# SAVANNA FIRE AND THE ORIGINS OF THE "UNDERGROUND FORESTS" OF AFRICA

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**SUMMARY**

1. The origin of fire-adapted lineages is a long-standing question in ecology. Although phylogeny can provide a significant contribution to the ongoing debate, its use has been precluded by the lack of comprehensive DNA data. Here we focus on the 'underground trees' (= geoxyles) of southern Africa, one of the most distinctive growth forms characteristic of fire-prone savannas.
2. We placed geoxyles within the most comprehensive dated phylogeny for the regional flora comprising over 1400 woody species. Using this phylogeny, we tested whether African geoxyles evolved concomitantly with those of the South American cerrado and used their phylogenetic position to date the appearance of humid savannas.
3. We found multiple independent origins of the geoxyle life-form mostly from the Pliocene, a period consistent with the origin of cerrado, with the majority of divergences occurring within the last 2 Ma. When contrasted with their tree relatives, geoxyles occur in regions characterized by higher rainfall and greater fire frequency.
4. Our results indicate that the geoxylic growth form may have evolved in response to the interactive effects of frequent fires and high precipitation. As such, geoxyles may be regarded as markers of fire-maintained savannas occurring in climates suitable for forests.

**Keywords**: Geoxylic suffrutex, fire adaptation, Pliocene, phylogeny, trees of southern Africa

## INTRODUCTION

Savannas, ecosystems with continuous grass cover and variable woody cover, are one of the world's major biomes, reaching their greatest extent in the seasonally dry tropics. Over large parts of their climate range, savannas occur in mosaics with forests leading to the idea that they are products of anthropogenic fire and deforestation. However, there is accumulating evidence that, worldwide, savannas are of ancient origin. Dated molecular phylogenies point to the origins of the $C_4$ grasses that dominate savannas in the Oligocene (earliest at 32 Ma) with considerable diversification already occurring by the Miocene (Christin *et al*., 2008, 2014; Edwards *et al*., 2010; Bouchenak-Khelladi *et al*., 2014). The savanna biome first became a prominent component of tropical vegetation from the late Miocene (~8 Ma) according to isotopic evidence from palaeosols and fossil teeth (Cerling *et al*., 1997). Thus, savannas were a major component of tropical vegetation millions of years before humans began to fell and burn forests. Studies indicated that once savannas began to spread, they expanded rapidly reaching their maximum extent during Pleistocene glacial periods. Today, they cover about 20% of the world's vegetated land surface (Collinson, 1988; Bond, 2008).

The causes of this rapid spread and the long delay between origins of $C_4$ grass lineages and their expansion into the savanna biome, has been the topic of intense research interest over the past 20 years (Cerling *et al*., 1997; Sage, 2004; Keeley & Rundel, 2005; Beerling & Osborne, 2006; Osborne, 2008; Edwards *et al*., 2010; Scheiter *et al.,* 2012). Ehleringer *et al*. (1997) were the first to suggest a general hypothesis for the appearance of $C_4$ grasses arguing from photosynthetic considerations that $C_4$ grasses would first have outcompeted their $C_3$ precursors in low latitudes with warm growing seasons and when atmospheric $CO_2$ dropped below 500 ppm. They suggested that this threshold was passed in the late Miocene, explaining the rapid global expansion of savannas from that time. However, subsequent studies, using a variety of proxies, have shown that $CO_2$ dropped below the 500 ppm threshold in the Oligocene, much earlier than the rise of the savanna biome, but consistent with the origin of $C_4$ grasses and other lineages with $CO_2$ concentrating mechanisms (Pagani *et al*., 2002; Arakaki *et al*., 2011; Beerling & Royer, 2011).

While photosynthetic advantage may explain how $C_3$ grasses were outcompeted by $C_4$ grasses, it does not, however, explain how grasses outcompete trees, and therefore why grasslands replaced ancestral forests. $C_4$ grasses are

intolerant of shading and are rare or absent in closed forest understories (Ehleringer, 1978; Sage, 2001). For the savanna biome to have expanded, forests would have had to retreat. Increasing aridity is one potential pathway to forest retreat. Phytolith studies in central North America have shown that forests were replaced by $C_3$ grasslands, which were in turn replaced by $C_4$ grasses during the late Miocene (Strömberg, 2005). The mechanism for forest retreat has been attributed to increasing aridity from the Oligocene. Forest retreat due to growing aridity has also been invoked to explain the spread of grasses in Pakistan and Europe (Strömberg, 2011).

However, a climate-based hypothesis for the distribution of savannas does not explain why many contemporary $C_4$ savannas occur as alternative states to closed forests in tropical landscapes (Hirota *et al*., 2011; Lehmann *et al*., 2011; Staver *et al*., 2011a). The presence of forests indicates climatic conditions that can support closed vegetation. Fire is increasingly recognised as a key factor maintaining contemporary grasslands where the climate can support forests (Bond *et al*., 2005; Lehmann *et al*., 2011; Staver *et al*., 2011b, Hoffmann *et al*., 2012). $C_4$ grassy biomes currently account for about 80% of the world's burnt area per year (Chuvieco *et al*., 2008; van der Werf *et al*., 2010), and many humid savannas burn several times in a decade and some burn twice within a year (Chuvieco *et al*., 2008; Archibald *et al.,* 2013). The combination of high grass productivity given sufficient moisture, low decomposition rates of $C_4$ grasses and a dry season suitable for burning every year provide the essential ingredients for the frequent fires characteristic of $C_4$ savannas (Bond *et al*., 2003; Bond, 2008). Savanna fires can penetrate forest margins and, depending on the rates of postburn forest recovery, facilitate savanna advance into forest habitat (Kellman, 1984; Hoffmann *et al*., 2009, 2012; Murphy & Bowman, 2012). Because tree recovery from injury, such as fire damage, is particularly slow at low $CO_2$, there may additionally have been synergies between fire-maintained savannas versus closed forests and atmospheric composition (Bond & Midgley 2000, 2012; Beerling & Osborne 2006; Kgope *et al*., 2010; Scheiter *et al.,* 2012).

Demonstrating an empirical link between fire and the advance of savanna into forest has been a challenge. Charcoal records from marine cores show an exponential increase in fire activity coincident with the expansion of the savanna biome (Herring, 1985; Keeley & Rundel, 2005; Morley & Richards, 1992; Hoetzel *et al*., 2013). Unfortunately, there is no equivalent terrestrial fossil record. The landscapes where fires are currently most prominent are deeply weathered and not conducive to fossil

preservation. Thus, the fossil evidence is currently weighted towards the aridity route for forest retreat and savanna expansion (Strömberg, 2011). Dated molecular phylogenies provide an alternative tool for exploring the origins of fire adapted lineages and biomes (e.g. Bytebier *et al.*, 2011; He *et al.*, 2011; Midgley & Bond, 2011).

Simon *et al.* (2009) and Simon & Pennington (2012) used phylogenetic methods to infer the history of fire activity in Brazilian savannas (cerrado), and estimated the origin of woody plants restricted to the cerrado as less than 10 Ma with most savanna lineages dated as less than 5 Ma, consistent with isotopic evidence for the timing of the spread of $C_4$ grassy biomes. Thus, far from being an ancient vegetation type (e.g. Cole, 1986), cerrado is more likely a recently evolved biome. Savanna lineages differ from their forest relatives in a suite of fire-adapted traits: thick bark, reduced height, and large underground storage organs (Coutinho, 1982, 1990; Hoffmann *et al.*, 2003, 2004, 2009, 2012). One of the most distinctive growth forms characteristic of savannas is the geoxylic suffrutex (White, 1979; "geoxyle" of Simon & Pennington, 2012). These are functionally herbaceous plants with “woody xylopodia underground but only limited and often short lived aerial shoots” (Simon & Pennington, 2012; see also Coutinho, 1982, 1990; Appezzato-da-Glória *et al.*, 2008). Xylopodia are underground structures consisting of "a lignified complex of root and shoot tissue with a high capacity to resprout and produce new shoot buds" (Appezzato-da-Glória *et al.,* 2008), and may provide an alternative adaptive escape route from fire. White (1979) described this growth form for African savannas and likened these plants to underground trees with branches buried and only the shoot tips and leaves emerging – he referred to them eloquently as Africa’s “underground forests”. We use the term ‘geoxyles’ for underground trees hereafter.

Here, we locate the origins of the geoxyle life-form on the first comprehensive phylogeny of African woody plants to explore the origins of African savannas. First, we test whether woody species with this putatively fire-adapted growth form emerged at similar times to those of South American cerrado. Second, we explore the origins of the geoxyle life-form and consider whether these species provide a marker for the appearance of humid savannas through the fire mechanism of forest retreat. Last, we contrast the diversity of lineages contributing to the woody flora of African savannas with the flora of the South American cerrado.

## MATERIALS AND METHODS

Our study area includes the Zambezian region between 8°5' S and 34°5' S latitude and 11°7' W and 40°9' E longitude. It encompasses twelve countries including Angola, Botswana, DRC, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe with the Atlantic and the Indian Oceans delimiting the region in the west and east, respectively.

### Taxon Sampling

A total of 1,400 (of the ~2200) woody plant species comprising 117 families and 562 genera (Coates Palgrave, 2002; Schmidt *et al*., 2007; Boon, 2010; Van Wyk *et al*., 2011; Germishuizen & Meyer, 2013) were sampled over a period of six years in southern Africa (Note 1), including 53 of the ~200 geoxyle taxa recorded for the region (Note 2). We follow White's (1976) definition of geoxyles as plants that have a perennial below-ground woody root/stem, flowering and fruiting on seasonal and short-lived (resprouted) stems that do not exceed 1 m tall, and occur in areas receiving annual rainfall above 750 mm. As construed by White (1976), the term 'geoxylic suffrutex' is confined to those woody underground trees that belong to genera whose species are mainly otherwise trees and shrubs. He excluded from his definition those genera that have similar subterranean growth forms but which lack large tree relatives e.g. *Acalypha, Eriosema*, *Gnidia, Hypericum, Indigofera*, *Phyllanthus, Syncolostemon, Tephrosia* and *Vernonia.* White's definition includes the most striking examples of closely related tall trees and functionally herbaceous "underground trees" (Figures 1-3).

### Phylogeny Reconstruction

DNA extractions from leaf material, polymerase chain reactions and sequencing for the two-plant DNA barcoding regions (*rbcLa* and *matK*) (CBOL Plant Working Group, 2009) were conducted using standard protocols (Hajibabaei *et al*., 2005; Ivanova *et al*., 2008). Complementary strands were assembled and edited using Sequencher v.4.8 (Gene Codes, Ann Arbor, Michigan, USA). The *matK* alignment was performed using Transalign (Bininda-Emonds, 2005). The combined data set comprised 552 and 942 base pairs for *rbcLa* and *matK* respectively. Voucher specimen information and GenBank accession numbers are listed in Note 2 and on the

BOLD DataSystem (www.boldsystems.org). The phylogeny was reconstructed using 1,400 taxa representing 117 families and 562 genera of Gymnosperms and Angiosperms. A total of 53 geoxyle taxa representing 22 APG families were included in the matrix.

A maximum likelihood (ML) analysis was performed on the combined data set using RAxML-HPC2 v.7.2.6 (Stamatakis *et al*., 2008) on the CIPRES cluster (Miller *et al*., 2009), and enforcing topological constraints assuming the APG III backbone from Phylomatic v.3 (Webb & Donoghue, 2005). The phylogeny was rooted using representatives of *Acrogymnospermae* (*Callitris, Cupressus, Cycas*, *Encephalartos*, *Juniperus*, *Pinus*, *Podocarpus*, *Stangeria, Widdringtonia,* and *Zamia*) (Cantino *et al*., 2007; Soltis *et al*., 2011). Branch lengths were then calibrated in millions of years using a Bayesian MCMC approach implemented in BEAST v.1.4.8 (Drummond & Rambaut, 2007), keeping the tree topology fixed. First, the RAxML starting tree was adjusted so that branch lengths satisfied all fossil prior constraints, using PATHd8 v.1.0 (Britton *et al*., 2007). Second, we assumed an uncorrelated lognormal (UCLN) model for rate variation among branches and the GTR + I + Γ model of sequence evolution for each partition based on the Akaike information criterion evaluated using Modeltest v.2.3 (Nylander, 2004). Third, we used 28 fossil calibration points from Bell *et al.* (2010) (Table S1) as minimum age constraints on the stem node of each group, except for the root of the Eudicots, which was set at 124 myr, with a log normal distribution following Bell *et al*. (2010). We performed four independent runs of Markov chain Monte Carlo (MCMC) each for 100 million generations, sampling every 1000 generations. We assessed the MCMC log files for convergence using the effective sample size statistics in Tracer v.1.5 (Drummond & Rambaut, 2007). The BEAST analysis reported ESS values > 100, indicating that the posterior estimates were not unduly influenced by autocorrelation. We combined the resulting tree files from the four runs in LogCombiner v.1.7.5, downsampling 1 in 20,000 trees, and discarding the first 25% trees as burn-in. The maximum clade consensus tree, with means and 95% highest posterior density (HPD) intervals, was generated with TreeAnnotator v.1.7.5.

**Statistical Analysis**

To explore the divergences between African forest and savanna trees, we categorized each species as occurring predominantly in one of savanna, forest, or the fynbos of

Cape Floristic Region (CFR). Savannas were characterized by the presence of a $C_4$ grassy layer which forests lack (Ratnam *et al*., 2011), and defined as tree-grass mixtures where $C_4$ grasses form a near-continuous herbaceous layer (Ratnam *et al*., 2011). Forests, in contrast, were defined as closed woody vegetation casting too much shade to support a continuous $C_4$ grassy layer. We did not distinguish between the different forest types such as rainforests, dry deciduous forests or Afro-temperate evergreen forests. The biomes of the Cape Floristic Region are open shrublands including fynbos, a fire-prone heathland, and succulent shrublands (Mucina & Rutherford, 2006). We then used the phylogeny to identify sister species pairs falling exclusively within one biome type, and extracted their times of divergence. The phylogeny for southern African trees represents a regional sample of arborescent species, i.e. a particular small sample of angiosperms, thus making ancestral state reconstruction problematic due to the very large number of missing species (i.e. non-tree species, and trees found outside of southern Africa). Importantly, our estimates of divergence times are conservative because nodes subtending sister pairs are less likely to be split by missing taxa than nodes deeper in the tree. For example, it will be less common for sister species found within the African savanna biome to have a closer relative outside southern Africa – which would bias us towards overestimating divergence times. We assume that the sampling is equal among biomes (forest 44.3%, savanna 48.4%, and fynbos 7.3%), a reasonable assumption given the sampling protocol. We note that the shrubland vegetation of the fynbos is naturally tree-species poor.

