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Flora of the Kap River Reserve, Eastern Cape, South Africa

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Keywords: endangered, endemic, checklist, grassland, thicket, Eastern Cape, South Africa

ABSTRACT

A detailed analysis of the flora of the newly proclaimed Kap River Reserve (600 ha) is given. The reserve is adjacent to the Fish River and some 5 km from the Fish River Mouth. It consists of a coastal plateau up to 100 m a.s.l. which is steeply dissected by the two rivers that partially form the boundary of the reserve. The flora of the reserve was sampled over a period of three years and plants were collected in all the vegetation types of grassland, thicket and forest. 488 species were collected with a species to family ratio of 4:4. The majority of the taxa recorded represent the major phytochoria of the region. Nineteen species are endemic to the Eastern Cape, two are classed as vulnerable, five are rare, six are protected and a further seventeen are of uncertain status. The flora of the Kap River has closest affinities to that of the Alexandria Forest.

INTRODUCTION

The Kap River Reserve, ± 33° 30' S and 27° 9' E, is situated at the confluence of the Kap and Fish Rivers along the east coast of South Africa (Figure 1). The establishment of the reserve is important, especially since only 3.04% of the total area of the Eastern Cape has been conserved (Lubke *et al.* 1986). Everard (1987) identified the thicket in the Fish River estuary as Transitional Subtropical Thicket, which Lubke *et al.* (1986) have given the highest priority listing for conservation in the Eastern Cape. It is the vegetation type with the largest proportion of endemics (30%) and threatened plants (18%) and is considered to be vulnerable due to changing farming practices (Lubke *et al.* 1986).

The Eastern Cape coast with its mild subtropical climate is an area where four major South African phytochoria (the Cape, Karoo-Namib, Afromontane and Tongoland-Pondoland) converge to form a transition zone. The resulting complexity of the vegetation of the Eastern Cape is recognised by several authors (Goldblatt 1978; Werger 1978; Gibbs Russell & Robinson 1981; Cowling 1983; White 1983; Lubke *et al.* 1986; Everard 1987; Acocks 1988; Palmer 1990). The Eastern Cape coast is also an area of transition with respect to climate, geology, soils and topography (Lubke *et al.* 1986), resulting in dramatic vegetation changes over short distances. Cowling (1983) has shown that the flora is transitional between that of the Cape and KwaZulu-Natal, with elements of the Karoo.

Dyer (1937) and Comins (1962) pioneered the study of the coastal vegetation of the eastern Cape region, but it is only in the last fifteen years that a more complete picture of the diversity, phytogeography, ecology and conservation status of both the flora and the vegetation has started to emerge (Gibbs Russell & Robinson 1981; Cowling 1983; Lubke *et al.* 1986; Phillipson 1987; Everard 1987, 1988; Lubke *et al.* 1988; Phillipson & Russell 1988).

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STUDY AREA

The Kap River Reserve (6 km^2 in extent) is located in the Bathurst District in the wedge formed between the Kap River and the Fish River estuary (Figure 2). The coastal plateau is about 100 m asl in this area and is steeply dissected by both river systems. The Fish River forms a large floodplain and the Kap River cuts across the plateau creating cliffs and steep slopes on its south bank and very steep, to steep, to moderate slopes on the north bank. The Kap River is very slow-flowing in this area, forming large pools in the lower reaches and is not exposed to the saline influences of the estuary.

The steep S-facing slopes are of Witteberg quartzite and the cliffs are of the Dwyka formation. The plateau and the slopes towards the Fish River consist of shales and mudstones of the Dwyka formation (Mountain 1937). The soils of the area are 'weakly developed and interspersed with red sandy clays' (Hartmann 1988). In the reserve the soils differ from place to place depending on the underlying geology. The floodplain of the Fish River has very sandy soil, and the soils of all the old cultivated lands are badly eroded. The coastal areas of the Eastern Cape have a subtropical climate with temperatures ranging between 10°C and 22.2°C annually (Kopke 1988). The annual rainfall is between 500 and 1 000 mm (Kopke 1988). A Walter-Leith diagram (Figure 3) summarises the data for the Great Fish Point Lighthouse weather station.

METHODS

Plants were collected from the various habitats (mesic and xeric thicket, grassland and riverine forest) and voucher specimens with determinavit labels are housed in the Selmar Schonland Herbarium, Grahamstown (GRA). A checklist was generated from the GRA database, and records from the PRECIS database (**Pre**toria Herbarium **C**omputerised **I**nformation **S**ystem) were included. A search was done to establish the distribution of all the plants on the checklist using the PRECIS records of the region and this was supplemented by exhaustive literature searches in the *Flora of southern Africa* (1963–1993), Giddy (1974), Werger (1978),

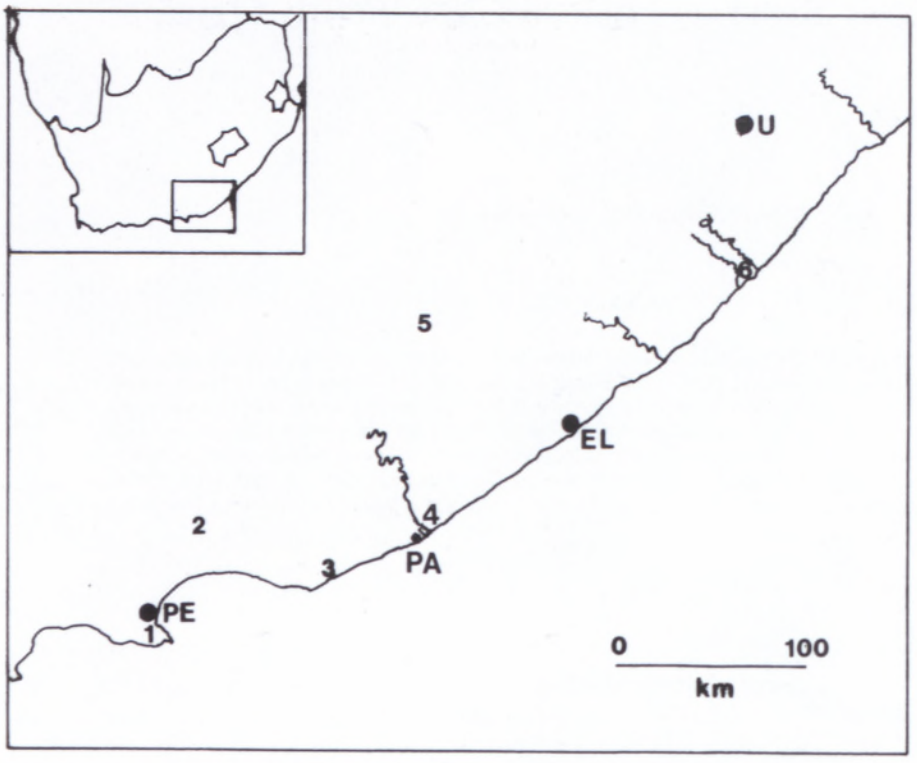

FIGURE 1.—The Kap River Reserve, 4, and adjacent areas of the eastern Cape region: 1, Cape Recife Reserve; 2, Addo Elephant Park; 3, Alexandria Forest; 5, Amatole Mountains; 6, Dwesa Nature Reserve. PE, Port Elizabeth; PA, Port Alfred; EL, East London; U, Umtata.

White (1983), Bond & Goldblatt (1984), Coates Palgrave & Drummond (1988), Burrows (1990) and Gibbs Russell *et al.* (1991).

A comparison with checklists of Dwesa Nature Reserve, Alexandria Forest, Addo Elephant National Park, the Amatola Mountain Range and Cape Recife Nature Reserve (Figure 1) was made (Moll no date; Penzhorn & Olivier 1974; Olivier 1983; Phillipson 1987; Phillipson & Russell 1988). The index of similarity of Czekanowski (IsC) (as used by Geldenhuys 1992), expressed as percentage, was used to compare similarity between floras, where IsC = 200w/(a+b), a and b are the numbers of species present in each flora, and w is the number of species common to both floras (Table 1).

