

LOCAL BIODIVERSITY AND SENSE OF PLACE
RESEARCH FIELD PROJECT 712

FIELDWORK: PLANT DOCUMENTATION

Contents

INTRODUCTION	3
SUMMARY OF FINDINGS	4
PLANT ANALYSIS	11
Michelle Zolnierzcyk	12
Aloe greatheadii	12
Aloe pretoriensis	13
Aloe transvaalensis	14
Aloe verecunda	15
Ammocharis coranica	16
Anomatheca / Freesia grandiflora	17
Barleria pretoriensis	18
Becium obovatum	19
Robyn Smith	20
Boophane disticha	20
Bulbine abyssinica	21
Bulbostylis burchellii	22
Chaetacanthus setiger	23
Clematopsis scabiosifolia	24
Cotyledon orbiculata	25
Crabbea angustifolia	26
Crabbea acaulis	27
Ryan Rensburg	28
Crasula multicava (Fairy Crassula)	28
Crossandra greenstockii (Bushveld crossandra)	29
Delosperma herbeum/obtusum (Highveld white vygie)	30
Dianthus mooiensis (Frilly Carnation)	31
Decliptera eenii (Pink Ribbons)	32
Dicoma anomala (Stomach bush)	33
Dicoma zeyheri (Toy sugarbush)	34
Diospyros austro-africana (Fire Sticks)	35
Carla Rademan	36
Elephantorrhiza elephatina	36
Elionurus muticus RATSURU	37
Erythrina acanthocarpa	38
Eucomis autumnalis	39
Eulophia welwitschii	40
Felicia muricata	41
Gazania krebsiana	42
Gerbera jamesonii	43
Yeshayran Pillay	44
Gnidia caffra (gifbossie)	44
Haplocarpha lyrata (bietou)	45
Huernia transvaalensis (aasblom)	46
Hemizygia pretoriensis	47
Hypericum aethiopicum (small hypericum)	48
Hypoetis forscoali	49
Hypoxis hemerocallida (yellow star, sterblom)	50
Hypoxis iridifolia	51

Marietjie Lieberberg	52
<i>Hypoxis rigidula</i>	52
<i>Ipomoea crassipes</i>	53
<i>Kyllinga alba</i>	54
<i>Lannea edulis</i>	55
<i>Lantana rugosa</i>	56
<i>Ledebouria revoluta</i>	57
<i>Leonotus microphyllum</i>	58
<i>Myrsine africana</i>	59
Heike Karberg	60
<i>Microchloa caffra</i> (Pincushion grass)	60
<i>Mundulea sericea</i> (Cork Bush)	61
<i>Nerine filifolia</i> (Grass-leaved Nerine)	62
<i>Ochna pretoriensis</i> (Magalies plane)	63
<i>Orbeopsis Lutea</i> or <i>Orbea Lutea</i> (yellow carrion flower)	64
<i>Pelargonium luridum</i> (Stalked-flowered/starburst Pelargonium)	65
<i>Pelargonium pseudofumaroides</i> (False fumitory Storksbill)	66
<i>Pellea colomelanos</i> (hard fern)	67
Brentan Gouws	68
<i>Pentanisia Angustifolia</i>	68
<i>Plectranthus Madagascariensis</i>	69
<i>Polygala Virgata</i>	70
<i>Portulacaria Afra</i>	71
<i>Ruellia Patula</i>	72
<i>Scabiosa Columbaria</i>	73
<i>Scirpus Burkei</i>	74
<i>Senecio Coronatus</i>	75
Marthinus de Jager	76
<i>Senecio oxyriifolius</i>	76
<i>Senna italica</i>	77
<i>Sphenostylis angustifolia</i>	78
<i>Stachys natalensis</i>	79
<i>Stapelia gigantea</i>	80
<i>Themeda triandra</i> ICE	81
<i>Thunbergia aterplicifolia</i>	82
<i>Thunbergia neglecta</i>	83
Jolene Botha	84
<i>Triaspis hypericoides</i>	84
<i>Trichodesma physaloides</i>	85
<i>Triumfetta sonderii</i>	86
<i>Tulbaghia simmleri</i>	87
<i>Vernonia galpinii</i>	88
<i>Vernonia oligocephala</i>	89
<i>Vernonia posciana</i>	90
<i>Xerophyta retinervis</i>	91

INTRODUCTION

In order to complete this step in our fieldwork process, each of us were given five native species to document, as found in the biodiversity gardens at Future Africa and the Javett Art Center.

Both desktop and physical information about the species was gathered, and the plants were monitored and studied in order to obtain a better understanding of both the plants and how they could be effectively used on the site at Mothong.

The following booklet is a compilation of the relevant information obtained.

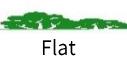
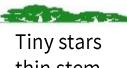
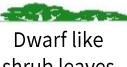
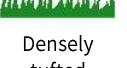
Note: Plants identified can also be viewed on the iNaturalist App:

<https://www.inaturalist.org/projects/biodiversity-garden-javett-art-center>

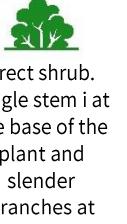
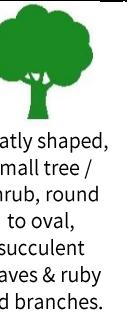
<https://www.inaturalist.org/projects/biodiversity-garden-future-africa>

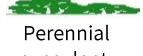
SUMMARY OF FINDINGS

PLANT	SUM FAC	SUM JAC	SHAPE	SIZE (m)	WATER	LIGHT	SOIL	HARDY	GROWTH	EXTRA
Michelle Zolnierzczyk										
<i>Aloe greatheadii</i>	16	16		0.5 x 0.3 (h)			Loam			Flowers in winter, medicinal
<i>Aloe pretoriensis</i>	4	2		0.8 x 1 (h)			Loam			Flowers in autumn to winter
<i>Aloe transvaalensis</i>	0	14		0.5 x 0.3 (h)			Loam			Flowers in summer, medicinal
<i>Aloe verecunda</i>	0	0		0.3 x 0.3 (h)			Loam			Flowers in summer
<i>Ammocharis coranica</i>	3	0		0.3 x 0.3 (h)			Loam			Deciduous bulb, flowers in summer, adhesive applications
<i>Anomatheca /Freesia grandiflora</i>	0	0		0.5 x 0.6 (h)			Loam			Deciduous plant, flower is autumn and dormant in summer
<i>Barleria pretoriensis</i>	1	3		1 x 0.8 (h)			Loam			Flowers in summer
<i>Becium obovatum</i>	0	0		0.3 x 0.3 (h)			Loam			Deciduous plant, flowers in spring
Robyn Smith										
<i>Boophane disticha</i>	0	0		0.4 x 0.3			Sandy			Poisonous. Used for traditional medicine
<i>Bulbine abyssinica</i>	32	36		<0.3			Loam	 		Evergreen
<i>Bulbostylis burchellii</i>	0	1		<0.3			Loam			Evergreen
<i>Chaetacanthus setiger</i>	20	18		0.4 x 1			Loam	 		Evergreen

<i>Clematopsis scabiosifolia</i>	0	1		0.7 – 1.5	 	Poor sandy soil			Deciduous. Used for dental care
<i>Cotyledon orbiculata</i>	18	0		0.4 x 1	 	Loam	 		Evergreen. Medicinal. Butterfly larval host.
<i>Crabbea angustifolia</i>	0	0		<0.3	 	Loam	 		Deciduous, perennial.
<i>Crabbea australis</i>	0	0		<0.3	 	Loam		 / Moderate to fast	Perennial
Ryan Rensburg									
<i>Crassula multicava</i>	11	7		0.4 X 0.6	 	Dry Sandy	Frost - Tender		used for mass planting
<i>Crossandra greenstockii</i>	4	10		0.4 X 0.5	 / 	Well-drained Fertile			Deciduous
<i>Delosperma herbeum/ obtusum</i>	0	26		0.2 X 0.15	 / 	Loamy			Attracts Butterflies
<i>Dianthus mooiensis</i>	1	0		0.5 X 0.6	 / 	Well-drained Fertile	 		Grows close to tufted grass
<i>Dicliptrea eenii</i>	5	4		0.15 X 0.5	 / 	Well-drained Fertile			Savannah
<i>Dicoma anomala</i>	1	0		0.5 X 0.6	 	Well-drained Fertile			Stomach bush
<i>Dicoma zeyheri</i>	1	6		0.4 X 0.3	 	Well-drained Fertile	 		Grassland
<i>Diospyros austro-africana</i>	0	0		1.5	 	Well-drained Fertile			Bird pollinated
Carla Rademan									
<i>Elephantorrhiza elephantina</i>	1	1		0.9 X 0.5	 / 	Sandy	 		Extensive underground root system
<i>Elionurus muticus RATSURU</i>	0	24		0,1 X 0,15-1	 / 	Sandy or rocky	 		Excellent soil binder
<i>Erythrina acanthocarpa</i>	0	0		2 X 1,5	 / 	Sandy or loam	 		Aggressive root system

<i>Eucomis autumnalis</i>	9	0		0,5 x 0,1	 / 	 or 	Sandy or loam	 	Dormant in winter
<i>Eulophia welwitschii</i>	1	0		0,8 x 0,5	 / 		Loam	 	 Sensitive to artificial changes
<i>Felicia muricata</i>	16	6		0,3 x 0,4			Clay or sandy	 	 Fast
<i>Gazania krebsiana</i>	20	7		0.15 x 0.2			Clay or sandy	 	 Short lifespan
<i>Gerbera jamesonii</i>	1	0		0,3 x 0,3			Loam	 	 Fast
Yeshayran Pilla									
<i>Gnidia caffra</i>	0	1		Up to 0.5			Loam	 	 First to sprout pre-spring
<i>Haplocarpa lyrata</i>	7	5		Up to 0.5			Clay	 	 Good ground cover, binds soil.
<i>Huernia transvaalensis</i>	0	0		Up to 0.1			Loam	 	 Susceptible to bugs, can rot
<i>Hemizygia pretoriensis</i>	0	0		Up to 0.3			Loam	 	 Aromatic leaves
<i>Hypericum aethiopicum</i>	0	0		Up to 0.3			Loam	 	 Fast
<i>Hypoetis forscoali</i>	0	0		Up to 0.5			Loam	 	 Attracts bees and butterflies
<i>Hypoxis hemerocallida</i>	8	6		Up to 0.3			Loam	 	 Important medicinal plant
<i>Hypoxis iridifolia</i>	0	4		Up to 0.5			Loam	 	 slow
Marietjie Lieberberg									
<i>Hypoxis rigidula</i>	7	1		0.4(W) x 0.9(H)	 or 	 or 	Loam	 	 Attracts insects; woven into strong rope

<i>Ipomoea crassipes</i>	0	1		1.0 (W) x 1.0 (L)	 	Loam	 		Creeping groundcover
<i>Kyllinga alba</i>	6	4		0.4(H) x 0.7 (W)	 /  or 	Loam	 		Aromatic roots; citronella-like scent
<i>Lannea edulis</i>	2	2		5.0 (H) x 4.0 (W)	 / 	Loam			Well-suited to rockery; berries could entice rodents
<i>Lantana rugosa</i>	1	1		2.0 (H) x 3.0 (W)	 /  or 	Loam	 		Attracts birds and butterflies
<i>Lebedouria revoluta</i>	7	0		0.3 (W) x 0.3 (L)	 /  or 	Loam	 		Attracts bees and butterflies
<i>Leonotis microphyllum</i>	1	0		3.0 (H) x 1.5 (W)	 	Rich loam	 		Primarily bird pollinated
<i>Mercine africana</i>	3	0		2.0 (H) x 2 (W)	 /  or 	Loam	 		Bird pollinated
Brentan Gouws									
<i>Pentanisia Angustifolia</i>	0	0		<0.4m	 	Loam			Wild Verbena. Resprouts annually from a fleshy rootstock after winter
<i>Plectranthus Madagascariensis</i>	10	0		0.3m x 0.45m	 /  	Loamy & Sandy			Used to treat coughs, colds and scabies. Hung around house/ rubbed on sills to ward off flies.
<i>Polygala Virgata</i>	0	7		2m x 1m	 	Well-drained, loamy soil			Used as blood purifiers. Grazed when in reach. Can be used in flower arrangement
<i>Portulacaria Afra</i>	0	1		1.5 – 5m	 /  	Well-drained, loamy soil	 		Spekboom is a 'carbon sink', one of the best plants for absorbing carbon from the atmosphere.

<i>Ruellia Patula</i>	0	13	 Perennial ground cover, spreading shoots, from a woody rootstock.	<0.3m	 or 	Loam		 Fast	Corolla short-lived, falling in the morning. The flowers are showy and it is a lovely groundcover.
<i>Scabiosa Columbaria</i>	8	13	 Perennial with finely divided foliage and flower heads that are rosette shaped on long stalks.	0.4m x 0.3m	 or 	Loam	 	 Fast	Butterflies are attracted to its nectar. Very effective when interplanted with grasses.
<i>Scirpus Burkei</i>	5	4	 Clump Forming. Slender, perennial sedge with long thin bracts carrying inflorescence.	<0.5m	 or 	Sandy Soil		 Fast	Scirpus Burkei is often found in sandy soils in grasslands, usually indicating underground water.
<i>Senecio Coronatus</i>	0	0	 Erect perennial with large, broadly elliptic leaves at base.	<0.4m	 or 	Fertile well-drained soil to fertile soil that retains moisture		 Medium to Fast	The leaves are edible. The <i>Senecio Coronatus</i> is known as a hyperaccumulator
Marthinus de Jager									
<i>Senecio oxyriifolius</i>	6	0	 Fleshy, rounded leaves	0.3-1m high	 /  or  	Well drained soil	 	 Fast	Flowers attract insects
<i>Senna italica</i>	0	0	 Leaves paripinnate, obovate	Up to 0.5m high	 /  or  	Gravelly soils	 	 Fast	Flowers attract insects
<i>Sphenostylis angustifolia</i>	0	0	 Leaves trifoliate	0.3-0.5m high	 / 	Loam	 	 Fast	Flowers attract insects
<i>Stachys natalensis</i>	0	0	 Multi-stemmed and erect, toothed heart shaped leaves	Up to 0.2m high	 /  or  	Loam	 	 Fast	Flowers attract insects
<i>Stapelia gigantea</i>	8	2	 Perennial succulent, erect stems	0.1-0.4.	 or 	Rocky	 	 Moderate	Attracts insects, particularly flies
<i>Themeda triandra ICE</i>	1	4	 Tufted perennial grass	0.3-1m in height	 /  or  	Any, prefers clay	 	 Moderate	Attracts birds

<i>Thunbergia aterplicifolia</i>	1	0		0.3-0.4 m high Softly hairy, oval shaped leaves	 or 	Well drained soil	 		Flowers attract insects
<i>Thunbergia neglecta</i>	9	4		Up to 0.3m high Low growing, scrambling perennial	 or 	Well drained soil	 		Flowers attract insects
Jolene Botha									
<i>Triaspis hypericoides</i>	1	0		0.8 x 0.5 Compact, Straggly shrub with twining shoots	 / 	Loam			Interplant with grasses to support straggly habit
<i>Trichodesma physaloides</i>	4	4		0.5 x 0.6 Rounded perennial herb	 / 	Loam, Sandy, Clay	 		It flowers prominently after wild fires
<i>Triumfetta sonderii</i>	0	0		0.5-1 x 0.6 Compact shrublet	 / 	Loam			Very ornamental
<i>Tulbaghia simmleri</i>	17	0		.25 x 0.4 Clump forming, bulb & strap-like leafed	 	Sandy, loam	 		Fragrant, attracts butterflies and moths
<i>Vernonia galpinii</i>	9	0		0.5 x 0.3 Erect, tufted perennial	 / 	Loam	  		Attracts insects especially bees
<i>Vernonia oligocephala</i>	2	0		0.8-1 x 0.4 Erect, tufted perennial	 	Loam	   		Attracts many insects esp. bees and butterflies
<i>Vernonia posciana</i>	3	0		0.4 x 0.3 Erect, slender multi branched perennial	 / 	Loam	   		Attracts bees
<i>Xerophyta retinervis</i>	2	0		Up to 1.8 Erect stems, Strap leafed	 / 	Loam	   		Attracts butterflies, often found on rocky ridges
Heike Karberg									
<i>Microchloa caffra</i>	7	17		25cm - 50cm Filiform leaves (long, slim)	 	Loam	   		Cut back in winter. Smells like lemongrass.
<i>Mundulea sericea</i>	3	2		0.5m - 7m Oval- or lance-shaped leaves.	 	Loam	   		Attracts birds. Semi-deciduous. Feeds honeybees. Medicinal plant.

