Appendix D

Specialist Reports

SPECIALIST REPORT

BIODIVERSITY REPORT

SPECIALIST BIODIVERSITY REPORT

Terrestrial Biodiversity and Ecology: ESKOM Buffelspruit Khanyazwe,132kV power line alternatives, Nkomazi, Mpumalanga Province

Compiled for

WANDIMA Environmental Services
August 2012

Authors

Danie van der Walt (*M.Sc.* Biol)

Afrika Enviro & Biology

Specialist Environmental & Biodiversity Assessments

TEL 013 256 9464
FAX 086 603 8875
CELL 072 623 1845
27823022459@vodamail.co.za

P.O. BOX 152
Waterval-Boven
1195

Executive Summary

Due to the urgent need to supply electricity to rural areas in Mpumalanga, ESKOM intends to construct a twin 132kV overhead power line from the existing Khanyazwe substation to the east of Malelane along two alternative alignments to the exisiting Buffelspruit substation approximately 20km to the south. As partial requirement a biodiversity survey was required by the Department of Environmental Affairs (DEA) and the Mpumalanga Parks Board (MPB). The two proposed alternative alignments were investigated to determine their potential impacts on the natural environment. The terms set by the consultant for this report is understood as follows:

1. Vegetation survey and vegetation communities and habitats;
2. Terrestrial fauna report;
3. Habitat and ecological sensitivity report;
4. Impact assessment and recommendations

The general study area varies from mountainous bushveld to plains bushveld. The most serious transformation of the natural environment consists of cultivation of crops and formal and informal settlements which have transformed significant areas of natural land in the past few years. On a National level, the larger study area can be classified as Lowveld (A10), according to Acocks (1988) and Sour Lowveld Bushveld according to Low & Rebelo (1998). Classified on a regional scale and according to a more detailed system the study area compises several distinct vegetation units (Mucina & Rutherford, 2006):

Unit 1) Kaalrug Mountain Bushveld is found on the mountain slopes and hills in the Barberton area south of the Kaaps River. The structure consists of open to dense, short mountain savannah or thickets, with a more dominant grass layer at higher altitudes. This is a mesic mountain bushveld with more relationships to mountain grassland and is often found on steep or very broken mountain slopes. Approximately 25% is conserved, including 16% in the Mountainlands Nature Reserve. Rated as Least Threatened.

Unit 2) Barberton Serpentine Sourveld
Occurs as fragmented patches on ultramafic substrates of the larger Barberton area. Vary from grassland with stunted woody vegetation in the south to a more woody structure in the lowerlying Noordkaap area and towards Malelane. As result of the unique soil types, many endemic vegetation taxa are associated with this veld unit. Transformation as result of cultivation and plantations. Rated as Vulnerable.

Unit 3) Granite Lowveld
Occurs on a North-South belt on the lowveld plains east of the escarpment. Tall shrubland to low woodland with few large trees. Transformation as result of cultivation and settlements. Rated as Vulnerable.

Unit 4) Lowveld Riverine Forest is found along prominent rivers and streams in all the low lying areas of the northeastern Provinces of South Africa. *Ficus spp* are always present and characterictic trees are *Diospyros mespiliformis* and *Breonadia salicina*. This azonal unit is rated as Critically Endangered due to its sensitivity as well as its ecological importance. Approximately 50% is conserved in the larger National and Provincial Parks and an unknown proportion has been irreversibly transformed due to clearing for cultivation and other human induced impacts.

The vegetation communities that were identified during this investigation are described in the following sections:

i) **Mountain woodland**

This community can be described as a mosaic of bushveld trees and shrubs, forming a closed woodland community of tall shrubs and medium to tall trees. Prominent grasses are *Hyperthelia dissoluta, Panicum maximum* and *Cymbopogon pluriniodes*. Shrubs and lower species include *Rhus transvaalensis, Euclea*

natalensis, Pavetta edentula, Diospyros lycioides (*sericea*), *Zanthoxylum capense, Flueggea virosa, Commiphora africana, Rhoicissus dentata, Asparagus racemosus, Sansevieria hyacinthoides* and *Lippia javanica.* Prominent species of trees are *Commiphora mollis, Acacia caffra, Acacia davyii Pterocarpus rotundifolia, Olea europaea subsp africana, Combretum padoides, Combretum apiculatum, Combretum zeyheri, Sclerocarya birrea* (protected), *Peltophorum africanum, Pappea capensis, Strychnos madagascariensis* and *Dombeya rotundifolia.* No Red Data Listed (RDL) or endemic species were recorded and the potential of such taxa being present is low. This woodland has a *High* ecological importance as it is in a natural state with a diverse vegetation assemblage and it provide habitat for reptiles, birds and mammals.

ii) **Plains woodland**

This community can be described as a closed woodland community of tall shrubs and medium to tall trees. Commonly found species are: *Acacia nigrescens, Dichrostachys cinerea, Sclerocarya birrea* ssp. *caffra, Combretum collinum, Combretum apiculatum, combretum zeyheri, Strychnos madagascariensis, Lannea discolor, Peltophorum africanum, Euphorbia ingens* and *Terminalia sericea*. Many of the trees of this community are fruit bearing and thus of ecological importance. Shrubs are diverse and include *Euclea crispa, Euclea divinorum, Gymnosporia glaucophylla, Flueggia virosa* and *Ochna natalitia.* The areas consisting of this community have a significant diversity of vegetation and related faunal potential - the sensitivity is rated as *High.*

iii) **Riparian thickets**

This zone can be described as a riverine thicket found on stream and river banks of the study area. Characteristic Lowveld riparian trees (*Obligate* riparian indicator species) are present. These include *Ficus sycomorus, Diospyros mespiliformis, Breonadia salicina, Combretum erythrophyllum, Dalbergia armata, Bridelia micrantha* and *Acacia robusta* ssp *clavigera.* The tall tree component includes exceptional large specimens of *Ficus sycomorus* and *Diospyros mespiliformis*, with a height of up to 20m being reached. Smaller trees include *Acacia robusta* ssp *clavigera, Trichilia emetica* and *Combretum imberbe. Acacia schweinfurthii, Hippobromus pauciflorus* and *Croton megalobotrys* are found on the edge. This community has been degraded in some areas due to encroaching cultivated lands and tree felling as well as natural phenonema such as more recent floods (e.g. 2000ad). This community has very important stabilizing and ecological functions and has a *High* sensitivity rating.

iv) **Cultivated lands**

The lower lying valleys as well as plateaus on the higher areas have been transformed to producing fruit producing fruit and crops due to the climate and availability of water. Only fragments of natural vegetation remain intact due to the transformation. Furthermore, the orchards are regularly sprayed with pesticides and are chemically fertilized. As result of these impacts, these areas are low in biodiversity and all of these areas' sensitivity rating is *Low.*

Four legally protected tree species and four RDL species were identified in the affected area. The possibility exists that several important fauna species may occur in the alternative servitudes. However, due to the mobility of most terrestrial fauna, it is not anticipated that any of the taxa will be directly threatened by the activities. The animals can move away when disturbed an can return to the general area hence the terminantion of construction. The major impact on terrestrial fauna is expected to result from loss of habitat. Impact on terrestrial fauna and important species can be minimized by firstly aligning the servitude to make use of existing access roads and disturbed areas and avoiding sensitive habitats (e.g. rocky outcrops, wetlands and forests), and secondly by placing of the structures/poles on pre-selected sites of low faunal importance.

The investigation has determined that several different habitats and a diverse range of biota may be affected by any one of the alternative alignments. The significance of anticipated impacts has been evaluated and recommendations and deductions could be made. If these findings are correlated with the

different alignment alternatives, the cumulative impacts are inferred and a definite alignment recommendation can be made:

Alternative assessment and recommendation:

Alternative Alignment	Impacts on natural vegetation and habitats	Impacts on terrestrial fauna	Cumulative Score
1	5	7	**12**
2	12	11	**23**
Recommended alternative alignment			**Alternative 01**

The biodiversity investigation indicates that each alignment alternative vary in sensitivity from a *Low* to a *High* rating depending on specific aspects and features. **Alignment alternative 01 is recommended for the total length of the power line.**

With adequate mitigation the anticipated impacts on biodiversity can be controlled and reduced to a satisfactory level to ensure a minimal affect on biodiversity. The following preventative and mitigation measures must be incorporated with the planning, construction and operational phases of the power line (refer also to Fig. 1).

1) Planning Phase
    - The proponent must be committed to a conservation approach during the planning phase;
    - Sensitive habitats must be avoided or least sensitive crossings must be used as mitigation (Fig. 1);
    - The significance of potential impacts on biodiversity can be mitigated by aligning the alternatives alongside existing power lines and roads and by considering easy access.
    - Where conservation areas have to be crossed or are affected, the alternatives must be aligned onto the boundaries where possible.
    - Riparian vegetation at river crossings must be avoided altogether where possible by bypassing or by suspending the lines across from high ground to high ground. If this is not achieveable such habitats must only be disturbed where absolutely necessary and prominent trees must be avoided. It is recommended that only a minimal opening, large enough for the lines to cross without interference is created in such areas;
    - The necceassary plant destruction permits must be obtained from the regulating authorities prior to construction;
    - A specialist must assist the surveyor to ensure that the above recommendations are followed;

2) Construction Phase
    - The proponent must be committed to a conservation approach of practice and the actual footprint of construction/disturbance must be kept to a minimum;
    - Construction by helicopter is advised in areas where earthworks and construction of access roads may result in erosion or unnecessary environmental damage.
    - As much of the natural environment must be conserved (minimal construction of access roads and bush clearing);
    - Relocation of important species, identification and demarcation of specimens and sub-habitats not to be disturbed will have to be done beforehand by a specialist;

- Important species (fauna as well as flora) that will be threatened by the development must be relocated to safer habitats by suitable specialists;
- Preventative erosion control measures to be put in place;

3) Operational Phase
   - Maintenance crews must be educated with regards of the importance of biodiversity;
   - Maintenance of the lines and servitudes must be done in such a manner to conserve vegetation and create as least disturbance as possible and servitudes must be cleared of invasive vegetation;
   - The operational phase must be monitored by ESKOM environmental officials to ensure that adequate mitigation measures are in place and to take reactive measures in places where impacts pose problematic.

CONTENTS

1. Introduction and objectives

Due to the urgent need to supply electricity to rural areas in Mpumalanga, ESKOM intends to construct a twin 132kV overhead power line from the existing Khanyazwe substation to the east of Malelane along two alternative alignments to the exisiting Buffelspruit substation approximately 20km to the south. As partial requirement a biodiversity survey was required by the Department of Environmental Affairs (DEA) and the Mpumalanga Parks Board (MPB). The two proposed alternative alignments were investigated to determine their potential impacts on the natural environment. The terms set by the consultant for this report is understood as follows:

1. Vegetation survey and vegetation communities and habitats;
2. Terrestrial fauna report;
3. Habitat and ecological sensitivity report;
4. Impact assessment and recommendations.

The main aim of this survey was to conduct a specialist survey regarding the natural status, faunal potential and floral composition of the alignment alternatives as projected in Fig. 1. The alternatives were investigated on the following dates: 2012-08-27/30/31.

2. Survey Methods and Reporting

2.1 General

The authors relied on aerial images and ortho photos to assemble background information regarding the different features and vegetation communities present within the affected areas. The information thus gathered was used for selecting survey sites and to identify possible sensitive areas to be investigated. Furthermore, the alternative routes were surveyed by road as far as was logistically possible. Problematic, as well as potential sensitive areas were visited and investigated as explained in the following two sections. All literature and other references used to support findings and to assist in making conclusions are listed. In order to identify possible alternative alignments for each alternative in order to mitigate their impacts, a 1km wide corridor along each alternative were investigated.

2.2 Vegetation

Floral diversity was determined by completing survey transects and sample sites along all the different habitats within the physiographic zones represented in the affected areas (Deal *et al.* 1989a). In order to attain scientifically reliable results, obviously distinct vegetation communities were surveyed by selecting representative sites in each homogenous unit (Mathews *et al.* 1992). The vegetation units of Mucina & Rutherford (2006) are used as reference but where necessary communities are named according to the recommendations for a standardized South African syntaxonomic nomenclature system as explained by Deal *et al.* (1989b). By combining the available literature with the survey results, stratification of vegetation communities was possible.

The survey transects and sites in the affected areas were also intensively searched for important species and the potential for Red Data Listed (RDL) and other important species were established and cross referenced with PRECIS Data for the relevant quarter degree grid/s (SANBI, 2008). The aim was to identify distinct vegetation types and to establish their integrity and representation in the study area. The veld types are described on a local level in section 4, and with the aid of illustrations in Appendix 2 of this report.

2.3 **Terrestrial Fauna**

The fauna investigation is based on an intensive desktop study verified by cross reference with available habitats of the study area, so as to establish the faunal potential of a particular site. All fauna that were observed during field trips and floral surveys were also recorded. However, selected survey sites were well searched for fauna and habitats were identified during the vegetation surveys so as to establish the faunal potential of a particular area. By method of elimination (based on available habitats and the taxon's biology and known distribution), lists of faunal representation for the study area was assembled. The investigation included:

- Butterflies;
- Frogs;
- Reptiles – in order not to destroy or damage natural rocky areas and termite mounds the reptile search were limited to visual encounters as well as investigating smaller cover objects which could be replaced in its natural position;
- Mammals – this investigation was based on visual encounters and physical signs (e.g. tracks and droppings);

So as to attain universal terms and references for this report, all reports refer to the floral habitats that were identified. However, other important habitats that were identified and that do not have a floristic relevance are also discussed where applicable

2.4 **Ecological importance and sensitivity rating of habitats**

By considering the results of all the above investigations, the authors allocate a qualitative sensitivity rating to the habitats that were identified, based upon its ecological importance and biodiversity value. A qualitative method was chosen at the first stage of assessment instead of a quantitative method in order simplify the procedure of assessment.

This method of assessment is based on the criteria used by DWAF for *river ecoclassification* (Kleynhans *et al.*, 2009) and *a technique for assessing wetland health* (Macfarlane *et al.*, 2005). In order to simplify the decision making process, a scale of *Low, Medium* and *High* is used, based upon biodiversity value and ecological functions (Table 1).

Table 1 Criteria used for sensitivity rating of habitats

Ecological Importance/Biodiversity Value Terrestrial and Riparian Communities	Sensitivity Rating
Natural communities which are regarded as ecologically important and sensitive and important for the maintenance of biodiversity. It may be linked to other important communities and provide an important refuge/corridor for biodiversity (fauna and flora). This rating can also be allocated due to the presence of one or more unique qualities (e.g. occurrence of RDL, Endemic and/or Protected species). The presence of unnatural impacts is low and can be managed. Any external impacts will heve a significant negative effect on its status.	*High*
Natural communities which have a limited ecological function and a limited function for maintaining biodiversity. This may be due to homogenous habitat conditions and/or the negative effects of external impacts. External impacts can be managed and mitigated to reduce the significance of their magnitude.	*Medium*
Communities which have been significantly modified or transformed with the result that little or no natural flora and habitats remain intact. Ecological importance as well as biodiversity value is low. External impacts will not have a significant impact on its status.	*Low*

These criteria are also used to aid in the allocation of weight factors to different aspects for designing a significance index as explained in the following section.

2.5 **Significance rating for biodiversity**

In order to do a comparative assessment of the alternatives it is necessary to quantify the potential impacts of each alternative on specific biodiversity aspects (habitat or taxon). Therefore it is necessary to design a *significance index for biodiversity* that quantifies the importance of specific biodiversity aspects that have the potential of being negatively affected. This is achieved by measuring the total distance over which an impact will be relevant on a given land use/habitat or taxon (or to count the number of high risk areas where the distance cannot be measured, e.g. river crossings, mountain cliffs and ravines). In order to calculate the *significance rating* for each biophysical aspect a weight factor is allocated to each aspect. This method of assessment is a modification of the DWA method for *river ecoclassification* (Kleynhans *et al.*, 2009). The weight factor allocated to each aspect is based on its importance in the assessment, where a negative weight (-) is allocated to an aspect that will lower the significance of an impact and a positive weight (+) is allocated to an aspect with a negative significance potential. The weight factor is determined by the assessor, based on expert knowledge from assessing a wide range of criteria and is based on the ecological/biological significance of an aspect. A weight scale of -5 to +5 is used.

The *significance rating* of each aspect is calculated by multiplying its total distance of influence, or its assigned numerical index, by the allocated weight. To obtain a rating for an alternative, all the ratings for the different aspects in an alternative are added up. This method to assign a quantitative significance rating to an alternative can be modified for most biophysical subjects (e.g. impacts significance on habitats, fauna, etc.). The alternative with the least significant impact on the relevant apects of the biophysical environment can then be found by comparison.

3. Background Information

3.1 Biophysical description of the study area

The general study area varies from mountainous bushveld to plains bushveld. The most serious transformation of the natural environment consists of cultivation of crops and formal and informal settlements which have transformed significant areas of natural land in the past few years.

The general geology of the area consists of granite and gneiss, mostly of the Nelspruit suite, forming hillwith large boulders. Soils are shallow, coarse lithosols, comprised of Glenrosa or Mispah soil types.

A typical Lowveld climate prevails with seasonal summer-rainfall, warm temperatures and dry winters. MAP is 654mm, ranging between 600mm and 1100mm (increasing with altitude). Frost is infrequent.

3.2 Veld types & Vegetation units

On a National level, the larger study area can be classified as Lowveld (A10), according to Acocks (1988) and Sour Lowveld Bushveld according to Low & Rebelo (1998). Classified on a regional scale and according to a more detailed system the study area compises several distinct vegetation units (Mucina & Rutherford, 2006):

Unit 1) **Kaalrug Mountain Bushveld** is found on the mountain slopes and hills in the Barberton area south of the Kaaps River. The structure consists of open to dense, short mountain savannah or thickets, with a more dominant grass layer at higher altitudes. This is a mesic mountain bushveld with more relationships to mountain grassland and is often found on steep or very broken mountain slopes. Approximately 25% is conserved, including 16% in the Mountainlands Nature Reserve. Rated as *Least Threatened*.

Unit 2) **Barberton Serpentine Sourveld**
Occurs as fragmented patches on ultramafic substrates of the larger Barberton area. Vary from grassland with stunted woody vegetation in the south to a more woody structure in the lowerlying Noordkaap area and towards Malelane. As result of the unique soil types, many endemic vegetation taxa are associated with this veld unit. Transformation as result of cultivation and plantations. Rated as *Vulnerable.*

Unit 3) **Granite Lowveld**
Occurs on a North-South belt on the lowveld plains east of the escarpment. Tall shrubland to low woodland with few large trees. Transformation as result of cultivation and settlements. Rated as *Vulnerable.*

Unit 4) **Lowveld Riverine Forest** is found along prominent rivers and streams in all the low lying areas of the northeastern Provinces of South Africa. *Ficus spp* are

always present and characterictic trees are *Diospyros mespiliformis* and *Breonadia salicina*. This azonal unit is rated as *Critically Endangered* due to its sensitivity as well as its ecological importance. Approximately 50% is conserved in the larger National and Provincial Parks and an unknown proportion has been irreversibly transformed due to clearing for cultivation and other human induced impacts.

3.3 **Conservation value**

The Mpumalanga Department of Environment's Intrinsic Biodiversity Conservation Plan (MBC-plan) rates an area based on specific ecological, faunal and floral and other biophysical criteria (Lötter, 2006). The MBC-plan rating for the biodiversity significance of the study site is given in Appendix 1. The MBC-plan for the study area indicates that the zoning varies from *no natural habitat remaining* to *irreplaceable* and *protected.* One of the objectives of this report is to verify the MBC-plan rating and to provide detailed data relevant to this rating.

3.4 **Alternative alignment descriptions**

Northern section

Starting at Khanyazwe substation both alternatives follows the same route in a northeasterly direction alongside the servitude of an existing power line. This area is characterized by mountainous terrain and includes the Dumaneni Nature Reserve and is rated as *Irreplaceable* by the MBCP (Fig. 1.1 and Appendix 1). The alternatives are then deflected into a southerly direction until the R570 is crossed whereupon Alternative 01 follows an alignment alongside (parallel) the road (R570) in a southern direction. This area consists of a patchwork of cultivated lands and fragments of natural vegetation. Alternative 02 continues on the same alignment of the existing servitude until a point where a district road is reached. This area consists mainly of natural vegetation. From this point Alternative 02 deflects in a southwesterly direction.

Southern section

Alternatives 01 follows an alignment alongside the R570 until the Buffelspruit substation is reached. The land in this section has been mainly transformed to cultivated lands (Fig. 1.2). Alternative 02 folows an alignment on farm boundaries in a southwesterly direction until an existing power line is reached to the east of the substation. It follows this alignment until the Buffelspruit substation is reached. The land in this section has been mainly transformed to cultivated lands. Several riparian areas will be crossed in this section by both alternatives. Alternative 02 will be responsible for major riparian crossings of the Mlomathi River which will be crossed at three locations by (Alternative 01 will not cross this River or any other major water courses).

It should be noted that mitigation of potential impacts on biodiversity has already been considered during the planning phase: Aligning the alternatives alongside existing power lines and roads and considering easy access. Furthermore, the alternatives are planned on the boundaries of conservation areas where such areas have to be crossed.

4. Vegetation report and general biophysical descriptions

Although the vegetation classification of Mucina & Rutherford (2006) is used as reference, these units are broadly classed and may include several distinct vegetation communities within a particular vegetation unit. The vegetation communities that were identified during this investigation are projected in Fig. 1.2-1.2 and are described in the following sections:

4.1 Vegetation and land uses

The alternative alignments and vegetation assemblage are projected on an aerial image in Fig. 1.1 -1.2. It should be noted that only natural vegetation that are included within each corridor, or are likely to be affected, is indicated. Illustrations of the habitats encountered on the proposed alternatives are given in Appendix 2 and the vegetation checklist is given in Appendix 3.

i) Mountain woodland

This community can be described as a mosaic of bushveld trees and shrubs, forming a closed woodland community of tall shrubs and medium to tall trees. Prominent grasses are *Hyperthelia dissoluta, Panicum maximum* and *Cymbopogon pluriniodes*. Shrubs and lower species include *Rhus transvaalensis, Euclea natalensis, Pavetta edentula, Diospyros lycioides* (*sericea*), *Zanthoxylum capense, Flueggea virosa, Commiphora africana, Rhoicissus dentata, Asparagus racemosus, Sansevieria hyacinthoides* and *Lippia javanica.* Prominent species of trees are *Commiphora mollis*, *Acacia caffra, Acacia davyii Pterocarpus rotundifolia, Olea europaea subsp africana, Combretum padoides, Combretum apiculatum, Combretum zeyheri, Sclerocarya birrea* (protected), *Peltophorum africanum, Pappea capensis, Strychnos madagascariensis* and *Dombeya rotundifolia*.

No Red Data Listed (RDL) or endemic species were recorded and the potential of such taxa being present is low. This woodland has a *High* ecological importance as it is in a natural state with a diverse vegetation assemblage and it provide habitat for reptiles, birds and mammals.

ii) Plains woodland

This community can be described as a closed woodland community of tall shrubs and medium to tall trees. Commonly found species are: *Acacia nigrescens, Dichrostachys cinerea, Sclerocarya birrea* ssp. *caffra, Combretum collinum, Combretum apiculatum, combretum zeyheri, Strychnos madagascariensis, Lannea discolor, Peltophorum africanum, Euphorbia ingens* and *Terminalia sericea*. Many of the trees of this community are fruit bearing and thus of ecological importance. Shrubs are diverse and include *Euclea crispa, Euclea divinorum, Gymnosporia glaucophylla, Flueggia virosa* and *Ochna natalitia*. The areas consisting of this community have a significant diversity of vegetation and related faunal potential - the sensitivity is rated as *High*.

iii) **Riparian thickets**

This zone can be described as a riverine thicket found on stream and river banks of the study area. Characteristic Lowveld riparian trees (*Obligate* riparian indicator species) are present. These include *Ficus sycomorus, Diospyros mespiliformis, Breonadia salicina, Combretum erythrophyllum, Dalbergia armata, Bridelia micrantha* and *Acacia robusta* ssp *clavigera.* The tall tree component includes exceptional large specimens of *Ficus sycomorus* and *Diospyros mespiliformis*, with a height of up to 20m being reached. Smaller trees include *Acacia robusta* ssp *clavigera, Trichilia emetica* and *Combretum imberbe*. *Acacia schweinfurthii*, *Hippobromus pauciflorus* and *Croton megalobotrys* are found on the edge.

This community has been degraded in some areas due to encroaching cultivated lands and tree felling as well as natural phenonema such as more recent floods (e.g. 2000ad). This community has very important stabilizing and ecological functions and has a *High* sensitivity rating.

iv) **Cultivated lands**

The lower lying valleys as well as plateaus on the higher areas have been transformed to producing fruit producing fruit and crops due to the climate and availability of water. Only fragments of natural vegetation remain intact due to the transformation. Furthermore, the orchards are regularly sprayed with pesticides and are chemically fertilized. As result of these impacts, these areas are low in biodiversity and all of these areas' sensitivity rating is *Low.*

4.2 Occurrence of important flora species

Conservation-important, naturally occurring species can be catecorized according to specific features that are important, usually due to rarity, habitat specificity, medicinal value, ecological value, endemism, over-exploitation, economic value or a combination of these. Species of conservation importance are either catecorized as Red Data Listed species (RDL species), according to specific scientifically researched criteria and administered by the South African National Biodiversity Institute (SANBI), or as Protected Trees and Plants by the national forests and the provincial nature conservation legislation. The National List for Red Data flora (2007) is the most updated and applicable reference for vegetation conservation in Mpumalanga. Applicable legislation that protect flora in South Africa and specifically in Mpumalanga Province are the National Environmental Management Biodiversity Act of 2004 (NEMBA), the Mpumalanga Nature Conservation Act of 1998 (MNCA) and the National Forests Act of 1998 (NFA). Four legally protected tree species were found during the field surveys: *Breonadia salicina, Pterocarpus angolensis, Combretum imberbe* and *Sclerocarya birrea*. Permits will have to be obtained from the Department of Water Affairs and Forestry, and/or the Mpumalanga Tourism and Parks Agency, if legally protected trees or plant species are to be removed or destroyed.

By using biophysical features of available habitats and using the results of field searches the possibility of RDL species occurring on site were assessed (Table 2.1). Four RDL species were identified in the affected area (Table 2.1)

Table 2.1 National RDL species potential for the relevant quarter degree grid (2531DA)

Species	**National Status**	**Habitat preference**	**Recorded**
Acridocarpus natalitius	Near threatened	Forest, thickets, outcrops, Drainage lines.	
Adenia gumnifera	Declining	Bushveld habitats. Outcrops.	Riparian thicket
Aloe kniphofioides	Near threatened	Grassland habitats.	
Aloe simii	Critically endangered	Tall, open grassland. Above altitude 900m	
Ansellia africana	Declining	Bushveld, epiphyte	
Boophane disticha	Near threatened	Several habitat types. Prefers higher altitude grassland.	
Brachystelma chlorozonum	Vulnerable	Bushveld habitats.	
Crinum macowanii Baker	Declining	Riparian and moist areas	Riparian zone
Elaeodendron transvaalense	Near Threatened	Expected in natural bushveld;	
Encephalartos laevifolius	Critically endangered	Adaptable to several habitat types. Prefers higher altitude grassland.	
Eriosema naviculare	Endangered	Expected in natural bushveld;	
Hypoxis hemerocallidea	Declining	Prefers higher altitude grassland.	Woodland
Ilex mitis var. mitis	Declining	Forest, thicket and riparian areas	Riparian zone
Merwilla plumbea	Declining	Grassland	
Protea parvula	Near threatened	Prefers higher altitude grassland.	
Protea comptonii	Near threatened	Prefers higher altitude grassland.	
Protea curvata	Vunerable	Prefers higher altitude grassland.	
Siphonochilus aethiopicus	CR	Forests	

Also of conservation importance is the occurrence of alien invasive species and weeds. Such species are listed in the Conservation of Agricultural Resources Act of 1983 (CARA) and the Mpumalanga Conservation Act (1998). The control by landowners of the presence and spreading of such species are regulated by these Acts. Several important exotic species are present and most of the natural habitats contain alien invader species (Table 2.2).