The Kap River Reserve flora and three other floras were compared with each other and with the southern African flora with regard to percentage of species in the ten largest families of each flora (Table 2; Moll no date; Penzhorn & Olivier 1974; Goldblatt 1978; Olivier 1983).

The conservation status of each species on the checklist was ascertained from authorities (E. Brink, T. Dold and P. Phillipson pers. comm.), herbarium records (GRA, PRE), the *Red Data List of southern African plants* (Hilton-Taylor 1996) and the rare and endangered list of Lubke *et al.* (1986).

RESULTS AND DISCUSSION

Flora checklist

A total of 488 species and infraspecific taxa (Appendix) representing 319 genera and 108 families were recorded (Table 3). The largest families are the Asteraceae, Poaceae, Fabaceae, Cyperaceae, Liliaceae, Rubiaceae, Euphorbiaceae, Acanthaceae, Lamiaceae and Solanaceae. The species to family ratio of 4:4 compares well to 3:1 and 4:5 for woody and herbaceous plants respectively in the southern Cape forests (Geldenhuys 1993). The Asteraceae, Fabaceae and Liliaceae are widespread families, whereas Poaceae, Cyperaceae, Euphorbiaceae and Rubiaceae are subtropical families (White 1983).

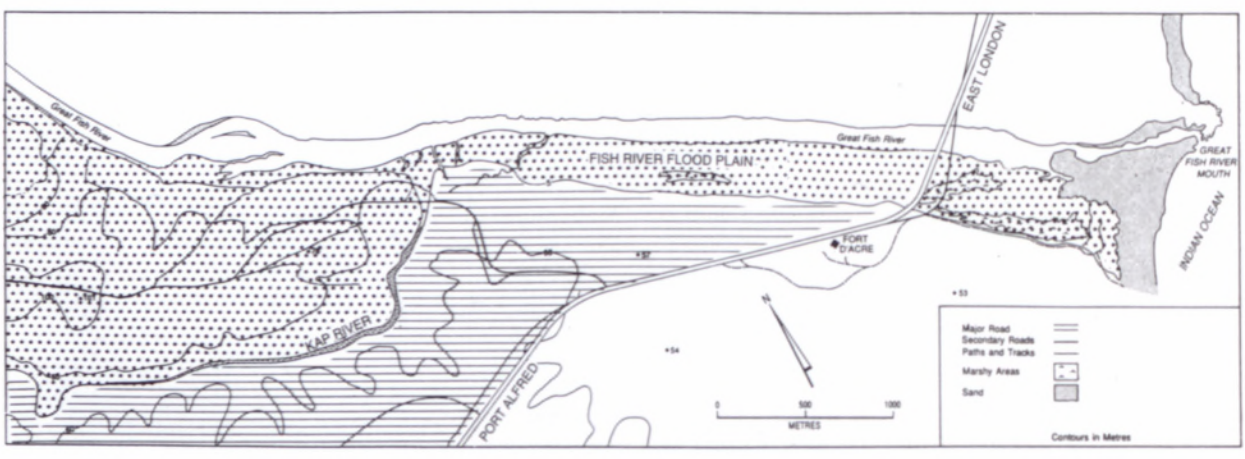

FIGURE 2.— The Kap River Reserve, stippled area; planned extension of the Reserve, lined area.

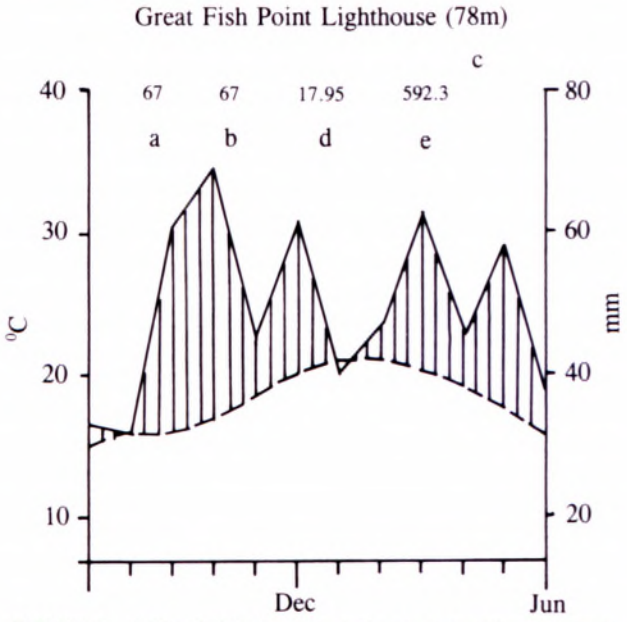

FIGURE 3.—Walter-Leith diagram of climatic data of the Great Fish River Point Lighthouse. a, number of years of temperature records; b, number of years of precipitation records; c, altitude; d, mean annual temperature; e, mean annual precipitation; - - - , rainfall; – – –, temperature. (Averienos 1992).

Distribution ranges

A family which is endemic to the eastern coast of South Africa, the Achariaceae, has one monotypic genus, namely *Acharia tragodes* present in the reserve. This rare species occurs in scrub from Uitenhage to Durban (Killick 1976).

Nine taxa are endemic to the Eastern Cape according to the *Red Data List of southern African plants* (Hilton-Taylor 1996). The database of Everard (1988) contained a further seven taxa. Three other endemic taxa identified through literature searches and surveys are: *Walafrida albanensis*; *Romulea autumnalis* and *Ecbolium flanaganii* (Table 4), (Rolfe 1901; De Vos 1983; Vollesen 1989).

Bobartia orientalis is abundant in grassland on Witteberg quartzite outcrops in the eastern Cape area from coastal regions to the higher altitudes such as the Zuurberg Mountains. This is often identified as a *Bobartia orientalis*–grassland association (Martin & Noel 1960).

The majority of plants collected had wide ranges and most showed Afromontane or Tongaland-Pondoland affinities. There is a strong floristic overlap of these two phytochoria in the eastern Cape region (Lubke *et al.* 1986) as also reported by Cawe & McKenzie (1989) for

TABLE 1.—Similarity between the flora of the Kap River Reserve and other areas calculated according to the index of similarity of Czekanowski (IsC). IsC = 200w/(a+b), where a and b are the numbers of species present in each flora, and w is the number of species common to both floras

Region	IsC
Alexandria Forest	26.56
Amatole Mountains	21.14
Addo Elephant Park	20.78
Dwesa Reserve	16.96
Cape Recife Reserve	11.80

TABLE 2.—Comparison of four regional floras and that of the southern African flora with regard to percentage of species in the ten largest families of each flora

Family	Kap	Cape Rec.*	Dwesa**	Addo+	sthn Afr.•
Asteraceae	11.68	16.18	-	13.30	11.18
Poaceae	10.04	6.36	-	10.60	4.01
Fabaceae	5.53	5.20	7.07	3.60	8.07
Cyperaceae	3.07	5.20	-	-	-
Liliaceae	3.07	5.78	-	10.00	4.89
Rubiaceae	3.07	-	9.36	-	-
Euphorbiaceae	3.07	-	5.26	-	-
Acanthaceae	2.67	-	-	3.60	-
Solanaceae	2.05	-	-	-	-
Lamiaceae	2.05	-	-	-	-
Celastraceae	-	4.62	6.43	2.60	-
Aizoaceae	-	3.47	-	13.60	10.90
Chenopodiaceae	-	3.47	-	-	-
Crassulaceae	-	2.30	-	7.30	-
Iridaceae	-	2.31	-	-	4.53
Rutaceae	-	-	4.68	-	-
Ebenaceae	-	-	4.09	-	-
Flacourtiaceae	-	-	3.50	-	-
Loganiaceae	-	-	3.51	-	-
Moraceae	-	-	2.92	-	-
Meliaceae	-	-	2.36	-	-
Amaryllidaceae	-	-	-	3.00	-
Geraniaceae	-	-	-	2.60	-
Ericaceae	-	-	-	-	4.31
Asclepiadaceae	-	-	-	-	3.27
Scrophulariaceae	-	-	-	-	2.78
Orchidaceae	-	-	-	-	2.49

*Olivier 1983; ** Moll no date: data of only woody spp. available; + Penzhorn & Olivier 1974; • Goldblatt 1978.

