrops and tree islands – slight move Suggested location: 32°53'20.36"S; 26° 4'41.52"E
T9						X		
T10	X				X	X		
T11					X	X		
T12	X		X			X		
T13	X	X		X	X	X		
T14							X	The turbine is too close to the radio tower and should move west by 100m. This will also avoid the SSC for that site.
T15							X	The distance from T14 could be reduced to minimise impact. Suggested location: 32°55'16.49"S; 26° 7'1.48"E
T16	X			X	X	X		
T17						X		
T18	X		X				X	Situated on a rocky site. Suggest move to the SE Suggested location: 32°52'30.20"S; 26° 5'40.94"E
T19	X	X	X		X	X		
T20	X	X	X		X	X		Avoid small bushclumps within buffer zone
T21	X	X	X	X	X	X		

AIPs: Alien Invasive Plants

- A number of carcasses of Cape Vultures and other raptors were seen at the base of existing pylons in the area.
- There either needs to be urgent mitigation into the design of the roosting structures at the top of the pylons or the feasibility of underground cables needs to be investigated.
- It is noted that a separate avifaunal walkthrough has been undertaken for the final turbine layout and that the ornithologist would presumably have recommended mitigations in this regard.
- The electrical cables also pose a significant threat to younger birds and the kill rate over a 20-25 year project period could bring significant reputational damage.
- **Table 2.15** shows the findings for the proposed OHL that join the WTGs to the proposed substation.
- The service road between WTG1 and the substation (**Figure 2.18**) needs to be microsited to minimize damage to a heritage site (stone-packed wall) as well as the biodiversity-rich rocky outcrops.

Table 2.15. Summary of the findings for the 33kV OHLs for Msenge WEF.

Unit	Over-grazed	Sheet erosion	High % soil cover	Low grass spp Diversity	AIPs present	Unit Location Suitable	Unit Location needs to move	Comment
WTG1 to Substation						X		Avoid rocky outcrops
WTG13 to Substation		X		X	X	X		High degree of bush encroachment between substation and T13 (between R350 and substation)

AIPs: Alien Invasive Plants

Areas that can proceed with no infrastructure amendments

WTG1, WTG2, WTG3, WTG4, WTG5, WTG9, WTG10, WTG11, WTG12, WTG13, WTG14, WTG16, WTG17, WTG19, WTG20, WTG21.

Areas with minor infrastructure amendments

WTG6 – The turbine is in the middle of a rather heterogeneous section characterised by rocky outcrops, multiple burrow systems and interspersed vegetation clumps and trees. It is recommended that the turbine be moved slightly away from the slope as depicted in **Figure 2.13**.

Road between WTG6 and 7 - the road connecting the turbines dissects arguably the most intact and productive rocky outcrop on the proposed build site. The area is characterised by sheer slopes and high densities of interspersed vegetation clumps. These two habitat types work synergistically to create a complex and intricate habitat for a wide variety of vertebrate taxa. The road's path needs to be amended. The suggested deviation is shown in **Figure 2.13**.

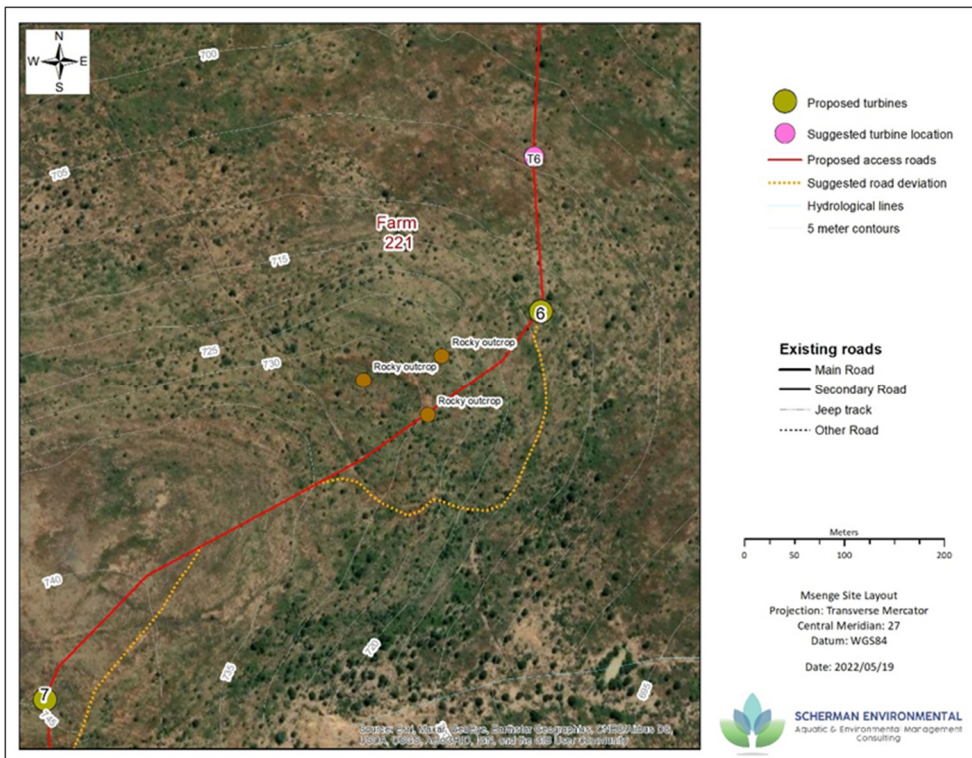


Figure 2.13. Suggested detour for the road between WTG6 to WTG7 and the suggested location for WTG6

WTG7 – The turbine is in the middle of a heterogeneous section characterised by rocky outcrops, multiple burrow systems and interspersed vegetation clumps and trees. It is recommended that the turbine be moved. The suggested location is shown in **Figure 2.14**.

Road between WTG7 and 17- The road’s path is largely homogenous but is characterised by a significant rocky outcrop crossing. The path of the road needs to be amended at this point to use the least destructive path possible. Reroute according to **Figure 2.14**.

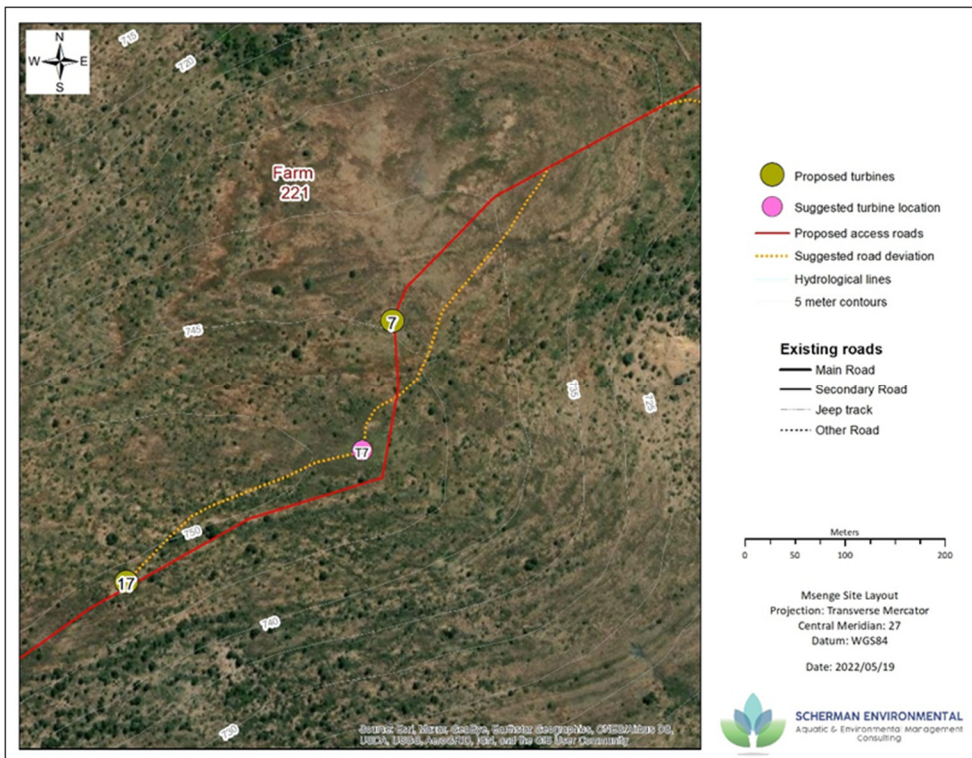


Figure 2.14. The suggested detour of the roads between WTG7 and WTG17 as well as the suggested location for WTG7

WTG8 - in the middle of a rocky outcrop, both the turbine's position and the roads path need to be amended according to the deviations shown in Figure 2.15.

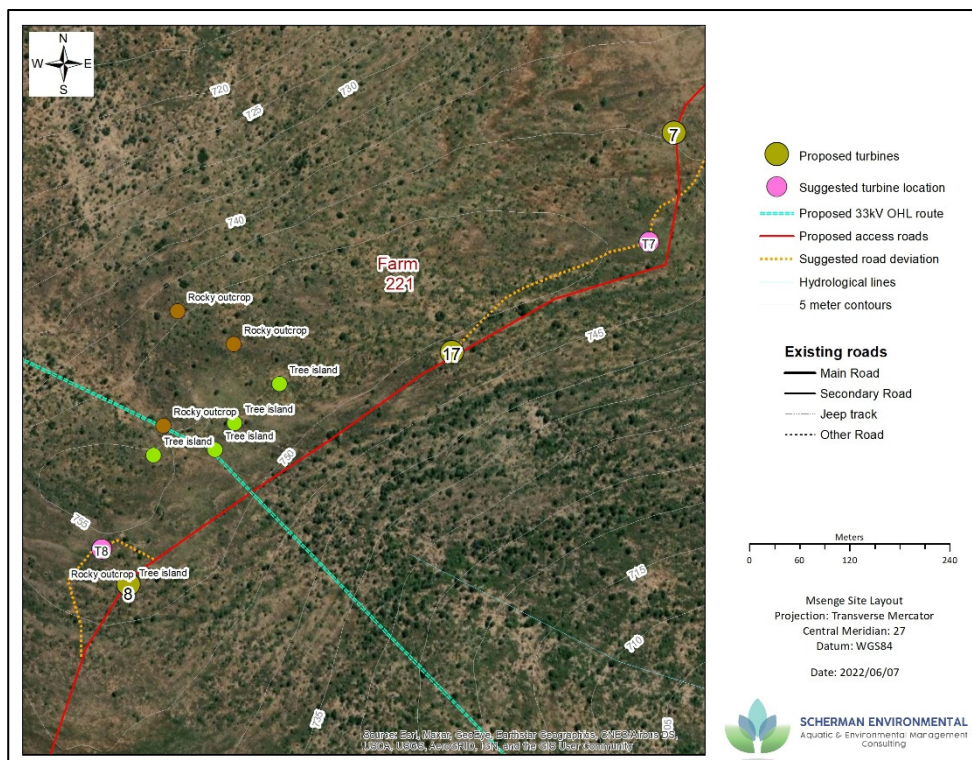


Figure 2.15. The suggested detour of the road to accommodate the relocation of WTG8

WTG14- WTG 14 is located very close to an existing tower and if micro-sighted can avoid the SSC located in the immediate vicinity of the tower.

WTG14 to the R350 – This proposed network dissects large sections of pristine habitat in the form of rocky outcrops and vegetation clumps. Whilst it is impossible to miss all the habitat, it is recommended that the roads path be amended to that path shown in **Figure 2.16**. This will reduce the length of the road and reduce the destruction of habitat by utilising the most direct path to the R350.

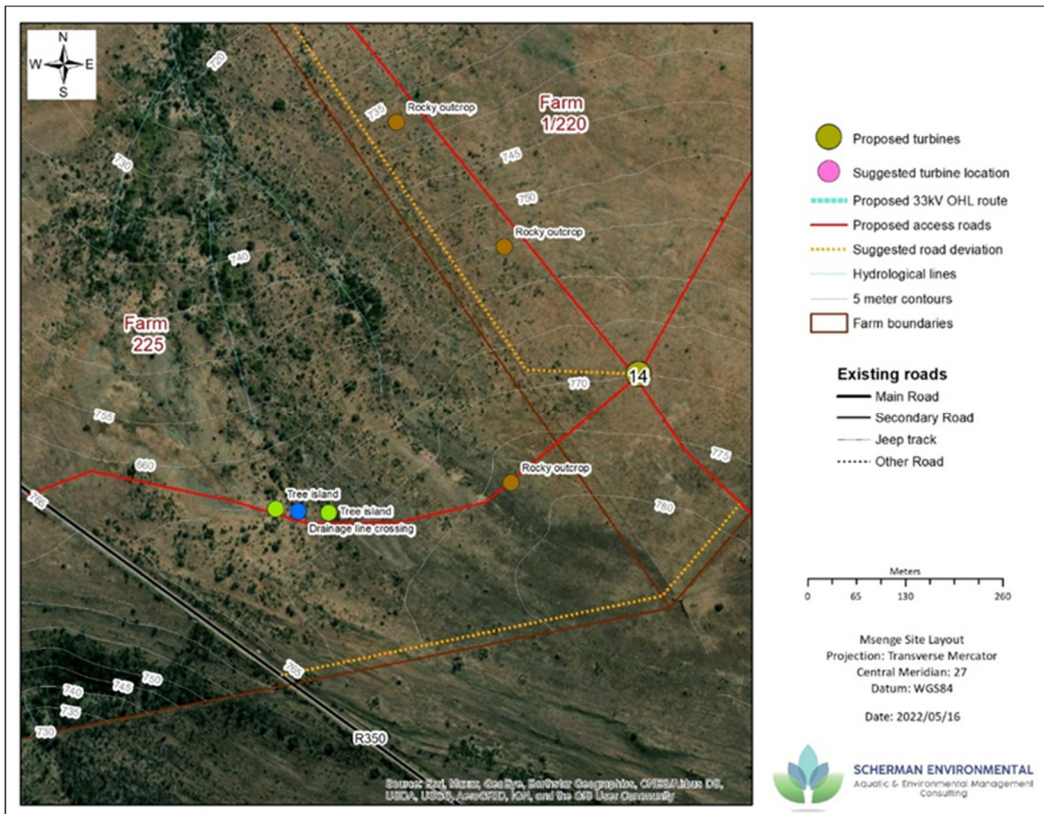


Figure 2.16. The suggested detour of the WTG14 road to the R350

WTG15 – The current placement of WTG15 necessitates the creation of an unnecessarily long piece of road to connect WTG14 and 15. Moving the turbine up the hill, closer to WTG14, not only reduces the impact on the environment but also saves resources on road construction. See **Figure 2.20** for recommended location for WTG15. This will also increase the distance away from the ESA (**Figure 2.11**).

WTG18 - The locality for this proposed turbine is largely homogenous but it does dissect the only rocky belt in the area. It is recommended that the position of the turbine be adjusted slightly (**Figure 2.17**) to avoid this habitat.

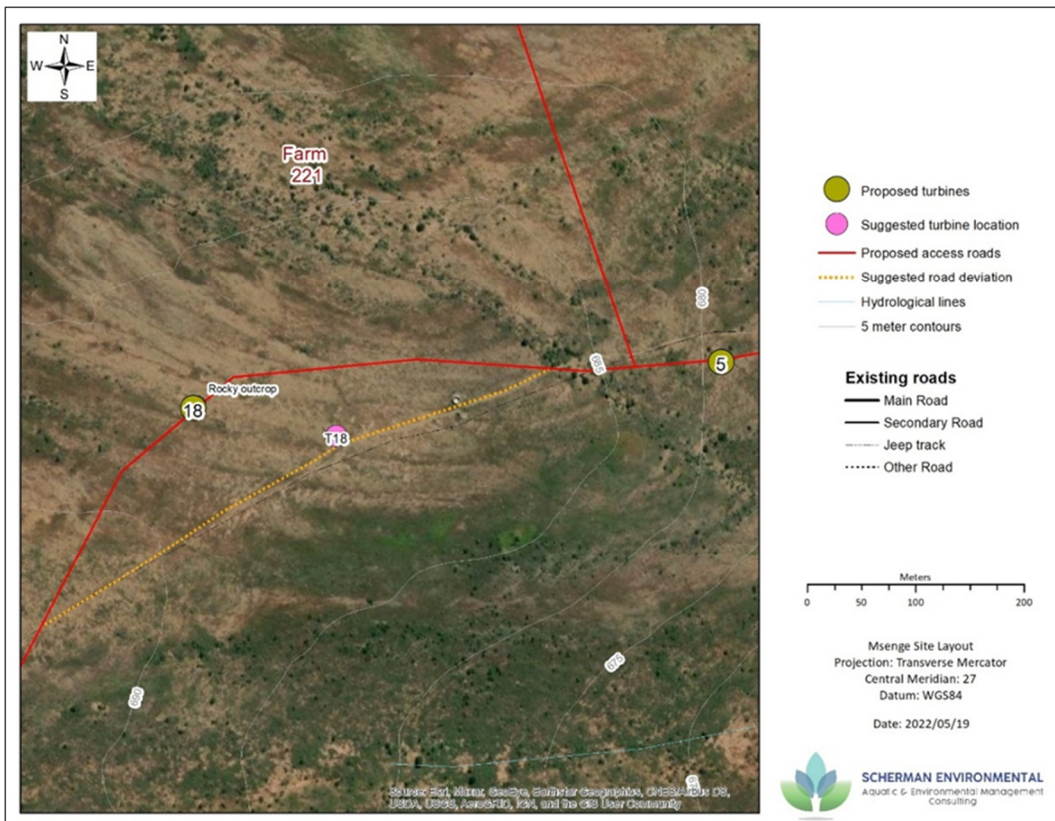


Figure 2.17. The suggested relocation of WTG18 and the associated rerouting of the road

33KV OHL (from WTG1) - The overhead line dissects a large rocky outcrop and two drainage lines. Whilst much of the landscape between the drainage lines is homogenous, the rocky outcrops adjacent to WTG1 and 8 are pristine habitats. When poles are sunk for the overhead line, they must be sunk either side of the rocky outcrop to minimize damage to the system. Additionally, if a service road is to be erected for the OHL it must run in the valley below the rocky outcrop. The alternative route is shown in **Figure 2.18**. It cannot run directly below the OHL as it will cause irreparable damage to the rocky outcrop and the associated vegetation clumps. The rocky outcrop is an especially important habitat because the surrounding areas are relatively homogenous meaning much of the wildlife will congregate there. Additionally, the two drainage lines harbour high densities of large trees and likely represent ideal sheltering spots for larger terrestrial vertebrates, when compared to the exposed grasslands that characterise the rest of the property. A road through here could be disturbing so the path of least resistance is recommended for the route through the vegetated drainage line.

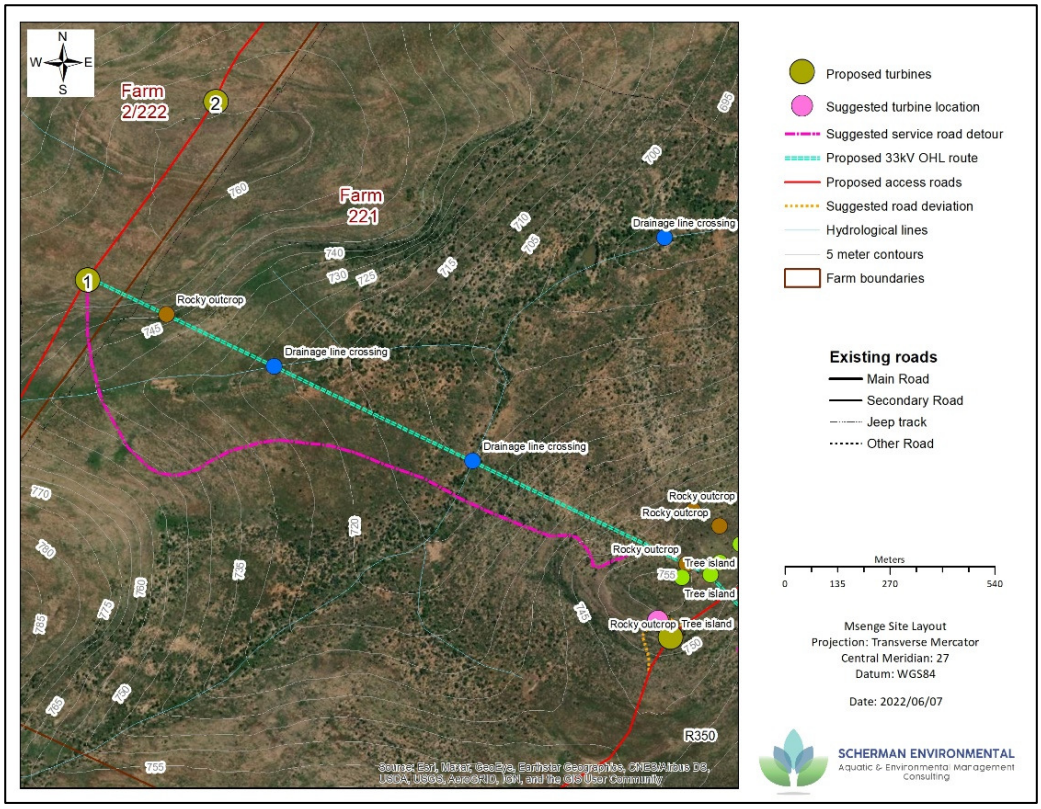


Figure 2.18. Suggested deviations for the service roads for the 33 kV OHL from WTG1

33kV OHL (from WTG13) – Similar to the above, the 33 kV OHL from WTG13 (Figure 2.19) needs to be microsited to minimize damage to the biodiversity-rich rock outcrops and drainage lines.

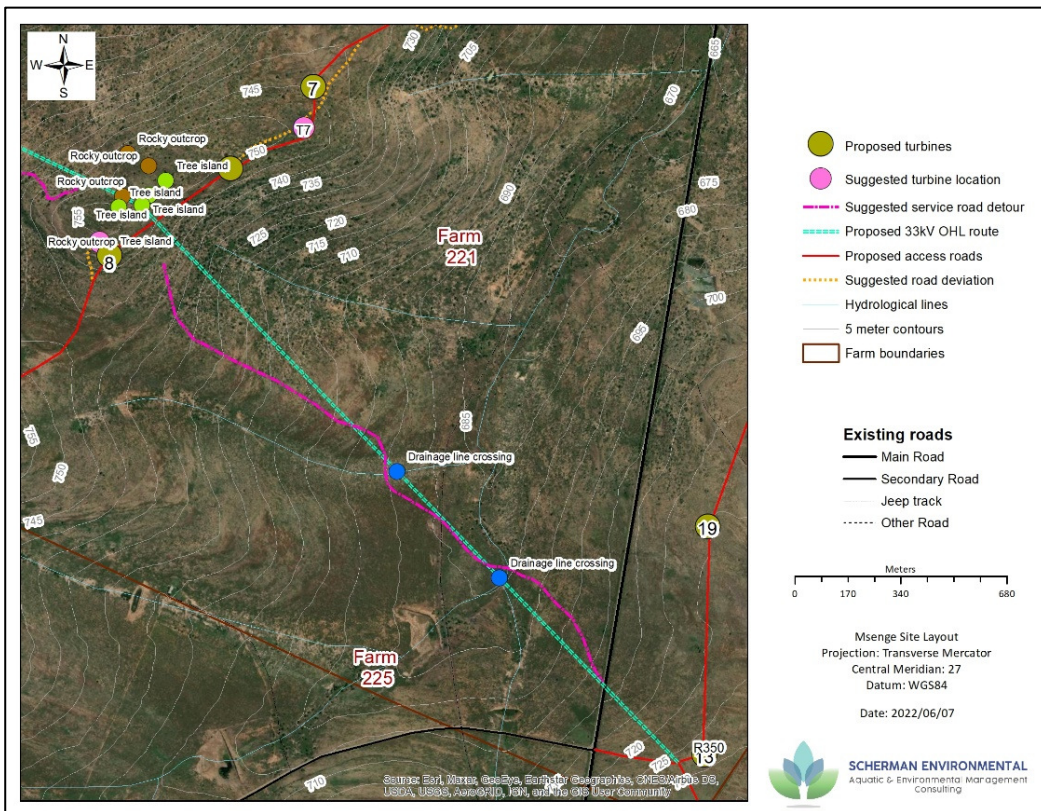


Figure 2.19. Suggested deviations for the service roads for the 33 kV OHL from WTG13

Major Infrastructure amendments

Road between WTG13 and 14 – This road dissects multiple rocky outcrops and vegetation clumps as well as three drainage lines. The slopes leading from turbine thirteen to the drainage lines and the slopes leading from the drainage lines to turbine 14 are characterised by highly heterogenous habitat structure. Sporadic searches of this area yielded higher densities and diversities of multiple terrestrial fauna, a product of the high suitability of this section when compared to other more homogenous areas found elsewhere on the property. Additionally, the drainage lines are incredibly structured with large amounts of interspersed vegetation clumps and evidence of temporary water pools at all three drainage lines. This means the area likely gets seasonal water that sustains many of the organisms in the immediate vicinity. Aquatic invertebrates and more specifically ephemeral water-body specialists will be reliant on the water that pools in the drainage line to complete their life cycles. The slope and the drainage lines are thus highly sensitive and should be avoided if possible. It is recommended that the road proposed for this section be diverted to either follow the fence line or follow the R350 (as shown in **Figure 2.20**). By following the R350 biodiversity will be preserved in the valley and in addition it will also simplify logistics for the road engineers as they would not have to build on rocky outcrops and in drainage lines where specialised road networks will have to be erected to ensure unimpeded water flow at all three drainage lines.