Table 2.2 Aliens, weeds and exotics, CARA categories are indicated where applicable

Name	Legislation	Status	Comments / GPS reference
Dichrostachys cinerea	CARA	Declared	Bush encroachment
Acacia ataxacantha	CARA	Declared	Bush encroachment
Ricinus communis	CARA	Declared	Category 2 weed/invader
Eucalyptus sp	CARA	Declared	Category 2 weed/invader
Solanum mauritanum	CARA	Declared	Category 1 weed/invader
Lantana camara	CARA	Declared	Category 1 weed/invader
Melia azedarach	CARA	Declared	Category 3 weed/invader
Tecoma stans	CARA	Declared	Category 3 weed/invader
Cardiospernum grandiflorum			
Morus alba			

5. Terrestrial Fauna Report

5.1 Amphibians

Frogs will utilize the aquatic and terrestrial habitats on the property for several reasons, including breeding purposes. Essential habitats for the survival of frogs on the property include the stream, wetlands and thickets. Frogs are rather sensitive to pollution and ecological imbalances, thus the presence of frogs indicate that the habitats where they were recorded are healthy and of good ecological integrity.

Thirty frog species' range of distribution includes the study area, none of these have Red Data status (Appendix 3, Table 1). Only one species, the yellow-striped reed frog (*Hyperolius semidiscus*), is regarded as endemic. However, it is not anticipated that these species will be negatively affected if given the necessary protection and habitat conservation. The anticipated impacts on RDL and sensitive frogs and their habitats are assessed in section 6.

5.2 Reptiles

The terrestrial and arboreal habitats present will provide habitat for a diverse group of reptiles (Appendix 3, Table 2). According to Branch (1998), 98 species of reptiles can potentially occur in the Nelspruit area. Four RDL species are expected (Table 3). Three Endemic species are expected in the study area: Haacke's Flat Gecko *Afroedura (multiporis) haackei*, (provincial Endangered status), Barberton Girdled Lizard *Cordylus warreni barbertonensis* and Wilhelm's Flat Lizard *Platysaurus wilhelmi* (Table 3). All of these have a limited range of distribution roughly covering the area between Nelspruit, Barberton, Malelane and the southerly Kruger National Park.

The reptile survey indicates that especially the rocky habitats are of high importance to reptiles, however all natural habitats will be utilized by reptiles on this property. Several important lizard species, is present on the rocky areas. However, it is not anticipated

that these species will be negatively affected if given the necessary protection and habitat conservation. The anticipated impacts on RDL and sensitive reptiles and their habitats are assessed in section 6.

Table 3 Important reptiles of the study area.

Common name	**Scientific name**	**Occur-rence Potential**	**SA Red Data status**	**Endemism**
Giant Legless Skink	*Acontias plumbeus*	Possible		Southern A
Haacke's Flat Gecko	*Afroedura (multiporis) haackei*	Possible		Mpumalanga
Flap-neck Chamaeleon	*Chamaeleo dilepis*	Possible		
Barberton Girdled Lizard	*Cordylus (warreni) barbertonensis*	Possible		Mpumalanga
Tropical Girdled Lizard	*Cordylus tropidosternum*	Possible		
Transvaal Girdled Lizard	*Cordylus vittifer*	Possible		Southern A
Southern Brown Eggeater	*Dasypeltis inornata*	Unlikely		Southern A
Leopard Tortoise	*Geochelone pardalis*	Possible		
Natal Hinged Tortoise	*Kinixys natalensis*	Unlikely	RARE	Southern A
Speke's Hinged Tortoise	*Kinixys spekii*	Unlikely		
Spotted House Snake	*Lamprophis guttatus*	Possible		S A
Cape Thread Snake	*Leptotyphlops conjunctus conjunctus*	Possible		Southern A
Distant's Thread Snake	*Leptotyphlops distanti*	Possible		Southern A
Dusky-bellied Water Snake	*Lycodonomorphus laevissimus*	Unlikely		SA
Variegated Wolf Snake	*Lycophidion variegatum*	Possible	Peripheral	Southern A
Spotted Dwarf Gecko	*Lygodactylus ocellatus*	Unlikely		Southern A
Transvaal Thick-toed Gecko	*Pachydactylus affinis*	Possible		Southern A
Van Son's Thick-toed Gecko	*Pachydactylus vansoni*	Possible		Southern A
Wilhelm's Flat Lizard	*Platysaurus (intermedius) wilhelmi*	Possible		Mpumalanga
Sundevall's shovel snoute	*Prosymna sundevalli*	Unlikely		Southern A
Southern African Python	*Python natalensis*	Possible	Vulnerable	
Hewiit's Dwarf Burrowing Skink	*Scelotes breviceps*	Possible		Southern A
Bibron's Blind Snake	*Typhlops bibronii*	Unlikely		Southern A
Rock Monitor	*Varanus albigularis*	Possible		
Water Monitor	*Varanus niloticus*	Unlikely		
Nile Crocodile	*Crocodylus niloticus*	Possible	Vulnerable	

5.3 **Mammals**

Several species of small to medium sized mammals will utilize the natural habitats on the property (Appendix 3, Table 3). The largest species expected to be present are common duiker, red duiker and bushbuck. Fifteen mammals categorized as Red Data

may be found in the study area. A further 16 species are listed as "Data Deficient" (DD). It should be noted that "Data Deficient" is not a category of threat. A taxon is listed in this category when there is inadequate information to make a direct or indirect assessment of its risk of extinction based on its distribution and/or population status (Friedman & Daly 2004). The Red Data listed mammals are given in Table 4.

Table 4 Red Data listed mammals of the study area (Friedman & Daly, 2004); **NT**=Near threatened; **VU**=Vulnerable; **CR**=Critically endangered; DD=Data deficient

Scientific name	**Common name**	**SA Red Data Status**	**Permanent occurrence**	**Motivation**
Atelerix frontalis	SA Hedgehog	**NT**	Likely	Habitat inadequate
Crocidura cyanea	Reddish-grey musk shrew	DD	Possible	Habitat adequate
Cloeotis percivali	Short-eared trident bat	**CR**	Unlikely	Associated with caves
Crocidura flavescens	Greater Red musk shrew	DD	Possible	Habitat adequate
Crocidura fuscomurina	Tiny musk shrew	DD	Possible	Habitat adequate
Crocidura hirta	Lesser red musk shrew	DD	Unlikely	Not preferred habitat
Crocidura marquensis	Swamp musk shrew	DD	Unlikely	Habitat inadequate
Crocidura silacea	Lesser grey-brown musk shrew	DD		
Dasymys incomtus	Water rat	**NT**	Unlikely	Habitat inadequate
Elephantulus brachyrhynchus	Short snouted elephant shrew	DD	Unlikely	Habitat inadequate
Epomophorus gambianus crypturus	Peter's (Gambian) fruit bat	DD	Possible	Habitat adequate
Graphiurus platyops	Rock dormouse	DD	Possible	Habitat adequate
Hippsideros caffer	Sundevall's leaf-nosed bat	DD	Unlikely	Associated with caves
Lemniscomys rosalia	Single striped mouse	DD	Unlikely	Habitat inadequate
Leptailurus serval	Serval	**NT**	Unlikely	Habitat inadequate
Lutra maculicollis	Spotted-necked otter	**NT**	Unlikely	Habitat absent
Manis temminckii	Pangolin	**VU**	Possible	Habitat adequate
Mellivora capensis	Honey badger	**NT**	Possible	Habitat adequate
Miniopteerus schreibersii	Schreiber's long fingered bat	**NT**	Unlikely	Associated with caves
Myotis tricolor	Temminck's bat	**NT**	Unlikely	Associated with caves
Paracynictis selousi	Selous' mongoose	DD	Unlikely	Habitat inadequate
Pipistrellus rusticus	Rusty bat	**NT**	Unlikely	Associated with rivers
Poecilogale albiucha	African weasel	DD	Unlikely	Prefers grassland
Rhinolophus blasii	Peak saddle horseshoe bat	**VU**	Unlikely	Associated with caves
Rhinolophus clivosus	Geoffroy's horseshoe bat	**NT**	Possible	Habitat adequate
Rhinolophus darlingii	Darling's horseshoe bat	**NT**	Unlikely	Associated with caves

Suncus infinitesimus	Least dwarf shrew	DD	Unlikely	Associated with termitaria
Suncus lixus	Lesser dwarf shrew	DD	Unlikely	Habitat inadequate
Tatera leucogaster	Bushveld gerbil	DD	Unlikely	Habitat inadequate

A total of 12 Red Data mammal species range of distribution falls in the study area of which three can possibly utilize the available habitats on the property. Of these, only the honey badger is possibly present and will use all the natural habiats on site.

The mobility of most mammals will ensure that they can adapt or relocate if disturbed by the activities. Furthermore, it is not anticipated that these species will be negatively affected if given the necessary protection and habitat conservation. The anticipated impacts on RDL and sensitive reptiles and their habitats are assessed in section 6.

5.4 **Invertebrate Report**

i) **Invertebrates - Excluding Butterfly families**

Potentially, the natural habitats on site will offer refuge to all invertebrate groups with the available habitats on site. This consists of a large number of species for which field searches are to extensive to be accommodated for the present study. Picker *et. al.* (2002) can be referred to so as to get an idea of the large amount of invertebrate diversity that can be expected in the study area.

ii) **Invertebrates – Butterflies**

The habitats present have the potential to support approximately 275 species of butterflies. Cross-referenced larval host plants and prey items, a total of approximately 175 species may be present at one time or another. Due to the dynamic mobility of butterflies, any of these species has the potential to be present at a given time, although variable conditions will be a limiting factor. No Red Data Listed species are expected in the study area.

5.5 **Pollinators**

Pollinators provide an essential ecosystem service that result in the out-crossing and sexual reproduction of many plants. They benefit society by increasing food security in agricultural and natural ecosystem and they play an important role in conserving biological biodiversity (Eardly et al. 2006). Pollinator diversity includes an immense range of fauna, ranging from the tiniest invertebrates to relatively large vertebrates. Often, pollinators form part of a highly specific niche in pollinator-plant relationships and the ecosystem integrity as a whole. Examples of plant specific pollinators that will occur in the study area include hawk moths of the family Sphingidae, fig wasps of the family Agaonidae. Other important pollinators recorded on site include ants, beetles, butterflies, bees and flies as well as birds (including three species of sunbirds). The loss of a single important habitat requirement (e.g. hides and cover objects, larval hosts, availability of water, etc.) for pollinators in an ecosystem could have far reaching effects, ultimately resulting in extinction. Fragmentation of habitats will undoubtedly also have a

negative impact on the occurrence and distribution of pollinators and consequently on the genetic and population integrity of ecosystems. The successful survival of pollinators is thus further motivation for the conservation of undisturbed and unimpaired, interconnected ecological corridors crossing property boundaries in local areas.

6. Impact assessment of alternatives

6.1 Impact assessment: Vegetation and habitats

Due to the required vegetation removal for ESKOM power lines the impact on vegetation will vary according to the structure of the vegetation community. A servitude (corridor) of 32m wide is required for a single 132kV distribution line. In dense (closed) and medium to high vegetation communities the practice will be to remove all the vegetation across the servitude width for fear of damage due to falling trees and accidental fires and power failures. Loss of habitat will thus be of a much higher magnitude in woodlands and especially forests as compared to grasslands where the structure is short with no or minimal emergent trees. The same approach is used for assessing the potential loss of RDL and important species. The proposed alignment alternatives are located largely in similar vegetation units (habitats) which will include a homogenous range of flora. The dominant vegetation unit for a specific locality is also closely related to the topographic features and altitude and is thus regarded within the same assessment.

In order to quantify the potential impact of each alternative on vegetation, it is necessary to design a *significance index for vegetation* that quantifies the importance of specific aspects that have the potential of being negatively affected (as explained in section 2.4). By using the criteria as explained in section 2.5 and in the previous paragraph the weight factor will include aspects such as quality and sensitivity of the habitat as well as the potential presence of RDL species. Please note that the quantitative measurement used for all the units is the distance in kilometers (km) or the number of riparian crossings. The different vegetation units/habitats and their weight factors as well as their significance rating are calculated and by method of applying a score to the hierarchy of significance of impacts on a scale of 1 to 5, it is possible to make an alignment recommendation based on quantitative analyses (Table 6.1).

In view of the above results, the anticipated significance of the relevant impacts is assessed as follows. The significance ratings calculated in the previous section are used in comparison and the potential impacts for each alignment alternative are summarized. The potential of aligning each alternative to avoid or minimize impacts for sensitive vegetation habitats within the corridor is the major mitigation measure that was considered. By method of applying a score to the hierarchy of significance of impacts on a scale of 1 to 5, it is possible to make an alignment recommendation based on quantitative analyses.

Table 6.1 Assessment of impacts on natural vegetation and habitats, including proposed mitigation measures. General mitigation measures that are applicable to all the alternatives are listed in section 7.

Alignment Alternative	Dsitance (km) or number crossings	Weight	Significance Rating	Affected Habitat	Impact Description	Impact Significance before Mitigation	Recommendations and Mitigation	Impact Significance after mitigation	Score
01	10.7	3	32.1	Natural woodland	Fragmentation of habitat. Loss of important flora species.	High	• Minimize loss and disturbance of natural habitat by aligning from high ground to high ground. • Make use of existing access roads. • Alignment alongside existing linear infrastructure (e.g. roads, power lines)	Medium	3
		3		Major Riparian crossings	Fragmentation of habitat.	High	• Minimize loss and disturbance of natural habitat by aligning from high ground to high ground. • Make use of already disturbed sites for riparian crossings.	Low	0
	6	2	12	Secondary riparian crossings	Loss of habitat.	Medium	• Minimize loss and disturbance of natural habitat by aligning from high ground to high ground. • Make use of already disturbed sites for riparian crossings.	Low	2
	Total		**6.0**						**5**
02	22.9	3	68.7	Natural woodland	Fragmentation of habitat. Loss of important flora species.	High	• Minimize loss and disturbance of natural habitat by aligning from high ground to high ground. • Alignment alongside existing linear infrastructure (e.g. roads, power lines)	High	5
	6	3	18	Major Riparian crossings	Fragmentation of habitat.	High	• Minimize loss and disturbance of natural habitat by aligning from high ground to high ground. • Make use of already disturbed sites for riparian crossings.	High	5
	4	2	8	Secondary riparian crossings	Loss of habitat.	Medium	• Minimize loss and disturbance of natural habitat by aligning from high ground to high ground. • Make use of already disturbed sites for riparian crossings.	Low	2
	Total		**22.4**						**12**

Table 6.1 indicates that alignment Alternative 01 has the lowest significance rating on vegetation and habitats.

The loss and modification of important habitats can only be minimized by firstly aligning the servitude to make use of existing access roads and disturbed areas and avoiding sensitive habitats, and secondly by placing of the structures/poles on pre-selected sites of low floral importance. The loss of individual plants of importance can also be minimized by the above measures and site selection must be done prior to construction with the aid of a specialist.

6.2 **Impact assessment: Terrestrial fauna**

The possibility exists that several of the important fauna species identified in section 5, may occur in the alternative servitudes. However, due to the mobility of most terrestrial fauna, it is not anticipated that any of the taxa will be directly threatened by the activities. The animals can move away when disturbed an can return to the general area hence the terminantion of construction. The major impact on terrestrial fauna is expected to result from fragmentation of habitat. Impact on terrestrial fauna and important species can be minimized by firstly aligning the servitude to make use of existing access roads and disturbed areas and avoiding sensitive habitats (e.g. rocky outcrops and wetlands), and secondly by placing of the structures/poles on pre-selected sites of low faunal importance.

The assessment tables indicate that alignment Alternative 01 has the lowest significance on fauna (Table 6.2).

Table 6.2 Anticipated extents of impacts on important terrestrial fauna and their relevant habitats. General mitigation measures that are applicable to all the alternatives are listed in section 7.

Alignment Alternative	Taxa	Impact Significance before mitigation	Impacts description	Recommendations and mitigation	Impact Significance after mitigation	Score
Alternative 01	Frogs	Low	No significant impacts are anticipated.	Minimize loss of natural habitat.	Low	1
	Reptiles	Medium	Loss of habitat. Disturbance as well as killing of serpentines by uneducated crews.	Crews must be educated to the value of biodiversity and not to disturb or kill wild animals. Select the alternative aligment with the least significant impact.	Low	2
	Mammals	Medium	Loss of habitat and creation of breaks in continuity of biodiversity corridors	Minimize loss of natural habitat. Make use of existing access roads. Select the alternative aligment with the least significant impact.	Low	2
	Terrestrial Invertebrates	Low	No significant impacts are anticipated	Minimize loss of natural habitat. Make use of existing access roads.	Low	0
	Butterflies	Low	No significant impacts are anticipated	Minimize loss of natural habitat.	Low	0
	Total					**7**
Alternative 02	Frogs	Low	No significant impacts are anticipated.	Minimize loss of natural habitat.	Low	1
	Reptiles	High	Loss of habitat. Disturbance as well as killing of serpentines by uneducated crews.	Adequate mitigation is not practicable. Aternative alignment recommended.	High	5
	Mammals	High	Loss of habitat and creation of breaks in continuity of biodiversity corridors	Adequate mitigation is not practicable. Aternative alignment recommended.	High	5
	Terrestrial Invertebrates	Low	No significant impacts are anticipated	Minimize loss of natural habitat. Make use of existing access roads.	Low	0
	Butterflies	Low	No significant impact are anticipated	Minimize loss of natural habitat.	Low	0
	Total					**11**

6.3 Conclusion and alignment alternative recommendation

The investigation has determined that several different habitats and a diverse range of biota may be affected by any one of the alternative alignments. Due to the disturbed nature of the substation sites no significant impacts are anticipated on any of the substation servitudes.

In the previous sections (6.1-6.2) the significance of anticipated impacts has been evaluated and recommendations and deductions could be made. If these findings are correlated with the different alignment alternatives, the cumulative impacts are inferred and a definite alignment recommendation can be made (Table 6.4).

Table 6.4 Cumulative Impact Assessment and alternative recommendation

Alternative Alignment	Impacts on natural vegetation and habitats	Impacts on terrestrial fauna	Cumulative Score
1	5	7	12
2	12	11	23
Recommended alternative alignment			**Alternative 01**

7. Recommendations and mitigation

The biodiversity investigation indicates that each alignment alternative vary in sensitivity from a *Low* to a *High* rating depending on specific aspects and features. **Alignment alternative 01 is recommended for the total length of the power line.**

With adequate mitigation the anticipated impacts on biodiversity can be controlled and reduced to a satisfactory level to ensure a minimal affect on biodiversity. The following preventative and mitigation measures must be incorporated with the planning, construction and operational phases of the power line (refer also to Fig. 1).

1) Planning Phase
    - The proponent must be committed to a conservation approach during the planning phase;
    - Sensitive habitats must be avoided or least sensitive crossings must be used as mitigation (Fig. 1);
    - The significance of potential impacts on biodiversity can be mitigated by aligning the alternatives alongside existing power lines and roads and by considering easy access.
    - Where conservation areas have to be crossed or are affected, the alternatives must be aligned onto the boundaries where possible.
    - Riparian vegetation at river crossings must be avoided altogether where possible by bypassing or by suspending the lines across from high ground to high ground. If this is not achieveable such habitats must only be

disturbed where absolutely necessary and prominent trees must be avoided. It is recommended that only a minimal opening, large enough for the lines to cross without interference is created in such areas;
- The neccessary plant destruction permits must be obtained from the regulating authorities prior to construction;
- A specialist must assist the surveyor to ensure that the above recommendations are followed;

2) Construction Phase
   - The proponent must be committed to a conservation approach of practice and the actual footprint of construction/disturbance must be kept to a minimum;
   - Construction by helicopter is advised in areas where earthworks and construction of access roads may result in erosion or unnecessary environmental damage.
   - As much of the natural environment must be conserved (minimal construction of access roads and bush clearing);
   - Relocation of important species, identification and demarcation of specimens and sub-habitats not to be disturbed will have to be done beforehand by a specialist;
   - Important species (fauna as well as flora) that will be threatened by the development must be relocated to safer habitats by suitable specialists;
   - Preventative erosion control measures to be put in place;

3) Operational Phase
   - Maintenance crews must be educated with regards of the importance of biodiversity;
   - Maintenance of the lines and servitudes must be done in such a manner to conserve vegetation and create as least disturbance as possible and servitudes must be cleared of invasive vegetation;
   - The operational phase must be monitored by ESKOM environmental officials to ensure that adequate mitigation measures are in place and to take reactive measures in places where impacts pose problematic.

8. References

Acocks, J. P. H. 1988. Veld types of South Africa. Botanical Research Unit. 146p.

Barnes, K.N. (ed.) 1998. The Important Bird Areas of Southern Africa. BirdLife South Africa, Johannesburg.

Barnes, K.N. (ed.) 2000. The Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland. BirdLife South Africa, Johannesburg.

Branch, B. 1997. Field guide to the snakes and other reptiles of Southern Africa. Struik Publishers, Cape Town. 328 pp.

Bromilow C. 1996. Probleemplante van Suid-Afrika. Briza, PTA. Pp 315

Driver, A, Maze, K, Rouget, M, Lombard, A.T., Nel, J, Turpie, J.K., Cowling, R.M., Desmet, P, Goodman, P, Harris, J, Jonas, Z, Reyers, B, Sink, K & Strauss, T. 2005. National Spatial Biodiversity Assessment 2004: Priorities for Biodiversity Conservation in South Africa. *Strelitzia* 17. South African National Biodiversity Institute, Pretoria.

Ferrar, A.A. & Lötter, M.C. 2007. Mpumalanga Biodiversity Conservation Plan Handbook. Mpumalanga Tourism & Parks Agency, Nelspruit.

Deal, G.B. *et al.* 1989. The vegetation ecology of the eastern Transvaal escarpment. Bothalia Vol. 19, 1: pp53-110.

DWAF. 2002. A practical field procedure for the identification and delineation of wetlands and riparian areas. Department of Water Affairs and Forestry.

Eardly C., Roth D., Clarke J., Buchmann S. & Gemmill B. 2006. Pollinators and Pollination: A resource book for policy and practice. API. 77pp.

Friedman Y. & Daly B. (Editors) 2004. Red Data Book of the Mammals of South Africa: A Conservation Assessment: CBSG Southern Africa, Conservation Breeding Specialist Group (SSC/IUCN), Endangered Wildlife Trust. South Africa.

Golding, J. S. (Editor). 2002. Southern African Plant Red Data Lists. Southern African Botanical Diversity Network Report no.14. SABONET, PTA. Pp 237.

Harrison, J.A., Allan, D.G., Underhill, L.G., Herremans, M., Tree, A.J., Parker, V & Brown, C.J. (eds). 1997. The atlas of southern African birds. Volumes 1 & 2. BirdLife South Africa, Johannesburg.

Harrison, J.A. & Harebottle, D. 2002. Co-ordinated Waterbird Counts (CWAC) – Information Sheet No.1. Avian Demographic Unit, Cape Town.

Henning G.A., Henning S.F. 1989. South African Red Data Book: Butterflies. South African National Scientific Programmes Report No. 158. 175pp.

Henning G.A., Henning S.F., Joannou J.G. & Woodhall S.E. 1997. Living Butterflies of Southern Africa. Umdaus Press.

Hockey P.A.R., Dean W.R.J., Ryan P.G., (eds) 2005. Roberts – Birds of Southern Africa, VII edition. The trustees of the John Voelcker Bird Book Fund, Cape Town. 1296pp.

Hilton-Taylor, C. 2007. IUCN Red List of threatened species. IUCN, Gland, Swit. UK.xvii + 61 pp

Hockey P.A.R., Dean W.R.J., Ryan P.G., (eds) 2005. Roberts – Birds of Southern Africa, VII edition. The trustees of the John Voelcker Bird Book Fund, Cape Town. 1296pp.

Kleynhans,C.J., Louw, M.D., Graham, M. 2009. Module G: EcoClassification and Ecostatus determination in River Ecoclassification: Index of Habitat Integrity (Section 1, Technical manual). Joint WRC and DWAF. WRC Report No. TT377/09

Kotze, D.C, Marneweck, G.C., Batchelor, A.L., Lindley, D. and Collins, N. 2005. *A technique for rapidly assessing ecosystem services supplied by wetlands.* WET-Ecoservices.

Lötter. M.C. 2006. Mpumalanga Biodiversity Conservation Plan CD-Rom. Mpumalanga Tourism & Parks Board, Nelspruit.

Low, A. B., Rebelo, A. G. 1996. Vegetation of South Africa, Lesotho and Swaziland. Department of environmental Affairs, Pretoria. 85 pp.

Marais J. 2004. A Complete Guide to the Snakes of Southern Africa. Struik.

Migdol I. 1987. Veldgids tot die Skoenlappers van Suid-Afrika. Struik. 256pp.

Minter L.R., Burger M., Harrison J.A., Braack H.H., Bishop P.J., Kloepfer D.(eds). 2004. Atlas and Red Data Book of the Frogs of South Africa, Lesotho and Swaziland. SI/MAB Series #9. Smithsonian Institution, Washington, D.C. 360 pp.

Mucina, L. & Rutherford, M.C. (eds.) 2006. The vegetation of South Africa, Lesotho & Swaziland. *Strelitzia 19*. SANBI, Pretoria.

National Environmental Management Biodiversity Act of 2004 (NEMBA).

National Forestry Act of 1998 (NFA).

Mills G. & Hes L. 1997. The complete book of Southern African mammals. Struik. Cape Town, S.A. 356pp.

Nel, J., Maree, G., Roux, D., Moolman, J., Kleynhans, N., Silberbauer, M. & Driver, A. 2004. South African National Spatial Biodiversity Assessment 2004: Technical Report. Volume 2: River Component. CSIR Report Number ENV-S-I-2004-063. Council for Scientific and Industrial Research, Stellenbosch.

Onderstall, J.O. 1984. South African Wild Flower Guide: Transvaal Lowveld andEscarpment. CTP, Capetown. Pp 222

Palgrave, K.C. 1983. Trees of Southern Africa. Struik, Cape Town. Pp 959

PRECIS Data. National Biodiversity Institute of South Africa. Pretoria.

Roberts' Multimedia birds of southern Africa. 1997-2003. Southern African Birding cc. Westville South Africa.

Pooley, E. (Editor). 1998. A Field Guide To the Wild Flowers of Kwazulu Natal and the Eastern Region. Natal Floral Publications Trust, Durban. Pp 630

Rouget M., Reyers B., Jonas Z., Desmet P., Driver A., Maze K., Egoh B., & Cowling R.M. 2004. Technical Report Volume 1: Terrestrial Component. In: South African National Biodiversity Assessment 2004: Priorities for biodiversity conservation in South Africa. Pretoria. SANBI.

Schmidt, E., Lotter, M., McCleland, W. 2002. Trees and shrubs of Mpumalanga and the Kruger National Park. Jacana, Jhb.

Skinner, J. D., Smithers, H. N. 1990. The mammals of the southern African subregion. University of Pretoria. 771 pp.

South African National Biodiversity Institute. 2007. National Red Data list of plants. Pretoria.

Taylor, P.B., Navarro, R.A., Wren-Sargent, M., Harrison, J.A., and Kieswetter, S.L. (eds). 1999. TOTAL CWAC Report: Coordinated Waterbird Counts in South Africa 1992-1997. Avian Demographic Unit. University of Cape Town, South Africa.