Transkei. *Podocarpus falcatus*, *Apodytes dimidiata* subsp. *dimidiata*, *Rapanea melanophloeos*, *Nuxia floribunda* and *Olea capensis* subsp. *capensis* are characteristic woody species of the Afromontane region. *Trichocladus* is an endemic genus of the Afromontane regional centre of endemism (White & Moll 1978) and is represented by *T. ellipticus* in the reserve. *Harpephyllum caffrum* and *Hippobromus pauciflorus* are endemic to the Tongaland-Pondoland region. Thirty seven taxa found in the reserve are at or near their southernmost limit.

The small patch of undisturbed coastal grassland which is on quartzite, contributed the taxa with Cape/Fynbos affinity. Typical representatives include *Bobartia orientalis*, *Leucospermum cuneiforme*, *Elytropappus rhinocerotis*, *Ficinia gracilis*, *F. tristachya*, *Aspalathus* species and *Cliffortia* species. *Myrsiphyllum volubile* is endemic to the southern Cape forests (Geldenhuys 1993) and reaches its northernmost limit at Peddie (Tony Dold pers. comm.).

The Karoo region is represented, among others, by four species of *Hermannia*, two species of *Gasteria*, *Ehretia rigida*, *Pappea capensis* and *Stipagrostis zeyheri*. *Portulacaria afra* is a species linking the Karoo and Tongaland-Pondoland regions.

TABLE 3.—Number of families, genera and species recorded in the Kap River Reserve

	Families	Genera	Species
Pteridophyta	7	9	10
Gymnospermae	2	2	4
Angiospermae			
Monocotyledonae	21	88	122
Dicotyledonae	78	220	352
Total	108	319	488

TABLE 4.—Eastern Cape Endemics (ECE). Sources of information: DV, De Vos 1983; E, Everard 1988; HT, Hilton-Taylor 1996; R, Rolfe 1901; V, Vollesen 1989

Taxon	Source of information
Acrolophia micrantha (Lindl.) Schltr. & Bolus	HT
Bobartia orientalis J.B.Gillett	E, HT
Clivia nobilis Lindl.	HT
Ecbolium flanaganii C.B.Clarke	V
Encephalartos altensteinii Lehm.	HT
E. caffer (Thunb.) Lehm.	HT
E. trispinosus (Hook.) R.A.Dyer	HT
Euphorbia pentagona Haw.	E
Gerbera cordata (Thunb.) Less.	E
Gladiolus gueinzii Kunze	HT
Helichrysum subglomeratum Less. var. *imbricatum* DC.	E
Homalium rufescens Benth.	HT
Hypoxis stellipilis Ker Gawl.	E
Noltea africana (L.) Rchb.f.	HT
Oxalis stenorrhyncha T.M.Salter	E
Romulea autumnalis L.Bolus	DV
Syncarpha striata (Thunb.) B.Nord.	E
Thesium scandens Sond.	E
Walafrida albanensis (Schltr.) Rolfe	R

Two taxa have disjunct distributions. *Englerodaphne subcordata* is found between the Fish River and Mqanduli in Transkei, and in Tanzania and the Kenyan highlands, a disjunction of 3 000 km (Cloete 1994); it is rare in the Eastern Cape, and known only from few sites. *Diospyros simii* has a number of records from King William's Town to Kentani, and then re-appears at Eshowe and Kranskop in Zululand (800 km).

Comparison of the Kap River flora with other floras

The Kap River flora is not very similar to any of the other floras, only sharing about one quarter of the species with the Alexandria Forest flora, which shows the greatest similarity. Both the Alexandria Forest and the Dwesa Nature Reserve checklists are based on woody species and are thus not fully representative. Three taxa that are endemic to the Alexandria Forest are not found in the Kap River. Of the species found in the Kap River Reserve which are not present in Alexandria, several such as *Englerodaphne subcordata*, *Asparagus falcatus*, *Protorhus longifolia*, *Rhus crenata*, *R. fastigiata*, *Pavetta capensis* and *Rothmannia globosa*, are possibly at their southernmost limit at the Fish River.

The Amatole Mountains showed the second closest similarity though the range is further away, at a much higher altitude (200–700 m asl), with a greater temperature range (– 6° to 40°C) and a higher rainfall (750–1500 mm) (Phillipson 1987). It is possible that a major tributary of the Fish, the Kat River, which partly drains the Amatole Mountains, has served as a migration route for the Afromontane elements to the coast and conversely, for the Tongaland-Pondoland elements inland.

Table 4 reveals that aside from the succulent families, the Kap River Reserve has many of the families that characterise the three neighbouring floras. Some of the families of the Kap River flora are not representative of the subtropical Pondoland-Tongaland element i.e. Cyperaceae, Rubiaceae, Euphorbiaceae and Acanthaceae. Families such as Iridaceae, Aizoaceae and Ericaceae that have many Cape or Karoo representatives are not well represented here.

Rare and Endangered component

The search on the database of Everard (1988) of rare and endangered plants produced two taxa classed as vulnerable, five as rare and six as protected plants (Table 5). A further seventeen were listed as 'uncertain whether endangered or not'. In the *Red Data List of southern African plants* (Hilton-Taylor 1996), *Encephalartos altensteinii* and *Gasteria croucherii* are listed as vulnerable and *Homalium rufescens* as rare. The cycads are the most seriously threatened family (Zamiaceae) in the Eastern Cape and three species of *Encephalartos* are present in the reserve.

Ecbolium flanaganii is not closely related to other taxa in the genus. Its distribution range is limited, with small population numbers and few collections. These factors combine to give the species a very high priority rating for protection (Hall 1993).

The Amatole Mountains have 10 rare and endangered taxa in common with the Kap River Reserve, Alexandria Forest has six, Dwesa seven, Cape Recife two and Addo one.

CONCLUSIONS

The Kap River Reserve has a rich and diverse flora and shows the greatest similarity with the Alexandria Forest. However, it also has a similarity with the Amatole Mountain flora. These findings confirm the relationship of the Eastern Cape flora with those of the Afromontane region and the Tongaland-Pondoland regional mosaic (White 1983).

The reserve has nineteen taxa that are endemic to the Eastern Cape and ten of the taxa that are classified as vulnerable and rare in the Eastern Cape (Everard 1988; Hilton-Taylor 1996). More than one quarter of the plants

TABLE 5.—Threatened plants of the Eastern Cape according to the *Red Data List of southern African plants* (Hilton-Taylor 1996) and the database of Everard (1988) with additions from various sources

Taxon	Hilton-Taylor (1996)	Everard (1988)
Acharia tragodes Thunb.	-	*
Acrolophia micrantha (Lindl.) Schltr. & Bolus	R	R
Allophylus decipiens (Sond.) Radlk.	-	PRO
Bobartia orientalis J.B.Gillett	R	-
Cassine tetragona (L.f.) Loes.	-	PRO
Clivia nobilis Lindl.	NT	R
Combretum caffrum (Eckl. & Zeyh.) Kuntze	-	PRO
Dovyalis rhamnoides (Burch. ex DC.) Harv.	-	PRO
Ecbolium flanaganii C.B.Clarke	-	***
Encephalartos altensteinii Lehm.	V	R
E. caffer (Thunb.) Lehm.	V	V
E. trispinosus (Hook.) R.A.Dyer	V	V
Englerodaphne subcordata (Meisn.) Engl.	-	**
Euclea schimperi (A.DC.) Dandy var. *daphnoides* (Hiern) De Winter	-	PRO
Gardenia thunbergii Thunb.	R	R
Gasteria croucheri (Hook.f.) Baker	V	-
Gladiolus gueinzii Kunze	NT	R
Homalium rufescens Benth.	R	-
Ochna arborea Burch. ex DC. var. *arborea*	-	PRO

*Killick (1976); **Cloete (1994); ***Vollesen (1989); V, Vulnerable; R, Rare; PRO, Protected; NT, Not Threatened.

that are known to be in a precarious situation in the Eastern Cape are present in the Kap River Reserve. It is the southernmost limit for a number of Tongaland-Pondoland species and the northernmost limit for a few Cape elements.