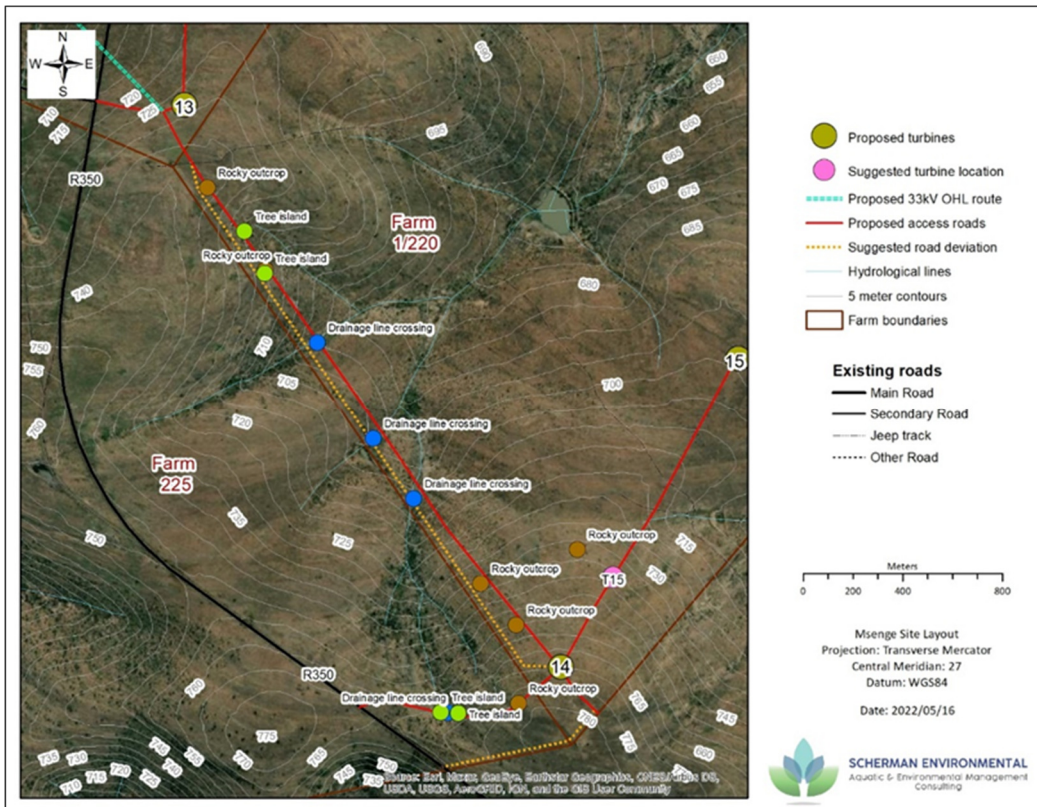


Figure 2.20. The suggested relocation of the WTG13-14 road

Areas to note

Road between WTG5 and 4 - The proposed access road connecting turbine 4 and 5 dissects a relatively homogenous area. Additionally, the road has been placed atop an existing farm road, so the area is already disturbed. One concern of the road position is the drainage line it dissects halfway between turbines 4 and 5. There was also standing water under rocky overhangs and evidence of temporary water pools throughout the drainage line. If a road is to be built, all the necessary precautions need to be taken to ensure the flow of the system is not impeded as this may be severely detrimental to a wide range of vertebrates and invertebrates.

It is likely that the temporary pools found here harbour temporary-water invertebrates that are reliant on the sporadic nature of the water to complete their life cycles.

Road between WTG13 and 21 - The road connecting the five proposed turbines dissects a relatively homogenous section of property, characterised by overgrazed grassland, low densities of termite mounds (relative to other parts of property) and few to no rocks. Whilst the road will have little impact along much of its length, the habitat structure shifts somewhat between turbines 12 and 19 as a large rocky outcrop runs perpendicular to the road. Within the rocky outcrop the habitat is more heterogenous, providing more suitable sheltering spots for all forms of terrestrial fauna. While the habitat is not highly structured when compared to other sections of the property, it is drastically more complex when compared to the rest of this line, making it a possible sync for biodiversity on the hill. Care must be taken when excavating this area and the path of least resistance needs to be taken through this section.

The recommendations for micro-siting WEF infrastructure was provided to the developer for consideration in the development of the final layout. A separate Addendum letter has been prepared by the specialist regarding the final layout and recommendations that have been implemented in micro-siting of turbines.

3. Aquatic Assessment

3.1. Introduction

The study area is dominated by undulating hills, found within the middle portions of the Great Fish River catchment in quaternary catchment Q91A draining south into the Oliewenboskloof and Riet rivers; and Q92F, draining north into the Biesiesleegte and eNyara rivers. These are located within Water Management Area (WMA) 7, i.e. the Mzimvubu to Tsitsikamma WMA. The ecological state of both systems is a C category, i.e. moderately modified.

The systems were classified as follows during the Basic Assessment (BA) undertaken in 2012 (Colloty 2013):

- Upper foothill drainage lines, with no visible channels, with limited inundation, and only contains small amounts of surface run-off during high rainfall events
- Lower foot hill streams, with visible channels, narrow riparian zones and small pools
- Farm dams, classified as man-made or artificial; primarily identified by NFEPA.
- Natural wetlands; identified by NWM5.

The aquatic specialist work was updated and redone in October 2020 by The Biodiversity Company (TBC 2020).

The purpose of the 2022 walkthrough surveys were as follows:

- Assess as wide a range of drainage features as possible in the days assigned to the survey
- Evaluate whether wetland features mapped and seen in the landscape were artificial or natural
- Provide guidance on buffer zones needed around aquatic features and the purpose of these buffers
- Provide input to the mapping specialist in terms of defining sensitive areas related to aquatic ecosystems. These sensitive areas are represented by buffers delineated around streams, drainage lines and wetlands.
- Provide an assessment of the habitat continuity or fragmentation across the study area
- Provide an opinion on the ecological state of aquatic features across the study area

3.2. Methodology

Due to the extensive spread of hydrological features in the landscape, the purpose of the aquatic assessment was to cover as much of the study area as possible and evaluate drainage features through ground-truthing, as compared to mapped features. Detailed mapping before field surveys is therefore essential. The following GE kmz files were prepared by N Huchzermeyer and provided to the aquatic specialist before the field survey was initiated.

- Topo Rivers Line from the CD: NGI (Chief Directorate: National Geo-Spatial Information) dataset 2006
- Hydrological layer of drainage lines, rivers and stream from NFEPA rivers 2010 - this only included two drainage lines; the focus was therefore on the data from CD: NGI
- National Freshwater Ecosystem Priority Areas (NFEPA) 2011 wetlands and wetland clusters (Nel et al. 2011)
- NBA (National Biodiversity Assessment) Artificial Wetlands 2018
- NBA NWM5 (National Wetland Map 5) 2018

3.3. Results and Conclusion

The final conclusions are as follows:

- Apply 100m protection buffers around drainage lines and streams due to the highly impacted nature of most aquatic drainage features seen in the landscape. There is little functioning flowing stream habitat between the instream dams evident along the majority of streams and drainage lines across the area. Farming activities have therefore had a significant impact on drainage and resulted in significant fragmentation of linear systems.
- Remove 500m buffers around artificial wetlands, but indicate them on mapping (as confirmed by Mr Wietsche Roets, Specialist Scientist, Directorate: Water Abstraction and In-stream Use, DWS)
- Include a 500m buffer around the (not exhaustive or complete) list of natural wetlands seen in the landscape
- Install appropriate drainage features during construction
- Follow the recommendations pertaining to drainage listed in Chapters 1 and 2
- Prepare Risk Assessment Matrices (RAM) as required during the water use licensing phase of the development.

3.4. Aquatic sensitivity mapping

An important aspect of sensitivity mapping is to delineate appropriate buffer zones around streams, drainage lines and wetlands or pans. Buffer zones are used in land-use planning to protect natural resources and limit the impact of one land use on another. Different types of buffers can be evaluated, e.g. aquatic impact buffer zones, or buffers for the conservation of biodiversity. Various provincial guidelines on buffers have been issued within the Eastern Cape Province, with the regulatory buffers along drainage lines and streams set at 32m (guidelines set out in the gazetted Eastern Cape Biodiversity Conservation Plan (ECBCP) – see **Table 3.1** These regulatory guidelines are set throughout the country, with a 500m regulatory zone around wetlands and pans.

Table 3.1. Recommended buffers for rivers (the predominant buffer for the study region is highlighted in blue) (ECBCP; Berliner and Desmet 2007)

River criterion used	Buffer width (m)	Rationale
Mountain streams and upper foothills of all 1:500 000 rivers	50	These longitudinal zones generally have more confined riparian zones than lower foothills and lowland rivers and are generally less threatened by agricultural practices.
Lower foothills and lowland rivers of all 1:500 000 rivers	100	These longitudinal zones generally have less confined riparian zones than mountain streams and upper foothills and are generally more threatened by development practices.
All remaining 1:500 000 streams	32	Generally smaller upland streams corresponding to mountain streams and upper foothills, smaller than those designated in the 1:500 000 rivers layer. They are assigned the riparian buffer required under South African legislation.

The 32m buffer generally used for planning along rivers, streams and drainage lines, was applied in the mapping delivered before ground-truthing was undertaken. It should however be noted that the 32m buffer width is a regulatory and planning guideline, with a wider buffer required for protection of aquatic drainage features. Due to the extensive number of instream farm dams across all the properties assessed during the site survey of 29 and 30 March 2022, resulting in highly fragmented drainage systems, it is recommended that 100m buffers be applied across the area. Although there may be instances where a requirement for a 32m buffer may be argued, it was not possible to evaluate every drainage line and a general buffer width had to be assigned.

Implementation of a 100m buffer along drainage lines, many often include large instream artificial dams, may provide some protection for severely impacted drainage systems in the study area. Should infrastructure be required within this buffer, a site-specific assessment should be conducted to consider whether the 100m “protection” buffer can be downgraded to a 32m regulatory/planning buffer. Note that water use licensing will be triggered in this instance.

Protection and regulatory buffers around wetlands and pans are set at 500m. NFEPA wetland mapping delineated this 500m buffer around all wetlands and pans, including artificial features such as dams, quarries and oxidation ponds. The preparation of NWM5 was an attempt to delineate natural wetlands across the country. Few NWM5 wetlands are mapped in the study area, with a few more identified during the site survey. The output regarding natural wetlands is not of high confidence, as it was not possible to check every delineated “wetland” in the study area. Note that 500m regulatory buffers around NFEPA wetlands were removed if an artificial structure, e.g. quarries or farm dam (Roets, DWS, pers. comm., 31 March 2022). These protective/regulatory buffers are only indicated around identified natural wetlands in the sensitivity mapping provided, although all dams and artificial features are indicted. Mapping shows the extensive spread of farm dams across the study area, severely impacting the status of drainage features, and creating highly modified drainage features across the study site. Note that reservoirs were not included in mapping; only the position of instream and off-channel dams.

Note that any activities within 500m buffers around wetlands or pans will trigger water use licensing.

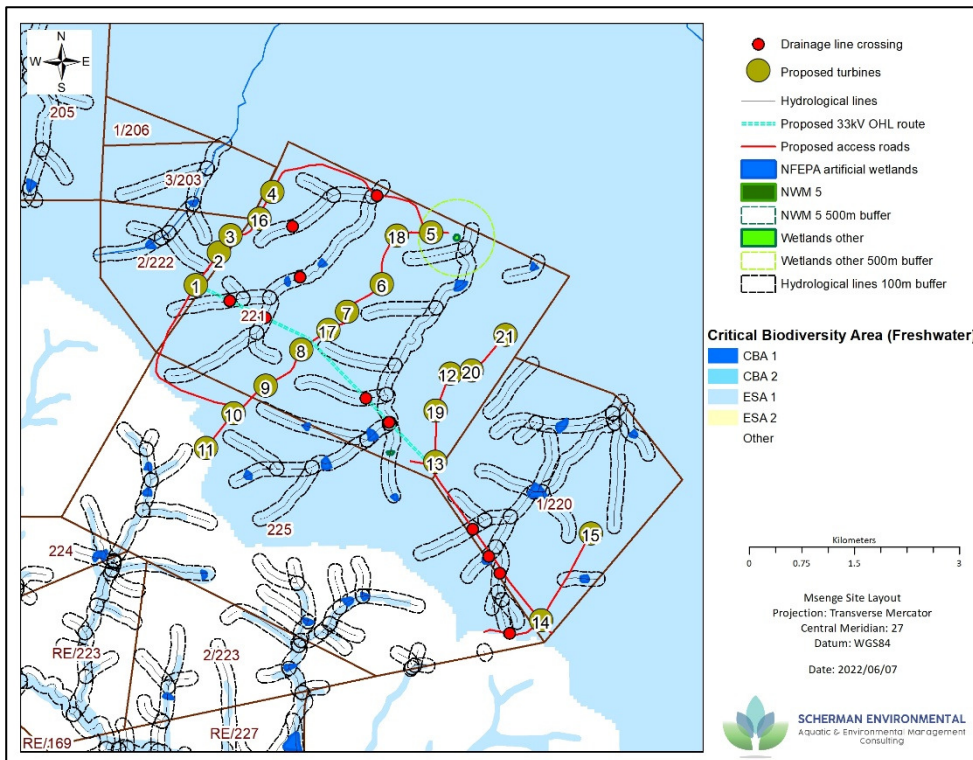


Figure 3.1. Critical Biodiversity Areas and important aquatic features and buffers within the Msenge WEF

4. Conclusions

Each section of the report has provided a concluding section. The purpose of the Walkthrough notes and report prepared is to utilize the information provided in each section of the report as input to the final layout. The final layout will then be reviewed by the specialist team. A separate Addendum letter related to the final layout has been provided further to this report.

Acknowledgements

Tony Dold of the Albany Museum in Makhanda assisted with the identification of the some of the plant species. The farm owners who kindly provided permission to access the properties.

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³⁶ The report does not have a title page and the reference used here comes from the letter-type heading as recorded.

Appendix 1: Plants list from the field surveys in 2022³⁷

No	Genus	species	Subsp/ Variation	Family	Provincial Conservation Status	Current Threat
1	<i>Aizoon</i>	<i>glinoides</i>		Aizoaceae	Protected	Least Concern
2	<i>Albuca</i>	<i>dalyae cf.</i>		Hyaninthaceae		Least Concern
3	<i>Aloe</i>	<i>ferox</i>		Asphodelaceae		Least Concern
4	<i>Aloe</i>	<i>maculata</i>		Asphodelaceae	Protected	Least Concern
5	<i>Aloe</i>	<i>striata</i>	<i>striata</i>	Asphodelaceae	Protected	Least Concern
6	<i>Aloiampelos</i>	<i>tenuior</i>		Asphodelaceae	Protected	Least Concern
7	<i>Alternanthera</i>	<i>pungens</i>		Amaranthaceae	Naturalised Weed	Not Determined
8	<i>Ammocharis</i>	<i>coranica</i>		Amaryllidaceae	Protected	Least Concern
9	<i>Anacampseros</i>	<i>arachnoides</i>		Anacampserotaceae	Protected	Least Concern
10	<i>Aptosimum</i>	<i>procumbens</i>		Scrophulariaceae		Least Concern
11	<i>Aristida</i>	<i>congesta</i>		Poaceae		Least Concern
12	<i>Artctotis</i>	<i>arctotoides</i>		Asteraceae		Least Concern
13	<i>Asparagus</i>	<i>africanus</i>		Asparagaceae		Least Concern
14	<i>Asparagus</i>	<i>sauveolens</i>		Asparagaceae		least Concern
15	<i>Asparagus</i>	<i>striatus</i>		Asparagaceae		Least Concern
16	<i>Atriplex</i>	<i>semibacatta</i>		Amaranthaceae	Naturalised Weed	Not Determined
17	<i>Azima</i>	<i>tetracantha</i>		Salvadoraceae		Least Concern
18	<i>Barleria</i>	<i>pungens</i>		Acanthaceae		Least Concern
19	<i>Berkheya</i>	<i>decurrens</i>		Asteraceae		Least Concern
20	<i>Bidens</i>	<i>pilosa</i>		Asteraceae	Naturalised Weed	Not Determined
21	<i>Boophane</i>	<i>distichia</i>		Amaryllidaceae	Protected	Least Concern
22	<i>Boscia</i>	<i>aloeoides</i>		Brassicaceae		Least Concern
23	<i>Bulbine</i>	<i>frutescens</i>		Asphodelaceae		Least Concern
24	<i>Bulbine</i>	<i>narcissifolia</i>		Asphodelaceae		Least Concern
25	<i>Cadaba</i>	<i>aphylla</i>		Brassicaceae		Least Concern
26	<i>Capparis</i>	<i>sepiaria</i>	<i>citrifolia</i>	Brassicaceae		Least Concern
27	<i>Carrisa</i>	<i>haematocarpa</i>		Apocyanaceae		Least Concern
28	<i>Chasmatophyllum</i>	<i>musculinum</i>		Aizoaceae	Protected	Least Concern
29	<i>Cheilanthes</i>	<i>viridus</i>		Pteridaceae	Least Concern	Least Concern
30	<i>Chenopodium</i>	<i>carcinatum</i>		Amaranthaceae	Naturalised Weed	Not Determined
31	<i>Chloris</i>	<i>sp.</i>		Poaceae		
32	<i>Chlorophytum</i>	<i>bowkeri cf.</i>		Agavaceae		Least Concern
33	<i>Chlorophytum</i>	<i>comosum</i>		Agavaceae		Least Concern
34	<i>Chrysochoma</i>	<i>ciliata</i>		Asteraceae		Least Concern
35	<i>Cineraria</i>	<i>lobata</i>	<i>lobata</i>	Asteraceae		Least Concern
36	<i>Cissampelos</i>	<i>capensis</i>		Menispermaceae		Least Concern
37	<i>Commelina</i>	<i>africana</i>		Commelinaceae		Least Concern
38	<i>Cotyledon</i>	<i>campanulata</i>		Crassulaceae		Least Concern
39	<i>Crassula</i>	<i>corallina</i>	<i>corallina</i>	Crassulaceae		Least Concern
40	<i>Crassula</i>	<i>ericoides</i>	<i>ericoides</i>	Crassulaceae		Least Concern
41	<i>Crassula</i>	<i>mesembryanthemoides</i>	<i>mesembryanthemoides</i>	Crassulaceae		Least Concern
42	<i>Crassula</i>	<i>obovata</i>		Crassulaceae		Least Concern
43	<i>Crassula</i>	<i>capitella</i>	<i>thryisifolia</i>	Crassulaceae		Least Concern

³⁷ This species list is a composite for Msenge WEF and iziDuli WEF due to the close proximity of their respective study sites. It is highly unlikely that species found on Msenge WEF would not be found on iziDuli and vice versa.

No	Genus	species	Subsp/ Variation	Family	Provincial Conservation Status	Current Threat
44	<i>Cucumis</i>	<i>myriocarpus</i>	<i>myriocarpus</i>	Cucurbitaceae		Least Concern
45	<i>Cuspida</i>	<i>cernua</i>	<i>cernua</i>	Asteraceae		Least Concern
46	<i>Cussonia</i>	<i>spicata</i>		Ariliaceae		Least Concern
47	<i>Cymbopogon sp</i>	<i>sp.</i>		Poaceae		
48	<i>Cynotis</i>	<i>speciosa</i>		Commelinaceae		Least Concern
49	<i>Cyperaceae</i>	<i>sp1.</i>		Cyperaceae		
50	<i>Cyphia</i>	<i>linearoides</i>		Lobeliaceae		Least Concern
51	<i>Datura</i>	<i>stramonium</i>		Solanaceae	Naturalised Weed	Not Determined
52	<i>Delosperma</i>	<i>adelaidensis</i>		Aizoaceae	Protected	Least Concern
53	<i>Dianthus</i>	<i>thunbergia</i>		Carophyllaceae		Least Concern
54	<i>Diascia</i>	<i>cuneata</i>		Scrophulariaceae	Protected	Least Concern
55	<i>Digitaria</i>			Poaceae		Least Concern
56	<i>Diospyros</i>	<i>lycoides</i>	<i>lycoides</i>	Ebenaceae		Least Concern
57	<i>Dolichos</i>	<i>hastaeformis</i>		Fabaceae		Least Concern
58	<i>Drimia</i>	<i>acrarophylla</i>		Hyaninthaceae		Least Concern
59	<i>Drimia</i>	<i>altissima</i>		Hycanthaceae		Least Concern
60	<i>Drimia</i>	<i>anomala</i>		Hyaninthaceae		Least Concern
61	<i>Drosanthemum</i>	<i>adelaidensis</i>		Apocyanaceae	Protected	Least Concern
62	<i>Duvalia</i>	<i>caespitosa</i>		Apocyanaceae	Protected	Least Concern
63	<i>Duvalia</i>	<i>modesta</i>		Apocyanaceae	Protected	Least Concern
64	<i>Ehretia</i>	<i>rigida</i>	<i>rigida</i>	Boraginaceae		Least Concern
65	<i>Eragrostis</i>	<i>capensis</i>		Poaceae		Least Concern
66	<i>Eragrostis</i>	<i>curvula</i>		Poaceae		Least Concern
67	<i>Eriocephalus</i>	<i>africanus</i>	<i>paniculatus</i>	Asteraceae		Least Concern
68	<i>Eriospermum</i>	<i>sp1.</i>		Ruscaceae		
69	<i>Eriospermum</i>	<i>sp2.</i>		Ruscaceae		
70	<i>Euclea</i>	<i>undulata</i>		Ebenaceae		Least Concern
71	<i>Euphorbia</i>	<i>gorgonis</i>		Euphorbiaceae		Not Determined
72	<i>Euphorbia</i>	<i>huttonae</i>		Euphorbiaceae		Least Concern
73	<i>Euphorbia</i>	<i>meloformis</i>		Euphorbiaceae	Protected	Vulnerable
74	<i>Euphorbia</i>	<i>micracantha</i>		Euphorbiaceae		Not Determined
75	<i>Euphorbia</i>	<i>rhombifolia</i>		Euphorbiaceae		Least Concern
76	<i>Euphorbia</i>	<i>stellata</i>		Euphorbiaceae		Least Concern
77	<i>Euphorbia</i>	<i>stolonifera</i>		Euphorbiaceae		Least Concern
78	<i>Euphorbia</i>	<i>tridentata</i>		Euphorbiaceae		Least Concern
79	<i>Euryops</i>	<i>sp1.</i>		Asteraceae		
80	<i>Euryops</i>	<i>sp2.</i>		Asteraceae		
81	<i>Exomis</i>	<i>mircophylla</i>		Amaranthanthaceae		Least Concern
82	<i>Faucaria</i>	<i>tuberculosa</i>		Aizoaceae	Protected	Least Concern
83	<i>Felicia</i>	<i>filifolia</i>		Asteraceae		Least Concern
84	<i>Felicia</i>	<i>microphylla</i>		Asteraceae		Least Concern
85	<i>Felicia</i>	<i>muricata</i>	<i>muricata</i>	Asteraceae		Least Concern
86	<i>Felicia</i>	<i>sp1.</i>		Asteraceae		
87	<i>Gasteria</i>	<i>bicolor</i>	<i>bicolor</i>	Asphodelaceae		Least Concern
88	<i>Gazania</i>	<i>krebsiana</i>		Asteraceae		Least Concern
89	<i>Glottiphyllum</i>	<i>longum</i>		Aizoaceae		Least Concern
90	<i>Gnidia</i>	<i>cuneata</i>		Thymelaeaceae		Least Concern
91	<i>Grewia</i>	<i>occidentalis</i>		Malvaceae		Least Concern