We compare the distribution of evolutionary ages between African savanna and forest sister taxa using a Wilcoxon rank sum test. For the reasons described above, we do not attempt to reconstruct ancestral ecologies directly, but we suggest that if sister taxa occur within the same biome, it is probable that they diverged within this biome. The oldest sister divergence within a biome may thus provide an approximate minimum age for the biome. Next, we examine evolutionary splits between geoxyles and their tree sisters. Here, we include only unambiguous independent shifts to a geoxyle life-form, where a geoxyle species is nested within a more inclusive tree clade (Table 1), thereby allowing us to infer directionality. The geoxyle life-form has apparently arisen multiple times in a few clades, possibly accompanied by reversals to a tree life-form (e.g. *Fadogia*, *Clerodendrum*, *Elephantorrhiza* and *Salacia*) (Figure 1). However, taxon sampling within these

**Table 1.** Ecological and environmental data characterizing southern African geoxyles and their tree sister groups

| Scientific Name (Voucher) | Sisters | Max height (m) | Spines | Poisonous | Fruit type coding (0=drv; 1=fleshv) | Fruit volume ($cm^3$)* | Seed size (cm)§ | Fire return interval | MAP** (mm) | MAT*** (°C) | Mean elevation (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Carissa praetermisa* (OM2650) | 2 | 3 | 1 | 0 | 1 | NA | 0.5 | 3.3 | 968 | 24.1 | 60 |
| *Carissa tetramera* (RBN210) | 2 | 3 | 1 | 0 | 1 | 0.52 | NA | 2.5 | 759 | 21.8 | NA |
| *Caesaria* sp. (BB12551) | 1 | 1 | 0 | 0 | 0 | 4.19 | NA | 1.7 | 1081 | 24.8 | 220 |
| *Casearia* sp. nov. (Abbott9191) | 1 | 20 | 0 | 0 | 0 | 4.189 | NA | 2.2 | 924 | 17.8 | 630 |
| *Combretum engleri* (OM1025) | 3 | 4 | 0 | 0 | 0 | 14.14 | NA | 2.6 | 499 | 21.8 | 1120 |
| *Combretum platypetalum* (OM2092) | 3 | 3 | 0 | 0 | 0 | 28.51 | NA | 4.0 | 986 | 21.3 | 1070 |
| *Dichapetalum cymosum* (OM2117) | 4 | 0.5 | 0 | 0 | 0 | 13.09 | NA | 2.6 | 496 | 20.9 | 1070 |
| *Dichapetalum barbosae* (OM2374) | 4 | NA | 0 | 0 | 0 | 0.79 | NA | NA | NA | NA | 90 |
| *Dissotis canescens* (BB12691) | 5 | 1.8 | 0 | 0 | 0 | 0.00013 | 0.75 | 3.6 | 1015 | 22.0 | 780 |
| *Dissotis princeps* (OM3806) | 5 | 3 | 0 | 0 | 0 | 0.00045 | NA | 2.8 | 932 | 20.0 | 790 |
| *Erythrina abyssinica* (OM2095) | 6 | 10 | 1 | 0 | 0 | NA | 1.2 | 2.9 | 779 | 20.3 | 920 |
| *Erythrina acanthocarpa* (OM3916B) | 6 | 2 | 1 | 0 | 0 | 0.36 | NA | 1.7 | 647 | 15.7 | 1030 |
| *Erythrina caffra* (BS0057) | 6 | 20 | 1 | 1 | 0 | NA | 0.8 | 1.8 | 737 | 18.3 | 410 |
| *Erythrina humeana* (OM741) | 7 | 4 | 1 | 0 | 0 | NA | 0.8 | 2.5 | 807 | 19.1 | 680 |
| *Erythrina zeyheri* (OM1589) | 7 | 0.5 | 1 | 0 | 0 | 0.042 | 1.7 | 2.5 | 750 | 16.6 | 1450 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| *Eugenia albanensis* (BB7021) | 8 | 0.4 | 0 | 0 | 1 | 1.77 | NA | 2.2 | 845 | 20.1 | 390 |
| *Eugenia capensis* A (BB12289) | 9 | 4 | 0 | 0 | 1 | 1.77 | NA | 2.4 | 778 | 23.3 | 70 |
| *Eugenia capensis* (Abbott9225) | 9 | 4 | 0 | 0 | 1 | 4.19 | NA | 2.6 | 860 | 21.2 | NA |
| *Eugenia verdoorniae* (Abbott9122) | 8 | 3 | 0 | 0 | 1 | 4.19 | NA | 2.3 | 1027 | 17.7 | 470 |
| *Ficus capreifolia* (OM2566) | 10 | 7 | 0 | 0 | 1 | 6.28 | NA | 3.0 | 743 | 22.7 | 420 |
| *Ficus pygmaea* (MWC20237) | 10 | 3 | 0 | 0 | 1 | 1.15 | NA | 4.7 | 1111 | 21.4 | 990 |
| *Gardenia cornuta* (OM2241) | 11 | 5 | 0 | 0 | 1 | 9.42 | NA | 2.3 | 830 | 19.9 | 470 |
| *Gardenia resiniflua* (OM1272) | 11 | 7 | 0 | 0 | 1 | 0.0014 | 0.35 | 2.6 | 619 | 21.5 | 800 |
| *Gardenia subacaulis* (BB12202) | 11 | 0.3 | 0 | 0 | 1 | 85.08 | 0.5 | 3.7 | 1063 | 21.4 | 1070 |
| *Jasminum fluminense* (OM273) | 12 | 9 | 0 | 0 | 1 | NA | NA | 2.1 | 602 | 20.7 | 830 |
| *Jasminum quinatum* (T416) | 12 | 0.4 | 0 | 0 | 1 | NA | NA | 2.5 | 772 | 16.3 | 1440 |
| *Lannea discolor* (RL1235) | 13 | 15 | 0 | 0 | 1 | 0.26 | NA | 2.6 | 648 | 20.4 | 950 |
| *Lannea edulis* (OM1991) | 13 | 0.3 | 0 | 0 | 1 | 0.40 | NA | 4.1 | 1008 | 21.3 | 1020 |
| *Leptactina benguelensis* (BB11158) | 14 | 0.4 | 0 | 0 | 1 | 1.51 | 0.3 | 4.3 | 1124 | 21.3 | 1090 |
| *Leptactina delagoensis* (OM1598) | 14 | 4 | 0 | 0 | 1 | 0.0080 | NA | 2.7 | 736 | 23.3 | 220 |
| *Leucospermum gerrardii* (MWC26648) | 15 | 0.4 | 0 | 0 | 0 | NA | NA | 3.1 | 974 | 17.2 | 900 |
| *Leucospermum saxosum* (BB12687) | 15 | 2 | 0 | 0 | 0 | NA | NA | 2.4 | 995 | 18.2 | 1090 |
| *Lopholaena coriifolia* (OM & MvdB41) | 16 | 2 | 0 | 0 | 0 | NA | NA | 2.4 | 709 | 18.3 | 1270 |
| *Lopholaena disticha* (OM3909) | 16 | 1 | 0 | 0 | 0 | NA | NA | 2.6 | 837 | 17.8 | 1080 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| *Maerua andradae* (LT1802) | 17 | 0.3 | 0 | NA | 1 | NA | NA | 3.6 | 1053 | 25.3 | 290 |
| *Maerua juncea* (OM1592) | 17 | 5 | 0 | NA | 1 | 14.73 | NA | 2.0 | 611 | 21.5 | 570 |
| *Maerua rosmarinoides* (OM1476) | 17 | 5 | 0 | NA | 1 | NA | NA | 2.5 | 841 | 18.7 | 770 |
| *Milletia makoudensis* (LT1723) | 18 | 1.2 | 0 | 0 | 0 | 8.25 | NA | 1.9 | 1059 | 24.9 | 250 |
| *Millettia usaramensis* (OM2433) | 18 | 10 | 0 | 0 | 0 | 22.16 | 0.6 | 3.3 | 889 | 22.7 | 520 |
| *Morella brevifolia* (OM3812) | 19 | 0.4 | 0 | 0 | 1 | 0.014 | NA | 2.8 | 833 | 16.4 | 1050 |
| *Morella serrate* (Abbott9173) | 19 | 10 | 0 | 0 | 1 | 0.014 | NA | 2.6 | 716 | 18.0 | 960 |
| *Ochna arborea* (CS03) | 20 | 12 | 0 | 0 | 1 | 0.26 | NA | NA | NA | NA | 810 |
| *Ochna confuse* (OM3828) | 20 | 2 | 0 | 0 | 1 | 0.34 | NA | 3.0 | 1015 | 20.5 | 1090 |
| *Ozoroa* sp. (BB8074) | 21 | 0.6 | 0 | 0 | 1 | 0.11 | NA | 2.7 | 961 | 20.3 | 590 |
| *Ozoroa albicans* (BB8988) | 21 | 1 | 0 | 0 | 1 | NA | NA | 1.5 | 694 | 21.1 | 580 |
| *Ozoroa laetans* (BF12423) | 21 | 1.5 | 0 | 0 | 1 | 0.28 | NA | 1.8 | 706 | 20.5 | 670 |
| *Ozoroa paniculosa* (OM1948) | 21 | 6 | 0 | 0 | 1 | 0.37 | NA | 2.0 | 523 | 19.9 | 1050 |
| *Parinari capensis* subsp. *incohata* (OM3613) | 22 | 2.5 | 0 | 0 | 1 | 0.79 | NA | 2.2 | 796 | 22.6 | 100 |
| *Parinari excels* (BB10672) | 22 | 35 | 0 | 0 | 1 | 13.09 | NA | NA | NA | NA | NA |
| *Paropsia braunii* (BB10672) | 34 | 10 | 0 | 0 | 0 | 0.79 | NA | 2.6 | 742 | 23.9 | 180 |
| *Paropsia brazenana* (Fishwick sn) | 34 | 1 | 0 | 0 | 0 | 3.39 | NA | 4.6 | 1046 | 21.5 | 1000 |
| *Protea gaguedi* (Turpin471) | 24 | 10 | 0 | 0 | 0 | NA | NA | NA | NA | NA | 1140 |
| *Protea parvula* (OM3817) | 24 | 0.16 | 0 | 0 | 0 | NA | NA | 2.5 | 878 | 16.6 | 1340 |
| *Ritchiea capparoides* (LT1805) | 25 | 4 | 0 | NA | 1 | NA | NA | NA | NA | NA | NA |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Ritchiea pygmae* (LT1801) | 25 | 0.4 | 0 | NA | 1 | NA | NA | 3.0 | 1074 | 25.1 | 210 |
| *Searsia dentata* (OM2251) | 28 | 5 | 0 | 0 | 1 | 0.034 | 0.25 | NA | NA | NA | 1250 |
| *Searsia leptodictya* (RL1655) | 27 | 9 | 0 | 0 | 1 | 0.065 | 0.25 | 2.3 | 609 | 19.0 | 1110 |
| *Searsia pendulina* (OM1984) | 26 | 10 | 0 | 0 | 1 | 0.014 | 0.63 | NA | NA | NA | 970 |
| *Searsia pondoensis* (BT10242) | 26 | 1 | 0 | 0 | 1 | 0.065 | 0.25 | 2.6 | 890 | 17.6 | 980 |
| *Searsia pygmaea* (BL7355) | 27 | 0.2 | 0 | 0 | 1 | 0.059 | 0.25 | 3.0 | 1114 | 17.6 | 1050 |
| *Searsia tumulicola* subsp. *meeseana* (OM3818) | 28 | 0.7 | 0 | 0 | 1 | 0.11 | 0.21 | 2.3 | 875 | 17.4 | 1280 |
| *Searsia wilmsii* (OM3910) | 26 | 0.5 | 0 | 0 | 1 | 0.065 | 0.25 | 2.4 | 826 | 18.9 | 940 |
| *Tetracera boiviniana* (BB9126) | 29 | 4.5 | 0 | 0 | 0 | 0.94 | 0.05 | NA | NA | NA | NA |
| *Tetracera masuiana* (BB11174) | 29 | 1 | 0 | 0 | 0 | 1.33 | 0.45 | 3.9 | 1169 | 22.3 | 990 |
| *Ziziphus abyssinica* (OM2582) | 30 | 13 | 1 | 0 | 1 | 14.14 | 0.7 | 3.4 | 774 | 23.0 | 650 |
| *Ziziphus zeyheriana* (OM3913) | 30 | 1.2 | 1 | 0 | 1 | 0.27 | 0.5 | 2.3 | 637 | 19.3 | 1020 |

* Assuming spheroid fruits; ** MAP = Mean annual precipitation; *** MAT = Mean annual temperature ; §Seed size is measured as the longest axis of the seed; NA = not available.


Fig. 1 Examples of geoxyles: a. Lannea edulis (Anacardiaceae); b. Combretum platypetalum subsp. oatesii (Combretaceae); c. Morella pilulifera (Myricaceae); d. Parinari capensis subsp. capensis (Chrysobalanaceae); e. Elephantorrhiza elephantina (Fabaceae); f. Dichapetalum cymosum (Dichapetalaceae); g. Ziziphus zeyheriana (Rhamnaceae) – Photographs: a. John Burrows; b-g. Olivier Maurin
209x244mm (300 x 300 DPI)

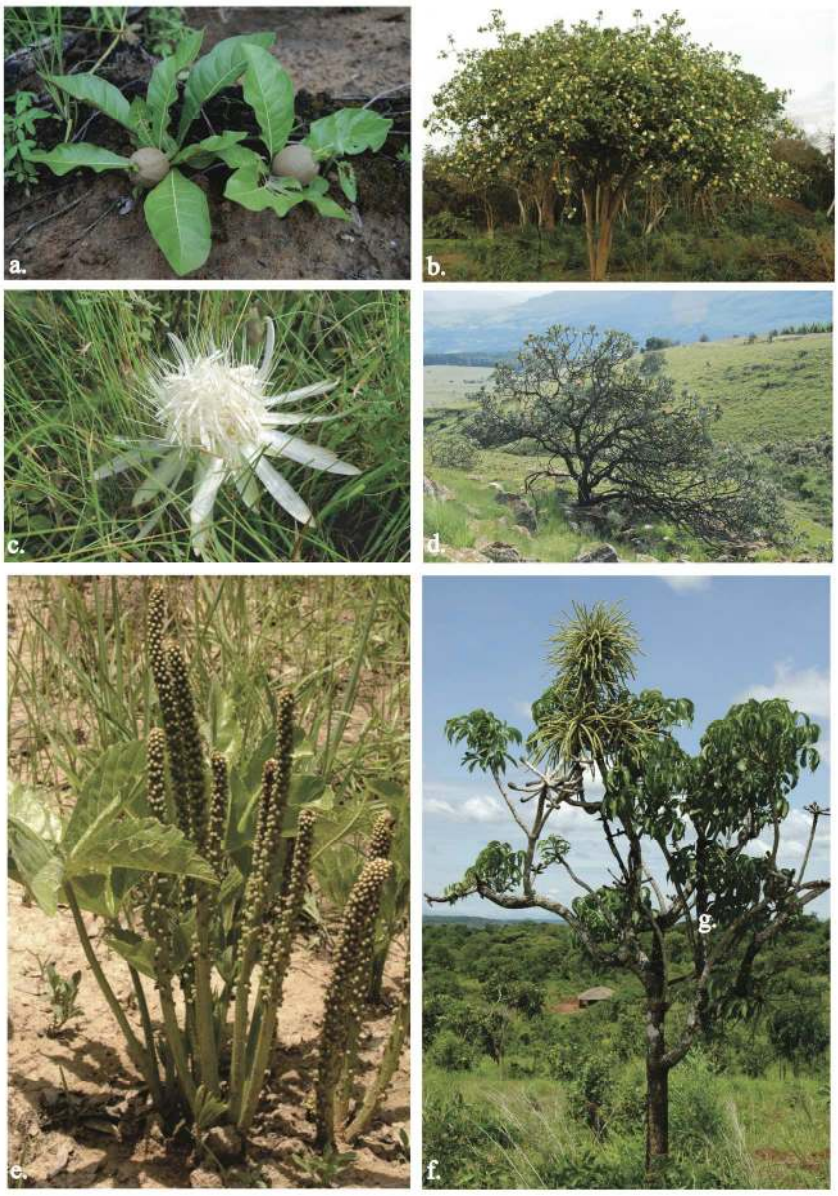


Fig. 2 Geoxyles and their tree relatives: a. Gardenia subacaulis (Rubiaceae); b. Gardenia ternifolia; c. Protea paludosa subsp. secundifolia (Proteaceae); d. Protea roupelliae subsp. roupelliae; e. Cussonia corbisieri (Araliaceae); f. Cussonia arborea – Photographs: a, b, e, f. John Burrows, c, d. Olivier Maurin
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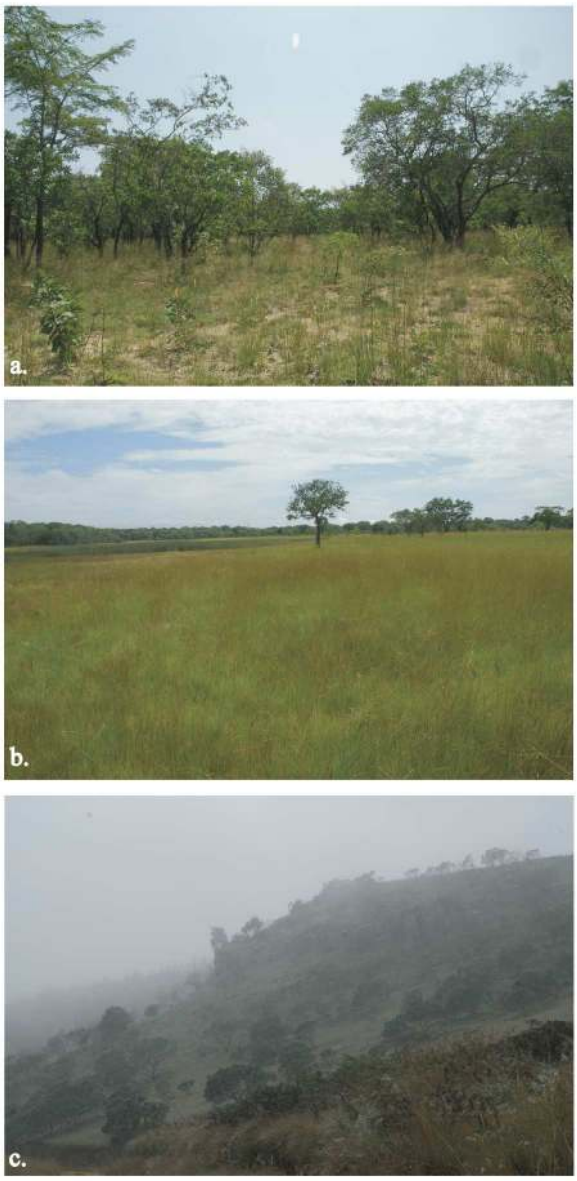


Fig. 3 Three habitats rich in geoxyles a. Open woodland in North West Zambia; b. Seasonally waterlogged grassland in North West Zambia; c. Highveld habitat in Lydenburg, illustrating the misty conditions characteristic of the South African highveld – Photographs: Olivier Maurin
147x296mm (300 x 300 DPI)

lineages was insufficient to accurately reconstruct the location of evolutionary transitions, and we therefore restricted our analysis to the unambiguous shifts in life-form identified between sister groups.