Marker & Russell (1984) suggest that all the Eastern Cape forests are 'relict and.... that each locality has a characteristic species spectrum and exists by ecological and historical accident'. The conservation of this pristine region as a reserve is thus a great asset in the preservation of the Eastern Cape flora.

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APPENDIX: CHECKLIST OF THE VASCULAR PLANTS OF THE KAP RIVER RESERVE, EASTERN CAPE

After the name of the author(s) of the taxon, the sequence of annotation is as follows:
1. Conservation status: **E**, Endangered; **ECE**, East Cape Endemic; **I**, Indeterminate; **PRO**, Protected; **R**, Rare; **V**, Vulnerable; **U**, Uncertain
2. Collector abbreviations: *AB* = A. Burchmore; *AJG* = A. Jacot Guillarmod; *AAM* = A.A. Mauve; *BRI* = Botanical Research Institute; *EBM* = E. Bruce-Miller; *ECC* = E. Cloete; *EMH* = E.M. Hunter; *DG* = D. Gibson; *TD* = T. Dold; *TD & BP* = T. Dold & B. Pemberton; *MJW* = M.J. Wells; *PBP* = P.B. Phillipson; *PC* = P. Cripps; *PG* = P.B. Goldblatt; *PM* = P. Macowan; *RAD* = R.A. Dyer; *RDAB* = R.D.A. Bayliss; *RS* = R. Story; *VE* = V. Everitt
3. Collection number: specimens without collector numbers are designated *s.n.*
4. Authors of plant names follow Brummitt & Powell (1992).

PTERIDOPHYTA

ADIANTACEAE
Cheilanthes
- bergiana *Schltdl., ECC s.n.*
- viridis *(Forssk.) Sw.* var. glauca *(Sim) Schelpe & N.C.Anthony, ECC 2648*

Doryopteris concolor *(Langsd. & Fisch.) Kuhn, ECC 2563*
Pellaea calomelanos *(Sw.) Link, DG 174*

ASPIDIACEAE
Rumohra adiantiformis *(G.Forst.) Ching, ECC 2559*

ASPLENIACEAE
Asplenium rutifolium *(P.J.Bergius) Kunze, ECC 2574*

LOMARIOPSIDACEAE
Elaphoglossum acrostichoides *(Hook. & Grev.) Schelpe, ECC 2679*

MARSILEACEAE
Marsilea macrocarpa *C.Presl, TD 1070*

OPHIOGLOSSACEAE
Ophioglossum reticulatum *L., ECC 2612*

POLYPODIACEAE
Pyrrosia africana *(Kunze) F.Ballard, MJW 2889*

GYMNOSPERMAE

PODOCARPACEAE
Podocarpus falcatus *(Thunb.) R.Br. ex Mirb., ECC 2696*

ZAMIACEAE
Encephalartos
- altensteinii *Lehm.*, **R**, *RAD 5799, ECC 2555*
- caffer *(Thunb.) Lehm.*, **V**, *PC s.n.*
- trispinosus *(Hook.) R.A.Dyer*, **V-E**, *RAD 5796, MJW 2904*

MONOCOTYLEDONAE

ALLIACEAE
Agapanthus praecox *Willd.* subsp. praecox, *AAM 3084*

AMARYLLIDACEAE
Boophane disticha *(L.f.) Herb., PBP 4196*
Clivia nobilis *Lindl.*, **R**, *ECC 2697*
Cyrtanthus contractus *N.E.Br., TD 1086*

APONOGETONACEAE
Aponogeton desertorum *Zeyh. ex A.Spreng, ECC s.n.*
Potamogeton
- pectinatus *L., AJG 9474*
- thunbergii *Cham. & Schltdl., TD 1069*

ARECACEAE
Phoenix reclinata *Jacq., RAD 3378, ECC 2576*

ASPARAGACEAE
Asparagus
- africanus *Lam.* [= *Protasparagus africanus* (Lam.) Oberm.], *ECC 2478*
- densiflorus *(Kunth) Jessop* [= *Protasparagus densiflorus* (Kunth) Oberm.], *DG 128*
- denudatus *(Kunth) Baker* [= *Protasparagus denudatus* (Kunth) Oberm.], *ECC 2752*
- falcatus *L.* [= *Protasparagus falcatus* (L.) Oberm.], *ECC 2575*
- macowanii *Baker* [= *Protasparagus macowanii* (Baker) Oberm.], *ECC 2581*
- subulatus *Thunb.* [= *Protasparagus subulatus* (Thunb.) Oberm.], *ECC s.n.*
- volubilis *Thunb.* [= *Myrsiphyllum volubile* (Thunb.) Oberm.], *ECC 2742*

ASPHODELACEAE
Aloe
- ferox *Mill., ECC s.n.*
- pluridens *Haw., ECC 2681*

Bulbine
- asphodeloides *(L.) Willd., ECC 2503, ECC 2655*
- frutescens *(L.) Willd., DG 2633*

Chlorophytum comosum *(Thunb.) Jacq., ECC 2495, ECC 2521*
Gasteria
- croucheri *(Hook.f.) Baker*, **ECE**, *ECC 2603*
- pulchra *(Aiton) Haw., MJW 2920*

Trachyandra affinis *Kunth, ECC 2654,*

COMMELINACEAE
Aneilema aequinoctiale *(Beauv.) Loudon, PBP 4163*
Commelina africana *L., DG 40*
Cyanotis speciosa *(L.f.) Hassk., ECC s.n.*

CYPERACEAE
Abildgaardia ovata *(Burm.f.) Kral, EBM 8*
Bulbostylis humilis *(Kunth.) C.B.Clarke, EBM 4*
Cyperus
- albostriatus *Schrad., ECC 2572*
- dives *Delile* [= *C. immensus* C.B.Clarke], *ECC 2608*
- marginatus *Thunb., ECC s.n.*
- sphaerospermus *Schrad. TD & BP s.n.*
- textilis *Thunb., ECC s.n.*

Eleocharis limosa *(Schrad.) Schult., TD 1092*
Ficinia
- gracilis *Schrad., ECC 2490*
- tristachya *(Rottb.) Nees., EBM 6*

Isolepis diabolica *(Steud.) Schrad.* [= *Scirpus diabolicus* Steud.], *ECC 2489*
Kyllinga alba *Nees, EBM 3*
Mariscus
- capensis *(Steud.) Schrad., ECC 2494*
- congestus *(Vahl) C.B.Clarke, ECC 2558*
- cf. keniensis *(Kük.) Hooper, EBM 11*

Pycreus polystachyos *(Rottb.) P.Beauv., EBM s.n.*

DIOSCOREACEAE
Dioscorea
- rupicola *Kunth., ECC 2765*
- sylvatica *(Kunth) Eckl., ECC 2743*

DRACAENACEAE
Dracaena aletriformis *(Haw.) Bos, ECC s.n.*
Sansevieria hyacinthoides *(L.) Druce, ECC s.n.*

HYACINTHACEAE
Drimia sp., *DG 60*
Drimiopsis sp., *DG 61*
Ledebouria undulata *(Jacq.) Jessop, PBP 4198*
Urginea altissima *(L.f.) Baker, AAM 5216, PBP 4197*

HYPOXIDACEAE
Empodium plicatum *(Thunb.) Garside*, **U**, *ECC 2637*
Hypoxis stellipilis *Ker Gawl.*, **ECE**, *DG 91*

IRIDACEAE
Aristea abyssinica *Pax* [= A. *cognata* N.E.Br. ex Weim.], *ECC 2481, DG 17*
Bobartia orientalis *J.B.Gillett*, **ECE, R-E**, *ECC 2632*
Dietes bicolor *(Steud.) Sweet ex Klatt, PM 1538A*
Freesia corymbosa *(Burm.f.) N.E.Br., TD 1066*