No	Genus	species	Subsp/ Variation	Family	Provincial Conservation Status	Current Threat
92	<i>Grewia</i>	<i>robusta</i>		Malvaceae		Least Concern
93	<i>Gymnosporia</i>	<i>capitata</i>		Celastraceae		Least Concern
94	<i>Gymnosporia</i>	<i>polyacantha</i>		Celastraceae		Least Concern
95	<i>Haemanthus</i>	<i>albiflos</i>		Amaryllidaceae	Protected	Least Concern
96	<i>Halocarpa</i>	<i>lyrata</i>		Asteraceae		Least Concern
97	<i>Helichrysum</i>	<i>rosum</i>	<i>arcuatum</i>	Asteraceae		Least Concern
98	<i>Helichrysum</i>	<i>rugulosum</i>		Asteraceae		Least Concern
99	<i>Heliophila</i>	<i>subulata</i> cf.		Brassicaceae		Least Concern
100	<i>Hereroa</i>	<i>granulata</i>		Aizoaceae	Protected	Least Concern
101	<i>Hermannia</i>	<i>althaeoides</i>		Malvaceae		Least Concern
102	<i>Hermannia</i>	<i>coccocarpa</i>		Malvaceae		Least Concern
103	<i>Hibiscus</i>	<i>pussilus</i>		Malvaceae		Least Concern
104	<i>Hibiscus</i>	<i>trionum</i>		Malvaceae		Least Concern
105	<i>Huernii</i>	<i>thurettii</i>		Apocyanaceae	Protected	Least Concern
106	<i>Ipomoea</i>	<i>crispa</i>		Ipomoeaceae		Least Concern
107	<i>Jamesbrittania</i>	<i>mircophylla</i>		Scrophulariaceae		Least Concern
108	<i>Kalanchoe</i>	<i>rotundifolia</i>		Crassulaceae		Least Concern
109	<i>Lasiosiphon</i>	<i>meisnerianus</i>		Thymelaeaceae		Least Concern
110	<i>Ledebouria</i>	<i>ensifolia</i>		Hyacinthaceae		Least Concern
111	<i>Ledebouria</i>	<i>fishriverensis</i>		Hyacinthaceae		Least Concern
112	<i>Ledebouria</i>	<i>revoluta</i>		Hyacinthaceae		Least Concern
113	<i>Leucas</i>	<i>capensis</i>		Lamiaceae		Least Concern
114	<i>Limeum</i>	<i>aethiopicum</i>		Molluginaceae		Least Concern
115	<i>Lithospermum</i>	<i>sp.</i>		Boraginaceae		
116	<i>Lotononis</i>	<i>laxa</i>		Fabaceae		Least Concern
117	<i>Lotononis</i>	<i>sp.</i>		Fabaceae		
118	<i>Lycium</i>	<i>africana</i>		Solanaceae		Least Concern
119	<i>Lycium</i>	<i>cinereum</i>		Solanaceae		Least Concern
120	<i>Lycium</i>	<i>oxycarpum</i>		Solanaceae		Least Concern
121	<i>Malva</i>	<i>parvifolia</i>		Malvaceae	Naturalised weed	Not Determined
122	<i>Melenis</i>	<i>repens</i>		Poaceae		Least Concern
123	<i>Mestoklema</i>	<i>albaticum</i>		Aizoaceae	Protected	Neat Threatened
124	<i>Mestoklema</i>	<i>tuberosum</i>		Aizoaceae	Protected	Least Concern
125	<i>Molobolium</i>	<i>microphyllum</i>		Fabaceae		
126	<i>Monsonia</i>	<i>angustifolia</i>		Geraniaceae		
127	<i>Monsonia</i>	<i>vandertietiae</i>		Geraniaceae		Least Concern
128	<i>Moquinella</i>	<i>rubra</i>		Loranthaceae		Least Concern
129	<i>Nemesia</i>	<i>fruiticans</i>		Scrophulariaceae		Least Concern
130	<i>Nenax</i>	<i>mircophylla</i>		Rubiaceae		Least Concern
131	<i>Ocimum</i>	<i>burchelliana</i>		Lamiaceae		
132	<i>Olea</i>	<i>europaea</i>	<i>africana</i>	Oleaceae		Least Concern
133	<i>Opuntia</i>	<i>auranriaca</i>		Cactaceae	Category 1 Invader	Not Determined
134	<i>Opuntia</i>	<i>ficus indica</i>		Cactaceae	Category 1 Invader	Not Determined
135	<i>Opuntia</i>	<i>megapotamica</i>		Cactaceae	Category 1 Invader	Not Determined
136	<i>Ornithogalum</i>	<i>longibracteum</i>		Hyaninthaceae		Least Concern
137	<i>Othonna</i>	<i>carnosa</i>		Asteraceae		Least Concern
138	<i>Oxalis</i>	<i>depressa</i>		Oxilidaceae		Least Concern
139	<i>Oxalis</i>	<i>smithiana</i>		Oxilidaceae		Least Concern

No	Genus	species	Subsp/ Variation	Family	Provincial Conservation Status	Current Threat
140	<i>Pachycarpus</i>	<i>dealbatus</i>		Apocynaceae	Protected	Least Concern
141	<i>Pappaea</i>	<i>capensis</i>		Sapindaceae		Least Concern
142	<i>Pelargononium</i>	<i>abrorantifolium</i>		Gerianaceae		Least Concern
143	<i>Pelargononium</i>	<i>alchemilloides</i>		Gerianaceae		Least Concern
144	<i>Pelargononium</i>	<i>reniforme</i>		Gerianaceae		Least Concern
145	<i>Pelargononium</i>	<i>sidoides</i>		Gerianaceae		Least Concern
146	<i>Pelargononium</i>	<i>sp2.</i>		Gerianaceae		
147	<i>Pellaea</i>	<i>sp1.</i>		Pteridiaceae		
148	<i>Pentzia</i>	<i>incana</i>		Asteraceae		Least Concern
149	<i>Plantago</i>	<i>lancelolata</i>		Plantaginaceae		Least Concern
150	<i>Plumbago</i>	<i>auriculata</i>		Plumbaginaceae		Least Concern
151	<i>Polygala</i>	<i>illepidea cf.</i>		Polygalaceae		Least Concern
152	<i>Portulacaria</i>	<i>afra</i>		Didieraceae		Least Concern
153	<i>Rhadamanthus</i>	<i>new species to be described</i>		Hyacinthaceae	Possibly rare and data deficient	Not Determined
154	<i>Rhoicissus</i>	<i>digitata</i>		Vitaceae		Least Concern
155	<i>Rhynchosia</i>	<i>caribea</i>		Fabaceae		Least Concern
156	<i>Rhynchosia</i>	<i>totta</i>	<i>totta</i>	Fabaceae		Least Concern
157	<i>Rushcia</i>	<i>britteniae</i>		Aizoaceae	Protected	Least Concern
158	<i>Rushcia</i>	<i>cradockensis</i>	<i>cradockensis</i>	Aizoaceae	Protected	Least Concern
159	<i>Salsola</i>	<i>kali</i>		Amaranthaceae	Naturalised weed	Not Determined
160	<i>Sansiviera</i>	<i>aethiopica</i>		Ruscaceae		Least Concern.
161	<i>Sansiviera</i>	<i>hyacinthoides</i>		Ruscaceae		Least Concern.
162	<i>Sarcostemma</i>	<i>viminale</i>		Apocyanaceae	Protected	Least Concern
163	<i>Schkuhria</i>	<i>pinnata</i>		Asteraceae	Naturalised weed	Not Determined
164	<i>Schotia</i>	<i>afra</i>	<i>afra</i>	Fabaceae		Least Concern
165	<i>Searsia</i>	<i>dentata</i>		Anacardiaceae		Least Concern
166	<i>Searsia</i>	<i>lancea</i>		Anacardiaceae		Least Concern
167	<i>Searsia</i>	<i>longispina</i>		Anacardiaceae		Least Concern
168	<i>Searsia</i>	<i>refracta</i>		Anacardiaceae		Least Concern
169	<i>Selago</i>	<i>geniculata</i>		Scrophulariaceae		Least Concern
170	<i>Selago</i>	<i>saxatilis</i>		Scrophulariaceae		Least Concern
171	<i>Senecio</i>	<i>inaequidens</i>		Asteraceae		Least Concern
172	<i>Senecio</i>	<i>radicans</i>		Asteraceae		Least Concern
173	<i>Setaria</i>	<i>sp.</i>		Poaceae		
174	<i>Solanum</i>	<i>aculeastrum</i>		Solanaceae		Least Concern
175	<i>Solanum</i>	<i>nigrum</i>		Solanaceae	Naturalised weed	Naturalised
176	<i>Solanum</i>	<i>sp2.</i>		Solanaceae		
177	<i>Solanum</i>	<i>tomentosum</i>		Solanaceae	Naturalised weed	Naturalised
178	<i>Sporobolus</i>	<i>africanus</i>		Poaceae		Least Concern
179	<i>Stachys</i>	<i>scabrida</i>		Lamiaceae		Least Concern
180	<i>Stapelia</i>	<i>grandiflora</i>		Apocynaceae	Protected	Least Concern
181	<i>Sutera</i>	<i>halmifolia</i>		Scrophulariaceae		
182	<i>Sutera</i>	<i>sp2.</i>		Scrophulariaceae		
183	<i>Syringodea</i>	<i>bifucata</i>		Iridiaceae	Protected	Least Concern
184	<i>Tachyandra</i>	<i>asperata</i>	<i>asperata</i>	Asphodelaceae		Least Concern
185	<i>Tachyandra</i>	<i>sp1.</i>		Asphodelaceae		
186	<i>Tagetes</i>	<i>minuta</i>		Asteraceae	Naturalised weed	Naturalised

No	Genus	species	Subsp/ Variation	Family	Provincial Conservation Status	Current Threat
187	<i>Tephrosia</i>	<i>capensis</i>		Fabaceae		Least Concern
188	<i>Themeda</i>	<i>triandra</i>		Poaceae		Least Concern
189	<i>Tribulus</i>	<i>terestrius</i>		Zygophyllaceae		Least Concern
190	<i>Trichodiadema</i>	<i>introrsum</i>		Aizoaceae		Data Deficient
191	<i>Trichodiadema</i>	<i>pomeridianum</i>		Aizoaceae	Protected	Least Concern
192	<i>Trichodiadema</i>	<i>sp1.</i>		Aizoaceae	Protected	Least Concern
193	<i>Tritonia</i>	<i>securigera</i>		Iridaceae	Protected	Least Concern
194	<i>Vachellia</i>	<i>karoo</i>		Fabaceae		Least Concern
195	<i>Verbena</i>	<i>bonariensis</i>		Verbenaceae	Naturalised weed	Naturalised
196	<i>Viscum</i>	<i>rotundifolia</i>		Santalaceae		Least Concern
197	<i>Wahlenbergia</i>	<i>juncea</i>		Campalulaceae		Least Concern
198	<i>Wahlenbergia</i>	<i>nodosa</i>		Campalulaceae		Least Concern
199	<i>Xanthium</i>	<i>spinosum</i>		Asteraceae	Naturalised weed	Naturalised

Appendix 2: Plants listed in the TBC 2020 Reports as Species of Special Concern

No	Genus	species	Subsp / Variation	TBC 2020 Threat Status	Family	Provincial Conservation Status	Current National Conservation Status	RRRG Comment	RRRG LOO	RRRG Found on site	Reference
1	<i>Agathosma</i>	<i>gonaquensis</i>		Critically Rare	Rutaceae		Critically Endangered B1ab(ii,iii,iv,v)	Localised endemic to the Gherbera metropol	NIL	NO	Trinder-Smith, T. & Raimondo, D. 2006. <i>Agathosma gonaquensis</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
2	<i>Agathosma</i>	<i>minuta</i>		Endangered	Rutaceae		Endangered B1ab(ii,iii,iv,v)	Restricted to the shale geology in Renosterveld in the Western Cape	NIL	NO	Trinder-Smith, T., Helme, N.A., Euston-Brown, D.I.W. & Raimondo, D. 2006. <i>Agathosma minuta</i> Schltld. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
3	<i>Aloe</i>	<i>micracantha</i>		Near threatened	Asphodelaceae	Protected	Near Threatened B1ab(ii,iii,iv,v)	Restricted to coastal fynbos mountains	LOW	NO	Mtshali, H. & von Staden, L. 2018. <i>Aloe micracantha</i> Haw. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
4	<i>Apodolirion</i>	<i>macowanii</i>		Vulnerable	Amaryllidaceae	Protected	Vulnerable B1ab(i,ii,iii,iv,v) A3c;	Known only from 6 populations, of which two have been lost. Widespread spp but more closely linked with Sundays Valley Thicket, Sundays Mesic Thicket, Grahamstown Grassland Thicket, Albany Bontveld and Fish Arid Thicket	LOW	NO	Dold, A.P., Snijman, D.A. & Raimondo, D. 2007. <i>Apodolirion macowanii</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
5	<i>Aspalathus</i>	<i>arenaria</i>		Vulnerable	Fabaceae		Vulnerable B1ab(ii,iii,iv,v)	Highly restricted range (705km ²) from Stilbaai to Gourtiz River Mouth. Strictly coastal in Hartenbos Strandveld, Canca Limestone Fynbos. Found in fynbos-thicket mosaic.	NIL	NO	Schutte-Vlok, A.L. & Raimondo, D. 2007. <i>Aspalathus arenaria</i> R.Dahlgren. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
6	<i>Aspalathus</i>	<i>gerrardii</i>		Vulnerable	Fabaceae		Vulnerable A2c	Large range but from KZN southwards to Port St Johns	NIL	NO	von Staden, L. 2008. <i>Aspalathus gerrardii</i> Bolus. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
7	<i>Brachystelma</i>	<i>comptum</i>		Vulnerable	Apocyanaceae		Vulnerable D2	Known only from 5 locations between Uitenhage and Gebherga. Favours Albany Bontveld, and Grahamstown Grassland Thicket. Local habitat is linked to quartzitic geology	LOW	NO	Victor, J.E. & Dold, A.P. 2007. <i>Brachystelma comptum</i> N.E.Br. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
8	<i>Brachystelma</i>	<i>luteum</i>		Vulnerable	Apocyanaceae		Vulnerable D2	Limited to 5 known populations that are harboured in Grahamstown Grassland Thicket and Albany Valley Thicket.	LOW	NO	Dold, A.P. & Victor, J.E. 2007. <i>Brachystelma luteum</i> Peckover. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24

No	Genus	species	Subsp / Variation	TBC 2020 Threat Status	Family	Provincial Conservation Status	Current National Conservation Status	RRRG Comment	RRRG LOO	RRRG Found on site	Reference
9	<i>Ceropegia</i>	<i>fimbriata</i>	<i>fimbriata</i>	Vulnerable	Apocyanaceae		Vulnerable D3	Subspecies not listed in TBC 2020 report. Only 3 known locations. Favours Fish Arid Thicket, Albany Bontveld, Albany Arid Thicket.	LOW	NO	Peckover, R., Dold, A.P. & Victor, J.E. 2007. <i>Ceropegia fimbriata</i> E.Mey. subsp. <i>fimbriata</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
	<i>Ceropegia</i>	<i>fimbriata</i>	<i>connivens</i>		Aizoaceae		Data Deficient	Subspecies not listed in TBC 2020 report. Limited information regarding distribution. Goldblatt & Manning (2000) record the distribution from Worcester to E Cape – limited to karroid scrub on flats and slopes.	??????	NO	Raimondo, D., Manyama, P.A. & Kamundi, D.A. 2007. <i>Ceropegia fimbriata</i> E.Mey. subsp. <i>connivens</i> (R.A.Dyer) Bruyns. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
10	<i>Corpuscularia</i>	<i>lehmannii</i>		Critically Rare	Aizoaceae		Critically Endangered, B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v)	Most of the known populations have become extinct due to urbanisation and industrial development in the Geberha metropol. EOO<70km2, AOO <5km2. Only being reported in the following vegetation: Algoa Sandstone Fynbos, Sundays Valley Thicket, Motherwell Karroid Thicket, Bethelsdorp Bontveld.	NIL	NO	Raimondo, D. & Helme, N.A. 2006. <i>Corpuscularia lehmannii</i> (Eckl. & Zeyh.) Schwantes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
11	<i>Crinum</i>	<i>campanulata</i>		Near threatened	Amaryllidaceae	Protected	Near Threatened B1ab(iii)	Species linked to freshwater systems, e.g. seasonal vleis in various types of thickets.	HIGH	NO	Dold, A.P., Snijman, D.A. & Victor, J.E. 2005. <i>Crinum campanulatum</i> Herb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
12	<i>Drosanthemum</i>	<i>jamesii</i>		Data Deficient	Aizoaceae	Protected	Data Deficient - Taxonomically Problematic	Limited information on distribution and habitat requirements.	??????	NO	Raimondo, D., Manyama, P.A. & Kamundi, D.A. 2008. <i>Drosanthemum jamesii</i> L.Bolus. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
13	<i>Erica</i>	<i>glumiflora</i>		Vulnerable	Ericaceae	Protected	Vulnerable B1ab(i,ii,iii,iv,v)	Wide distribution along the coast and inland to Makhanda, but limited to the following vegetation types: South Eastern Coastal Thornveld, Groot Brak Dune Strandveld, Algoa Sandstone Fynbos, South Outeniqua Sandstone Fynbos, Suurborg Quartzite Fynbos, Southern Cape Dune Fynbos, Knysna Sand Fynbos, St Francis Dune Thicket, Nanaga Savanna Thicket, Kasouga Dune Thicket, Goukamma Dune Thicket	NIL	NO	Turner, R.C. 2008. <i>Erica glumiflora</i> Klotzsch ex Benth. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24

No	Genus	species	Subsp / Variation	TBC 2020 Threat Status	Family	Provincial Conservation Status	Current National Conservation Status	RRRG Comment	RRRG LOO	RRRG Found on site	Reference
14	<i>Eriospermum</i>	<i>bracteatum</i>		Vulnerable	Ruscaceae	Protected	Vulnerable D2	Limited to Grahamstown Grassland Thicket and only two populations	NIL	NO	Helme, N.A. & Raimondo, D. 2007. <i>Eriospermum bracteatum</i> Archibald. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
15	<i>Disa</i>	<i>lugens</i>		Vulnerable	Orchidaceae	Protected	Vulnerable C2a(i)	Widely distributed in the Eastern and Western Cape and associated with a host of vegetation types	HIGH	NO	von Staden, L., Liltved, W.R., Oliver, E.G.H. & Oliver, T.A. 2012. <i>Disa lugens</i> Bolus var. <i>lugens</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
16	<i>Euphorbia</i>	<i>meloformis</i>	<i>meloformis</i>	Near threatened	Euphorbiaceae	Protected	Near Threatened B1ab(i,ii,iii,iv,v). Listed as Protected in NEMBA 2007 (both in Feb and Dec Government Gazettes)	EOO = 4030 km ² , but a dwindling meta-population due to collectors and over-grazing	100	YES	Raimondo, D., Dold, A.P., Berrington, W., Archer, R.H., Victor, J.E. & von Staden, L. 2014. <i>Euphorbia meloformis</i> Aiton. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
17	<i>Gladiolus</i>	<i>huttonii</i>		Vulnerable	Iridaceae	Protected	Vulnerable B1ab(i,ii,iii,iv,v)	Wide range (Plettenberg Bay to East London and inland to Makhana) but populations are declining. Restricted largely to the coastal plains	LOW	NO	Raimondo, D. & Vlok, J.H. 2008. <i>Gladiolus huttonii</i> (N.E.Br.) Goldblatt & M.P.de Vos. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
18	<i>Isoetes</i>	<i>wormaldii</i>		Critically Rare	Isoetaceae		Critically Endangered C2a(i); D	Restricted to freshwater bodies in Grahamstown Grassland Thicket, and Crossroads Grassland Thicket.	LOW	NO	Victor, J.E. & Dold, A.P. 2007. <i>Isoetes wormaldii</i> Sim. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
19	<i>Lachenalia</i>	<i>convallarioides</i>		Critically Rare	Hyacinthaceae	Protected	Critically Endangered D	Only 1 population left, restricted to Suurberg Quartzitic Fynbos.	NIL	NO	Victor, J.E. & Dold, A.P. 2005. <i>Lachenalia convallarioides</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
20	<i>Leucadendron</i>	<i>argenteum</i>		Endangered	Proteaceae	Protected	Endangered A2c	Restricted to Cape Town and Somerset West.	NIL	NO	Rebelo, A.G., Mtshali, H. & von Staden, L. 2006. <i>Leucadendron argenteum</i> (L.) R.Br. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
21	<i>Leucospermum</i>	<i>cordifolium</i>		Near threatened	Proteaceae	Protected	Near Threatened A2c+4d	Restricted to the fynbos vegetation between Kogelberg to Soetanyberg.	NIL	NO	Rebelo, A.G., Mtshali, H. & von Staden, L. 2005. <i>Leucospermum cordifolium</i> (Salisb. ex Knight) Fourc. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
22	<i>Leucospermum</i>	<i>praecox</i>		Vulnerable	Proteaceae	Protected	Vulnerable A2c+3c+4c	Restricted to fynbos around Mosselbay.	NIL	NO	Rebelo, A.G., Mtshali, H. & von Staden, L. 2006. <i>Leucospermum praecox</i> Rourke. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
23	<i>Leucospermum</i>	<i>vestitum</i>		Near threatened	Proteaceae	Protected	Near Threatened A2c	Fynbos endemic - Cederberg Mountains to Breede River Valley south of Wolseley, extinct from Paarl to Cape Peninsula.	NIL	NO	Rebelo, A.G., Mtshali, H. & von Staden, L. 2006. <i>Leucospermum vestitum</i> (Lam.) Rourke. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24

No	Genus	species	Subsp / Variation	TBC 2020 Threat Status	Family	Provincial Conservation Status	Current National Conservation Status	RRRG Comment	RRRG LOO	RRRG Found on site	Reference
24	<i>Mestoklema</i>	<i>albanicum</i>		Near threatened	Aizoaceae	Protected	Near Threatened D2	Wide distribution from Uitenhage to Graaff Reinet, linked to Albany Thickets. Threatened with overgrazing.	HIGH	NO	Victor, J.E. & Dold, A.P. 2004. <i>Mestoklema albanicum</i> N.E.Br. ex Glen. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
25	<i>Nerine</i>	<i>huttoniae</i>		Vulnerable	Amaryllidaceae	Protected	Vulnerable B1ab(iii,v)	Wide distribution in the Fish River Valley and linked to the following vegetation types: Eastern Upper Karoo, Southern Karoo Riveire and Fish Valley Thicket. If developments were to take place in sandy flood plains then the LOO rating would be high.	MEDIUM	NO	Dold, A.P., McMaster, C. & Raimondo, D. 2016. <i>Nerine huttoniae</i> Schönland. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
26	<i>Ornithogalum</i>	<i>britteniae</i>		Vulnerable	Hyacinthaceae		Vulnerable D2	Known only from 1 population just north of Grahamstown and linked to Saltaire Karoo Thicket.	NIL	NO	Victor, J.E., Dold, A.P. & Turner, R.C. 2006. <i>Ornithogalum britteniae</i> F.M.Leight. ex Oberm. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
27	<i>Orthopterum</i>	<i>waltoniae</i>		Near threatened	Aizoaceae	Protected	Near Threatened D2	Range is from Addo to Makhana and favours shales within Albany Thickets. Threatened from collecting and livestock. In the study area most likely linked to Double Drift Karroid Thickets.	MEDIUM	NO	Dold, A.P. & Raimondo, D. 2011. <i>Orthopterum waltoniae</i> L.Bolus. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
28	<i>Osteospermum</i>	<i>spathulatum</i>		Data Deficient	Asteraceae		Data Deficient - Insufficient Information	Range is listed as Makhanda to Uitenhage on dry karroid slopes in Albany Thicket. Last collected 1914.	LOW	NO	von Staden, L. 2016. <i>Osteospermum spathulatum</i> (DC.) Norl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/2
29	<i>Pelargonium</i>	<i>campestre</i>		Data Deficient	Geraniaceae		Data Deficient - Insufficient Information	Insufficient knowledge on the species to predict distribution - but is likely a fynbos species.	LOW	NO	Manyama, P.A. & Kamundi, D.A. 2006. <i>Pelargonium campestre</i> (Eckl. & Zeyh.) Steud. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
30	<i>Searsia</i>	<i>albomarginata</i>		Critically Rare	Anacardiaceae		Critically Endangered D	Known from a highly restricted population of 50 mature plants (EOO < 30km ²). Only known west of Makhanda	NIL	NO	Victor, J.E. & Dold, A.P. 2005. <i>Searsia albomarginata</i> (Sond.) Moffett. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
31	<i>Senecio</i>	<i>hirtellus</i>		Data Deficient	Asteraceae		Data Deficient - Taxonomically Problematic	Very little information on distribution is available	????	NO	Matlamela, P.F., Raimondo, D. & Kamundi, D.A. 2008. <i>Senecio hirtellus</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
32	<i>Strelitzia</i>	<i>juncea</i>		Vulnerable	Strelitziaceae	Protected	Vulnerable B1ab(ii,iii,v)	Restricted to the arid succulent thicket (Sundays Valley Thicket) between Patensie and Gqeberha	NIL	NO	Schutte-Vlok, A.L., Vlok, J.H., Dold, A.P. & Raimondo, D. 2008. <i>Strelitzia juncea</i> Link. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24

Appendix 3. Potential SSC as listed by Hoard (2014)

No	Genus	species	Subsp / Variation	Hoare 2010 Threat Status	Provincial Conservation Status	Current Threat Status SANBI	RRRG Comment	RRRG LOO	RRRG Found on site	Reference
1	<i>Apodolirion</i>	<i>macowanii</i>				Vulnerable A3c; B1ab(i,ii,iii,iv,v)	Wide distribution and cryptic species associated with Thicket	HIGH		Dold, A.P., Snijman, D.A. & Raimondo, D. 2007. <i>Apodolirion macowanii</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/19
2	<i>Ceropegia</i>	<i>fimbriata</i>	<i>fimbriata</i>			Vulnerable D2	Only known from 3 populations and associated with arid Thicket	LOW		Peckover, R., Dold, A.P. & Victor, J.E. 2007. <i>Ceropegia fimbriata</i> E.Mey. subsp. <i>fimbriata</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/19
3	<i>Corycium</i>	<i>tricuspidatum</i>			Protected EC Prov Ordinance 1974.	Not determined SANBI	Eastern Cape and KZN distribution, key threat is afforestation (site is dry). "Lower Risk" category in Golding 2002.	MEDIUM		Golding, J. 2002. South African Red Data Plant List. South African Biodiversity Network Report no 14. National Biodiversity Institute, Pretoria, South Africa.
4	<i>Crassula</i>	<i>decidua</i>				Near Threatened DT	Associated with low karroid vegetation amongst Euphorbias and in close proximity to rivers	LOW		Raimondo, D. 2005. <i>Crassula decidua</i> Schönland. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/19
5	<i>Crinum</i>	<i>macowanii</i>			Protected EC Prov Ordinance 1974.	Least Concern	Not endemic to South Africa, widely distributed and occurs in a number of biomes.	MEDIUM		Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M., Ngwenya, A.M. & Brueton, V.J. 2016. <i>Crinum macowanii</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/19
6	<i>Drimia</i>	<i>altissima</i>				Least Concern	Exceptionally wide distribution and high numbers in the WEF	HIGH	YES	Williams, V.L., Raimondo, D., Crouch, N.R., Brueton, V.J., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2016. <i>Drimia altissima</i> (L.f.) Ker Gawl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/20
7	<i>Encephalartos</i>	<i>lehmannii</i>			Protected EC Prov Ordinance 1974.	Near Threatened A2d	Wide distribution through a number of biomes. The species is declining and goats are listed as a key driver, with poaching as well. Nkurenkuru 2018 could not locate this species in the WEF	MEDIUM		Donaldson, J.S. 2009. <i>Encephalartos lehmannii</i> Lehm. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/20. Botha G. 2018. ECOLOGICAL COMMENTS: PROPOSED AMENDMENT TO THE AUTHORISED MSENGE WIND ENERGY FACILITY WIND ENERGY FACILITY (DEA REF 12/12/20/1754/2) – AMENDMENTS TO TURBINE SPECIFICATIONS.
8	<i>Hermannia</i>	<i>violacea</i>				Rare	Only know from 3 sites, typically found in grasslands near forest margins	LOW		Bredenkamp, C.L., Victor, J.E. & Raimondo, D. 2007. <i>Hermannia violacea</i> (Burch. ex DC.) K.Schum. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/20
9	<i>Holothrix</i>	<i>macowaniana</i>			Protected EC Prov Ordinance 1974.	Data deficient	Know from 3 collections (pre1900) and limited knowledge distribution but is known to favour forest ravines.	LOW		von Staden, L. & Victor, J.E. 2006. <i>Holothrix macowaniana</i> Rchb.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/2
10	<i>Huernia</i>	<i>kennedyana</i>				Least Concern	Species is rare with a restricted range (escarpment mountains between Cradock and Pearston)	LOW		Raimondo, D. & Dold, A.P. 2019. <i>Huernia kennedyana</i> Lavranos. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
11	<i>Nerine</i>	<i>huttoniae</i>			Protected EC Prov Ordinance 1974.	Vulnerable	Unlikely to be at risk from the proposed developments due to the riparian buffering. Species niche is alluvial floodplains.	MEDIUM		Dold, A.P., McMaster, C. & Raimondo, D. 2016. <i>Nerine huttoniae</i> Schönland. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/19

Appendix 4. The full list of species listed by Hoare (2010), with comments³⁸, updated taxonomic status, LOO ratings, located in situ data and relevant references for threat status.