<i>Nerine filifolia</i>	8	0		+ 30cm.	 or 	Loam	 prone to attack by amaryllis caterpillars.		Semi-deciduous, Prone to attack by amaryllis caterpillars. Flowers late in season.
<i>Ochna pretoriensis</i>	3	1		+ 1.5m	 /		Sandy loam	 	
<i>Orbeopsis lutea</i>	7	0		5- 15cm	 or 	Sandy Loam (can grow in almost any soil)	 		Flowers have bad odour to attract flies (pollinators). Grows next to rocks. Edible, Pot plant. Grows indoors.
<i>Pelargonium luridum</i>	0	0		14- 65cm	 /		Sandy loam.	 	
<i>Pelargonium pseudofumaroides</i>	0	0		10- 30cm	 /		Well-drained loam.	 	
<i>Pellea colomelanos</i>	5	0		20- 50cm.	 or 	Shallow loam.	 		Black stem & stalks. Medicinal uses. Hard to propagate/ cultivate. Spores are wind-dispersed

PLANT ANALYSIS

Michelle Zolnierzcyk

Aloe greatheadii



Shape: Clump forming succulent can grow individually or in groups. Leaves are triangular to lance-shaped and faintly striped with bands of oblong white spots and sharp dark brown teeth along leaf margins. Leaves are arranged in a basal rosette; each rosette can produce several central inflorescence's with up to 6 branches per stem.

Size: Inflorescence can reach a height of 1.5m tall and the rosette can reach about 500mm x 300mm tall.

Flowering time: Flowers in winter where flowers range from pale pink to bright red and are arranged around a branched flowering stem.

Water requirements: The plant is water wise and needs a limited amount of water.

Sun requirements: Prefers full sun but can survive in semi-shade.

Soil: A well-drained, loamy soil.

Hardy/Tender: Drought and frost resistant but required sunlight.

Growth rate plus ecological relationship:

Moderately fast grower. Pollinators are bees and birds while seeds are dispersed by wind, attracts nectar eating birds and butterflies.

<https://wildflowernursery.co.za/indigenous-plant-database/aloe-greatheadii/>

<http://pza.sanbi.org/aloe-greatheadii-var-davyana>

<https://www.randomharvest.co.za/South-African-Indigenous-Plants>Show-Plant/PlantId/520?Plant=Aloe%20greatheadii>

<http://growwild.co.za/trees/aloe-greatheadii-was-adavyana>

Aloe pretoriensis



Shape: Compact, medium sized succulent. Thin fleshy leaves are arranged in a neat rosette with produce only a single branched inflorescence in winter. Leaves are lance-shaped and pale blue-green in colour with vertical stripes and toothed leaf margins. Dead leaf tips develop a red hue.

Size: Inflorescence ranges from a height of 3-5m tall and the rosette can reach about 800mm x 1000mm tall.

Flowering time: Flowers in late autumn to winter. Flowers are tubular and a bright peach-red colour sometimes with yellow tips and are arranged around a branched flowering stem.

Water requirements: The plant is water wise and needs a limited amount of water.

Sun requirements: Prefers full sun but can survive in semi-shade.

Soil: A well-drained, loamy soil.

Hardy/Tender: Drought and frost resistant but required sunlight. Species is also resistant to veld fires in the sense that the plant will easily regrow part of the damaged plant.

Growth rate plus ecological relationship:

Moderately fast grower. Flowers are rich with nectar which attracts many insects and nectar feeding birds which are also their pollinators.

<https://wildflowernursery.co.za/indigenous-plant-database/aloe-pretoriensis/>

<https://www.randomharvest.co.za/en-us/South-African-Indigenous-Plants>Show-Plant/PlantId/525?Plant=Aloe%20pretoriensis>

<http://pza.sanbi.org/aloe-pretoriensis>

Aloe transvaalensis



Shape: Compact, relatively small succulent. Leaves are lance-shaped and dark green with bands of oblong spots and red-brown teeth along leaf margins. Leaves are arranged in a compact rosette, with a central branched inflorescence in summer.

Size: Inflorescence can reach a height of 2m tall and the rosette can reach about 500mm x 300mm tall.

Flowering time: Flowers in summer where flowers range from pink to light red and are arranged around a branched flowering stem.

Water requirements: The plant is water wise and needs a limited amount of water.

Sun requirements: Prefers full sun but can tolerate semi-shade.

Soil: A well-drained, loamy soil.

Hardy/Tender: Drought and frost resistant but required sunlight.

Growth rate plus ecological relationship:

Fast grower. Pollinators are bees and birds while seeds are dispersed by wind, attracts nectar eating birds and butterflies.

<https://wildflowernursery.co.za/indigenous-plant-database/aloe-zebrina/>

<https://plants.jstor.org/compilation/aloe.transvaalensis>

<https://www.seedsforafrica.co.za/products/aloe-transvaalensis>

<http://tropical.theferns.info/viewtropical.php?id=Aloe+zebrina>

Aloe verecunda



Shape: Upright succulent that forms dense clumps. Thin grass-like fan-shaped leaves are borne on short stems which branch at ground level. Leaves are a dull blue-green colour with tuberculate white spots and soft white teeth along leaf margins.

Size: Plant ranges to about 300mm x 300mm tall.

Flowering time: Flowers in summer. Flowers are tubular and orange-red in colour and sometimes a green-yellow form is found.

Water requirements: The plant is water wise and needs a limited amount of water.

Sun requirements: Ideally full sun.

Soil: A well-drained, loamy soil.

Hardy/Tender: Drought and frost resistant but required sunlight. Species is also resistant to veld fires and re-sprout in spring.

Growth rate plus ecological relationship:

Moderately fast grower. Flowers are rich with nectar which attracts nectar feeding birds which are also their pollinators.

<http://pza.sanbi.org/aloe-verecunda>

<https://wildflowernursery.co.za/indigenous-plant-database/aloe-verecunda/>

<https://www.randomharvest.co.za/en-us/South-African-Indigenous-Plants>Show-Plant/PlantId/731/Plant/Aloe-verecunda/Filter/All>

<https://www.seedsforafrica.co.za/products/aloe-verecunda-indigenous-south-african-succulent-10-seeds>

<https://plants.jstor.org/compilation/aloe.verecunda>

Ammocharis coranica



Shape: This bulb consists of flat broad strap-shaped leaves with very fine-toothed margins that are arranged in a rosette and lie on the ground. The head of the central inflorescence is arranged in a rounded terminal cluster which produces deep pink, sweetly scented flowers.

Size: The inflorescence grows to height of 300mm while the spreading fan of the leaves can reach a length of 30-60mm in diameter.

Flowering time: Flowers mid-spring to summer. Flowers are attractive and tubular deep pink, sweetly scented flowers.

Water requirements: The plant is water wise and needs a limited amount of water.

Sun requirements: Full sun to semi-shade.

Soil: A well-drained, loamy soil.

Hardy/Tender: It can withstand light frost and is drought tolerant.

Growth rate plus ecological relationship:
Slow grower.

<http://pza.sanbi.org/ammocharis-coranica>

<https://wildflowernursery.co.za/indigenous-plant-database/ammocharis-coranica/>

<http://tropical.theferns.info/viewtropical.php?id=Ammocharis+coranica>

http://www.llifle.com/Encyclopedia/BULBS/Family/Amaryllidaceae/32896/Ammocharis_coranica

Anomatheca / Freesia grandiflora



Shape:	Clump forming deciduous plant with flat soft fan-shaped leaves that arise from a central underground spike. A central stem produces large scarlet flowers with bright orange seeds. The plant is dormant in winter.
Size:	The plant grows to a height from 200mm – 600mm in height.
Flowering time:	Flowers in autumn and flowers are large and scarlet in colour.
Water requirements:	The plant is water wise and needs a limited amount of water.
Sun requirements:	Best positioned in semi-shade.
Soil:	A well-drained, rich and loamy soil.
Hardy/Tender:	It is very hard and can withstand light frost.
Growth rate plus ecological relationship:	Fast grower.

<https://www.randomharvest.co.za/en-us/South-African-Indigenous-Plants>Show-Plant/PlantId/688/Plant/Freesia-grandiflora>

<https://wildflowernursery.co.za/indigenous-plant-database/freesia-grandiflora/>

<https://plants.jstor.org/compilation/Freesia.grandiflora>

Barleria pretoriensis



Shape: Compact shrub with slender lanceolate or oblong leaves and tubular white flowers that are borne in profusion in the axils of the leaves.

Size: The shrub grows to a height of 300-800mm tall.

Flowering time: Has a long flowering period in summer. Flowers are white and are borne in profusion in the axils of the leaves.

Water requirements: The plant is water wise and needs a limited amount of water.

Sun requirements: Occurs naturally in semi-shade but is equally happy in full sun.

Soil: A well-drained, rich and loamy soil.

Hardy/Tender: It is a hardy plant.

Growth rate plus ecological relationship:

Fast grower.

<https://wildflowernursery.co.za/indigenous-plant-database/barleria-pretoriensis/>

https://www.botswanaflora.com/speciesdata/species.php?species_id=214920

<https://plants.jstor.org/compilation/barleria.pretoriensis>

Becium obovatum



Shape: Erect and low spreading ground cover with plenty of stems. Leaves are hairy and vary in shape and size with smooth to shallow tooth margins. Flowers are frilly and mauve to white in colour.

Size: The ground cover grows to a height of about 300mm.

Flowering time: Flowers in spring and flowers are frilly and mauve to white in colour.

Water requirements: The plant is water wise and needs a limited amount of water.

Sun requirements: Plant is equally as happy in full sun as in semi-shade.

Soil: A well-drained, rich and loamy soil.

Hardy/Tender: It is drought resistant and adaptive to fires.

Growth rate plus ecological relationship:

Fast grower. Attracts butterflies which are their pollinators.

<http://pza.sanbi.org/ocimum-obovatum>

<https://wildflowernursery.co.za/indigenous-plant-database/becium-obovatum/>

<http://growwild.co.za/trees/becium-obovatum-now-ocimum-obovatum>

<https://www.gardeninginsouthafrica.co.za/small-plants/cat-s-whiskers-katsnor-ufukuzela-becium-obovatum>

Robyn Smith

Boophane disticha



Shape:	Has a compact shape with a large bulb above ground. The leaves are greyish-green, erect and fan shaped and very distinctive. It has a large round head on short stems from the bulb
Size:	The plant gets about 40cm high and the bulb 30cm in diameter.
Flowering time:	Flower head appears in spring before the leaves do. The flowers vary from red to pink in colour and are sweetly scented.
Water requirements:	This is a water wise plant, so minimal water is required
Sun requirements:	Prefers full sun
Soil:	It will do well in well-drained, sandy to loamy soil, with a neutral pH
Hardy/Tender:	It is a very hardy deciduous bulb
Growth rate plus ecological relationship:	Very slow growing

Wildflower Nursery. 2020. Boophane disticha - Wildflower Indigenous Plant Database. [ONLINE] Available at: <https://wildflowernursery.co.za/indigenous-plant-database/boophane-disticha/>. [Accessed 20 February 2020].

Plantinfo - EVERYTHING and ANYTHING about plants in SA. 2020. You searched for Boophane disticha - Plantinfo - EVERYTHING and ANYTHING about plants in SA. [ONLINE] Available at: <http://plantinfo.co.za/?s=Boophane+disticha+>. [Accessed 25 February 2020].

Bulbine abyssinica



Shape:	Has linear fleshy leaves that form a basal rosette. It has an upright form and does not spread.
Size:	The plant gets up to 30cm high
Flowering time:	Flowers mainly in summer and spring. The flowers are yellow in colour.
Water requirements:	Needs moderate to low watering.
Sun requirements:	Prefers full sun
Soil:	Well drained soil, good humus-rich soil will ensure fast growing and regular flowering.
Hardy/Tender:	It is frost and drought tolerant and it can withstand a wide range of temperatures, but in cold areas, the leaves might die back in the winter.
Growth rate plus ecological relationship:	Fast growing

Wildflower Nursery. 2020. Bulbine abyssinica - Bushy Bulbine / Geelkatstert - Wildflower Nursery. [ONLINE] Available at: <https://wildflowernursery.co.za/indigenous-plant-database/bulbine-abyssinica/>. [Accessed 25 February 2020].

Bulbostylis burchellii



Shape: The sedge has a nice compact clump shape and the seed heads are very conspicuous.

Size: The plant gets up to 30cm high

Flowering time: Flowers all year round are brown in colour.

Water requirements: Needs moderate to low watering as it is a water wise plant.

Sun requirements: Prefers full sun

Soil: Does well in loamy soil

Hardy/Tender: It is a very hardy, drought resistant sedge

Growth rate plus ecological relationship:

Fast growing

Flora of Zimbabwe: Species information: *Bulbostylis burchellii*. 2020. Flora of Zimbabwe: Species information: *Bulbostylis burchellii*. [ONLINE] Available at: https://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=111250. [Accessed 25 February 2020].

Wildflower Nursery. 2020. *Bulbostylis burchellii* - Wildflower Indigenous Plant Database. [ONLINE] Available at: <https://wildflowernursery.co.za/indigenous-plant-database/bulbostylis-burchellii/>. [Accessed 25 February 2020].

Chaetacanthus setiger



Shape:	It is a spreading, flat growing groundcover with small round leaves and small starry flowers. The tiny leaves are dark green, opposite, obovate, with axillary leaves sparsely glandular and hairy. Flowers are few in axils
Size:	The plant gets up to 15-40cm high and the width spreads double its height, about 1 meter.
Flowering time:	The starry flowers are white or sometimes blue. Flowering time is in spring, early summer from August to January.
Water requirements:	Needs low watering. It is also classified as water wise.
Sun requirements:	Can grow in full sun or semi shade
Soil:	Needs good loamy soil
Hardy/Tender:	It is a very hardy plant, frost and drought tolerant.
Growth rate plus ecological relationship:	Moderate growth

Wildflower Nursery. 2020. *Chaetacanthus setiger (burchellii)* - Wildflower Indigenous Plant Database. [ONLINE] Available at: <https://wildflowernursery.co.za/indigenous-plant-database/chaetacanthus-setiger-burchellii/>. [Accessed 25 February 2020].