Van Oudtshoorn F.P. 1991. Gids tot Grasse van Suid-Afrika. Briza, PTA. Pp 301.

Van Wyk, B.E. & Smith, G. 1996. Guide to the Aloes of South Africa. Briza, PTA.

Van Wyk, A.E. & Smith, G.F. 2001. Regions of Floristic Endemism in Southern Africa. Umdaus Press, Hatfield. 199pp.

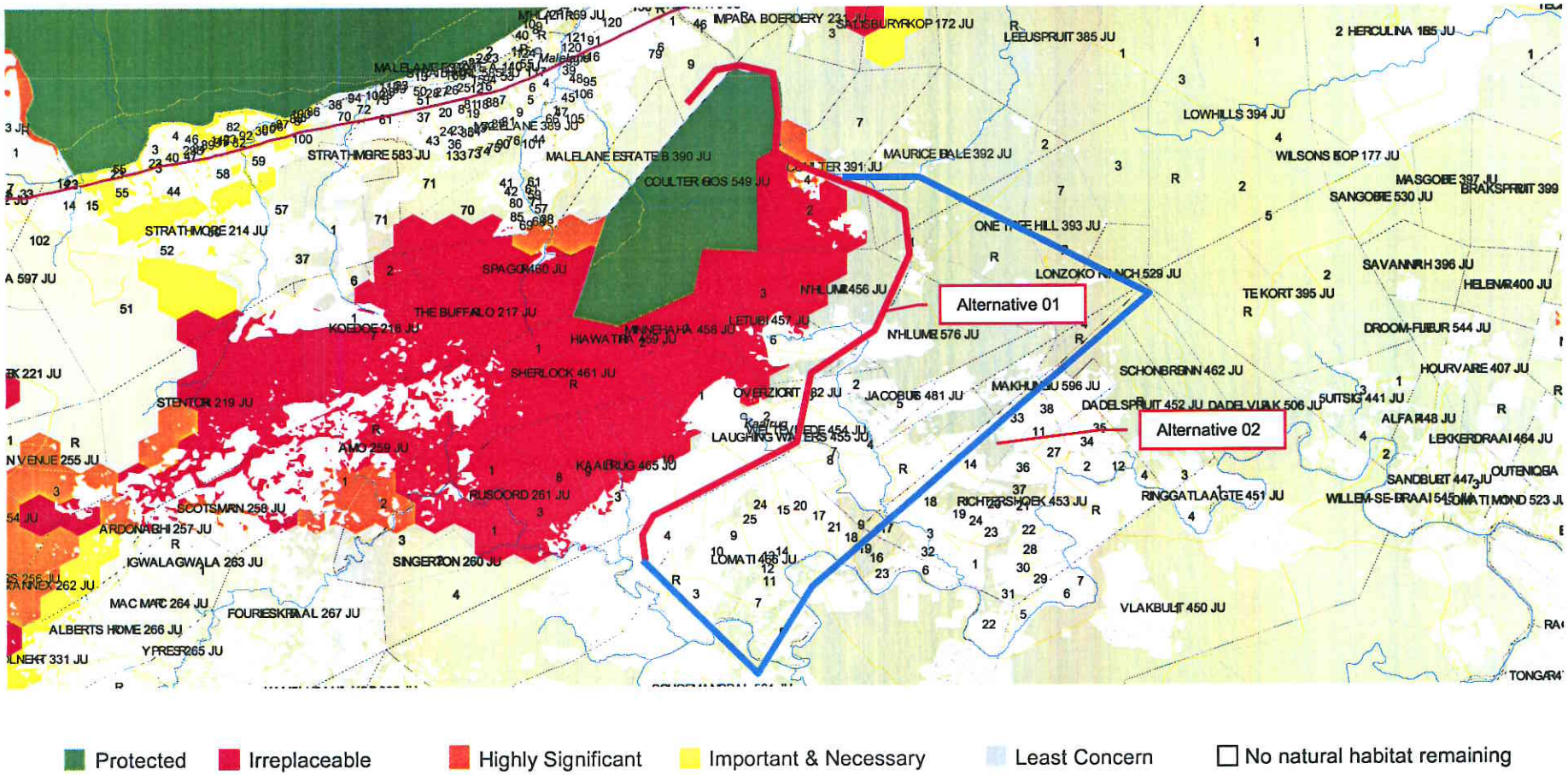
Woodhall. S. 2005. Field guide to Butterflies of South Africa. Struik. 440pp.

Young, D.J., Harrison, J.A., Navarro, R.A., Anderson, M.D. and Colahan, B.D. (eds). 2003. Big Birds on Farms: Mazda CAR Report 1993-2001. Avian Demographic Unit. University of Cape Town, South Africa.

APPENDIXES

Appendixes

Appendix 1: Regional Maps



Proposed power line alternatives in relation to its biodiversity importance rating by the MBCP

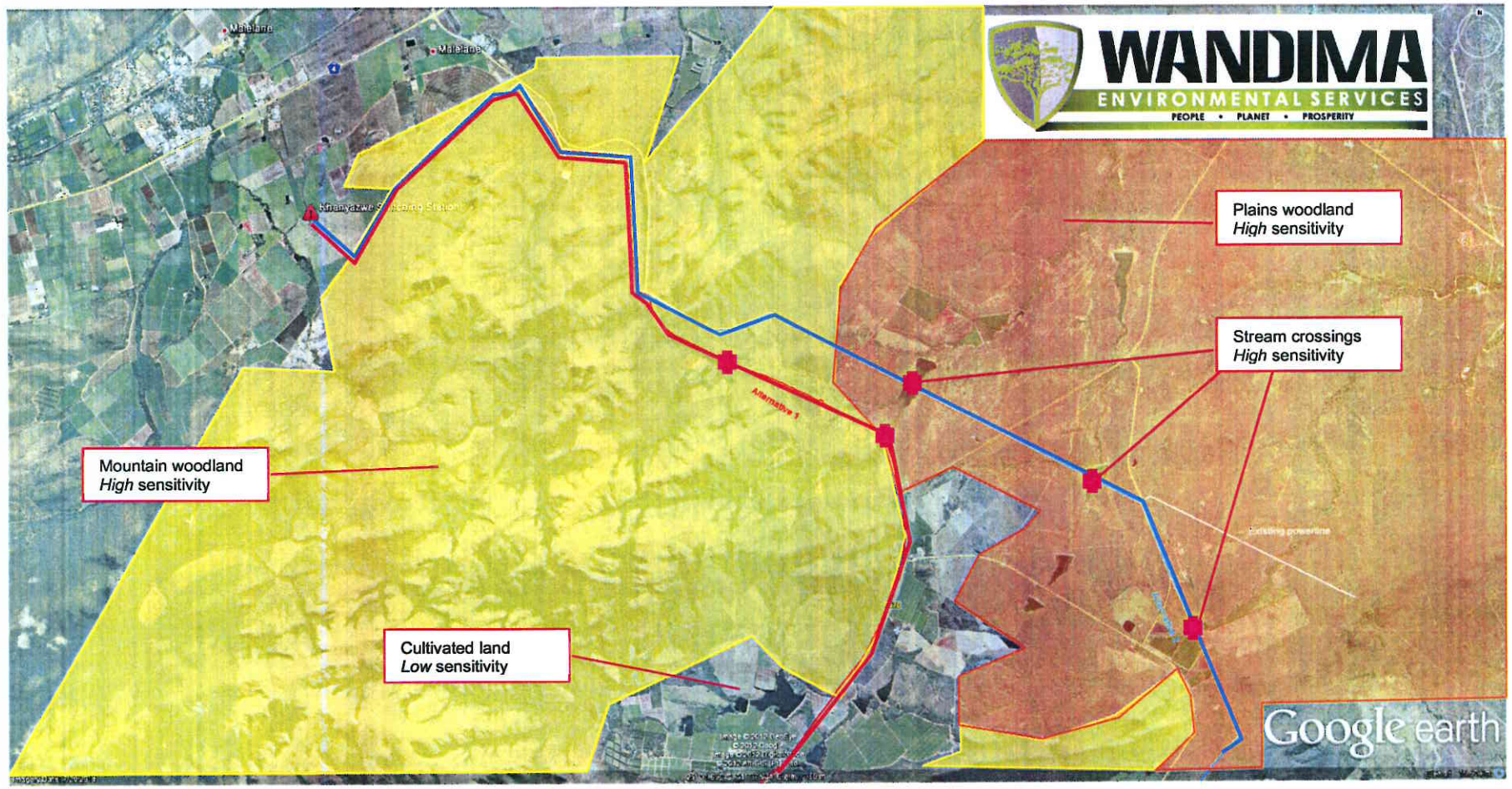


Fig.1.1 Biophysical delineation and biodiversity sensitivity zoning of the northern study area. Recommendations are given where appropriate. Uncoloured areas indicate areas of *Low concern*, e.g. degraded areas, transformed land and cultivated lands.

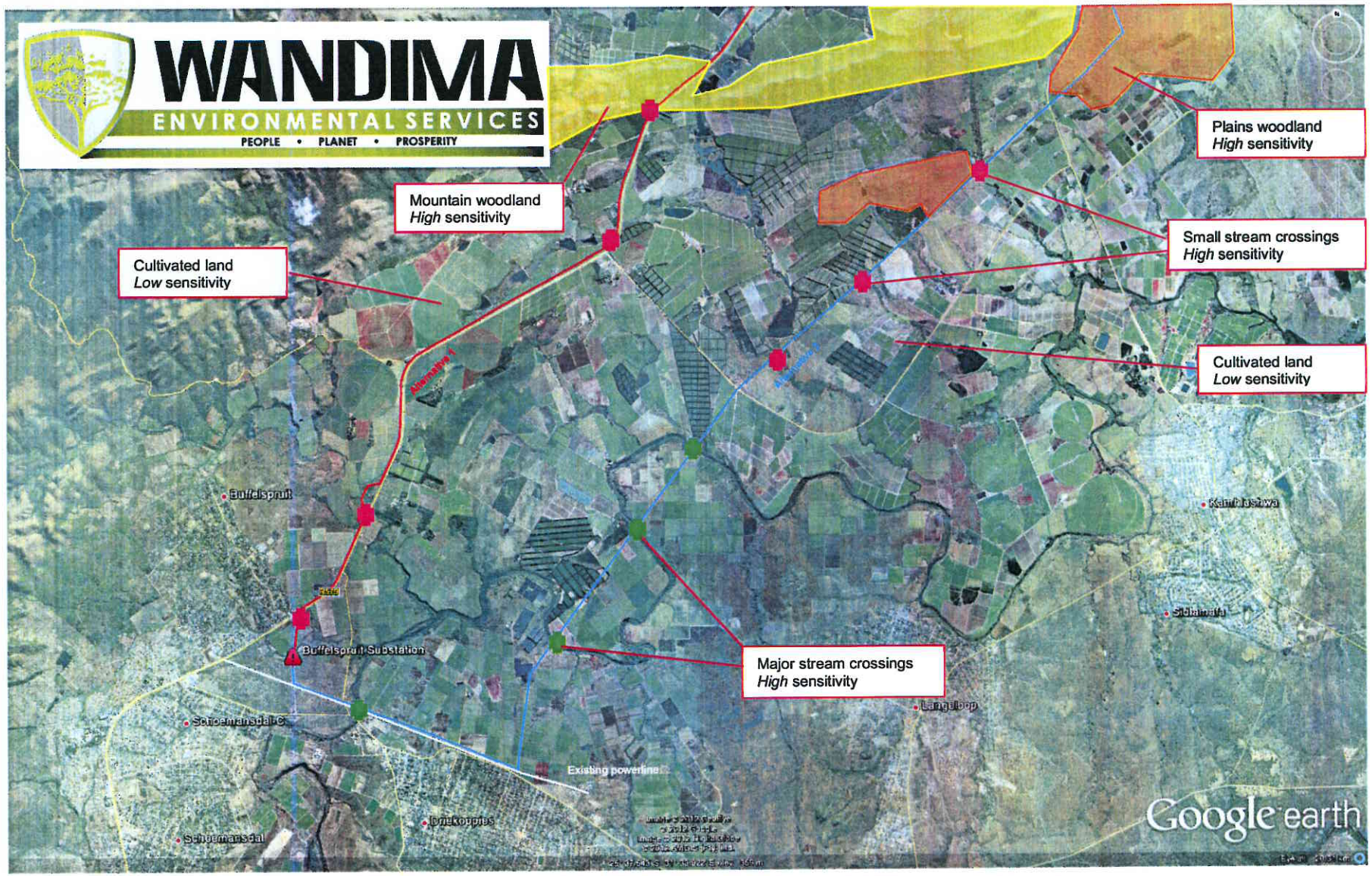
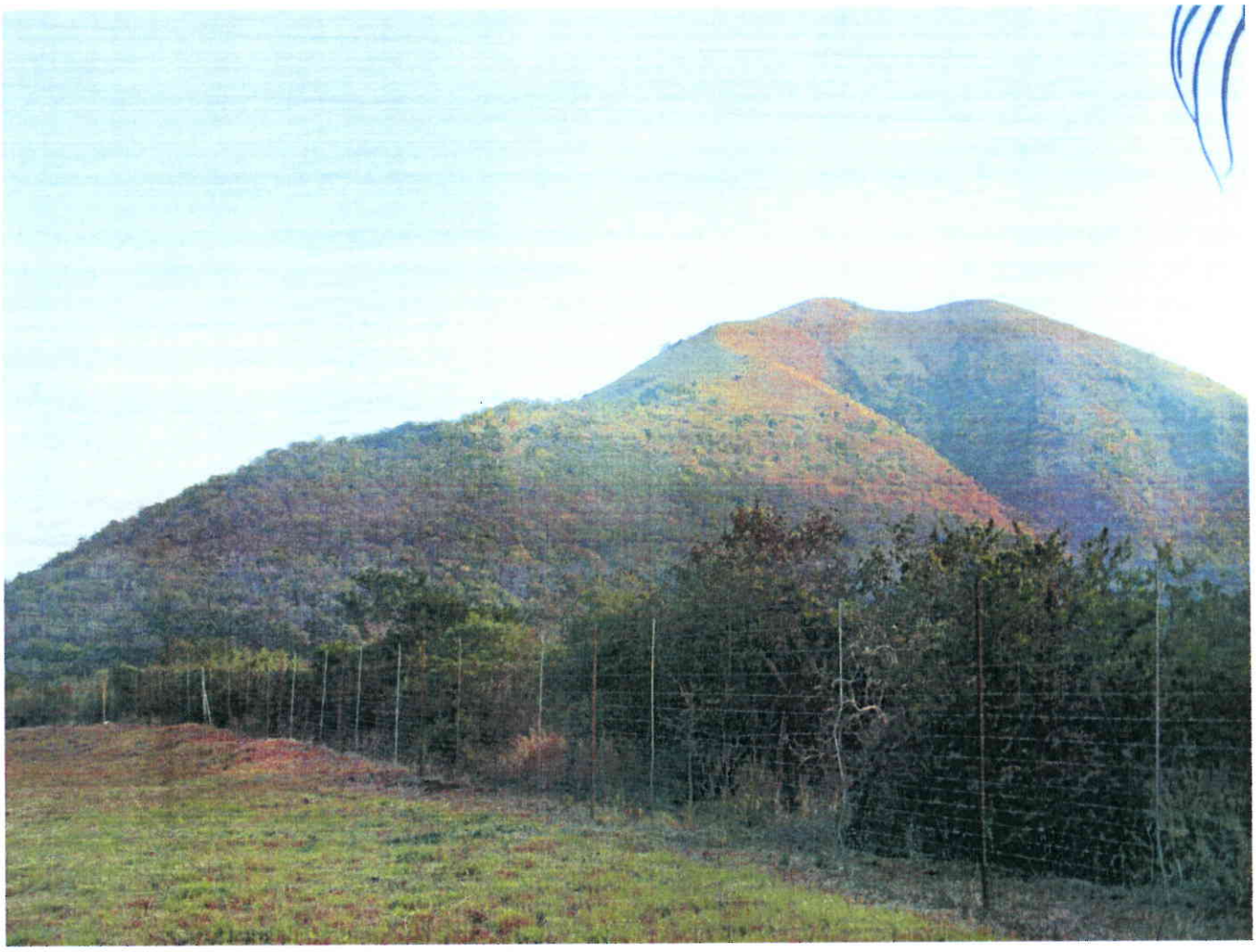


Fig.1.2 Biophysical delineation and biodiversity sensitivity zoning of the southern study area. Recommendations are given where appropriate. Uncoloured areas indicate areas of *Low concern*, e.g. degraded areas, transformed land and cultivated lands.

Appendix 2: Illustrations



The northern section is characterized by mountainous terrain with well wooded slopes and valleys. Both alternatives will affect this area. This area is conserved as the Dumaneni Nature Reserve.

Valley vegetation has been transformed to fruit orchards whilst the natural vegetation on the hills remains intact.

Smaller streams and have to be crossed in this section.

The southern section is characterized by a patchwork of cultivated lands with only small fragments of natural vegetation remaining, these being mostly riparian areas. Both alternatives will cross through this section.

Due to the fertile soils, cultivated lands encroach right up to the riparian habitat.

The riparian vegetation consist of thickets of medium to tall trees which provide refuge to a wide range of fauna.

Alternative 02 will cross a significant distance through plains woodland.

Plains woodland consist of typical bushveld vegetation

Acacia sieberiana and *Dichrostachys cinerea* dominate areas that have been disturbed in the past.

Appendix 3: Vegetation checklist

Table 1 SANBI PRECIS Data checklist for the study area

Scientific Name	National Red Data Status	Protected Status	Vegetation Community
Abrus laevigatus E.Mey.			
Abrus precatorius L. subsp. africanus Verdc.			
Acacia ataxacantha DC.			
Acacia caffra (Thunb.) Willd.			
Acacia davyi N.E.Br.			
Acacia gerrardii Benth. subsp. gerrardii var. gerrardii			
Acacia karroo Hayne			
Acacia robusta Burch. subsp. clavigera (E.Mey.) Brenan			
Acacia sieberiana DC. var. woodii (Burtt Davy) Keay & Brenan			
Acalypha caperonioides Baill. var. caperonioides			
Acalypha glandulifolia Buchinger ex Meisn.	LC		
Acalypha ornata Hochst. ex A.Rich.			
Acalypha peduncularis E.Mey. ex Meisn.			
Acalypha punctata Meisn. var. punctata			
Acalypha villicaulis Hochst.			
Acalypha wilmsii Pax ex Prain & Hutch.			
Acanthospermum australe (Loefl.) Kuntze			
Acanthospermum glabratum (DC.) Wild			
Achyranthes aspera L. var. aspera			
Achyranthes aspera L. var. sicula L.			
Achyropsis leptostachya (E.Mey. ex Meisn.) Baker & C.B.Clarke			
Acokanthera oppositifolia (Lam.) Codd			
Acokanthera rotundata (Codd) Kupicha			
Acridocarpus natalitius A.Juss. var. natalitius			
Acrotome hispida Benth.			
Acrotome thorncroftii Skan	LC		
Actiniopteris dimorpha Pic.Serm. subsp. dimorpha			
Actiniopteris radiata (J.König ex Sw.) Link			
Adenia digitata (Harv.) Engl.			
Adenia gummifera (Harv.) Harms var. gummifera	Declining		
Adenia hastata (Harv.) Schinz var. glandulifera W.J.de Wilde			
Adenostemma caffrum DC. var. caffrum			
Adiantum capillus-veneris L.			
Aeollanthus parvifolius Benth.			
Aeollanthus rehmannii Gürke			
Aerobryopsis capensis (Müll.Hal.) M.Fleisch.			
Aeschynomene micrantha DC.			
Aeschynomene nyassana Taub.			
Aeschynomene rehmannii Schinz var. leptobotrya (Harms ex Baker f.) J.B.Gillett			
Afrocanthium mundianum (Cham. & Schltdl.) Lantz			
Afrosciadium platycarpum (Sond.) P.J.D.Winter			
Agapanthus inapertus P.Beauv. subsp. hollandii			

(F.M.Leight.) F.M.Leight.			
Agapanthus inapertus P.Beauv. subsp. inapertus			
Agathisanthemum bojeri Klotzsch subsp. bojeri			
Agelanthus natalitius (Meisn.) Polhill & Wiens subsp. zeyheri (Harv.) Polhill & Wiens			
Agelanthus transvaalensis (Sprague) Polhill & Wiens			
Ageratum conyzoides L.			
Ageratum houstonianum Mill.			
Agrimonia procera Wallr.			
Agrostis montevidensis Spreng. ex Nees			
Albizia versicolor Welw. ex Oliv.			
Albuca setosa Jacq.	LC		
Alchemilla rehmannii Engl.			
Alectra orobanchoides Benth.			
Alectra sessiliflora (Vahl) Kuntze var. sessiliflora			
Alectra sp.			
Alectra vogelii Benth.			
Alepidea parva Compton			
Alepidea peduncularis A.Rich.	DD		
Alepidea setifera N.E.Br.			
Aleurites moluccana (L.) Willd. var. moluccana			
Allophylus melanocarpus (Sond.) Radlk.			
Alloteropsis semialata (R.Br.) Hitchc. subsp. eckloniana (Nees) Gibbs Russ.			
Alloteropsis semialata (R.Br.) Hitchc. subsp. semialata			
Aloe aculeata Pole-Evans	LC		
Aloe affinis A.Berger	LC		
Aloe arborescens Mill.	LC		
Aloe chortolirioides A.Berger var. woolliana (Pole-Evans) Glen & D.S.Hardy	LC		
Aloe dyeri Schönland	LC		
Aloe ecklonis Salm-Dyck	LC		
Aloe greatheadii Schönland var. davyana (Schönland) Glen & D.S.Hardy	LC		
Aloe kniphofioides Baker	VU		
Aloe marlothii A.Berger subsp. marlothii	LC		
Aloe marlothii A.Berger subsp. orientalis Glen & D.S.Hardy	LC		
Aloe petricola Pole-Evans	LC		
Aloe pretoriensis Pole-Evans	LC		
Aloe simii Pole-Evans	CR		
Aloe sp.			
Aloe spicata L.f.	LC		
Alternanthera sessilis (L.) DC.			
Alysicarpus rugosus (Willd.) DC. subsp. perennirufus J.Léonard			
Alysicarpus vaginalis (L.) DC. var. vaginalis			
Alysicarpus zeyheri Harv.			
Amaranthus dinteri Schinz subsp. dinteri var. a			
Amaranthus spinosus L.			
Amaranthus thunbergii Moq.			

Amaranthus viridis L.			
Ammannia baccifera L. subsp. baccifera			
Ampelopteris prolifera (Retz.) Copel.			
Anagallis huttonii Harv.			
Anagallis pumila Sw.			
Andrachne ovalis (E.Mey. ex Sond.) Müll.Arg.			
Andropogon appendiculatus Nees			
Andropogon chinensis (Nees) Merr.			
Andropogon eucomus Nees			
Andropogon huillensis Rendle			
Andropogon lacunosus J.G.Anderson			
Andropogon schirensis Hochst. ex A.Rich.			
Aneilema aequinoctiale (P.Beauv.) Loudon			
Aneilema brunneospermum Faden			
Aneilema hockii De Wild.			
Anemia dregeana Kunze			
Annesorhiza wilmsii H.Wolff			
Annona senegalensis Pers. subsp. senegalensis			
Anomodon pseudotristis (Müll.Hal.) Kindb.			
Ansellia africana Lindl.	Declining		
Antherotoma naudinii Hook.f.			
Anthocleista grandiflora Gilg			
Anthospermum herbaceum L.f.			
Anthospermum rigidum Eckl. & Zeyh. subsp. rigidum			
Antidesma venosum E.Mey. ex Tul.			
Apodolirion buchananii Baker			
Apodytes dimidiata E.Mey. ex Arn. subsp. dimidiata			
Arachis hypogaea L.			
Argemone ochroleuca Sweet subsp. ochroleuca			
Argyrolobium pseudotuberosum T.J.Edwards			
Argyrolobium speciosum Eckl. & Zeyh.			
Argyrolobium tomentosum (Andrews) Druce			
Argyrolobium tuberosum Eckl. & Zeyh.			
Argyrolobium wilmsii Harms			
Aristea angolensis Baker subsp. angolensis			
Aristea angolensis Baker subsp. pulchella Weim.			
Aristea flexicaulis Baker			
Aristea torulosa Klatt			
Aristida adscensionis L.			
Aristida congesta Roem. & Schult. subsp. barbicollis (Trin. & Rupr.) De Winter			
Aristida junciformis Trin. & Rupr. subsp. junciformis			
Aristida sp.			
Aristida transvaalensis Henrard			
Arundinella nepalensis Trin.			
Asclepias adscendens (Schltr.) Schltr.			
Asclepias affinis (Schltr.) Schltr.			
Asclepias aurea (Schltr.) Schltr.			
Asclepias crassinervis N.E.Br.	LC		
Asclepias cucullata (Schltr.) Schltr. subsp. cucullata			

Asclepias densiflora N.E.Br.			
Asclepias dregeana Schltr. var. dregeana			
Asclepias eminens (Harv.) Schltr.	LC		
Asclepias gibba (E.Mey.) Schltr. var. gibba			
Ascolepis capensis (Kunth) Ridl.			
Asparagus africanus Lam.			
Asparagus angusticladus (Jessop) J.-P.Lebrun & Stork			
Asparagus asparagoides (L.) Druce			
Asparagus cooperi Baker			
Asparagus edulis (Oberm.) J.-P.Lebrun & Stork			
Asparagus laricinus Burch.			
Asparagus macowanii Baker			
Asparagus virgatus Baker			
Aspidoglossum biflorum E.Mey.			
Aspidoglossum interruptum (E.Mey.) Bullock			
Asplenium aethiopicum (Burm.f.) Bech. subsp. aethiopicum			
Asplenium cordatum (Thunb.) Sw.			
Asplenium inaequilaterale Willd.			
Asplenium lobatum Pappe & Rawson			
Asplenium rutifolium (P.J.Bergius) Kunze			
Aster comptonii W.Lippert			
Aster harveyanus Kuntze			
Aster lydenburgensis W.Lippert			
Asterella wilmsii (Steph.) S.W.Arnell			
Astragalus atropilosulus (Hochst.) Bunge subsp. burkeanus (Harv.) J.B.Gillett var. burkeanus			
Athrixia phylicoides DC.			
Baccharoides adoensis (Sch.Bip. ex Walp.) H.Rob. var. kotschyana (Sch.Bip. ex Walp.) Isawumi, El-Ghazaly & B.Nord.			
Barleria crossandriformis C.B.Clarke			
Barleria elegans S.Moore ex C.B.Clarke			
Barleria gueinzii Sond.			
Barleria meyeriana Nees			
Barleria ovata E.Mey. ex Nees			
Barleria rotundifolia Oberm.			
Basananthe sandersonii (Harv.) W.J.de Wilde			
Basananthe sp.			
Basananthe triloba (Bolus) W.J.de Wilde			
Bauhinia galpinii N.E.Br.			
Bauhinia natalensis Oliv. ex Hook.			
Becium obovatum (E.Mey. ex Benth.) N.E.Br. subsp. obovatum var. galpinii (Gürke) N.E.Br.			
Becium obovatum (E.Mey. ex Benth.) N.E.Br. subsp. obovatum var. obovatum			
Begonia sonderiana Irmsch. var. sonderiana	LC		
Begonia sutherlandii Hook.f. subsp. sutherlandii			
Behnia reticulata (Thunb.) Didr.			
Berchemia zeyheri (Sond.) Grubov			
Berkheya echinacea (Harv.) O.Hoffm. ex Burtt Davy			

subsp. echinacea			
Berkheya insignis (Harv.) Thell.			
Berkheya latifolia J.M.Wood & M.S.Evans			
Berkheya robusta Bohnen ex Roessler			
Berkheya setifera DC.			
Berkheya sp.			
Berkheya zeyheri Oliv. & Hiern subsp. rehmannii (Thell.) Roessler var. rehmannii			
Berkheya zeyheri Oliv. & Hiern subsp. rehmannii (Thell.) Roessler var. rogersiana (Thell.) Roessler			
Berkheya zeyheri Oliv. & Hiern subsp. zeyheri			
Bersama transvaalensis Turrill			
Bewsia biflora (Hack.) Gooss.			
Bidens pilosa L.			
Bidens steppia (Steetz) Sherff var. steppia			
Blechnum punctulatum Sw. var. punctulatum			
Blechnum tabulare (Thunb.) Kuhn			
Blepharis maderaspatensis (L.) Roth			
Blepharis serrulata (Nees) Ficalho & Hiern			
Blepharis subvolubilis C.B.Clarke			
Blumea dregeanoides Sch.Bip. ex A.Rich.			
Boerhavia diffusa L. var. diffusa			
Bonatea pulchella Summerh.			
Bothriochloa bladhii (Retz.) S.T.Blake			
Bothriochloa insculpta (Hochst. ex A.Rich.) A.Camus			
Bowkeria cymosa MacOwan			
Brachiaria bovonei (Chiov.) Robyns			
Brachiaria brizantha (A.Rich.) Stapf			
Brachiaria deflexa (Schumach.) C.E.Hubb. ex Robyns			
Brachiaria eruciformis (Sm.) Griseb.			
Brachiaria humidicola (Rendle) Schweick.			
Brachiaria nigropedata (Ficalho & Hiern) Stapf			
Brachiaria serrata (Thunb.) Stapf			
Brachiaria umbellata (Trin.) Clayton			
Brachiaria xantholeuca (Schinz) Stapf			
Brachycorythis pubescens Harv.			
Brachylaena transvaalensis E.Phillips & Schweick.			
Brachymenium acuminatum Harv.			
Brachymenium pulchrum Hook.			
Brachystelma bruceae R.A.Dyer subsp. bruceae			
Brachystelma bruceae R.A.Dyer subsp. hirsutum R.A.Dyer			
Brachystelma coddii R.A.Dyer			
Brachystelma filifolium (N.E.Br.) Peckover			
Brachystelma macropetalum (Schltr.) N.E.Br.			
Brachystelma oianthum Schltr.			
Brachystelma rubellum (E.Mey.) Peckover			
Brassica nigra (L.) W.D.J.Koch			
Breonadia salicina (Vahl) Hepper & J.R.I.Wood			
Bridelia cathartica G.Bertol. subsp. cathartica	LC		