No	Genus	species	Subsp / Variation	Family	Provincial Conservation Status	Current National Status SANBI	RRRG Comment	RRRG LOO	RRRG Found on site	Reference
1	<i>Acalypha</i>	<i>caperonioides</i>	<i>caperonioides</i>	Euphorbiaceae		Data Deficient - Taxonomically problematic	Distribution limited to the northern Provinces	NIL	NO	von Staden, L. & Archer, R.H. 2009. <i>Acalypha caperonioides</i> Baill. var. <i>caperonioides</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
2	<i>Acalypha</i>	<i>caperonioides</i>	<i>galpinii</i>	Euphorbiaceae		Data Deficient - Taxonomically problematic	Limited to Mpumalanga	NIL	NO	von Staden, L. & Archer, R.H. 2009. <i>Acalypha caperonioides</i> Baill. var. <i>galpinii</i> Prain. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
3	<i>Acrotome</i>	<i>inflata</i>		Lamiaceae		Least Concern	Widely distributed weedy spp. Eastern Cape, Free State, Gauteng, Limpopo, Mpumalanga, Northern Cape, North West		NO	Foden, W. & Potter, L. 2005. <i>Acrotome inflata</i> Benth. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/2
4	<i>Adiantum</i>	<i>capillus-veneris</i>		Pteridaceae	Protected	Least Concern	Widely distributed fern spp.	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Adiantum capillus-veneris</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
5	<i>Adiantum</i>	<i>poiretii</i>		Pteridaceae	Protected	Least Concern	Wide distribution but limited to very moist microsites	LOW	NO	Foden, W. & Potter, L. 2005. <i>Adiantum poiretii</i> Wikstr. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
6	<i>Agathosma</i>	<i>apiculata</i>		Rutaceae	Protected	Least Concern	Associated mostly with coastal areas: dune fynbos and dune thicket.	LOW	NO	Foden, W. & Potter, L. 2005. <i>Agathosma apiculata</i> E.Mey. ex Bartl. & H.L.Wendl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
7	<i>Agathosma</i>	<i>bicornuta</i>		Rutaceae	Protected	Endangered A2ac; B1ab(i,ii,iii,iv,v)	Species distribution is limited to Grahamstown. Species found between grassy fynbos (on Ecca quartz) and Nama Karoo (on Dwyka formation) on south-facing ridge.	NIL	NO	Dold, A.P., Trinder-Smith, T. & Victor, J.E. 2006. <i>Agathosma bicornuta</i> R.A.Dyer. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
8	<i>Agathosma</i>	<i>ovata</i>		Rutaceae	Protected	Least Concern	Wide distribution in the Eastern Cape	LOW	NO	Trinder-Smith, T. & Victor, J.E. 2002. <i>Agathosma ovata</i> (Thunb.) Pillans. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
9	<i>Agathosma</i>	<i>puberula</i>		Rutaceae	Protected	Least Concern	Range from Humansdorp to Grahamstown	LOW	NO	Foden, W. & Potter, L. 2005. <i>Agathosma puberula</i> (Steud.) Fourc. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
10	<i>Aizoon</i>	<i>glinoides</i>		Aizoaceae	Protected	Least Concern	Ubiquitous weedy species in the Eastern and Western Cape.	100	YES	Foden, W. & Potter, L. 2005. <i>Aizoon glinoides</i> L.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25

³⁸ Yellow highlights indicate provincial or national threatened species. Red highlights indicate species UNLIKELY to occur in the study area. Orange indicates those species which have undergone taxonomic changes. Green indicates species found by RRRG in 2022.

11	<i>Alchemilla</i>	<i>capensis</i>		Rosaceae		Least Concern	Widely distributed: Eastern Cape, KwaZulu-Natal, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Alchemilla capensis</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
12	<i>Alepidea</i>	<i>capensis</i>	<i>capensis</i>	Apiaceae		Data Deficient - Taxonomically	Eastern and Western Cape Endemic - wide distribution		NO	Goldblatt, P. & Manning, J. 2000. Cape Plants - A conspectus of the Cape Flora of South Africa. Strelitzia 9. National Botanical Institute, Pretoria. Raimondo, D. 2008. <i>Alepidea capensis</i> (P.J.Bergius) R.A.Dyer var. <i>tenella</i> (Schltr. & H.Wolff) Weim. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
13	<i>Alepidea</i>	<i>macowani</i>		Apiaceae		Vulnerable A2ad; B1ab(v)	Linked to moist grasslands in the Eastern Cape	LOW	NO	Williams, V.L. & Dold, A.P. 2008. <i>Alepidea macowani</i> Dummer. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
14	<i>Allophylus</i>	<i>decepiens</i>		Sapindaceae		Least Concern	Usually linked to mesic thickets and forests	LOW	NO	Victor, J.E. & van Wyk, A.E. 2005. <i>Allophylus decepiens</i> (Sond.) Radlk. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
15	<i>Aloe</i>	<i>africana</i>		Asphodelaceae	Protected	Least Concern	Narrow range in the Eastern Cape from the Gamtoos River to Port Alfred, but below 300m amsl.	NIL	NO	Mtshali, H. & von Staden, L. 2018. <i>Aloe africana</i> Mill. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
16	<i>Aloe</i>	<i>speciosa</i>		Asphodelaceae	Protected	Least Concern	Occurs in the drier rocky areas of fynbos and thicket	MEDIUM	NO	Mtshali, H. 2018. <i>Aloe speciosa</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
17	<i>Aloe</i>	<i>striata</i>	<i>striata</i>	Asphodelaceae	Protected	Least Concern	Eastern and Western Cape Endemic - wide distribution	100	YES	Mtshali, H. & von Staden, L. 2018. <i>Aloe striata</i> Haw. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
18	<i>Amellus</i>	<i>strigosus</i>	<i>pseudoscabridus</i>	Asteraceae		Least Concern	Eastern Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Amellus strigosus</i> (Thunb.) Less. subsp. <i>pseudoscabridus</i> Rommel. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
19	<i>Ammocharis</i>	<i>coranica</i>		Amaryllidaceae	Protected	Least Concern	Extremely wide distribution	100	YES	Snijman, D.A. & Victor, J.E. 2004. <i>Ammocharis coranica</i> (Ker Gawl.) Herb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
20	<i>Anacampseros</i>	<i>arachnoides</i>		Anacampserotaceae	Protected	Least Concern	Little Karoo to Kingwilliamstown. Favours rocky areas	100	YES	von Staden, L. 2015. <i>Anacampseros arachnoides</i> (Haw.) Sims. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
21	<i>Anthospermum</i>	<i>aethiopicum</i>		Rubiaceae		Least Concern	Widely distributed : Eastern Cape, Mpumalanga, North West, Western Cape- also outside SA		NO	Foden, W. & Potter, L. 2005. <i>Anthospermum aethiopicum</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
22	<i>Aptosimum</i>	<i>procumbens</i>		Scrophulariaceae		Least Concern	Eastern Cape, Free State, Northern Cape, North West, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Aptosimum procumbens</i> (Lehm.) Steud. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
23	<i>Arctotis</i>	<i>arctotoides</i>		Asteraceae		Least Concern	National Distribution	100	YES	Foden, W. & Potter, L. 2005. <i>Arctotis arctotoides</i> (L.f.) O.Hoffm. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
24	<i>Arctotis</i>	<i>microcephala</i>		Asteraceae		Least Concern	Eastern Cape, Free State, Gauteng, Northern Cape,	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Arctotis microcephala</i> (DC.) Beauverd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26

							North West, Western Cape			
25	<i>Argyrolobium</i>	<i>pauciflorum</i>		Fabaceae		Least Concern	Eastern Cape, Free State and Mpumalanga	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Argyrolobium pauciflorum</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
26	<i>Aristea</i>	<i>confusa</i>		Iridaceae	Protected	Least Concern	Name changed to <i>Aristea bakeri</i> . Coastal and fold-mountain plain species in the Western and Eastern Cape	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Aristea bakeri</i> Klatt. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
27	<i>Asclepias</i>	<i>gibba</i>		Asclepiaceae	Protected	Least Concern	Distribution is mostly in the northern provinces so this would be at the extreme end of the species range.	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Asclepias gibba</i> (E.Mey.) Schltr. var. <i>gibba</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
28	<i>Aspalathus</i>	<i>chortophila</i>		Fabaceae		Least Concern	Mountain fynbos, grassy fynbos and grassland.	MEDIUM	NO	Foden, W. & Potter, L. 2009. <i>Aspalathus chortophila</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
29	<i>Aspalathus</i>	<i>cinerascens</i>		Fabaceae		Least Concern	Widespread in mountainous areas of the Eastern Cape	HIGH	NO	von Staden, L. & Dayaram, A. 2011. <i>Aspalathus cinerascens</i> E.Mey. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
30	<i>Aspalathus</i>	<i>frankenioides</i>		Fabaceae		Least Concern	Rocky or sandy mountain and hill slopes in fynbos and thicket - especially degraded sites	HIGH	NO	Foden, W. & Potter, L. 2009. <i>Aspalathus frankenioides</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
31	<i>Aspalathus</i>	<i>subtingens</i>		Fabaceae		Least Concern	Widespread in the old Cape provinces	HIGH	NO	Foden, W. & Potter, L. 2009. <i>Aspalathus subtingens</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
32	<i>Asparagus</i>	<i>aethiopicus</i>		Fabaceae		Least Concern	Ubiquitous in dry and coastal habitats: Albany Thicket, Fynbos, Grassland, Indian Ocean Coastal Belt, Nama Karoo, Savanna, Succulent Karoo	HIGH	NO	von Staden, L. 2012. <i>Asparagus aethiopicus</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
33	<i>Asparagus</i>	<i>capensis</i>		Asparagaceae		Least Concern	Eastern Cape, Northern Cape, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Asparagus capensis</i> L. var. <i>capensis</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
34	<i>Asparagus</i>	<i>laricinus</i>		Asparagaceae		Least Concern	Common species but study site is the very southern end of its range	MEDIUM	NO	Burrows, S.M. & von Staden, L. 2018. <i>Asparagus laricinus</i> Burch. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
35	<i>Asparagus</i>	<i>burchellii</i>		Asparagaceae		Least Concern	Endemic to the old Cape Provinces		NO	Foden, W. & Potter, L. 2005. <i>Asparagus burchellii</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/2
36	<i>Asparagus</i>	<i>concinus</i>		Asparagaceae		Least Concern	A range restricted species (NW parts of the Eastern Cape)	MEDIUM	NO	Burrows, S.M. & von Staden, L. 2018. <i>Asparagus concinns</i> (Baker) Kies. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26

37	<i>Asparagus</i>	<i>cooperi</i>		Asparagaceae		Least Concern	All provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Asparagus cooperi</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
38	<i>Asparagus</i>	<i>densiflorus</i>		Asparagaceae		Least Concern	Wide distribution in the following provinces: distribution Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Asparagus densiflorus</i> (Kunth) Jessop. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
39	<i>Asparagus</i>	<i>denudatus</i>		Asparagaceae		Least Concern	Wide distribution: Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Northern Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Asparagus denudatus</i> (Kunth) Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
40	<i>Asparagus</i>	<i>mucronatus</i>		Asparagaceae		Least Concern	Limited to the old Cape provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Asparagus mucronatus</i> Jessop. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
41	<i>Asparagus</i>	<i>striatus</i>		Asparagaceae		Least Concern	Wide distribution: Eastern Cape, Free State, Northern Cape, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Asparagus striatus</i> (L.f.) Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
42	<i>Asparagus</i>	<i>suaveolens</i>		Asparagaceae		least Concern	All provinces	100	YES	Foden, W. & Potter, L. 2005. <i>Asparagus suaveolens</i> Burch. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
43	<i>Asplenium</i>	<i>platyneuron</i>		Aspleniaceae		Least Concern	Wide distribution		NO	Foden, W. & Potter, L. 2005. <i>Asplenium platyneuron</i> (L.) Britten, Sterns & Poggenb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/2
44	<i>Asplenium</i>	<i>varians</i>	<i>fimbriatum</i>	Aspleniaceae		Least Concern	Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga		NO	Foden, W. & Potter, L. 2005. <i>Asplenium varians</i> Wall. ex Hook. & Grev. subsp. <i>fimbriatum</i> (Kunze) Schelpe. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
45	<i>Aster</i>	<i>bakeranus</i>		Asteraceae		Not Determined	Name has changed to <i>Afroaster hispida</i> . Widely distributed: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpumalanga, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Afroaster hispida</i> (Thunb.) J.C.Manning & Goldblatt. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
46	<i>Athanasia</i>	<i>dentata</i>		Asteraceae		Least Concern	Eastern and Western Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Athanasia dentata</i> (L.) L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
47	<i>Azima</i>	<i>tetracantha</i>		Salvadoraceae		Least Concern	Ubiquitous, especially in thicket	100	YES	Foden, W. & Potter, L. 2005. <i>Azima tetracantha</i> Lam. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
48	<i>Barleria</i>	<i>pungens</i>		Acanthaceae		Least Concern	Widely distributed in Eastern and Western Cape	100	YES	Helme, N.A. & Raimondo, D. 2006. <i>Barleria pungens</i> L.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/2
49	<i>Bergeranthus</i>	<i>verpertinus</i>		Aizoaceae	Protected	Least Concern	Eastern Cape Endemic	HIGH	NO	Burgoyne, P.M. 2006. <i>Bergeranthus vespertinus</i> (A.Berger) Schwantes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25

50	<i>Berkheya</i>	<i>disclor</i>		Asteraceae		Least Concern	Distributed widely: Eastern Cape, Free State, KwaZulu-Natal, North West	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Berkheya discolor</i> (DC.) O.Hoffm. & Muschl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
51	<i>Berkheya</i>	<i>carlinifolia</i>	<i>carlinifolia</i>	Asteraceae		Least Concern	Endemic to the Eastern and Western Cape	HIGH	NO	Kamundi, D.A. 2005. <i>Berkheya carlinifolia</i> (DC.) Roessler subsp. <i>carlinifolia</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
52	<i>Berkheya</i>	<i>decurrens</i>		Asteraceae		Least Concern	Eastern Cape endemic	100	YES	Foden, W. & Potter, L. 2005. <i>Berkheya decurrens</i> (Thunb.) Willd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
53	<i>Berkheya</i>	<i>heterophylla</i>		Asteraceae		Least Concern	KZN and Eastern Cape		NO	Foden, W. & Potter, L. 2005. <i>Berkheya heterophylla</i> (Thunb.) O.Hoffm. var. <i>heterophylla</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
54	<i>Berkheya</i>	<i>onopordifolia</i>	<i>glabra</i>	Asteraceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpumalanga, North West		NO	Foden, W. & Potter, L. 2005. <i>Berkheya onopordifolia</i> (DC.) O.Hoffm. ex Burt Davy var. <i>glabra</i> Bohnen ex Roessler. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
55	<i>Berkheya</i>	<i>onopordifolia</i>	<i>onopordifolia</i>	Asteraceae		Least Concern	Widely distributed Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpumalanga, North West		NO	Foden, W. & Potter, L. 2005. <i>Berkheya onopordifolia</i> (DC.) O.Hoffm. ex Burt Davy var. <i>onopordifolia</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
56	<i>Blechnum</i>	<i>australe</i>	<i>australe</i>	Blechnaceae		Least Concern	Fern spp found in all 9 provinces - study site maybe too dry	LOW	NO	von Staden, L. 2017. <i>Blepharis capensis</i> (L.f.) Pers. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
57	<i>Blepharis</i>	<i>capensis</i>	<i>capensis</i>	Acanthaceae		Least Concern	Eastern Cape, Free State, Northern Cape, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Blechnum capense</i> Burm.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
58	<i>Blepharis</i>	<i>integrifolia</i>	<i>clarkei</i>	Acanthaceae		Least Concern	Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga		NO	Kamundi, D.A. 2006. <i>Blepharis integrifolia</i> (L.f.) E.Mey. ex Schinz var. <i>clarkei</i> (Schinz) Oberm. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
59	<i>Blepharis</i>	<i>integrifolia</i>	<i>integrifolia</i>	Acanthaceae		Least Concern	All nine provinces		NO	Kamundi, D.A. 2006. <i>Blepharis integrifolia</i> (L.f.) E.Mey. ex Schinz var. <i>integrifolia</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
60	<i>Blepharis</i>	<i>mitrata</i>		Acanthaceae		Least Concern	Old Cape provinces		NO	Raimondo, D., von Staden, L., Foden, W., Victor, J.E., Helme, N.A., Turner, R.C., Kamundi, D.A. and Manyama, P.A. 2009. Red List of South African Plants. <i>Strelitzia</i> 25. South African National Biodiversity Institute, Pretoria
61	<i>Bobartia</i>	<i>orientalis</i>	<i>orientalis</i>	Iridaceae	Protected	Least Concern	Widely distributed, mostly fynbos and grassy fynbos, increases drastically with over-grazing	LOW	NO	Foden, W. & Potter, L. 2005. <i>Bobartia orientalis</i> J.B.Gillett subsp. <i>orientalis</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
62	<i>Bonatea</i>	<i>cassidea</i>		Orchidaceae	Protected	Least Concern	Widespread along the east coast of SA - study site may be too dry and at the end of its range (south west)	MEDIUM	YES	von Staden, L. 2017. <i>Bonatea cassidea</i> Sond. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23

63	<i>Boophane</i>	<i>distichia</i>		Amaryllidaceae	Protected	Least Concern	Found across these vegetation types: Albany Thicket, Fynbos, Grassland, Indian Ocean Coastal Belt, Nama Karoo, Savanna, Succulent Karoo	100	YES	Williams, V.L., Raimondo, D., Brueton, V.J., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2016. <i>Boophane disticha</i> (L.f.) Herb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
64	<i>Boscia</i>	<i>oleoides</i>		Brassicaceae		Least Concern	Wide distribution in the Eastern Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Boscia oleoides</i> (Burch. ex DC.) Toelken. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
65	<i>Brachylaena</i>	<i>elliptica</i>		Asteraceae		Least Concern	Wide distribution from Uitenhage to Zululand		NO	von Staden, L. 2018. <i>Brachylaena elliptica</i> (Thunb.) DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
66	<i>Brachylaena</i>	<i>ilicifolia</i>		Asteraceae		Least Concern	Favours dry thickets and savannas	HIGH	NO	von Staden, L. 2018. <i>Brachylaena ilicifolia</i> (Lam.) E.Phillips & Schweick. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
67	<i>Buddleja</i>	<i>saligna</i>		Scrophulariaceae		Least Concern	Occurs in all 9 provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Buddleja saligna</i> Willd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
68	<i>Bulbine</i>	<i>abyssinica</i>		Asphodelaceae		Least Concern	Occurs in all 9 provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Bulbine abyssinica</i> A.Rich. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
69	<i>Bulbine</i>	<i>frutescens</i>		Asphodelaceae		Least Concern	Occurs in all 9 provinces	100	YES	Foden, W. & Potter, L. 2005. <i>Bulbine frutescens</i> (L.) Willd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
70	<i>Bulbine</i>	<i>narcissifolia</i>		Asphodelaceae		Least Concern	Wide distribution but limited to the Eastern Cape, Free State and Gauteng	100	YES	Foden, W. & Potter, L. 2005. <i>Bulbine narcissifolia</i> Salm-Dyck. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
71	<i>Bulbostylis</i>	<i>humilis</i>		Cyperaceae		Least Concern	Occurs in all 9 provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Bulbostylis humilis</i> (Kunth) C.B.Clarke. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
72	<i>Burchellia</i>	<i>bubalina</i>		Rubiaceae		Least Concern	Wide distribution: Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cap	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Burchellia bubalina</i> (L.f.) Sims. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
73	<i>Cadaba</i>	<i>aphylla</i>		Brassicaceae		Least Concern	Wide distribution: Eastern Cape, Free State, Limpopo, Northern Cape, North West, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Cadaba aphylla</i> (Thunb.) Willd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
74	<i>Calpurnia</i>	<i>aurea</i>	<i>aurea</i>	Fabaceae		Least Concern	Wide distribution but prefers more mesic thickets, woodlands or forests. Study site is too dry	NIL	NO	Foden, W. & Potter, L. 2005. <i>Calpurnia aurea</i> (Aiton) Benth. subsp. <i>aurea</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26. Pooley, E. 1997. <i>The Complete Guide to the Trees of Natal, Zululand and Transkei</i> . Natal Flora Publications Trust. Durban.
75	<i>Canthium</i>	<i>ciliatum</i>		Canthaceae		Least Concern	Wide distribution: Eastern Cape, Free State, KwaZulu-Natal, Limpopo,	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Canthium ciliatum</i> (Klotzsch) Kuntze. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26

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76	<i>Capparis</i>	<i>sepiaria</i>	<i>citrifolia</i>	Brassicaceae		Least Concern	Widely distributed in Eastern Cape, KwaZulu Natal and Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Capparis sepiaria</i> L. var. <i>citrifolia</i> (Lam.) Toelken. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
77	<i>Carex</i>	<i>glomerabilis</i>		Cyperaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Carex glomerabilis</i> Krecz. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
78	<i>Carex</i>	<i>mossii</i>		Cyperaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Carex mossii</i> Nelmes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
79	<i>Catha</i>	<i>edulis</i>		Celastraceae		Protected Tree: National Forests Act	Found in dry woodland and on rocky outcrops.	HIGH	NO	Geldenhuys, C.J. & Victor, J.E. 2004. <i>Catha edulis</i> (Vahl) Forssk. ex Endl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25. Pooley 1997. The Complete Guide to Trees of Natal, Zululand and Transkei. Nata
80	<i>Ceropegia</i>	<i>zeyheri</i>		Apocynaceae	Protected	Least Concern	Eastern Cape and Western Cape Endemic		NO	Manyama, P.A. & Kamundi, D.A. 2006. <i>Ceropegia zeyheri</i> Schltr. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
81	<i>Chasmatophyllum</i>	<i>musculinum</i>		Aizoaceae	Protected	Least Concern	Widespread and not endemic to SA: Eastern Cape, Free State, Gauteng, Mpumalanga, Northern Cape, North West, Western Cape	100	YES	Burgoyne, P.M. 2006. <i>Chasmatophyllum musculinum</i> (Haw.) Dinter & Schwantes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
82	<i>Cheilanthes</i>	<i>bergiana</i>		Pteridaceae		Least Concern	Widely distributed: Eastern Cape, Gauteng, KwaZulu- Natal, Limpopo, Mpumalanga, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Cheilanthes bergiana</i> Schlttdl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
83	<i>Cheilanthes</i>	<i>eckloniana</i>		Pteridaceae		Least Concern	All provinces		NO	Foden, W. & Potter, L. 2005. <i>Cheilanthes eckloniana</i> (Kunze) Mett. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
84	<i>Cheilanthes</i>	<i>quadripinnata</i>		Pteridaceae		Least Concern	All provinces		NO	Foden, W. & Potter, L. 2005. <i>Cheilanthes quadripinnata</i> (Forssk.) Kuhn. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
85	<i>Chlorophytum</i>	<i>crispum</i>		Agavaceae		Least Concern	Widely distributed in Eastern and Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Chlorophytum crispum</i> (Thunb.) Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
86	<i>Chrysocoma</i>	<i>ciliata</i>		Asteraceae		Least Concern	All provinces	100	YES	Foden, W. & Potter, L. 2005. <i>Chrysocoma ciliata</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
87	<i>Cineraria</i>	<i>saxifraga</i>		Asteraeae		Least Concern	Eastern Cape endemic		NO	Cron, G.V. & Victor, J.E. 2005. <i>Cineraria saxifraga</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/2
88	<i>Clematis</i>	<i>brachiata</i>		Ranunculaceae		Least Concern	All provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Clematis brachiata</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26