Dyschoriste setigera | PlantZAfrica. 2020. *Dyschoriste setigera* | PlantZAfrica. [ONLINE] Available at: <http://pza.sanbi.org/dyschoriste-setigera>. [Accessed 25 February 2020].

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Clematopsis scabiosifolia



Shape: This shrub is in an upright shape and has drooping flowers and upright fruiting heads

Size: The plant gets up to 0.7 – 1.5m high

Flowering time: Flowers in spring. The flowers are mauve in colour and aromatic.

Water requirements: Needs very low watering. It is also classified as water wise.

Sun requirements: Prefers full sun

Soil: Prefers a poor sandy soil.

Hardy/Tender: It is very hardy, drought tolerant

Growth rate plus ecological relationship:

Fast growing

Wildflower Nursery. 2020. Clematopsis scabiosifolia - Wildflower Indigenous Plant Database. [ONLINE] Available at: <https://wildflowernursery.co.za/indigenous-plant-database/clematopsis-scabiosifolia/>. [Accessed 25 February 2020].

Van Wyk, B.E. & Gericke, N. 2017. Peoples plants – a guide to useful plants of Southern Africa. 2nd ed. Briza Publications: Pretoria.

JSTOR Global Plants: Search Results. 2020. JSTOR Global Plants: Search Results. [ONLINE] Available at: https://plants.jstor.org/search?filter=name&so=ps_group_by_genus_species+asc&Query=Clematopsis+scabiosifolia+. [Accessed 26 February 2020].

Cotyledon orbiculata



Shape:	Has linear fleshy leaves and tubular/bell-shaped flowers are carried in clusters on the ends of an elongated flower stalk.
Size:	The plant gets up to 40-80cm high
Flowering time:	Flowers from June to August. The flowers are usually orange-red but could also be found in yellow of colour.
Water requirements:	Needs low watering.
Sun requirements:	Prefers full sun or semi shade
Soil:	Well drained soil, loamy.
Hardy/Tender:	It is drought and frost tolerant
Growth rate plus ecological relationship:	Fast growing

Cotyledon orbiculata | PLANTBOOK. 2020. Cotyledon orbiculata | PLANTBOOK. [ONLINE] Available at: <http://www.plantbook.co.za/cotyledon-orbiculata/>. [Accessed 25 February 2020].

Plantinfo - EVERYTHING and ANYTHING about plants in SA. 2020. You searched for Cotyledon orbiculata - Plantinfo - EVERYTHING and ANYTHING about plants in SA. [ONLINE] Available at: <http://plantinfo.co.za/?s=Cotyledon+orbiculata+>. [Accessed 25 February 2020].

Crabbea angustifolia



Shape: It is a prostrate, spreading, perennial herb, with trailing stems from a woody rootstock. The flowers are arranged in dense, compound shape and the heads are surrounded by bracts. The bracts are hairy and have long, straight or curved spines. The flowers are tubular to funnel-shaped.

Size: The plant gets up to <30cm high

Flowering time: Flowers in summer. The flowers are white or cream-coloured.

Water requirements: Needs low watering. It is also classified as water wise.

Sun requirements: Prefers full sun or semi shade

Soil: Well drained loamy soil

Hardy/Tender: It is drought and frost tolerant

Growth rate plus ecological relationship:

Moderate growing

Wildflower Nursery. 2020. Crabbea-angustifolia – Prickle head - Wildflower Nursery. [ONLINE] Available at: <https://wildflowernursery.co.za/indigenous-plant-database/crabbea-angustifolia/> [Accessed 25 February 2020].

Crabbea acaulis



Shape: It is a dwarf, stemless perennial that grows ovate leaves in a basal rosette lying flat on the ground. The leaf tip and base tapers broadly or is occasionally rounded. Flowers are funnel shaped.

Size: The plant gets up to <30cm high

Flowering time: Flowers in summer and is cream or lilac in colour with yellow markings

Water requirements: Needs

Sun requirements: Prefers full sun or semi shade

Soil: Well drained loamy soil

Hardy/Tender: It is drought tolerant

Growth rate plus ecological relationship:

Moderate to fast growing

JSTOR Global Plants: Search Results. 2020. JSTOR Global Plants: Search Results. [ONLINE] Available at: https://plants.jstor.org/search?filter=name&so=ps_group_by_genus_species+asc&Query=Crabbea+acaulis+. [Accessed 25 February 2020].

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Ryan Rensburg

Crasula multicava (Fairy Crassula)



Shape: Tiny stars on thin stems held above the leaves

Size: Perennial ground cover – 400mm to 600mm.

Flowering time: Flowers in Spring. Plants will seldom bloom for the entire season as given in the list, but should flower during a period within these parameters. Flower colour pink.

Water requirements: Originates from Low rainfall regions that require less water to survive and thrive.

Sun requirements: The area is in full sun for all or most of the day.

Soil: Dry sandy soil.

Hardy/Tender: Frost tender (cannot survive low winter temps or frost) and is drought tolerant.

Growth rate plus ecological relationship:

Fast grower – considerable variation of growth rate depending on type and species of plant.

Kumbula Indigenous Nursery. (2020). Crassula multicava. [online] Available at: <https://kumbulanursery.co.za/plants/crassula-multicava> [Accessed 27 Feb. 2020].

Crossandra greenstockii (Bushveld crossandra)



Shape: Prostrate. Woody rootstock.

Size: 300mm(height)

Flowering time: Early Summer

Water requirements: Water Wise, well-drained soil.

Sun requirements: Full sun.

Soil: A well-drained, Fertile soil.

Hardy/Tender: Very Hardy.

Growth rate plus ecological relationship:

Fast grower.

Us, A., Experts, G., With, W., Products, S., Portfolio, P. and Library, I. (2020). Crossandra greenstockii - Wildflower Indigenous Plant Database. [online] Wildflower Nursery. Available at: <https://wildflowernursery.co.za/indigenous-plant-database/crossandra-greenstockii/> [Accessed 27 Feb. 2020].

Delosperma herbeum/obtusum (Highveld white vygie)



Shape: Climber. Large Showy flowers. The prostrate branches are quite thick and is covered in small, crowded protuberances.

Size: 300mm tall.

Flowering time: Flowers early summer.

Water requirements: Water wise.

Sun requirements: Prefers full sun but can survive in light shade (will likely flower less).

Soil: Loamy soil.

Hardy/Tender: Very Hardy. Very effective in colder areas but it is important to plant in full sun.

Growth rate plus ecological relationship:

Fast grower.

Us, A., Experts, G., With, W., Products, S., Portfolio, P. and Library, I. (2020). *Delosperma herbeum/obtusum - Wildflower Indigenous Plant Database*. [online] Wildflower Nursery. Available at: <https://wildflowernursery.co.za/indigenous-plant-database/crossandra-greenstockii/> [Accessed 27 Feb. 2020].

Dianthus mooiensis (Frilly Carnation)



Shape: Leaves in widely spaced pairs, narrow, tapering to long point. Ragged fringes.

Size: 80mm long x30mm.

Flowering time: Flowers all year round - Pink or White flowers.

Water requirements: Water wise - Grasslands, Rocky outcrops.

Sun requirements: Prefers full sun.

Soil: A well-drained, loamy soil.

Hardy/Tender: It is very hardy and drought tolerant.

Growth rate plus ecological relationship:

Fast grower.

Us, A., Experts, G., With, W., Products, S., Portfolio, P. and Library, I. (2020). *Dianthus mooiensis (Frilly Carnation)* - Wildflower Indigenous Plant Database. [online] Wildflower Nursery. Available at: <https://wildflowernursery.co.za/indigenous-plant-database/crossandra-greenstockii/> [Accessed 27 Feb. 2020].

Decliptera eenii (Pink Ribbons)



Shape: Glossy dark green leaves. Two-lipped flowers

Size: Perennial – dense clusters.

Flowering time: Flowers from March to August (Early Autumn) – Pink or purple flower.

Water requirements: Evergreen – water wise.

Sun requirements: Semi shade.

Soil: A well-drained, loamy soil.

Hardy/Tender: Fairly Hardy

Growth rate plus ecological relationship:

Fast grower.

Us, A., Experts, G., With, W., Products, S., Portfolio, P. and Library, I. (2020). *Decliptera eenii (Pink Ribbons)*- Wildflower Indigenous Plant Database. [online] Wildflower Nursery. Available at: <https://wildflowernursery.co.za/indigenous-plant-database/crossandra-greenstockii/> [Accessed 27 Feb. 2020].

Dicoma anomala (Stomach bush)



Shape:	Stiff, sharp-pointed bracts, large flower heads and mauve-white florets surrounded by many white bristles.
Size:	Perennial, 300mm.
Flowering time:	Summer. It sprouts annually from an underground tuber. The leaves are lanceolate with serrated, spiky edges. It is dark green on the upper side and the lower side lighter and velvety. Flower heads are terminal, solitary or in small groups.
Water requirements:	Water wise.
Sun requirements:	Prefers full sun.
Soil:	Loamy soil. Well-drained.
Hardy/Tender:	Vey Hardy
Growth rate plus ecological relationship:	Slow grower.

Us, A., Experts, G., With, W., Products, S., Portfolio, P. and Library, I. (2020). *Dicoma anomala (Stomach bush)* - Wildflower Indigenous Plant Database. [online] Wildflower Nursery. Available at: <https://wildflowernursery.co.za/indigenous-plant-database/crossandra-greenstockii/> [Accessed 27 Feb. 2020].

Dicoma zeyheri (Toy sugarbush)



Shape:	Opposite to sub-opposite, oblanceolate, green above, whitish below; tapering to pointed apex; entire margins; sessile. Single, cup-shaped composite flowers with conspicuous, multiple and stacked sharp-pointed calyx leaflets or sepals; the surface of disc-florets has a purple dark and soft textured appearance; appear from late spring through autumn and even into winter.
Size:	150mm to 200mm.
Flowering time:	Appear from late Spring through Autumn and even into Winter.
Water requirements:	Water well in Summer.
Sun requirements:	Prefers full sun but can survive in light shade (will likely flower less).
Soil:	A well-drained, rich and loamy soil.
Hardy/Tender:	It can withstand frost.
Growth rate plus ecological relationship:	Fast grower.

Us, A., Experts, G., With, W., Products, S., Portfolio, P. and Library, I. (2020). Decoma zeyheri - Wildflower Indigenous Plant Database. [online] Wildflower Nursery. Available at: <https://wildflowernursery.co.za/indigenous-plant-database/crossandra-greenstockii/> [Accessed 27 Feb. 2020].

Diospyros austro-africana (Fire Sticks)



Shape: Small shrub that has small leaves. Upright

Size: About 1,15m tall.

Flowering time: Flowers early summer. Attractive small shrub that has small leaves that turn a blackish-red in winter. Tiny red flowers borne from August to November are followed by attractive, edible red to black berries.

Water requirements: Water wise.

Sun requirements: Prefers full sun

Soil: A well-drained, rich and loamy soil.

Hardy/Tender: Very Hardy.

Growth rate plus ecological relationship:

Moderate.

Us, A., Experts, G., With, W., Products, S., Portfolio, P. and Library, I. (2020). *Diospyros austro-africana (Fire Sticks)*

- Wildflower Indigenous Plant Database. [online] Wildflower Nursery. Available at: <https://wildflowernursery.co.za/indigenous-plant-database/crossandra-greenstockii/> [Accessed 27 Feb. 2020].

Carla Rademan

Elephantorrhiza elephantina



Images obtained from: (Waterberg BioQuest, 2014)



(Grobler, 2010)



Common names Eland's bean, eland's wattle, elephant's root (Eng.); baswortel, elandsboontjie, leerbossie, looiersboontjie, olifantswortel (Afr.); mupangara (Shona); mositsane (Sotho, Tswana); intolwane (Xhosa, Zulu).

SA Distribution Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Northern Cape

Shape Low shrub, perennial suffrutex producing unbranched, unarmed, aerial stems. The bark and young branchlets are dark reddish brown. The leaves are dull green, bipinnately compound with 2 -17 opposite or subopposite pairs of pinnae. Flowers are arranged in axillary, solitary or clustered racemes that are golden yellow to pale yellowish white and near to or protruding from ground level

Size Aerial stems can extend up to 0.9 m high, forming from the woody end of an elongate, often thickened rhizome which can be up to 8 metres long. However, the aerial stems represent the canopy of the much larger tree which is below ground and as a result the vast majority of this plant's biomass exists underground.

Flowering time Flowering time is from September to November (Spring, Early Summer) and does not rely on spring rain. One or more of several racemes with open flowers will be found at a time during this time. Flowers open in sequence towards the end of the inflorescence so that not all flowers are open at the same time

Water requirements Plants prefer drainage and naturally occurs in dry areas

Sun requirements These plants prefer full sun

Soil Sandy soil which is either acidic or neutral is preferred

Hardy/ tender Plants are drought resistant and are well adapted for cold and dry winters as a result of their underground biomass

Growth rate plus ecological relationship

These plants are slow growers.

These plants are primarily pollinated by honeybees, can be a food source for beetles and other insects



Image taken by the author (Carla Rademan) on 2020/02/26 at The Future Africa Campus

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Grobler, A. (2010, July). PlantzAfrica. Retrieved from Elephantorrhiza Elephantina: <http://pza.sanbi.org/elephantorrhiza-elephantina>
Ken Fern. (2014). Useful Tropical Plants. Retrieved from Elephantorrhiza Elephantina:

<http://tropical.theferns.info/viewtropical.php?id=Elephantorrhiza+elephantina>

Pl@ntUse. (2015, September 11). Retrieved from Elephantorrhiza Elephantina_(PROTA): [https://uses.plantnet-project.org/en/Elephantorrhiza_elephantina_\(PROTA\)](https://uses.plantnet-project.org/en/Elephantorrhiza_elephantina_(PROTA))

Waterberg BioQuest. (2014, November). Waterberg BioQuest. Retrieved from Elephantorrhiza Elephantina: http://www.waterberg-bioquest.co.za/Flower%20spp%20pgs/ele_elep.html

Elionurus muticus RATSURU



Images obtained from: (FLora of Zimbabwe, 2006)



(FLora of Zimbabwe, 2006)

Common names Draadgras (Afrikaans) Lekkerruikgras (Afrikaans) Suurpol (Afrikaans) Wire grass (English)

Shape This is a perennial, densely tufted, clump-forming grass with erect culms. The mature inflorescences typically curl back in a sickle shape, showing spreading spikelets, covered in long, silvery hairs. These are strongly lemon-scented when crushed.

Size Strands are on average 15 - 100cm long.

Flowering time September to May

Water requirements Plants prefer drainage and naturally occurs in dry areas

Sun requirements These plants prefer full sun

Soil This grass prefers sandy or rocky soil in grassland and open woodland

Hardy/ tender Plants are drought resistant and recovers well from bush fires, regrowing and coming into flower very quickly after the fire

Growth rate plus ecological relationship

These grasses tend to grow fast.