For each tree-geoxyle pair, we contrasted differences in ecological traits (spines, toxicity, fruit type, root type, and seed size) and environment across their geographical distribution (mean annual precipitation, mean annual temperature, mean elevation and fire frequency) (Table 1). Trait data were recorded from the literature (Coates Palgrave, 2002; Schmidt *et al*., 2007; Plants of southern Africa, 2012). Fire frequency, precipitation, temperature, and elevation variables were obtained by extracting the mean, minimum and maximum values within each species distribution. Precipitation, temperature and elevation variables were obtained from the worldclim database (Hijmans *et al*., 2005); and fire return frequency from Archibald *et al*. (2010). Statistical significance was evaluated using McNemar's test for binary traits, and a Wilcoxon signed rank test for continuous variables (Wilcoxon, 1945). When one of the sisters contained more than one species, contrasts were taken using the average of the species values. Our sister-pair approach parallels Felsenstein's (1985) method of independent contrasts, and although it does not make use of all the information contained within the phylogenetic tree, sister comparisons provide a statistically robust method for comparative analyses (Barraclough *et al*., 1998).

**Cerrado versus African Savanna**

To compare the phylogenetic affinities between the woody vegetation of the Brazilian cerrado and that of the African savanna, we extracted the list of woody plants and shrubs native to African savanna from the barcode phylogeny described above (586 species), and matching life-forms for cerrado listed by Ratter *et al*., 2012 (http://cerrado.rbge.org.uk/; 848 species). We then reconstructed a supertree of African savanna plus cerrado species using the Phylomatic online tool (Webb & Donoghue, 2005), and transformed branch lengths into millions of years using the BLADJ algorithm as implemented in Phylocom version 4.2 (Webb *et al*., 2008) calibrated with node dates from Wikström *et al*. (2001). Taxonomic mismatches (i.e. species or genera that could not be matched to higher taxa currently recognized by the Angiosperm Phylogeny Group [APG III, 2009]) reduced the final species set to 548 and 809 species for African savanna and cerrado, respectively.

Phylogenetic structure for the regional floras was first assessed by evaluating the proportion of shared branch lengths between floras using the PhyloSor index of phylogenetic beta-diversity following Bryant *et al.* (2008), as implemented in the Picante R-library (Kembel *et al.*, 2010). Significance was determined by randomizing the placement of taxa across the phylogeny (999 replicates). Second, we compared the standardized effect size of the mean pairwise phylogenetic distance between species (the net relatedness index [NRI] of Webb *et al.*, 2002) within each flora to a null model in which the same number of species are drawn at random from the phylogeny.

**RESULTS**

Evolutionary splits between African savanna tree sister species are significantly younger than between forest tree species (1.36 Ma vs 3.15 Ma, median age for savanna splits and forest splits respectively; $W = 4555$, $p<0.001$, Figure 4), suggesting that speciation events in African savanna have been more recent than in forest, and/or that some forest tree species might either have closest relatives outside southern Africa or non-tree relatives.

The distribution of the geoxyle life-form in Africa is phylogenetically dispersed (Figure 5), indicating multiple independent evolutionary origins across disparate branches of the angiosperm tree-of-life, matching observations in cerrado Fabaceae, within the species-rich genus *Mimosa*, and more generally evidenced by the occurrence of cerrado geoxyles across numerous genera and families (Simon *et al.*, 2009). Frequently, a single geoxyle species is nested within a species-rich tree clade, suggesting recent origins of the life-form. Geoxyles have evolved independently in all major lineages (orders) of eudicots, occurring in 30 plant families collected in our study, and arising multiple times in Fabaceae and Rubiaceae. In a few lineages (e.g. *Fadogia*), we observed multiple origins of the geoxyle habit, suggesting a complex evolutionary history, possibly including reversal to a tree habit, but current taxon sampling does not allow us to accurately resolve independent origins at such fine scales, and we therefore restrict our analysis to single congeneric transitions.

We identified 30 independent transitions to a geoxyle life-form occurring across 26 genera (Table 1). Geoxyles have a median divergence date of 2.28 Ma, with a maximum age of 15.15 Ma for *Dissotis canescens*, which is unusual in that it tends to favour marshy environments. The vast majority of divergences have occurred within the last 2 Ma (Figure 6). We find no significant ecological differences in

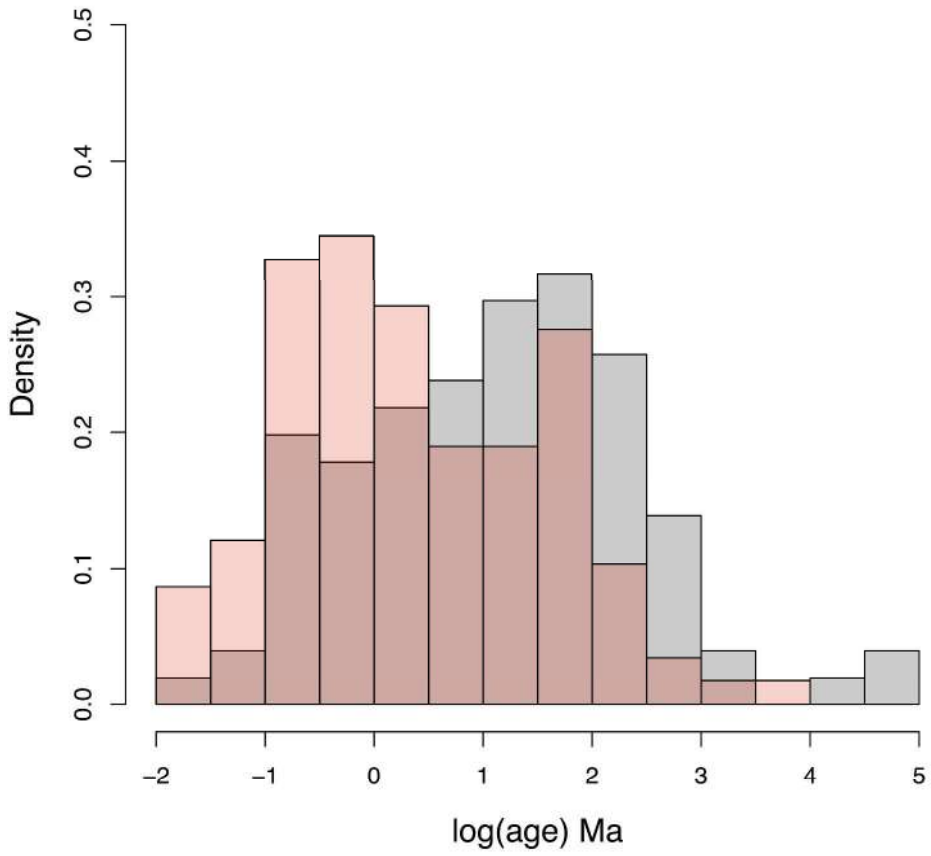


Fig. 4 Distribution of evolutionary splits, in millions of years, between savanna (red) and forest (grey) sister taxa from the dated phylogenetic tree of southern African trees.
175x175mm (600 x 600 DPI)

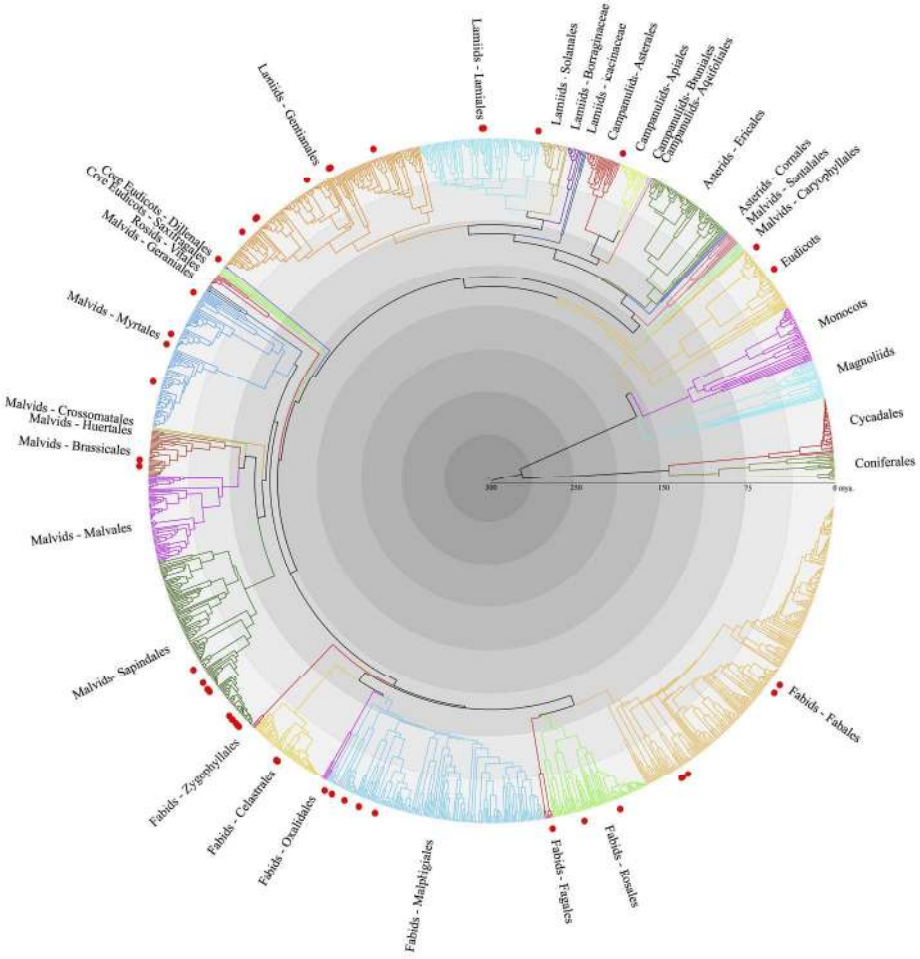


Fig. 5 Phylogeny of southern African woody flora reconstructed based on DNA barcodes using a maximum likelihood approach after transforming branch lengths to millions of years by enforcing a relaxed molecular clock and multiple calibrations. Phylogenetic position of geoxyle life-form indicated in red.
207x206mm (300 x 300 DPI)

**Table 2** Sister group contrasts between geoxyle life-forms and their tree relatives for various ecological and climatic variables

| Variable | test* | test statistic | p-value |
|---|---|---|---|
| Height | Wilcoxon | V = 378 | <0.01 |
| Spines | McNemar | NA | n.s. |
| Poisonous | McNemar | NA | n.s. |
| Fruit type | McNemar | NA | n.s. |
| Seed size | Wilcoxon | V = 78.5 | 0.78 |
| Mean fire frequency | Wilcoxon | V = 57 | 0.02 |
| Mean annual precipitation | Wilcoxon | V = 31 | <0.01 |
| Mean annual temperature | Wilcoxon | V = 133 | 0.85 |
| Mean elevation | Wilcoxon | V = 133 | 0.85 |

*Wilcoxon = Wilcoxon signed rank test. McNemar = McNemar's Chi squared test; NA = not available

geoxyles when compared to their tree-sisters (Table 2); they are indistinguishable in fruit type, seed size, root type and herbivore defenses. The principal ecological feature that distinguishes geoxyles from their close relatives is their large difference in height ($V = 378$, $p<0.01$). However, geoxyles differ significantly in their geographic distribution, being found in regions characterized by higher average rainfall ($V = 31$, $p<0.01$) and greater fire frequency ($V = 57$, $p = 0.02$) than their tree relatives (Table 2). Furthermore, we observe a striking latitudinal gradient in divergence times (Figure 6). The mean age of evolutionary splits is significantly younger moving towards more southerly latitudes ($F = 9.10$, $p = 0.005$, $r^2 = 0.23$ for the phylogenetic regression between latitude and log age implemented in the caper R library [Orme *et al*., 2012] and allowing lambda to take its maximum likelihood value). However, the correlation is driven by an absence of older splits at high southern latitudes, whereas at more tropical latitudes we find both young and old divergences.

In the supertree of the woody taxa of the cerrado and African savanna (Figure S1) we find that, unsurprisingly, there is less phylogenetic overlap between the two floras than expected by chance (PhyloSor index = 0.15 in comparison to the null expectation of 0.266, min = 0.246, max = 0.284). However, whilst cerrado taxa show phylogenetic under-dispersion (NRI = 1.747, $p = 0.038$), perhaps reflecting some *in situ* radiations within a few lineages, the reverse is not true, African savanna taxa are not significantly clustered on the phylogeny (NRI = 0.339, $p>0.05$).

## DISCUSSION

We have shown that the geoxyle habit evolved independently multiple times in Africa; however, it is always associated with the savanna biome; if we can identify the driving forces in the evolution of this life-form, we might, therefore, also provide insights into the origin and spread of savanna.