89	<i>Cliffortia</i>	<i>paucistaminea</i>		Rosaceae		Least Concern	Not endemic to SA and widely distributed: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Cliffortia paucistaminea</i> Weim. var. <i>paucistaminea</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
90	<i>Clutia</i>	<i>pulchella</i>	<i>pulchella</i>	Euphorbiaceae		Least Concern	All but 1 province: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape		NO	Archer, R.H. & Victor, J.E. 2005. <i>Clutia pulchella</i> L. var. <i>pulchella</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
91	<i>Clutia</i>	<i>heterophylla</i>		Euphorbiaceae		Least Concern	Eastern Cape Endemic		NO	Archer, R.H. & Victor, J.E. 2005. <i>Clutia heterophylla</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
92	<i>Colchicum</i>	<i>longipes</i>		Colchicaceae		Least Concern	Eastern Cape Endemic		NO	Foden, W. & Potter, L. 2005. <i>Colchicum longipes</i> (Baker) J.C.Manning & Vinn. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
93	<i>Commelina</i>	<i>africana</i>	<i>africana</i>	Commelinaceae		Least Concern	All provinces bar Western and Eastern cape	100	YES	Foden, W. & Potter, L. 2005. <i>Commelina africana</i> L. var. <i>africana</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
94	<i>Convolvulus</i>	<i>farinosus</i>		Convolvulaceae		Least Concern	Not endemic to SA and widely distributed: Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Convolvulus farinosus</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
95	<i>Cotyledon</i>	<i>orbiculata</i>	<i>orbiculata</i>	Crassulaceae		Least Concern	Endemic to the old Cape Provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Cotyledon orbiculata</i> L. var. <i>orbiculata</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
96	<i>Crassula</i>	<i>latibracteata</i>		Crassulaceae		Least Concern	Eastern Cape endemic: Riebeeck East to the Fish River: Suurberg Quartzite Fynbos, Saltaire Karroid Thicket, Grahamstown Grassland Thicket, Fish Valley Thicket, Crossroads Grassland Thicket	HIGH	NO	von Staden, L. 2018. <i>Crassula latibracteata</i> Toelken. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
97	<i>Crassula</i>	<i>perfoliata</i>	<i>perfoliata</i>	Crassulaceae	Protected	Least Concern	Eastern Cape endemic preferring dry karroid scrub on lower stony slopes. Port Elizabeth to Graaff Reinet.	HIGH	NO	Smith, G.F., Crouch, N.R., & Figueiredo, E. 2017. Field Guide to the Succulents in Southern Africa. Struik Nature, Cape Town Foden, W. & Potter, L. 2005. <i>Crassula perfoliata</i> L. var. <i>perfoliata</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26

98	<i>Crassula</i>	<i>rupestris</i>	<i>rupestris</i>	Crassulaceae		Least Concern	Widely distributed in Eastern and Western Cape, specifically rocky areas on slopes in Albany Thicket, Fynbos, Nama Karoo, and Succulent Karoo.	HIGH	NO	Foden, W. & Potter, L. 2009. <i>Crassula rupestris</i> Thunb. subsp. <i>rupestris</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
99	<i>Crassula</i>	<i>arborescens</i>	<i>arborescens</i>	Crassulaceae		Least Concern	No subspecies listed in Hoare 2010.	NIL	NO	Foden, W. & Potter, L. 2009. <i>Crassula arborescens</i> (Mill.) Willd. subsp. <i>arborescens</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
100	<i>Crassula</i>	<i>arborescens</i>	<i>undulatifolia</i>	Crassulaceae		Critically Rare	No subspecies listed in Hoare 2010. Limited to a narrow range: mountains between Worcester and Prince Albert in the Western Cape	NIL	NO	van Jaarsveld, E.J., Victor, J.E. & Helme, N.A. 2006. <i>Crassula arborescens</i> (Mill.) Willd. subsp. <i>undulatifolia</i> Toelken. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
101	<i>Crassula</i>	<i>capitella</i>	<i>capitella</i>	Crassulaceae		Least Concern	Widely distributed Free State, Western Cape Eastern Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Crassula capitella</i> Thunb. subsp. <i>capitella</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
102	<i>Crassula</i>	<i>capitella</i>	<i>thyrsoflora</i>	Crassulaceae		Least Concern	Widely distributed Free State, Western Cape Eastern Cape, N Cape and KZN	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Crassula capitella</i> Thunb. subsp. <i>thyrsoflora</i> (Thunb.) Toelken. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
103	<i>Crassula</i>	<i>cultrata</i>		Crassulaceae		Least Concern	Eastern Cape and KZN : specifically Albany Thicket, Fynbos, Grassland, Indian Ocean Coastal Belt, Nama Karoo, Succulent Karoo	HIGH	NO	
104	<i>Crassula</i>	<i>dependens</i>		Crassulaceae		Least Concern	Widely distributed: Eastern Cape, Free State, KwaZulu-Natal, Mpumalanga, Northern Cape, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Crassula dependens</i> Bolus. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
105	<i>Crassula</i>	<i>mesembryanthoides</i>	<i>hispida</i>	Crassulaceae		Least Concern	Eastern Cape endemic with a wide distribution	HIGH	YES	Foden, W. & Potter, L. 2005. <i>Crassula mesembryanthoides</i> (Haw.) D.Dietr. subsp. <i>hispida</i> (Haw.) Toelken. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
106	<i>Crassula</i>	<i>mesembryanthoides</i>	<i>mesembryanthoides</i>	Crassulaceae		Least Concern	Eastern Cape endemic with a wide distribution	100	YES	Foden, W. & Potter, L. 2005. <i>Crassula mesembryanthoides</i> (Haw.) D.Dietr. subsp. <i>mesembryanthoides</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
107	<i>Crassula</i>	<i>mollis</i>		Crassulaceae		Least Concern	Limited to these vegetation types in the Eastern and Western Cape: Albany Thicket,	HIGH	NO	Foden, W. & Potter, L. 2009. <i>Crassula mollis</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23

							Fynbos, Succulent Karo			
108	<i>Crassula</i>	<i>muscosa</i>		Crassulaceae		Least Concern	Wide distribution: Cape Provinces, Free State and southern Namibia	HIGH	NO	Eastern Cape, Free State, Northern Cape, Western Cape
109	<i>Crassula</i>	<i>ovata</i>		Crassulaceae		Least Concern	Wide distribution Eastern Cape and KZN : Albany Thicket, Fynbos, Grassland, Indian Ocean Coastal Belt, Savanna	HIGH	NO	Foden, W. & Potter, L. 2009. <i>Crassula ovata</i> (Mill.) Druce. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
110	<i>Crassula</i>	<i>tetragona</i>		Crassulaceae		Least Concern	Widely distributed in old Cape Provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Crassula tetragona</i> L. subsp. <i>tetragona</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
111	<i>Crinum</i>	<i>macowanii</i>		Amaryllidaceae	Protected		Not endemic to South Africa, widely distributed and occurs in a number of biomes.	MEDIUM	NO	Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M., Ngwenya, A.M. & Brueton, V.J. 2016. <i>Crinum macowanii</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/19
112	<i>Crinum</i>	<i>campanulatum</i>		Amaryllidaceae	Protected	Near Threatened B1ab(iii)	Species linked to freshwater systems, e.g. seasonal vleis in various types of thickets.	HIGH	NO	Dold, A.P., Snijman, D.A. & Victor, J.E. 2005. <i>Crinum campanulatum</i> Herb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
113	<i>Cucumis</i>	<i>zeyheri</i>		Cucurbitaceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Cucumis zeyheri</i> Sond. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/27
114	<i>Cuscuta</i>	<i>africana</i>		Convolvulaceae		Least Concern	Eastern and Western Cape endemic	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Cuscuta africana</i> Willd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
115	<i>Cuspidia</i>	<i>cernua</i>	<i>cernua</i>	Asteraceae		Least Concern	Eastern Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Cuspidia cernua</i> (L.f.) B.L.Burt subsp. <i>cernua</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
116	<i>Cussonia</i>	<i>paniculata</i>	<i>paniculata</i>	Ariliaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Northern Cape, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Cussonia paniculata</i> Eckl. & Zeyh. subsp. <i>paniculata</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
117	<i>Cussonia</i>	<i>spicata</i>		Ariliaceae		Least Concern	Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Cussonia spicata</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
118	<i>Cyanotis</i>	<i>speciosa</i>		Commelinaceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape,	100	YES	Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West, Western Cape

							North West, Western Cape			
119	<i>Cyperus</i>	<i>owanii</i>		Cyperaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Cyperus owanii</i> Boeck. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
120	<i>Cyperus</i>	<i>pulcher</i>		Cyperaceae		Least Concern	Eastern Cape and KZN	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Cyperus pulcher</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
121	<i>Cyperus</i>	<i>usitatus</i>		Cyperaceae		Least Concern	All nine provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Cyperus usitatus</i> Burch. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
122	<i>Cyphia</i>	<i>sylvatica</i>		Lobeliaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Cyphia sylvatica</i> Eckl. var. <i>sylvatica</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
123	<i>Cyphostemma</i>	<i>cirrhosum</i>	<i>cirrhosum</i>	Vitaceae		Least Concern	Hoare not listing the subspecies. KZN and Eastern Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Cyphostemma cirrhosum</i> (Thunb.) Desc. ex Wild & R.B.Drumm. subsp. <i>cirrhosum</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
124	<i>Cyphostemma</i>	<i>quinatum</i>		Vitaceae		Least Concern	Eastern Cape endemic	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Cyphostemma quinatum</i> (Dryand.) Desc. ex Wild & R.B.Drumm. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
125	<i>Cyrtanthus</i>	<i>huttonii</i>		Amaryllidaceae	Protected	Least Concern	Eastern Cape and Mpumalanga.		NO	Snijman, D.A. & Victor, J.E. 2004. <i>Cyrtanthus huttonii</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
126	<i>Cyrtanthus</i>	<i>obrienii</i>		Amaryllidaceae	Protected	Least Concern	Recorded in KZN (Du Plessis) and further north by Snijman & Victor: Eastern Cape, Free State, KwaZulu- Natal, Mpumalanga	LOW	NO	du Plessis, N., Duncan, G. & Bodley, E. 1989. Bulbous Plants of Southern Africa. Tafelberg, Cape Town . Snijman, D.A. & Victor, J.E. 2004. <i>Cyrtanthus obrienii</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
127	<i>Cyrtanthus</i>	<i>smithiae</i>		Amaryllidaceae	Protected		Eastern Cape endemic		NO	Snijman, D.A. & Victor, J.E. 2004. <i>Cyrtanthus smithiae</i> Watt ex Harv. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/2
128	<i>Cystopteris</i>	<i>fragilis</i>		Cystopteridaceae		Least Concern	Eastern Cape, Free State, KwaZulu- Natal, Limpopo, Mpumalanga, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Cystopteris fragilis</i> (L.) Bernh. subsp. <i>fragilis</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
129	<i>Delosperma</i>	<i>affine</i>		Aizoaceae	Protected	Least Concern	Largely Western and Eastern Cape (GBIF)	HIGH	NO	https://www.gbif.org/species/3707590 . Burgoyne, P.M. 2006. <i>Delosperma affine</i> Lavis. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
130	<i>Dianthus</i>	<i>micropetalus</i>		Caryophyllaceae		Least Concern	Eastern Cape, Free State, Gauteng, Northern Cape, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Dianthus micropetalus</i> Ser. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
131	<i>Dianthus</i>	<i>namaensis</i>	<i>dinteri</i>	Caryophyllaceae		Least Concern	Endemic to the old Cape Provinces		NO	Foden, W. & Potter, L. 2005. <i>Dianthus namaensis</i> Schinz var. <i>dinteri</i> (Schinz) S.S.Hooper. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23

132	<i>Diascia</i>	<i>cuneata</i>		Scrophulariaceae	Protected	Least Concern	Eastern Cape and Free State	100	YES	Foden, W. & Potter, L. 2005. <i>Diascia cuneata</i> E.Mey. ex Benth. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
133	<i>Dietes</i>	<i>iridioides</i>		Iridaceae	Protected	Least Concern	From the Riviersondernd Mountains to Ethiopia (Manning et al 2002) but Foden and Potter 2005 - Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape	HIGH	NO	Manning, J., Goldblatt, P. & Snijman, D. 2002. The Colour Encyclopedia of Cape Bulbs. Timber Press, Cambridge, UK. Foden, W. & Potter, L. 2005. <i>Dietes iridioides</i> (L.) Sweet ex Klatt. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
134	<i>Dioscorea</i>	<i>elephantipes</i>		Dioscoreaceae	Protected	Least Concern	Endemic to the old Cape Provinces - specifically favouring East facing slopes, quartzic and shale: Albany Thicket, Desert, Fynbos, Grassland, Succulent Karoo	HIGH	NO	Victor, J.E. & Dold, A.P. 2016. <i>Dioscorea elephantipes</i> (L'Hér.) Engl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
135	<i>Diospyros</i>	<i>lycioides</i>	<i>lycioides</i>	Ebenaceae		Least Concern	Eastern Cape, Free State, Gauteng, Limpopo, Mpumalanga, Northern Cape, North West, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Diospyros lycioides</i> Desf. subsp. <i>lycioides</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
136	<i>Diospyros</i>	<i>dichrophylla</i>		Ebenaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Diospyros dichrophylla</i> (Gand.) De Winter. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
137	<i>Diospyros</i>	<i>scabrida</i>	<i>scabrida</i>	Ebenaceae		Least Concern	Hoare not listing the subspecies. KZN and Eastern Cape		NO	Foden, W. & Potter, L. 2005. <i>Diospyros scabrida</i> (Harv. ex Hiern) De Winter var. <i>scabrida</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
138	<i>Disa</i>	<i>crassicornis</i>		Orchidaceae	Protected	Least Concern	Southern limits of the distribution (Foden & Potter 2005, Johnson & Byteie 2015). Usually in damp areas of grasslands.	LOW	NO	Johnson, S. & Bytebier, B. 2015. Orchids of South Africa. Struik, Cape Town. Foden, W. & Potter, L. 2005. <i>Disa crassicornis</i> Lindl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
139	<i>Disa</i>	<i>sagittalis</i>		Orchidaceae	Protected	Least Concern	Eastern and Western Cape endemic - wide distribution but limited to stony, rocky soils, along streams and often in semi-shade	HIGH	NO	Johnson, S. & Bytebier, B. 2015. Orchids of South Africa. Struik, Cape Town. Foden, W. & Potter, L. 2005. <i>Disa sagittalis</i> (L.f.) Sw. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02

140	<i>Disa</i>	<i>versicolor</i>		Orchidaceae	Protected	Least Concern	Likely to be at the southern end of the distribution for the study site: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga. Dry and wet grasslands.	LOW	NO	Johnson, S. & Bytebier, B. 2015. Orchids of South Africa. Struik, Cape Town. Foden, W. & Potter, L. 2005. <i>Disa versicolor</i> Rchb.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
141	<i>Disparago</i>	<i>ericoides</i>		Asteraceae		Least Concern	Limited to the fynbos vegetation from Malmesbury to Plettenberg Bay: Rocky or sandy areas on flats and lower slopes.	NIL	NO	Foden, W. & Potter, L. 2011. <i>Disparago ericoides</i> (P.J.Bergius) Gaertn. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
142	<i>Dolichos</i>	<i>hastaeformis</i>		Fabaceae		Least Concern	Eastern and Western Cape endemic	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Dolichos hastaeformis</i> E.Mey. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
143	<i>Doryopteris</i>	<i>concolor</i>		Pteridaceae		Least Concern	Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Doryopteris concolor</i> (Langsd. & Fisch.) Kuhn. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
144	<i>Drimia</i>	<i>altissima</i>		Hycanthaceae		Least Concern	Not concur with listing this as a SSC.	100	YES	Williams, V.L., Raimondo, D., Crouch, N.R., Brueton, V.J., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2016. <i>Drimia altissima</i> (L.f.) Ker Gawl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
145	<i>Drosanthemum</i>	<i>opacum</i>		Aizoaceae	Protected	Least Concern	Western Cape endemic - 500km to the west of the study site	NIL	NO	Raimondo, D., Manyama, P.A. & Kamundi, D.A. 2008. <i>Drosanthemum opacum</i> L.Bolus. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
146	<i>Drosanthemum</i>	<i>hispidum</i>		Aizoaceae	Protected	Least Concern	Widely distributed: Eastern Cape, Free State, Northern Cape, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Drosanthemum hispidum</i> (L.) Schwantes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
147	<i>Elytropappus</i>	<i>rhinocerotis</i>		Asteraceae		Least Concern	Endemic to the old Cape Provinces		NO	Kamundi, D.A. & Victor, J.E. 2006. <i>Elytropappus rhinocerotis</i> (L.f.) Less. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
148	<i>Encephalartos</i>	<i>cycadifolius</i>		Zamiaceae	Protected	Least Concern	Narrow range in the Eastern Cape on the Bedford District: Semi-dry grassland areas in shallow shale soils on the northern and eastern slopes of the mountains	HIGH	NO	Donaldson, J.S. 2009. <i>Encephalartos cycadifolius</i> (Jacq.) Lehm. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
149	<i>Encephalartos</i>	<i>lehmannii</i>		Zamiaceae	Protected	Near Threatened A2d	Dry areas, Eastern Cape endemic - Arid, low succulent shrubland on rocky ridges and slopes.	HIGH	NO	Donaldson, J.S. 2009. <i>Encephalartos lehmannii</i> Lehm. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03

							Albany Thicket, Nama Karoo and Succulent Karoo			
150	<i>Erica</i>	<i>gracilis</i>		Ericaceae	Protected	Least Concern	Western Cape endemic	NIL	NO	Foden, W. & Potter, L. 2005. <i>Erica gracilis</i> J.C.Wendl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
151	<i>Erica</i>	<i>caespitosa</i>		Ericaceae	Protected	Least Concern	Eastern Cape and KZN		NO	Raimondo, D., von Staden, L., Foden, W., Victor, J.E., Helme, N.A., Turner, R.C., Kamundi, D.A. and Manyama, P.A. 2009. Red List of South African Plants. Strelitzia 25. South African National Biodiversity Institute, Pretoria.
152	<i>Erica</i>	<i>cerinthoides</i>		Ericaceae	Protected	Not Determined	Widely distributed: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape - mostly fynbos and grasslands	MEDIUM	NO	van der Colff, D. 2015. <i>Erica cerinthoides</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
153	<i>Erica</i>	<i>rupicola</i>		Ericaceae	Protected	Data Deficient - Insufficient Information	Western Cape endemic: sandstone fynbos in the Riviersonderend Mountains	NIL	NO	Turner, R.C. 2008. <i>Erica rupicola</i> Klotzsch. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
154	<i>Eriosephalus</i>	<i>africanus</i>	<i>paniculatus</i>	Asteraceae		Least Concern	Hoare didn't mention subspecies. <i>E. africanus africanus</i> is a W Cape endemic. <i>E. eriosephalus paniculatus</i> is an old Cape Provinces endemic.		NO	Foden, W. & Potter, L. 2005. <i>Eriosephalus africanus</i> L. var. <i>paniculatus</i> (Cass.) M.A.N.Müll.,P.P.J.Herman & Kolberg. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
155	<i>Eriosema</i>	<i>salignum</i>		Fabaceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West - but study site may be too far south for natural range.		NO	Foden, W. & Potter, L. 2005. <i>Eriosema salignum</i> E.Mey. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
156	<i>Euclea</i>	<i>racemosa</i>	<i>bernardii</i>	Ebenaceae		Least Concern	Southern Afrotropical Forest, Southern Cape Dune Fynbos, Goukamma Dune Thicket Description It occurs in coastal dune thicket and dry riverine forest	NIL	NO	von Staden, L. 2017. <i>Euclea racemosa</i> Murray subsp. <i>bernardii</i> F.White. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03

157	<i>Euclea</i>	<i>racemosa</i>	<i>macrophylla</i>	Ebenaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Euclea racemosa</i> Murray subsp. <i>macrophylla</i> (E.Mey. ex A.DC.) F.White. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
158	<i>Euclea</i>	<i>racemosa</i>	<i>racemosa</i>	Ebenaceae		Least Concern	<i>E. racemosa racemosa</i> = N Cape and Western Cape endemic	NIL	NO	Foden, W. & Potter, L. 2005. <i>Euclea racemosa</i> Murray subsp. <i>racemosa</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
159	<i>Euclea</i>	<i>racemosa</i>		Ebenaceae		Not Evaluated	Hoare not listing the subspecies.		NO	Not listed on SANBI Red Data List
160	<i>Euclea</i>	<i>crispa</i>		Ebenaceae		Least Concern	RRRG and TBC 2020 recored <i>Euclea undulata</i> . Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Euclea crispa</i> (Thunb.) Gürke subsp. <i>crispa</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
161	<i>Euclea</i>	<i>schimperi</i>	<i>schimperi</i>	Ebenaceae		Least Concern	SANBI not listing subspecies. Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga		NO	von Staden, L. 2014. <i>Euclea schimperi</i> (A.DC.) Dandy. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
162	<i>Euphorbia</i>	<i>globosa</i>	<i>globosa</i>	Euphorbiaceae	Protected	Endangered B1ab(ii,iii,v)	EOO 1200 km ² , less than five remaining locations. Continuing decline due to coastal development (Uitenhage to Port Elizabeth). Albany Alluvial Vegetation, Sundays Valley Thicket, Motherwell Karroid Thicket. Only 20km from the coast (Moller & Becker 2019).	NIL	NO	Moller, A. & Becker, R., 2019. Field Guide to the Succulent Euphorbias of Southern Africa, Briza Publications, Pretoria.. Victor, J.E. & Dold, A.P. 2019. <i>Euphorbia globosa</i> (Haw.) Sims. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
163	<i>Euphorbia</i>	<i>brachiata</i>		Euphorbiaceae		Least Concern	Species changed to <i>E. rhombifolia</i> . Old Cape provinces and small presence in Free State	HIGH	NO	Archer, R.H., Vlok, J.H., Victor, J.E. & Raimondo, D. 2017. <i>Euphorbia rhombifolia</i> Boiss. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
164	<i>Euphorbia</i>	<i>caterviflora</i>		Euphorbiaceae		Least Concern	Species changed to <i>E. rhombifolia</i> . Old Cape provinces and small presence in Free State	HIGH	NO	Archer, R.H., Vlok, J.H., Victor, J.E. & Raimondo, D. 2017. <i>Euphorbia rhombifolia</i> Boiss. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
165	<i>Euphorbia</i>	<i>coerulescens</i>		Euphorbiaceae		Least Concern	Species frequently spelled in two forms. Listed as <i>E. caerulescens</i> . Eastern and	LOW	NO	Archer, R.H., Victor, J.E., Dold, A.P. & von Staden, L. 2014. <i>Euphorbia caerulescens</i> Haw. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03