Gladiolus
gueinzii *Kunze*, **R**, *AB s.n.*
ochroleucus *Baker* var. macowanii *(Baker) Oberm., ECC 2633, DG 73*
Romulea autumnalis *L.Bolus, ECC 2682*
Tritonia laxifolia *Benth. ex Baker, ECC 2605*

JUNCACEAE
Juncus
acutus *L., AB s.n.*
kraussii *Hochst., TD 1091*

LUZURIAGACEAE
Behnia reticulata *(Thunb.) Didr., ECC 2694*

ORCHIDACEAE
Acrolophia micrantha *(Lindl.) Schltr. & Bolus*, **R**, *TD s.n., ECC s.n.*
Corycium dracomontanum *Parkman & Schelpe, TD 2216*
Habenaria arenaria *Lindl., ECC s.n.*
Polystachya pubescens *Rchb.f., PBP 4186*
Satyrium parviflorum *Sw., TD 1067, DG 137*

POACEAE
Andropogon eucomus *Nees, VE 46, DG 186*
Aristida
adscensionis *L., ECC 2525*
congesta *Roem. & Schult.*
subsp. barbicollis *(Trin. & Rupr.) De Winter, VE 49*
subsp. congesta, *DG 18*
Brachiaria
arrecta *(T.Durand & Schinz) Stent, DG 25*
serrata *(Thunb.) Stapf, VE 52*
Briza maxima *L., ECC 2729*
Bromus pectinatus *Thunb., ECC 2730*
Chloris
gayana *Kunth, VE 38*
virgata *Sw., VE 51*
Cymbopogon
marginatus *(Steud.) Stapf ex Burtt Davy, EMH 94*
plurinodis *(Stapf) Stapf ex Burtt Davy, VE 50, DG 45*
Cynodon dactylon *(L.) Pers., DG 46*
Dactyloctenium australe *Steud., VE 34, ECC 2571*
Digitaria eriantha *Steud., ECC 2528, VE 48, DG 54*
Diplachne eleusine *Nees, ECC 2526*
Ehrharta
calycina *Sm., ECC 2728, DG 191*
erecta *Lam., VE 33*
Eragrostis
capensis *(Thunb.) Trin., VE 43, DG 62*
curvula *(Schrad.) Nees, ECC 2523, VE 37, DG 63*
plana *Nees, VE 45*
Helictotrichon turgidulum *(Stapf) Schweick., VE 36, DG 85*
Heteropogon contortus *(L.) Roem. & Schult., DG 88*
Hyparrhenia hirta *(L.) Stapf, VE 47, DG 90*
Imperata cylindrica *(L.) Raeusch., AB s.n.*
Leersia hexandra *Sw., DG 176*
Melica racemosa *Thunb., VE 44, DG 109*
Melinis repens *(Willd.) Zizka* [= *Rhynchelytrum repens* (Willd.) C.E.Hubb.]
subsp. repens, *VE s.n.*
subsp. grandiflora *(Hochst.) Zizka, DG 110*
Oplismenus hirtellus *(L.) Beauv., VE 35*
Panicum
deustum *Thunb., VE 31*
maximum *Jacq., VE 41, DG 117*
Paspalum dilatatum *Poir., VE 39, DG 118*
Phalaris aquatica *L., ECC 2715*
Phragmites australis *(Cav.) Steud., AB s.n.*
Polypogon monspeliensis *(L.) Desf., RS 4534*
Setaria
nigrirostris *(Nees) T.Durand & Schinz, ECC 2579*
pallide-fusca *(Schumach.) Stapf & C.E.Hubb., VE 55*
sphacelata *(Schumach.) Moss*
var. sericea *(Stapf) Clayton, ECC s.n.*
var. sphacelata, *DG 148*
Sporobolus
africanus *(Poir.) Robyns & Tournay, VE 56, DG 153*
fimbriatus *(Trin.) Nees, ECC 2527*
fourcadii *Stent, VE 53, DG 152*
Stenotaphrum secundatum *(H.Walter) Kuntze, VE 40, DG 155*
Stipa dregeana *Steud., VE 32*
Stipagrostis zeyheri *(Nees) De Winter* subsp. barbata (Stapf) De Winter, *AB s.n.*
Themeda triandra *Forrsk., DG 160*
Tristachya leucothrix *Nees, DG 166*

RESTIONACEAE
Thamnochortus arenarius Esterh. *DG 159*
Restio triticeus *Rottb., TD & BP s.n.*

STRELITZIACEAE
Strelitzia reginae *Aiton, ECC 2522*

TECOPHILAEACEAE
Cyanella lutea *L.f., TD 1065*

TYPHACEAE
Typha capensis *(Rohrb.) N.E.Br., RAD 3388*

DICOTYLEDONAE

ACANTHACEAE
Barleria obtusa *Nees, ECC 2468, 2511*
Blepharis integrifolia *(L.f.) E.Mey., ECC 2465*
Chaetacanthus setiger *(Pers.) Lindl., TD & BP s.n.*
Ecbolium flanaganii *C.B.Clarke*, **R**, *ECC 2601, TD 1082*
Hypoestes
aristata *(Vahl) Sol. ex Roem. & Schult., ECC 2639*
forskaolii *(Vahl) R.Br., ECC 2661, 2662*
Isoglossa bolusii *C.B.Clarke, ECC 2665*
Justicia
campylostemon *(Nees) T.Anderson, PBP 4170, ECC 2560*
capensis *Thunb., PBP 4174*
petiolaris *(Nees) T.Anderson* subsp. bowiei *(C.B.Clarke) Immelman, ECC 2566*
Salpinctium stenosiphon *(C.B.Clarke) T.J.Edwards*, **U**, *PBP 4195*
Siphonoglossa leptantha *(Nees) Immelman* subsp. late-ovata *(C.B.Clarke) Immelman, ECC 2540*
Thunbergia capensis *Retz., ECC 2586, DG 165*

ACHARIACEAE
Acharia tragodes *Thunb., ECC 2463*

AIZOACEAE
Galenia pubescens *(Eckl. & Zeyh.) Druce* var. cerosa *Adamson, DG 5*
Tetragonia decumbens *Mill., AB s.n.*

AMARANTHACEAE
Achyropsis leptostachya *(E.Mey. ex Meisn.) Baker & C.B.Clarke, DG 3*
Alternanthera caracasana Humb., Bonpl. & Kunth, *DG 76*

ANACARDIACEAE
Harpephyllum caffrum *Bernh., ECC 2737*
Protorhus longifolia *(Bernh.) Engl., PBP 4180, ECC 2741*
Rhus
crenata *Thunb., ECC s.n.*
incisa *L.f.* var. effusa *(C.Presl) R.Fern., ECC 2530, DG 185*
pallens *Eckl. & Zeyh., ECC 2508, 2627, DG 130*
refracta *Eckl. & Zeyh., RDAB BRI.B.6041, ECC s.n.*

APIACEAE
Bupleurum mundii *Cham. & Schltdl., ECC 2727*
Centella
coriacea *Nannf., DG 28*
glabrata *L., DG 29*
Hydrocotyle verticillata *Thunb., AB s.n.*
Peucedanum caffrum *(Meisn.) E.Phillips, ECC 2599*

APOCYNACEAE
Carissa haematocarpa *(Eckl.) A.DC., ECC s.n.*
Acokanthera oppositifolia *(Lam.) Codd, ECC 2700*

ARALIACEAE
Cussonia spicata *Thunb., ECC s.n.*

ASCLEPIADACEAE
Asclepias crispa *P.J.Bergius, TD 2218*
Cynanchum capense *Thunb.* [= *C. ellipticum* (Harv.) R.A.Dyer], *ECC 2477*
Gomphocarpus
fruticosus *(L.) Aiton f.* [= *Asclepias crinita* (Bertol.) N.E.Br.], *ECC 2617*
physocarpus *E.Mey.* [= *Asclepias physocarpa* (E.Mey.) Schltr.], *PG 9469, AJG 9469*

Secamone filiformis *(L.f.) J.H.Ross, ECC 2724*
Sisyranthus compactus *N.E.Br., TD 2217, DG 31*
Tylophora lycioides *(E.Mey.) Decne., PBP 4169*
Xysmalobium involucratum *(E.Mey.) Decne., TD 2219*