Bridelia cathartica G.Bertol. subsp. melanthesoides (Baill.) J.Léonard var. melanthesoides forma melanthesoides			
Bridelia micrantha (Hochst.) Baill.			
Bromus pectinatus Thunb.			
Brunsvigia radulosa Herb.			
Bryum apiculatum Schwägr.			
Bryum argenteum Hedw.			
Bryum capillare Hedw.			
Bryum pseudotriquetrum (Hedw.) P.Gaertn., B.Mey. & Scherb.			
Buchnera brevibractealis Hiern			
Buchnera dura Benth.			
Buchnera reducta Hiern			
Buellia perigrapta (Stizenb.) Zahlbr.			
Buellia punctata (Hoffm.) A.Massal.			
Bulbostylis burchellii (Ficalho & Hiern) C.B.Clarke			
Bulbostylis contexta (Nees) M.Bodard			
Bulbostylis densa (Wall.) Hand.-Mazz. subsp. afromontana (Lye) R.W.Haines			
Bulbostylis hispidula (Vahl) R.W.Haines subsp. pyriformis (Lye) R.W.Haines			
Bulbostylis oritrephes (Ridl.) C.B.Clarke			
Burchellia bubalina (L.f.) Sims			
Caesalpinia decapetala (Roth) Alston			
Cajanus cajan (L.) Millsp.			
Callilepis laureola DC.			
Callilepis salicifolia Oliv.			
Callilepis sp.			
Calodendrum capense (L.f.) Thunb.			
Caloplaca ferruginea (Huds.) Th.Fr.			
Camptorrhiza strumosa (Baker) Oberm.			
Campylopus pyriformis (F.W.Schultz) Brid.			
Campylopus robillardei Besch.			
Campylopus savannarum (Müll.Hal.) Mitt.			
Canavalia ensiformis (L.) DC.			
Canavalia gladiata (Jacq.) DC. var. gladiata			
Canavalia rosea (Sw.) DC.			
Canavalia virosa (Roxb.) Wight & Arn.			
Candelaria concolor (Dicks.) Stein			
Canna x generalis L.H.Bailey			
Canthium inerme (L.f.) Kuntze			
Capparis tomentosa Lam.			
Cardiospermum corindum L.			
Cardiospermum halicacabum L. var. halicacabum			
Cardiospermum halicacabum L. var. microcarpum (Kunth) Blume			
Carex spicato-paniculata C.B.Clarke			
Carissa bispinosa (L.) Desf. ex Brenan subsp. bispinosa			
Cassia abbreviata Oliv. subsp. beareana (Holmes) Brenan			

Cassinopsis ilicifolia (Hochst.) Kuntze			
Cassytha filiformis L.			
Catha edulis (Vahl) Forssk. ex Endl.	LC		
Catunaregam spinosa (Thunb.) Tirveng. subsp. spinosa			
Celosia trigyna L.			
Cenchrus ciliaris L.			
Centella asiatica (L.) Urb.			
Cephalanthus natalensis Oliv.			
Cephalaria pungens Szabó			
Cephalomanes rigidum (Sw.) K.Iwats.			
Ceratodon purpureus (Hedw.) Brid. subsp. stenocarpus (Bruch & Schimp. ex Müll.Hal.) Dixon			
Ceratotheca sesamoides Endl.			
Ceratotheca triloba (Bernh.) Hook.f.			
Ceropegia ampliata E.Mey. var. ampliata			
Ceropegia carnosa E.Mey.			
Ceropegia haygarthii Schltr.			
Chaenostoma floribundum Benth.			
Chaetacanthus burchellii Nees			
Chaetacanthus costatus Nees			
Chaetacanthus setiger (Pers.) Lindl.			
Chaetacanthus sp.			
Chamaecrista capensis (Thunb.) E.Mey. var. capensis			
Chamaecrista mimosoides (L.) Greene			
Chamaecrista plumosa E.Mey. var. plumosa			
Chascanum hederaceum (Sond.) Moldenke var. hederaceum			
Chascanum hederaceum (Sond.) Moldenke var. natalense (H.Pearson) Moldenke			
Cheilanthes concolor (Langsd. & Fisch.) R.M. & A.F.Tryon			
Cheilanthes hirta Sw. var. inferacampestris W.& N.Jacobsen			
Cheilanthes hirta Sw. var. nemorosa W.& N.Jacobsen			
Cheilanthes inaequalis (Kunze) Mett. var. buchananii (Baker) Schelpe			
Cheilanthes multifida (Sw.) Sw.			
Cheilanthes multifida (Sw.) Sw. subsp. lacerata N.C.Anthony & Schelpe			
Cheilanthes quadripinnata (Forssk.) Kuhn			
Cheilanthes viridis (Forssk.) Sw. var. glauca (Sim) Schelpe & N.C.Anthony			
Cheilanthes viridis (Forssk.) Sw. var. viridis			
Chenopodium album L.			
Chenopodium ambrosioides L.			
Chenopodium carinatum R.Br.			
Chironia krebsii Griseb.			
Chironia purpurascens (E.Mey.) Benth. & Hook.f. subsp. humilis (Gilg) I.Verd.			
Chloris pycnothrix Trin.			
Chloris virgata Sw.			
Chlorophytum angulicaule (Baker) Kativu			

Chlorophytum bowkeri Baker			
Chlorophytum fasciculatum (Baker) Kativu			
Chlorophytum galpinii (Baker) Kativu var. galpinii			
Chlorophytum krookianum Zahlbr.			
Chlorophytum recurvifolium (Baker) C.Archer & Kativu			
Choristylis rhamnoides Harv.			
Chortolirion angolense (Baker) A.Berger			
Christella dentata (Forssk.) Holttum			
Christella gueinziana (Mett.) Holttum			
Cissampelos mucronata A.Rich.			
Cissus fragilis E.Mey. ex Kunth			
Citropsis daweana Swingle & Kellerm.			
Clasmatocolea vermicularis (Lehm.) Grolle			
Clausena anisata (Willd.) Hook.f. ex Benth. var. anisata			
Cleistachne sorghoides Benth.	LC		
Clematis brachiata Thunb.			
Cleome monophylla L.			
Clerodendrum suffruticosum Gürke var. suffruticosum			
Cliffortia linearifolia Eckl. & Zeyh.			
Cliffortia repens Schltr.			
Cliffortia strobilifera L.			
Clivia caulescens R.A.Dyer	NT		
Clutia affinis Sond.			
Clutia monticola S.Moore var. monticola			
Clutia pulchella L. var. pulchella			
Cnestis polyphylla Lam.			
Coccinia adoensis (A.Rich.) Cogn.			
Coccinia palmata (Sond.) Cogn.			
Cocculus hirsutus (L.) Diels			
Coddia rudis (E.Mey. ex Harv.) Verdc.			
Colchicum longipes (Baker) J.C.Manning & Vinn.			
Colchicum melanthoides (Willd.) J.C.Manning & Vinn. subsp. transvaalense (U.& D.Müll.-Doblies) J.C.Manning & Vinn.			
Colchicum striatum (Hochst. ex A.Rich.) J.C.Manning & Vinn.			
Coleochloa setifera (Ridl.) Gilly			
Combretum apiculatum Sond. subsp. apiculatum			
Combretum collinum Fresen. subsp. gazense (Swynn. & Baker f.) Okafor			
Combretum collinum Fresen. subsp. suluense (Engl. & Diels) Okafor			
Combretum collinum Fresen. subsp. taborense (Engl.) Okafor	LC		
Combretum erythrophyllum (Burch.) Sond.			
Combretum hereroense Schinz			
Combretum kraussii Hochst.			
Combretum molle R.Br. ex G.Don			
Combretum zeyheri Sond.			
Commelina africana L. var. africana			
Commelina africana L. var. krebsiana (Kunth)			

C.B.Clarke			
Commelina africana L. var. lancispatha C.B.Clarke			
Commelina benghalensis L.			
Commelina diffusa Burm.f. subsp. diffusa			
Commelina diffusa Burm.f. subsp. scandens (Welw. ex C.B.Clarke) Oberm.			
Commelina eckloniana Kunth			
Commelina erecta L.			
Commelina modesta Oberm.			
Commelina subulata Roth			
Commiphora harveyi (Engl.) Engl.	LC		
Conostomium natalense (Hochst.) Bremek. var. glabrum Bremek.			
Convolvulus farinosus L.			
Conyza bonariensis (L.) Cronquist			
Conyza obscura DC.			
Conyza scabrida DC.			
Coptosperma supra-axillare (Hemsl.) Degreef			
Corchorus asplenifolius Burch.			
Corchorus confusus Wild			
Coronopus didymus (L.) Sm.			
Costularia natalensis C.B.Clarke	LC		
Cotyledon orbiculata L. var. orbiculata			
Crabbea galpinii C.B.Clarke			
Crabbea hirsuta Harv.			
Crassocephalum crepidioides (Benth.) S.Moore			
Crassocephalum x picridifolium (DC.) S.Moore			
Crassula acinaciformis Schinz			
Crassula alba Forssk. var. alba			
Crassula alba Forssk. var. parvisepala (Schönland) Toelken			
Crassula brevifolia Harv. subsp. brevifolia			
Crassula compacta Schönland			
Crassula expansa Dryand. subsp. fragilis (Baker) Toelken			
Crassula lanceolata (Eckl. & Zeyh.) Endl. ex Walp. subsp. lanceolata			
Crassula natalensis Schönland			
Crassula natans Thunb. var. natans			
Crassula pellucida L. subsp. alsinoides (Hook.f.) Toelken			
Crassula perfoliata L. var. heterotricha (Schinz) Toelken			
Crassula sarcocaulis Eckl. & Zeyh. subsp. sarcocaulis			
Crassula swaziensis Schönland subsp. swaziensis var. swaziensis forma swaziensis			
Crassula vaginata Eckl. & Zeyh. subsp. vaginata			
Craterostigma wilmsii Engl. ex Diels			
Crepidomanes melanotrichum (Schltdl.) J.P.Roux			
Crepis hypochaeridea (DC.) Thell.			
Crinum macowanii Baker	Declining		
Crocosmia aurea (Pappe ex Hook.) Planch. subsp. aurea			

Crossandra greenstockii S.Moore			
Crotalaria laburnifolia L. subsp. australis (Baker f.) Polhill			
Crotalaria lanceolata E.Mey. subsp. lanceolata			
Crotalaria pallida Aiton var. pallida			
Crotalaria recta Steud. ex A.Rich.			
Croton gratissimus Burch. var. gratissimus			
Croton sp.			
Cryptolepis capensis Schltr.			
Cryptolepis oblongifolia (Meisn.) Schltr.			
Ctenium concinnum Nees			
Ctenomeria capensis (Thunb.) Harv. ex Sond.			
Cucumella cinerea (Cogn.) C.Jeffrey			
Cucumis africanus L.f.			
Cucumis anguria L. var. longaculeatus J.H.Kirkbr.			
Cucumis melo L. subsp. melo			
Cucumis metuliferus E.Mey. ex Naudin			
Cucumis myriocarpus Naudin subsp. myriocarpus			
Cucumis zeyheri Sond.			
Curtisia dentata (Burm.f.) C.A.Sm.	NT		
Cussonia natalensis Sond.			
Cussonia spicata Thunb.			
Cyanotis lanata Benth.			
Cyanotis lapidosa E.Phillips			
Cyanotis speciosa (L.f.) Hassk.			
Cyathea dregei Kunze	LC		
Cyathula cylindrica Moq. var. cylindrica			
Cyathula uncinulata (Schrad.) Schinz			
Cyclodictyon vallis-gratiae (Hampe ex Müll.Hal.) Kuntze			
Cyclosorus interruptus (Willd.) H.Itô			
Cycnium adonense E.Mey. ex Benth.			
Cycnium racemosum Benth.			
Cycnium tubulosum (L.f.) Engl. subsp. tubulosum			
Cylindrocolea atroviridis (Sim) Vána			
Cymbopogon caesius (Hook. & Arn.) Stapf			
Cymbopogon nardus (L.) Rendle			
Cymbopogon pospischilii (K.Schum.) C.E.Hubb.			
Cynodon dactylon (L.) Pers.			
Cynodon hirsutus Stent			
Cynoglossum lanceolatum Forssk.			
Cynorkis kassneriana Kraenzl.			
Cyperus albostriatus Schrad.			
Cyperus amabilis Vahl			
Cyperus compressus L.			
Cyperus cuspidatus Kunth			
Cyperus cyperoides (L.) Kuntze subsp. cyperoides			
Cyperus cyperoides (L.) Kuntze subsp. pseudoflavus (Kük.) Lye			
Cyperus denudatus L.f. var. denudatus			
Cyperus dives Delile			

Cyperus esculentus L. var. esculentus			
Cyperus fastigiatus Rottb.			
Cyperus indecorus Kunth var. inflatus (C.B.Clarke) Kük.			
Cyperus keniensis Kük.			
Cyperus kirkii C.B.Clarke			
Cyperus latifolius Poir.			
Cyperus leptocladus Kunth			
Cyperus obtusiflorus Vahl var. flavissimus (Schrad.) Boeck.			
Cyperus obtusiflorus Vahl var. obtusiflorus			
Cyperus pseudoleptocladus Kük.			
Cyperus pseudovestitus (C.B.Clarke) Kük.			
Cyperus rotundus L. subsp. rotundus			
Cyperus rupestris Kunth var. rupestris			
Cyperus semitrifidus Schrad.			
Cyperus solidus Kunth			
Cyperus sphaerospermus Schrad.			
Cyperus squarrosus L.			
Cyphia elata Harv. var. elata			
Cyphia elata Harv. var. glabra Harv.			
Cyphia elata Harv. var. oblongifolia (Sond. & Harv.) E.Phillips			
Cyphostemma anatomicum (C.A.Sm.) Wild & R.B.Drumm.	LC		
Cyphostemma sp.			
Cyphostemma woodii (Gilg & M.Brandt) Desc.			
Cyrtanthus bicolor R.A.Dyer	LC		
Cyrtanthus contractus N.E.Br.			
Cyrtanthus eucallus R.A.Dyer	VU		
Cyrtanthus galpinii Baker			
Cyrtanthus thorncroftii C.H.Wright	LC		
Cyrtohypnum versicolor (Hornsch. ex Müll.Hal.) W.R.Buck & H.A.Crum			
Cyrtorchis arcuata (Lindl.) Schltr. subsp. arcuata			
Dactyloctenium aegyptium (L.) Willd.			
Dactyloctenium australe Steud.			
Dais cotinifolia L.			
Dalbergia armata E.Mey.			
Dalbergia sissoo Roxb. ex . DC.			
Davallia chaerophylloides (Poir.) Steud.			
Deinbollia oblongifolia (E.Mey. ex Arn.) Radlk.			
Desmodium barbatum (L.) Benth. var. dimorphum (Welw. ex Baker) B.G.Schub.			
Desmodium gangeticum (L.) DC.			
Desmodium incanum DC.			
Desmodium repandum (Vahl) DC.			
Desmodium salicifolium (Poir.) DC. var. salicifolium			
Desmodium setigerum (E.Mey.) Benth. ex Harv.			
Dicerocaryum senecioides (Klotzsch) Abels			
Dichrostachys cinerea (L.) Wight & Arn. subsp. africana Brenan & Brummitt var. africana			

Dichrostachys cinerea (L.) Wight & Arn. subsp. nyassana (Taub.) Brenan			
Dicliptera clinopodia Nees			
Diclis petiolaris Benth.			
Diclis reptans Benth.			
Dicoma anomala Sond. subsp. anomala			
Dicoma sp.			
Dicranopteris linearis (Burm.f.) Underw. var. linearis			
Dierama adelphicum Hilliard			
Dierama gracile N.E.Br.			
Dierama mobile Hilliard			
Dietes iridioides (L.) Sweet ex Klatt			
Digitaria ciliaris (Retz.) Koeler			
Digitaria debilis (Desf.) Willd.			
Digitaria diagonalis (Nees) Stapf var. diagonalis			
Digitaria eriantha Steud.			
Digitaria longiflora (Retz.) Pers.			
Digitaria maitlandii Stapf & C.E.Hubb.			
Digitaria monodactyla (Nees) Stapf			
Digitaria natalensis Stent			
Digitaria nuda Schumach.			
Digitaria scalarum (Schweinf.) Chiov.			
Digitaria sp.			
Digitaria ternata (A.Rich.) Stapf			
Diheteropogon amplectens (Nees) Clayton var. amplectens			
Diheteropogon filifolius (Nees) Clayton			
Dimorphotheca spectabilis Schltr.			
Dioscorea cotinifolia Kunth			
Dioscorea quartiniana A.Rich.			
Dioscorea rupicola Kunth			
Dioscorea sylvatica Eckl. var. brevipes (Burtt Davy) Burkill			
Dioscorea sylvatica Eckl. var. sylvatica			
Diospyros galpinii (Hiern) De Winter			
Diospyros lycioides Desf. subsp. guerkei (Kuntze) De Winter			
Diospyros lycioides Desf. subsp. sericea (Bernh.) De Winter			
Diospyros nummularia Brenan			
Diospyros whyteana (Hiern) F.White			
Dipcadi gracillimum Baker			
Dipcadi marlothii Engl.			
Dipcadi rigidifolium Baker			
Dipcadi viride (L.) Moench			
Disa chrysostachya Sw.			
Disa extinctoria Rchb.f.	NT		
Disa patula Sond. var. transvaalensis Summerh.			
Disa polygonoides Lindl.			
Disa saxicola Schltr.			
Disa stachyoides Rchb.f.	LC		

Disa woodii Schltr.	LC		
Disperis micrantha Lindl.			
Dissotis canescens (E.Mey. ex R.A.Graham) Hook.f.			
Ditrichum difficile (Duby) M.Fleisch.			
Dodonaea angustifolia L.f.			
Dolichos falciformis E.Mey.			
Dolichos sericeus E.Mey.			
Dolichos trilobus L. subsp. transvaalicus Verdc.			
Dombeya pulchra N.E.Br.			
Dombeya rotundifolia (Hochst.) Planch. var. rotundifolia	LC		
Dopatrium junceum (Roxb.) Buch.-Ham. ex Benth.			
Dovyalis lucida Sim			
Drimia cuscutoides (Burch. ex Baker) J.C.Manning & Goldblatt			
Drimia delagoensis (Baker) Jessop	LC		
Drimia intricata (Baker) J.C.Manning & Goldblatt			
Drimia multisetosa (Baker) Jessop			
Drimiopsis burkei Baker subsp. burkei			
Drosera burkeana Planch.			
Dryopteris athamantica (Kunze) Kuntze			
Dryopteris inaequalis (Schltdl.) Kuntze			
Dumortiera hirsuta (Sw.) Nees			
Duranta erecta L.			
Duvernoia aconitiflora A.Meeuse	LC		
Dyschoriste rogersii S.Moore	LC		
Echinochloa colona (L.) Link			
Ehretia amoena Klotzsch			
Ehretia obtusifolia Hochst. ex A.DC.			
Ehretia rigida (Thunb.) Druce subsp. nervifolia Retief & A.E.van Wyk			
Ehrharta erecta Lam. var. erecta			
Eichhornia crassipes (Mart.) Solms			
Ekebergia capensis Sparrm.	LC		
Ekebergia pterophylla (C.DC.) Hofmeyr			
Elaeodendron croceum (Thunb.) DC.	Declining		
Eleocharis acutangula (Roxb.) Schult.			
Eleocharis caduca (Delile) Schult.			
Elephantorrhiza elephantina (Burch.) Skeels	LC		
Eleusine coracana (L.) Gaertn. subsp. africana (Kenn.-O'Byrne) Hilu & de Wet			
Eleusine indica (L.) Gaertn.			
Elionurus muticus (Spreng.) Kunth			
Emex australis Steinh.			
Encephalartos ghellinckii Lem.	VU		
Encephalartos humilis I.Verd.	VU		
Encephalartos laevifolius Stapf & Burtt Davy	CR		
Endostemon obtusifolius (E.Mey. ex Benth.) N.E.Br.			
Englerophytum magalismontanum (Sond.) T.D.Penn.			
Enicostema axillare (Lam.) A.Raynal subsp. axillare			
Enneapogon scoparius Stapf			

Entodon macropodus (Hedw.) Müll.Hal.			
Epilobium capense Buchinger ex Hochst.			
Epilobium hirsutum L.			
Equisetum ramosissimum Desf. subsp. ramosissimum			
Eragrostis amabilis (L.) Hook. & Arn.			
Eragrostis aspera (Jacq.) Nees			
Eragrostis barrelieri Daveau			
Eragrostis capensis (Thunb.) Trin.			
Eragrostis chapelieri (Kunth) Nees			
Eragrostis cilianensis (All.) Vignolo ex Janch.			
Eragrostis ciliaris (L.) R.Br.			
Eragrostis curvula (Schrad.) Nees			
Eragrostis heteromera Stapf			
Eragrostis hierniana Rendle			
Eragrostis inamoena K.Schum.			
Eragrostis lappula Nees			
Eragrostis mexicana (Hornem.) Link subsp. virescens (J.Presl.) S.D.Koch & Sánchez Vega			
Eragrostis micrantha Hack.			
Eragrostis nindensis Ficalho & Hiern			
Eragrostis patens Oliv.	LC		
Eragrostis pilosa (L.) P.Beauv.			
Eragrostis racemosa (Thunb.) Steud.			
Eragrostis sarmentosa (Thunb.) Trin.			
Eragrostis sclerantha Nees subsp. sclerantha			
Eragrostis sp.			
Eragrostis superba Peyr.			
Eragrostis tenuifolia (A.Rich.) Steud.			
Eragrostis viscosa (Retz.) Trin.			
Eragrostis volkensii Pilg.	LC		
Erianthemum dregei (Eckl. & Zeyh.) Tiegh.			
Erica drakensbergensis Guthrie & Bolus			
Erica holtii Schweick.	LC		
Erica sp.			
Erica woodii Bolus var. woodii			
Eriocaulon abyssinicum Hochst.			
Eriocaulon sonderianum Körn.			
Eriocaulon sp.			
Eriocaulon transvaalicum N.E.Br. subsp. transvaalicum			
Eriochrysis pallida Munro			
Eriosema angustifolium Burtt Davy			
Eriosema burkei Benth. ex Harv. var. burkei			
Eriosema cordatum E.Mey.			
Eriosema ellipticifolium Schinz			
Eriosema gunniae C.H.Stirt.			
Eriosema pauciflorum Klotzsch var. pauciflorum			
Eriosema psoraleoides (Lam.) G.Don			
Eriospermum cooperi Baker var. cooperi			
Eriospermum flagelliforme (Baker) J.C.Manning			
Eriospermum mackenii (Hook.f.) Baker subsp. galpinii			

(Schinz) P.L.Perry			
Eriospermum mackenii (Hook.f.) Baker subsp. mackenii			
Eriospermum porphyrovalve Baker			
Erpodium beccarii Müll.Hal.			
Erythrina latissima E.Mey.			
Erythrina lysistemon Hutch.			
Erythrococca menyharthii (Pax) Prain			
Erythroxylum delagoense Schinz			
Erythroxylum emarginatum Thonn.			
Ethulia conyzoides L.f. subsp. conyzoides			
Euclea crispa (Thunb.) Gürke subsp. crispa			
Euclea natalensis A.DC. subsp. angustifolia F.White			
Euclea sp.			
Eucomis autumnalis (Mill.) Chitt. subsp. amaryllidifolia (Baker) Reyneke			
Eucomis autumnalis (Mill.) Chitt. subsp. clavata (Baker) Reyneke			
Eulalia villosa (Thunb.) Nees			
Eulophia angolensis (Rchb.f.) Summerh.			
Eulophia foliosa (Lindl.) Bolus			
Eulophia hians Spreng. var. hians			
Eulophia hians Spreng. var. inaequalis (Schltr.) S.Thomas			
Eulophia horsfallii (Bateman) Summerh.			
Eulophia leontoglossa Rchb.f.			
Eulophia milnei Rchb.f.			
Eulophia parviflora (Lindl.) A.V.Hall			
Eulophia petersii (Rchb.f.) Rchb.f.			
Eulophia streptopetala Lindl.	LC		
Euphorbia cooperi N.E.Br. ex A.Berger var. cooperi			
Euphorbia cotinifolia L.			
Euphorbia evansii Pax			
Euphorbia gueinzii Boiss. var. albovillosa (Pax) N.E.Br.			
Euphorbia heterophylla L.			
Euphorbia hypericifolia L.			
Euphorbia indica Lam.			
Euphorbia kraussiana Bernh. var. kraussiana			
Euphorbia pseudotuberosa Pax			
Euphorbia schinzii Pax			
Euphorbia serpens Kunth			
Euphorbia striata Thunb. var. striata			
Euphorbia tirucalli L.			
Euphorbia trichadenia Pax var. trichadenia			
Euphorbia vandermerwei R.A.Dyer			
Euryops laxus (Harv.) Burtt Davy			
Euryops pedunculatus N.E.Br.			
Eustachys paspaloides (Vahl) Lanza & Mattei			
Evolvulus alsinoides (L.) L.			
Fabronia pilifera Hornsch.			
Fabronia rehmannii Müll.Hal.			