							Western Cape endemic - linked to Albany Thicket, Nama Karoo and Succulent Karoo			
166	<i>Euphorbia</i>	<i>epicyparissias</i>	<i>epicyparissias</i>	Euphorbiaceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape		NO	Archer, R.H. & Victor, J.E. 2005. <i>Euphorbia epicyparissias</i> E.Mey. ex Boiss. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
167	<i>Euphorbia</i>	<i>inconstantia</i>		Euphorbiaceae		Least Concern	Eastern Cape endemic	HIGH	NO	
168	<i>Euphorbia</i>	<i>ornithopus</i>		Euphorbiaceae		Least Concern	Species name changed to <i>E. tridentata</i> . Grahamstown and Cradock areas	100	YES	Not listed in SANBI Red Data List. Moller, A. & Becker, R., 2019. Field Guide to the Succulent Euphorbias of Southern Africa, Briza Publications, Pretoria.
169	<i>Euphorbia</i>	<i>pentagona</i>		Euphorbiaceae		Least Concern	Eastern Cape endemic.		NO	Archer, R.H. & Victor, J.E. 2005. <i>Euphorbia pentagona</i> Haw. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
170	<i>Euphorbia</i>	<i>rhombofolia</i>		Euphorbiaceae		Least Concern	Old Cape provinces and small presence in Free State	100	YES	Archer, R.H., Vlok, J.H., Victor, J.E. & Raimondo, D. 2017. <i>Euphorbia rhombifolia</i> Boiss. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
171	<i>Euphorbia</i>	<i>stellata</i>		Euphorbiaceae		Least Concern	Eastern Cape endemic	100	YES	Archer, R.H. & Victor, J.E. 2005. <i>Euphorbia stellata</i> Willd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
172	<i>Euryops</i>	<i>subcarnosus</i>	<i>vulgaris</i>	Asteraceae		Least Concern	Eastern Cape, Free State, Northern Cape, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Euryops subcarnosus</i> DC. subsp. <i>vulgaris</i> B.Nord. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
173	<i>Euryops</i>	<i>algoensis</i>		Asteraceae		Least Concern	Eastern Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Euryops subcarnosus</i> DC. subsp. <i>vulgaris</i> B.Nord. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
174	<i>Euryops</i>	<i>anthemoides</i>	<i>anthemoides</i>	Asteraceae		Least Concern	Western and Eastern Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Euryops anthemoides</i> B.Nord. subsp. <i>anthemoides</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
175	<i>Euryops</i>	<i>brachypodus</i>		Asteraceae		Least Concern	Eastern Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Euryops brachypodus</i> (DC.) B.Nord. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/0
176	<i>Falkia</i>	<i>repens</i>		Convolvulaceae		Least Concern	Eastern Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Falkia repens</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
177	<i>Faucaria</i>	<i>felina</i>	<i>felina</i>	Aizoaceae	Protected	Least Concern			NO	Victor, J.E. & Dold, A.P. 2007. <i>Faucaria felina</i> (L.) Schwantes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
178	<i>Faucaria</i>	<i>tuberculosa</i>		Aizoaceae	Protected	Least Concern		100	YES	Burgoyne, P.M. 2006. <i>Faucaria tuberculosa</i> (Rolfe) Schwantes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23. Regarded as Vulnerable by T. Dold but Least Concern by SANBI.
179	<i>Felicia</i>	<i>muricata</i>	<i>muricata</i>	Asteraceae		Least Concern	All nine provinces and widely dispersed	100	YES	Foden, W. & Potter, L. 2005. <i>Felicia muricata</i> (Thunb.) Nees subsp. <i>muricata</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03

180	<i>Felicia</i>	<i>muricata</i>		Asteraceae		Least Concern		100	YES	Not listed on SANBI Red Data List
181	<i>Felicia</i>	<i>filifolia</i>		Asteraceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpumalanga, Northern Cape, North West, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Felicia filifolia</i> (Vent.) Burt Davy subsp. <i>filifolia</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
182	<i>Felicia</i>	<i>hyssopifolia</i>	<i>polyphylla</i>	Asteraceae		Least Concern	Hoare didn't list subsp. <i>F. hyssopifolia</i> and <i>F. hyssopifolia</i> are both W Cape endemics - <i>F. hyssopifolia polyphylla</i> is a Eastern and W Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Felicia hyssopifolia</i> (P.J.Bergius) Nees subsp. <i>polyphylla</i> (Harv.) Grau. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
183	<i>Ficinia</i>	<i>acuminata</i>		Cyperaceae		Least Concern	Eastern Cape and Western Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Ficinia acuminata</i> (Nees) Nees. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
184	<i>Ficinia</i>	<i>gracilis</i>		Cyperaceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga		NO	Foden, W. & Potter, L. 2005. <i>Ficinia gracilis</i> Schrad. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
185	<i>Ficinia</i>	<i>nigrescens</i>		Cyperaceae		Least Concern	Old Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Ficinia nigrescens</i> (Schrad.) J.Raynal. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
186	<i>Ficinia</i>	<i>stolonifera</i>		Cyperaceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Ficinia stolonifera</i> Boeck. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
187	<i>Flueggea</i>	<i>verrucosa</i>		Phyllanthaceae		Least Concern	Eastern Cape and KZN		NO	Archer, R.H. & Victor, J.E. 2005. <i>Flueggea verrucosa</i> (Thunb.) G.L.Webster. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
188	<i>Garuleum</i>	<i>tanacetifolium</i>		Asteraceae		Least Concern	Eastern Cape endemic: Forest margins, and shrubby mountain slopes. Only found N of Bedford, N of Somerset East and the Sneeu Berg Mountains.	NIL	NO	Swelankomo, N. & von Staden, L. 2013. <i>Garuleum tanacetifolium</i> (MacOwan) Norl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
189	<i>Gasteria</i>	<i>disticha</i>	<i>disticha</i>	Asphodelaceae		Not Determined	Wide distribution in Western Cape	NIL	NO	Smith, G.F., Crouch, N.R., & Figueiredo, E. 2017. Field Guide to the Succulents in Southern Africa. Struik Nature, Cape Town
190	<i>Gasteria</i>	<i>disticha</i>	<i>langebergensis</i>	Asphodelaceae		Endangered B1ab(ii,iii,v)+2ab(ii,iii,v)	Very narrow range in the W Cape	NIL	NO	van Jaarsveld, E.J., Raimondo, D. & von Staden, L. 2015. <i>Gasteria disticha</i> (L.) Haw. var. <i>langebergensis</i> Van Jaarsv. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02

191	<i>Gasteria</i>	<i>disticha</i>		Asphodelaceae		Not Determined	Subspecies not listed by Hoare. Likely that numerous subspecies have been listed since Van Jaarsveld (1994) who didn't recognise subssp and defined the natural distribution to the Western Cape (Robertson, Swartberg, Beaufort West areas).	NIL	NO	van Jaarsveld, E. & Ward-Hilhorst. 1994. <i>Gasterias</i> of South Africa, Fernwood Press, Johannesburg.
192	<i>Gasteria</i>	<i>bicolor</i>	<i>bicolor</i>	Asphodelaceae		Least Concern	Eastern Cape endemic	100	YES	van Jaarsveld, E. & Ward-Hilhorst. 1994. <i>Gasterias</i> of South Africa, Fernwood Press, Johannesburg. Foden, W. & Potter, L. 2005. <i>Gasteria bicolor</i> Haw. var. <i>bicolor</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
193	<i>Gazania</i>	<i>krebsiana</i>	<i>krebsiana</i>	Asteraceae		Least Concern	Hoare didn't list subsp. Eastern Cape, Free State, KwaZulu-Natal, Northern Cape, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Gazania krebsiana</i> Less. subsp. <i>krebsiana</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
194	<i>Gazania</i>	<i>linearis</i>	<i>linearis</i>	Asteraceae		Least Concern	Hoare didn't list subsp. Eastern Cape endemic. Eastern Cape, KwaZulu-Natal, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Gazania linearis</i> (Thunb.) Druce var. <i>linearis</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
195	<i>Gazania</i>	<i>linearis</i>	<i>ovalis</i>	Asteraceae		Least Concern	Hoare didn't list subsp. Eastern Cape endemic		NO	Kamundi, D.A. & Victor, J.E. 2005. <i>Gazania linearis</i> (Thunb.) Druce var. <i>ovalis</i> (Harv.) Roessler. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
196	<i>Gazania</i>	<i>rigens</i>	<i>uniflora</i>	Asteraceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Gazania rigens</i> (L.) Gaertn. var. <i>uniflora</i> (L.f.) Roessler. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
197	<i>Geranium</i>	<i>grandistipulatum</i>		Gerianaceae		Least Concern			NO	
198	<i>Gerbera</i>	<i>piloselloides</i>		Asteraceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Gerbera piloselloides</i> (L.) Cass. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23

199	<i>Gladiolus</i>	<i>ochroleucus</i>		Iridaceae	Protected	Least Concern	A common sp. Suurberg west of Grahamstown and the southern foothills of the Amathole Mountains near Kings William's Town in the Eastern Cape eastwards towards Byrne in southern Kwazulu-Natal. The species has no particular soil preference, but can most often be found in coastal sandstone-derived soils on light clay. Flowering period - Dec - May. Widespread in the Eastern Cape :Grahamstown and King Williams Town moving NE towards KZN (Saunders & Saunders 2021).	HIGH	NO	Saunders, R. & Saunders, R. 2021. Saunders Field Guide to the Gladioli of South Africa. Struik Nature, Cape Town Goldblatt, P. & Manning, J. 1988. Gladiolus in Southern Africa. Fernwood Press, Johannesburg. von Staden, L. 2020. Gladiolus ochroleucus Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02.
200	<i>Gnaphalium</i>	<i>confine</i>		Asteraceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpumalanga, Northern Cape, Western Cape		NO	Foden, W. & Potter, L. 2005. Gnaphalium confine Harv. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
201	<i>Gnaphalium</i>	<i>vestitum</i>		Asteraceae		Least Concern	Eastern Cape endemic		NO	Raimondo, D. & Turner, R.C. 2007. Gnaphalium vestitum Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
202	<i>Gnidia</i>	<i>cuneata</i>		Thymelaeaceae		Least Concern		100	YES	Not listed on SANBI Red Data List
203	<i>Gomphostigma</i>	<i>virgatum</i>		Scrophulariaceae		Least Concern	All nine provinces		NO	Foden, W. & Potter, L. 2005. Gomphostigma virgatum (L.f.) Baill. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
204	<i>Gonialoe</i>	<i>variegata</i>		Asphodelaceae	Protected	Least Concern	Wide distribution in the arid areas of the Eastern Western and Northern Cape	MEDIUM	NO	Mtshali, H. & von Staden, L. 2018. Gonialoe variegata (L.) Boatwr. & J.C.Manning. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25. . Van Wyb, B-E., Smith, G. Guide to the Aloes of South Africa. 2008. Briza, Pretoria.
205	<i>Grewia</i>	<i>robusta</i>		Malvaceae		Least Concern	Restricted to the semi-arid areas in the Karoo and Eastern Cape: Albany Thicket, Grassland, Nama Karoo, Succulent Karoo	100	NO	Raimondo, D. 2019. Grewia robusta Burch. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29

206	<i>Habenaria</i>	<i>epipactidea</i>		Orchidaceae	Protected	Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West. The southern range distribution limit may be north of study site - Foden & Potter (2005). Johnson & Bytebier (2015) - the distribution looks to include the study site	HIGH	NO	Johnson, S. & Bytebier, B. 2015. Orchids of South Africa. Struik, Cape Town. Foden, W. & Potter, L. 2005. <i>Habenaria epipactidea</i> Rchb.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
207	<i>Habenaria</i>	<i>lithophila</i>		Orchidaceae	Protected	Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpumalanga, Western Cape (Foden & Potter 2005). Johnson & Bytebier (2015) seem to include the distribution in the study site location	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Habenaria lithophila</i> Schltr. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
208	<i>Haemanthus</i>	<i>albiflos</i>		Amaryllidaceae	Protected	Least Concern	Widely distributed:	100	YES	Snijman, D.A. & Victor, J.E. 2004. <i>Haemanthus albiflos</i> Jacq. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/24
209	<i>Haemanthus</i>	<i>montanus</i>		Amaryllidaceae	Protected	Least Concern	Large range: KZN, former Transkei, Free State and Gauteng	NIL	NO	Du Plessis, & Duncan, G. 1989. Bulbous Plants of Southern Africa. Tafelberg, Cape Town. Snijman, D.A. & Victor, J.E. 2004. <i>Haemanthus montanus</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
210	<i>Haplocarpha</i>	<i>lyrata</i>		Asteraceae		Least Concern	Eastern Cape, Free State, Gauteng, Mpumalanga, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Haplocarpha lyrata</i> Harv. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
211	<i>Haworthia</i>	<i>altilinea</i>		Asphodelaceae	Protected	Not Determined	Species changed to <i>mucronata</i> subsp. <i>mucronata</i>		NO	SANBI. 2020. <i>Haworthia mucronata</i> Haw. var. <i>mucronata</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
212	<i>Haworthia</i>	<i>deltoidea</i>	<i>deltoidea</i>	Asphodelaceae	Protected	Least Concern	Genus changed to <i>Astroloba</i> and species changed to <i>congesta</i> . Prince Albert to Victoria West and east to Cradock and Grahamstown.	HIGH	NO	Raimondo, D. 2016. <i>Astroloba congesta</i> (Salm-Dyck) Uitewaal. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
213	<i>Haworthia</i>	<i>limifolia</i>	<i>ubomboensis</i>	Asphodelaceae	Protected	Vulnerable A2d	Genus changed to <i>Haworthiopsis</i> . Wide distribution but limited to KZN, Swaziland and Mozambique	NIL	NO	Bayer, B. 1999. <i>Haworthia</i> revisited - A revision of the genus. Umdaus Press, Pretoria. https://en.wikipedia.org/wiki/Haworthiopsis_limifolia . Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2014. <i>Haworthiopsis limifolia</i> (Marloth) G.D.Rowley. National

										Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
214	<i>Haworthia</i>	<i>nigra</i>	<i>nigra</i>	Asphodelaceae	Protected	Not Determined	Genus changed to <i>Haworthiopsis</i> . Widely distributed in the Eastern Cape	HIGH	NO	Bayer, B. 1999. <i>Haworthia</i> revisited - A revision of the genus. Umdauss Press, Pretoria. SANBI. 2020. <i>Haworthiopsis nigra</i> (Haw.) G.D.Rowley var. <i>nigra</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
215	<i>Haworthia</i>	<i>reinwardtii</i>	<i>reinwardtii</i>	Asphodelaceae	Protected	Not Determined	Wide distribution in the Eastern Cape	HIGH	NO	Bayer, B. 1999. <i>Haworthia</i> revisited - A revision of the genus. Umdauss Press, Pretoria. SANBI. 2020. <i>Haworthia reinwardtii</i> (Salm-Dyck) Haw. var. <i>reinwardtii</i> forma <i>reinwardtii</i> . National Assessment: Red List of South African Plants version 2020.1. accessed on 2022/04/29
216	<i>Helichrysum</i>	<i>anomalum</i>		Asteraceae		Least Concern	Eastern Cape and Western Cape endemic	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Helichrysum anomalum</i> Less. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
217	<i>Helichrysum</i>	<i>herbaceum</i>		Asteraceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Helichrysum herbaceum</i> (Andrews) Sweet. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
218	<i>Helichrysum</i>	<i>miconiifolium</i>		Asteraceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West		NO	Foden, W. & Potter, L. 2005. <i>Helichrysum miconiifolium</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
219	<i>Helichrysum</i>	<i>teretifolium</i>		Asteraceae		Least Concern	Albany Thicket, Fynbos, Grassland, Indian Ocean Coastal Belt	HIGH	NO	Foden, W. & Potter, L. 2009. <i>Helichrysum teretifolium</i> (L.) D.Don. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
220	<i>Helichrysum</i>	<i>cymosum</i>	<i>cymosum</i>	Asteraceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Helichrysum cymosum</i> (L.) D.Don subsp. <i>cymosum</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
221	<i>Helichrysum</i>	<i>felinum</i>		Asteraceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape: Albany Thicket, Fynbos, Grassland, Indian Ocean Coastal Belt	HIGH	NO	Foden, W. & Potter, L. 2009. <i>Helichrysum felinum</i> Less. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
222	<i>Helichrysum</i>	<i>nudifolium</i>		Asteraceae		Least Concern	All nine provinces		NO	Foden, W. & Potter, L. 2005. <i>Helichrysum nudifolium</i> (L.) Less. var. <i>nudifolium</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
223	<i>Helichrysum</i>	<i>odoratissimum</i>		Asteraceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Western Cape		NO	von Staden, L. 2010. <i>Helichrysum odoratissimum</i> (L.) Sweet. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/0
224	<i>Helichrysum</i>	<i>pilosellum</i>		Asteraceae		Least Concern	Species changed to <i>H. nudifolium</i> .		NO	Kamundi, D.A. & Victor, J.E. 2005. <i>Helichrysum nudifolium</i> (L.) Less. var. <i>pilosellum</i> (L.f.) Beentje. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03

225	<i>Helichrysum</i>	<i>rosum</i>	<i>rosum</i>	<i>Asteraceae</i>		Least Concern	Eastern and Western Cape endemic. Hoare never specified subsp.	100	YES	Foden, W. & Potter, L. 2005. <i>Helichrysum rosum</i> (P.J.Bergius) Less. var. <i>rosum</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
226	<i>Helichrysum</i>	<i>rugulosum</i>		<i>Asteraceae</i>		Least Concern	Stony grasslands: Albany Thicket, Fynbos, Grassland, Indian Ocean Coastal Belt, Savanna	100	YES	von Staden, L. 2016. <i>Helichrysum rugulosum</i> Less. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
227	<i>Helichrysum</i>	<i>spiralepis</i>		<i>Asteraceae</i>		Least Concern	Coastal grasslands, montane grasslands and fynbos. Albany Thicket, Fynbos, Grassland, Indian Ocean Coastal Belt, Savanna - but unlikely to reach into the study site.	LOW	NO	von Staden, L. 2016. <i>Helichrysum spiralepis</i> Hilliard & B.L.Burt. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
228	<i>Hermannia</i>	<i>depressa</i>		<i>Malvaceae</i>		Least Concern	Largely excluded from W Cape and N Cape but widespread in all other provinces. Southern distribution may be too far east of the study site	LOW	NO	Foden, W. & Potter, L. 2005. <i>Hermannia depressa</i> N.E.Br. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
229	<i>Hermannia</i>	<i>althaeifolia</i>		<i>Malvaceae</i>		Least Concern	This species is an endemic to the old Cape Provinces: occurs from Namaqualand to the Cape Peninsula, Roggeveld Escarpment, Little Karoo and Langkloof.	NIL	NO	von Staden, L. 2020. <i>Hermannia althaeifolia</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
230	<i>Hermannia</i>	<i>althaeoides</i>		<i>Malvaceae</i>		Least Concern	Eastern Cape, Free State, Northern Cape, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Hermannia althaeoides</i> Link. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
231	<i>Hermannia</i>	<i>glabrata</i>		<i>Malvaceae</i>		Least Concern	Eastern Cape, KwaZulu-Natal, Northern Cape, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Hermannia glabrata</i> L.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
232	<i>Hermannia</i>	<i>gracilis</i>		<i>Malvaceae</i>		Least Concern	Old Cape Provinces endemic		NO	Foden, W. & Potter, L. 2005. <i>Hermannia gracilis</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
233	<i>Heteromorpha</i>	<i>arborescens</i>	<i>abyssinica</i>	<i>Apiaceae</i>			Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga,	LOW	NO	Victor, J.E. & Winter, P.J.D. 2005. <i>Heteromorpha arborescens</i> (Spreng.) Cham. & Schtdl. var. <i>abyssinica</i> (Hochst. ex A.Rich.) H.Wolff. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03

							Northern Cape, North West, Western Cape. May be the study site is too far south for the range.			
234	<i>Hibiscus</i>	<i>aethiopicus</i>		Malvaceae		Least Concern	Hoare didn't list subsp. <i>H. aethiopicus</i> - wide distribution: Eastern Cape, KwaZulu-Natal, Northern Cape, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Hibiscus aethiopicus</i> L. var. <i>angustifolius</i> (Eckl. & Zeyh.) Exell. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
235	<i>Hibiscus</i>	<i>pusillus</i>		Malvaceae		Least Concern	Occurs in all nine provinces	100	YES	Foden, W. & Potter, L. 2005. <i>Hibiscus pusillus</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
236	<i>Hypericum</i>	<i>lalandii</i>		Hypericaceae		Least Concern	Occurs in all nine provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Hypericum lalandii</i> Choisy. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
237	<i>Hypertelis</i>	<i>salsoloides</i>		Kewaceae		Least Concern	Genus has changed to <i>Kewa</i> . Wide distribution: Desert, Nama Karoo, Succulent Karoo, Savanna	LOW	NO	von Staden, L. 2015. <i>Kewa salsoloides</i> (Burch.) Christenh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
238	<i>Hypoestes</i>	<i>forskaolii</i>		Acanthaceae		Least Concern	All nine provinces	HIGH	NO	Kamundi, D.A. 2006. <i>Hypoestes forskoolii</i> (Vahl) R.Br. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
239	<i>Hypoxis</i>	<i>argentea</i>	<i>argentea</i>	Hypoxidaceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape. Subsp. not listed by Hoare.		NO	Foden, W. & Potter, L. 2005. <i>Hypoxis argentea</i> Harv. ex Baker var. <i>argentea</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
240	<i>Hypoxis</i>	<i>costata</i>		Hypoxidaceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpumalanga		NO	Foden, W. & Potter, L. 2005. <i>Hypoxis costata</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
241	<i>Hypoxis</i>	<i>hemerocallidea</i>		Hypoxidaceae		Least Concern	Albany Thicket, Grassland, Indian Ocean Coastal Belt, Savanna	HIGH	NO	Williams, V.L., Raimondo, D., Crouch, N.R., Victor, J.E., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M., Ngwenya, A.M. & Singh, Y. 2019. <i>Hypoxis hemerocallidea</i> Fisch., C.A.Mey. & Avé-Lall. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
242	<i>Hypoxis</i>	<i>multiceps</i>		Hypoxidaceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga		NO	Foden, W. & Potter, L. 2005. <i>Hypoxis multiceps</i> Buchinger ex Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28

243	<i>Hypoxis</i>	<i>villosa</i>		Hypoxidaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape		NO	Manyama, P.A. & Kamundi, D.A. 2006. <i>Hypoxis villosa</i> L.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
244	<i>Indigofera</i>	<i>alternans</i>	<i>alternans</i>	Fabaceae		Least Concern	Wide distribution: Eastern Cape, Free State, Gauteng, Limpopo, Northern Cape, North West, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Indigofera alternans</i> DC. var. <i>alternans</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
245	<i>Indigofera</i>	<i>burchellii</i>		Fabaceae		Least Concern	Eastern Cape and Northern Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Indigofera burchellii</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
246	<i>Indigofera</i>	<i>disticha</i>		Fabaceae		Least Concern	Eastern cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Indigofera disticha</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
247	<i>Indigofera</i>	<i>verrucosa</i>		Fabaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Indigofera verrucosa</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
248	<i>Ipomoea</i>	<i>crispa</i>		Ipomoeaceae		Least Concern	Eastern Cape Endemic	100	YES	Foden, W. & Potter, L. 2005. <i>Ipomoea crispa</i> (Thunb.) Hallier f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
249	<i>Ipomoea</i>	<i>oenotheroides</i>		Ipomoeaceae		Least Concern	Wide distribution: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Northern Cape, North West		NO	Foden, W. & Potter, L. 2005. <i>Ipomoea oenotheroides</i> (L.f.) Raf. ex Hallier f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
250	<i>Isolepis</i>	<i>costata</i>		Cyperaceae		Least Concern	Found in all 9 provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Isolepis costata</i> Hochst. ex A.Rich. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
251	<i>Isolepis</i>	<i>diabolica</i>		Cyperaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Northern Cape, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Isolepis diabolica</i> (Steud.) Schrad. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
252	<i>Jamesbrittenia</i>	<i>atropurpurea</i>	<i>atropurpurea</i>	Scrophulariaceae		Least Concern	Eastern Cape, Free State, Gauteng, Northern Cape, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Jamesbrittenia atropurpurea</i> (Benth.) Hilliard subsp. <i>atropurpurea</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
253	<i>Jamesbrittenia</i>	<i>filicaulis</i>		Scrophulariaceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal		NO	Foden, W. & Potter, L. 2005. <i>Jamesbrittenia filicaulis</i> (Benth.) Hilliard. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
254	<i>Jamesbrittenia</i>	<i>foliolosa</i>		Scrophulariaceae		Least Concern	Eastern Cape and Western Cape Endemic	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Jamesbrittenia foliolosa</i> (Benth.) Hilliard. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
255	<i>Jatropha</i>	<i>capensis</i>		Euphorbiaceae		Least Concern	Eastern Cape Endemic		NO	Archer, R.H. & Victor, J.E. 2005. <i>Jatropha capensis</i> (L.f.) Sond. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
256	<i>Juncus</i>	<i>effusus</i>		Juncaceae		Least Concern	Wide distribution: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape		NO	Cholo, F. & Foden, W. 2006. <i>Juncus effusus</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28