ASTERACEAE
Arctotis arctotoides *(L.f.) O.Hoffm., ECC 2626*
Berkheya
  bipinnatifida *(Harv.) Roessler* subsp. bipinnatifida, *ECC 2532*
  discolor *(DC.) O.Hoffm. & Muschl., ECC 2585, DG 23*
  erysithales *(DC.) Roessler, PBP 4165*
Brachylaena
  elliptica *(Thunb.) DC., ECC 2675*
  ilicifolia *(Lam.) E.Phillips & Schweick., ECC 2529*
Chrysanthemoides monilifera *(L.) Norl., ECC 2644*
Chrysocoma ciliata *L., RDAB 8396, ECC 24675*
Cineraria britteniae *Hutch. & R.A.Dyer, PBP 4168*
Cirsium vulgare *(Savi) Ten., AB s.n.*
Conyza
  albida *Spreng., ECC 2668*
  bonariensis *(L.) Cronquist, ECC 2634, 2636*
  podocephala *DC., AB s.n.*
  scabrida *DC., ECC 2635*
  ulmifolia *(Burm.f.) Kuntze, DG 193*
Cotula
  anthemoides *L., ECC 2691*
  lineariloba *(DC.) Hilliard, DG 42*
Disparago ericoides *(P.J.Bergius) Gaernt., DG 57*
Elytropappus rhinocerotis *(L.f.) Less., DG 187*
Euryops
  brachypodus *(DC.) B.Nord., PG 2887, DG 147*
  spathaceus *DC., ECC 2537*
Gazania rigens *(L.) Gaertn.* var. leucolaena *(DC.) Roessler, ECC 2645*
Gerbera cordata *(Thunb.) Less.* **ECE**, *ECC 2588, 2754*
Haplocarpa lanata *(Thunb.) Less., DG 14*
Helichrysum
  anomalum *Less., DG 79*
  appendiculatum *(L.f.) Less. DG 190*
  aureum *(Houtt.) Merr.* var. aureum, *PG 2888, TD 1097*
  cephaloideum *DC., ECC 2621*
  cymosum *(L.) D.Don* subsp. calvum *Hilliard, AB s.n., DG 80*
  foetidum *(L.) Moench, TD 1075*
  herbaceum *(Andrews) Sweet, TD & BP s.n.*
  nudifolium *(L.) Less., ECC 2480*
  rosum *(P.J.Bergius) Less.*, **U**, *ECC 2732*
  subglomeratum *Less.*, **ECE**, *DG 82*
Hypochaeris glabra *L., ECC 2623*
Lactuca
  inermis *Forssk.* [= *L. capensis* Thunb.], *ECC 2618, 2631*
  serriola *L., AB s.n.*
Metalasia muricata *(L.) D.Don., TD & BP s.n.*
Mikania capensis *DC., ECC s.n.*
Microglossa mespilifolia *(Less.) B.L.Rob., RDAB 8475*
Othonna triplinervia *DC., ECC s.n.*
Senecio
  affinis *DC., ECC 2641*
  angulatus *L.f., ECC 2775*
  arenarius *Thunb., ECC 2485*
  deltoideus *Less., ECC s.n.*
  helminthioides *(Sch. Bip.) Hilliard, PBP 4184, ECC 2684*
  inaequidens *DC., AB s.n., DG 142*
  latifolius *DC., PBP 4187*
  macroglossus *DC., ECC 2604*
  madagascariensis *Poir., ECC 2630*
  oxyriifolius *DC., DG 145*
  pterophorus *DC., DG 143*
  purpureus *L., RDAB 8345*
  speciosus *Willd., ECC 2625*
Stoebe plumosa *(L.) Thunb., AB s.n.*
Syncarpha
  argentea *(Thunb.) B.Nord., DG 188*
  striata *(Thunb.) B.Nord.*, **ECE**, *DG 170*
Tarchonanthus camphoratus *L., ECC 259, 2536*
Xanthium strumarium *L., AB s.n.*

BIGNONIACEAE
Tecoma capensis *(Thunb.) Lindl., ECC 2498, 2512*

BORAGINACEAE
Cordia caffra *Sond., PBP 4183, TD 1074*
Ehretia rigida *(Thunb.) Druce, ECC 2476, 2520*

BRASSICACEAE
Heliophila subulata *Burch. ex DC., ECC 2610, TD 1081*
Lepidium africanum *(Burm.f.) DC.* subsp. africanum, **U**, *AB s.n.*

CAMPANULACEAE
Prismatocarpus campanuloides *(L.f.) Sond., TD & BP s.n.*
Wahlenbergia
  albens *(Spreng. ex A.DC.) Lammers* [= *Lightfootia albens* Spreng. ex A.DC.], *ECC 2613*
  androsacea *A.DC., ECC 2722*
  rubens *(H.Buek) Lammers* [= *Lightfootia rubens* H.Buek], *TD 1073*
  stellarioides *Cham & Schltdl., DG 103*
  undulata *(L.f.) A.DC., DG 168*

CAPPARACEAE
Capparis sepiaria *L.* var. citrifolia *(Lam.) Toelken, RDAB 1093, TD 1085*
Maerua cafra *(DC.) Pax, TD 1076*

CELASTRACEAE
Cassine
  aethiopica *Thunb., RDAB 6039, AB s.n.*
  crocea *(Thunb.) Kuntze*, **PRO**, *RDAB 6005, ECC 2607*
  tetragona *(L.f.) Loes.*, **PRO**, *AB s.n.*
Maytenus
  capitata *(E.Mey. ex Sond.) Marais, RDAB 8476*
  heterophylla *(Eckl. & Zeyh.) N.Robson, ECC 2597, 2676, DG 181*
  undata *(Thunb.) Blakelock, RDAB 6003, ECC 2751*
Pleurostylia capensis *(Turcz.) Loes., Vermeulen 1*
Putterlickia
  pyracantha *(L.) Szyszyl., ECC 2472*
  verrucosa *(E.Mey. ex Sond.) Szyszyl., ECC s.n.*

CHENOPODIACEAE
Bassia diffusa *(Thunb.) Kuntze* [= *Chenolea diffusa* Thunb.], *AB s.n.*
Chenopodium album *L., AB s.n.*
Exomis microphylla *(Thunb.) Aellen* var. microphylla, *ECC 25*
Sarcocornia decumbens *(Toelken) A.J. Scott, AB s.n.*

COMBRETACEAE
Combretum caffrum *(Eckl. & Zeyh.) Kuntze*, **PRO**, *AJG 9471*

CONVOLVULACEAE
Convolvulus sagittatus *Thunb.*, **U**, *ECC 2578*
Falckia repens *L.f., TD 1064, DG 53*
Ipomoea
  crassipes *Hook., AB s.n.*
  ficifolia *Lindl., ECC 2660*

CRASSULACEAE
Cotyledon orbiculata *L.* var. dactylopsis *Toelken, ECC 2698*
Crassula
  cultrata *L., ECC 2534*
  ericoides *Haw.* subsp. ericoides, *ECC 2488, DG 44*
  muscosa *L.* var. muscosa, *ECC 2692*
  pellucida *L., ECC 2589*
  perfoliata *L., ECC 2510*

CUCURBITACEAE
Coccinia
  quinqueloba *(Thunb.) Cogn., PBP 4190*
  sp., *ECC 2611*
Kedrostis nana *(Lam.) Cogn.* var. nana, *ECC 2515*

DIPSACACEAE
Scabiosa
  angustiloba *(Sond.) B.L.Burtt ex Hutch., DG 138*
  columbaria *L., ECC 2471*

EBENACEAE
Diospyros
  dichrophylla *(Gand.) De Winter, ECC 2479*
  lycioides *Desf.* subsp. lycioides, *RDAB 6011*
  scabrida *(Harv. ex Hiern) De Winter, ECC 2690*
  simii *(Kuntze) De Winter*, **U**, *ECC 2479, 2647*
Euclea
  divinorum *Hiern, ECC 2658*
  natalensis *A.DC., ECC 2484, 2673*
  racemosa *Murray, AB s.n.*
  schimperi *(A.DC.) Dandy* var. daphnoides *(Hiern) De Winter*, **PRO**, *ECC s.n.*
  undulata *Thunb. RDAB 6008*