Faurea galpinii E.Phillips	LC		
Faurea macnaughtonii E.Phillips	Rare		
Faurea rochetiana (A.Rich.) Chiov. ex Pic.Serm.	LC		
Faurea saligna Harv.	LC		
Felicia clavipilosa Grau subsp. transvaalensis Grau			
Felicia mossamedensis (Hiern) Mendonça			
Felicia muricata (Thunb.) Nees subsp. muricata			
Felicia rosulata Yeo			
Festuca costata Nees			
Ficus abutilifolia (Miq.) Miq.			
Ficus auriculata Lour.			
Ficus craterostoma Warb. ex Mildbr. & Burret			
Ficus glumosa Delile			
Ficus ingens (Miq.) Miq.			
Ficus salicifolia Vahl			
Ficus stuhlmannii Warb.			
Ficus sur Forssk.			
Ficus sycomorus L. subsp. sycomorus			
Ficus thonningii Blume			
Fimbristylis complanata (Retz.) Link			
Fimbristylis dichotoma (L.) Vahl			
Fissidens ovatus Brid.			
Fissidens submarginatus Bruch			
Flacourtia indica (Burm.f.) Merr.			
Flemingia grahamiana Wight & Arn.			
Floribundaria floribunda (Dozy & Molk.) M.Fleisch.			
Floscopa glomerata (Willd. ex Schult. & J.H.Schult.) Hassk.			
Flueggea sp.			
Flueggea virosa (Roxb. ex Willd.) Voigt subsp. virosa			
Fossombronia crispa Nees			
Fragaria vesca L.			
Freesia grandiflora (Baker) Klatt			
Freesia laxa (Thunb.) Goldblatt & J.C.Manning subsp. laxa			
Frullania arecae (Spreng.) Gottsche			
Frullania ericoides (Nees) Mont.			
Frullania trinervis (Lehm.) Drège			
Fuirena leptostachya Oliv. forma nudiflora Lye			
Fuirena pachyrrhiza Ridl. var. subechinata P.L.Forbes			
Fuirena pubescens (Poir.) Kunth var. pubescens			
Fuirena stricta Steud. var. stricta			
Funaria limbata (Müll.Hal.) Broth.			
Galactia tenuiflora (Willd.) Wight & Arn. var. villosa (Wight & Arn.) Benth.			
Galinsoga ciliata (Raf.) S.F.Blake			
Galinsoga parviflora Cav.			
Galopina aspera (Eckl. & Zeyh.) Walp.			
Galopina circaeoides Thunb.			
Galpinia transvaalica N.E.Br.			

Gamochaeta pensylvanica (Willd.) Cabrera			
Gazania krebsiana Less. subsp. serrulata (DC.) Roessler			
Geigeria brachycephala Muschl.			
Geigeria burkei Harv. subsp. burkei var. burkei			
Geigeria burkei Harv. subsp. burkei var. elata Merxm.			
Geigeria burkei Harv. subsp. burkei var. hirtella Merxm.			
Geigeria burkei Harv. subsp. fruticulosa Merxm.			
Geigeria ornativa O.Hoffm.			
Geigeria sp.			
Geniosporum angolense Briq.			
Geranium ornithopodon Eckl. & Zeyh.			
Geranium wakkerstroomianum R.Knuth			
Gerbera ambigua (Cass.) Sch.Bip.			
Gerbera jamesonii Bolus ex Adlam			
Gerbera piloselloides (L.) Cass.			
Gerbera sp.			
Gerbera viridifolia (DC.) Sch.Bip.			
Gisekia pharnacioides L. var. pharnacioides			
Gladiolus crassifolius Baker			
Gladiolus dalenii Van Geel subsp. dalenii			
Gladiolus densiflorus Baker			
Gladiolus ecklonii Lehm.			
Gladiolus ferrugineus Goldblatt & J.C.Manning	LC		
Gladiolus hollandii L.Bolus	LC		
Gladiolus longicollis Baker subsp. platypetalus (Baker) Goldblatt & J.C.Manning			
Gladiolus papilio Hook.f.			
Gladiolus pubigerus G.J.Lewis			
Gladiolus vinosomaculatus Kies			
Gladiolus woodii Baker			
Gloriosa modesta (Hook.) J.C.Manning & Vinn.			
Gloriosa superba L.			
Gnidia capitata L.f.			
Gnidia kraussiana Meisn.			
Gnidia kraussiana Meisn. var. kraussiana			
Gnidia microcephala Meisn.			
Gnidia robusta B.Peterson			
Gnidia sp.			
Gomphocarpus glaucophyllus Schltr.			
Gomphocarpus physocarpus E.Mey.			
Gomphocarpus rivularis Schltr.			
Gomphrena celosioides Mart.			
Gossypium herbaceum L. subsp. africanum (Watt) Vollesen	LC		
Graderia scabra (L.f.) Benth.			
Graderia subintegra Mast.			
Graphina acharii (Fée) Müll.Arg.			
Grewia caffra Meisn.			
Grewia flavescens Juss.			

Grewia hexamita Burret			
Grewia monticola Sond.			
Grewia occidentalis L. var. occidentalis			
Grewia pachycalyx K.Schum.			
Grewia retinervis Burret			
Grewia subspathulata N.E.Br.			
Greyia radlkoferi Szyszyl.			
Guilleminea densa (Willd. ex Roem. & Schult.) Moq.			
Gunnera perpensa L.	Declining		
Gymnosporia buxifolia (L.) Szyszyl.			
Gymnosporia glaucophylla Jordaan			
Gymnosporia harveyana Loes. subsp. harveyana			
Gymnosporia heterophylla (Eckl. & Zeyh.) Loes.			
Gymnosporia senegalensis (Lam.) Loes.			
Gymnosporia sp.			
Habenaria falcicornis (Burch. ex Lindl.) Bolus subsp. caffra (Schltr.) J.C.Manning			
Habenaria galpinii Bolus			
Habenaria lithophila Schltr.			
Habenaria malacophylla Rchb.f.			
Habenaria nyikana Rchb.f. subsp. nyikana			
Habenaria pseudociliosa Schelpe ex J.C.Manning			
Habenaria schimperiana Hochst. ex A.Rich.			
Hackelochloa granularis (L.) Kuntze	LC		
Haemanthus humilis Jacq. subsp. hirsutus (Baker) Snijman			
Halleria lucida L.			
Haplocarpha scaposa Harv.			
Haplocladium angustifolium (Hampe & Müll.Hal.) Broth.			
Harpochloa falx (L.f.) Kuntze			
Harveya silvatica Hilliard & B.L.Burtt			
Hebenstretia comosa Hochst.			
Hedwigia ciliata (Hedw.) P.Beauv.			
Hedwigidium integrifolium (P.Beauv.) Dixon			
Helichrysum acutatum DC.			
Helichrysum appendiculatum (L.f.) Less.			
Helichrysum athrixiifolium (Kuntze) Moeser			
Helichrysum aureolum Hilliard			
Helichrysum aureum (Houtt.) Merr. var. monocephalum (DC.) Hilliard			
Helichrysum caespititium (DC.) Harv.			
Helichrysum candolleanum H.Buek			
Helichrysum cephaloideum DC.			
Helichrysum chionosphaerum DC.			
Helichrysum chrysargyrum Moeser			
Helichrysum epapposum Bolus			
Helichrysum homilochrysum S.Moore	Rare		
Helichrysum kraussii Sch.Bip.			
Helichrysum mimetes S.Moore			
Helichrysum mixtum (Kuntze) Moeser var. mixtum			

Helichrysum mutabile Hilliard			
Helichrysum nudifolium (L.) Less. var. nudifolium			
Helichrysum nudifolium (L.) Less. var. oxyphyllum (DC.) Beentje			
Helichrysum nudifolium (L.) Less. var. pilosellum (L.f.) Beentje			
Helichrysum odoratissimum (L.) Sweet var. odoratissimum			
Helichrysum oreophilum Klatt			
Helichrysum pallidum DC.			
Helichrysum panduratum O.Hoffm. var. panduratum			
Helichrysum panduratum O.Hoffm. var. transvaalense Moeser			
Helichrysum platypterum DC.			
Helichrysum polycladum Klatt			
Helichrysum reflexum N.E.Br.			
Helichrysum spiralepis Hilliard & B.L.Burtt			
Helichrysum splendidum (Thunb.) Less.			
Helichrysum stenopterum DC.			
Helichrysum thapsus (Kuntze) Moeser			
Helichrysum truncatum Burtt Davy			
Helichrysum umbraculigerum Less.			
Helichrysum wilmsii Moeser			
Helinus integrifolius (Lam.) Kuntze			
Heliophila rigidiuscula Sond.			
Heliotropium ciliatum Kaplan			
Hemarthria altissima (Poir.) Stapf & C.E.Hubb.			
Hemizygia petrensis (Hiern) M.Ashby			
Hemizygia sp.			
Hermannia cristata Bolus			
Hermannia glanduligera K.Schum.			
Hermannia grandifolia N.E.Br.			
Hermannia montana N.E.Br.			
Hermannia sp.			
Hermannia stellulata (Harv.) K.Schum.			
Hermannia verdoorniae De Winter			
Hermannia x montana N.E.Br.			
Hermbstaedtia odorata (Burch.) T.Cooke var. odorata			
Hesperantha schlechteri (Baker) R.C.Foster			
Heteromorpha arborescens (Spreng.) Cham. & Schltdl. var. abyssinica (Hochst. ex A.Rich.) H.Wolff			
Heteromorpha involucrata Conrath			
Heteromorpha pubescens Burtt Davy			
Heteropogon contortus (L.) Roem. & Schult.			
Heteropyxis canescens Oliv.	LC		
Heteropyxis natalensis Harv.			
Hibiscus aethiopicus L. var. aethiopicus x H. aethiopicus L. var. ovatus Harv.			
Hibiscus aethiopicus L. var. ovatus Harv.			
Hibiscus barbosae Exell			
Hibiscus cannabinus L.			

Hibiscus engleri K.Schum.			
Hibiscus lunarifolius Willd.			
Hibiscus pusillus Thunb.			
Hibiscus schinzii Gürke			
Hibiscus schizopetalus (Mast.) Hook.f.			
Hibiscus trionum L.			
Hippobromus pauciflorus (L.f.) Radlk.			
Huernia hystrix (Hook.f.) N.E.Br. var. hystrix			
Hybanthus enneaspermus (L.) F.Muell. var. enneaspermus			
Hydrocotyle verticillata Thunb.			
Hyophila involuta (Hook.) A.Jaeger			
Hyparrhenia cymbaria (L.) Stapf			
Hyparrhenia dichroa (Steud.) Stapf			
Hyparrhenia dregeana (Nees) Stapf ex Stent			
Hyparrhenia filipendula (Hochst.) Stapf var. filipendula			
Hyparrhenia filipendula (Hochst.) Stapf var. pilosa (Hochst.) Stapf			
Hyparrhenia gazensis (Rendle) Stapf			
Hyparrhenia newtonii (Hack.) Stapf var. macra Stapf			
Hyparrhenia rufa (Nees) Stapf var. rufa			
Hyparrhenia schimperi (Hochst. ex A.Rich.) Andersson ex Stapf			
Hyparrhenia sp.			
Hyparrhenia tamba (Steud.) Stapf			
Hypericum aethiopicum Thunb. subsp. sonderi (Bredell) N.Robson			
Hypericum lalandii Choisy			
Hypericum revolutum Vahl subsp. revolutum			
Hypertelis salsoloides (Burch.) Adamson var. salsoloides			
Hyperthelia dissoluta (Nees ex Steud.) Clayton			
Hypnum cupressiforme Hedw. var. cupressiforme			
Hypodematium crenatum (Forssk.) Kuhn var. crenata	VU		
Hypoestes aristata (Vahl) Sol. ex Roem. & Schult. var. aristata			
Hypoestes forskaolii (Vahl) R.Br.			
Hypopterygium tamarisci (Sw.) Brid. ex Müll.Hal.			
Hypoxis angustifolia Lam. var. angustifolia			
Hypoxis angustifolia Lam. var. buchananii Baker			
Hypoxis argentea Harv. ex Baker var. argentea			
Hypoxis filiformis Baker			
Hypoxis galpinii Baker			
Hypoxis hemerocallidea Fisch., C.A.Mey. & Avé-Lall.	Declining		
Hypoxis iridifolia Baker			
Hypoxis rigidula Baker var. pilosissima Baker			
Hypoxis rigidula Baker var. rigidula			
Hyptis pectinata (L.) Poit.			
Ilex mitis (L.) Radlk. var. mitis	Declining		
Impatiens hochstetteri Warb. subsp. hochstetteri			
Imperata cylindrica (L.) Raeusch.			

Indigofera adenoides Baker f.			
Indigofera arrecta Hochst. ex A.Rich.			
Indigofera galpinii N.E.Br.			
Indigofera hilaris Eckl. & Zeyh. var. hilaris			
Indigofera homblei Baker f. & Martin subsp. homblei			
Indigofera masonae N.E.Br.			
Indigofera melanadenia Benth. ex Harv.			
Indigofera oxalidea Welw. ex Baker			
Indigofera rostrata Bolus			
Indigofera sanguinea N.E.Br.			
Indigofera sp.			
Indigofera spicata Forssk.			
Indigofera spicata Forssk. var. spicata			
Indigofera swaziensis Bolus var. perplexa (N.E.Br.) J.B.Gillett			
Indigofera swaziensis Bolus var. swaziensis			
Indigofera tristis E.Mey.			
Indigofera tristoides N.E.Br.			
Indigofera velutina E.Mey.			
Indigofera vicioides Jaub. & Spach var. rogersii (R.E.Fr.) J.B.Gillett			
Indigofera zeyheri Spreng. ex Eckl. & Zeyh.			
Inezia integrifolia (Klatt) E.Phillips			
Inulanthera dregeana (DC.) Källersjö			
Ipomoea alba L.			
Ipomoea albivenia (Lindl.) Sweet			
Ipomoea bathycolpos Hallier f.	LC		
Ipomoea bolusiana Schinz			
Ipomoea crassipes Hook. var. crassipes			
Ipomoea dichroa Choisy			
Ipomoea gracilisepala Rendle			
Ipomoea oblongata E.Mey. ex Choisy			
Ipomoea obscura (L.) Ker Gawl. var. obscura			
Ipomoea ommanneyi Rendle			
Ipomoea plebeia R.Br. subsp. africana A.Meeuse			
Ipomoea sp.			
Ipomoea wightii (Wall.) Choisy var. wightii			
Ischaemum fasciculatum Brongn.			
Ischyrodon lepturus (Taylor) Schelpe			
Isoglossa grantii C.B.Clarke			
Isoglossa origanoides (Nees) Lindau			
Isolepis costata Hochst. ex A.Rich.			
Jacquemontia tamnifolia (L.) Griseb.			
Jamesbrittenia accrescens (Hiern) Hilliard			
Jamesbrittenia grandiflora (Galpin) Hilliard			
Jamesbrittenia sp.			
Jasminum multipartitum Hochst.			
Jasminum stenolobum Rolfe			
Jatropha hirsuta Hochst. var. oblongifolia Prain			
Jatropha latifolia Pax var. angustata Prain	LC		

Jatropha latifolia Pax var. latifolia	LC		
Juncus lomatophyllus Spreng.			
Juncus oxycarpus E.Mey. ex Kunth			
Justicia anagalloides (Nees) T.Anderson			
Justicia anselliana (Nees) T.Anderson			
Justicia betonica L.			
Justicia flava (Vahl) Vahl			
Justicia protracta (Nees) T.Anderson subsp. protracta			
Kalanchoe alticola Compton	DD		
Kalanchoe longiflora Schltr. ex J.M.Wood	LC		
Kalanchoe paniculata Harv.			
Kalanchoe rotundifolia (Haw.) Haw.			
Kalanchoe thyrsiflora Harv.			
Karomia speciosa (Hutch. & Corbishley) R.Fern. forma speciosa			
Kedrostis foetidissima (Jacq.) Cogn.			
Kedrostis hirtella (Naudin) Cogn.			
Kiggelaria africana L.			
Kleinia longiflora DC.			
Kniphofia galpinii Baker			
Kniphofia linearifolia Baker			
Kniphofia multiflora J.M.Wood & M.S.Evans			
Knowltonia transvaalensis Szyszyl. var. transvaalensis			
Kohautia amatymbica Eckl. & Zeyh.			
Kohautia virgata (Willd.) Bremek.			
Kraussia floribunda Harv.			
Kyllinga alba Nees			
Kyllinga melanosperma Nees			
Lablab purpureus (L.) Sweet subsp. uncinatus Verdc.			
Lactuca inermis Forssk.			
Lagarosiphon muscoides Harv.			
Lagenaria siceraria (Molina) Standl.			
Laggera crispata (Vahl) Hepper & J.R.I.Wood			
Lannea discolor (Sond.) Engl.			
Lannea edulis (Sond.) Engl. var. edulis			
Lannea schweinfurthii (Engl.) Engl. var. stuhlmannii (Engl.) Kokwaro			
Lantana camara L.			
Lantana mearnsii Moldenke var. latibracteolata Moldenke			
Lantana rugosa Thunb.			
Laportea peduncularis (Wedd.) Chew subsp. peduncularis			
Launaea nana (Baker) Chiov.			
Lecidea sp.			
Ledebouria apertiflora (Baker) Jessop			
Ledebouria cooperi (Hook.f.) Jessop			
Ledebouria floribunda (Baker) Jessop			
Ledebouria graminifolia (Baker) Jessop			
Ledebouria ovatifolia (Baker) Jessop			
Ledebouria revoluta (L.f.) Jessop			

Ledebouria sp.	Rare		
Leersia hexandra Sw.			
Lejeunea flava Sw.			
Leonotis ocymifolia (Burm.f.) Iwarsson var. raineriana (Vis.) Iwarsson			
Lepidium africanum (Burm.f.) DC. subsp. africanum			
Lepidium bonariense L.			
Leptocarydion vulpiastrum (De Not.) Stapf			
Leucas glabrata (Vahl) Sm. var. glabrata			
Leucas neuflizeana Courbon			
Leucoloma chrysobasilare (Müll.Hal.) A.Jaeger subsp. chrysobasilare			
Levierella neckeroides (Griff.) O'Shea & Matcham			
Lichen sp.			
Limeum viscosum (J.Gay) Fenzl subsp. viscosum var. kraussii Friedrich			
Limosella sp.			
Lindbergia haplocladioides Dixon			
Lindbergia patentifolia Dixon			
Lindbergia viridis Dixon			
Lindernia parviflora (Roxb.) Haines			
Lindernia pulchella (Skan) Philcox			
Lindernia wilmsii (Engl. & Diels) Philcox			
Linum thunbergii Eckl. & Zeyh.			
Liparis bowkeri Harv.			
Lipocarpha chinensis (Osbeck) Kern			
Lipocarpha rehmannii (Ridl.) Goetgh.			
Lippia javanica (Burm.f.) Spreng.			
Lippia rehmannii H.Pearson			
Lippia wilmsii H.Pearson			
Lithospermum afromontanum Weim.			
Litogyne gariepina (DC.) Anderb.			
Lobelia erinus L.	LC		
Lobelia flaccida (C.Presl) A.DC. subsp. flaccida	LC		
Lobelia flaccida (C.Presl) A.DC. subsp. mossiana (R.D.Good) Thulin			
Lopholaena disticha (N.E.Br.) S.Moore			
Lopholejeunea fragilis Steph.			
Lotononis bainesii Baker			
Lotononis carinata (E.Mey.) Benth.			
Lotononis listii Polhill			
Lotononis pulchra Dummer			
Lotus discolor E.Mey. subsp. discolor			
Loudetia simplex (Nees) C.E.Hubb.			
Ludwigia octovalvis (Jacq.) P.H.Raven			
Lunularia cruciata (L.) Dumort. ex Lindb.			
Lycopodium clavatum L.			
Macledium zeyheri (Sond.) S.Ortíz subsp. zeyheri			
Macrotyloma maranguense (Taub.) Verdc.			
Maerua angolensis DC. subsp. angolensis			
Maerua rosmarinoides (Sond.) Gilg & Gilg-Ben.			

Maesa lanceolata Forssk.			
Malvastrum coromandelianum (L.) Garcke			
Manulea parviflora Benth. var. parviflora			
Manulea rhodantha Hilliard subsp. aurantiaca Hilliard			
Marchantia debilis K.I.Goebel			
Mariscus dregeanus Kunth			
Mariscus uitenhagensis Steud.			
Maytenus peduncularis (Sond.) Loes.			
Maytenus undata (Thunb.) Blakelock	LC		
Melanthera scandens (Schumach. & Thonn.) Roberty subsp. dregei (DC.) Wild			
Melhania didyma Eckl. & Zeyh.			
Melhania prostrata DC.			
Melia azedarach L.			
Melilotus albus Medik.			
Melinis minutiflora P.Beauv.			
Melinis nerviglumis (Franch.) Zizka			
Melinis repens (Willd.) Zizka subsp. repens			
Mellera lobulata S.Moore			
Mentha aquatica L.			
Mentha longifolia (L.) Huds. subsp. polyadena (Briq.) Briq.			
Merremia pinnata (Hochst. ex Choisy) Hallier f.			
Merwilla plumbea (Lindl.) Speta	Declining		
Metzgeria limbato-setosa Steph.			
Microcharis galpinii N.E.Br.			
Microchloa caffra Nees			
Microchloa kunthii Desv.			
Microgramma mauritiana (Willd.) Tardieu			
Mikania cordata (Burm.f.) B.L.Rob.			
Mikania sp.			
Mimusops zeyheri Sond.			
Miscanthus junceus (Stapf) Pilg.			
Mittenothamnium sp.			
Mohria vestita Baker			
Mollugo cerviana (L.) Ser. ex DC. var. cerviana			
Momordica cardiospermoides Klotzsch			
Momordica charantia L.			
Momordica foetida Schumach.			
Monanthotaxis caffra (Sond.) Verdc.			
Monechma debile (Forssk.) Nees			
Monocymbium ceresiiforme (Nees) Stapf			
Monopsis decipiens (Sond.) Thulin			
Monopsis stellarioides (C.Presl) Urb. subsp. stellarioides			
Monsonia angustifolia E.Mey. ex A.Rich.			
Moraea muddii N.E.Br.			
Moraea natalensis Baker			
Moraea spathulata (L.f.) Klatt			
Moraea stricta Baker			
Morella serrata (Lam.) Killick			

Mucuna coriacea Baker subsp. irritans (Burtt Davy) Verdc.			
Mucuna pruriens (L.) DC. var. utilis (Wall. ex Wight) Baker ex Burck			
Mundulea sericea (Willd.) A.Chev. subsp. sericea			
Murdannia simplex (Vahl) Brenan			
Myriophyllum aquaticum (Vell.) Verdc.			
Myrothamnus flabellifolius Welw.	DD		
Mystacidium pusillum Harv.			
Najas horrida A.Braun ex Rendle			
Neckera valentiniana Besch.			
Nemesia rupicola Hilliard			
Neonotonia wightii (Wight. ex Arn.) J.A.Lackey			
Nephrolepis biserrata (Sw.) Schott			
Nervilia crociformis (Zoll. & Moritzi) Seidenf.			
Nesaea cymosa Immelman			
Nesaea radicans Guill. & Perr. var. floribunda (Sond.) A.Fern.			
Nidorella auriculata DC.			
Nolletia rarifolia (Turcz.) Steetz			
Nuxia congesta R.Br. ex Fresen.			
Nuxia floribunda Benth.			
Nuxia oppositifolia (Hochst.) Benth.			
Nymphaea nouchali Burm.f. var. caerulea (Savigny) Verdc.			
Nymphoides sp.			
Ochna arborea Burch. ex DC. var. oconnorii (E.Phillips) Du Toit			
Ochna gamostigmata Du Toit			
Ochna natalitia (Meisn.) Walp.	LC		
Ocimum americanum L. var. americanum			
Ocimum gratissimum L. subsp. gratissimum var. gratissimum			
Ocimum serratum (Schltr.) A.J.Paton			
Ocotea kenyensis (Chiov.) Robyns & R.Wilczek	Rare		
Odontonema strictum (Nees) Kuntze			
Oenothera indecora Cambess.			
Olax dissitiflora Oliv.			
Oldenlandia affinis (Roem. & Schult.) DC. subsp. fugax (Vatke) Verdc.			
Oldenlandia corymbosa L. var. caespitosa (Benth.) Verdc.			
Oldenlandia herbacea (L.) Roxb. var. herbacea			
Oldenlandia lancifolia (Schumach.) DC. var. scabridula Bremek.			
Olea capensis L. subsp. enervis (Harv. ex C.H.Wright) I.Verd.			
Olea europaea L. subsp. africana (Mill.) P.S.Green			
Oncoba spinosa Forssk. subsp. spinosa			
Ophioglossum polyphyllum A.Braun			
Ophioglossum reticulatum L. subsp. reticulatum			
Ophioglossum rubellum Welw. ex A.Braun			

Ophioglossum vulgatum L. subsp. africanum Pocock ex J.E.Burrows var. africanum			
Oplismenus hirtellus (L.) P.Beauv.			
Oplismenus sp.			
Orbea carnosa (Stent) Bruyns subsp. keithii (R.A.Dyer) Bruyns	LC		
Orbea longidens (N.E.Br.) L.C.Leach	LC		
Ornithogalum saundersiae Baker			
Orthostichella pandurifolia (Müll.Hal) W.R.Buck			
Osmunda regalis L.			
Otholobium polyphyllum (Eckl. & Zeyh.) C.H.Stirt.	LC		
Othonna natalensis Sch.Bip.			
Oxalis corniculata L.			
Oxalis depressa Eckl. & Zeyh.			
Oxalis obliquifolia Steud. ex A.Rich.			
Oxalis semiloba Sond. subsp. semiloba			
Oxalis smithiana Eckl. & Zeyh.			
Oxyanthus speciosus DC. subsp. gerrardii (Sond.) Bridson			
Oxygonum dregeanum Meisn. subsp. canescens (Sond.) Germish. var. canescens			
Oxygonum dregeanum Meisn. subsp. canescens (Sond.) Germish. var. lobophyllum Germish.			
Oxygonum dregeanum Meisn. subsp. swazicum (Burtt Davy) Germish.			
Oxygonum sinuatum (Hochst. & Steud. ex Meisn.) Dammer			
Ozoroa insignis Delile subsp. reticulata (Baker f.) J.B.Gillett			
Pachycarpus asperifolius Meisn.			
Pachycarpus concolor E.Mey.			
Pachycarpus grandiflorus (L.f.) E.Mey. subsp. tomentosus (Schltr.) Goyder			
Pachycarpus transvaalensis (Schltr.) N.E.Br.			
Pachypodium saundersii N.E.Br.	LC		
Pachystigma caffrum (Sim) Robyns			
Pachystigma coeruleum Robyns			
Pachystigma macrocalyx (Sond.) Robyns			
Palamocladium leskeoides (Hook.) E.Britton			
Panicum aequinerve Nees			
Panicum coloratum L. var. coloratum			
Panicum deustum Thunb.			
Panicum dregeanum Nees			
Panicum ecklonii Nees			
Panicum hymeniochilum Nees	LC		
Panicum maximum Jacq.			
Panicum natalense Hochst.			
Panicum subalbidum Kunth			
Papillaria africana (Müll.Hal.) A.Jaeger			
Pappea capensis Eckl. & Zeyh.			
Parinari capensis Harv. subsp. capensis			
Parinari curatellifolia Planch. ex Benth.			