The plant makes an excellent soil binder in sandy soils and has minor local medicinal uses



Image taken by the author (Carla Rademan) on 2020/02/26 at the Javett Art Centre

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Flora of Zimbabwe. (2006, June). Zimbabwe Flora. Retrieved from Elionurus muticus: https://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=109130

Ken Fern. (2019, June). Useful Tropical Plants. Retrieved from Elionurus Muticus: <http://tropical.theferns.info/viewtropical.php?id=Elionurus+muticus>

Erythrina acanthocarpa



Images obtained from: (TreeSA, 2018)

Common names	Tambookie Thorn, Tambuki Thorn (Eng.), Tamboekiedoring, Tamboekiewortel, Wag-'n-Bietjiedoring (Afr.)
Shape	Highly branched, deciduous, thorny shrub. The striking flowers are scarlet with the upper petal edged with green. The leaves are compound with three leaflets and bear numerous hooked, sharp, purplish-black prickles. The brown pods are constricted between the seeds and are armed with prickles. The seeds are also brown
Size	Shrub reaches up to 2m high. Flowers are up to 10cm long and collectively about 12cm wide. Their brown pods are up to 12cm long
Flowering time	Early Summer spring and early summer
Water requirements	These shrubs do not like to be overwatered and it is necessary for them to be kept relatively dry in winter
Sun requirements	These shrubs perform best in a full sun
Soil	Sandy or loam soil, that is well drained and is acidic or neutral
Hardy/ tender	This shrub is notable frost hardy
Growth rate plus ecological relationship	Plant has a moderate growth rate Care should be taken not to plant it alongside paving as the large underground rootstock may cause the paving to lift

References

TreeSA. (2018). TreeSA_Erythrina Acanthocarpa. Retrieved from TreeSA: <https://treesa.org/erythrina-acanthocarpa/>
Turner, S. (2016, September). PlantZAfrica. Retrieved from Erythrina Acanthocarpa: <http://pza.sanbi.org/erythrina-acanthocarpa>

Eucomis autumnalis



Images obtained from: (Notten, 2002)



(Wikipedia, 2019)

Common names	pineapple flower, pineapple lily (E), wildepynappel, krulkoppie (A), ubuhlungu becanti, isithithibala esimathunzi (X), umathunga, ukhokho, umakhandakantsele (Z)
Shape	Deciduous perennial, summer growing bulb. Bulbs are ovoid in shape, and give rise to a basal rosette of large, broad, strap-shaped, soft-textured, fleshy, wavy-edged leaves. The inflorescence is a dense cylindrical raceme on a stout stalk, crowded with up to ±125 starry yellowish-green flowers with a tuft of leaf-like bracts at the tip. The individual flowers are green, yellow green or white
Size	The bulbs are large (8-10cm diameter and the plant is about 12-35 cm long x 6-7.5 cm wide. The inflorescence can push the overall height of the plant up to ±50-60 cm.
Flowering time	Early Summer, primarily. Late Summer Flowers are produced in mid-December to February. After pollination, whilst the seeds are developing inside the swelling ovaries, the flowers turn green and the inflorescence remains decorative into autumn. The fruit is a trilocular capsule containing shiny black rounded seeds)
Water requirements	Needs to be kept well-watered. Although dormant in winter, they will tolerate winter irrigation, and winter rainfall, provided the soil is well drained, but the plant prefers to be kept as dry as possible in winter.
Sun requirements	They perform best in a full sun but will tolerate partial shade.
Soil	Sandy or loam soil, that is well drained and is acidic or neutral is preferred. For optimal growth, fertile, rich soil is required where rotted compost is provided every spring. The plant is well suited to pockets in the rockery.
Hardy/ tender	They are frost hardy, although in regions where frost is expected, it is advisable to plant them in a sheltered position, in very well-drained soil, and to cover them with a thick protective mulch of leaves / straw during dormancy. These plants are not drought resistant due to water requirements are outline above.



Growth rate plus ecological relationship

Plants are slow to mature and are dormant in winter.

Images taken by the author (Carla Rademan) on 2020/02/26 at The Future Africa Campus

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Gardenia. (2017). Eucomis Autumnalis (Pineapple-lily). Retrieved from Gardenia: <https://www.gardenia.net/plant/eucomis-autumnalis-pineapple-lily>

Notten, A. (2002, January). PlantxSA_Eucomis autumnalis. Retrieved from SANBI_PlantxSA: [http://pza.sanbi.org/eucomis-autumnalis-SA-Venues. \(2018\). Eucomis Autumnalis. Retrieved from SA-venues_eucomis-autumnalis: https://www.sa-venues.com/plant-life/eucomis-autumnalis.php](http://pza.sanbi.org/eucomis-autumnalis-SA-Venues. (2018). Eucomis Autumnalis. Retrieved from SA-venues_eucomis-autumnalis: https://www.sa-venues.com/plant-life/eucomis-autumnalis.php)

Wikipedia. (2019, September 20). Eucomis autumnalis. Retrieved from Wikipedia: https://en.wikipedia.org/wiki/Eucomis_autumnalis

Eulophia welwitschii



Images obtained from: (Hölscher, 2009)

Common names	umlungu (Zulu)
Shape	Robust perennial, terrestrial orchid, with underground corms. Leaves long and narrow, and stiffly erect as well as strongly pleated. Leaves are present at flowering time. Inflorescence is dense and short with many flowers (up to 25), lemon yellow with a deep yellow-orange lip and a purple-brown throat.
Size	Plant can be up to 70 cm. The flower spikes grow to about 1,15m tall and mature plant size about 800mm x 500mm. Flowers are usually 7cm in diameter.
Flowering time	Summer. In winter, between April to August, the plants die back, with no leaves visible above the ground
Water requirements	The plant prefers wet sites in summer but needs to be kept dry in winter when it is dormant. However, over watering can result in rotting. Watering in summer should only start when the new leaves appear in spring and stop watering as soon as the leaves turn yellow in autumn. A moist position is generally preferred, but they do not like to have its roots submerged in water for long periods and one must not allow them to dry out completely
Sun requirements	These shrubs perform best in a full sun
Soil	Acid Loam Use a mixture of leaf mould, bark, river sand and garden compost. Always keep a good portion of the original soil on the plants, as this contains the micorrhizal fungi required by the plants. Feed the plants only in the growing season with diluted liquid fertilizer. Alternatively add compost or decaying organic matter when re-potting, which will provide the nutrients.
Hardy/ tender	relatively frost tolerant, since they occur naturally in areas with moderate to strong frost. They are however sensitive to artificial changes in their environment.
Growth rate plus ecological relationship	
Moderate maturing rate. Dormant in winter	



Images taken by the author (Carla Rademan) on 2020/02/26 at The Future Africa Campus

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Candide. (2019). Candide gardening_Eulophia welwitschii. Retrieved from Candide gardening: <https://candidegardening.com/ZA/plants/05dbba69-73fd-48f2-91b5-2b208edcf3f2>

Hölscher, B. (2009, January). PlantzSA_Eulophia Welwitschii. Retrieved from SANBI_PlantzSA: <http://pza.sanbi.org/eulophia-welwitschii>

Felicia muricata



Images obtained from: (Mark Hyde & Palgrave, 2019)

Common names bloublommetjie (little blue flower) or taaibloublommetjie

Shape It is a small perennial subshrub, much branched and sometimes woody at the base. It does not sprout after fire. Leaves needle-like in tufts along the stems. Disc shaped flowers are yellow, surrounded by numerous white ray flowers. The ray flowers are often rolled up in older capitula. It has ray florets around the yellow disc.

Size Between 20 and 50cm

Flowering time Sep - Mar

Water requirements Moderate

Sun requirements These shrubs perform best in a full sun

Soil Clay soils and sand is preferred

Hardy/ tender frost and drought resistant

Growth rate plus ecological relationship

Fast growing

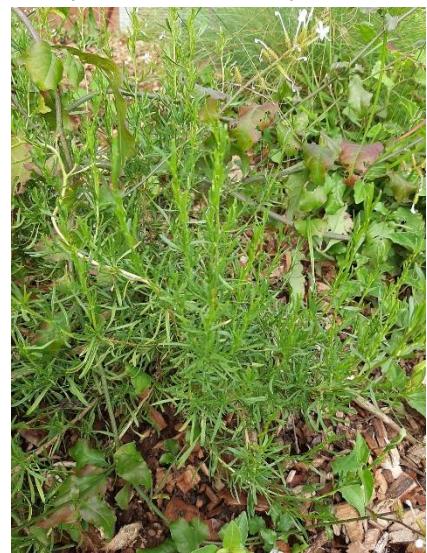


Image taken by the author (Carla Rademan) on 2020/02/26 at The Future Africa Campus

References

Mark Hyde, B. W., & Palgrave, M. C. (2019). Zimbabwe Flora_ *Felicia muricata* . Retrieved from Zimbabwe Flora : https://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=158820

Wildflower Nurser. (2017). Wildflower Nursery_ *Felicia Muricata*. Retrieved from Wildflower Nurser: <https://wildflowernursery.co.za/indigenous-plant-database/felicia-muricata/>

Gazania krebsiana



Images obtained from: (Voigt, 2006)



(Wildflower Nursery, 2019)

Common names terracotta gazania (Eng.); gousblom, botterblom, rooi gazania (Afr.)

Shape

The plants are semi-decumbent (prostrate to ascending), perennial and herbaceous. The root system of *G. krebsiana* is fairly weak and consists of a series of adventitious roots. There is no definite main or taproot meaning the adventitious roots are quite shallow, only about 250 mm deep. The leaves may vary in shape especially when young. Mature leaves are usually compound and divided into small, narrow, regular lobes of about 4-6 on each side. They are rough to the touch, dark shiny green on the upper side and woolly white underneath. The main vein is brownish and prominent on the underside. Leaves are closely spaced on the short shoots. The upper side of the ray florets (the florets at the margin of a flower head in the Asteraceae) is mainly a dark red or orange, with dark brown markings on the lower quarter.



Size

These plants reach a height of about 150mm and 200mm across. The leaf, including the petiole (leafstalk), can reach a length of 170 mm. Flower heads measure 50-60(-90) mm in diameter.

Flowering time

August till January, reaching a peak in October and November. The seeds start maturing from October

Water requirements

Little water is required, and overwatering should be avoided.

Sun requirements

These plants perform best in a full sun

Soil

Alkaline, Neutral Sandy, Clay. Plants seem to tolerate a number of soil types but have a noticeable preference for clay and sandy soil



Hardy/ tender

Hardy and drought resistant

Growth rate plus ecological relationship

They are fast growing fast and manage with very little water. The plants are relatively short-lived, up to about three years depending on various conditions.

Images taken by the author (Carla Rademan) on 2020/02/26
at The Future Africa Campus and the Javett Art Centre respectively

References

Voigt, W. (2006, August). PlantzSA_Gazania krebsiana. Retrieved from SANBI_PlantzSA: <http://pza.sanbi.org/gazania-krebsiana>
Wildflower Nursery. (2019). Wildflower Nursery_Gazania krebsiana. Retrieved from Wildflower Nursery:
<https://wildflowernursery.co.za/indigenous-plant-database/gazania-krebsiana/>

Gerbera jamesonii



Images obtained from: (Johnson, 2016)

Common names Barberton daisy, gerbera daisy (E); rooigousblom (A)

Shape a perennial herb with deeply lobed leaves covered with silky hairs arising from a crown. The striking inflorescence is borne on a long stalk and the outermost petals (ray florets) may be cream, red, orange or pink, while the central flowers (disc florets) are cream

Size up to 300mm

Flowering time Flowering occurs in spring to early summer and in autumn

Water requirements Needs a moderate amount of watering. Rot will occur if the crowns are buried or the drainage is poor. Considered a water-wise plant

Sun requirements These shrubs perform best in a full sun

Soil Sandy, Loam Acid, Neutral grassland in sandy, well-drained soils. Plants do best with frequent feeding, especially in summer, to promote flowering

Hardy/ tender Hardy and drought resistant

Growth rate plus ecological relationship

Fast growing



Images taken by the author (Carla Rademan) on 2020/02/26 at The Future Africa Campus

References

Johnson, I. (2016, September). PlantxSA_Gerbera jamesonii. Retrieved from SANBI_PlantxSA: <http://pza.sanbi.org/gerbera-jamesonii>

Plant Rescue. (2019). Plant Rescue. Retrieved from Plant Rescue_Gerbera Jamesonii: <https://www.plantsrescue.com/gerbera-jamesonii/>

Wildflower Nursery. (2018). Wildflower Nursery_Gerbera Jamesonii. Retrieved from Wildflower Nursery: <https://wildflowernursery.co.za/indigenous-plant-database/gerbera-jamesonii/>

Yeshayran Pillay

Gnidia caffra (gifbossie)



Shape: Compact. Linear, elongated, involute leaves. Woody rootstock

Size: can reach a height of 50cm

Flowering time: Early spring, first to flower. Visible after veld fires.

Water requirements: Needs moderate amount

Sun requirements: Prefers full sun exposure

Soil: Loam

Hardy/Tender: Very hardy

Growth rate plus ecological relationship:

Slow grower, deciduous, grows in grassland & rocky outcrops. Gauteng, North West

<https://wildflowernursery.co.za/indigenous-plant-database/gnidia-caffra/>

Haplocarpha lyrata (bietou)



Shape: Prostate. Stemless herb with upright leaves, in a basal rosette. Yellow flowers borne on short stalks, about 6cm in diameter.

Size: up to 50cm

Flowering time: Summer

Water requirements: Low amount

Sun requirements: Prefers full sun exposure

Soil: Clay

Hardy/Tender: Very hardy, can survive drought, frost, hot, dry and windy conditions. Can tolerate poor soil.

Growth rate plus ecological relationship:

Fast grower, prefers moist places. Evergreen. Gauteng, Free State, Mpumalanga

<https://wildflowernursery.co.za/indigenous-plant-database/haplocarpha-lyrata/>

<https://kumbulanursery.co.za/plants/haplocarpha-lyrata>

***Huernia transvaalensis* (aasblom)**



Shape: tufted, leafless succulent, composed of 4-5 angled pink hued stems with darker markings, 1.5cm thick. Flowers are five -pointed, stubby star-shapes and range between 4-5cm in diameter.

Size: forms in clumps up to 10cm tall, flowers range in 4-5 cm in diameter,

Flowering time: Summer

Water requirements: Needs moderate amount, flowers better with persistent amount during hot conditions. Unwise to leave wet in the cold.

Sun requirements: Prefers semi-shaded areas, between rocks, where it is shaded from direct sunlight during the day.

Soil: loam, well-drained

Hardy/Tender: hardy, but susceptible to cold conditions

Growth rate plus ecological relationship:

Moderate grower, evergreen. Grows in savannah regions, prefers rocky outcrops. Gauteng

<https://wildflowernursery.co.za/indigenous-plant-database/huernia-transvaalensis/>

http://www.llifle.com/Encyclopedia/SUCCULENTS/Family/Asclepiadaceae/30482/Huernia_transvaalensis

Hemizygia pretoriensis



Shape: Upright, multi stem. Lipped flowers, varying from white to pink. Compact.

Size: grows up to 30cm

Flowering time: Spring

Water requirements: Needs low amount

Sun requirements: Prefers full sun exposure

Soil: Loam

Hardy/Tender: hardy

Growth rate plus ecological relationship:

Fast grower, evergreen. Prefers rocky outcrops. Gauteng

<http://redlist.sanbi.org/species.php?species=1704-31>

<https://wildflowernursery.co.za/indigenous-plant-database/synclostemon-pretoriae/>

Hypericum aethiopicum (small hypericum)



Shape: Compact

Size: Compact, up to 30cm tall

Flowering time: Early summer.

Water requirements: Needs low amount

Sun requirements: Prefers full sun exposure

Soil: Loam

Hardy/Tender: Very hardy

Growth rate plus ecological relationship:

Fast grower, evergreen. Grows in grassland. Gauteng, Mpumalanga, Drakensberg, KwaZulu-Natal Midlands

<https://wildflowernursery.co.za/indigenous-plant-database/hypericum-aethiopicum/>

Hypoestis forscoali



Shape: Spreading. Attractive flowers, throats are marked delicately in blue.