EUPHORBIACEAE
Acalypha glabrata *Thunb.* var. glabrata, *ECC 2567*
Clutia
alaternoides *L., ECC 2693*
heterophylla *Thunb., DG 34*
laxa *Eckl. ex Sond., ECC 2501, DG 37*
pulchella *L.* var. pulchella, **U**, *ECC 2674*
Croton rivularis *Müll.Arg., PBP 4172, ECC 2545*
Dalechampia capensis *Spreng.f., PBP 4166, ECC 2539*
Euphorbia
kraussiana *Bernh.* var. kraussiana, *TD 1080*
pentagona *Haw.*, **ECE**, *ECC 2538*
tetragona *Haw., ECC 2764*
triangularis *Desf., ECC s.n.*
Excoecaria simii *(Kuntze) Pax, PBP 4171*
Flueggea verrucosa *(Thunb.) G.L.Webster* [= *Phyllanthus verrucosus* Thunb.], *ECC 249*
Leidesia procumbens *(L.) Prain, PBP 4173*
Phyllanthus heterophyllus *E.Mey. ex. Müll.Arg., DG 126*

FABACEAE
Acacia
caffra *(Thunb.) Willd., ECC s.n.*
cyclops *A.Cunn. ex G.Don, AB s.n.*
karroo *Hayne, ECC 2587*
longifolia *(Andrews) Willd., ECC s.n.*
Adenopodia spicata *(E.Mey.) C.Presl, PBP 4191*
Argyrolobium collinum *Eckl. & Zeyh., TD & BP s.n.*
Aspalathus
argyrophanes *R.Dahlgren, DG 22*
chortophila *Eckl. & Zeyh., ECC 2770*
ciliaris *L., TD 1094*
spinosa *L.* subsp. flavispina *(C.Presl ex Benth.) R.Dahlgren, ECC 2616*
Chamaecrista capensis *(Thunb.) E.Mey.* var. capensis, *ECC s.n., DG 27*
Crotalaria obscura *DC., TD 1084*
Dolichos hastaeformis *E.Mey., DG 58*
Eriosema
salignum *E.Mey., TD & BP s.n.*
squarrosum *(Thunb.) Walp., DG 66*
Erythrina caffra *Thunb., ECC s.n.*
Indigofera
capillaris *Thunb., DG 94*
glaucescens *Eckl. & Zeyh., TD & BP s.n.*
stricta *L.f., TD & BP s.n.*
verrucosa *Eckl. & Zeyh., ECC 2683*
Macrotyloma axillare *(E.Mey.) Verdc.* var. axillare, *ECC 2517*
Medicago sp., *DG 107*
Melilotus alba *Desr., AB s.n.*
Rhynchosia
capensis *(Burm.) Schinz, DG 134*
caribaea *(Jacq.)DC., DG 135*
ciliata *(Thunb.) Schinz, DG 133*
Schotia latifolia *Jacq., RDAB 1092, PBP 4192*
Tephrosia
capensis *(Jacq.) Pers.* var. acutifolia *E.Mey.*, **U**, *ECC 2486*
pallens *(Aiton) Pers., DG 157*
Trifolium burchellianum *Ser.* subsp. burchellianum, **U**, *TD 1071*

FLACOURTIACEAE
Dovyalis rhamnoides *(Burch. ex DC.) Harv.*, **PRO**, *ECC 2699*
Homalium rufescens *Benth.*, **U**, *TD 1090*
Scolopia
flanaganii *(Bolus) Sim, ECC 2771*
zeyheri *(Nees) Harv., ECC 2659*

GENTIANACEAE
Chironia baccifera *L., ECC 2624*

GERANIACEAE
Monsonia emarginata *(L.f.) L'Hér., TD 1095, DG 111*
Pelargonium
alchemilloides *(L.) L'Hér., TD 1079, DG 120*
multicaule *Jacq.* subsp. multicaule, *TD 1083*
GESNERIACEAE
Streptocarpus rexii *(Hook.) Lindl., ECC 2562*

HAMAMELIDACEAE
Trichocladus ellipticus *Eckl. & Zeyh.* subsp. ellipticus, *RDAB 8346, ECC 2570*

ICACINACEAE
Apodytes dimidiata *E.Mey. ex Arn.* var. dimidiata, *RDAB 6042, ECC 2656*

LAMIACEAE
Leucas capensis *(Benth.) Engl., RDAB 6032*
Plectranthus
ecklonii *Benth., ECC 2565, 2669*
laxiflorus *Benth., ECC 2702*
madagascariensis *(Pers.) Benth., ECC 2666*
spicatus *E.Mey. ex Benth., MJW 3088, ECC 2600, 2670*
verticillatus *(L.f.) Druce, ECC 2671*
Teucrium africanum *Thunb., ECC 2703, DG 158*
Stachys
aethiopica *L., ECC 2466, 2638*
graciliflora *C.Presl, ECC 2543*
scabrida *Skan, ECC 2667*

LINACEAE
Linum thunbergii *Eckl. & Zeyh., ECC 2609*

LOBELIACEAE
Cyphia sylvatica *Eckl.* var. salicifolia *(C.Presl) E.Wimm., ECC 2583, ECC 2640*
Lobelia
anceps *L.f., PBP 4164*
coronopifolia *L., DG 105*
flaccida *(C.Presl) A.DC.* subsp. flaccida, **U**, *ECC 2615, DG 104*
Monopsis unidentata *(Dryand.) E.Wimm* [subsp. intermedia *Phillipson ined.*], *ECC 2619, DG 106*

LOGANIACEAE
Buddleja saligna *Willd., RDAB 6009*
Nuxia floribunda *Benth., AJG 9481*
Strychnos henningsii *Gilg, ECC 2766*

LORANTHACEAE
Erianthemum dregei *(Eckl. & Zeyh.) Tiegh., PBP 4193*

MALVACEAE
Hibiscus
aethiopicus *L., DG 89*
calyphyllus *Cav., ECC 2513*
ludwigii *Eckl. & Zeyh., PBP 4189*
pedunculatus *L.f., ECC 2500, 2573*
Pavonia praemorsa *(L.f.) Cav., ECC 2544*
Sida dregei *Burtt Davy, DG 149*

MESEMBRYANTHEMACEAE/AIZOACEAE
Aptenia cordifolia *(L.f.) Schwantes* var. cordifolia, *ECC 2564*
Carpobrotus edulis *(L.) L.Bolus, ECC s.n.*
Disphyma crassifolium *(L.) L.Bolus*, **U**, *AB s.n.*
Lampranthus sp., *ECC 2652, DG 98*

MONTINIACEAE
Montinia caryophyllacea *Thunb.*, **U**, *ECC 2677, ECC 2678, DG 112*

MORACEAE
Ficus
burtt-davyi *Hutch., PBP 4182*
natalensis *Hochst., ECC s.n.*
sur *Forssk., ECC s.n.*
thonningii *Blume, AJG 9472, 9480, PBP 4185*

MYRSINACEAE
Rapanea melanophloeos *(L.) Mez, ECC 2740*

MYRTACEAE
Eugenia albanensis *Sond., DG 67*

NYMPHAEACEAE
Nymphaea nouchali *Burm.f.* var. caerulea *(Sav.) Verdc.* [= *N. capensis* Thunb. var. *capensis*], *ECC 2598*

OCHNACEAE
Ochna
arborea *Burch. ex DC.* var. arborea, **PRO**, *ECC 2748*
serrulata *(Hochst.) Walp., ECC 2533*

OLEACEAE
Chionanthus foveolatus *(E.Mey.) Stearn* subsp. foveolatus, **U**, *ECC 2768*
Jasminum
angulare *Vahl, ECC 2726*
multipartitum *Hochst., ECC 2546*

Olea
capensis *L.* subsp. capensis, *ECC s.n.*
europaea *L.* subsp. africana *(Mill.) P.S.Green, ECC s.n.*
woodiana *Knobl., ECC s.n.*