Parmotrema abessinicum (Nyl. ex Kremp.) Hale			
Parmotrema cooperi (J.Steiner & Zahlbr.) Sérus.			
Paspalum dilatatum Poir.			
Paspalum sp.			
Paspalum urvillei Steud.			
Passerina montana Thoday			
Passerina montivaga C.L.Bredenkamp & A.E.van Wyk			
Passiflora edulis Sims			
Passiflora suberosa L.			
Passiflora subpeltata Ortega			
Pavetta cooperi Harv. & Sond.			
Pavetta edentula Sond.			
Pavetta gardeniifolia A.Rich. var. gardeniifolia			
Pavetta gardeniifolia A.Rich. var. subtomentosa K.Schum.			
Pavetta gracilifolia Bremek.			
Pavetta schumanniana F.Hoffm. ex K.Schum.			
Pavetta sp.			
Pavonia burchellii (DC.) R.A.Dyer			
Pavonia columella Cav.			
Pearsonia aristata (Schinz) Dummer			
Pearsonia obovata (Schinz) Polhill			
Pearsonia sessilifolia (Harv.) Dummer subsp. filifolia (Bolus) Polhill			
Pearsonia sessilifolia (Harv.) Dummer subsp. marginata (Schinz) Polhill			
Pearsonia sessilifolia (Harv.) Dummer subsp. sessilifolia			
Pearsonia uniflora (Kensit) Polhill			
Pelargonium acraeum R.A.Dyer			
Pelargonium alchemilloides (L.) L'Hér.			
Pelargonium luridum (Andrews) Sweet			
Pelargonium peltatum (L.) L'Hér.			
Pelargonium transvaalense R.Knuth			
Peliostomum calycinum N.E.Br.			
Pellaea calomelanos (Sw.) Link var. calomelanos			
Pellaea dura (Willd.) Hook. var. dura			
Pellaea pectiniformis Baker			
Peltophorum africanum Sond.			
Pentanisia angustifolia (Hochst.) Hochst.			
Pentanisia prunelloides (Klotzsch ex Eckl. & Zeyh.) Walp. subsp. latifolia (Hochst.) Verdc.			
Pentanisia prunelloides (Klotzsch ex Eckl. & Zeyh.) Walp. subsp. prunelloides			
Pentarrhinum insipidum E.Mey.			
Pentodon pentandrus (Schumach. & Thonn.) Vatke var. minor Bremek.			
Peperomia blanda (Jacq.) Kunth			
Periglossum kassnerianum Schltr.			
Perotis patens Gand.			
Persicaria attenuata (R.Br.) Soják subsp. africana K.L.Wilson			

Persicaria decipiens (R.Br.) K.L.Wilson			
Persicaria lapathifolia (L.) Gray			
Persicaria senegalensis (Meisn.) Soják forma albotomentosa (R.A.Graham) K.L.Wilson			
Phaulopsis imbricata (Forssk.) Sweet subsp. imbricata			
Philonotis dregeana (Müll.Hal.) A.Jaeger			
Philonotis falcata (Hook.) Mitt.			
Philonotis hastata (Duby) Wijk & Margad.			
Phragmites australis (Cav.) Steud.			
Phragmites mauritianus Kunth			
Phygelius aequalis Harv. ex Hiern			
Phyllanthus incurvus Thunb.			
Phyllanthus maderaspatensis L.			
Phyllanthus meyerianus Müll.Arg.			
Phyllanthus nummulariifolius Poir. var. nummulariifolius			
Phyllanthus parvulus Sond. var. garipensis (E.Mey. ex Drège) Radcl.-Sm.			
Phyllanthus parvulus Sond. var. parvulus			
Phyllanthus reticulatus Poir.			
Phyllanthus reticulatus Poir. var. reticulatus			
Phyllanthus sp.			
Phymaspermum acerosum (DC.) Källersjö			
Physalis angulata L.			
Physalis peruviana L.			
Phytolacca octandra L.			
Pimpinella transvaalensis H.Wolff			
Pittosporum viridiflorum Sims			
Plagiochasma rupestre (J.R.& G.Forst.) Steph. var. rupestre			
Plagiochila divergens Steph.			
Plantago lanceolata L.			
Plantago longissima Decne.			
Plantago major L.			
Platycoryne mediocris Summerh.	EN*		
Plectranthus cylindraceus Hochst. ex Benth.			
Plectranthus esculentus N.E.Br.	DD		
Plectranthus fruticosus L'Hér.			
Plectranthus grandidentatus Gürke			
Plectranthus hadiensis (Forssk.) Schweinf. ex Spreng. var. tomentosus (Benth.) Codd			
Plectranthus hadiensis (Forssk.) Schweinf. ex Spreng. var. woodii (Gürke) Codd			
Plectranthus laxiflorus Benth.			
Plectranthus rubropunctatus Codd			
Plectranthus spicatus E.Mey. ex Benth.			
Plectranthus strigosus Benth.			
Plectranthus verticillatus (L.f.) Druce			
Pleopeltis macrocarpa (Bory ex Willd.) Kaulf. var. macrocarpa			
Plumbago zeylanica L.			
Pogonarthria squarrosa (Roem. & Schult.) Pilg.			

Pogonatum capense (Hampe) A.Jaeger			
Polycarpaea corymbosa (L.) Lam. var. corymbosa			
Polycarpaea eriantha Hochst. ex A.Rich. var. eriantha			
Polygala albida Schinz subsp. albida			
Polygala capillaris E.Mey. ex Harv. subsp. capillaris			
Polygala houtboshiana Chodat			
Polygala producta N.E.Br.			
Polygala refracta DC.			
Polygala sp.			
Polygala transvaalensis Chodat subsp. transvaalensis			
Polygala virgata Thunb. var. decora (Sond.) Harv.			
Polygala wilmsii Chodat			
Polygonum aviculare L.			
Polypodium polypodioides (L.) Watt subsp. ecklonii (Kunze) Schelpe			
Polystachya ottoniana Rchb.f.			
Polystachya transvaalensis Schltr.			
Polystichum macleae (Baker) Diels	LC		
Polystichum transvaalense N.C.Anthony			
Polytrichum commune Hedw.			
Populus alba L. var. alba			
Potamogeton octandrus Poir.			
Pouzolzia mixta Solms var. mixta			
Pouzolzia parasitica (Forssk.) Schweinf.			
Premna mooiensis (H.Pearson) W.Piep.			
Priva cordifolia (L.f.) Druce var. abyssinica (Jaub. & Spach) Moldenke			
Priva meyeri Jaub. & Spach var. meyeri			
Protea gaguedi J.F.Gmel.	LC		
Pseudarthria hookeri Wight & Arn.			
Pseudarthria hookeri Wight & Arn. var. hookeri			
Pseudocrossidium crinitum (Schultz) R.H.Zander			
Pseudognaphalium luteo-album (L.) Hilliard & B.L.Burtt			
Psiadia punctulata (DC.) Vatke			
Psidium guajava L.			
Psilotum nudum (L.) P.Beauv.	LC		
Psoralea latifolia (Harv.) C.H.Stirt.			
Psychotria capensis (Eckl.) Vatke subsp. capensis var. capensis			
Psydrax obovata (Eckl. & Zeyh.) Bridson subsp. obovata			
Pteridium aquilinum (L.) Kuhn subsp. aquilinum			
Pteris buchananii Baker ex Sim			
Pteris catoptera Kunze var. catoptera			
Pteris vittata L.			
Pterocarpus angolensis DC.			
Pterocarpus rotundifolius (Sond.) Druce subsp. rotundifolius			
Pterocelastrus echinatus N.E.Br.	LC		
Ptychanthus striatus (Lehm. & Lindenb.) Nees			
Ptychomitrium crispatum (Hedw.) A.Jaeger			
Ptychomitrium subcrispatum Thér. & P.de la Varde			

Pulicaria scabra (Thunb.) Druce			
Pupalia lappacea (L.) A.Juss. var. lappacea			
Pycnostachys reticulata (E.Mey.) Benth.			
Pycnostachys urticifolia Hook.			
Pycreus macranthus (Boeck.) C.B.Clarke			
Pycreus mundii Nees			
Pycreus muricatus (Kük.) Napper			
Pycreus nigricans (Steud.) C.B.Clarke			
Pycreus nitidus (Lam.) J.Raynal			
Pycreus pelophilus (Ridl.) C.B.Clarke			
Pycreus polystachyos (Rottb.) P.Beauv. var. polystachyos			
Pycreus rehmannianus C.B.Clarke			
Pygmaeothamnus chamaedendrum (Kuntze) Robyns var. setulosus Robyns			
Rabdosiella calycina (Benth.) Codd			
Racopilum capense Müll.Hal. ex Broth.			
Radinosiphon leptostachya (Baker) N.E.Br.			
Ranunculus baurii MacOwan			
Ranunculus multifidus Forssk.			
Rapanea melanophloeos (L.) Mez	Declining		
Raphanus raphanistrum L.			
Raphionacme galpinii Schltr.			
Raphionacme hirsuta (E.Mey.) R.A.Dyer			
Raphionacme procumbens Schltr.			
Rauvolfia caffra Sond.			
Rendlia altera (Rendle) Chiov.			
Rhachithecium perpusillum (Thwaites & Mitt.) Broth.			
Rhamnus prinoides L'Hér.			
Rhamphicarpa fistulosa (Hochst.) Benth.			
Rhoicissus revoilii Planch.			
Rhoicissus tridentata (L.f.) Wild & R.B.Drumm. subsp. cuneifolia (Eckl. & Zeyh.) Urton			
Rhoicissus tridentata (L.f.) Wild & R.B.Drumm. subsp. tridentata			
Rhus sp.			
Rhynchosia capensis (Burm.f.) Schinz			
Rhynchosia caribaea (Jacq.) DC.			
Rhynchosia clivorum S.Moore var. clivorum			
Rhynchosia galpinii Baker f.			
Rhynchosia hirta (Andrews) Meikle & Verdc.			
Rhynchosia minima (L.) DC. var. minima			
Rhynchosia monophylla Schltr.			
Rhynchosia nervosa Benth. ex Harv. var. nervosa			
Rhynchosia nitens Benth. ex Harv.	LC		
Rhynchosia sp.			
Rhynchosia spectabilis Schinz			
Rhynchosia thorncroftii (Baker f.) Burtt Davy			
Rhynchosia totta (Thunb.) DC.			
Rhynchosia villosa (Meisn.) Druce			
Rhynchosia woodii Schinz			

Rhynchospora brownii Roem. & Schult.			
Rhynchostegiella zeyheri (Spreng. ex Müll.Hal.) Broth.			
Riccardia compacta (Steph.) S.W.Arnell			
Riccia atropurpurea Sim			
Riccia congoana Steph.			
Riccia okahandjana S.W.Arnell			
Richardia brasiliensis Gomes			
Richardia scabra L.			
Riocreuxia picta Schltr.			
Riocreuxia sp.			
Riocreuxia torulosa Decne. var. torulosa			
Rotheca hirsuta (Hochst.) R.Fern.			
Rotheca louwalbertsii (P.P.J.Herman) P.P.J.Herman & Retief			
Rotheca myricoides (Hochst.) Steane & Mabb.			
Rothmannia capensis Thunb.			
Rothmannia globosa (Hochst.) Keay			
Rottboellia cochinchinensis (Lour.) Clayton			
Rubia cordifolia L. subsp. conotricha (Gand.) Verdc.			
Rubia horrida (Thunb.) Puff			
Rubia petiolaris DC.			
Rubus cuneifolius Pursh			
Rubus longepedicellatus (Gust.) C.H.Stirt.			
Rubus rigidus Sm.			
Rubus sp.			
Rubus x proteus C.H.Stirt.			
Ruellia cordata Thunb.			
Ruellia malacophylla C.B.Clarke			
Ruellia patula Jacq.			
Ruellia stenophylla C.B.Clarke			
Rumex crispus L.			
Rumex sagittatus Thunb.			
Rumohra adiantiformis (G.Forst.) Ching			
Ruttya ovata Harv.			
Salix mucronata Thunb. subsp. wilmsii (Seemen) Immelman			
Salix mucronata Thunb. subsp. woodii (Seemen) Immelman			
Salix sp.			
Salvia coccinea Etl.			
Salvinia molesta D.S.Mitch.			
Sansevieria hyacinthoides (L.) Druce			
Sarcostemma viminale (L.) R.Br. subsp. viminale			
Satyrium cristatum Sond. var. cristatum			
Satyrium hallackii Bolus subsp. ocellatum (Bolus) A.V.Hall			
Satyrium longicauda Lindl. var. longicauda			
Satyrium trinerve Lindl.			
Scabiosa columbaria L.	LC		
Scabiosa drakensbergensis B.L.Burtt			
Scadoxus puniceus (L.) Friis & Nordal			

Schefflera umbellifera (Sond.) Baill.			
Schistidium apocarpum (Hedw.) Bruch & Schimp.			
Schistostephium crataegifolium (DC.) Fenzl ex Harv.			
Schistostephium heptalobum (DC.) Oliv. & Hiern			
Schistostephium rotundifolium (DC.) Fenzl ex Harv.			
Schizachyrium exile (Hochst.) Pilg.			
Schizachyrium sanguineum (Retz.) Alston			
Schizocarphus nervosus (Burch.) Van der Merwe			
Schizoglossum bidens E.Mey. subsp. galpinii (Schltr.) Kupicha			
Schizoglossum cordifolium E.Mey.			
Schkuhria pinnata (Lam.) Kuntze ex Thell.			
Schlotheimia ferruginea (Bruch ex Hook. & Grev.) Brid.			
Schoenoplectus brachyceras (Hochst. ex A.Rich.) Lye			
Schoenoxiphium sp.			
Schrebera alata (Hochst.) Welw.			
Scleria bulbifera Hochst. ex A.Rich.			
Scleria melanomphala Kunth			
Scleria woodii C.B.Clarke			
Sclerocarya birrea (A.Rich.) Hochst. subsp. caffra (Sond.) Kokwaro	LC		
Sclerochiton harveyanus Nees			
Scolopia mundii (Eckl. & Zeyh.) Warb.			
Scolopia zeyheri (Nees) Harv.			
Searsia dentata (Thunb.) F.A.Barkley			
Searsia discolor (E.Mey. ex Sond.) Moffett	LC		
Searsia gueinzii (Sond.) F.A.Barkley	LC		
Searsia leptodictya (Diels) T.S.Yi, A.J.Mill. & J.Wen forma leptodictya			
Searsia lucida (L.) F.A.Barkley forma lucida			
Searsia natalensis (Bernh. ex Krauss) F.A.Barkley			
Searsia pentheri (Zahlbr.) Moffett			
Searsia pyroides (Burch.) Moffett var. gracilis (Engl.) Moffett			
Searsia pyroides (Burch.) Moffett var. integrifolia (Engl.) Moffett			
Searsia pyroides (Burch.) Moffett var. pyroides			
Searsia rogersii (Schönland) Moffett	LC		
Searsia transvaalensis (Engl.) Moffett			
Searsia tumulicola (S.Moore) Moffett var. meeuseana (R.& A.Fern.) Moffett forma pumila (Moffett) Moffett			
Searsia tumulicola (S.Moore) Moffett var. tumulicola			
Sebaea filiformis Schinz			
Sebaea grandis (E.Mey.) Steud.			
Sebaea sedoides Gilg var. confertiflora (Schinz) Marais			
Sebaea sp.			
Secamone alpini Schult.			
Selaginella caffrorum (Milde) Hieron.			
Selaginella caffrorum (Milde) Hieron. var. caffrorum			
Selaginella dregei (C.Presl) Hieron.			
Selaginella kraussiana (Kunze) A.Braun ex Kuhn			

Selaginella mittenii Baker			
Selago atherstonei Rolfe			
Selago elata Rolfe			
Selago sp.			
Senecio coronatus (Thunb.) Harv.			
Senecio erubescens Aiton var. erubescens			
Senecio gerrardii Harv.			
Senecio glaberrimus DC.			
Senecio glanduloso-pilosus Volkens & Muschl.			
Senecio inaequidens DC.			
Senecio inornatus DC.			
Senecio latifolius DC.			
Senecio mbuluzensis Compton			
Senecio microglossus DC.			
Senecio othonniflorus DC.			
Senecio oxyriifolius DC.			
Senecio panduriformis Hilliard			
Senecio pleistocephalus S.Moore			
Senecio polyodon DC. var. polyodon			
Senecio pterophorus DC.			
Senecio scitus Hutch. & Burtt Davy			
Senecio serratuloides DC.			
Senecio sp.			
Senecio speciosus Willd.			
Senecio subcoriaceus Schltr.			
Senecio tamoides DC.			
Senecio venosus Harv.			
Senna bicapsularis (L.) Roxb.			
Senna hirsuta (L.) H.S.Irwin & Barneby			
Senna occidentalis (L.) Link			
Senna pendula (Willd.) H.S.Irwin & Barneby var. glabrata (Vogel) H.S.Irwin & Barneby			
Senna petersiana (Bolle) Lock			
Senna septemtrionalis (Viv.) H.S.Irwin & Barneby			
Senna siamea (Lam.) H.S.Irwin & Barneby			
Sesamum alatum Thonn.			
Sesamum triphyllum Welw. ex Asch. var. triphyllum			
Sesbania bispinosa (Jacq.) W.Wight var. bispinosa			
Sesbania sesban (L.) Merr. subsp. sesban var. nubica Chiov.			
Setaria homonyma (Steud.) Chiov.	LC		
Setaria incrassata (Hochst.) Hack.			
Setaria lindenbergiana (Nees) Stapf			
Setaria megaphylla (Steud.) T.Durand & Schinz			
Setaria nigrirostris (Nees) T.Durand & Schinz			
Setaria plicatilis (Hochst.) Hack. ex Engl.			
Setaria pumila (Poir.) Roem. & Schult.			
Setaria sphacelata (Schumach.) Stapf & C.E.Hubb. ex M.B.Moss var. sericea (Stapf) Clayton			
Setaria sphacelata (Schumach.) Stapf & C.E.Hubb. ex M.B.Moss var. sphacelata			

Setaria sphacelata (Schumach.) Stapf & C.E.Hubb. ex M.B.Moss var. torta (Stapf) Clayton			
Setaria verticillata (L.) P.Beauv.			
Shirakiopsis elliptica (Hochst.) Esser			
Sida acuta Burm.f. subsp. acuta			
Sida dregei Burtt Davy			
Sida pseudocordifolia Hochr.			
Sida rhombifolia L. subsp. rhombifolia			
Sida spinosa L. var. spinosa			
Silene bellidioides Sond.			
Silene burchellii Otth var. angustifolia Sond.			
Sisyranthus randii S.Moore			
Sisyranthus sp.			
Sium repandum Welw. ex Hiern			
Smilax anceps Willd.			
Smithia erubescens (E.Mey.) Baker f.			
Solanum giganteum Jacq.			
Solanum incanum L. subsp. incanum			
Solanum mauritianum Scop.			
Solanum panduriforme E.Mey.			
Solanum retroflexum Dunal			
Solanum rigescens Jacq.			
Solanum seaforthianum Andrews var. disjunctum O.E.Schulz			
Solanum terminale Forssk. subsp. terminale			
Solenostemon latifolius (Hochst. ex Benth.) J.K.Morton			
Sonchus asper (L.) Hill subsp. asper			
Sonchus dregeanus DC.			
Sonchus wilmsii R.E.Fr.			
Sopubia cana Harv. var. cana			
Sopubia cana Harv. var. glabrescens Diels			
Sopubia simplex (Hochst.) Hochst.			
Sorghastrum stipoides (Kunth) Nash			
Sorghum bicolor (L.) Moench subsp. arundinaceum (Desv.) de Wet & Harlan			
Sorghum bicolor (L.) Moench subsp. drummondii (Steud.) de Wet			
Sparrmannia ricinocarpa (Eckl. & Zeyh.) Kuntze var. ricinocarpa			
Spermacoce natalensis Hochst.			
Spermacoce senensis (Klotzsch) Hiern			
Sphaerocodon natalense (Meisn.) Hook.f.			
Sphedamnocarpus pruriens (A.Juss.) Szyszyl. subsp. galphimiifolius (A.Juss.) P.D.de Villiers & D.J.Botha			
Sphedamnocarpus pruriens (A.Juss.) Szyszyl. subsp. pruriens			
Sphenostylis angustifolia Sond.			
Spilanthes mauritiana (Pers.) DC.			
Sporobolus centrifugus (Trin.) Nees			
Sporobolus congoensis Franch.			
Sporobolus pyramidalis P.Beauv.			

Sporobolus sp.			
Sporobolus stapfianus Gand.			
Squamidium brasiliense (Hornsch.) Broth.			
Stachys aethiopica L.			
Stachys graciliflora C.Presl			
Stachys natalensis Hochst. var. natalensis			
Stachys nigricans Benth.			
Stachys simplex Schltr.			
Stachytarpheta mutabilis (Jacq.) Vahl			
Stachytarpheta urticifolia (Salisb.) Sims			
Stapelia gigantea N.E.Br.	LC		
Stephania abyssinica (Quart.-Dill. & A.Rich.) Walp. var. abyssinica			
Stephania abyssinica (Quart.-Dill. & A.Rich.) Walp. var. tomentella (Oliv.) Diels			
Sterculia murex Hemsl.			
Sterculia rogersii N.E.Br.			
Stiburus alopecuroides (Hack.) Stapf			
Stoebe vulgaris Levyns			
Stomatanthes africanus (Oliv. & Hiern) R.M.King & H.Rob.			
Strelitzia caudata R.A.Dyer			
Streptocarpus confusus Hilliard subsp. confusus			
Streptocarpus cyaneus S.Moore subsp. polackii (B.L.Burtt) Weigend & T.J.Edwards			
Streptocarpus dunnii Hook.f.			
Streptocarpus roseo-albus Weigend & T.J.Edwards			
Striga asiatica (L.) Kuntze			
Striga bilabiata (Thunb.) Kuntze subsp. bilabiata			
Striga elegans Benth.			
Striga gesnerioides (Willd.) Vatke			
Striga junodii Schinz			
Strychnos madagascariensis Poir.			
Strychnos spinosa Lam. subsp. spinosa			
Stylochaeton natalensis Schott			
Stylosanthes fruticosa (Retz.) Alston			
Styppeiochloa gynoglossa (Gooss.) De Winter			
Symphyogyna brasiliensis Nees & Mont.			
Syncolostemon canescens (Gürke) D.F.Otieno			
Syncolostemon persimilis (N.E.Br.) D.F.Otieno			
Syncolostemon petiolatus (M.Ashby) D.F.Otieno			
Syncolostemon punctatus (Codd) D.F.Otieno			
Syncolostemon subvelutinus (Gürke) D.F.Otieno			
Syncolostemon transvaalensis (Schltr.) D.F.Otieno			
Syngonanthus wahlbergii (Wikstr. ex Körn.) Ruhland var. wahlbergii			
Syzygium cordatum Hochst. ex C.Krauss subsp. cordatum			
Syzygium gerrardii (Harv. ex Hook.f.) Burtt Davy			
Syzygium guineense (Willd.) DC. subsp. guineense			
Tabernaemontana elegans Stapf			

Tabernaemontana ventricosa Hochst. ex A.DC.			
Tacazzea apiculata Oliv.			
Talinum arnotii Hook.f.			
Talinum caffrum (Thunb.) Eckl. & Zeyh.	LC		
Tapinanthus sp.			
Tarchonanthus parvicapitulatus P.P.J.Herman			
Tarchonanthus trilobus DC. var. galpinii (Hutch. & E.Phillips) Paiva			
Tarenna supra-axillaris (Hemsl.) Bremek. subsp. barbertonensis (Bremek) Bridson			
Teclea natalensis (Sond.) Engl.			
Tecoma capensis (Thunb.) Lindl.			
Teedia lucida (Sol.) Rudolphi			
Tenrhynea phylicifolia (DC.) Hilliard & B.L.Burtt			
Tephrosia burchellii Burtt Davy			
Tephrosia capensis (Jacq.) Pers. var. capensis			
Tephrosia elongata E.Mey. var. elongata			
Tephrosia elongata E.Mey. var. tzaneenensis (H.M.L.Forbes) Brummitt			
Tephrosia euchroa I.Verd.			
Tephrosia glomeruliflora Meisn. subsp. meisneri (Hutch. & Burtt Davy) Schrire			
Tephrosia longipes Meisn. subsp. longipes var. longipes			
Tephrosia lupinifolia DC.			
Tephrosia macropoda (E.Mey.) Harv. var. macropoda			
Tephrosia multijuga R.G.N.Young			
Tephrosia radicans Baker			
Tephrosia retusa Burtt Davy			
Tephrosia rhodesica Baker f. var. evansii (Hutch. & Burtt Davy) Brummitt			
Tephrosia rhodesica Baker f. var. rhodesica			
Tephrosia shiluwanensis Schinz			
Tephrosia subulata Hutch. & Burtt Davy			
Tephrosia villosa (L.) Pers. subsp. ehrenbergiana (Schweinf.) Brummitt var. daviesii Brummitt			
Tephrosia villosa (L.) Pers. subsp. ehrenbergiana (Schweinf.) Brummitt var. ehrenbergiana			
Terminalia phanerophlebia Engl. & Diels			
Terminalia sericea Burch. ex DC.			
Tetradenia riparia (Hochst.) Codd			
Tetraselago longituba (Rolfe) Hilliard & B.L.Burtt			
Thalictrum rhynchocarpum Quart.-Dill. & A.Rich.			
Thelypteris confluens (Thunb.) C.V.Morton			
Themeda triandra Forssk.			
Thesium asterias A.W.Hill			
Thesium breyeri N.E.Br.	DD		
Thesium costatum A.W.Hill var. costatum			
Thesium gypsophiloides A.W.Hill			
Thesium magalismontanum Sond.			
Thesium multiramulosum Pilg.	LC		
Thesium pottiae N.E.Br.			

Thesium racemosum Bernh.			
Thesium resedoides A.W.Hill			
Thuidium matarumense Besch.			
Thunbergia atriplicifolia E.Mey. ex Nees			
Thunbergia natalensis Hook.			
Thunbergia pondoensis Lindau			
Tinnea galpinii Briq.			
Toddalia asiatica (L.) Lam.			
Tolpis capensis (L.) Sch.Bip.			
Toona ciliata M.Roem.			
Tortella humilis (Hedw.) Jenn.			
Trachyandra asperata Kunth var. asperata			
Trachyandra saltii (Baker) Oberm. var. saltii			
Trachyphyllum gastrodes (Welw. & Duby) A.Gepp			
Trachypogon spicatus (L.f.) Kuntze			
Tradescantia fluminensis Vell.			
Tragia okanyua Pax			
Tragia rupestris Sond.			
Tragiella natalensis (Sond.) Pax & K.Hoffm.			
Tragus berteronianus Schult.			
Trema orientalis (L.) Blume			
Tribulus terrestris L.			
Tricalysia capensis (Meisn. ex Hochst.) Sim var. transvaalensis Robbr.			
Tricalysia lanceolata (Sond.) Burtt Davy			
Trichilia dregeana Sond.	LC		
Trichilia emetica Vahl subsp. emetica	LC		
Trichocladus grandiflorus Oliv.			
Trichodesma physaloides (Fenzl) A.DC.			
Tricholaena monachne (Trin.) Stapf & C.E.Hubb.			
Trichoneura grandiglumis (Nees) Ekman			
Trichopteryx dregeana Nees			
Trichostomum brachydontium Bruch			
Tricliceras tanacetifolium (Klotzsch) R.Fern.			
Tridax procumbens L.			
Trimeria grandifolia (Hochst.) Warb. subsp. grandifolia			
Tripogon minimus (A.Rich.) Steud.			
Tristachya leucothrix Trin. ex Nees			
Triumfetta pilosa Roth var. effusa (E.Mey. ex Harv.) Wild			
Triumfetta pilosa Roth var. tomentosa Szyszyl. ex Sprague & Hutch.			
Triumfetta rhomboidea Jacq. var. rhomboidea			
Triumfetta welwitschii Mast. var. hirsuta (Sprague & Hutch.) Wild			
Triumfetta welwitschii Mast. var. welwitschii			
Trochomeria debilis (Sond.) Hook.f.			
Trochomeria hookeri Harv.			
Tulbaghia acutiloba Harv.			
Tulbaghia ludwigiana Harv.			
Turraea nilotica Kotschy & Peyr.			