Size: up to 50cm tall. Ovate leaves, 2-8cm long. Flowers in axillary clusters.

Flowering time: Autumn

Water requirements: Low amount

Sun requirements: Semi-shade

Soil: Loam

Hardy/Tender: Hardy

Growth rate plus ecological relationship:

Fast growth. Evergreen. Grows in grassland, rocky outcrops. Attracts bees and butterflies. Gauteng, Mpumalanga, Limpopo

https://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=154290

<https://wildflowernursery.co.za/indigenous-plant-database/hypoestes-forskoali/>

Hypoxis hemerocallida (yellow star, sterblom)



Shape: Compact. Straplike leaves and yellow star-shaped flowers. Leaves are 40cm long, arranged one above the other in 3 ranks, broad, stiff and arching outwards with prominent ribs and tapering towards the tips. Lower surfaces are covered densely in white hairs.

Size: up to 30cm

Flowering time: flowers freely in summer.

Water requirements: Low amount

Sun requirements: requires full sun exposure

Soil: well-drained compost rich soil

Hardy/Tender: Hardy, tolerates droughts and frost.

Growth rate plus ecological relationship:

Slow growth. Deciduous. Grows in grassland, rocky outcrops. Gauteng, Free State, KwaZulu-Natal Midlands, Limpopo, North West

<http://pza.sanbi.org/hypoxis-hemerocallidea>

<https://wildflowernursery.co.za/indigenous-plant-database/hypoxis-hemerocallidea/>

Hypoxis iridifolia



Shape: Compact, similar to *Hypoxis hemerocallidea*, but more upright. Straplike leaves and yellow star-shaped flowers. Leaves are 40-50cm long, arranged one above the other in 3 ranks, broad, stiff and arching outwards with prominent ribs and tapering towards the tips. Lower surfaces are covered densely in white hairs.

Size: up to 50cm

Flowering time: Spring

Water requirements: Low amount

Sun requirements: requires full sun exposure

Soil: Loam

Hardy/Tender: Very hardy.

Growth rate plus ecological relationship:

Slow growth. Deciduous. Grows in grassland. Gauteng, Free State, Mpumalanga.

<https://wildflowernursery.co.za/indigenous-plant-database/hypoxis-iridifolia/>

Marietjie Lieberberg

Hypoxis rigidula



Shape: Has underground corm rootstock, soft narrow strap-like leaves (sometimes sparsely, sometime densely hair covered depending on variety, giving the leaves a silvery green appearance), growing from the apex of the corm with leaf base enclosed in a sheath and bending backward. Has erect unbranched flower stem with 2-12 flowers per stalk well below the height of the leaf tips. It can be recognized by its bright yellow symmetrical star-shaped flowers of 6 tepals. Has 3-segment oblong or turbinate capsule fruit that open along a circular split around the middle to reveal black seeds.

Size: The leaves of a mature plant grow to a height of 900mm with the leaves bending backward in all directions creating a spread of 400mm diameter.

Flowering time: Flowers early spring to mid-summer.

Water requirements: Needs a small amount of watering.

Sun requirements: Prefers full sun but can survive in light shade.

Soil: A well-drained, loamy soil.

Hardy/Tender: It can withstand light frost and is drought tolerant.

Growth rate plus ecological relationship:

Moderate grower.

<https://www.operationwildflower.org.za/index.php/albums/bulbs/hypoxis-rigidula-il-8-5305>

<https://plants.jstor.org/compilation/HYPOXIS.rigidula>

<http://www.ville-ge.ch/musinfo/bd/cjb/africa/details.php?langue=an&id=174829>

http://www.africanplants.senckenberg.de/root/index.php?page_id=78&id=3960#

<https://www.randomharvest.co.za/South-African-Indigenous-Plants>Show-Plant/PlantId/356?Plant=Hypoxis%20rigidula>

<https://wildflowernursery.co.za/indigenous-plant-database/hypoxis-rigidula/>

<http://pza.sanbi.org/hypoxis>

<https://repository.up.ac.za/bitstream/handle/2263/26382/08chapter12.pdf?sequence=9&isAllowed=y>

Ipomoea crassipes



Shape: Has brownish black perennial tuberous rootstock (up to $\pm 100\text{mm} \varnothing$), with several prostrate stems (sometimes purple upon their margins) growing from the base up to 750mm long. Smooth to downy unlobed variable shaped and sized leaves (varying from ovate to lanceolate, sometimes cordate 15-80 x 3-28 mm), growing from the stems. Peduncles are most often 1-flowered with variable shaped leafy brackets 5-10mm long with a funnel shaped corolla and lobes of mauve, magenta to pinkish purple colour and dark purple throat, spreading in circular shape. The flower diameter ranges from 35 – 60 mm and the tube is 30 – 45 mm long. Has smooth ovoid fruit capsule, 8-10 mm \varnothing , ending in small point; that splits or bursts open and contains smooth or downy seeds of $\pm 6\text{mm}$ length.

Size: The trailing annual stems grow to a length $\pm 1000\text{mm}$ from a perennial tuberous rootstock.

Flowering time: Flowers early spring to mid-autumn.

Water requirements: Needs a small amount of watering.

Sun requirements: Prefers full sun.

Soil: A well-drained, loamy soil.

Hardy/Tender: It can withstand light frost and is drought tolerant.

Growth rate plus ecological relationship:

Slow grower.

<https://www.operationwildflower.org.za/index.php/albums/general-i-l/ipomoea/ipomoea-crassipes-il-1-7230>

https://plants.jstor.org/compilation/ipomoea.crassipes?searchUri=filter%3Dname%26so%3Dps_group_by_genus_species%2Basc%26Query%3Dipomoea%2Bcrassipes

http://www.africanplants.senckenberg.de/root/index.php?page_id=78&id=2777#

<http://www.bihrmann.com/caudiciforms/subs/ipo-cra-sub.asp>

http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-695X2012000300031

<https://www.inaturalist.org/taxa/347798-Ipomoea-crassipes>

Kyllinga alba



Shape: Has short rhizome that produces numerous grass-like flat or inrolled leaves 50-400 mm long and 2-7 mm broad, as well as numerous sharply triangular and deeply or obscurely ridged smooth stems (100-700 mm long and 0.4-1.7 mm thick) with bulb-like swollen base densely covered with old darkened leaf-sheaths split into black fibres. Stems carry single spherical or short egg-shaped white fading to pale brown inflorescence 6-14 x 6-15 mm in size; with 2-5 leafy bract up to 150 mm long whorled at the base of the head usually bent downwards. Inflorescence has 1-2-flowed 4-6.5 mm long spikelets.

Size: The leaves of a mature plant grow to a height of 400mm with the leaves bending backward in all directions creating a spread of 700mm diameter.

Flowering time: Flowers early spring to mid-summer.

Water requirements: Needs a small amount of watering.

Sun requirements: Prefers full sun but can survive in light shade.

Soil: A well-drained, loamy soil.

Hardy/Tender: It can withstand light frost and is drought tolerant.

Growth rate plus ecological relationship:

Moderate grower.

<http://tropical.theferns.info/viewtropical.php?id=Kyllinga+alba>

http://www.africanplants.senckenberg.de/root/index.php?page_id=78&id=5520#

https://plants.jstor.org/compilation/kyllinga.alba?searchUri=filter%3Dname%26so%3Dps_group_by_genus_species%2Basc%26Query%3Dkyllinga%2Balba

http://www.southern-africanplants.net/plantdata_sub.php?Mspe_ID=3464

Lannea edulis



Shape:

Has large, nodose, wrinkled, woody trailing rootstock, with low-growing wood shrub-like reddish-brown stems 30-300 mm high arranged in radiating pattern, first covered with densely matted woolly hairs and later losing the hairs. Young leaflets are elliptic, tapering to a sharp point with densely matted woolly hair on both surfaces. Adult leaves are leathery rigid and hairless on the upper surface with a rounded and somewhat wedge-shaped base, overall elliptic shape tapering to a wide point. The discoloured adult leaves are exceptionally large compared to the size of the plant growing to be 90-200 x 40-120 mm in size. Inflorescence, a loose branching cluster of flowers with 30 – 100 mm long axis, is almost at ground level appearing some weeks after burning either before the new leaves or with them. Flower sepals are smooth and ovate with red colour in dry state and petals are elliptic, yellowish to pinkish in colour and 2-3 x 1.3-1.5 mm in size. The flowers are replaced by grape-like bunches of fruit of pleasantly sour taste, ripening slowly from pink to scarlet to wine-red to black, with smooth green flesh and a bean-shaped stone inside, each fruit is 11 x 9 x 6 mm in size.

Size:

The deciduous perennial shrub grows to a height of 300-500 mm. The mass of the plant, consisting of subterranean trunks with 130mm ø is mostly buried beneath the soil and therefore can disguise a size of many square meters.

Flowering time:

Flowers late winter to spring.

Water requirements:

Moderate water during spring-summer growing season.

Sun requirements:

Prefers full sun.

Soil:

A well-drained, loamy soil.

Hardy/Tender:

It can withstand light frost and is drought tolerant.

Growth rate plus ecological relationship:

Moderate grower.

<http://tropical.theferns.info/viewtropical.php?id=Lannea+edulis>

<https://wildflowernursery.co.za/indigenous-plant-database/lannea-edulis/>

<http://pza.sanbi.org/lannea-edulis-var-edulis>

https://plants.jstor.org/compilation/lannea.edulis?searchUri=filter%3Dname%26so%3Dps_group_by_genus_species%2Basc%26quer_y%3Dlannea%2Bedulis

http://www.africanplants.senckenberg.de/root/index.php?page_id=78&id=2697#

https://plants.jstor.org/compilation/lannea.edulis?searchUri=filter%3Dname%26so%3Dps_group_by_genus_species%2Basc%26quer_y%3Dlannea%2Bedulis

Lantana rugosa



Shape: Much-branched perennial shrub – unarmed branches with square cross-section, covered in short downy hair when young, becoming rough surfaced when mature. Oblong-ovate shaped leaves with scalloped edge and rugose (wrinkled/crumpled) surface, appear in opposite or 3-4 whorled pattern. Short peduncles bear inflorescence that form spikes of pink/purple flowers developing to small green spherical fruit that become purple once matured.

Size: The branches of a mature plant grow to a height of 2 m.

Flowering time: Flowers early spring to summer.

Water requirements: Needs a moderate amount of watering. Water frequently until plant has become established.

Sun requirements: Prefers full sun but can survive in semi-shade.

Soil: A well-drained, loamy soil.

Hardy/Tender: It is frost and is drought tolerant.

Growth rate plus ecological relationship:

Fast grower.

<http://pza.sanbi.org/lantana-rugosa>

<https://wildflowernursery.co.za/indigenous-plant-database/lantana-rugosa/>

https://plants.jstor.org/compilation/lantana.rugosa?searchUri=filter%3Dname%26so%3Dps_group_by_genus_species%2Basc%26Query%3Dlantana%2Brugosa

http://www.africanplants.senckenberg.de/root/index.php?submitForm=true&page_id=77&preview=true&searchPageID=&searchTextMenue=lantana+rugosa&search=%26%239658%3B&filterRegionIDs%5B%5D=6&filterRegionIDs%5B%5D=1&filterRegionIDs%5B%5D=2&filterRegionIDs%5B%5D=3&filterRegionIDs%5B%5D=5

<https://www.randomharvest.co.za/en-us/South-African-Indigenous-Plants>Show-Plant/PlantId/468/Plant/Lantana-rugosa?Filter=All>

Ledebouria revoluta



Shape: Has 50+ mm ø epigeal bulb (bulb that rests above ground with roots anchoring plant to earth), one to several longer than broad fleshy succulent leaves tapering to a tip (150 – 30 mm in size), all narrowing down to form a collective base. Leaves are variously spotted/blotched with red to purple colour. Has erect many-flowered inflorescence with a total height of 250 mm, including a 150 mm long peduncle. Flower tepals are narrowly oblong in shape and united at base in reflexed position, 3-7 mm long and greenish in colour, sometimes tinged with purple. Roughly spherical shaped capsules, 5+ mm in length.

Size: The leaves of a mature plant grow to a length of 150 mm and grow in a rosette form giving the plant a diameter of 300 mm. The matured inflorescence reaches height of 250 mm.

Flowering time: Flowers spring to autumn.

Water requirements: Needs adequate amount of water in summer growing season.

Sun requirements: Prefers full sun but can survive in light shade.

Soil: A well-drained, loamy soil.

Hardy/Tender: It can withstand light frost and is drought tolerant.

Growth rate plus ecological relationship:

Moderate grower.

<https://kumbulanursery.co.za/plants/ledebouria-revoluta>

<https://www.thegardener.co.za/ledebouria-revoluta/>

<http://pza.sanbi.org/ledebouria-revoluta>

https://plants.jstor.org/compilation/ledebouria.revoluta?searchUri=filter%3Dname%26so%3Dps_group_by_genus_species%2Basc%26Query%3Dledebouria%2Brevoluta

http://www.africanplants.senckenberg.de/root/index.php?submitForm=true&page_id=77&preview=true&searchPageID=&searchTextMenue=ledebouria+revoluta&search=%26%239658%3B&filterRegionIDs%5B%5D=6&filterRegionIDs%5B%5D=1&filterRegionIDs%5B%5D=2&filterRegionIDs%5B%5D=3&filterRegionIDs%5B%5D=5

Leonotus microphyllum



Shape: A 3 m high and 1.5 m wide semi-evergreen soft-woody shrub with velvety light brown woody erect branched stems, square in cross-section. Has green narrowly spear-shaped, tooth-edged leaves with rugose top surface and velvety surface beneath, growing in whorled patterns on erect stems, similar to the *Leonotis leonurus* but smaller in size. Stems are topped with multiple spherical inflorescence in axillary verticils appearing in 3-11 clusters with various shades of orange to brilliant orange-red flowers. Each flower consists of a long slender tube with four stamens, a long and hooded stiff-haired upper lip and a smooth reflexed short lower lip.

Size: The flowered stems of a mature plant grow to a height of 2-3m slightly exceeding the height of the leafed stems.

Flowering time: Flowers in summer.

Water requirements: Provide adequate water during growing season in summer.

Sun requirements: Prefers full sun.

Soil: A well-drained, rich loamy soil.

Hardy/Tender: It can withstand light frost and is drought tolerant.

Growth rate plus ecological relationship:

Fast grower.

http://pza.sanbi.org/leonotis-leonurus
http://www.herbalafrica.co.za/leonotis.html
http://growwild.co.za/trees/leonotis-leonurus
https://www.gardenia.net/plant/leonotis-leonurus-lion-tail
https://witkoppewildflower.co.za/leonotis-leonurus/
https://wildflowernursery.co.za/indigenous-plant-database/leonotis-leonorus/
http://www.africanplants.senckenberg.de/root/index.php?submitForm=true&page_id=77&preview=true&searchPageID=&searchTextMenue=Leonotis+leonurus&search=%26%239658%3B&filterRegionIDs%5B%5D=6&filterRegionIDs%5B%5D=1&filterRegionIDs%5B%5D=2&filterRegionIDs%5B%5D=3&filterRegionIDs%5B%5D=5
Show-Plant/PlantId/164/Plant/Leonotis-leonurus?Filter=All">https://www.randomharvest.co.za/en-us/South-African-Indigenous-Plants>Show-Plant/PlantId/164/Plant/Leonotis-leonurus?Filter=All
https://plants.jstor.org/compilation/leonotis.leonurus?searchUri=filter%3Dname%26so%3Dps_group_by_genus_species%2Basc%26Query%3DLeonotis%2Bleonurus

Myrsine africana



Shape:

Stiff and upright evergreen shrub or small tree with grey/whitish bark has erect brownish woody branchlets with very tiny slight hairs. Lanceolate to ovate dark green leathery leaves with glossy top surface (young leaves are deep red and soft) in whorled pattern, 5-12 x 3-11 mm in size with 1-3 mm long petioles. Upper half of leaf edge is slightly cut with fine teeth. Inflorescence consist of 1-5 flower clusters; flowers have 1-5 mm long pinkish pedicels. Flowers develop to smooth berry fruit (except for small gland-dots on the surface), purple/black on maturity, up to 5mm in diameter.