OLINIACEAE
Olinia ventosa *(L.) Cufod., RDAB BRI B 1090*

ONAGRACEAE
Oenothera stricta *Ledeb. ex Link, TD 1096, DG 114*

OXALIDACEAE
Oxalis
algoensis *Eckl. & Zeyh., ECC 2483*
bifurca *Lodd.*, **U**, *ECC 2584*
bowiei *Lindl., ECC 2568*
smithiana *Eckl. & Zeyh., ECC 2464, DG 115*
stenorrhyncha *Salter*, **ECE**, *ECC 2514*

PAPAVERACEAE
Argemone ochroleuca *Sweet* subsp. ochroleuca [= *A. subfusiformis* G.B.Ownbey], *ECC s.n.*

PERIPLOCACEAE
Raphionacme sp., *ECC s.n.*

PIPERACEAE
Peperomia tetraphylla *(G.Forst.) Hook. & Arn., ECC 2569*

PITTOSPORACEAE
Pittosporum viridiflorum *Sims, RDAB 6010, ECC s.n.*

PLANTAGINACEAE
Plantago lanceolata *L., DG 127*

PLUMBAGINACEAE
Limonium scabrum *(Thunb.) Kuntze*, **U**, *AB s.n.*
Plumbago auriculata *Lam., ECC s.n.*

POLYGALACEAE
Polygala myrtifolia *L., ECC 2594*

PORTULUCACEAE
Portulacaria afra *Jacq., ECC s.n.*

PRIMULACEAE
Anagallis arvensis *L., DG 8*

PROTEACEAE
Leucospermum cuneiforme *(Burm.f.) Rourke*, **U**, *ECC 2643, DG 100*

PTAEROXYLACEAE
Ptaeroxylon obliquum *(Thunb.) Radlk., ECC 2739*

RHAMNACEAE
Noltea africana *(L.) Rchb.f.*, **U**, *RDAB BRI B 1091*
Scutia myrtina *(Burm.f.) Kurz, RDAB BRI B 6040, ECC 2505, 2629*

ROSACEAE
Cliffortia sp., *ECC s.n.*
Rubus pinnatus *Willd., ECC 2614*

RUBIACEAE
Anthospermum
aethiopicum *L., ECC 2687, DG 11*
paniculatum *Cruse, DG 12*
Canthium
ciliatum *(Klotzsch) Kuntze, ECC s.n.*
inerme *(L.f.) Kuntze, ECC 2750*
spinosum *(Klotzsch) Kuntze, ECC 2761*
Coddia rudis *(E.Mey. ex Harv.) Verdc., ECC 2651, DG 171*
Gardenia thunbergia *Thunb.*, **R**, *PBP 4181, ECC 2701*
Hyperacanthus amoenus *(Sims) Bridson, PBP 4167, ECC 2556*
Pavetta
capensis *(Houtt.) Bremek.* subsp. capensis, **I**, *ECC 2592*
lanceolata *Eckl., RDAB 6000*
Psychotria capensis *(Eckl.) Vatke, ECC 2664*
Psydrax obovata *(Eckl. & Zeyh.) Bridson, ECC 2738*
Richardia brasiliensis *Gomes, DG 136*
Rothmannia
capensis *Thunb., Galpin 172*
globosa *(Hochst.) Keay, ECC s.n.*

RUTACEAE
Agathosma
capensis *(L.) Duemmer, DG 4*
peglerae *Duemmer, TD & BP s.n.*
Calodendrum capense *(L.f.) Thunb., ECC s.n.*
Vepris lanceolata *(Lam.) G.Don, ECC 2590*
Zanthoxylum capense *(Thunb.) Harv., ECC 2745*

SALVADORACEAE
Azima tetracantha *Lam., ECC 2760*

SANTALACEAE
Osyridicarpos schimperianus *(Hochst. ex A.Rich.) A.DC., RDAB 6044*
Thesium
acutissimum *A.DC., DG 161*
galioides *A.DC., RDAB BS 8393*
junceum *Bernh., DG 162*
scandens *Sond.*, **ECE**, *PBP 4188*

SAPINDACEAE
Allophylus decipiens *(Sond.) Radlk.*, **PRO**, *PBP 4194*
Dodonaea angustifolia *L.f., ECC 2719*
Hippobromus pauciflorus *(L.f.) Radlk., ECC 2504*
Pappea capensis *Eckl. & Zeyh., RDAB 6004*

SAPOTACEAE
Mimusops obovata *Sond., PBP 4178, ECC 2557*
Sideroxylon inerme *L.* subsp. inerme, *RDAB 6002, ECC 2758*

SCROPHULARIACEAE
Alectra capensis *Thunb., TD & BP s.n.*
Jamesbrittenia phlogiflora *(Benth.) Hilliard* [= *Sutera phlogiflora* (Benth.) Hiern], *RDAB 8395*
Lindernia parviflora *(Roxb.) Haines, TD 1072*
Nemesia floribunda *Lehm., DG 9*
Phyllopodium cuneifolium *(L.f.) Benth., ECC 2646, DG 189*
Sutera
campanulata *(Benth.) Kuntze, ECC 2475*
polyantha *(Benth.) Kuntze, DG 156*
Zaluzianskya capensis *(L.) Walp., DG 172*

SELAGINACEAE
Hebenstretia integrifolia *L., ECC 2553*
Selago dolosa *Hilliard, ECC 2650, DG 140*
Walafrida albanensis *(Schltr.) Rolfe, ECC 2580, DG 169*

SOLANACEAE
Cestrum laevigatum *Schltdl., AJG 9479*
Datura stramonium *L., AB s.n.*
Lycium ferocissimum *Miers, AB s.n*
Nicotiana glauca *Graham, TD 1077*
Solanum
acanthoideum *E.Mey., ECC 2542*
aculeastrum *Dunal* subsp. aculeastrum, *DG 150*
americanum *Mill., AB s.n.*
pseudocapsicum *L., PBP 4176*
rigescens *Jacq., ECC 2591*
Withania somnifera *(L.) Dunal, TD 1093*

STERCULIACEAE
Dombeya tiliacea *(Endl.) Planch.*, **U**, *PBP 4177, ECC 2541*
Hermannia
althaeoides *Link, ECC 2516, DG 87*
flammea *Jacq., ECC 2474, 2535*
gracilis *Eckl. & Zeyh., ECC 2531*
veronicifolia *(Eckl. & Zeyh.) Hochr., TD 1068*
Melhania didyma *Eckl. & Zeyh., ECC 2469*

THYMELAEACEAE
Englerodaphne subcordata *(Meisn.) Engl.*, **U**, *PBP 4175, ECC 2642, 2695*
Gnidia
anthylloides *(L.f.) Gilg*, **U**, *TD 1088, DG 74*
laxa *(L.f.) Gilg, TD 1089*
styphelioides *Meisn., TD 1098, DG 75*
thesioides *Meisn.* var. thesioides, *TD 1087*
Passerina rigida *Wikstr., AB s.n.*
Struthiola
leptantha *Bolus., ECC 2686*
parviflora *Bartl. ex Meisn., DG 192*

TILIACEAE
Grewia occidentalis *L.f., ECC 2470*

ULMACEAE
Celtis africana *Burm.f., ECC 2547*
Chaetacme aristata *E.Mey. ex Planch., PBP 4179*

URTICACEAE
Laportea grossa *(Wedd.) Chew, ECC 2561*

VERBENACEAE
Lippia javanica *(Burm.f.) Spreng., ECC 2509, DG 101*

VISCACEAE
Viscum
obscurum *Thunb., ECC 2487*
rotundifolium *L.f., ECC 2482*

VITACEAE
Rhoicissus
digitata *(L.f.) Gilg & M.Brandt, ECC 2491, 2492*
tomentosa *(Lam.) Wild & R.B.Drumm., ECC 2747*
tridentata *(L.f.) Wild & R.B.Drumm.* subsp. cuneifolia *(Eckl. & Zeyh.) Urton, ECC 2672*