Previous work has suggested that shifts from forest to savanna were likely frequent in the South American cerrado (Pennington *et al*., 2006; Simon *et al*., 2009). Here we show that African savanna trees represent an even more phylogenetically dispersed set of taxa, suggesting shifts from the forest to savanna biome in Africa were at least as frequent. A paucity of endemic genera in both cerrado (Simon *et al.,* 2009) and African savanna further support parallels in the evolutionary origins of these biomes and a history of frequent shifts from forest to savanna with only few radiations within the savanna biome (see also Oliviera-Filho *et al.*, 2013). In addition,

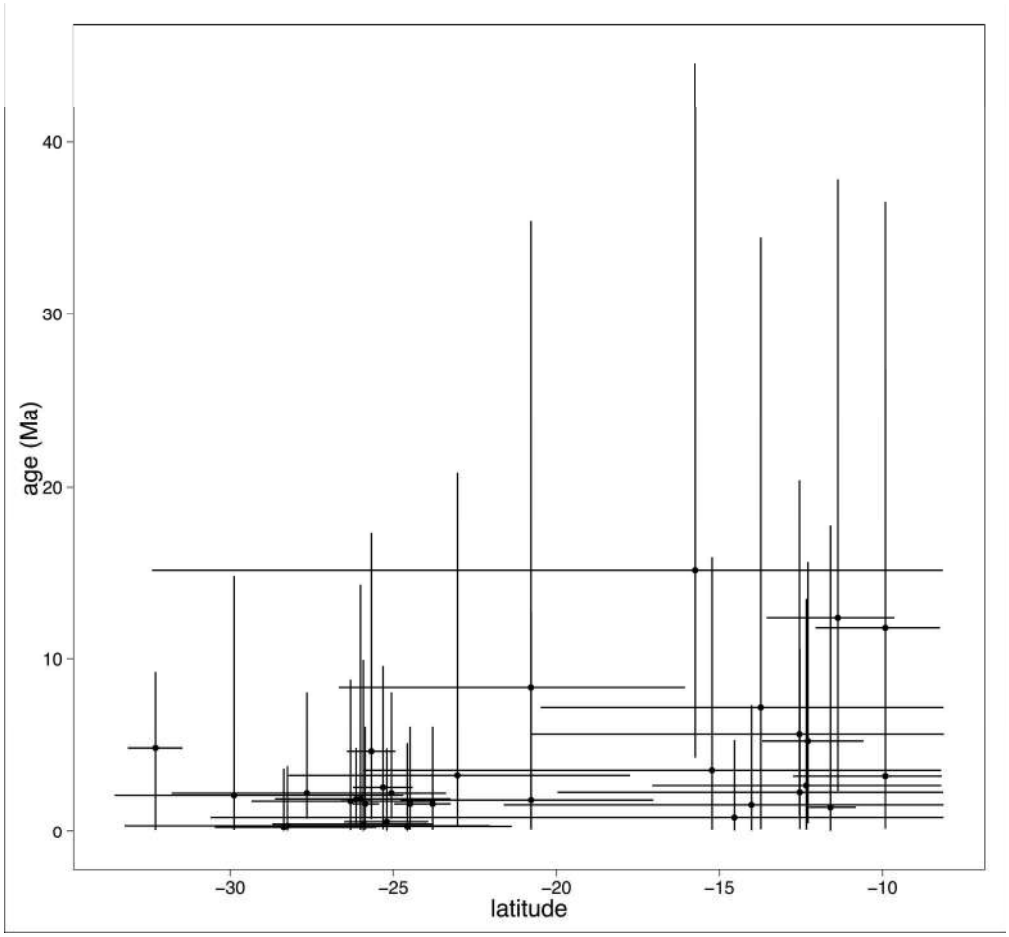


Fig. 6 Scatter plot of divergence times (Ma) between geoxyle life-forms and their tree sister-groups against latitudinal mid-point of the geoxyle geographic distributions (n = 36). Horizontal error bars represent latitudinal range extents of geographic distribution, vertical error bars indicate maximum and minimum divergence time estimates between sister groups from the Bayesian posterior distribution of dated trees.
219x203mm (300 x 300 DPI)

we find that evolutionary divergences between African savanna trees are younger than those between forest trees. If we assume that evolutionary splits between extant species both occupying the same habitat type indicate a shared ancestor within that habitat, then our results support a relatively young age for the African savanna biome – that is an absence of older splits between African savanna trees reflects limits to the upper age of the biome. Geoxyles have a median divergence time of 2.28 Ma, but with origins of many taxa dated to within the last two million years, perhaps indicative of a more recent expansion of savanna. Further, we find a latitudinal gradient in age of geoxyle origins in Africa, with an absence of older ages in the south. If the evolution of the geoxyle life-form can be used as a marker for the presence of fire-maintained savanna ecosystems, our results would suggest a gradual expansion of African savanna from the equator to higher latitudes over the past few million years.

**The evolution of "underground trees"**

Four major factors have, at various times, been put forward as evolutionary drivers of the geoxyle habit in Africa. Burtt Davy (1922) hypothesized that winter frost on the South African Highveld was the main factor responsible for woody plant species escaping underground; in the South African context, cold temperatures may well have been a contributing factor to the evolution of underground trees. It is also possible that some woody species evolved the geoxyle habit in response to mammal herbivory, particularly on the grassy plains of the South African Highveld (Steenkamp *et al.*, 2001). Africa, with its historically vast herds of antelope and other grazing ungulates, would have had much of its open areas subjected to incidents of severe herbivory. However, the region of greatest geoxyle diversity, the northern areas of the Zambezian Domain (White, 1983), receives little or no frost and the Zambezian Region is dominated by miombo woodlands, a habitat type noted for its paucity of herbivores due to poor nutritional quality of its forage (Frost, 1996), and a long, harsh dry season of almost seven months (Rodgers *et al.*, 1996). Further, we find no general relationship between the geoxyle life-form and temperature or elevation, and the prevalence of herbivore defences (e.g. presence of spines or poisons) do not differ between geoxyles and their tree relatives. It would seem, therefore, that neither frost nor herbivory have been the major selective pressure in the evolution of the geoxyle habit.

Frank White, in his landmark paper on the underground forests of Africa (White, 1976), attributed the rise of the geoxyle habit mainly to edaphic factors. He pointed out that the open grassy edaphic seasonal wetlands that are a characteristic feature of the south-central African landscape support a number of geoxyles, particularly along the margins of these open wetlands or 'dambos'. These seasonally waterlogged grassy depressions often occur on sandy, oligotrophic soils, which are anaerobic when waterlogged. However, while a handful of geoxyles (*Ficus pygmaea*, *Syzygium guineense* subsp. *huillens*e, *Erythrina baumii*, *Protea baumii*) are confined to dambos, the majority is not. For example, the region of high geoxyle diversity in north-eastern South Africa (this paper) have no endemic wetland geoxyle species, while in the geoxyle-rich coastal grasslands of the Maputaland region, the geoxyles grow away from the numerous wetland depressions (Matthews *et al*., 1999). Notably, these grassy dambos are subjected to frequent burning, and it is possible that the open, sunny environment of the dambos would also provide advantages to a dwarf woody plant that would otherwise be shaded in the taller adjacent woodlands. This link with fire brings us to our final putative driver of the geoxyle habit.

Geoxyles in Africa are restricted to savanna habitats or upland grasslands (geoxyles are absent from closed forests). They occur almost exclusively in higher rainfall savannas with frequent fires (White, 1979). Indeed, the seasonal or regular burning of the woodlands and grasslands of Africa is the most often quoted factor driving the evolution of the geoxylic suffrutex habit in Africa (White, 1976 [in part]; Vollesen, 1981; Lock, 1998, 2006; Matthews *et al*., 1999) as well as in the South American cerrado (Simon *et al*., 2009; Simon & Pennington, 2012). While the majority of savanna trees have developed features to withstand fire (thick bark, fire-resistant shoots), geoxyles may have escaped fire by developing their woody component below ground, thus minimizing their resource input into annual vegetative growth to the benefit of flower and fruit production. Most conclusive is that it is clear that, wherever geoxylic suffrutices occur in Africa, fire is a regular feature in the landscape. Our results show that occurrence of the geoxyle life-form correlates significantly with fire and precipitation, suggesting both may have contributed to driving trees underground.

How would precipitation and fire select for trees developing underground? Areas of high precipitation should favour forest development and the proportion of African landscapes covered by forest increases along a precipitation gradient

(Lehmann *et al.,* 2011; Staver *et al.,* 2011a). However, greater precipitation also correlates with high grass productivity, thus favouring frequent fire occurrence that maintains the savanna state (Bond, 2008; Staver *et al*., 2011a, b; Lehmann *et al*., 2011). Fire is a major selective pressure. Population studies have shown that a key demographic bottleneck for savanna trees is the transition from juvenile plants growing below the flame zone to adult plants taller than flame height and resistant to fire damage. Saplings may persist for decades in the flame zone (the "firetrap") without growing into mature trees (Trollope, 1984; Scholes & Archer, 1997; Williams *et al*., 1999; Higgins *et al*., 2000, 2007; Werner *et al*., 2006; Prior *et al*., 2009; Werner & Franklin, 2010; Bond *et al*., 2012; Werner & Prior, 2013).

We suggest that the geoxylic growth form is advantageous in areas experiencing the interactive effects of frequent fires and high precipitation. The underground trees of Africa can be regarded as markers of fire-maintained savannas occurring in climates suitable for forests (extensive African savannas also occur in arid climates where fires are rare; Lehmann *et al*., 2011). Poor growing conditions that reduce growth rates of juvenile trees would also result in reduced probabilities of reaching fire-proof sizes and transitioning to tall mature trees. Geoxyles are common where site conditions reduce growth rates such as on seasonally waterlogged and/or low nutrient soils, or, in South Africa, at high altitude sites with cold winters (White, 1979). Thus geoxyles appear to be an example of heterochrony (a change in the relative timing and/or rate of developmental processes; Li & Johnston, 2000) with ancestral tree growth forms adopting a dwarf stature from which, unlike their tree ancestors, they are able to flower and fruit.

**Fire and the savanna biome**

Our prime aim in this study was to use the origin of geoxyles to help date the emergence and spread of fire-dependent African savannas. But the limited literature on geoxyles, especially in Africa, raises other questions, including the general nature of fire adaptations in savannas. Fire adaptive traits have been extensively studied in crown fire regimes, especially in Mediterranean-type shrublands (Keeley *et al*., 2012). Fire adaptive traits in the surface fire regimes of savannas are not nearly as well studied or understood. As noted by White (1979), geoxyles appear to be a convergent life form in South American and African savannas. The link with fire in cerrado has been elaborated by Simon *et al.* (2009) and Simon & Pennington (2012). For African

savannas, we have argued above that the growth form has evolved in response to the selective pressures imposed by frequent grass-fuelled fires and soil or climatic conditions that slow woody growth rates. Curiously, geoxyles are absent in northern Australian savannas despite similar fire regimes and soils to those of Africa and Brazil (White, 1979). They have also not been reported, perhaps because they have not been recognised, in the higher rainfall savannas of south and south-east Asia (White, 1979) or the pine savannas of North America (Noss, 2012). Within Africa, White noted a striking difference in the richness and abundance of geoxyles in the savannas of the Zambesian region (this study) contrasting with savannas of the Sudanian region (north of the equator) where they are rare and poor in species. The patchy occurrence of geoxyles in savannas from different geographic regions is perhaps to be expected given the youth of the biome. As we note above, both African savannas and the cerrado have few if any endemic genera, consistent with a young age for the biome in both regions (Simon *et al*., 2009; this study). The coincidence of a largely Pliocene age for flammable savanna origins in Africa and cerrado is striking. The causes of the abrupt and, apparently, near simultaneous assembly and spread of these fire-dependent savannas is unknown but an area of active research (Keeley & Rundel, 2005; Scheiter *et al*., 2012).

## CONCLUSIONS

We explored the origin of mesic savannas in Africa, using geoxylic suffrutices, White's underground forests of Africa, as markers for fire-maintained ecosystems. Our results suggest that these savannas first appeared in the tropics with more recent speciation at lower latitudes in southern Africa. Dates of origin of the geoxyles are mostly from the Pliocene (< 5.3 Ma) consistent with the appearance of woody fire-maintained cerrado plants in Brazil (Simon *et al*., 2009; Simon & Pennington, 2012). Since the taphonomy of fossil savanna sites biases against detection of fire-maintained savannas, we suggest that phylogenetic approaches are particularly useful in tracing the origin of more humid savannas. As more complete phylogenies become available for clades from the African fire-maintained savannas, and as more species are sampled for fire-adaptive traits, more refined dates of origin should become available. Nevertheless, this study provides the first evidence for dates of emergence of higher rainfall savannas in Africa and supports the role of fire in their origins. Furthermore, our study suggests independent origins of this growth form from those

of Brazilian cerrado. The fire frequencies characteristic of seasonally humid savannas are perhaps the highest in earth history. The diverse responses of plants to this extreme selective regime warrant further study.

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**Author Contributions**: Conceived and designed the experiments: OM, TJD, JEB, BHD, KY, AMM, MVDB, WJB. Performed the experiments: OM, TJD, JEB, BHD, KY, AMM, MVDB, WJB. Analyzed the data: OM, BHD, KY, WJB, TJD. Contributed reagents/materials/analysis tools: OM, TJD, JEB, BHD, KY, AMM, MVDB, WJB. Wrote the paper: TJD and WJB with comments and editing from all co-authors.

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**Fig. S1.** Phylogenetic distribution of Cerrado (red) and Savanna taxa on the Phylomatic supertree with branch lengths scaled to millions of years.

**Table S1.** Calibration points and age constraints used in divergence time estimations (MRCA = most recent common ancestor). Placement of the fossil was assigned to the MRCA of the listed taxa.

**References for Table S1**

**LEGENDS TO NOTES**

**Note 1.** Provisional list of African geoxylic suffrutices occurring south of the Equator (taxa included in this study indicated in Bold)

**Note 2.** List of taxa included in phylogeny with voucher information and GenBank accession numbers. Numbers in bold are newly generated sequences in this study.

**Supporting Information Table S1 and Fig. S1**

**Table S1** Calibration points and age constraints used in divergence time estimations (MRCA = most recent common ancestor). Placement of the fossil was assigned to the MRCA of the listed taxa.

| **Fossil (Clade)** | **Minimum Age (Ma)** | **MRCA** | **Reference(s)** | **Mean (SD)** |
|---|---|---|---|---|
| Unnamed (Hamamelidaceae) | 84 | *Daphniphyllum* and *Itea* | Magalón-Puebla *et al*., 1996<br>Magallón *et al*., 2001 | 1.5 (0.5) |
| Unnamed (Laurales) | 108.8 | *Idiosperma* and *Sassafras* | Crane *et al*., 1994 | 2.1 (0.5) |
| *Pandanus* sp. (Pandanales) | 65 | *Stemona* and *Barbacenia* | Muller, 1981 | 1.8 (0.5) |
| *Dicolpopollis malensianus* (Arecales) | 65 | *Phoenix* and *Metroxylon* | Pan *et al*., 2006 | 1.8 (0.5) |
| *Restio* sp. (Poales) | 68.1 | *Zea* and *Puya* | Muller, 1981 | 1.8 (0.5) |
| *Spirematospermum chandlerae* (Zingiberales) | 83.5 | *Musa* and *Zingiber* | Friis, 1988 | 1.8 (0.5) |
| *Retitricolpites microreticulatus* (Gunneraceae) | 88.2 | *Myrothamnus* and *Gunnera* | Muller, 1981 | 1.5 (0.5) |
| Unnamed (Caryophyllales) | 83.5 | *Rhabdodendron* and *Spinacia* | Collinson *et al*., 1993 | 1.5 (0.5) |
| *Dillenites* sp. (Dilleniaceae) | 51.9 | *Dillenia* and *Tetracera* | Collinson *et al*., 1993 | 1.5 (0.5) |
| Unnamed (Santalales) | 51.9 | *Schoepfia* and *Santalum* | Collinson *et al*., 1993 | 1.5 (0.5) |
| Unnamed (Ericales) | 91.2 | *Impatiens* and *Arbutus* | Nixon & Crepet, 1993 | 1.5 (0.5) |
| *Fraxinus wilcoxiana* (Lamiales) | 44.3 | *Olea* and *Pedicularis* | Call & Dilcher, 1992 | 1.5 (0.5) |
| *Cantisolanum daturoides* (Solanales) | 44.3 | *Nolana* and *Schizanthus* | Collinson *et al*., 1993 | 1.5 (0.5) |
| *Ilexpollenites* sp. (Aquifoliaceae) | 85 | *Ilex* and *Gonocaryum* | Muller, 1981 | 1.5 (0.5) |
| Unnamed (Vitaceae) | 57.9 | *Leea* and *Vitis* | Collinson *et al*., 1993 | 1.5 (0.5) |

| | | | | |
|---|---|---|---|---|
| *Esqueiria futabensis* (Myrtales) | 88.2 | *Epilobium* and *Qualea* | Takahashi *et al*., 1999 | 1.5 (0.5) |
| Unnamed (Sapindales) | 65 | *Citrus* and *Bursera* | Knobloch & Mai, 1986 | 1.5 (0.5) |
| Unnamed (Fabales) | 59.9 | *Pisum* and *Polygala* | Herendeen & Crane, 1992 | 1.5 (0.5) |
| Unnamed (Cercidiphyllaceae) | 65 | *Cercidipyllum* and *Crassula* | Magallón-Puebla *et al*., 1999 | 1.5 (0.5) |
| *Divisestylus* sp. (Iteaceae) | 89.3 | *Ribes* and *Itea* | Hermsen *et al*., 2003 | 1.5 (0.5) |
| *Ailanthus* sp. (Simaroubaceae/Rutaceae, Meliaceae) | 50 | *Ailanthus* and *Swietenia* | Corbett & Manchester, 2004 | 1.5 (0.5) |
| Burseraceae/Anacardiaceae | 50 | *Bursera* and *Schinus* | Collinson & Cleal, 2001 | 1.5 (0.5) |
| *Parbombacaceoxylon* sp. (Malvales s.l.) | 65.5 | *Thymea* and *Bombax* | Wheeler *et al*., 1987; 1994 | 1.5 (0.5) |
| *Perisyncolporites* sp. (Malpighiales) | 49 | *Dicella* and *Malpighia* | Jaramillo & Dilcher, 2001 | 1.5 (0.5) |
| Unnamed (Cornales) | 86 | *Cornus* and *Nyssa* | Crane *et al*., 1990 | 1.5 (0.5) |
| *Platanocarpus brookensis* (Proteales) | 98 | *Platanus* and *Nelumbo* | Crane *et al*., 1993 | 1.5 (0.5) |
| Unnamed (Buxaceae) | 98 | *Didymeles* and *Buxus* | Drinnan *et al*., 1991 | 1.5 (0.5) |
| Unnamed (Bignoniaceae) | 35 | *Catalpa* and *Campsis* | Manchester, 1999 | 1.5 (0.5) |
| Eudicots | 124 | | Anderson *et al*., 2005 | |