Size:

The upright shrub can reach a height of 1-2 m at maturity.

Flowering time:

Flowers early spring to summer.

Water requirements:

Needs a moderate amount of watering.

Sun requirements:

Prefers full sun.

Soil:

A well-drained, loamy soil.

Hardy/Tender:

It can withstand light frost and is drought tolerant.

Growth rate plus ecological relationship:

Fast grower.

<http://pza.sanbi.org/myrsine-africana>

<http://www.plantbook.co.za/myrsine-africana/>

<http://tropical.theferns.info/viewtropical.php?id=Myrsine+africana>

<https://wildflowernursery.co.za/indigenous-plant-database/myrsine-africana/>

<http://plantinfo.co.za/plant/myrsine-africana/>

<http://growwild.co.za/trees/myrsine-africana>

http://www.africanplants.senckenberg.de/root/index.php?submitForm=true&page_id=77&preview=true&searchPageID=&searchTextMenue=myrsine+africana&search=%26%239658%3B&filterRegionIDs%5B%5D=6&filterRegionIDs%5B%5D=1&filterRegionIDs%5B%5D=2&filterRegionIDs%5B%5D=3&filterRegionIDs%5B%5D=5

https://plants-jstor-org.uplib.idm.oclc.org/compilation/myrsine.africana?searchUri=filter%3Dname%26so%3Dps_group_by_genus_species%2Basc%26query%3Dmyrsine%2Bafricana

Heike Karberg

Microchloa caffra (Pincushion grass)



Author's photographs (Heike Karberg)

Description the microchloa is a perennial (grows in yearly cycles - does not die after 1 year cycle, but re-flowers seasonally) “very dainty grass” (wenzel, n.d.) With long slim (filiform) leaves growing into dense tufts/clumps often with curly-ended fibrous dead leaf sheaths. The inflorescence (cluster/arrangements of flowers) on the plant forms curly spikes. The spikelets form on one side of the flower spikes. This grass is considered a ‘tough’ and hardy grass that is water wise (uses low-moderate amounts of water). When crushed/broken off, the leaves/sheaths smell like lemongrass. (wenzel, n.d.; cope, n.d.)

Size 250 - 500mm high, 300mm - 500mm diameter.

Flowering time early summer - white flowers.

Water requirements low. “water-wise” (wenzel, 2020)

Sun requirements full sun

Soil loam. Shallow soil.

Hardy/tender very hardy

Growth rate plus ecological relationship

Fast growth rate. Found in Gauteng, Free State, Mpumalanga, Limpopo regions

References

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Mundulea sericea (Cork Bush)



Author's photographs (Heike Karberg)



WildFlowerNursery.co.za (n.d.). Mundulea Sericea. [image] Available at: https://wildflowernursery.co.za/wp-content/uploads/2015/07/Mundulea_sericea_500X500.jpg [Accessed 20 Feb. 2020].

PlantZAfrica.com (2008). Mundulea Sericea flowers and leave. [image] Available at: <http://pza.sanbi.org/sites/default/files/images/plants/10626/munduleasericea1.jpg> [Accessed 20 Feb. 2020].

Description	An attractive shrub/small tree with a pale, cork-like furrowed bark. It usually comprises of a single upright stem with a bushy, “much-branched” crown of “delicate silver-grey to light green foliage” (Bester and Grobler, 2008). Young shrubs and branches usually have a smoother greenish-yellow stem and are tough and pliant. Leaves are pale silvery green oval- or lance-shaped (Bester and Grobler, 2008). Its large pea-like flowers gather in clusters and colours range from a “rich violet, mauve and lilac or even white” (Bester and Grobler, 2008).
Size	Approximately 0.5m - 7m high. (Bester and Grobler, 2008)
Flowering time	Spring and Early Summer (October - February).
Water requirements	Moderate water requirements
Sun requirements	Full sun
Soil loam.	Loam.
Hardy/tender	Frost and drought resistant - very hardy.
Growth rate plus ecological relationship	Moderate growth rate. The flowers attract birds and insects (like different types of butterflies), like the “Marico, short-billed and greater double-collared sunbirds” (Bester and Grobler, 2008)

References

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Nerine filifolia (Grass-leaved Nerine)



Author's photographs (Heike Karberg)

Description	a semi-deciduous, perennial floriferous bulbous plant that produces delicate cyclamen bright pink flowers and dark pink flower buds in summer (wenzel, n.d.; herman, 2012). The umbellate inflorescence characteristically bears up to 9 flowers and has an approximate diameter of 150mm (herman, 2012). The erect stalk/stem is up to 300mm long and covered with fine white hairs. Leaves are filiform (slender and thread-like).
Size	bulb size +- 30cm. Plant height is less than
Flowering time	summer (january - april).
Water requirements	soil must be kept moist.
Sun requirements	dappled light to full sun
Soil	loam
Hardy/tender	hardy but prone to attack by amaryllis caterpillars
Growth rate plus ecological relationship	moderate - fast. Pollinated by bees and butterflies

References

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Ochna pretoriensis (Magalies plane)



Author's photographs (Heike Karberg)

Description

This “much-branched evergreen shrub” (or small tree) bears small, fragrant yellow “buttercup-like” flowers in Spring (September - November) before the leaves appear (Wenzel, n.d.). “Flowers are solitary or arranged sometimes in pairs on the tips of short branchlets” (Grunyuza et al, 2008). “Leaves are dark green, shiny, tardily deciduous” with a broad, rounded shape becoming narrower at the tip (ovate, obtuse and even oblong shape) (Grunyuza et al, 2008). “Stems and branches have a rough brown bark, flaking in thin, small, longitudinal strips” with the main stem being “pale grey to white and covered in white lenticels” (Grunyuza et al, 2008).

Size

+- 1.5m (sometimes up to 2m) high.

Flowering time

Spring (September - November)

Water requirements

Water wise

Sun requirements

Full sun.

Soil

Sandy loam

Hardy/tender

Hardy - frost resistant.

Growth rate plus ecological relationship

Moderate growth rate. “It is found on rocky outcrops on mainly N-facing slopes, at altitudes between 500 and 1520m” (Grunyuza et al, 2008) commonly in Pretoria (Gauteng), Limpopo, Mpumalanga and North West (northern South Africa) in Savannah and Grassland biomes near rocky outcrops (Wenzel, n.d.). Due to its fragrance and attractive fruit, the plant attracts many birds and insects (Grunyuza et al, 2008).

References

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Orbeopsis Lutea or Orbea Lutea (yellow carrion flower)



Author's photographs (Heike Karberg)

Description A perennial succulent without obvious leaves (Bester, 2010). Stems are usually crowded and erect with jagged teeth protruding at acute angles (Bester, 2010). “When growing in shade the stems may become sprawling and will tend to be evenly green whereas those growing in full sun are mottled maroon to purple on a green background” (Bester, 2010). These spreading succulent stems are commonly found growing near/next to rocks or in the semi-shade of other trees. The fleshy mustard-yellow flowers are produced in clusters of 6-24 (Wenzel, n.d.; www.llifle.com, 2005). The succulent flowers in summer and the flowers emit a foul odour to attract various flies for pollination. “The flowers are very variable in colour — in South Africa in various shades of yellow; in Botswana golden yellow to orange; and in Zimbabwe dark orange to almost maroon” (Bester, 2010).

Size 5cm - 15cm. Clusters of stems that spread across +- 0,5m² to 1m² areas.

Flowering time Summer (November - April)

Water requirements Low

Sun requirements Semi-shade to full sun

Soil Sandy, well-drained loam. (But can grow in almost any soil)

Hardy/tender Very Hardy - drought and cold resistant: “the succulent nature of the plants enables them to become dormant during a part of the year, making use of stored food reserves” (www.llifle.com, 2005).

Growth rate plus ecological relationship

Moderate - slow. “This species occurs in scrub, savanna (acacia and mopane veld) and grassland on rocky outcrops and on hillsides in full sun or semi-shade where it forms large stands with isolated clumps” and often grows with *Eulophia petersii* (www.llifle.com, 2005). The plant is edible and is often grazed by cattle and eaten by tribes in the areas to which it is native (Bester, 2010; www.llifle.com, 2005). Flowers emit a foul smell reminiscent of rotting fish to attract flies which are the pollinators of this plant (www.llifle.com, 2005; Bester, 2005). “When the potential pollinators are closer to the flowers the vibratile hairs, which dangle in the slightest breeze, draw further attention by their movement. These mechanisms sometimes mislead the flies to such an extent that they lay their eggs on the flowers” (Bester, 2005).

References

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Pelargonium luridum (Stalked-flowered/starburst Pelargonium)



WildFlowerNursery.co.za (n.d.). Pelargonium Luridum. [image] Available at: https://wildflowernursery.co.za/wp-content/uploads/2015/07/Pelargonium_luridum_500X500.jpg [Accessed 20 Feb. 2020].

Hankey, A. (2020). Pelargonium luridum plant in flower, Gauteng, South Africa. [image] Available at: <http://pza.sanbi.org/sites/default/files/images/plants/12257/Pelargonium%20luridum%20plant%20in%20flower%20MAROPENG%20ANDREW%20HANKEY.jpg> [Accessed 20 Feb. 2020].



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Hankey, A. (2020). Pelargonium luridum flower head, Maropeng, Gauteng, South Africa. [image] Available at: <http://pza.sanbi.org/sites/default/files/images/plants/12257/Pelargonium%20luridum%20flowers%20MAROPENG%20ANDREW%20HANKEY.jpg> [Accessed 20 Feb. 2020].

Description A tuberous perennial deciduous pelargonium with various leaf shapes and 5-60 pinkish-beige/-cream flowers that flower in spring and early summer (November - February) (Wenzel, n.d.; Nkadieng, 2020). “The leaves are in a **basal rosette** and show variation in leaf-shape on a single plant. New leaves are almost round, or slightly lobed; they become **more dissected into lobes** as they mature, and are softly hairy.” (Nkadieng, 2020). Flowers bloom in a large radial inflorescence atop a long upright stalk. Leaves range in shape “from filiform to round and deeply lobed” (Wenzel, n.d.). The pelargonium luridum grows amongst grasses in moist areas.

Size 140-650mm.

Flowering time Spring and early summer (November - February).

Water requirements Relatively high - Keep soil damp/moist.

Sun requirements Full sun.

Soil Sandy loam.

Hardy/tender Very hardy - dies back end of summer, dormant in winter in order to survive cold of its habitat’s winter (Nkadieng, 2020).

Growth rate plus ecological relationship

Fast-growing. Adapted to wind dispersal due to spiral structure on seed. “The roots are used in the treatment of diarrhoea and flowers as a love charm.” (Nkadieng, 2020). It grows in moist areas of “Gauteng, Mpumalanga, KwaZulu-Natal Midlands” (Wenzel, n.d.).

References

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Pelargonium pseudofumarioides (False fumitory Storksbill)



[WildFlowerNursery.co.za](https://wildflowernursery.co.za/wp-content/uploads/2016/02/Pelargonium_pseudofumrioides_500X500.jpg) (2016). Pelargonium pseudofumrioides. [image] Available at: https://wildflowernursery.co.za/wp-content/uploads/2016/02/Pelargonium_pseudofumrioides_500X500.jpg [Accessed 20 Feb. 2020].

[WildFlowerNursery.co.za](https://wildflowernursery.co.za/wp-content/uploads/2016/02/Pelargonium_pseudofumariooides_500X500.jpg) (2016). Pelargonium pseudofumariooides. [image] Available at: https://wildflowernursery.co.za/wp-content/uploads/2016/02/Pelargonium_pseudofumariooides_500X500.jpg [Accessed 20 Feb. 2020].

Description	Pelargonium pseudofumariooides is a small prostrate herb with a woody taproot and the branches are normally spreading. It is a very effective groundcover. It prefers a well-drained soil and is frost hardy." (Wenzel, n.d.) The hairy stems of this evergreen perennial plant spread and disperse, forming a mat-like ground cover. The finely dissected pinnately lobed hairy dark green leaves make it an attractive plant (Wenzel, n.d.). Flowers bloom on stalks in groups of 2 - 10 flowers, with colours ranging from pink to pale cream (Wenzel, n.d.).
Size	10cm-30cm.
Flowering time	Summer (November - January).
Water requirements	Low - moderate (Water wise_.
Sun requirements	Full Sun.
Soil	Well-drained loam.
Hardy/tender	Very hardy - frost resistant
Growth rate plus ecological relationship	Fast-growing. It grows in grassland habitats of "Gauteng, Mpumalanga, KwaZulu-Natal, Eastern Cape" in well-drained soil and should be planted where other plants cannot overrun it (Wenzel, n.d.).

References

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Pellea colomelanos (hard fern)



Author's photographs (Heike Karberg)

Description	This attractive plant is widespread in the summer-rainfall areas of South Africa and is the most common fern in Gauteng. It occurs throughout the country." (Kondlo, 2012). The hard fern is fairly small and grows up to 50cm in size. The leaves are leathery in texture and grow on bipinnate fronds (bipinnate meaning: "divided into primary divisions [pinnas] which are again divided into secondary divisions [pinnules]"") (Kondlo, 2012). Unlike most ferns, the hard fern lacks hairs. "The rigid, blue-green fronds are up to 350 mm long and are held erect on strong, shining black" leaf stalks (or 'stipes') (Kondlo, 2012). It is a very hardy evergreen plant that grows "in grasslands, between and against rocks in almost soil-less conditions, in the blazing sun on bare hillsides, as well as in cool shady areas." (Wenzel, n.d.).
Size	+- 50cm
Flowering time	No flowers
Water requirements	Low (water wise).
Sun requirements	Semi-shade - full sun.
Soil	Shallow loam.
Hardy/tender	Very Hardy - drought resistant.

Growth rate plus ecological relationship Moderate growth rate.

The fern's spores are distributed by air/wind and therefore can travel over long distances. The distribution of the species is therefore vast across the country/Southern Africa - reducing its endemic growth in a particular region (Kondlo, 2012).

Multi-purpose medicinal uses: "Burnt leaves are smoked for headaches, chest colds, asthma and head colds. Decoctions of rhizomes are traditionally used to treat boils, mouth or nasal ulcers and intestinal parasites. Boiled roots and rhizomes are used as poultices for abscesses, while milk decoctions of rhizomes are administered to frightened children at night and for internal sores. Tea made from this species was an early Cape remedy for colds and chest ailments." (Konlido, 2012).

It grows in the rocky outcrops near rocks (that keep soil moist) in the grassland biome in "Gauteng, Free State, Mpumalanga" (Wenzel, n.d.).