257	<i>Juncus</i>	<i>oxycarpus</i>		Juncaceae		Least Concern	All nine provinces		NO	Cholo, F. & Foden, W. 2006. <i>Juncus oxycarpus</i> E.Mey. ex Kunth. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
258	<i>Justicia</i>	<i>orchioides</i>	<i>glabrata</i>	Acanthaceae		Least Concern	Eastern Cape, Free State, North West, Western Cape		NO	Victor, J.E. 2005. <i>Justicia orchioides</i> L.f. subsp. <i>glabrata</i> Immelman. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
259	<i>Kniphofia</i>	<i>triangularis</i>	<i>triangularis</i>	Asphodelaceae	Protected	Least Concern	Eastern Cape, Free State, KZN	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Kniphofia triangularis</i> Kunth subsp. <i>triangularis</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
260	<i>Kniphofia</i>	<i>uvaria</i>		Asphodelaceae	Protected	Least Concern	Old Cape provinces. Limited to areas of high seasonal soil moisture	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Kniphofia uvaria</i> (L.) Oken. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
261	<i>Knowltonia</i>	<i>cordata</i>		Ranunculaceae		Least Concern	Genus changed to <i>Anemone</i> : Endemic to Eastern and Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Anemone cordata</i> (H.Rasm.) J.C.Manning & Goldblatt. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
262	<i>Kyllinga</i>	<i>alata</i>		Cyperaceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Kyllinga alata</i> Nees. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
263	<i>Lachenalia</i>	<i>bowkeri</i>		Hyacinthaceae	Protected	Least Concern	Eastern Cape Endemic: Albany Thicket, Fynbos, Nama Karoo, Succulent Karoo	100	YES	Duncan, G.D. & Victor, J.E. 2005. <i>Lachenalia bowkeri</i> Baker. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
264	<i>Lactuca</i>	<i>inermis</i>		Asteraceae		Least Concern	All nine provinces		NO	Foden, W. & Potter, L. 2005. <i>Lactuca inermis</i> Forssk. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
265	<i>Lampranthus</i>	<i>productus</i>		Aizoaceae	Protected	Least Concern	Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Lampranthus productus</i> (Haw.) N.E.Br. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
266	<i>Lampranthus</i>	<i>stayneri</i>		Aizoaceae	Protected		Eastern Cape and Western Cape Endemic		NO	Klak, C., Raimondo, D. & Matlamela, P.F. 2008. <i>Lampranthus stayneri</i> (L.Bolus) N.E.Br. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
267	<i>Lantana</i>	<i>rugosa</i>		Verbenaceae		Least Concern	Widely distributed in all 9 provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Lantana rugosa</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
268	<i>Lasiospermum</i>	<i>pedunculare</i>		Asteraceae		Least Concern	Northern Cape and Western Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Lasiospermum pedunculare</i> Lag. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
269	<i>Leonotis</i>	<i>ocymifolia</i>	<i>ocymifolia</i>	Lamiaceae		Least Concern	Wide distribution: Eastern Cape, Gauteng, Limpopo, Mpumalanga, Northern Cape, North West, Western Cape and beyond SA	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Leonotis ocymifolia</i> (Burm.f.) Iwarsson. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
270	<i>Lessertia</i>	<i>annularis</i>		Fabaceae		Least Concern	Eastern Cape, Free State, Northern		NO	Foden, W. & Potter, L. 2005. <i>Lessertia annularis</i> Burch. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28

							Cape, Western Cape			
271	<i>Leucas</i>	<i>capensis</i>		Lamiaceae		Least Concern	Common species in study area	100	YES	Not listed in the SANBI RED LIST
272	<i>Linum</i>	<i>thunbergii</i>		Linaceae		Least Concern	Wide spread: all provinces bar N Cape		NO	Foden, W. & Potter, L. 2005. <i>Linum thunbergii</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
273	<i>Lithospermum</i>	<i>papillosum</i>		Boraginaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Mpumalanga, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Lithospermum papillosum</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
274	<i>Lobelia</i>	<i>flaccida</i>	<i>flaccida</i>	Lobeliaceae		Least Concern	All nine provinces		NO	Victor, J.E. 2004. <i>Lobelia flaccida</i> (C.Presl) A.DC. subsp. <i>flaccida</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
275	<i>Lobelia</i>	<i>thermalis</i>		Lobeliaceae		Least Concern	All provinces bar KZN		NO	Foden, W. & Potter, L. 2005. <i>Lobelia thermalis</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
276	<i>Lobelia</i>	<i>tomentosa</i>		Lobeliaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Lobelia tomentosa</i> L.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
277	<i>Lotononis</i>	<i>laxa</i>		Fabaceae		Least Concern	Wide distribution: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West	100	YES	Foden, W. & Potter, L. 2005. <i>Lotononis laxa</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
278	<i>Lycium</i>	<i>prunus-spinosa</i>		Solanaceae			See <i>Lycium cinereum</i> . Not listed in the SANBI RED LIST, species changed to <i>L. cinereum</i>		NO	
279	<i>Lycium</i>	<i>cinereum</i>		Solanaceae		Least Concern	All nine provinces	100	YES	Foden, W. & Potter, L. 2005. <i>Lycium cinereum</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
280	<i>Lycium</i>	<i>oxycarpum</i>		Solanaceae		Least Concern	Eastern Cape, Free State, Northern Cape, Western Cape	100	YES	von Staden, L. 2018. <i>Lycium oxycarpum</i> Dunal. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
281	<i>Lycium</i>	<i>schizocalyx</i>		Solanaceae		Least Concern	Eastern Cape, Free State, Limpopo, Northern Cape, North West, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Lycium schizocalyx</i> C.H.Wright. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
282	<i>Maerua</i>	<i>cafra</i>		Brassicaceae		Least Concern	Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West		NO	Foden, W. & Potter, L. 2005. <i>Maerua cafra</i> (DC.) Pax. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
283	<i>Malephora</i>	<i>crassa</i>		Aizoaceae	Protected	Least Concern	Northern Cape and Western Cape endemic	LOW	NO	Burgoyne, P.M. 2006. <i>Malephora crassa</i> (L.Bolus) H.Jacobsen & Schwantes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28

284	<i>Mariscus</i>	<i>congestus</i>		Cyperaceae		Least Concern	Genus changed to <i>Cyperus</i> . Wide distribution		NO	Foden, W. & Potter, L. 2005. <i>Cyperus congestus</i> Vahl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
285	<i>Mariscus</i>	<i>uitenhagensis</i>		Cyperaceae		Least Concern	Genus changed to <i>Cyperus</i> . Wide distribution: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Cyperus uitenhagensis</i> (Steud.) C.Archer & Goetgh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
286	<i>Maytenus</i>	<i>linearis</i>		Celastraceae		Least Concern	Genus changed to <i>Gymnosporia</i> : Wide distribution - Eastern and Western Cape		NO	Archer, R.H. & Victor, J.E. 2005. <i>Gymnosporia linearis</i> (L.f.) Loes. subsp. <i>linearis</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
287	<i>Maytenus</i>	<i>heterophylla</i>		Celastraceae		Least Concern	Genus changed to <i>Gymnosporia</i> : Wide distribution - Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga	HIGH	NO	Archer, R.H. & Victor, J.E. 2005. <i>Gymnosporia heterophylla</i> (Eckl. & Zeyh.) Loes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
288	<i>Melolobium</i>	<i>burchelli</i>		Fabaceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Mpumalanga, Northern Cape. Species changed to <i>M. microphyllum</i>	100	YES	Foden, W. & Potter, L. 2005. <i>Melolobium microphyllum</i> (L.f.) Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
289	<i>Mesembryanthemum</i>	<i>aitonis</i>		Aizoaceae	Protected	Least Concern	Wide distribution in old Cape provinces	HIGH	NO	Goldblatt, P. & Manning, J. 2000. Cape Plants - A conspectus of the Cape Flora of South Africa. Strelitzia 9. National Botanical Institute, Pretoria Burgoyne, P.M. 2006. <i>Mesembryanthemum aitonis</i> Jacq. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
290	<i>Metalasia</i>	<i>densa</i>		Asteraceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, Western Cape	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Metalasia densa</i> (Lam.) P.O.Karis. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
291	<i>Metalasia</i>	<i>muricata</i>		Asteraceae		Least Concern	Wide range but coastal areas from the Cape Peninsula to the Ngqeleni-Mqanduli district in the Transkei.	NIL	NO	Foden, W. & Potter, L. 2005. <i>Metalasia muricata</i> (L.) D.Don. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
292	<i>Metalasia</i>	<i>trivialis</i>		Asteraceae		Least Concern	Eastern and Western Cape: Albany Thicket, Fynbos, Grassland	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Metalasia trivialis</i> P.O.Karis. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22

293	<i>Mohria</i>	<i>caffrorum</i>	<i>caffrorum</i>	Anemiaceae		Least Concern	Widely distributed fern species: old Cape provinces		NO	Victor, J.E. 2005. <i>Mohria caffrorum</i> (L.) Desv. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
294	<i>Monopsis</i>	<i>unidentata</i>	<i>unidentata</i>	Lobeliaceae		Least Concern	Eastern Cape and Western Cape endemic		NO	Victor, J.E. 2005. <i>Monopsis unidentata</i> (Dryand.) E.Wimm. subsp. <i>unidentata</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
295	<i>Moquiniella</i>	<i>rubra</i>		Loranthaceae		Least Concern	Widely in the old Cape Provinces and associated with spp like: <i>Vachellia</i> , <i>Carissa</i> , <i>Diospyros</i> , <i>Euclea</i> , <i>Ficus</i> , <i>Grewia</i> , <i>Searsia</i>	100	YES	Visser, J. 1981. South African Parasitic Flowering Plants. Juta Press Cape Town. . Foden, W. & Potter, L. 2005. <i>Moquiniella rubra</i> (A.Spreng.) Balle. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
296	<i>Moraea</i>	<i>polystachya</i>		Iridaceae	Protected	Least Concern	Wide distribution old Cape Provinces, Free State and Namibia. Flowering time is limited to one day per flower and populations flowering time 6-8 weeks per annum.	HIGH	NO	Goldblatt, P. & Anderson, F. 1986. The <i>Moraea</i> s of Southern Africa. National Botanical Gardens, Pretoria. Foden, W. & Potter, L. 2005. <i>Moraea polystachya</i> (Thunb.) Ker Gawl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
297	<i>Muraltia</i>	<i>alopecuroides</i>		Polygalaceae		Least Concern	Eastern and Western Cape: Albany Thicket, Fynbos, Grassland, Nama Karoo	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Muraltia alopecuroides</i> (L.) DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
298	<i>Muraltia</i>	<i>mixta</i>		Polygalaceae		Data Deficient - Insufficient Information	Limited to sandstone slopes in the Fynbos and Western Cape endemic - not recorded since 1954	NIL	NO	Helme, N.A. & Raimondo, D. 2009. <i>Muraltia mixta</i> (L.f.) DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
299	<i>Myrica</i>	<i>serrata</i>		Mricaceae		Least Concern	Widely distributed in all 9 provinces, but very limited in the N Cape. Genus changed to <i>Morella</i> .	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Morella serrata</i> (Lam.) Killick. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
300	<i>Myrsine</i>	<i>africana</i>		Myrsinaceae		Least Concern	Wide distribution : Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Myrsine africana</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
301	<i>Nemesia</i>	<i>melissifolia</i>		Scrophulariaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Northern Cape, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Nemesia melissifolia</i> Benth. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
302	<i>Nenax</i>	<i>microphylla</i>		Rubiaceae		Least Concern	Eastern Cape, Free State, Northern Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Nenax microphylla</i> (Sond.) T.M.Salter. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/0

303	<i>Nerine</i>	<i>huttoniae</i>		Iridaceae	Protected	Vulnerable B1ab(iii,v).	South Eastern Cape. Summer growing species: February to April. Flowering time coincided with field trip. Species only associated with rich alluvial floodplains in the Fish River Valley	NIL	NO	Du Plessis et al 1989. Bulbous Plants of Southern Africa. Tafelberg, Cape Town Dold, A.P., McMaster, C. & Raimondo, D. 2016. <i>Nerine huttoniae</i> Schönland. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
304	<i>Nidorella</i>	<i>auriculata</i>		Asteraceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Nidorella auriculata</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
305	<i>Ocimum</i>	<i>burchellianum</i>		Lamiaceae		Least Concern	Eastern Cape endemic widely distributed	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Ocimum burchellianum</i> Benth. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
306	<i>Oedera</i>	<i>genistifolia</i>		Asteraceae		Least Concern	Endemic to old Cape Provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Oedera genistifolia</i> (L.) Anderb. & K.Bremer. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
307	<i>Oldenburgia</i>	<i>grandis</i>		Asteraceae		Least Concern	Eastern Cape endemic - associated with quartzitic and sandstone mountains	LOW	NO	Rebello, A.G., Helme, N.A., Holmes, P.M., Forshaw, C.N., Richardson, S.H., Raimondo, D., Euston-Brown, D.I.W., Victor, J.E., Foden, W., Ebrahim, I., Bomhard, B., Oliver, E.G.H., Johns, A., van der Venter, J., van der Walt, R., von Witt, C., Low, A.B., Paterson-Jones, C., Rourke, J.P., Hitchcock, A.N., Potter, L., Vlok, J.H. & Pillay, D. 2005. <i>Oldenburgia grandis</i> (Thunb.) Baill. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
308	<i>Olea</i>	<i>europaea</i>	<i>africana</i>	Oleaceae		Least Concern	Widely distributed in all 9 provinces	100	YES	Foden, W. & Potter, L. 2005. <i>Olea europaea</i> L. subsp. <i>africana</i> (Mill.) P.S.Green. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
309	<i>Oligocarpus</i>	<i>calendulaceus</i>		Asteraceae		Least Concern	Genus changed to <i>Osteospermum calendulaceum</i> . Eastern Cape, KwaZulu-Natal, Northern Cape, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Osteospermum calendulaceum</i> L.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
310	<i>Ornithogalum</i>	<i>fimbrimarginatum</i>		Hyacinthaceae		Least Concern	Species changed to <i>O. dubium</i> . Albany Thicket, Fynbos, Grassland, Indian Ocean Coastal Belt, Succulent Karoo	HIGH	NO	Klopper, R.R., Victor, J.E. & von Staden, L. 2012. <i>Ornithogalum dubium</i> Houtt. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
311	<i>Ornithogalum</i>	<i>juncifolium</i>		Hyacinthaceae		Least Concern	All provinces bar N Cape	HIGH	NO	van der Colff, D. 2015. <i>Ornithogalum juncifolium</i> Jacq. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02

312	<i>Ornithogalum</i>	<i>unifolium</i>		Hyacinthaceae		Least Concern	Genus has changed to <i>Albuca</i> . Species has changed to <i>unifolia</i> . Northern and Western Cape endemic	NIL	NO	von Staden, L. 2012. <i>Albuca unifolia</i> (Retz.) J.C.Manning & Goldblatt. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
313	<i>Osteospermum</i>	<i>bidens</i>		Asteraceae		Least Concern	Northern and Western Cape endemic	NIL	NO	Foden, W. & Potter, L. 2005. <i>Osteospermum bidens</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
314	<i>Oxalis</i>	<i>semiloba</i>	<i>semiloba</i>	Oxalidaceae		Least Concern	Eastern Cape, Free State, Gauteng, Limpopo, Mpumalanga		NO	Foden, W. & Potter, L. 2005. <i>Oxalis semiloba</i> Sond. subsp. <i>semiloba</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
315	<i>Pachypodium</i>	<i>succulentum</i>		Apocynaceae	Protected	Least Concern	Widespread spp in the old Cape provinces	100	YES	Raimondo, D., van Jaarsveld, E.J. & Vlok, J.H. 2007. <i>Pachypodium succulentum</i> (Jacq.) Sweet. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
316	<i>Pappea</i>	<i>capensis</i>		Sapindaceae		Least Concern	Widespread in all provinces	100	YES	Victor, J.E. & van Wyk, A.E. 2005. <i>Pappea capensis</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
317	<i>Passerina</i>	<i>montana</i>		Thymelaeaceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, North West		NO	Foden, W. & Potter, L. 2005. <i>Passerina montana</i> Thoday. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
318	<i>Pegolettia</i>	<i>retrofracta</i>		Asteraceae		Least Concern	Eastern Cape, Free State, Limpopo, Northern Cape, North West, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Pegolettia retrofracta</i> (Thunb.) Kies. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
319	<i>Pelargonium</i>	<i>alchemilloides</i>		Gerianaceae		Least Concern	Wide distribution: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Pelargonium alchemilloides</i> (L.) L'Hér. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
320	<i>Pelargonium</i>	<i>aridum</i>		Gerianaceae		Least Concern	Eastern Cape, Free State, North West	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Pelargonium aridum</i> R.A.Dyer. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
321	<i>Pelargonium</i>	<i>abrotanifolium</i>		Gerianaceae		Least Concern	Eastern Cape, Free State, Western Cape: Albany Thicket, Fynbos, Grassland, Nama Karoo, Succulent Karoo	100	YES	Foden, W. & Potter, L. 2009. <i>Pelargonium abrotanifolium</i> (L.f.) Jacq. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
322	<i>Pelargonium</i>	<i>multicaule</i>	<i>multicaule</i>	Gerianaceae		Least Concern	Eastern Cape, Free State, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Pelargonium multicaule</i> Jacq. subsp. <i>multicaule</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
323	<i>Pelargonium</i>	<i>odoratissimum</i>		Gerianaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Mpumalanga, Western Cape	LOW	NO	Foden, W. & Potter, L. 2005. <i>Pelargonium odoratissimum</i> (L.) L'Hér. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22

324	<i>Pelargonium</i>	<i>sidoides</i>		Gerianaceae		Least Concern	Wide distribution: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpumalanga, North West	100	YES	de Castro, A., Vlok, J.H., Newton, D., Motjotji, L. & Raimondo, D. 2012. <i>Pelargonium sidoides</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
325	<i>Pellaea</i>	<i>calomelanos</i>	<i>leucomelas</i>	Pteridaceae		Least Concern	All 9 provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Pellaea calomelanos</i> (Sw.) Link var. <i>calomelanos</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
326	<i>Pentzia</i>	<i>globosa</i>		Asteraceae		Least Concern	Widely distributed: Eastern Cape, Free State, Gauteng, Northern Cape, North West, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Pentzia globosa</i> Less. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
327	<i>Pentzia</i>	<i>incana</i>		Asteraceae		Least Concern	Wide distribution in semi-arid areas: Free State and old Cape Provinces	100	YES	von Staden, L. 2012. <i>Pentzia incana</i> (Thunb.) Kuntze. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
328	<i>Phylica</i>	<i>gnidioides</i>		Rhamnaceae		Least Concern	Humansdorp to Grahamstown: dunes and grassy areas: Eastern and Western Cape endemic	LOW	NO	Foden, W. & Potter, L. 2005. <i>Phylica gnidioides</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/0
329	<i>Phylica</i>	<i>paniculata</i>		Rhamnaceae		Least Concern	Widespread: Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape	HIGH	NO	von Staden, L. 2020. <i>Phylica paniculata</i> Willd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03
330	<i>Pimpinella</i>	<i>caffra</i>		Apiaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga: but southern end of distribution far from Bedford	LOW	NO	Victor, J.E. & Winter, P.J.D. 2005. <i>Pimpinella caffra</i> (Eckl. & Zeyh.) D.Dietr. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
331	<i>Plectranthus</i>	<i>ambiguus</i>		Lamiaceae		Least Concern	Eastern Cape and KZN: Grahamstown to Bathurst in semi-coastal areas along the east coast to Ngoye forest west of Richards Bay.	LOW	NO	von Staden, L. 2018. <i>Plectranthus ambiguus</i> (Bolus) Codd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/0
332	<i>Plectranthus</i>	<i>grallatus</i>		Lamiaceae		Least Concern	Southern end of the species range may just be NE of Bedford: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga	LOW	NO	Foden, W. & Potter, L. 2005. <i>Plectranthus grallatus</i> Briq. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/03

333	<i>Polygala</i>	<i>uncinata</i>		Polygalaceae		Least Concern	Occurs in all nine provinces	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Polygala uncinata</i> E.Mey. ex Meisn. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
334	<i>Polygala</i>	<i>virgata</i>	<i>virgata</i>	Polygalaceae		Least Concern	Eastern Cape, Free State, Gauteng, Limpopo, Mpumalanga, Northern Cape, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Polygala virgata</i> Thunb. var. <i>virgata</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
335	<i>Polygala</i>	<i>illepida</i>		Polygalaceae		Least Concern	Eastern Cape endemic	100	YES	Foden, W. & Potter, L. 2005. <i>Polygala illepida</i> E.Mey. ex Harv. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
336	<i>Polygala</i>	<i>leptophylla</i>		Polygalaceae		Least Concern	Eastern Cape, Free State, Gauteng, Limpopo, Mpumalanga, Northern Cape, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Polygala leptophylla</i> Burch. var. <i>leptophylla</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
337	<i>Polygala</i>	<i>macowaniana</i>		Polygalaceae		Least Concern	Eastern Cape, KwaZulu-Natal		NO	Foden, W. & Potter, L. 2005. <i>Polygala macowaniana</i> Paiva. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
338	<i>Polypodium</i>	<i>vulgare</i>		Polypodiaceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Mpumalanga, Western Cape - widespread fern spp.		NO	Foden, W. & Potter, L. 2005. <i>Polypodium vulgare</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
339	<i>Polystichum</i>	<i>pungens</i>		Dryopteridaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape - widespread fern sp.		NO	Foden, W. & Potter, L. 2005. <i>Polystichum pungens</i> (Kaulf.) C.Presl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
340	<i>Portulacaria</i>	<i>afra</i>		Didieraceae		Least Concern	Widespread in Albany Thicket, Fynbos, Succulent Karoo, Savanna and Nama Karoo: Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape	100	YES	von Staden, L. 2015. <i>Portulacaria afra</i> Jacq. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
341	<i>Psilocalon</i>	<i>granulicaule</i>		Aizoaceae	Protected	Least Concern	Eastern Cape, Free State, Northern Cape, Western Cape	HIGH	NO	Burgoyne, P.M. 2006. <i>Psilocalon granulicaule</i> (Haw.) Schwantes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
342	<i>Ptaeroxylon</i>	<i>obliquum</i>		Rutaceae	Protected	Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Ptaeroxylon obliquum</i> (Thunb.) Radlk. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02

343	<i>Pteridium</i>	<i>aquilinum</i>		Dennstaedtiaceae		Least Concern	Widespread fern spp: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Pteridium aquilinum</i> (L.) Kuhn subsp. <i>aquilinum</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
344	<i>Pterocelastrus</i>	<i>tricuspidatus</i>		Celastraceae		Least Concern	Associated with dune forest, dune scrub and forest margins or mesic thicket. Study site is too dry.	NIL	NO	Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2020. <i>Pterocelastrus tricuspidatus</i> (Lam.) Walp. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
345	<i>Pteronia</i>	<i>adenocarpa</i>		Asteraceae		Least Concern	Endemic to the old Cape Provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Pteronia adenocarpa</i> Harv. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
346	<i>Pteronia</i>	<i>glomerata</i>		Asteraceae		Least Concern	Endemic to the old Cape Provinces		NO	Foden, W. & Potter, L. 2005. <i>Pteronia glomerata</i> L.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
347	<i>Pteronia</i>	<i>incana</i>		Asteraceae		Least Concern	Endemic to the old Cape Provinces	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Pteronia incana</i> (Burm.) DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
348	<i>Pterygodium</i>	<i>magnum</i>		Orchidaceae	Protected	Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Limpopo, - not endemic to SA. Southern distribution limit likely to be further N than study site.	LOW	NO	Foden, W. & Potter, L. 2005. <i>Pterygodium magnum</i> Rchb.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
349	<i>Putterlickia</i>	<i>pyracantha</i>		Celastraceae		Least Concern	Eastern and Western Cape endemic	HIGH	NO	von Staden, L. 2018. <i>Putterlickia pyracantha</i> (L.) Szyszyl. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
350	<i>Rafnia</i>	<i>elliptica</i>		Fabaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape but limited to grassy coastal fynbos in the Eastern Cape or sandstone-derived soils in KZN	NIL	NO	von Staden, L. 2020. <i>Rafnia elliptica</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
351	<i>Relhania</i>	<i>pungens</i>		Asteraceae		Least Concern	Eastern and Western Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Relhania pungens</i> L'Hér. subsp. <i>pungens</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
352	<i>Resnova</i>	<i>lachenalioides</i>		Hyacinthaceae		Least Concern	Genus changed to <i>Ledebouria</i> .		NO	Hankey, A.J. & Victor, J.E. 2005. <i>Ledebouria lachenalioides</i> (Baker) J.C.Manning & Goldblatt. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
353	<i>Restio</i>	<i>sejunctus</i>		Restionaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape. Rocky slopes	MEDIUM	NO	Haaksma, E.D. & Linder, P. 2000. <i>Restios of the Fynbos</i> . Botanical Society of South Africa. Foden, W. & Potter, L. 2005. <i>Restio sejunctus</i> Mast. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02

354	<i>Restio</i>	<i>triticeus</i>		Restionaceae		Least Concern	Eastern and Western Cape endemic - limited to dry fynbos vegetation often on conglomerate geology	LOW	NO	Haaksma, E.D. & Linder, P. 2000. Restios of the Fynbos. Botanical Society of South Africa. Foden, W. & Potter, L. 2005. <i>Restio triticeus</i> Rottb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
355	<i>Rhodocoma</i>	<i>fruticosa</i>		Restionaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Western Cape - widespread species Western Cape, Eastern Cape and KZN. Sandstone and lateritic soils.	MEDIUM	NO	Haaksma, E.D. & Linder, P. 2000. Restios of the Fynbos. Botanical Society of South Africa. Foden, W. & Potter, L. 2005. <i>Rhodocoma fruticosa</i> (Thunb.) H.P.Linder. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
356	<i>Rhoicissus</i>	<i>rhomboidea</i>		Vitaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, but a forest species	NIL	NO	Pooley, E. 1997. The Complete Guide to the Trees of Natal, Zululand and Transkei. Natal Flora Publications Trust. Durban. Foden, W. & Potter, L. 2005. <i>Rhoicissus rhomboidea</i> (E.Mey. ex Harv.) Planch. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
357	<i>Rhynchosia</i>	<i>totta</i>	<i>totta</i>	Fabaceae		Least Concern	Occurs in all nine provinces		NO	Foden, W. & Potter, L. 2005. <i>Rhynchosia totta</i> (Thunb.) DC. var. <i>totta</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
358	<i>Rhynchosia</i>	<i>calvescens</i>		Fabaceae		Least Concern	Eastern Cape and KZN		NO	Foden, W. & Potter, L. 2005. <i>Rhynchosia calvescens</i> Meikle. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
359	<i>Rhynchosia</i>	<i>ciliata</i>		Fabaceae		Least Concern	Eastern and Western Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Rhynchosia ciliata</i> (Thunb.) Schinz. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
360	<i>Rubus</i>	<i>pinnatus</i>		Rosaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape	HIGH	NO	von Staden, L. 2013. <i>Rubus pinnatus</i> Willd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
361	<i>Rumohra</i>	<i>adiantiformis</i>		Dryopteridaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape		NO	
362	<i>Ruschia</i>	<i>orientalis</i>		Aizoaceae	Protected	Least Concern.	Eastern Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Ruschia orientalis</i> L.Bolus. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
363	<i>Ruschia</i>	<i>complanata</i>		Aizoaceae	Protected	Data Deficient - Taxonomically Problematic	Eastern Cape endemic		NO	Raimondo, D. & Cholo, F. 2008. <i>Ruschia complanata</i> L.Bolus. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
364	<i>Ruschia</i>	<i>cradockensis</i>	<i>cradockensis</i>	Aizoaceae	Protected	Least Concern	Eastern and Western Cape endemic	100	YES	Burgoyne, P.M. 2006. <i>Ruschia cradockensis</i> (Kuntze) H.E.K.Hartmann & Stüber subsp. <i>cradockensis</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
365	<i>Ruschia</i>	<i>uncinata</i>		Aizoaceae	Protected	Least Concern.	Western Cape endemic	NIL	NO	Burgoyne, P.M. 2006. <i>Ruschia uncinata</i> (L.) Schwantes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23