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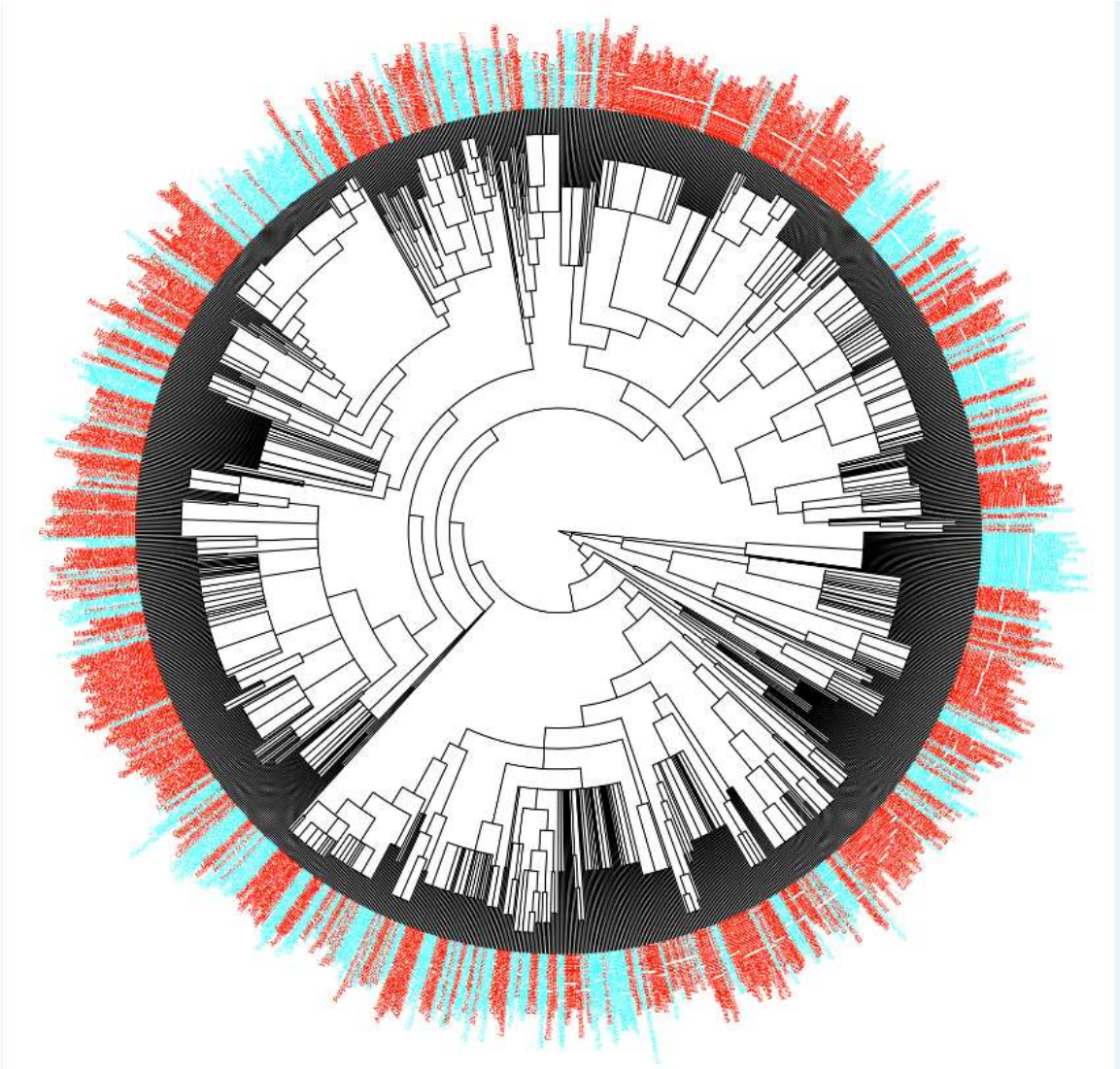
**Fig. S1** Phylogenetic distribution of Cerrado and Savanna taxa on the Phylomatic supertree with branch lengths scaled to millions of years.



**Supporting Information Notes S1** Provisional list of African geoxylic suffrutices occurring south of the Equator (taxa included in this study indicated in bold)

**ANACARDIACEAE**
***Lannea edulis* (Sond.) Engl.**
*Lannea gossweileri* Exell & Mendonça var. *gossweileri*
*Lannea gossweileri* Exell & Mendonça var. *tomentella* R.Fern. & A.Fern.
*Lannea katangensis* Van der Veken
*Lannea virgata* R.Fern. & A.Fern.
***Ozoroa albicans* R.Fern. & A.Fern.**
***Ozoroa barbertonensis* Retief**
*Ozoroa bredoi* R.Fern. & A.Fern.
*Ozoroa homblei* (De Wild.) R.Fern. & A.Fern.
*Ozoroa kassneri* (Engl. & Brehm.) R.Fern. & A.Fern. var. *kassneri*
*Ozoroa kassneri* (Engl. & Brehm.) R.Fern. & A.Fern. var. *rhodesiaca* R.Fern. & A.Fern.
*Ozoroa macrophylla* R.Fern. & A.Fern.
*Ozoroa marginata* (Van der Veken) R. Fern. & A. Fern.
*Ozoroa nigricans* (Van der Veken) R. Fern. & A. Fern.
*Ozoroa nitida* (Engl. & Brehmer) R. Fern. & A. Fern.
*Ozoroa pwetoensis* (Van der Veken) R.Fern. & A.Fern. var. *angustifolia* R.Fern. & A.Fern.
*Ozoroa pwetoensis* (Van der Veken) R.Fern. & A.Fern. var. *nitidula* R.Fern. & A.Fern.
*Ozoroa pwetoensis* (Van der Veken) R.Fern. & A.Fern. var. *pwetoensis*
***Ozoroa* sp. A of FTEA**
*Ozoroa* sp. nov, Ebutsini
*Ozoroa stenophylla* (Engl. & Brehmer) R. Fern. & A. Fern.
*Ozoroa viridis* R. Fern. & A. Fern.
***Searsia discolor* (E.Mey. ex Sond.) Moffett**
*Searsia fanshawei* (R. Fern. & A. Fern.) Moffett
*Searsia harveyi* (Moffett) Moffett
*Searsia kirkii* (Oliv.) Moffett
*Searsia kwangoensis* (Van der Veken) Moffett
*Searsia kwazuluana* (Moffett) Moffett
*Searsia magalismontana* (Sond.) Moffett
*Searsia ochracea* Meikle var. *ochracea*
*Searsia ochracea* Meikle var. *saxicola* R.Fern. & A.Fern.
***Searsia pondoensis* (Schönland) Moffett**
***Searsia pygmaea* (Moffett) Moffett**
*Searsia rudatisii* (Engl.) Moffett
*Searsia anchietae* (Meikle) Moffett forma *suffruticosa* (Meikle) Moffett
***Searsia tumulicola (S.Moore) Moffett var tumulicola subsp. meeuseana***
*Searsia wilmsii* (R. Fern. & A. Fern.) Moffett

**ANISOPHYLLEACEAE**
*Anisophyllea quangensis* Engl. ex Henriq.

**ANNONACEAE**
*Anonna stenophylla* Engl. & Diels subsp. *stenophylla*
*Anonna stenophylla* Engl. & Diels subsp. *longipetiolata* (R.E.Fr.) N.Robson
*Anonna stenophylla* Engl. & Diels subsp. *nana* (Exell) N.Robson
*Xylopia tomentosa* Exell (syn. *X. mendoncae*)

**APIACEAE**
*Heteromorpha involucrata* Conrath
*Heteromorpha kassneri* H.Wolff
*Steganotaenia hockii* (Norman) Norman

**APOCYNACEAE**
***Carissa praetermissa* Kupicha**
*Chamaeclitandra henriquesiana* (Hallier f.) Pichon
*Landolphia cuneifolia* Pichon
*Rauvolfia nana* E.A.Bruce
*Strophanthus angusii* F.White

**ARALIACEAE**
*Cussonia corbisieri* De Wild.

**ASTERACEAE**
***Lopholaena disticha* (N.E.Br.) S.Moore**

**CAPPARACEAE**
***Maerua andradae* Wild**
***Ritchiea pygmaea* (Gilg) DeWolf** *(syn. Maerua pygmaea* Gilg)

**CELASTRACEAE**
*Gymnosporia markwardii* Jordaan
*Salacia bussei* Loes.
***Salacia kraussii* (Harv.) Harv.**
*Salacia luebbertii* Loes.
***Salacia rehmannii* Schinz**

**CHRYSOBALANACEAE**
*Magnistipula sapinii* De Wild.
*Parinari capensis* Harv. subsp. *capensis*
***Parinari capensis* Harv. subsp. *incohata* F.White**

**CLUSIACEAE**
*Garcinia buchneri* Engl.

**COMBRETACEAE**
*Combretum argyrotrichum* Welw. ex M.A.Lawson

*Combretum platypetalum* Welw. ex M.A.Lawson subsp. *baumii* (Engl. & Gilg) Exell
*Combretum platypetalum* Welw. ex M.A.Lawson subsp. *oatesii* (Rolfe) Exell
***Combretum platypetalum* Welw. ex M.A.Lawson subsp. *platypetalum***
*Combretum platypetalum* Welw. ex M.A.Lawson subsp. *virgatum* Exell
*Combretum viscosum* Exell

**CONNARACEAE**
*Rourea coccinea* (Thonn. & Schumach.) Benth. subsp. *coccinea* (suffrutex form)

**DICHAPETALACEAE**
*Dichapetalum bangii* (F.Didr.) Engl.
*Dichapetalum crassifolium* Chodat
***Dichapetalum cymosum* (Hook.) Engl. (syn. *D. bullockii*)**
*Dichapetalum rhodesicum* Sprague & Hutch.

**DILLENIACEAE**
***Tetracera masuiana* De Wild. & Th.Dur.**

**EBENACEAE**
*Diospyros anitae* F.White
*Diospyros chamaethamnus* Dinter & Mildbr.
*Diospyros galpinii* (Hiern) De Winter
*Diospyros virgata* (Gürke) Brenan
*Euclea crispa* (Thunb.) Gürke subsp. *crispa* (suffrutex form or syn. *Euclea dekindtii* Gürke)
*Euclea sekhukhuniensis* Retief, Siebert & A.E.van Wyk

**EUPHORBIACEAE**
*Clutia monticola* S.Moore
*Clutia* sp. 1 of White (1962)
*Oldfieldia dactylophylla* (Oliv.) J.Léonard (geosuff form)
*Microstachys acetosella* (Milne-Redh.) Esser (syn. *Sapium acetosellum* Milne-Redh.)
*Sclerocroton oblongifolius* (Müll-Arg.) Kruijt & Roebers

**FABACEAE**
*Abrus melanospermum* Hassk. subsp. *suffruticosus* (Boutique) D.K.Harder
*Bauhinia mendoncae* Torre & Hillc.
*Brachystegia astlei* Hoyle & Brummitt
*Brachystegia michelmorei* Hoyle
*Brachystegia russelliae* I.M.Johnst.
*Copaifera baumiana* Harms
*Cryptosepalum exfoliatum* De Wild. subsp. *suffruticans* (P.A.Duvign.) P.A.Duvign.
*Cryptosepalum maraviense* Oliv.

***Elephantorrhiza elephantina* (Burch.) Skeels**
***Elephantorrhiza obliqua* Burtt Davy**
*Elephantorrhiza woodi*i E.Phillips
*Entada arenaria* Schinz subsp. *arenaria*
*Entada arenaria* Schinz subsp. *microcarpa* (Brenan) J.H.Ross
*Entada dolichorrhachis* Brenan
*Entada nana* Harms
***Erythrina acanthocarpa* E.Mey.**
*Erythrina baumii* Harms
***Erythrina zeyheri* Harv.**
***Millettia makondensis* Harms**
*Mucuna stans* Welw. ex Baker
*Tephrosia dasyphylla* Baker subsp. *amplissima* Brummitt
*Tephrosia dasyphylla* Baker subsp. *dasyphylla*
*Tephrosia hockii* De Wild. subsp. *hirsutostylosa* (Dewit) J.B.Gillett
*Tephrosia hocki*i De Wild. subsp. *hockii*
*Tephrosia laxiflora* R.E.Fr.
*Tephrosia muenzneri* Harms subsp. *pedalis* Brummitt
*Tephrosia zambiana* Brummitt

**FLACOURTIACEAE**
*Caloncoba suffruticosa* (Milne-Redh.) Exell & Sleumer (syn. *Oncoba suffruticosa* (Milne-Redh.) S. Hul & Breteler)
***Casearia* sp. nov. (Palma)**

**HYPERICACEAE**
*Psorospermum mechowii* Engl.

**IRVINGIACEAE**
*Phyllocosmus candidus* (Engl. & Gilg) Hallier.f.

**LAMIACEAE**
*Clerodendrum abilioi* R.Fern.
*Clerodendrum baumii* Gürke
*Clerodendrum buchneri* Gürke
*Clerodendrum formicarum* Gürke
***Clerodendrum incisum* Klotzsch**
*Clerodendrum lutambense* Verdc.
*Clerodendrum pusillum* Gürke
*Clerodendrum robustum* Klotzsch
***Clerodendrum ternatum* Schinz**
*Kalaharia uncinata* (Schinz) Moldenke
*Rotheca cuneiformis* (Moldenke) P.P.J.Herman & Retief
*Rotheca hirsuta* (Hochst.) R.Fern.
*Rotheca louwalbertsii* (P.P.J.Herman) P.P.J.Herman & Retief
*Rotheca luembensis* (De Wild.) R.Fern. subsp. *luembensis* (numers varieties &

forms)
*Rotheca pilosa* (H.Pearson) P.P.J.Herman & Retief
*Rotheca prittwitzii* (B.Thomas) Verdc.
*Vitex madiensis* Oliv. subsp. *milanjensis* (Britten) F.White