Turraea obtusifolia Hochst.			
Tylosema fassoglensis (Schweinf.) Torre & Hillc.			
Typha capensis (Rohrb.) N.E.Br.			
Unknown sp.			
Urochloa mosambicensis (Hack.) Dandy			
Urochloa panicoides P.Beauv.			
Urochloa sp.			
Urochloa stolonifera (Gooss.) Chippind.			
Utricularia arenaria A.DC.			
Utricularia gibba L.			
Utricularia livida E.Mey.			
Utricularia scandens Benj.			
Vaccaria hispanica (Mill.) Rauschert var. hispanica			
Vaccinium exul Bolus			
Vahlia capensis (L.f.) Thunb. subsp. vulgaris Bridson var. linearis E.Mey. ex Bridson			
Valeriana capensis Thunb. var. capensis			
Vangueria cyanescens Robyns			
Vangueria infausta Burch. subsp. infausta			
Vepris lanceolata (Lam.) G.Don			
Vepris reflexa I.Verd.			
Verbena aristigera S.Moore			
Verbena bonariensis L.			
Verbena sp.			
Verbena venosa Gillies & Hook.			
Vernicia fordii (Hemsl.) Airy Shaw			
Vernicia montana Lour.			
Vernonia adoensis Sch.Bip. ex Walp.			
Vernonia amygdalina Delile			
Vernonia centaureoides Klatt			
Vernonia fastigiata Oliv. & Hiern			
Vernonia galpinii Klatt			
Vernonia hirsuta (DC.) Sch.Bip. ex Walp.			
Vernonia meiostephana C.Jeffrey			
Vernonia myriantha Hook.f.			
Vernonia natalensis Sch.Bip. ex Walp.			
Vernonia oligocephala (DC.) Sch.Bip. ex Walp.			
Vernonia schlechteri O.Hoffm.			
Vernonia steetziana Oliv. & Hiern			
Vernonia sutherlandii Harv.			
Vernonia tigna Klatt			
Vernonia wollastonii S.Moore			
Vesicularia galerulata (Duby) Broth.			
Vigna kokii B.J.Pienaar			
Vigna mudenia B.J.Pienaar			
Vigna schlechteri Harms			
Vigna sp.			
Vigna unguiculata (L.) Walp. subsp. dekindtiana (Harms) Verdc. var. dekindtiana			
Vigna unguiculata (L.) Walp. subsp. stenophylla (Harv.)			

Maréchal et al.			
Vigna unguiculata (L.) Walp. subsp. unguiculata			
Vigna vexillata (L.) A.Rich. var. vexillata			
Vitex harveyana H.Pearson			
Vitex obovata E.Mey. subsp. obovata			
Vitex obovata E.Mey. subsp. wilmsii (Gürke) C.L.Bredenkamp & D.J.Botha			
Wahlenbergia androsacea A.DC.	LC		
Wahlenbergia banksiana A.DC.			
Wahlenbergia huttonii (Sond.) Thulin			
Wahlenbergia krebsii Cham. subsp. krebsii			
Wahlenbergia madagascariensis A.DC.			
Wahlenbergia sp.			
Wahlenbergia squamifolia Brehmer			
Wahlenbergia undulata (L.f.) A.DC.			
Waltheria indica L.			
Watsonia pulchra N.E.Br. ex Goldblatt			
Weissia controversa Hedw.			
Withania somnifera (L.) Dunal			
Xanthocercis zambesiaca (Baker) Dumaz-le-Grand			
Xenostegia tridentata (L.) D.F.Austin & Staples subsp. angustifolia (Jacq.) Lejoly & Lisowski			
Xerophyta retinervis Baker			
Ximenia americana L. var. microphylla Welw. ex Oliv.			
Ximenia caffra Sond. var. caffra			
Ximenia caffra Sond. var. natalensis Sond.			
Xymalos monospora (Harv.) Baill.			
Xyris capensis Thunb.			
Xyris rehmannii L.A.Nilsson			
Xysmalobium acerateoides (Schltr.) N.E.Br.			
Xysmalobium asperum N.E.Br.			
Xysmalobium confusum Scott-Elliot			
Zaluzianskya elongata Hilliard & B.L.Burtt			
Zaluzianskya spathacea (Benth.) Walp.			
Zantedeschia albomaculata (Hook.) Baill. subsp. albomaculata			
Zanthoxylum capense (Thunb.) Harv.	LC		
Zanthoxylum thorncroftii (I.Verd.) P.G.Waterman			
Ziziphus mauritiana Lam.			
Ziziphus mucronata Willd. subsp. mucronata			
Zornia capensis Pers.			
Zornia capensis Pers. subsp. capensis			
Zornia linearis E.Mey.			
Zornia milneana Mohlenbr.			

Appendix 4: Fauna checklists

Table 1 FROGS: Frogs expected to occur in the available natural habitats of the study area are listed below (Minter *et al* 2004).

Classification	Habitat	Status	Recorded
Class: Amphibia			
Order: Anura			
Family: Bufonidae			
Eastern Olive toad/ Northern Mottled Toad (*Bufo garmani*)	Various bushveld vegetation types in the Savanna biome. Prefer well-wooded low-lying areas. Breeds in vleis, pans and dams in open or wooded savanna. Occasionally in quiet backwaters of rivers and pools along small, slow-flowing streams.	Least concern Common and widespread – habitat not threatened; range may have expanded.	
Guttural toad (*Bufo gutturalis*)	Savanna, Grassland & Thicket biome: Breeds in open shallow pools, dams, rivers, streams or other more or less permanent water. Excavate burrows in soft ground.	Least concern Relatively secure as it is widely distributed.	**Woodland**
Flat backed toad / Striped Toad (*Bufo maculatus*)	Breeds in rivers and streams in savannas. Eggs in marginal pools and backwaters.	Least concern	
Red toad (*Schismaderma carens)*	Wide variety of vegetation types in Savanna biome, also in Rocky Highveld, and Grassland. Breeds in permanent, often fairly deep, muddy - pools, dams or waterholes in open or wooded savanna.	Least concern Not threatened. Adapts in disturbed areas. Tadpole survives in polluted water.	**Rocky araes**
Family: Hemisotidae			
Mottled Burrowing Frog / Mottled shovel-nosed frog (*Hemisus marmoratus)*	Breeds at the margins of pans where there is exposed mudbanks		
Family: Hyperoliidae Subfamily: Hyperoliinae			
Painted reed frog (*Hyperolius marmoratus)*	Breeds in almost any permanent body of water in the lowveld and coastal regions.	Least concern	
Waterlily Frog (*Hyperolius pusillus)*	Breeds in pans and vleis especially where there are water lilies and other floating plants.		
Yellow striped reed Frog (*Hyperolius semidiscus)*	Breeds in dams especially where there are floating plants. May be found far away from breeding sites.	Endemic	
Green Reed Frog or Tinker Reed Frog (*Hyperolius tuberilinguis)*	Variety of bushveld vegetation types; Breeds in reed beds on the periphery of swamps or rivers, or dense vegetation surrounding inundated pans.	Does not acquire additional protection	
Family: Hyperoliidae Subfamily: Kassininae			
Bubbling kassina/ Running Frog (*Kassina senegalensis*)	Wide variety of vegetation types in Savanna and Grassland biomes. Breeds in both temporary and permanent water bodies: vleis, well-vegetated shallow pans, marshes and deeper dams in grassland.	Least concern Widely distributed and abundant. Does not require conservation attention. Dams improve breeding habitat.	
Red-legged kassina (*Kassina maculata*)	Wide variety of bushveld vegetation types. Breeding – well-vegetated pans, vleis, marshes, and dams.		
Golden Spiny Reed Frog (*Afrixalus aureus)*	Breeds in dense grass, sedges or bushes at the edges of shallow semi-permanent pans.		
Family: Hyperoliidae Subfamily: Leptopelinae			
Brown-backed Tree Frog (*Leptopelis mossambicus)*	Breeds in wooded savanna in the vicinity of streams and pans		
Family: Microhylidae Subfamily: Breviceptinae			
Bushveld rain frog (*Breviceps adspersus*)	Savanna biome: Semi-arid habitats with sandy to sandy-loam soils. Bushveld vegetation with a grassy ground layer and distinct upper layer of woody plants. Breeds in burrows in open and closed woodland with sandy soils. No standing water needed.	Least concern Does not appear to be at risk – game and cattle farming and reserves.	

Family: Microhylidae Subfamily: Phrynomerinae			
Banded rubber frog (*Phrynomantis bifasciatus*)	Variety of bushveld vegetation types in Savanna biome. Hot semi arid environments (50-1450m). Breeds in shallow temporary pans and pools, or inundated grass in savanna and Acacia. Also small shallow dams.	Common throughout it range – not threatened.	
Family: Xenopodinae			
Northern Platanna *(Xenopus muelleri)*	Breeds in wide variety of permanent bodies of water, including pans and quiet regions of rivers		
Common platanna (*Xenopus laevis)*	Most of the biomes. Historically occurred in streams, rivers and their pools. Currently in man-made water bodies. Breeds in any more or less permanent bodies of water. Breeding = non-breeding habitat. Eutrophic waters seem to produce the highest densities.	Least concern Not threatened in any part of its range.	
Family: Ranidae Subfamily: Petropedetinae			
Dwarf Puddle Frog (*Phrynobatrachus mababiensis)*	Breeds in any moist, marshy area, vlei, including those at edges of pans.		
Snoring puddle frog (*Phrynobatrachus natalensis*)	A variety of vegetation types in the Savanna and Grassland biome. Breeds in shallow to fairly deep water in temporary pans or pools or marshy areas associated with pans, small slow-flowing streams or vleis.	Least concern Abundant and often near human habitation.	
Family: Ranidae Subfamily: Raninae			
Plain grass frog / Northern Grass Frog (*Ptychadena anchietae*)	Savanna biome. Found sheltering amongst grass and plant and plant debris on edges of breeding sites. Breeds in temporary pans, shallow pools in riverbeds, inundated grassland, vleis and dams. Adults occur in the grassy edges of rivers and streams, escape into the water.	Does not appear to be at risk.	
Sharp-nosed Grass (*Ptychadena oxyrhynchus)*	Breeds in pans, vleis and temporary pools.		
Mozambique Broad Banded Grass Frog (*Ptychadena mossambica)*	Breeds in shallow water of vleis, pans, floodplains and inundated grasslands.		
African bullfrog (*Pyxicephalus edulis*)	Several bushveld vegetation types. Flat, low-lying areas in open grassy woodland that become flooded after heavy rain or contain shallow seasonal pans. Breeds in rain-filled pools.	Not at risk	
Common river frog / Common Rana (*Afrana angolensis*)	Grassland and Savanna biomes. Adults occur in the grassy edges of rivers and streams, escape into the water. Breeds in both standing and flowing water: slowly flowing streams or other permanent bodies of water favoring those with aquatic vegetation. Edges of pools, dams, streams and slow-flowing rivers.	Least concern Widespread – found in all rivers, ponds, farm dams and other wetlands in its range. Not generally threatened.	
Ornate Frog (*Hildebrandtia ornata)*	Variety of bushveld vegetation types. Deep sandy soils. Breed – shallow temporary pans in dry open woodland, often with emergent grass.	Not threatened	
Red-backed Pyxie / Russet-backed sand frog (*Tomopterna marmorata)*	Breeds in quiet regions of rivers or streams with sandy substrates.		
Tremolo sand frog / Striped Pyxie (*Tomopterna cryptotis*)	Breeds in temporary rain pools and vleis in open savanna, including arid areas.	Least concern	
Natal sand frog / Natal Pyxie (*Tomopterna natalensis*)	Variety of vegetation types in the Grassland and Savanna biome. Annual rainfall: 300-1000mm. Breeds in shallow permanent streams, rivers, and other places where water flows slowly, but also in standing water: furrows or vleis in grassland.	Least concern This widespread species does not appear to require conservation action.	
Family: Rhacophoridae			
Grey Tree Frog (*Chiromantis xerampelina)*	Breeds over pans and rivers in constructing foam nests		

Table 2 REPTILES: Reptiles expected to occur in the available natural habitats on the site are listed below. Available habitat, expected occurrence and observed presence of reptiles during the survey (Branch,1998).

Classification	Habitat	Status	Recorded
Class: Reptilia			
Order: Testudines			
Suborder: Cryptodira			
Family: Testudinidae - Tortoises			
Leopard tortoise (*Geochelone pardalis*)	Montane grassveld, fynbos, valley bushveld, arid and mesic savanna. Level areas in open woodland and scrub or wooded grassland. A shelter in crevices in rock outcrops, under rocks or in burrows dug into old termitaria or earthen banks. Aestivates – in old termitaria or tightly fitting burrows, excavate under rocks, logs – scrape into earth embankments.	Protected CITES Appendix II	
Speke's hinged-back tortoise (*Kinixys belliana spekii*)	Tropical bushveld (humid conditions) and savanna. Low lying open woodland and scrub. Occur on flats but mostly associated with rocky hillsides. Shelters in crevices in rock outcrops, under rocks or in burrows, dug into old termitaria or earthen banks.	Protected CITES Appendix II	
Natal hinged tortoise (*Kinixys natalensis*)	Open savanna woodland, dry rocky areas, including granite outcrops. Shelter beneath rocks on soil.	Endemic Rare LR/nt CITES Appendix II	
Family: Pelomedusidae - Terrapins			
Marsh terrapin / Helmeted terrapin / Cape terrapin (*Pelomedusa subrufa)*	Grassland, Closed woodland, Rivers, Seasonal pools, Pans. Slow-moving and still water, including natural temporary veld pans and pools (seasonal waters) away from perennial rivers and dams (permanent water - crocodiles). Basking - at water's edge, exposed rock, and protruding log or mud bank; fresh or stagnant water-bodies (tolerates wide variation in water quality). Bury themselves up to 5 cm deep in soil, mud or debris to aestivate during winter.		
Serrated hinged terrapin *(Pelusios sinuatus)*	Perennial rivers and more permanent waterholes, pans and dams; upland savanna and lowveld. Basking on sandbank protruding rock or submerged log or back of sleeping hippo and crocodiles.		
Order: Squamata			
Suborder: Serpentes			
Family: Typhlopidae			
Bibron's blind snake *(Typhlops bibroni)*	Highveld and coastal grassland: Under stones and in termitaria.	N-Endemic protected. Widespread Secure and out of danger.	
Delalande's blind snake *(Rhinotyphlops lalandei)*	Found in variety of veld types. Varied, semi-desert, savanna: Under stones and in termitaria. Is most commonly found in or near the nest of termites or under loose boulders.	Endemic	
Schlegel's blind snake *(Rhinotyphlops schlegelii)*	Found in variety of veld types. Varied, semi-desert, savanna: Deep subterranean species,		
Family: Leptotyphlopidae			
Long-tailed thread snake *(Leptotyphlops longicaudus)*	Lowveld: Under decaying hardwood stumps and loose boulders. Moist savanna.		
Cape thread snake / Lesser worm snake *(Leptotyphlops conjunctus incognitus)*	Varied, burrow underground. Lives underground and only wriggle to surface after being flooded by heavy rains from their underground retreats. In or under rotting logs, among the roots of grass and small bushes. In particularly in or near termitaria where there is an abundance of termites.	N- Endemic Protected	
Black thread snake *(Leptotyphlops nigricans)*	Fossorial: under stones, among roots of grass tussocks; moribund termitaria.	Endemic Protected	
Peter's thread snake / Glossy worm snake *(Leptotyphlops scutifrons scutifrons)*	Varied; grassland, coastal bushland mesic and arid savanna. Grassland, mesic and arid savanna: Burrow underground. Usually taken under stones.		
Distant's thread snake *(Leptotyphlops distanti)*	Varied, coastal bush, grassland and savanna. Burrow underground. Usually taken under stones.	Endemic Protected	
Family: Boidae			
Common African python / African rock python (*Python sebae*	Moist, rocky, well-wooded valleys, reed-beds or even bush country, seldom venture far from permanent water. Eggs are laid in hollow tree trunks,	**Vulnerable** Protected	

natalensis)	antbear holes or old termite hills.	CITES Appendix II	
Family: Atractaspididae			
Subfamily: Atractaspidinae			
Southern / Bibron's burrowing asp / Bibrons stiletto snake (*Atractaspis bibronii*)	Variable: grassland, scrub and open woodland to coastal forest in semi-arid to quite moist climates (sea level to 1700m), highveld grassland to semi desert. Occasionally found on surface on warm rainy nights in summer. Moribund termitaria. Rotting logs, under logs on soil, under stones, and crevices at ground level or under debris	Partially protected. Considered secure.	
Subfamily: Aparallactinae			
Black-headed / Cape centipede-eater *(Aparallactus capensis)*	Highveld and montane grassland, open woodland, open scrub veld, grassland, Open bush or savanna country: Moribund termitaria: Found in moribund termitaria, which offer shelter, warm and food. Under stones, under logs, among roots of shrubs and grasses.	Common, not threatened or endangered	
Common purple-glossed snake (*Amblyodipsas polylepis polylepis*)	Open woodland and scrub to coastal forest at altitudes from sea level to 1300m, savannah, entering dry forest. Fossorial (burrowing snake) and slow moving. In burrows or piles of vegetation, not found under rocks or logs. Seen abroad after heavy rains has fallen and soil becomes water-logged.		
Family: Colubridae			
Subfamily: Lamprophinae			
Common brown water snake *(Lycodonomorphus rufulus)*	Water-living and confined to rivers, streams and other permanent water or the immediate vicinity thereof. Small streams, pans and vleis: Cover around water margins.		
Dusky-bellied Water Snake *Lycodonomorphus laevissimus*	Pools in slow flowing well wooded streams.	Endemic Uncommon	
Spotted house snake (*Lamprophis guttatus*)	Rocky and mountainous areas. Under rocks or in crevices between rocks at altitudes ranging from 800-2300m.	Endemic Uncommon but secure.	
Brown house snake *(Lamprophis fuliginosus)*	Found everywhere. Highveld grassland and karroid regions: Terrestrial Nocturnal. Eggs being laid in decaying vegetable matter, termite hills or other suitable location.	Widespread adaptable.	
Variegated wolf snake (*Lycophidion variegatum*)	Savanna inhabitants. Under stones, dead aloes and rotting logs.	**Peripheral** Protected	
Cape wolf snake *(Lycophidion capense capense)*	Grassland and savanna: Damp situations under stones and vegetable debris.	Widespread considered secure.	
Cape file snake (*Mehelya capensis capensis*)	Open woodland, mainly savanna; entering coastal forest and arid regions. Shelters under large rocks, logs or other debris.		
Nyasa file snake / Black file snake (*Mehelya nyassae*)	Savanna, entering coastal forest:		
Common slug eater *(Duberria lutrix lutrix)*	Highveld grassland & Savannah. Variable habitats – moist areas. Under stones, rotting logs, under plant litter. Moribund termitaria.		
Undetermined classification			
Sundevall's shovel-snout / Sundevall's streaky shovel-snout (*Prosymna sundevalli lineata*)	Open woodland. Dry areas, including savanna woodlands: burrow in loose soil. Nocturnal, partially fossorial. Under rocks, logs or even piles of bricks.	Endemic	
Two-striped shovel-snout / Twinstriped shovel-snout (*Prosymna bivittata*)	Open woodland and scrub (200-1400m); Acacia savanna, entering sandveld: Semi-fossorial - Burrowing species - Sandy localities, burrow in loose soil. Under rocks or under rotting logs.	Endemic	
Spotted shovel-snout / East-African shovel-snout (*Prosymna stuhlmannii*)	Fossorial: Under stones, logs, or heaps of decaying vegetable matter. In termitaria and other similar locations.		
Subfamily: Psammophinae			
Mopane snake (*Hemirhagerrhis nototaenia nototaenia*)	Savanna or woodland-savanna areas up to 1550m. Under rough bark of trees, often associated with Mopane bush.		
Rufous beaked snake (*Rhamphiophis oxyrhynchus rostratus*)	Sandy thorn- or bushveld country - rocky surroundings. Gerbil burrows or terminal chambers of termite hills.		
Striped skaapsteker / Three-lined grass snake *(Psammophylax tritaeniatus)*	Highveld grassland to open bushveld and scrub (300-1600m) Open grassland. Holes in moribund termitaria, under rocks, piles of grass. Flee to nearest shrub or clump of grass, or might flee into water – submerge to over 5min. Eggs laid under rock or other suitable cover.	Widespread under no immediate threat.	

Western stripe-bellied sand snake (*Psammophis subtaeniatus subtaeniatus*)	Open woodland and scrub in arid areas, open dry savanna, thorn- or bushveld. Dry rocky hillsides in crevices between rocks, large termitaria, under loose bark or dead logs.		
Olive grass snake (*Psammophis phillipsii*)	Coastal plains and upland savanna: Bush along streams and rivers rather than the more open dry area. Mainly ground-living – in grass; may resort climbing on tops of bushes and shrubs in order to bask in sun. Pursued: quick moving, dash into thick cover where it lies still. Eggs are laid in piles of dead leaves or other similar location.		
Family: Colubridae			
Subfamily: Colubrinae			
Spotted bush snake / Variegated bush snake *(Philothamnus semivariegatus semivariegatus)*	Open woodland, scrub and coastal forest, open forest or savanna: Open forest or bush, even dry and far removed from water, however more frequently where water is – swims with ease. Coastal plain, along streams and rivers or along river courses. On rocky hillsides and mountains, shrubs and bushes on rocky ridges. Holes in trees or under loose bark. In crevices between or under rocks. In holes in large termitaria of *Macrotermes*. Take refuge to trees if disturbed.	Widespread currently secure.	
Green water snake / Southeastern green snake *(Philothamnus hoplogaster)*	Coastal plains to higher inland savanna (Arid and mesic savanna) and even montane forest. Home near water where it hunts for frogs, frequenting marshes, ponds, rivers, reedbeds, vleis and streams.	Widespread not common.	
Natal water snake / Eastern Natal green snake *(Philothamnus natalensis natalensis)*	Wet montane and dry forest: Reedbeds, vleis and streams.		
Natal water snake / Eastern Natal green snake *(Philothamnus natalensis occidentalis)*	In shrubs or trees close to water.	Uncommon, secure.	
Rhombic egg eater / Common egg-eater *(Dasypeltis scabra)*	Widespread in most veld types: from sea level to an altitude of 2300m. Common in grassveld and bushveld. Mainly terrestrial, but climb trees in search of birds' eggs. Any place where it can find shelter: Moribund termitaria, rock crevices, rock faces, heaps of rubble, rotting logs.	Widespread common. Secure.	
Herald snake / Red-lipped snake *(Crotaphopeltis hotamboeia)*	Most habitats: Savannah and open woodland; Grassland to coastal forest but not in desert. Preference for damp localities Marshy areas. Under virtually any available cover: Under rocks, in termitaria. Eggs laid in vegetable matter.	Partially protected. Occurs widely. Considered secure.	
Eastern tiger snake (*Telescopus semiannulatus semiannulatus*)	Savanna and sandveld: Well-wooded areas from sea level to 1600m. May be found in grassland. Terrestrial, old dead trees, under rocks, in crevices, in small shrubs and weavers' nests.		
Marbled tree snake (*Dipsadoboa aulica*)	Riparian and coastal forest: Under some debris under large shady trees; hollow logs, under bark, piles of vegetation.		
Tree-snake / Boomslang (*Dispholidus typus typus*)	Common in most wooded regions outside actual rainforests. From closed woodland through more open areas to scrub, from sea level to 1700m. Diurnal, mostly arboreal; move through branches of trees, shrubs and bushes. Mating takes place in trees and eggs are deposited in holes or hollows of trees, woodpeckers' nests or leaf litter on ground wherever suitable conditions exist. Take shelter in holes in trees and large termitaria and hibernate in holes in trees.	Widespread secure.	
Southern vine snake / Twig snake / Bird snake (*Thelotornis capensis capensis*)	Savanna woodland: Open or closed woodland or coastal forest from sea level to 1200m. Almost exclusively arboreal: Live amongst the branches of trees. Entering holes in evergreen trees on slope during cold periods. May hibernate in hole in tree and even hole in ground.	Widespread considered secure.	
Family: Elapidae			
Subfamily:Elapinae			
Boulenger's Half-banded garter snake (*Elapsoidea boulengeri*)	Mesic savanna; moister regions.		
Sundevall's garter snake / Longtailed garter snake *(Elapsoidea sunduvalli media)*	Varied: coastal forest, highveld grassland, arid and mesic savanna. Old termitaria and under stones.	Endemic	
Snouted cobra (*Naja annulifera*)	Savanna: Usually in drier regions – bush- and lowveld. Permanent or semi-permanent home or retreat. Animal or other hole in the ground or in a tree, in termite hills or under outcrops of rocks or boulders. Eggs laid in some suitable, sheltered hole or cavity in the ground or in trees.		
Mozambique spitting cobra / Mfesi (*Naja mossambica*)	Savanna: Rocky outcrops and hillsides in fairly closed woodland at altitudes from sea-level to 1750m along rivers or localities near water. Holes in	Widespread common.	**Wood land**

	termitaria and other animal burrows.	Status is secure.	
Black mamba (*Dendroaspis polylepis*)	Savanna & open coastal bush below 1500m: Lower lying, drier more open woodland and scrub to wooded grassland, moist savanna and lowland forest (900-1200m). Ground living snake, also at home in bush, shrubs or trees - in thickets, commonly on hillsides and outcrops, granite hillocks, termite mounds, hollow tree trunks. Female will find a good place to lay eggs, burrow must be damp but not wet, and warm, but not too hot (termite nests).		**Wood land**
Family: Viperidae			
Subfamily: Causinae			
Puff adder *(Bitis arietans)*	Widespread: Fynbos, grassland, scrub and woody savannas, from sea level to 1800m. Any sort: rock on rock, rock on soil, logs, moribund grass.	Widespread status is secure.	
Snouted night adder (*Causus defilippii*)	Open to closed woodland from sea level to an altitude of 1200m. Under rocks on soil or under rotting logs, often associated with rocky outcrops, burrowing.		
Rhombic night adder *(Causus rhombeatus)*	Mesic savannah: In undergrowth, under stones or logs, in termitaria.	Widely distributed, uncommon. Status secure.	
Suborder: Amphisbaenia			
Family:Amphisbaenidae			
Van Dam's round headed worm lizard (*Zygaspis vandami*)	Savanha, alluvial sand, under tree strunks and rotting organic matter, feeds on termites.		
Dusky spade-snouted worm lizard (*Monopeltis infuscata*)	Dry and moist savanna on sandy soils.		
Suborder: Sauria			
Subfamily: Scincidae			
Lowveld Dwarf Burrowing Skink *Scelotes breviceps*	Underneath dead leaves and woody material. Eastern Lowveld bushveld.	Endemic	
SubFamily: Acontiinae			
Giant legless skink (*Acontias plumbeus*)	Lowveld in woodland and alluvial sandy areas, forested areas. Fossorial: Usually found below soil surface in sandy soil admixed with vegetable matter, accumulated leaf litter and humic soils in damp situations. Under stones, logs and other rotting vegetation, termitaria and among roots of trees	Endemic Protected. Uncommon, widely distributed. Status secure.	
SubFamily: Lygosomatiinae			
Sundevall's writhing skink (*Lygosoma sundevallii sundevallii*)	Sandy savanna and open bushveld country. A nocturnal fossorial to terrestrial species - lead largely a sub-terrestrial existence. In search of food they often burrow to the surface of the ground. Shelter under stones, rotting logs, accumulations of dead leaves and other debris. Eggs laid in a suitable nook underground, particularly termitaria.		
Rainbow rock skink (*Mabuya quinquetaeniata margaritifer*)	Rock-living form: Confined to rocky outcrops and koppies in bushveld country: sandstone, granite, rhyolite, dolerite and basalt, in vertical and horizontal crevices.	Protected. Status secure	**11 Rocky areas**
Striped skink *(Mabuya striata striata)*	Variety of bushveld and savanna types, and a wide range of ecological conditions from sea level to high mountain tops, desert to tropical bush. Although mainly arboreal, they also inhabit rocky koppies and will cross open ground readily. Among rocks and boulders, on the ground and in trees.		
Variable skink *(Mabuya varia)*	Varied,: Broken ground, rocks and tree bases. Very adaptive, wide variety of habitats: from sea level to high mountain slopes: Bushveld, open woodland and scrubby grasslands without rocks and grassland. Terrestrial and diurnal: Amongst rocks and stones at rocky or stony localities, but avoids extensive rocky areas. Also running on ground. Uses boles of trees (not higher than 75 cm in tree unless threatened), rocks or logs as vantage points to survey surroundings for prey. Forage in afternoon among leaf litter under trees or shrubs or amongst grass tussocks, under grass tufts, tree trunks or in any convenient hole in the ground. At night: among stones, beneath bark of fallen logs, in holes in the ground or buried in leaf-litter.	Widespread Considered secure.	**18** **Wood land** **Rocky areas**