References

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Brentan Gouws

Pentanisia Angustifolia



Photograph Source: Waterberg BioQuest (2019)

Description: *Pentanisia Angustifolia*, commonly known as the Wild Verbena, is a perennial plant that sprouts annually to a height of 30cm from a woody stock. The Wild Verbena can be both single-stemmed and multi-stemmed. The inflorescence is made up of a dense bundle of purple flowers. Individual flowers in the *Pentanisia angustifolia* flowerhead have long thin blue corolla tubes, opening at the narrow throat into five slender, star-like lobes.

Size: <.03m

Flowering time: Spring

Water requirements: Low. Water wise plant

Sun requirements: Full Sun

Soil: Loamy Soil

Hardy/tender: Very Hardy

Growth rate: Fast

Ecological relationship: Found in the Gauteng, Mpumalanga and Limpopo provinces. Habit is mainly grassland and rocky outcrops.

References

Anon., 2019. Waterberg BioQuest. [Online]

Available at: http://www.waterberg-bioquest.co.za/Flower%20spp%20pgs/pen_angu.html

[Accessed 25 February 2020].

Anon., 2020. Wildflower Nursery. [Online]

Available at: <https://wildflowernursery.co.za/indigenous-plant-database/pentanisia-angustifolia/>

[Accessed 24 February 2020].

Plectranthus Madagascariensis



Photograph Source:

Author's photographs: Brentan Gouws

Description:

Commonly known as the Thicket Spurflower and also the Candle Plant. *Plectranthus Madagascariensis* is an evergreen, herbaceous plant that is aromatic and semi-succulents. The plant has attractive leaves of varying sizes and has a characteristic white margin around them. It bears white, mauve or purple flowers from February to November. It can be used well as a groundcover. The plants is best suited to semi-shaded or shaded areas. It attracts insects and butterflies and therefore also birds to the garden. The plant is used in traditional medicine to treat coughs, colds and scabies.

Size:

0.3m x 0.45m (h) x (w)

Flowering time:

February - November

Water requirements:

Moderate

Sun requirements: Shade to Semi-Shade

Soil: Loamy Soil & Sandy Soil

Hardy/tender: Fairly Hardy

Growth rate: Fast

Ecological relationship: Has a remarkably widespread distribution. Habitat include shaded subtropical thicket, on dry rocky outcrops and forest margins.

References

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[Accessed 24 February 2020].

Polygala Virgata



Photograph Source:

Author's photographs: Brentan Gouws

Description:

Commonly known as the Purple Broom. The plant is an erect, evergreen shrub. A single stem is formed at the base of the plant and slender hairless branches occur at the top. The plant grows up to a height of about 2m. The main characteristic of the plant is the deep purple magenta flowers that are found at the end of the branches. The flower is enclosed by 2 large, purple, bonnet-like bracts and streaked with darker veins. These open to show that the flower has a purple tuft of tiny hairs at the top of the lower keeled petal. The outer two petals surround the lowest petal like a bonnet. The purple tuft of hairs is a distinctive characteristic to identify all polygalas. The leaves and stems were traditionally prepared and used as blood purifiers.

Size:

2m x 1m (h) x (w)

Flowering time:

Summer. September to February

Water requirements:

Moderate

Sun requirements:

Full Sun

Soil:

Loamy Soil, well drained

Hardy/tender:

Very Hardy

Growth rate:

Fast

Ecological relationship:

Mainly found in the Mpumalanga, Drakensberg, Eastern Cape, KwaZulu-Natal Midlands and Limpopo regions. Habitat usually includes grassland and rocky outcrops.

References

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[Accessed 24 February 2020].

Portulacaria Afra



Photograph Source: Author's photographs: Brentan Gouws

Description: Best known as the Spekboom. The plant is an evergreen, succulent shrub, but can also be found as a small tree that can grow up to a height of 5m. The Spekboom is hardy, evergreen, neatly shaped plant with round, succulent leaves and ruby red branches. The Spekboom is greatly beneficial to the planet as it is a 'carbon sink', one of the best plants for absorbing carbon from the atmosphere.

Size: Shrubs can appear almost as a ground cover plant with a height of around 10cm. In its tree form it can grow up to 5m high.

Flowering time: From October to January, after rain, it is covered in clear pink to rosy mauve, nectar rich flowers. The papery 3-winged ornamental fruits resemble pinkish lanterns.

Water requirements: Low

Sun requirements: Full sun to semi-shaded

Soil: Loamy, well-drained soil

Hardy/tender: Fairly hardy and Semi-frost resistant.

Growth rate: Medium to Fast Growing.

Ecological relationship: The distribution of the plant is greatly varied. Its habitat include warm climates on rocky slopes.

References

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Available at: <http://pza.sanbi.org/portulacaria-afra>
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[Accessed 24 February 2020].

Ruellia Patula



Photograph Source:

Author's photographs: Brentan Gouws

Description: In Afrikaans it's known as the Skilpadviooltjie. It is a perennial groundcover plant with annual spreading shoots. The flower/shoot colour can be white, mauve or purple. It is not an aggressively growing groundcover plant so it should be planted close to each other.

Size: <30cm

Flowering time: Summer months.

Water requirements: Low. Water-wise plant.

Sun requirements: Best in Semi-shade

Soil: Loamy soil

Hardy/tender: Very Hardy

Growth rate: Fast growing.

Ecological relationship: Found mainly in the Gauteng, Mpumalanga and Limpopo provinces. Habitat include grassland and rocky outcrops.

References

Anon., 2020. JSTOR: Global Plants. [Online]
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Anon., 2020. Wild Flower Nursery. [Online]
Available at: <https://wildflowernursery.co.za/indigenous-plant-database/ruellia-patula/>
[Accessed 24 February 2020].

Scabiosa Columbaria



Photograph Source:

Author's photographs: Brentan Gouws

Description: Known as the Bitterbos in Afrikaans. It is an evergreen, perennial plant with slender branches. The basal leaves has a characteristic rosette formation. The inflorescences are borne on multi-stemmed stalks which can grow up to 75cm in height. Flowers are either white or pink.

Size: 0.4m x 0.3m (h) x (w)

Flowering time: Spring and Summer months. September to January

Water requirements: Moderate

Sun requirements: Full sun.

Soil: Loamy soil.

Hardy/tender: Very Hardy. Semi-frost resistant.

Growth rate: Fast

Ecological relationship: Mainly found in the Gauteng, Free State and Mpumalanga province. Habit is mainly comprised of grassland areas.

References

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Available at: <https://www.randomharvest.co.za/en-us/South-African-Indigenous-Plants>Show-Plant/PlantId/320/Plant/Scabiosa-columbaria-Blue>

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Available at: <https://wildflowernursery.co.za/indigenous-plant-database/scabiosa-columbaria/>

[Accessed 24 February 2020].

Scirpus Burkei



Photograph Source:

Author's photographs: Brentan Gouws

Description: Afrikaans name is the Biesie. It is a robust, tufted, perennial sedge plant with very slender and long, thin bracts carrying the inflorescence. The presence of *Scirpus Burkei* in sandy soils often indicates the presence of underground water.

Size: <50cm

Flowering time: Summer Months

Water requirements: Moderate

Sun requirements: Full Sun.

Soil: Sandy Soils

Hardy/tender: Very Hardy

Growth rate: Fast

Ecological relationship: Mainly found in Gauteng, North-West, Mpumalanga and the Free State. Grassland is its main habitat.

References

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Available at: <https://wildflowernursery.co.za/indigenous-plant-database/scirpoides-burkei/>

[Accessed 24 February 2020].

Senecio Coronatus



Photograph Source: Left: (Adams, 2007), Middle and Right: (Schutte & Siebert, 2019)

Description:	Commonly known as the Woolly Grassland Senecio, or the Sybossie in Afrikaans. Erect perennial with large, broadly elliptic leaves. The leaves are mainly found at the base of the plant, they are leathery with the margins minutely scalloped or finely toothed. Contains a large underground rootstock, with a woolly covering. Capitula up to 20 in a terminal cluster, with numerous slender yellow ray florets. The bright yellow flowers are carried in a corymb shape, meaning that the inflorescence has the flowers growing in such a way that the outermost are borne on longer stalks than the inner, bringing all flowers up to a common level.
Size:	<40cm for the leaves. Capitula can grow to a higher height.
Flowering time:	August - November
Water requirements:	Moderate
Sun requirements:	Full Sun.
Soil:	Moderately fertile well-drained soil or in moderately fertile soil that retains some moisture. Plants grown in pots in colder climates need fertile, well-drained soil with added grit and leaf mould.
Hardy/tender:	Very Hardy
Growth rate:	Fast
Ecological relationship:	The leaves are edible and has been used as a vegetable with mealie meal. The <i>Senecio Coronatus</i> is known as a hyperaccumulator. They can accumulate and tolerate unusually high levels of heavy metals in the soil and have adapted to survive in these conditions. <i>Senecio Coronatus</i> is especially tolerant and adapted to accumulate Nickel in the soil.

References

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[Accessed 24 February 2020].

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Schutte, N. & Siebert, S., 2019. Mountainlands Nature Reserve. [Online]
Available at: https://www.mountainlands.co.za/wp-content/uploads/2019/09/VF_Heavy-metal-fans_compressed.pdf
[Accessed 24 February 2020].

Marthinus de Jager

Senecio oxyriifolius



Shape:

A fleshy, perennial herb, 0.3–1 m high, with a creeping tuberous rhizome. Stem is erect, smooth and hairless (glabrous), fleshy with leaves crowded towards the base. The leaves are rounded and resemble those of nasturtium, fleshy or somewhat fleshy, with a rubbery texture and about 50–90 mm in diameter, on long, ± 150 mm long stalks, pale green or grey-green. The leaves have serrated margins that are thick and leathery, and the veins are green-yellow.

Size:

Fleshy, perennial herb, 0.3–1 m high.

Flowering time:

Spring and summer (Sep.-May). Each stem ends in a tall, slender, branched flowering stem (peduncle) that is topped with a loose branching cluster (lax panicle) of bright yellow, discoid flower heads. It is a prolific bloomer producing abundant flowers.

Water requirements:

Drought tolerant, low maintenance and water-wise.

Sun requirements:

Full sun or semi-shade.

Soil:

Well-drained soil, arid gardens or among rocks.

Hardy/Tender:

Moderately frost hardy, should survive outdoors at -10°C.

Growth rate plus ecological relationship:

Easily propagated by cutting rhizome into pieces or stem cuttings.

Extra:

Flowers attract insects such as bees.

Uses:

None.

<http://pza.sanbi.org/senecio-oxyriifolius>

Senna italica



Shape: Prostrate or ascending perennial herb or small shrub growing from a woody base. Leaves paripinnate with 4-8 pairs of leaflets and a small reddish gland between each leaflet pair on the rachis; leaflets obovate with a somewhat asymmetric base, up to 3.5×2 cm, the ultimate pair largest, slightly pubescent or hairless above, more densely hairy on the margin and midrib below; apex often mucronate. Inflorescences axillary, many-flowered, 7-26 cm long. Flowers yellow to orange. Pod often somewhat curved, flat with distinct raised crests over the seeds, dehiscent.

Size: Up to 500 mm high.

Flowering time: Early summer. Bright yellow flowers gradually turn brown with age

Water requirements: Water-wise.

Sun requirements: Prefers full sun.

Soil: In rocky and gravelly soils in dry open woodland.

Hardy/Tender: Hardy.

Growth rate plus ecological relationship:

Fast grower.

Extra: Flowers attract insects such as bees.

Uses: Used to treat fever, barrenness in women, and prevent sorcery or evil. Zulu people use it to reduce swelling in animals.

<https://wildflowernursery.co.za/indigenous-plant-database/senna-italica/>

https://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=127070

Sphenostylis angustifolia



Shape:	Lovely green perennial shrublet with an extensive woody rootstock that decorates the Highveld with its unusual pink flowers. It is one of the many so-called pre-rain flowers which start flowering in early spring irrespective of rainfall, using stored-up resources and water that the plant accumulated during the previous growing season. Stems become woody as the plant ages and are sparsely hairy, the hairs lying flat. The plant possesses an extensive and deep root system. The leaves are bright green and trifoliate, the terminal leaflet somewhat larger than the other two, with a shallowly channelled petiolule (stalk of leaflet) which is also much longer than the lateral ones; venation is very prominent below. Stipules are ovate-acuminate, small.
Size:	300-500 mm long stem from a thick and woody perennial rootstock
Flowering time:	Late September to November. Flowers are relatively large, up to 20 mm long, arranged in a loose cluster at the top of the flower stalk, which is 40-80 mm long. Petals of this butterfly-flower are a bright cerise-pink, often with a whitish or yellowish centre. Pods are 80-120 mm long, dehiscing longitudinally, rendering two spirally twisted valves.
Water requirements:	Needs a moderate amount of watering. Flower accumulates water during the previous year's growing season.
Sun requirements:	Prefers full sunlight.
Soil:	Rocky ridges, hill slopes and within Highveld grassland
Hardy/Tender:	Frost hardy.
Growth rate plus ecological relationship:	Fast grower.
Extra:	Flowers attract insects such as bees.
Uses:	Good stock feed. No medicinal or culinary uses.

<http://thealoefarm.co.za/wp/index.php/de-wet-plant-breeders/de-wet-agapanthus/>

<http://pza.sanbi.org/agapanthus-praecox>

https://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=127070

Joffe, P. & Oberholzer, T. 2012. Creative Gardening with Indigenous Plants A South African Guide. Briza Publications: Pretoria, p315.

Stachys natalensis



Shape:	A perennial herb with several stems which are erect and will reach a height of 20cm. It has a very long flowering season, starting in late summer. Leaves are toothed and the base is heart-shaped. Flowers are borne on a long stork, arranged in pairs. The leaves are very aromatic.
Size:	Up to 200 mm high.
Flowering time:	Has a very long flowering season, starting in late summer. It is ideal to provide colour late in the season when not many plants are in flower. Cut back in late winter after flowering.
Water requirements:	Water-wise.
Sun requirements:	Prefers full sunlight.
Soil:	Among rocks in shaded vegetation on mountain slopes and grasslands, prefer loam soil.
Hardy/Tender:	Hardy.
Growth rate plus ecological relationship:	Fast grower.
Extra:	Flowers attract insects such as bees.
Uses:	None.

https://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=149390

<https://wildflowernursery.co.za/indigenous-plant-database/stachys-natalensis/>

https://www.mozambiqueflora.com/speciesdata/image-display.php?species_id=149390&image_id=5

Stapelia gigantea



Shape:	Stapelia are low, perennial succulents. The stems, their surface and branching make them immediately recognisable. The stems are almost always erect and are usually uniformly green to reddish, depending on the extent of exposure to the sun. Only rarely are they mottled with red or purple on green. Stapelia are usually characterised by their foul-smelling flowers reminiscent of the odour of rotting meat. The hairs, coloration and surface mimic decaying animal matter and attract mostly flies, which act as pollinators. The strong carrion scent is sometimes recognisable at a great distance, especially on hot afternoons
Size:	Flowers range 100-400 mm in diameter.
Flowering time:	September – October. Star-shaped flowers that smell like rotting meat. The odour is particularly pungent on a hot day. The hairs and patterns on the flower mimic decaying animal matter to attract mainly flies which serve as pollinators for the plant. Flowers last no more than 2-3 days and are positioned at the base of the plant.
Water requirements:	Low water requirement.
Sun requirements:	Prefers full sunlight.
Soil:	Rockery, arid regions.
Hardy/Tender:	Frost hardy.
Growth rate plus ecological relationship:	Moderate grower.
Extra:	Flowers attract insects, particularly flies.
Uses:	None.