**LECYTHIDACEAE**
*Napoleonaea gossweileri* Baker f.

**LINACEAE**
*Hugonia gossweileri* Baker f.

**MALVACEAE**
*Grewia avellana* Hiern
*Grewia decemovulata* Merxm.
*Grewia falcistipula* K.Schum.
*Grewia herbacea* Hiern

**MALPIGHIACEAE**
*Sphedamnocarpus angolensis* (A.Juss.) Planch. ex Oliv.

**MELASTOMATACEAE**
**Dissotis canescens (E. Mey. ex Graham) Hook. f. (syn. Heterotis canescens (E. Mey. ex Graham) Jacq.-Fel.)**

**MELIACEAE**
*Ekebergia pumila* I.M.Johnst.
*Trichilia quadrivalvis* C.DC.

**MORACEAE**
***Ficus pygmaea* Welw. ex Hiern**

**MYRICACEAE**
***Morella brevifolia* (E. Mey. ex C. DC.) Killick**
*Morella chimanimaniana* Verdc. & Polhill

**MYRTACEAE**
***Eugenia albanensis* Sond. (*Eugenia capensis* subsp. *albanensis* (Sond.) F.White)**
***Eugenia capensis* (Eckl. & Zeyh.) Harv. subsp. A.**
*Eugenia malangensis* (O.Hoffman) Niedenzu (syn. *Eugenia angolensis* Engl.)
*Eugenia pusilla* N.E.Br.
*Syzygium guineense* (Willd.) DC. subsp. *huillense* (Hiern) F.White

**OCHNACEAE**
*Brackenridgea arenaria* (De Wild. & Dur.) N.Robson
*Ochna angustifolia* (Vahl) Kuntze

***Ochna confusa* Burtt Davy & Greenway**
*Ochna katangensis* De Wild
*Ochna leptoclada* Oliv.
*Ochna macrocalyx* (Oliv.)
*Ochna manikensis* De Wild. (syn. *O. angolensis* I.M.Johnst.)
*Ochna pygmaea* Hiern
*Ochna richardsiae* N.Robson

**OLEACEAE**
***Jasminum quinatum* Schinz**

**PASSIFLORACEAE**
*Adenia erecta* de Wilde
*Adenia goetzei* Harms
*Adenia tuberifera* R.E.Fr.
*Adenia ovata* de Wilde
*Adenia volkensii* Harms
*Adenia repanda* (Burch.) Engl.
***Paropsia brazzeana* Baill.**

**PROTEACEAE**
***Leucospermum gerrardii* Stapf**
*Protea angolensis* Welw. subsp. *angolensis*
*Protea angolensis* Welw. subsp. *roseola* Chisumpa & Brummitt
*Protea argyrea* Hauman subsp. *zambiana* Chisumpa & Brummitt
*Protea baumii* Engl. & Gilg subsp. *robusta* Chisumpa & Brummitt
*Protea enervis* Wild
*Protea heckmanniana* Engl. subsp. *heckmanniana*
*Protea humifusa* Meisn.
*Protea inyanganiensis* Beard (*P. dracomontana* sensu Rourke 1982)
*Protea kibarensis* Hauman subsp. *cuspidata* (Beard) Chisumpa & Brummitt
*Protea lemairei* De Wild.
*Protea linearifolia* Engl.
*Protea matonchiana* Chisumpa & Brummitt
*Protea micans* Welw. subsp. *micans*
*Protea micans* Welw. subsp. *makutuensis* Chisumpa & Brummitt
*Protea micans* Welw. subsp. *trichophylla* (Engl. & Gilg) Chisumpa & Brummitt
*Protea minima* Hauman
*Protea ongotium* Beard
*Protea paludosa* (Hiern) Engl. subsp. *secundifolia* (Hauman) Chispmpa & Brummitt
***Protea parvula* Beard**
*Protea poggei* Engl. subsp. *mwinilungensis* Chisumpa & Brummitt
*Protea praticola* Engl.
*Protea roupelliae* Meisn. subsp. *hamiltonii* Beard ex Rourke
*Protea suffruticosa* Beard (syn. *Protea micans* subsp. *suffruticosa* (Beard)

Chisumpa & Brummitt)

**RHAMNACEAE**
***Ziziphus zeyheriana* Sond.**

**RUBIACEAE**
*Ancylanthos rubiginosus* Desf.
*Catunaregam pygmaea* Vollesen
***Eriosemopsis subanisophylla* Robyns**
*Fadogia ancylantha* Schweinf.
*Fadogia arenicola* K.Schum. & K.Krause
*Fadogia chlorantha* K.Schum. var. *chlorantha*
*Fadogia chlorantha* K.Schum. var. *thamnus* (K.Schum.) Verdc.
*Fadogia cienkowskii* Schweinf.
*Fadogia elskensii* De Wild.
*Fadogia fuchsioides* Schweinf. ex Oliv.
*Fadogia glaberrima* Hiern
*Fadogia gossweileri* Robyns
***Fadogia homblei* De Wild.**
*Fadogia luangwae* Verdc.
*Fadogia schmitzii* Verdc.
*Fadogia stenophylla* Welw. ex Hiern subsp. *odorata* (Krause) Verdc.
***Fadogia tetraquetra* K.Krause var. *tetraquetra***
*Fadogia tetraquetra* K.Krause var. *grandiflora* (Robyns) Verdc.
*Fadogia tomentosa* De Wild. var. *tomentosa*
*Fadogia tomentosa* De Wild. var. *calvescens* (Verdc.) Verdc.
*Fadogia tomentosa* De Wild. var. *flaviflora* (Robyns) Verdc.
***Fadogia triphylla* Baker var. *triphylla***
*Fadogia triphylla* Baker var. *giorgii* (De Wild.) Verdc.
*Fadogia triphylla* Baker var. *gracilifolia* Verdc.
*Fadogia triphylla* Baker var. *pubicaulis* Verdc.
*Fadogia variifolia* Robyns
*Fadogia verdcourtii* Tennant
*Fadogia verdickii*De Wild. & T.Durand
*Fadogia vollesenii* Verdc.
*Fadogia* sp. A of FTEA
***Fadogiella rogersii* (Wernham) Bridson**
***Fadogiella stigmatoloba* (K.Schum.) Robyns**
*Gardenia brachythamnus* (K.Schum.) Launert
***Gardenia subacaulis* Stapf & Hutch.**
***Leptactina benguelensis* (Welw. ex Hook f.) R.D.Good subsp. *benguelensis***
*Leptactina benguelensis* (Welw. ex Hook f.) R.D.Good subsp. *pubescens* Verdc.
*Leptactina epinyctios* Bullock ex Verdc.
*Mitriostigma greenwayii* Bridson (suffrutex form)
*Morinda angolensis* (R.D.Good) F.White
*Multidentia concrescens* (Bullock) Bridson & Verdc.

*Pachystigma albosetulosum* Verdc. (syn. *Vangueria albosetulosa* (Verdc.) Lantz)
***Pachystigma coeruleum* Robyns (syn. *Vangueria coerulea* (Robyns) Lantz)**
*Pachystigma latifolium* Sond. (syn. *Vangueria latifolia* (Sond.) Sond.)
*Pachystigma micropyren* Verdc. (syn. *Vangueria micropyren* (Verdc.) Lantz)
*Pachystigma pygmaeum* (Schltr.) Robyns (syn. *Vangueria pygmaea* Schltr.)
***Pachystigma thamnus* Robyns (syn. *Vangueria thamnus* (Robyns) Lantz)**
***Pachystigma venosum* Hochst. (syn. *Vangueria venosa* (Hochst.) Sond.)**
*Pavetta decumbens* K.Schum. & K.Krause
*Pavetta pumila* N.E.Br.
*Pavetta pygmaea* Bremek.
*Pavetta radicans* Hiern
*Pavetta schumanniana* F.Hoffm. ex K.Schum. (suffrutex form)
*Pavetta vanwykiana* Bridson
*Psychotria diversinodula* (Verdc.) Verdc.
*Psychotria kikwitensis* De Wild.
*Psychotria mwinilungae* Verdc.
***Psychotria peduncularis* (Salisb.) Steyerm.**
***Psychotria pumila* Hiern var. *pumila***
*Psychotria spithamea* S.Moore
***Pygmaeothamnus chamaedendrum* (Kuntze) Robyns**
*Pygmaeothamnus zeyheri* (Sond.) Robyns var. *zeyheri*
*Pygmaeothamnus zeyheri* (Sond.) Robyns var. *rogersii* Robyns
*Sericanthe suffruticosa* (Hutch.) Robbr.
*Tapiphyllum cistifolium* (Welw. ex Hien) Robyns var. *latifolium* Verdc.
*Tapiphyllum molle* Robyns
*Tapiphyllum verticillatum* Robyns (syn. *Vangueria verticillata* (Robyns) Lantz)
*Tricalysia cacondensis* Hiern (syn. *Empogona cacondensis* (Hiern) Tosh & Robbr.)
*Tricalysia repens* Robbr.

**SAPINDACEAE**
*Deinbollia fanshawei* Exell

**STRYCHNACEAE**
*Strychnos gossweileri* Exell
*Strychnos spinosa* Lam. (geosuff form)

**URTICACEAE**
*Pouzolzia parasitica* (Forssk.) Schweinf.

**Supporting Information Notes S2** List of taxa included in phylogeny with voucher information and GenBank accession numbers. Numbers in bold are newly generated sequences in this study.

| **Taxon Author** | **Order** | **Family APG** | **Voucher (Herbarium)** | **Genbank *rbcLa*** | **Genbank *matK*** |
|---|---|---|---|---|---|
| *Abutilon angulatum* (Guill. & Perr.) Mast. | Malvales | Malvaceae | OM1934 *(JRAU)* | **JX572177** | **JX517944** |
| *Abutilon sonneratianum* (Cav.) Sweet | Malvales | Malvaceae | LTM034 *(JRAU)* | **JX572178** | **JX518201** |
| *Acacia baileyana* F.Muell. | Fabales | Fabaceae | MvdB0057 *(JRAU)* | **JX572184** | **JX517809** |
| *Acacia cyclops* G.Don | Fabales | Fabaceae | BS0068 *(JRAU)* | JQ412305 | JQ412187 |
| *Acacia elata* Benth. | Fabales | Fabaceae | OM1900 *(JRAU)* | **JX572190** | **JX517661** |
| *Acacia mearnsii* De Wild. | Fabales | Fabaceae | RMK0006 *(JRAU)* | **JX572209** | **JX517946** |
| *Acacia melanoxylon* R.Br. | Fabales | Fabaceae | OM1985 *(JRAU)* | **JX572210** | **JX517503** |
| *Acacia podalyriifolia* G.Don | Fabales | Fabaceae | OM1898 *(JRAU)* | **JX572219** | **JX970902** |
| *Acacia saligna* (Labill.) Wendl. | Fabales | Fabaceae | Gómez-Acevedo s.n *(MEXU,USCG)* | - | HM020727 |
| *Acalypha chirindica* S.Moore | Malpighiales | Euphorbiaceae | OM2341 *(JRAU)* | **JX572236** | **JX518178** |
| *Acalypha glabrata* f. *pilosior* (Kuntze) Prain & Hutch. | Malpighiales | Euphorbiaceae | OM1979 *(JRAU)* | **JX572238** | **JX518120** |
| *Acalypha glabrata* Thunb. | Malpighiales | Euphorbiaceae | OM0441 *(JRAU)* | **JX572237** | **JX517655** |
| *Acokanthera oblongifolia* (Hochst.) Benth. & Hook.f. ex B.D.Jacks. | Gentianales | Apocynaceae | OM2240 *(JRAU)* | **JX572239** | **JX517911** |
| *Acokanthera oppositifolia* (Lam.) Codd | Gentianales | Apocynaceae | OM3240 *(JRAU)* | **JX572240** | **JX517680** |
| *Acokanthera rotundata* (Codd) Kupicha | Gentianales | Apocynaceae | OM2009 *(JRAU)* | **JF265266** | **JF270623** |
| *Acridocarpus natalitius* A.Juss. | Malpighiales | Malpighiaceae | OM2034 *(JRAU)* | **JF265267** | **JF270624** |
| *Adansonia digitata* L. | Malvales | Malvaceae | OM1306 *(JRAU)* | **JQ025018** | **JQ024933** |
| *Adenia fruticosa* Burtt Davy | Malpighiales | Passifloraceae | OM1950 *(JRAU)* | **JX572241** | **JX905957** |
| *Adenia gummifera* (Harv.) Harms | Malpighiales | Passifloraceae | OM2473 *(JRAU)* | **JX572242** | **JX517347** |
| *Adenia spinosa* Burtt Davy | Malpighiales | Passifloraceae | OM1618 *(JRAU)* | **JF265269** | **JX905950** |
| *Adenium multiflorum* Klotzsch | Gentianales | Apocynaceae | OM1161 *(JRAU)* | **JX572243** | **JX517509** |
| *Adenium swazicum* Stapf | Gentianales | Apocynaceae | OM1172 *(JRAU)* | **JX572244** | **JX517457** |

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|---|---|---|---|---|---|
| *Adenopodia spicata* (E.Mey.) C.Presl | Fabales | Fabaceae | MWC28710 *(K)* | **JX572245** | **JX517808** |
| *Afrocanthium lactescens* (Hiern) Lantz | Gentianales | Rubiaceae | Luke&Luke 9045 *(UPS)* | - | HM119502 |
| *Afrocanthium mundianum* (Cham. & Schltdl.) Lantz | Gentianales | Rubiaceae | Abbott9224 *(BNRH)* | **JX572367** | **JX517319** |
| *Afrocanthium racemulosum* (S.Moore) Lantz | Gentianales | Rubiaceae | OM2592 *(JRAU)* | **JX572246** | **JX517417** |
| *Afrocarpus falcatus* (Thunb.) C.N.Page | Pinales | Podocarpaceae | Adelaide BG G870288 | AF249589 | AF457111 |
| *Afzelia quanzensis* Welw. | Fabales | Fabaceae | OM2113 *(JRAU)* | **JX572247** | **JX518045** |
| *Agave americana* L. | Asparagales | Asparagaceae | JG048 *(JRAU)* | **JX572248** | **JX517987** |
| *Agave sisalana* Perrine | Asparagales | Asparagaceae | RMK0026 *(JRAU)* | **JX572249** | **JX517955** |
| *Ailanthus altissima* (Mill.) Swingle | Sapindales | Simaroubaceae | JG032 *(JRAU)* | **JX572250** | **JX517969** |
| *Alangium chinense* (Lour.) Harms | Cornales | Cornaceae | US Natl. Arb. 49003 / Arnold Arb. #15866 | L11209.2 | JF308671 |
| *Alberta magna* E.Mey. | Gentianales | Rubiaceae | Abbott9117 *(BNRH)* | **JX572251** | **JX517760** |
| *Albizia adianthifolia* (Schum.) W.Wight | Fabales | Fabaceae | OM2610 *(JRAU)* | **JX572252** | **JX518130** |
| *Albizia amara* subsp. *sericocephala* (Benth.) Brenan | Fabales | Fabaceae | OM2136 *(JRAU)* | **JX572253** | **JX517531** |
| *Albizia anthelmintica* Brongn. | Fabales | Fabaceae | OM2576 *(JRAU)* | **JX572254** | **JX517977** |
| *Albizia brevifolia* Schinz | Fabales | Fabaceae | OM0826 *(JRAU)* | **JF265276** | **JF270632** |
| *Albizia forbesii* Benth. | Fabales | Fabaceae | OM0331 *(JRAU)* | **JX572255** | **JX517431** |
| *Albizia glaberrima* (Schum. & Thonn.) Benth. | Fabales | Fabaceae | OM2605 *(JRAU)* | **JX572256** | **JX518104** |
| *Albizia harveyi* E.Fourn. | Fabales | Fabaceae | OM0773 *(JRAU)* | **JX572257** | **JX518176** |
| *Albizia petersiana* subsp. *evansii* (Burtt Davy) Brenan | Fabales | Fabaceae | OM1378 *(JRAU)* | **JX572258** | **JX517499** |
| *Albizia suluensis* Gerstner | Fabales | Fabaceae | OM2227 *(JRAU)* | **JX572259** | **JX517858** |
| *Albizia tanganyicensis* Baker f. | Fabales | Fabaceae | OM1972 *(JRAU)* | **JF265280** | **JF270636** |
| *Albizia versicolor* Oliv. | Fabales | Fabaceae | OM2535 *(JRAU)* | **JX572260** | **JX518194** |
| *Albizia zimmermannii* Harms | Fabales | Fabaceae | OM2363 *(JRAU)* | **JX572261** | **JX517424** |
| *Alchornea hirtella* f. *glabrata* (Müll.Arg.) | Malpighiales | Euphorbiaceae | MWC36209 *(K)* | **JX572262** | **JX518052** |