Wahlberg's snake-eyed skink (*Panapsis wahlbergii*)	From highveld grasslands and mountain tops through the bushveld and into the lowveld; Arid & mesic savanna: Forage among grass and leaf-litter, seeking prey under fallen leaves. Shelter among grass tussocks, Grass roots, under stones and rotting logs, in moribund termitaria and among leaf-litter in shady places under shrubs, in termite hills, and on broken ground. Eggs laid under a stone or log or Sheltered, under stones and rotting logs or among fallen leaves and brushwood lying in shady places, lying on moist ground or among the roots of a tree or shrub, grassy spots, shrubs and trees.	Protected. Widespread Considered secure.	
Family: Lacertidae			
Bushveld lizard *(Heliobolus lugubris)*	Arid and mesic savanna, found in both sand- and bushveld country.		
Common rough-scaled lizard *(Ichnotropis squamulosa)*	Arid and mesic savanna, found in both sand- and bushveld country. Open woodland, scrub and grassland, at altitudes of 250-1400. More common in areas with sandy substrates, sandy flat clearings. Particularly on sandy soils where there it shelters in holes in the ground or where it can burrow itself. Forage among grass tufts or edge of bushes.		
Cape rough-scaled lizard *(Ichnotropis capensis)*	Arid and mesic savanna		
Ornate sandveld lizard *(Nucras ornata)*	Variety of habitats: open grassy or stony flats to sand- or bushveld country: sandy soils. Rocky hillsides and outcrops in open woodland and grassland. Forage singly among grass tussocks and in leaf litter. Shelter in holes in the ground and under rock on soil.		
Holub's long-tailed lizard *(Nucras holubi)*	Broken rocky ground in mesic savanna. Among grass tussocks, the base of bushes, holes in the ground, under rocks on soil and under debris.		
Spotted sandveld lizard / Spotted scrub lizard (*Nucras intertexta*)	Arid savanna – Kalahari sand: Open dry savanna. Holes in the ground, under rocks on soil, among grass tussocks and in leaf litter.		
Family: Gerrhosauridae			
Yellow-throated plated lizard *(Gerrhosaurus flavigularis)*	Bushveld, lowveld, grasslands (highveld) Savannah: Burrows at base of bushes, under boulders. Along rocky and stony hillsides, sandy flats.	Protected. Status secure.	
Rough-scaled plated lizard / Tawny plated lizard (*Gerrhosaurus major major*)	Lowveld in open to fairly dense woodland – around rocky outcrops or isolated koppies in bushveld country. Rocky outcrops –crevices or hollows between rocks and boulders. Disused warrens of animals such as antbears, warthogs, small animal burrow - spring-hares, etc. old termitaria. Seldom found far from burrow – retreat at sign of danger.		
Black-lined plated lizard (*Gerrhosaurus nigrolineatus*)	Open savanna woodland, particularly gravelly soils, bushveld country. Deserted animal and other suitable holes, burrows of other animals, especially those of rodents. Disturbed: rush through vegetation back to burrow		
Giant plated lizard *(Gerrhosaurus validus validus)*	Arid and mesic savanna, open woodland (up to 1400m): Hills and outcrops in bushveld country. Terrestrial and rupicolous (rock-living); gregarious: confined to granitic and other boulder-strewn hills and outcrops. May forage several hundred meters from base of outcrop in which they live, quickly retreat back to suitable crevice or burrow in rocky retreats. Shelter in deep Crevices or Cracks between and under rocks on outcrops		
Family: Cordylidae			
Tropical girdled lizard *(Cordylus tropidosternum jonesi)*	Bushveld or open woodland (300-1500m), dry savanna: Under loose bark of dead trees or in the hollows or holes of living trees or dead stumps, in the dried leaves of aloes, in woodpiles and decaying logs. Under stones, dead logs and brushwood, where suitable trees are not available, amongst rocks at ground level.	Protected CITES Appendix II	
Wilhelm's flat lizard (*Platysaurus wihelmi*)	Varied, amongst rocks and crevices on rocky outcrops. Restricted to Southeastern Mpumalanga.	Endemic	**7 Rocky areas**
Family: Varanidae			
Rock monitor *(Varanus albigularis exanthematicus)*	Savanna and open bush or forest country, open woodland, rocky hillsides, ridges and outcrops. Terrestrial. Cracks and fissures between or under rocks, or in disused animal burrows or in hollow trees or holes in trees. Expert climbers: tree and rocks. Great wanderers – even far from water. Eggs deposited in holes in suitable soil dug to 150-230 mm - cover and camouflage nest.	Partially protected. Widespread status secure. CITES Appendix II	

Water monitor / Nile monitor *(Varanus niloticus niloticus)*	Near water: rivers, dams, pans and major lakes: Shelter in holes in banks, in animal burrows or in crevices between rocks or under rocks, marginal vegetation. Basking in sun on rocks, branches of overhanging trees or amongst vegetation on banks - never far from water Escape into water – swim swiftly. Eggs deposited in hole dug deep into a termite nest or sandbank by female, roughly covered over – termites seal up securely.	Partially protected. Widespread status secure. CITES Appendix II	
Family: Agamidae			
Southern tree agama *(Acanthocercus atricollis)*	Open woodland with large trees, areas covered by Acacia thickets, woodland or woodland savanna, open bush and forest country (not in rain forests). Arboreal; diurnal, lizards, most commonly - trunks of large trees. Descend to ground to forage and cross to another tree. Spend most of their time foraging in larger trees - more complex and provide greater refuge from predators, increased foraging surfaces and potential invertebrate. May shelter in holes, crevices, hollow tree trunk or crack in branch or under peeling bark. Lay eggs in hole dug in moist soil.		**2 Wood land**
Ground agama *(Agama culeate distanti)*	Semi-desert and savanha, feeds almost exclusively on ants and termites. Lay eggs in hole prepared under a rock or shrub.		
Family:Chamaeleonidae			
Flap-necked chameleon (*Chamaeleo dilepis dilepis*)	Various kinds of woodland and grassland: Savanna woodland; and wooded grassland, along streams: Wooded areas; branches of trees; branches of shrubs; Open forest and bush country, savanna woodland. Lays eggs in tunnel in damp soft soil at a sheltered spot. Diurnal, arboreal species, common in suitable habitat.	Protected CITES Appendix II	**1 Wood land**
Family: Gekkonidae			
Haacke's flat gecko *(Afroedura multiporis haackei)*	Very restricted range on rocky outcrops in the Witrivier- Nelspruit area and the Khandizwe hills in the KNP.	Endemic Protected	
Tropical house gecko (*Hemidactylus mabouia mabouia*)	Varied; arid and mesic savanna, and coastal bush. Arboreal in wild and very territorial. Common under loose tree bark and in the hollows of trees (particularly baobab), in the crowns of palms, and in rock cracks and crevices. In fact, in any dark convenient place on or above the ground (also piles of rubble). In the wild the eggs are laid under a rock or in a crevice and sometimes in a communal depository. Mainly nocturnal.		
Wahlberg's velvety gecko (*Homopholis wahlbergii*)	Land type varied – mesic and arid savanna. Living in holes of old tree trunks, holes in dead trees and branches, under bark, in holes in baobab trees, empty swallow nests in caves and rock overhangs, or amongst rocks and boulders – latter case prefer those lying in river-beds near the water; rock fissures, particularly on overgrown koppies along river beds. Feeding both day and night but forage away from their retreat only at night. Eggs are laid in a rock crack/ crevices or beneath loose bark and in holes in trees.		
Cape dwarf gecko *(Lygodactylus capensis)*	Well-wooded dry savanna: Open woodland and well-wooded dry savanna country. Diurnal and arboreal gecko. Inhabiting trees with holes or loose bark, which provides shelter. Also shelters among rocks and dead vegetation. Marked preference for Baobab, Acacia and Mopane – plenty suitable rough bark as cover. Eggs are laid in rock cracks, crevices, under stones or under loose bark. Forage in low scrub and on dead trees. Observed clinging, head down, near base of tree waiting for prey.		**5 Wood land** **Rocky areas**
Turner's thicktoed gecko *(Pachydactylus turneri)*	Grassland and mesic savannah: Terrestrial, rotting logs, disused termitaria, low rock cracks. Semi-desert and arid savanna, entering moist habitats.		
Speckled thicktoed gecko *(Pachydactylus punctatus)*	Varied. Preferring dry savannah. Sandy soils, tunnels beneath logs, rocks or other cover.		
Van Son's thicktoed gecko (*Pachydactylus vansoni*)	Land type: Varied – karroid veld, grassland and mesic savanna. Terrestrial; inhabits rocky outcrops and more frequently found under rocks or logs on soil; disused termitaria, occasionally low rock cracks. Solitary, nocturnal. At night – emerge to forage, it moves about on the ground in search of food. Eggs laid in soil under rocks or stones; or logs; in old termitaria in summer.	Endemic Protected. Status secure.	
Order: Crocodylia			
Family: Crocodylidae			
Nile Crocodile *Crocodylus niloticus*	Larger rivers, lakes, swamps and river mouths of lower lying areas of eastern subcontinent.	Vulnerable Protected	

Table 3. MAMMALS: Available habitat, expected occurrence and observed presence of mammals during the survey (Friedman & Daly 2004). Large game that has been eradicated historically is omitted.

Classification	Status	Habitat	Recorded
Order: Insectivora			
Family: Erinaceidae			
SA hedgehog (*Atelerix frontalis*)	**Near Threatened**	Wide variety of vegetation types. Dry habitats with ground cover for nesting.	
Family: Soricidae			
Greater dwarf shrew (*Suncus lixus*)	**Data deficient**	Very little known of this species	
Least dwarf shrew (*Suncus infinitesimus*)	**Data deficient**	Commonly associated with termitaria. Terrestrial.	
Swamp musk shrew (*Crocidura mariquensis*)	**Data deficient**	Moist habitats, thick grass along riverbanks, in reedbeds and in swamp.	
Tiny musk shrew (*Crocidura fuscomurina*)	**Data deficient**	All latitudes, wide tolerance. Terrestrial. Cover such as debris, fallen trees, wood piles or dense grass clumps.	
Reddish-grey musk shrew (*Crocidura cyanea*)	**Data deficient**	Dry terrain: Among rocks, in dense scrub and grass. Grassland and thick shrub bordering streams. Wet vleis with good grass cover.	
Greater red musk shrew (*Crocidura flavescens*)	**Data deficient**	Broken country with a dense cover of vegetation, areas of decaying leaf litter in damp places, thick undergrowth in vleis or along the banks of streams.	
Lesser grey-brown musk shrew (*Crocidura silacea*)	**Data deficient**	Catholic in habitat requirements; damp places.	
Lesser red musk shrew (*Crocidura hirta*)	**Data deficient**	In damp situations along rivers and streams. Low bushes, dense undergrowth, piles of debris and fallen logs.	
Lesser dwarf shrew (*Suncus varilla*)		Broad tolerance. Reliant on termite mounds.	
Order: Macroscelididae			
Family: Macroscelidinae			
Short-snouted elephant-shrew (*Elephantulus brachyrhynchus*)	**Data deficient**	Sandy ground with scrub or grass cover; fallen logs, piles of debris or holes in ground.	
Rock elephant shrew (*Elephantulus myurus*)	**Least concern**	Rocky areas: Rocky koppies or piles of boulders – crevices in rocks	
Order: Chiroptera			
Family: Molossidae			
Little free-tailed bat (*Tadarida pumila*)	**Least concern**	Rocky environment with an abundance of crevices.	
Egyptian free-tailed bat (*Tadarida aegyptiaca*)	**Least concern**	Open grassland: Rock crevices, caves, hollow trees, behind loose bark of trees	
Family: Pteropodidae			
Wahlberg's fruit bat (*Epomophorus wahlbergi*)	**Least concern**	Thickets where there are fruit-bearing trees.	
Peter's (Gambian) fruit bat (*Epomophorus gambianus crypturus*)	**Data deficient**	Riverine or evergreen forests or in moist woodland where there are fruit-bearing trees.	
Egyptian fruit bat (*Rousettus aegyptiacus*)	**Least concern**	Availability of caves	
Family: Hipposideridae			
Sundevall's leaf-nosed bat (*Hipposideros caffer*)	**Data deficient**	Savanna woodland: Caves and subterranean habitats	
Short-eared trident bat (*Cloeotis percivali*)	**Critically endangered**	Mixed woodland savanna. Rest in caves and subterranean habitats.	
Family: Vespertilionidae			
Schreibers' long-fingered bat (*Miniopterus schreibersii*)	**Near threatened**	Cave dweller: Caves and subterranean habitats. Wide range of vegetational association.	
Temminck's hairy bat (*Myotis tricolor*)	**Near threatened**	Savannah woodland: Cave dweller- availability govern distribution.	
Banana bat (*Pipistrellus nanus*)		Forest and woodland savanna: Near bananas or Strelitzia trees, rolled-up terminal leaves of banana plants.	
Rusty bat (*Pipistrellus rusticus*)	**Near threatened**	Savanna woodland: riverine associations.	
Cape serotine bat (*Eptesicus capensis*)	**Least concern**	Savannah: Under bark of trees, base of aloe leaves.	
Yellow house bat (*Scotophilus dinganii*)	**Least concern**	Savanna & mixed bushland: Narrow crevices, hollow trees.	

Lesser yellow house bat (*Scotophilus bobornicus*)	**Least concern**	Savannah woodland: riverine conditions.	
Family: Nycteridae			
Egyptian / common slit-faced bat (*Nycteris thebaica*)	**Least concern**	Wide habitat tolerance. Vertical surfaces of tree trunks, rock faces, caves, holes in ground, hollow trees.	
Family: Rhinolophidae			
Darling's horseshoe bat (*Rhinolophus darlingi*)	**Near threatened**	Woodland savanna: Caves, and amongst piles of loose boulders.	
Geoffroy's horseshoe bat (*Rhinolophus clivosus*)	**Near threatened**	Savannah woodland: Forest fringes. Caves, rock crevices.	
Peak-saddle horseshoe bat (*Rhinolophus blasii*)	**Vulnerable**	Woodland; savanna: Caves and subterranean habitats	
Bushveld horseshoe bat (*Rhinolophus simulator*)	**Least concern**	Savanna woodland; dependent on substantial shelter in form of caves & mine shafts.	
Family: Emballonuridae			
Mauritian tomb bat (*Taphozous mauritianus*)	**Least concern**	Savanna: Vertical surfaces of tree trunks, rock faces	
Order: Primates			
Family: Cercopithecidae			
Chacma baboon (*Papio ursinus*)	**Least concern**	Widespread, diurnal: At night - Cliffs & high trees	
Vervet monkey (*Cercopithecus aethiops*)	**Least concern**	Woodland, diurnal: At night – Heavy foliage in high trees, rocky cliffs	
Family: Lorisidae			
Thick-tailed bush baby (*Otolemur crassicaudatus*)	**Least concern**	Forests and thickets. During the day - in the thick foliage of trees.	
Family: Galagonidae			
Lesser bushbaby (*Galago moholi*)	**Least cocern**	Woodland: Nocturnal; arboreal – holes in trees, thick foliage, disused bird nests	
Order: Carnivora			
Family: Hyaenidae			
Aardwolf (*Proteles cristatus*)	**Least concern**	Savannah woodland and in scrub, grassland. Open country, nocturnal, and solitary. Rests in hole in ground. Independent on water. Dependant on availability of termites.	
Family: Felidae			
Leopard (*Panthera pardus*)	**Least concern**	Widespread. Broken country or forests. Nocturnal & solitary.	
Caracal (*Felis caracal*)	**Least concern**	Widespread – open scrub & woodland, open vleis and open grassland. Nocturnal & solitary. Litters born in holes in ground.	
African wild cat (*Felis lybica*)	**Least concern**	Widespread – Wide habitat tolerance. Rocky hillsides, underbush, reedbeds, stands of tall grass. Litters born dense underbrush or other substantial cover.	
Serval (*Felis serval*)	**Near threatened**	Proximity to water; tall grass	
Family: Canidae			
Side-striped jackal (*Canis adustus*)		Savanna and well-watered conditions; tall grass.	
Black-backed jackal (*Canis mesomelas*)	**Least concern**	Widespread. Wide habitat tolerance. Open terrain. Litters born in holes in ground.	
Family: Mustelidae			
Cape clawless otter (*Aonyx capensis*)	**Least concern**	Aquatic: Rivers, lakes, swamps and dams. Widespread. Litters born in holes in banks of rivers.	
Spotted-necked otter (*Lutra maculicollis*)	**Near threatened**	Aquatic: Rivers, lakes, swamps and dams, extensive areas of open water.	
African weasel / Striped weasel (*Poecilogale albinucha*)	**Data deficient**	Savannah: Moist grassland. Litters born in burrows.	
Striped polecat (*Ictonyx striatus*)	**Least concern**	Widespread. Wide habitat tolerance. Scrub cover, open grassland, and savannah woodland. Holes in the ground.	
Honey badger (*Mellivora capensis*)	**Near threatened**	Widespread. Not in desert. Use crevices in rocky areas, will also dig refuges. Rocky koppies, scrub sandveld, open grassland, open woodland, riverine woodland and floodplain grassland.	
Family: Herpestidae			
Slender mongoose (*Galerella*	**Least concern**	Widespread. Open areas. Underbrush or holes in the	

sanguinea)		ground, holes in termitaria.	
Meller's mongoose (*Rhynchogale melleri*)		Montane and tall grassland areas	
White-tailed mongoose (*Ichneumia albicauda*)	**Least concern**	Savannah woodland: Well watered areas. Not in desert, semi-desert or forest.	
Selous' mongoose (*Paracynictis selousi*)	**Data deficient**	Open country, frequenting vleis, floodplain and grasslands.	
Water mongoose (*Atilax paludinosus*)	**Least concern**	Well-watered terrain: Rivers, streams, marshes, swamps, wet vleis, dams.	
Banded mongoose (*Mungos mungo*)	**Least concern**	Wide habitat tolerance. Essential habitat requirement: woodland, underbush, substrate detritus such as fallen logs and other vegetable debris. Acacia woodland.	
Large grey mongoose (Herpestes ichneumon)	**Least concern**	On fringes of rivers, swamps, lakes and dams. Riverine underbush or reed beds.	
Dwarf mongoose (*Helogale parvula*)	**Least concern**	Widespread. Dry open woodland and on grassland where there is substrate litter and termitaria. Lives in permanent holes – termitaria, burrows deeply.	
Family: Viverridae			
Small-spotted genet (*Genetta genetta*)	**Least concern**	Widespread. Open arid: Woodland, open scrub and dry grassland or dry vlei areas. Trees. Nocturnal – nests in holes in the ground or in hollow trees.	
Large-spotted genet (*Genetta tigrina*)	**Least concern**	Better watered parts: Woodland, open scrub and dry grassland or dry vlei areas. Trees. Nocturnal – nests in holes in the ground or in hollow trees.	
African civet (*Civettictis civetta*)	**Least concern**	Widely distributed – forest and woodland where water is available. Nocturnal & solitary. Litters born in holes or dense underbrush.	
Order: Tubulidentata			
Family: Orycteropodidae			
Aardvark / Antbear (*Orycteropus afer*)	**Least concern**	Widespread. Wide habitat tolerance. Open woodland, scrub and grassland. Nocturnal. Lives in extensive burrows.	
Order: Hyracoidea			
Family: Procaviidae			
Rock dassie (*Procavia capensis*)	**Least concern**	Widespread where there is rocky habitat. Outcrops of rock – rocky crevices. Krantzes, rocky koppies, hillsides, piles of loose boulders – accompanied with bushes and trees. Crannies and crevices.	
Order: Pholidota			
Family: Manidae			
Pangolin (*Manis temminckii*)	**Vulnerable**	Wide habitat tolerance, absent from forests. Day – piles of leaves or other vegetable debris, holes in the ground	
Order: Artiodactyla			
Family: Hippopotamidae			
Hippopotamus (*Hippopotamus amphibius*)	Least concern	Suitable deep, open, permanent water (deep enough to allow it to submerge totally) with gently sloping sandbanks must be available and adjacent food supplies.	
Family: Bovidae			
Common / Grey duiker (*Sylvicapra grimmia*)	**Least concern**	Widespread. Presence of bush. Woodland with ample underbush, grassland of medium and tall grass. Rest in bushes or tall grass.	
Red duiker (*Cephalophus natalensis*)	**Least concern**	Forest, dense thickets, thickly wooded ravines and dense coastal bush where there is surface water.	
Klipspringer (*Oreotragus oreotragus*)	**Least concern**	Restricted to rocky areas. Rocky shelter and steep rock faces.	
Steenbok (*Raphicerus campestris*)	**Least concern**	Widespread. Open country: Open grassland with stands of tall grass, scattered bushes or scrub and forbs. Avoid densely wooded areas.	
Impala (*Aepyceros melampus*)	**Least concern**	Woodland savanna: Widespread in light open woodland – surface water.	
Kudu (*Tragelaphus strepsiceros*)	**Least concern**	Widespread in savanna woodland. Areas of broken, rocky terrain with woodland cover & open water.	

Bushbuck (*Tragelaphus scriptus*)	**Least concern**	Riverine and thickets near water.	
Family: Suidae			
Bushpig (*Potamochoerus porcus*)	**Least concern**	Forests, thickets, riparian underbrush, reed beds or stands of tall grass where there is water. Nests of grass in secluded places.	
Warthog (*Phacochoerus aethiopicus*)	**Least concern**	Open areas of grassland, floodplain, vleis and around waterholes and pans. Deserted antbear holes.	
Order: Rodentia			
Family: Hystricidae			
Cape Porcupine *(Hystrix africaeaustralis)*	**Least concern**	Widespread: All types of country apart from swampy areas, very moist forests and barren desert areas. Nocturnal – resting in caves, rock cavities, holes in ground.	
Family: Scluridae			
Tree squirrel (*Paraxerus cepapi*)	**Least concern**	Widespread in woodland: Diurnal – resting in holes in trees.	
Family: Bathyergidae			
Common Molerat *(Cryptomys hottentotus)*	**Least concern**	Loose sandy soils to stony soils and hills to montane and escarpment conditions. Tendency to loose sandy soil - especially alluvial soils along major rivers and streams. Karroid veldtypes, coastal rhenosterbushveld, coastal forests, thornveld, mopaneveld, savanna and pure grassveld, as well as temperate and transitional forests, scrub and bushveld.	
Family: Muridae			
Vlei Rat *(Otomys irroratus)*	**Least concern**	Grass-covered ground in proximity to streams and marshes.	
Angoni Vlei Rat *(Otomys angoniensis)*	**Least concern**	Savanna woodlands and grasslands – wet vleis, swamps and swampy areas along rivers. Fringes of rivers with reed beds, sedges and semi-aquatic grasses. Nests in grass near permanent water.	
Laminate Vlei Rat *(Otomys laminatus)*	**Least concern Endemic**	Moist habitats	
Pouched mouse (*Saccostomus campestris*)	**Least concern**	Widespread: In burrows, sandy soil or sandy alluvium	
Grey climbing mouse (*Dendromus melanotis*)	**Least concern**	Grassland with high grass.	
Chestnut climbing mouse (*Dendromus mystacalis*)	**Least concern**	Grassland with high grass.	
Brant's climbing mouse (*Dendromus mesomelas*)	**Least concern**	Tall grass or rank vegetation near water.	
Fat mouse (*Steatomys pratensis*)	**Least concern**	Grassland and savannas over sandy soils or sandy alluvium. On sandy ground in scrub or in sandy alluvium on the fringes of swamps, streams and rivers. Open woodland and abandoned cultivated lands.	
Water rat (*Dasymys incomtus*)	**Near threatened**	Swamps, wet vleis and reed beds along rivers.	
Tete Veld Rat *(Aethomys ineptus)*	**Least concern**	Temperate grassland and savanna: Rocky crevices and piles of boulders.	
Namaqua Rock Mouse *(Aethomys namaquensis)*	**Least concern**	Widespread – rocky areas. Cracks and rock crevices of rocky koppies or outcrops, or on piles of stones in the veld, low lying ridges and stony country and is often plentiful in old ruins, holes in trees or under bushes	
Tree Rat/mouse *(Thallomys paedulcus)*	**Least concern**	Acacia woodland: Living in crevices in the trunks, under loose strips of bark or in holes in the ground between the roots of the tree (Especially Acacia). Nocturnal.	
Single-striped Mouse *(Lemniscomys rosalia)*	**Data deficient**	Grassland: excavates burrows under the cover of matted grass.	
Multimammate mouse *(Praomys / Mastomys natalensis)*		Wide habitat tolerance, fond of grassland where there is some cover of low scrub. In dry watercourses or fringes of swamps. Frequents the fringes of pans where there are calcareous outcrops nearby. Partial to sandy ground, overgrown with scrub and grass. Under fallen logs, crevices between rocks, cavities inside pile of stones or debris or even holes in termite mounds.	

		Nocturnal.	
Multimammate mouse *(Mastomys coucha)*	**Least concern**	Wide habitat tolerance: Households; fringes of agricultural land; In riverine associations running westwards into arid country	
Woodland mouse (*Grammomys dolichurus*)	**Least concern**	Predominantly arboreal: in forests and thickets, usually in damp places; constructs nests of grass or leaves in dense underbrush	
Pygmy Mouse *(Mus minutoides)*	**Least concern**	In all types of vegetation. Wide variety of habitats. Fairly damp country where there is high grass, bush or other cover. Under debris, fallen tree trunks and similar type of cover.	
Bushveld gerbil (*Tatera leucogaster*)	**Data deficient**	Widespread – light sandy soils or sandy alluvium. Nocturnal – lives in burrows under low bushes	
Brants' (Highveld) Gerbil *(Tatera brantsii)*	**Least concern**	Widespread – light sandy soils or sandy alluvium substrate with some scrub or grass cover. Peaty soils around marshes and pans. Prefer sandy soils, irrespective of the type of vegetation cover. Nocturnal – lives in burrows under low bushes	
Family: Myoxidae			
Rock Dormouse *(Graphiurus platyops)*	**Data deficient**	A rock-frequenting dormouse. Near or on rocky outcrops. In association with dassies. Also dry scrub thickets or dry riverbeds, frequenting trees.	
Woodland Dormouse *(Graphiurus murinus)*	**Least concern**	Widespread in woodland. Wooded areas. Large trees provide holes for shelter. Live in holes in trees or under loose bark.	
Family: Thryonomyidae			
Greater Canerat *(Thryonomys swinderianus)*	**Least concern**	Forest belts and open woodland wherever there is tall and matted grass or reeds growing in damp or wet places	
Order: Lagomorpha			
Family: Leporidae			
Scrub hare (*Lepus saxatilis*)	**Least concern**	Savannah woodland and in scrub, tall grass. Absent from forest, desert and open grass.	
Natal red rock rabbit *(Pronolagus crassicaudatus)*	**Least concern** Endemic	Rocky habitat: Rocky terrain or boulder-strewn areas – rest deep in rock crevices	