366	<i>Salvia</i>	<i>repens</i>	<i>repens</i>	Lamiaceae		Least Concern	Wide distribution Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Salvia repens</i> Burch. ex Benth. var. <i>repens</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/28
367	<i>Salvia</i>	<i>stenophylla</i>		Lamiaceae			Not listed on SANBI RED Data List.		NO	
368	<i>Sansevieria</i>	<i>aethiopica</i>		Ruscaceae		Least Concern.	Wide distribution: Eastern Cape, Free State, Gauteng, Limpopo, Northern Cape, North West	100	YES	Foden, W. & Potter, L. 2005. <i>Sansevieria aethiopica</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
369	<i>Sansevieria</i>	<i>hyacinthoides</i>		Ruscaceae		Least Concern.	Wide distribution: distribution Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga	100	YES	Foden, W. & Potter, L. 2005. <i>Sansevieria hyacinthoides</i> (L.) Druce. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
370	<i>Satyrium</i>	<i>membranaceum</i>		Orchidaceae	Protected	Least Concern.	Uncommon and restricted to stony grass slopes but below 700m above sea-level.	NIL	NO	Johnson, S. & Bytebier, B. 2015. Orchids of South Africa. Struik, Cape Town. Foden, W. & Potter, L. 2005. <i>Satyrium membranaceum</i> Sw. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
371	<i>Satyrium</i>	<i>parviflorum</i>		Orchidaceae	Protected	Least Concern.	Locally uncommon but linked to a wide variety of vegetation types.	MEDIUM	NO	Johnson, S. & Bytebier, B. 2015. Orchids of South Africa. Struik, Cape Town. Foden, W. & Potter, L. 2005. <i>Satyrium parviflorum</i> Sw. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
372	<i>Scabiosa</i>	<i>columbaria</i>		Dipsacaceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West	HIGH	NO	Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2008. <i>Scabiosa columbaria</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
373	<i>Scabiosa</i>	<i>tysonii</i>		Dipsacaceae		Least Concern	Eastern Cape and Natal endemic - study site at the extreme end of southern range	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Scabiosa tysonii</i> L.Bolus. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
374	<i>Schoenoplectus</i>	<i>decipiens</i>		Cyperaceae		Least Concern	Wide distribution in all nine provinces and associated with vleis, seepage areas and margins of pools	HIGH	NO	Mtshali, H., Cholo, F. & Foden, W. 2017. <i>Schoenoplectus decipiens</i> (Nees) J.Raynal. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
375	<i>Schoenoplectus</i>	<i>paludicola</i>		Cyperaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Mpumalanga, Western Cape		NO	Foden, W. & Potter, L. 2006. <i>Schoenoplectus paludicola</i> (Kunth) J.Raynal. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
376	<i>Schoenoxiphium</i>	<i>lehmannii</i>		Cyperaceae		Least Concern	Eastern Cape and KZN - linked to forests	LOW	NO	Victor, J.E. 2004. <i>Schoenoxiphium lehmannii</i> (Nees) Steud. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/0

377	<i>Schoenoxiphium</i>	<i>sparteum</i>		Cyperaceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal		NO	Foden, W. & Potter, L. 2005. Schoenoxiphium sparteum (Wahlenb.) C.B.Clarke. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
378	<i>Schotia</i>	<i>latifolia</i>		Fabaceae		Least Concern	Widely distributed: Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. Schotia latifolia Jacq. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
379	<i>Schotia</i>	<i>afra</i>	<i>afra</i>	Fabaceae		Least Concern	Eastern Cape and Western Cape endemic: Albany Thicket, and Karoo	100	YES	Foden, W. & Potter, L. 2005. Schotia afra (L.) Thunb. var. afra. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
380	<i>Sclerochiton</i>	<i>odoratissimus</i>		Acanthaceae		Least Concern	Limited to KwaZulu and Eastern Cape		NO	Kamundi, D.A. 2006. Sclerochiton odoratissimus Hilliard. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
381	<i>Scutia</i>	<i>myrtina</i>		Rhamnaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape. An indigenous bush encroacher,	HIGH	NO	Foden, W. & Potter, L. 2005. Scutia myrtina (Burm.f.) Kurz. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
382	<i>Searsia</i>	<i>burchellii</i>		Anacardaceae		Least Concern	The plant naturally occurs in Northern Cape, Western Cape, Free State, western Lesotho and Namibia. This inland, dry area grassland plant also occurs in rocky area	HIGH	NO	https://treesa.org/searsia-burchellii/ von Staden, L. 2018. Searsia burchellii (Sond. ex Engl.) Moffett. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02.
383	<i>Searsia</i>	<i>crenata</i>		Anacardaceae		Least Concern	SA endemic: Eastern Cape, KwaZulu-Natal, Western Cape. Species restricted to coastal and inland dune ecosystems	NIL	NO	von Staden, L. 2018. Searsia crenata (Thunb.) Moffett. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02. Pooley, E. 1997. The Complete Guide to the Trees of Natal, Zululand and Transkei. Natal Flora Publications Trust. Durban.
384	<i>Searsia</i>	<i>dentata</i>		Anacardaceae		Least Concern	Occurs naturally in almost the whole of South Africa except the Western and Northern Cape Provinces	100	YES	von Staden, L. 2018. Searsia dentata (Thunb.) F.A.Barkley. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
385	<i>Searsia</i>	<i>dregeana</i>		Anacardaceae		Least Concern	Eastern Cape and Free State		NO	Foden, W. & Potter, L. 2005. Searsia dregeana (Sond.) Moffett. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
386	<i>Searsia</i>	<i>glauca</i>		Anacardaceae		Least Concern	Eastern Cape and Western Cape Endemic in Albany Thicket, Fynbos, Succulent Karoo	HIGH	NO	von Staden, L. 2018. Searsia glauca (Thunb.) Moffett. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02

387	<i>Searsia</i>	<i>gueinzii</i>		Anacardaceae		Least Concern	Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga: very unlikely in study area - too far south for range.	LOW	NO	von Staden, L. 2018. <i>Searsia gueinzii</i> (Sond.) F.A.Barkley. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
388	<i>Searsia</i>	<i>incisa</i>		Anacardaceae		Least Concern	Northern Cape and Eastern Cape endemic	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Searsia incisa</i> (L.f.) F.A.Barkley var. <i>incisa</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
389	<i>Searsia</i>	<i>lancea</i>		Anacardaceae		Least Concern	Eastern Cape, Free State, Gauteng, Limpopo, Mpumalanga, Northern Cape, North West, Western Cape	100	YES	von Staden, L. 2018. <i>Searsia lancea</i> (L.f.) F.A.Barkley. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
390	<i>Searsia</i>	<i>longispina</i>		Anacardaceae		Least Concern	Widespread in the old Cape provinces: Albany Thicket, Nama Karoo, Succulent Karoo	100	YES	von Staden, L. 2018. <i>Searsia longispina</i> (Eckl. & Zeyh.) Moffett. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
391	<i>Searsia</i>	<i>lucida</i>	<i>elliptica</i>	Anacardaceae		Least Concern	Not determined	HIGH	NO	SANBI. 2020. <i>Searsia lucida</i> (L.) F.A.Barkley forma <i>elliptica</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
392	<i>Searsia</i>	<i>rhodesiensis</i>	<i>rhodesiensis</i>	Anacardaceae		Least Concern	Limited to the Limpopo Provinces. Name has changed to <i>Searsia magalismsontana</i>	NIL	NO	Foden, W. & Potter, L. 2005. <i>Searsia magalismsontana</i> (Sond.) Moffett subsp. <i>trifoliolata</i> (Baker f.) Moffett. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
393	<i>Searsia</i>	<i>chirindensis</i>		Anacardaceae		Least Concern	Limited to forest and forest margins, in the following vegetation types: Forest, Indian Ocean Coastal Belt and Savanna	LOW	NO	von Staden, L. 2018. <i>Searsia chirindensis</i> (Baker f.) Moffett. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
394	<i>Searsia</i>	<i>rehmanniana</i>	<i>glabrata</i>	Anacardaceae		Least Concern	Widely distributed in drainage lines: Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Searsia rehmanniana</i> (Engl.) Moffett var. <i>glabrata</i> (Sond.) Moffett. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
395	<i>Sebaea</i>	<i>sedoides</i>	<i>confertiflora</i>	Gentianaceae		Least Concern	Wide distribution: Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga		NO	Foden, W. & Potter, L. 2005. <i>Sebaea sedoides</i> Gilg var. <i>confertiflora</i> (Schinz) Marais. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
396	<i>Selago</i>	<i>corymbosa</i>		Scrophulariaceae		Least Concern	Eastern and Western Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Selago corymbosa</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
397	<i>Selago</i>	<i>densiflora</i>		Scrophulariaceae		Least Concern	Wide distribution but unlikely in the study area	LOW	NO	Foden, W. & Potter, L. 2005. <i>Selago densiflora</i> Rolfe. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29

398	<i>Selago</i>	<i>dolocosa</i>		Scrophulariaceae		Least Concern	No species listed on SANBI RED LIST. <i>S. dolocosa</i> is however listed.		NO	Foden, W. & Potter, L. 2005. <i>Selago dolocosa</i> Hilliard. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
399	<i>Selago</i>	<i>galpinii</i>		Scrophulariaceae		Least Concern	Wide distribution: Eastern Cape, Free State, KwaZulu-Natal, Mpumalanga		NO	Foden, W. & Potter, L. 2005. <i>Selago galpinii</i> Schltr. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
400	<i>Selago</i>	<i>geniculata</i>		Scrophulariaceae		Least Concern	Wide distribution in the following provinces: Eastern Cape, Free State, Northern Cape, North West, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Selago geniculata</i> L.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
401	<i>Selago</i>	<i>gracilis</i>		Scrophulariaceae		Least Concern	Eastern and Western Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Selago gracilis</i> (Rolfe) Hilliard. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
402	<i>Selago</i>	<i>saxatilis</i>		Scrophulariaceae		Least Concern	Eastern Cape, Free State, Northern Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Selago saxatilis</i> E.Mey. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
403	<i>Senecio</i>	<i>inaequidens</i>		Asteraceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West	100	YES	Foden, W. & Potter, L. 2005. <i>Senecio inaequidens</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
404	<i>Senecio</i>	<i>oxyodontus</i>		Asteraceae		Least Concern	Eastern Cape, KwaZulu-Natal		NO	Foden, W. & Potter, L. 2005. <i>Senecio oxyodontus</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
405	<i>Senecio</i>	<i>brachypodus</i>		Asteraceae		Least Concern	Eastern Cape, KwaZulu-Natal		NO	von Staden, L. 2020. <i>Senecio brachypodus</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
406	<i>Senecio</i>	<i>conrathii</i>		Asteraceae		Least Concern	Predominantly KwaZulu Natal, Mpumalanga and Limpopo	LOW	NO	Foden, W. & Potter, L. 2005. <i>Senecio conrathii</i> N.E.Br. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
407	<i>Senecio</i>	<i>erubescens</i>		Asteraceae		Least Concern	Widespread: South Africa from Limpopo to the Cape Peninsula and Cederberg, southern Tropical Africa and Congo	HIGH	NO	von Staden, L. 2016. <i>Senecio erubescens</i> Aiton. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
408	<i>Senecio</i>	<i>juniperinus</i>		Asteraceae		Least Concern	Eastern and Western Cape endemic		NO	Foden, W. & Potter, L. 2005. <i>Senecio juniperinus</i> L.f. var. <i>juniperinus</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
409	<i>Senecio</i>	<i>linifolius</i>		Asteraceae		Least Concern	Eastern Cape endemic and widespread: Fynbos, Grassland, Nama Karoo, Savanna		NO	von Staden, L. 2011. <i>Senecio linifolius</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29

410	<i>Senecio</i>	<i>radicans</i>		Asteraceae		Least Concern	Not listed on SANBI RED LIST or Golding 2002 or Hilton-Taylor 1996. Widely distributed in arid parts of South Africa	100	YES	Smith et al. 2017. Field Guide to the Succulents in Southern Africa. Smith, G.F., Crouch, N.R., & Figueiredo, E. 2017. Field Guide to the Succulents in Southern Africa. Struik Nature, Cape Town. Golding, J. (ed) 2002. Southern African Plant Red Data Lists. South African Biodiversity Network Report no 14. SABONET, Pretoria.
411	<i>Senecio</i>	<i>retrorsus</i>		Asteraceae		Least Concern	Eastern Cape and KZN		NO	Foden, W. & Potter, L. 2005. <i>Senecio retrorsus</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
412	<i>Senecio</i>	<i>speciosus</i>		Asteraceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Senecio speciosus</i> Willd. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
413	<i>Silene</i>	<i>angustifolcchellii</i>	<i>angustifolia</i>	Caryophyllaceae		Least Concern	Species name changed to <i>S. burcherllii</i> . Widely distributed: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, Western Cape	HIGH	NO	von Staden, L. 2014. <i>Silene burcherllii</i> Otth subsp. <i>pilosellifolia</i> (Cham. & Schltdl.) J.C.Manning & Goldblatt. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
414	<i>Sonchus</i>	<i>dregeanus</i>		Asteraceae		Least Concern	All nine provinces		NO	Foden, W. & Potter, L. 2005. <i>Sonchus dregeanus</i> DC. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/23
415	<i>Spiloxene</i>	<i>trifurcillata</i>		Hypoxidaceae		Least Concern	Genus changed to <i>Pauridia</i> . Eastern Cape endemic.		NO	Foden, W. & Potter, L. 2005. <i>Pauridia trifurcillata</i> (Nel) Snijman & Kocyan. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
416	<i>Stachys</i>	<i>aethiopica</i>		Lamiaceae		Least Concern	Wide distribution: Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Stachys aethiopica</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
417	<i>Stapelia</i>	<i>macowanii</i>	<i>conformis</i>	Asclepiadaceae	Protected	Not Determined	Widely distributed - but and Eastern Cape endemic. Species name has changed to <i>S. grandiflora</i>	100	YES	Victor, J.E. 2005. <i>Stapelia grandiflora</i> Masson var. <i>conformis</i> (N.E.Br.) Bruyns. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
418	<i>Stegnogramma</i>	<i>pozoi</i>		Thelypteridaceae		Least Concern	Widely distributed fern species: Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Stegnogramma pozoi</i> (Lag.) K.Iwats. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
419	<i>Sutera</i>	<i>campanulata</i>		Scrophulariaceae		Least Concern	Genus changed to <i>Chaenostoma</i> . Eastern Cape endemic.		NO	Naidoo, K. 2005. <i>Chaenostoma campanulatum</i> Benth. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29

420	<i>Sutera</i>	<i>pinnatifida</i>		Scrophulariaceae		Least Concern	Genus changed to <i>Jamesbrittenia</i> . Old Cape Provinces endemic.		NO	Raimondo, D., Matlamela, P.F. & Kamundi, D.A. 2008. <i>Jamesbrittenia pinnatifida</i> (L.f.) Hilliard. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
421	<i>Sutherlandia</i>	<i>frutescens</i>	<i>frutescens</i>	Fabaceae		Least Concern	Genus changed to <i>Lessertia</i> . Subspecies added.	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Lessertia frutescens</i> (L.) Goldblatt & J.C.Manning subsp. <i>frutescens</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
422	<i>Sutherlandia</i>	<i>humilis</i>		Fabaceae		Least Concern	Genus changed to <i>Lessertia</i> . Species lumped with <i>L. frutescens</i> subsp. <i>frutescens</i> .		NO	Foden, W. & Potter, L. 2005. <i>Lessertia frutescens</i> (L.) Goldblatt & J.C.Manning subsp. <i>frutescens</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/30
423	<i>Sutherlandia</i>	<i>microphylla</i>		Fabaceae		Least Concern	Genus changed to <i>Lessertia</i> . Species name changed to <i>L. frutescens</i> subspecies <i>microphylla</i> . Widely distributed: Eastern Cape, Free State, Gauteng, Limpopo, Mpumalanga, Northern Cape, North West, Western Cape - but study area at the end of its range.	MEDIUM	NO	Foden, W. & Potter, L. 2011. <i>Lessertia frutescens</i> (L.) Goldblatt & J.C.Manning subsp. <i>microphylla</i> (Burch. ex DC.) J.C.Manning & Boatwr. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
424	<i>Talinum</i>	<i>caffrum</i>		Anacampserotaceae		Least Concern	Widely distributed: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West	HIGH	NO	Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2008. <i>Talinum caffrum</i> (Thunb.) Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
425	<i>Tarchonanthus</i>	<i>camphoratus</i>		Asteraceae		Least Concern	African distribution	HIGH	NO	von Staden, L. 2018. <i>Tarchonanthus camphoratus</i> L. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
426	<i>Tephrosia</i>	<i>capensis</i>		Fabaceae		Least Concern	Wide distribution: Eastern Cape, Gauteng, Mpumalanga, Western Cape	100	YES	Foden, W. & Potter, L. 2005. <i>Tephrosia capensis</i> (Jacq.) Pers. var. <i>acutifolia</i> E.Mey. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
427	<i>Tetraria</i>	<i>cuspidata</i>		Cyperaceae		Least Concern	Wide distribution: Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape	HIGH	NO	van der Colff, D. & von Staden, L. 2020. <i>Tetraria cuspidata</i> (Rottb.) C.B.Clarke. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
428	<i>Teucrium</i>	<i>africanum</i>		Lamiaceae		Least Concern	Eastern and Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Teucrium africanum</i> Thunb. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/26
429	<i>Thesium</i>	<i>pallidum</i>		Santalaceae		Least Concern	Eastern Cape, Gauteng, KwaZulu-Natal, Mpumalanga	HIGH	NO	Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2008. <i>Thesium pallidum</i> A.DC. National Assessment: Red List of

										South African Plants version 2020.1. Accessed on 2022/04/26
430	<i>Thunbergia</i>	<i>capensis</i>		Acanthaceae		Least Concern	Eastern and Western Cape. Needs desktop work on niche requirements		NO	Kamundi, D.A. 2006. <i>Thunbergia capensis</i> Retz. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
431	<i>Trachyandra</i>	<i>asperata</i>		Asphodelaceae		Least Concern	Eastern Cape, Free State, KwaZulu-Natal, Mpumalanga and not endemic to SA	100	YES	Foden, W. & Potter, L. 2005. <i>Trachyandra asperata</i> Kunth var. <i>asperata</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
432	<i>Trachyandra</i>	<i>saltii</i>		Asphodelaceae		Least Concern	Wide distribution: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West		NO	Foden, W. & Potter, L. 2005. <i>Trachyandra saltii</i> (Baker) Oberm. var. <i>saltii</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
433	<i>Trachyandra</i>	<i>giffenii</i>		Asphodelaceae		Least Concern	Eastern Cape endemic	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Trachyandra giffenii</i> (F.M.Leight.) Oberm. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
434	<i>Trichodiadema</i>	<i>mirabile</i>		Aizoaceae	Protected	Least Concern	Limited to stony slopes of the Cape fold mountains from the Witteberg to Uitenhage.	NIL	NO	Goldblatt, P. & Manning, J. 2000. Cape Plants - A conspectus of the Cape Flora of South Africa. Strelitzia 9. National Botanical Institute, Pretoria. Burgoyne, P.M. 2006. <i>Trichodiadema mirabile</i> (N.E.Br.) Schwantes. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
435	<i>Trifolium</i>	<i>burchellianum</i>		Fabaceae		Least Concern	Widely distributed Eastern Cape, Free State, KwaZulu-Natal, Northern Cape, Western Cape	HIGH	NO	von Staden, L. 2017. <i>Trifolium burchellianum</i> Ser. subsp. <i>burchellianum</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
436	<i>Tritonia</i>	<i>gladiolaris</i>		Iridaceae	Protected	Least Concern	Wide distribution: Eastern Cape, KwaZulu-Natal, Mpumalanga, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Tritonia gladiolaris</i> (Lam.) Goldblatt & J.C.Manning. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
437	<i>Tritonia</i>	<i>strictifolia</i>		Iridaceae	Protected	Least Concern	Also listed as <i>Tritonia laxifolia</i> . Eastern Cape endemic	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Tritonia strictifolia</i> (Klatt) Benth. & Hook.f. ex B.D.Jacks. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
438	<i>Vachellia</i>	<i>karroo</i>		Fabaceae		Least Concern	Ubiquitous and an indigenous bush encroacher	100	YES	Foden, W. & Potter, L. 2005. <i>Vachellia karroo</i> (Hayne) Banfi & Gallaso. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/25
439	<i>Viscum</i>	<i>continuum</i>		Santalaceae		Least Concern	Eastern and Western Cape, widely distributed and associated with <i>Vachellia karroo</i> , <i>Diospyros</i> spp and <i>Searsia</i> spp.	HIGH	NO	Visser, J. 1981. South African Parasitic Flowering Plants. Juta Press Cape Town. Foden, W. & Potter, L. 2005. <i>Viscum continuum</i> E.Mey. ex Sprague. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22

440	<i>Viscum</i>	<i>crassulae</i>		Santalaceae		Least Concern	Mostly Eastern Cape endemic with small population in the Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Viscum crassulae</i> Eckl. & Zeyh. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
441	<i>Viscum</i>	<i>rotundifolium</i>		Santalaceae		Least Concern	Occurs in all nine provinces	100	YES	Foden, W. & Potter, L. 2005. <i>Viscum rotundifolium</i> L.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
442	<i>Wahlenbergia</i>	<i>albena</i>		Campalulaceae		Least Concern	Not endemic to SA. Wide distribution: Eastern Cape, Free State, Northern Cape, Western Cape		NO	Foden, W. & Potter, L. 2005. <i>Wahlenbergia albena</i> (Spreng. ex A.DC.) Lammers. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
443	<i>Wahlenbergia</i>	<i>cuspidata</i>		Campalulaceae		Least Concern	KZN and Eastern Cape not endemic to SA		NO	Welman, W.G. & Victor, J.E. 2006. <i>Wahlenbergia cuspidata</i> Brehmer. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
444	<i>Wahlenbergia</i>	<i>juncea</i>		Campalulaceae		Least Concern	Wide distribution - Eastern Cape endemic	100	YES	von Staden, L. 2017. <i>Wahlenbergia juncea</i> (H.Buek) Lammers. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
445	<i>Walafrida</i>	<i>geniculata</i>		Scrophulariaceae		Least Concern	Genus changed to <i>Selago</i> . See <i>S. geniculata</i>	100	NO	Foden, W. & Potter, L. 2005. <i>Selago geniculata</i> L.f. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/29
446	<i>Xysmalobium</i>	<i>parviflorum</i>		Apocynaceae	Protected		Wide distribution: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga	MEDIUM	NO	Foden, W. & Potter, L. 2005. <i>Xysmalobium parviflorum</i> Harv. ex Scott-Elliot. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/05/02
447	<i>Zaluzianskya</i>	<i>spathacea</i>		Scrophulariaceae		Least Concern	Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga - but may be at the end of its southern range at the Study Site	MEDIUM	NO	von Staden, L. 2020. <i>Zaluzianskya spathacea</i> (Benth.) Walp. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
448	<i>Zanthoxylum</i>	<i>capense</i>		Rutaceae	Protected	Least Concern	Widespread in southern Africa	HIGH	NO	Williams, V.L., Raimondo, D., Crouch, N.R., Cunningham, A.B., Scott-Shaw, C.R., Lötter, M. & Ngwenya, A.M. 2008. <i>Zanthoxylum capense</i> (Thunb.) Harv. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22
449	<i>Zornia</i>	<i>capensis</i>	<i>capensis</i>	Fabaceae		Least Concern	All provinces bar Northern and Western Cape	HIGH	NO	Foden, W. & Potter, L. 2005. <i>Zornia capensis</i> Pers. subsp. <i>capensis</i> . National Assessment: Red List of South African Plants version 2020.1. Accessed on 2022/04/22