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| Pax & K.Hoffm. | | | | | |
| *Alchornea laxiflora* (Benth.) Pax & K.Hoffm. | Malpighiales | Euphorbiaceae | OM2330 *(JRAU)* | **JX572263** | **JX517659** |
| *Allocassine laurifolia* (Harv.) N.Robson | Celastrales | Celastraceae | Abbott9147 *(BNRH)* | **JX572264** | **JX517481** |
| *Allophylus africanus* P.Beauv. | Sapindales | Sapindaceae | Abbott9141 *(BNRH)* | **JX572265** | **JX518006** |
| *Allophylus decipiens* (E.Mey.) Radlk. | Sapindales | Sapindaceae | OM1846 *(JRAU)* | **JF265283** | **JF270639** |
| *Allophylus dregeanus* (Sond.) De Winter | Sapindales | Sapindaceae | Abbott9136 *(BNRH)* | **JX572266** | **JX518230** |
| *Allophylus natalensis* (Sond.) De Winter | Sapindales | Sapindaceae | OM2224 *(JRAU)* | **-** | **JX905946** |
| *Allophylus rubifolius* (Hochst. ex A.Rich.) Engl. | Sapindales | Sapindaceae | OM2348 *(JRAU)* | **JX572267** | **JX517604** |
| *Aloe africana* Mill. | Asparagales | Xanthorrhoeaceae | OM3190 *(JRAU)* | **JX572268** | **JX518056** |
| *Aloe angelica* Pole-Evans | Asparagales | Xanthorrhoeaceae | OM2960 *(JRAU)* | **-** | **JQ024109** |
| *Aloe arborescens* Mill. | Asparagales | Xanthorrhoeaceae | Abbott9167 *(BNRH)* | **JX572272** | **JX518144** |
| *Aloe barberae* Dyer | Asparagales | Xanthorrhoeaceae | Abbott9219 *(BNRH)* | **JX572274** | **JX518237** |
| *Aloe castanea* Schönland | Asparagales | Xanthorrhoeaceae | OM2961 *(JRAU)* | **-** | **JQ024120** |
| *Aloe comosa* Marloth & A.Berger | Asparagales | Xanthorrhoeaceae | BHD385 *(JRAU)* | **JQ024499** | **JQ024124** |
| *Aloe dichotoma* Masson | Asparagales | Xanthorrhoeaceae | OM2953 *(JRAU)* | **JQ024501** | **JQ024126** |
| *Aloe dichotoma* subsp. *pillansii* (L.Guthrie) Zonn. | Asparagales | Xanthorrhoeaceae | BHD390 *(JRAU)* | **JQ024502** | **JQ024127** |
| *Aloe dichotoma* subsp. *ramosissima* (Pillans) Zonn. | Asparagales | Xanthorrhoeaceae | OM2954 *(JRAU)* | **JQ024503** | **JQ024128** |
| *Aloe excelsa* A.Berger | Asparagales | Xanthorrhoeaceae | OM1621 *(JRAU)* | **JF265284** | **JF270640** |
| *Aloe ferox* Mill. | Asparagales | Xanthorrhoeaceae | Abbott9235 *(BNRH)* | **JX572282** | **JX518209** |
| *Aloe hexapetala* Salm-Dyck. | Asparagales | Xanthorrhoeaceae | BHD394 *(JRAU)* | **JQ024515** | **JQ024141** |
| *Aloe marlothii* A.Berger | Asparagales | Xanthorrhoeaceae | OM1490 *(JRAU)* | **JF265285** | **JF270641** |
| *Aloe plicatilis* (L.) Mill. | Asparagales | Xanthorrhoeaceae | BHD193 *(JRAU)* | **JQ024531** | **JQ024159** |
| *Aloe pluridens* Haw. | Asparagales | Xanthorrhoeaceae | Abbott9217 *(BNRH)* | **JX572293** | **JX518078** |
| *Aloe spicata* L.f. | Asparagales | Xanthorrhoeaceae | OM1522 *(JRAU)* | **JF265286** | **JF270642** |
| *Aloe thraskii* Baker | Asparagales | Xanthorrhoeaceae | BHD411 *(JRAU)* | **JQ024542** | **JQ024170** |
| *Amblygonocarpus andongensis* (Oliv.) | Fabales | Fabaceae | OM2609 *(JRAU)* | **JX572301** | **JX517615** |

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| Exell & Torre | | | | | |
| *Anacardium occidentale* L. | Sapindales | Anacardiaceae | Mori24142 *(NYBG)* | - | AY594459 |
| *Anastrabe integerrima* E.Mey. ex Benth. | Lamiales | Scrophulariaceae | OM2197 *(JRAU)* | KF147454 | KF147376 |
| *Ancylobothrys capensis* (Oliv.) Pichon | Gentianales | Apocynaceae | OM1615 *(JRAU)* | **JX572303** | **JX517602** |
| *Androstachys johnsonii* Prain | Malpighiales | Euphorbiaceae | OM3354 *(JRAU)* | - | **JX517380** |
| *Anginon difforme* (L.) B.L.Burtt | Apiales | Apiaceae | OM2292 *(JRAU)* | **JX572304** | **JX518113** |
| *Anisotes formosissimus* (Klotzsch) Milne-Redh. | Lamiales | Acanthaceae | OM0868 *(JRAU)* | **JF265288** | **JF270643** |
| *Annona senegalensis* Pers. | Magnoliales | Annonaceae | OM2732 *(JRAU)* | **JX572305** | **JX517836** |
| *Anthocleista grandiflora* Gilg | Gentianales | Gentianaceae | OM2671 *(JRAU)* | **JX572306** | **JX518238** |
| *Antidesma venosum* E.Mey. ex Tul. | Malpighiales | Euphorbiaceae | 223021 *(IBSC)* | - | HQ415372 |
| *Aphloia theiformis* (Vahl) Benn. | Crossosomatales | Aphloiaceae | OM3397 *(JRAU)* | **JX572308** | **JX518161** |
| *Apodytes dimidiata* E.Mey. ex Arn. | Icacinales | Icacinaceae | OM2485 *(JRAU)* | **JX572309** | **JX517375** |
| *Ardisia crenata* Sims | Ericales | Primulaceae | Davis570 *(FLAS)* | GU135270 | GU134982 |
| *Argomuellera macrophylla* Pax | Malpighiales | Euphorbiaceae | Gereau6285 *(MO)* | AB267915 | AB268019 |
| *Artabotrys brachypetalus* Benth. | Magnoliales | Annonaceae | OM2697 *(JRAU)* | **JX572311** | **JX517688** |
| *Aspalathus linearis* (Burm.f.) R.Dahlgren | Fabales | Fabaceae | AMM4783 *(BOL)* | **JX572312** | **JX517437** |
| *Aspalathus pendula* R.Dahlgren | Fabales | Fabaceae | AMM4066 *(BOL)* | **JX572313** | **JX518088** |
| *Atalaya alata* (Sim) H.M.L.Forbes | Sapindales | Sapindaceae | Chase1126 *(K)* | AY724345 | AY724274 |
| *Atalaya natalensis* R.A.Dyer | Sapindales | Sapindaceae | Abbott9212 *(BNRH)* | **JX572315** | **JX517838** |
| *Avicennia marina* (Forssk.) Vierh. | Lamiales | Acanthaceae | OM2475 *(JRAU)* | **JX572318** | **JX518100** |
| *Azanza garckeana* (F.Hoffm.) Exell & Hillc. | Malvales | Malvaceae | OM2525 *(JRAU)* | **JX572319** | **JX517364** |
| *Azima tetracantha* Lam. | Brassicales | Salvadoraceae | OM1315 *(JRAU)* | **JX572320** | **JX517351** |
| *Bachmannia woodii* (Oliv.) Gilg | Brassicales | Capparaceae | MWC35838 *(K)* | **JX572321** | **JX518041** |
| *Baikiaea plurijuga* Harms | Fabales | Fabaceae | M660 *(JRAU)* | **JX572322** | **JX517704** |
| *Balanites aegyptiaca* (L.) Delile | Zygophyllales | Zygophyllaceae | OM3548 *(JRAU)* | **JX572323** | **JX517722** |
| *Balanites maughamii* Sprague | Zygophyllales | Zygophyllaceae | OM0994 *(JRAU)* | **JX572324** | **JX517309** |
| *Balanites pedicellaris* Mildbr. & Schltr. | Zygophyllales | Zygophyllaceae | OM0901 *(JRAU)* | **JF265297** | **JF270651** |

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| *Baphia massaiensis* subsp. *obovata* (Schinz) Brummitt | Fabales | Fabaceae | RBN130 *(KNP)* | **JF265298** | **JF270652** |
| *Baphia racemosa* (Hochst.) Baker | Fabales | Fabaceae | OM2221 *(JRAU)* | - | **JX517582** |
| *Barleria albostellata* C.B.Clarke | Lamiales | Acanthaceae | OM0899 *(JRAU)* | **JF265299** | **JF270653** |
| *Barleria rotundifolia* Oberm. | Lamiales | Acanthaceae | OM1327 *(JRAU)* | **JF265300** | **JF270654** |
| *Barringtonia racemosa* (L.) Spreng. | Ericales | Lecythidaceae | OM1830 *(JRAU)* | **JX572325** | **JX517528** |
| *Bauhinia galpinii* N.E.Br. | Fabales | Fabaceae | Forest347 *(NBG)* | EU361875 | AM234262 |
| *Bauhinia natalensis* Hook. | Fabales | Fabaceae | CS07 *(JRAU)* | **JX572326** | **JX518033** |
| *Bauhinia petersiana* Bolle | Fabales | Fabaceae | OM2243 *(JRAU)* | **JX572327** | **JX517937** |
| *Bauhinia tomentosa* L. | Fabales | Fabaceae | OM2391 *(JRAU)* | **JX572328** | **JX517621** |
| *Bauhinia variegata* L. | Fabales | Fabaceae | Abbott24907 *(FLAS)* | GU135196 | GU135033 |
| *Berchemia discolor* (Klotzsch) Hemsl. | Rosales | Rhamnaceae | OM2437 *(JRAU)* | **JX572329** | **JX517834** |
| *Berchemia zeyheri* (Sond.) Grubov | Rosales | Rhamnaceae | OM1165 *(JRAU)* | **JX572330** | **JX517781** |
| *Bersama lucens* (Hochst.) Szyszyl. | Geraniales | Melianthaceae | OM1562 *(JRAU)* | **JF265304** | **JF270657** |
| *Bersama swinnyi* Phillips | Geraniales | Melianthaceae | OM2205 *(JRAU)* | - | KF147377 |
| *Bersama tysoniana* Oliv. | Geraniales | Melianthaceae | OM1891 *(JRAU)* | **JX572331** | **JX517517** |
| *Berzelia lanuginosa* (L.) Brongn. | Bruniales | Bruniaceae | OM3091 *(JRAU)* | **JX572332** | **JX517959** |
| *Bivinia jalbertii* Tul. | Malphigiales | Salicaceae | OM2418 *(JRAU)* | **JX572333** | **JX517831** |
| *Blighia unijugata* Baker | Sapindales | Sapindaceae | OM1856 *(JRAU)* | **JX572334** | **JX517638** |
| *Bobgunnia madagascariensis* (Desv.) J.H.Kirkbr. & Wiersema | Fabales | Fabaceae | OM3566 *(JRAU)* | **JX572335** | **JX518002** |
| *Bolusanthus speciosus* (Bolus) Harms | Fabales | Fabaceae | OM0240 *(JRAU)* | **JF265305** | **JF270658** |
| *Boscia albitrunca* (Burch.) Gilg & Benedict | Brassicales | Capparaceae | OM1274 *(JRAU)* | **JX572338** | **JX518051** |
| *Boscia angustifolia* var. *corymbosa* (Gilg) DeWolf | Brassicales | Capparaceae | OM2069 *(JRAU)* | - | **JX517529** |
| *Boscia foetida* Schinz | Brassicales | Capparaceae | OM0296 *(JRAU)* | **JF265309** | **JF270662** |
| *Boscia foetida* subsp. *filipes* (Gilg) Lötter. | Brassicales | Capparaceae | OM1916 *(JRAU)* | **JX572339** | **JX518084** |
| *Boscia mossambicensis* Klotzsch | Brassicales | Capparaceae | OM0250 *(JRAU)* | **JX572340** | **JX517670** |
| *Boscia salicifolia* Oliv. | Brassicales | Capparaceae | OM2543 *(JRAU)* | **JX572341** | **JX518071** |

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| *Bowkeria cymosa* MacOwan | Lamiales | Scrophulariaceae | OM2026 *(JRAU)* | **JX572342** | **JX517768** |
| *Bowkeria verticillata* (Eckl. & Zeyh.) Druce | Lamiales | Scrophulariaceae | OM&MvdB72 *(JRAU)* | **JX572343** | **JX517524** |
| *Brabejum stellatifolium* L. | Proteales | Proteaceae | OM2257 *(JRAU)* | **JX572344** | **JX517823** |
| *Brachylaena discolor* DC. | Asterales | Asteraceae | BS0103 *(JRAU)* | **JQ412332** | **JQ412216** |
| *Brachylaena discolor* var. *transvaalensis* (E.Phillips & Schweick.) Beentje. | Asterales | Asteraceae | OM0571 *(JRAU)* | **JF265312** | **JF270665** |
| *Brachylaena elliptica* (Thunb.) Less. | Asterales | Asteraceae | Koekemoer&Funk 1971 *(PRE)* | EU384952 | EU385330 |
| *Brachylaena huillensis* O.Hoffm. | Asterales | Asteraceae | OM0247 *(JRAU)* | **JF265311** | **JF270664** |
| *Brachylaena neriifolia* (L.) R.Br. | Asterales | Asteraceae | OM3093 *(JRAU)* | **JX572345** | **JX517590** |
| *Brachylaena rotundata* S.Moore | Asterales | Asteraceae | OM1938 *(JRAU)* | **JX572346** | **JX518142** |
| *Brachystegia boehmii* Taub. | Fabales | Fabaceae | OM3534 *(JRAU)* | **JX572347** | **JX518131** |
| *Brachystegia bussei* Harms | Fabales | Fabaceae | Herendeen 20-XII-97-2 *(US)* | - | EU361887 |
| *Brachystegia stipulata* De Wild. | Fabales | Fabaceae | OM2043 *(BNRH)* | KF147455 | KF147378 |
| *Brackenridgea zanguebarica* Oliv. | Malpighiales | Ochnaceae | OM2377 *(BNRH)* | KF147456 | KF147379 |
| *Breonadia salicina* (Vahl) Hepper & J.R.I.Wood | Gentianales | Rubiaceae | OM2571 *(JRAU)* | **JX572348** | **JX518162** |
| *Brexia madagascariensis* (Lam.) Thouars ex Ker Gawl. | Celastrales | Celastraceae | OM2676 *(JRAU)* | **JX572349** | **JX517980** |
| *Bridelia atroviridis* Müll.Arg. | Malpighiales | Euphorbiaceae | Mwangoka1371 *(M)* | - | FJ439961 |
| *Bridelia cathartica* Bertol. | Malpighiales | Euphorbiaceae | OM0455 *(JRAU)* | **JX572350** | **JX517968** |
| *Bridelia micrantha* (Hochst.) Baill. | Malpighiales | Euphorbiaceae | OM1435 *(JRAU)* | **JF265315** | **JF270668** |
| *Bridelia mollis* Hutch. | Malpighiales | Euphorbiaceae | OM1958 *(JRAU)* | **JX572351** | **JX518053** |
| *Bridelia tenuifolia* Müll.Arg. | Malpighiales | Euphorbiaceae | Leyens&Lobin206 *(M)* | - | FJ439963 |
| *Bruguiera gymnorhiza* (L.) Lam. | Malpighiales | Rhizophoraceae | OM2487 *(JRAU)* | **JX905966** | AF105088 |
| *Brunia albifora* Phillips | Bruniales | Bruniaceae | OM3116 *(JRAU)* | **JX572352** | **JX517948** |
| *Buddleja dysophylla* (Benth.) Radlk. | Lamiales | Scrophulariaceae | OM2296 *(JRAU)* | **JX572353** | **JX518066** |
| *Buddleja saligna* Willd. | Lamiales | Scrophulariaceae | OM1783 *(JRAU)* | **JX572354** | **JX518195** |