<http://pza.sanbi.org/stapelia>

<http://www.plantbook.co.za/stapelia-gigantea/>

<http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=276899>

<https://worldofsucculents.com/stapelia-gigantea-starfish-flower-carrion-plant-toad-plant-zulu-giant/>

<https://wildflowernursery.co.za/indigenous-plant-database/stapelia-gigantea/>

Themeda triandra ICE



Shape: This is a lovely green to blue-green tufted grass that is often flushed with pink and turns red with age. Some forms have bright yellow culms (stems). The spikelets (grass flowers) form wedge-shaped, usually hanging clusters that may or may not be hairy, with long black or white hairs. It is a well-known grazing grass, forming, where dominant, the red grass or rooigrasveld (grasslands) in parts of South Africa.

Size: Tufted perennial grass, which is very variable in appearance and size, ranging from 0.3-1.5 m in height

Flowering time: Spring, Early Summer, Late Summer, Autumn.

Water requirements: Grow in areas of average to high rainfall.

Sun requirements: Full sun.

Soil: Any type of soil, it prefers clay and soils with high organic content.

Hardy/Tender: Moderate.

Growth rate plus ecological relationship:

An indicator of the veld being in good condition. It is also known to be resistant to fire.

Extra: Attract animals such as birds.

Uses: Very important and well-known grazing grass that is palatable especially when young. In some parts of Africa it is used for thatching

<http://pza.sanbi.org/themeda-triandra>

<https://www.theplantlibrary.co.za/plants/Themeda-triandra>

Thunbergia aterplicifolia

**Shape:**

This grassland plant forms a low mounding shrublet of up to 30-40 cm high. It forms a tube of up to 2.5 cm which widens at the base, and the lobes (petals) are up to 5 cm across. Leaves are softly hairy (when young), mid-green and oval in shape, up to 5 cm long and 2 cm wide.

Size:

Evergreen, low-growing, scrambling perennial, 300 mm – 400 mm high.

Flowering time:

October – March. Pale yellow.

Water requirements:

Moderate.

Sun requirements:

Full sun or semi-shade.

Soil:

Well-drained soil, grasslands/savannah.

Hardy/Tender:

Moderate to hardy.

Growth rate plus ecological relationship:

Fast grower. It can either be left to spread amongst the grasses or it can be trained as creeper. This grassland biome species flowers profusely after a fire.

Extra:

Flowers attract insects such as bees.

Uses:

Unknown.

<https://www.theplantlibrary.co.za/plants/Thunbergia-aterplicifolia>

Thunbergia neglecta



Shape: Low growing perennial that sprouts annually from a woody rootstock. The large flowers are very conspicuous.

Size: Evergreen, low-growing, scrambling perennial, <300 mm high.

Flowering time: Early summer. Round, open, creamy-yellow flowers with a darker-yellow centre

Water requirements: Drought tolerant, low maintenance and water-wise.

Sun requirements: Full sun or semi-shade.

Soil: Well-drained soil, grasslands or rocky outcrops.

Hardy/Tender: Very hardy.

Growth rate plus ecological relationship:

Fast grower. It can either be left to spread amongst the grasses or it can be trained as creeper.

Extra: Flowers attract insects such as bees.

Uses: Unknown.



<http://pza.sanbi.org/senecio-oxyriifolius>

<https://www.randomharvest.co.za/en-us/South-African-Indigenous-Plants>Show-Plant/PlantId/605/Plant/Thunbergia-neglecta>

<https://wildflowernursery.co.za/indigenous-plant-database/thunbergia-neglecta/>

Jolene Botha

Triaspis hypericoides



Photos taken by Jolene Botha on 18/02/2020 at Future Africa Biodiversity gardens

Shape: It is a semi-woody shrublet that forms twining shoots / has a climbing habit that grows from an underground woody rootstock and bears beautiful flowers during Spring. The leaves are stalked, egg-shaped with a rounded base or slightly heart shaped. They are more or less hairless when mature. The lovely pink to fading white flowers are borne in axillary racemes with 5 petals of which one has a fringe of long hairs along the margin. The distinctive fruit are

Size: The semi-woody shrublet can grow up to 1m tall.

Flowering time: It bears beautiful pink/mauve coloured flowers during Spring. The lovely pink to fading white flowers are borne in axillary racemes with 5 petals of which one has a fringe of long hairs along the margin. The distinctive fruit are 3 saucer shaped / winged carpels.

Water requirements: Needs a moderate amount of watering but can withstand periods of drought and is thus waterwise.

Sun requirements: It prefers full sun.

Soil: It prefers loamy soils.

Hardy/Tender: It is drought tolerant.

Growth rate plus ecological relationship:

It has a slow to moderate growth rate and is often found in the rocky grassland of the Pretoria / Magaliesberg region. It needs to be interplanted with grasses to support the straggly habit.

<https://wildflowernursery.co.za/indigenous-plant-database/triaspis-hypericoides/>

Van Wyk, B. & Malan, S. 1988. Field guide to the Wildflowers of the Witwatersrand & Pretoria region. Struik Publishers: Cape Town, p222.

Trichodesma physaloides



Photos taken by Jolene Botha on 18/02/2020 at Future Africa Biodiversity gardens

Shape:	The perennial herb has a woody, fire resistant rootstock out of which one or more stems grow up to 0.5m long and sometimes has stiff hairs. It has stalkless, blue-green leaves about 30-50mm x 12-16mm large and ovate to narrowly ovate shaped. The upper surface is usually covered in short, stiff hairs all pointing mostly in one direction, where the underside only has scattered hairs on the veins and midrib.
Size:	The perennial herb can grow between 0.5-0.75m tall.
Flowering time:	Its unique drooping, terminal flowers are borne during Spring especially after veldfires.
Water requirements:	Needs a moderate amount of watering during summer months, but can withstand winter drought.
Sun requirements:	It prefers full sun.
Soil:	The plant has been recorded to grow in almost any soil ranging from sandy loam, loam, rocky soils, gravel and clay soils.
Hardy/Tender:	The plant is very hardy to fires and can also withstand extreme winter droughts and cold.
Growth rate plus ecological relationship:	<p>It creates new growth after every year's winter fires so is a fast grower. It has been recorded to require fires in order to form flowers and seed. Flowers can be formed in instances of no fires, however not as profusely as after fires.</p>

<http://pza.sanbi.org/trichodesma-physaloides>

<https://wildflowernursery.co.za/indigenous-plant-database/trichodesma-physaloides/>

Van Wyk, B. & Malan, S. 1988. Field guide to the Wildflowers of the Witwatersrand & Pretoria region. Struik Publishers: Cape Town, p46.

Triumfetta sonderii



Photos from: <https://wildflowernursery.co.za/indigenous-plant-database/triumfetta-sonderi/>

Shape: This plant is a multi-branched perennial shrublet that grows from a woody rootstock. The leaves are covered in rough, star-shaped hairs and the margins are finely and irregularly toothed. The lovely flowers, borne in summer are star shaped yellow sepals with hood shaped tips and a short horn-like protruberance. The fruit are quite unique as they are globose covered in long red hairs/bristles.

Size: The perennial shrublet can grow up to 0.5m tall.

Flowering time: It flowers during Summer with beautiful star shaped yellow flowers followed by seed capsules covered in distinct long pinkish-red hairs, arranged as a round brush.

Water requirements: Low to Moderate

Sun requirements: It prefers a full sun area.

Soil: It prefers to grow in a loamy soil.

Hardy/Tender: The plant is hardy and drought and cold tolerant as it dies back during winter.

Growth rate plus ecological relationship:

Fast grower as it forms new growth from the rootstock every growth season. It is found in rocky ridges in the grassland, it is very ornamental.

<https://wildflowernursery.co.za/indigenous-plant-database/triumfetta-sonderi/>

Van Wyk, B. & Malan, S. 1988. Field guide to the Wildflowers of the Witwatersrand & Pretoria region. Struik Publishers: Cape Town, p180.

Tulbaghia simmleri



Photos taken by Jolene Botha on 18/02/2020 at Future Africa Biodiversity gardens

Shape: It is an evergreen, slender, erect, clump forming perennial that has been recorded to grow between 0.25-0.3m high from a bulb-like rootstock. The clumps consist of greyish, green, strap-like, flat leaves that do not have the recognisable garlic smell of the *Tulbaghia violacea* plant.

Size: The evergreen, slender, erect, clump forming perennial can grow between 0.25-0.3m high and about 0.3-0.4m diameter wide clumps.

Flowering time: It has been seen to flower from Spring right through to Autumn (September-May) in summer rainfall areas and it flowers from May-September in winter rainfall areas. During these periods it bears sweetly scented purple/violet coloured clusters of flowers on stalks above the foliage.

Water requirements: Does well with a moderate amount of watering but can tolerate drought periods.

Sun requirements: It can grow in full sun but prefers semi-shade (either morning sun or afternoon sun).

Soil: It does well in well-drained sandy, loamy soils.

Hardy/Tender: The plant is drought resistant, moderately cold hardy but will be damaged by frost and prolonged freezing temperatures.

Growth rate plus ecological relationship: Fast grower that is often found in grasslands and attracts butterflies and moths.

<http://pza.sanbi.org/tulbaghia-simmleri>

Joffe, P. & Oberholzer, T. 2012. Creative Gardening with Indigenous Plants: A South African Guide. Briza Publications: Pretoria, p312.

Vernonia galpinii



Photos taken by Jolene Botha on 18/02/2020 at Future Africa Biodiversity gardens

Shape:

The herbaceous perennial has a woody rootstock that dies down every winter and forms new, erect, tufted branches every growth season, most parts of the plant is covered in rough hairs. The branches bear stalkless, green, wider lanceolate leaves, the stalks terminate in a single large flowerhead (25mm in diameter) of a bright pinkish-purple colour.

Size:

The herbaceous perennial grows up to 0.5m tall and the tufted branches from the woody rootstock form a diameter of about 0.3m wide.

Flowering time:

It flowers from Spring to late Summer (August-February)

Water requirements:

Needs a moderate amount of watering in summer, but can withstand drought periods.

Sun requirements:

It prefers full sun.

Soil:

It prefers loamy soils.

Hardy/Tender:

The plant is very hardy to fires and frost so it dies back in winter and can also tolerate drought periods.

Growth rate plus ecological relationship:

Fast grower, dies back every winter. The purple flowers attract insects especially bees that collect pollen. It is found in the grassland in rocky places.

<http://pza.sanbi.org/vernonia-galpinii>

<https://wildflowernursery.co.za/indigenous-plant-database/vernonia-galpinii-2/>

Van Wyk, B. & Malan, S. 1988. Field guide to the Wildflowers of the Witwatersrand & Pretoria region. Struik Publishers: Cape Town, p246.

Vernonia oligocephala



Photos taken by Jolene Botha on 21/02/2020 at Future Africa Biodiversity gardens

Shape: The herbaceous perennial has a woody rootstock that dies down every winter and forms new, erect, tufted branches every growth season. The branches bear almost stalkless, bicolored, oval to egg shaped (ovate with a rounded base) leaves of a dull green colour with, silky, silvery hairs underneath and hairless above. The stalks terminate in clusters of small (10mm in diameter) bright purple flowers.

Size: The herbaceous perennial has been recorded to grow between 0.3-1m tall and creates multiple tufted branches from a woody rootstock that can spread to about 0.3-0.4m in diameter.

Flowering time: It flowers during Spring and Early Summer (August-December) with clusters of bright purple flowers borne on tall branch tips.

Water requirements: It can grow on rain alone, so little to moderate amount of water.

Sun requirements: It prefers full sun.

Soil: It grows well in loamy soils.

Hardy/Tender: It is cold and fire resistant and can tolerate drought periods as it can survive on rainwater alone.

Growth rate plus ecological relationship: Fast grower as it needs to regrow to full size every year since it dies back during winter months, it is commonly found in grasslands, it attracts bees and butterflies.

<http://pza.sanbi.org/hilliardiella-oligocephala-0>

<https://wildflowernursery.co.za/indigenous-plant-database/vernonia-oligocephala/>

Van Wyk, B. & Malan, S. 1988. Field guide to the Wildflowers of the Witwatersrand & Pretoria region. Struik Publishers: Cape Town, p246.

Van Jaarsveld, E. 2000. Wonderful Waterwise gardening: A regional guide to indigenous gardening in South Africa. Tafelberg Publishers: Cape Town, p129.

Vernonia posciana



Photos taken by Jolene Botha on 21/02/2020 at Future Africa Biodiversity gardens

Shape: The herbaceous perennial is slender, erect and short lived, much branched from a single stem and has a woody rootstock. The branches bear stalkless, long, narrow lanceolate shaped that have gland dots similar to the stems and is thinly covered with down. It bears bright purple flowers on tall stalks in pairs.

Size: The herbaceous perennial has been recorded to grow between 0.3-0.4m tall and creates multiple slender, erect branches from a woody rootstock that can spread to about 0.2-0.3m in diameter.

Flowering time: It flowers during Spring and Early Summer (August-December) with pairs of bright purple flowers borne on tall (about 0.5m) branch tips.

Water requirements: It can grow on rain alone, so little to moderate amount of water.

Sun requirements: It prefers full sun.

Soil: It grows well in loamy soils.

Hardy/Tender: It is cold and fire resistant, as it dies back during winter and can tolerate drought periods as it can survive on rainwater alone.

Growth rate plus ecological relationship: Fast grower as it needs to regrow to full size every year since it dies back during winter months. It is often seen as an indicator in disturbed areas such as along roadsides and attracts bees when in bloom.

Van Wyk, B. & Malan, S. 1988. Field guide to the Wildflowers of the Witwatersrand & Pretoria region. Struik Publishers: Cape Town, p246.

Xerophyta retinervis



Photos taken by Jolene Botha on 18/02/2020 at Future Africa Biodiversity gardens

Shape:	This deciduous perennial has an erect sparsely branched form that can grow between 1-3m tall but as it is a slow grower 1.8m is a more probable size , it forms tufts of strap-like leafs on the top of the branches. The brown stem consists of densely packed fibrous leafs, dense packed roots grow down from the stem. The stem often looks black due to charring from fires. It bears clusters of white/mauve/blue, scented flowers are borne from spring to early summer.
Size:	The deciduous perennial is a slow grower but the hairy stems (blackened after fires) can reach a height up to 1.8-2m tall.
Flowering time:	It flowers during Spring and Early Summer with masses of light pink, blue or sometimes white flowers, especially after fires.
Water requirements:	Needs a moderate amount of watering.
Sun requirements:	It prefers full sun.
Soil:	Naturally it occurs on rocky outcrops in shallow soil, cultivated it prefers well-drained sandy to loamy soils.
Hardy/Tender:	The plant is very hardy to fires and can also withstand extreme droughts and cold.
Growth rate plus ecological relationship:	Very slow grower, often grows on rocky ridges and attracts butterflies when in bloom.

<http://pza.sanbi.org/xerophyta-retinervis>

<https://www.randomharvest.co.za/en-us/South-African-Indigenous-Plants>Show-Plant/PlantId/722/Plant/Xerophyta-retinervis/Filter/Shrub>

Van Wyk, B. & Malan, S. 1988. Field guide to the Wildflowers of the Witwatersrand & Pretoria region. Struik Publishers: Cape Town, p90, p266.