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| *Buddleja salviifolia* (L.) Lam. | Lamiales | Scrophulariaceae | OM1780 *(JRAU)* | **JX572355** | **JX517705** |
| *Burchellia bubalina* (L.f.) Sims | Gentianales | Rubiaceae | OM3160 *(JRAU)* | **JX572356** | **JX517467** |
| *Burkea africana* Hook. | Fabales | Fabaceae | OM2128 *(JRAU)* | **JX572357** | **JX517992** |
| *Burttdavya nyasica* Hoyle | Gentianales | Rubiaceae | OM1666 *(JRAU)* | **JX572358** | **JX517314** |
| *Buxus macowanii* Oliv. | Buxales | Buxaceae | OM1762 *(JRAU)* | **JX572359** | **JX517876** |
| *Buxus natalensis* (Oliv.) Hutch. | Buxales | Buxaceae | OM1768 *(JRAU)* | **JX572360** | **JX517505** |
| *Cadaba aphylla* (Thunb.) Wild | Brassicales | Capparaceae | OM3203 *(JRAU)* | **JX572361** | **JX517921** |
| *Cadaba kirkii* Oliv. | Brassicales | Capparaceae | OM3579 *(JRAU)* | **JX572362** | **JX517687** |
| *Cadaba termitaria* N.E.Br. | Brassicales | Capparaceae | OM1930 *(JRAU)* | **JF265318** | **JF270671** |
| *Caesalpinia bonduc* (L.) Roxb. | Fabales | Fabaceae | OM3615 *(JRAU)* | - | **JX517899** |
| *Caesalpinia decapetala* (Roth) Alston | Fabales | Fabaceae | PS1589MT01 *(IMPLAD)* | - | HM049555 |
| *Callistemon viminalis* (Sol. ex Gaertn.) G.Don ex Loudon | Myrtales | Myrtaceae | BS0179 *(JRAU)* | **JX905973** | **JX970912** |
| *Callitris endlicheri* (Parl.) F.M.Bailey | Pinales | Cupressaceae | Miller4 *(BH)* | AY988231 | AY988331 |
| *Calodendrum capense* (L.f.) Thunb. | Sapindales | Rutaceae | OM1542 *(JRAU)* | **JF265319** | **JF270672** |
| *Calpurnia aurea* (Aiton) Benth. | Fabales | Fabaceae | OM1532 *(JRAU)* | **JF265320** | **JF270673** |
| *Calpurnia sericea* Harv. | Fabales | Fabaceae | Abbott9196 *(BNRH)* | **JX572364** | **JX518205** |
| *Camellia sinensis* (L.) Kuntze | Ericales | Theaceae | Prince s.n. *(UNC)* / Erixon&Bremer40 *(UPS)* | AF380037 | AJ429305 |
| *Canthium armatum* (K.Schum.) Lantz | Gentianales | Rubiaceae | OM1548 *(JRAU)* | **JX572859** | **JX517643** |
| *Canthium ciliatum* (D.Dietr.) Kuntze | Gentianales | Rubiaceae | OM1741 *(JRAU)* | **JX572365** | **JX518137** |
| *Canthium inerme* (L.f.) Kuntze | Gentianales | Rubiaceae | OM1547 *(JRAU)* | **JX572366** | **JX517491** |
| *Canthium setiflorum* Hiern | Gentianales | Rubiaceae | OM0574 *(JRAU)* | **JX572368** | **JX518042** |
| *Canthium spinosum* (Klotzsch ex Eckl. & Zeyh.) Kuntze | Gentianales | Rubiaceae | Abbott9256 *(BNRH)* | **JX572369** | **JX517559** |
| *Canthium suberosum* Codd | Gentianales | Rubiaceae | Abbott9239 *(BNRH)* | **JX572370** | **JX517637** |
| *Canthium vanwykii* Tilney & Kok | Gentianales | Rubiaceae | Abbott9155 *(BNRH)* | **JX572371** | **JX517690** |
| *Capparis erythrocarpos* Isert | Brassicales | Capparaceae | OM2332 *(JRAU)* | **JX572372** | **JX517706** |
| *Capparis fascicularis* DC. | Brassicales | Capparaceae | OM1640 *(JRAU)* | **JF265323** | **JF270676** |
| *Capparis sepiaria* var. *subglabra* (Oliv.) | Brassicales | Capparaceae | OM2746 *(JRAU)* | **JX572373** | **JX517328** |

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| DeWolf | | | | | |
| *Capparis tomentosa* Lam. | Brassicales | Capparaceae | OM1112 *(JRAU)* | **JX572374** | **JX518213** |
| *Carissa bispinosa* (L.) Desf. ex Brenan | Gentianales | Apocynaceae | OM0409 *(JRAU)* | **JX572375** | **JX518098** |
| *Carissa haematocarpa* (Eckl.) A.DC. | Gentianales | Apocynaceae | OM3065 *(JRAU)* | KF147457 | KF147380 |
| *Carissa macrocarpa* (Eckl.) A.DC. | Gentianales | Apocynaceae | OM1751 *(JRAU)* | **JX572377** | **JX517764** |
| *Carissa praetermissa* Kupicha | Gentianales | Apocynaceae | OM2650 *(JRAU)* | **JX572378** | **JX518202** |
| *Carissa spinarum* L. | Gentianales | Apocynaceae | RL1148 *(JRAU)* | **JX572376** | **JX517623** |
| *Carissa tetramera* (Sacleux) Stapf | Gentianales | Apocynaceae | RBN210 *(KNP)* | **JX572379** | **JX517545** |
| *Carpolobia goetzei* Gürke | Fabales | Polygalaceae | OM2459 *(JRAU)* | **JX572380** | **JX517551** |
| *Casearia gladiiformis* Mast. | Malphigiales | Salicaceae | OM2323 *(JRAU)* | **JX572383** | **JX517926** |
| *Casearia sp.* nov. Abbott | Malphigiales | Salicaceae | Abbott9191 *(BNRH)* | **JX573112** | **JX905955** |
| *Casearia sp.* nov. Burrows | Malphigiales | Salicaceae | Burrows12551 *(BNRH)* | KF147458 | - |
| *Cassia abbreviata* Oliv. | Fabales | Fabaceae | OM2047 *(JRAU)* | **JX572384** | **JX517898** |
| *Cassia abbreviata* subsp. *beareana* (Holmes) Brenan | Fabales | Fabaceae | OM3388 *(JRAU)* | **JX572385** | **JX518172** |
| *Cassia afrofistula* Brenan | Fabales | Fabaceae | OM2629 *(JRAU)* | **JX572386** | **JX518010** |
| *Cassine crocea* (Thunb.) C.Presl. | Celastrales | Celastraceae | Abbott9197 *(BNRH)* | **JX572546** | **JX517420** |
| *Cassine matabelica* (Loes.) Steedman | Celastrales | Celastraceae | Archer s.n. *(PRE)* | - | DQ217537 |
| *Cassine peragua* L. | Celastrales | Celastraceae | Abbott9178 *(BNRH)* | **JX572546** | **JX517420** |
| *Cassine reticulata* (Eckl. & Zeyh.) Codd | Celastrales | Celastraceae | Proches s.n. *(PRE)* | - | DQ217535 |
| *Cassine schinoides* (Spreng.) R.H.Archer | Celastrales | Celastraceae | Van Jaarsveld s.n. *(PRE)* | - | DQ217536 |
| *Cassine transvaalensis* (Burtt Davy) Codd. | Celastrales | Celastraceae | OM1229 *(JRAU)* | **JX572547** | **JX517826** |
| *Cassinopsis ilicifolia* (Hochst.) Sleumer | Icacinales | Icacinaceae | OM1892 *(JRAU)* | **JF265330** | **JF270683** |
| *Cassinopsis tinifolia* Harv. | Icacinales | Icacinaceae | Abbott9166 *(BNRH)* | **JX572388** | **JX517588** |
| *Cassipourea gummiflua* Tul. | Malpighiales | Rhizophoraceae | OM1882 *(JRAU)* | **JX572389** | **JX517458** |
| *Cassipourea malosana* (Baker) Alston | Malpighiales | Rhizophoraceae | Abbott9115 *(BNRH)* | **JX572390** | **JX517355** |
| *Casuarina cunninghamiana* Miq. | Fagales | Casuarinaceae | JG061 *(JRAU)* | **JX572391** | **JX517494** |
| *Casuarina equisetifolia* L. | Fagales | Casuarinaceae | Abbott24914 *(FLAS)* | GU135200 | GU135038 |
| *Catha abbottii* A.E.van Wyk & M.Prins | Celastrales | Celastraceae | Abbott9242 *(BNRH)* | **JX572741** | **JX517339** |
| *Catha edulis* (Vahl) Endl. | Celastrales | Celastraceae | OM2079 *(JRAU)* | **JX572392** | **JX517954** |

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| *Catunaregam obovata* (Hochst.) A.E.Gon. | Gentianales | Rubiaceae | OM3277 *(JRAU)* | **JX572393** | **JX517479** |
| *Catunaregam swynnertonii* (S.Moore) Bridson | Gentianales | Rubiaceae | OM2353 *(JRAU)* | **JX572394** | **JX517530** |
| *Cavacoa aurea* (Cavaco) J.Léonard | Malpighiales | Euphorbiaceae | OM2035 *(JRAU)* | **JX572395** | **JX518036** |
| *Ceiba pentandra* (L.) Gaertn. | Malvales | Malvaceae | Alverson s.n. *(SP)* | - | HQ696701 |
| *Celtis africana* Burm.f. | Rosales | Ulmaceae | OM1225 *(JRAU)* | **JF265333** | **JF270686** |
| *Celtis gomphophylla* Baker | Rosales | Ulmaceae | Abbott9159 *(BNRH)* | **JX572396** | **JX517812** |
| *Celtis mildbraedii* Engl. | Rosales | Ulmaceae | OM1567 *(JRAU)* | **JX572397** | **JX517381** |
| *Celtis sinensis* Pers. | Rosales | Ulmaceae | Song s.n. *(PE)* | - | AF345316 |
| *Cephalanthus natalensis* Oliv. | Gentianales | Rubiaceae | OM1583 *(JRAU)* | **JF265334** | **JF270687** |
| *Ceraria fruticulosa* H.Pearson & Stephens | Caryophyllales | Portulacaceae | EJE96 *(YU)* | AY875218 | AY875371 |
| *Ceriops tagal* (Perr.) C.B.Rob. | Malpighiales | Rhizophoraceae | SetoguchiS93028 *(MAK)* / Chang 9711902 *(SYS)* | AF006756 | AF105089 |
| *Cestrum elegans* (Brongn. ex Neumann) Schltdl. | Solanales | Solanaceae | Chase12217 *K* | - | AJ585891 |
| *Cestrum laevigatum* Schltdl. | Solanales | Solanaceae | OM1773 *(JRAU)* | **JX572398** | **JX517961** |
| *Chaetachme aristata* Planch. | Rosales | Ulmaceae | OM1530 *(JRAU)* | **JX572399** | **JX517429** |
| *Chazaliella abrupta* (Hiern) E.M.A.Petit & Verdc. | Gentianales | Oleaceae | OM2440 *(JRAU)* | **JX572400** | **JX518149** |
| *Chionanthus foveolatus* (E.Mey.) Stearn | Lamiales | Oleaceae | OM1832 *(JRAU)* | **JF265336** | **JF270689** |
| *Chionanthus peglerae* (C.H.Wright) Stearn | Lamiales | Oleaceae | OM1766 *(JRAU)* | **JF265337** | **JF270690** |
| *Chromolaena DC.* | Asterales | Asteraceae | Panero8841 *(TENN)* | - | EU337052 |
| *Chrysanthemoides monilifera* (L.) Norl. | Asterales | Asteraceae | Abbott9171 *(BNRH)* | **JX572403** | **JX517413** |
| *Chrysophyllum viridifolium* J.M.Wood & Franks | Ericales | Sapotaceae | OM2668 *(JRAU)* | **JX572404** | **JX518108** |
| *Cinnamomum camphora* (L.) J.Presl | Laurales | Lauraceae | 904158 *(IBSC)* | HQ427259 | HQ427401 |
| *Cissus cactiformis* Gilg | Vitales | Vitaceae | OM1316 *(JRAU)* | **JX572405** | **JX517930** |
| *Cissus cornifolia* (Baker) Planch. | Vitales | Vitaceae | OM2542 *(JRAU)* | **JX572406** | **JX517833** |
| *Cissus integrifolia* (Baker) Planch. | Vitales | Vitaceae | OM2397 *(JRAU)* | **JX572407** | **JX517840** |
| *Citrus limon* (L.) Burm. f. | Sapindales | Rutaceae | JG043 *(JRAU)* | **JX572408** | **JX517803** |

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| *Citrus sinensis* (L.) Osbeck | Sapindales | Rutaceae | n.a. | - | AB071323 |
| *Cladostemon kirkii* (Oliv.) Pax & Gilg | Brassicales | Capparaceae | OM2389 *(JRAU)* | **JX572409** | **JX517981** |
| *Clausena anisata* (Willd.) Hook.f. ex Benth. | Sapindales | Rutaceae | Abbott9249 *(BNRH)* | **JX572410** | **JX517957** |
| *Cleistanthus polystachyus* subsp. milleri (Dunkley) Radcl.-Sm. | Malpighiales | Euphorbiaceae | Festo457 *(MO)* | - | FJ439971 |
| *Cleistanthus schlechteri* (Pax) Hutch. | Malpighiales | Euphorbiaceae | OM2539 *(JRAU)* | **JX572411** | **JX970903** |
| *Cleistochlamys kirkii* (Benth.) Oliv. | Magnoliales | Annonaceae | OM2339 *(JRAU)* | **JX572412** | **JX517486** |
| *Clematis brachiata* Thunb. | Ranunculales | Ranunculaceae | OM1974 *(JRAU)* | **JF265340** | **JF270693** |
| *Clerodendrum eriophyllum* Gürke | Lamiales | Lamiaceae | OM2759 *(JRAU)* | **JX572413** | **JX517512** |
| *Clerodendrum glabrum* E.Mey. | Lamiales | Lamiaceae | Abbott9161 *(BNRH)* | **JX572414** | **JX517832** |
| *Clerodendrum incisum* Klotzsch | Lamiales | Lamiaceae | Burrows11018 *(BNRH)* | KF147459 | KF147381 |
| *Clerodendrum ternatum* Schinz | Lamiales | Lamiaceae | Burrows12422 *(BNRH)* | KF147460 | KF147382 |
| *Clutia abyssinica* Jaub. & Spach | Malpighiales | Euphorbiaceae | Abbott9231 *(BNRH)* | **JX572415** | **JX518174** |
| *Clutia Boerh.* sp. nov. | Malpighiales | Euphorbiaceae | Abbott9205 *(BNRH)* | **JX572417** | **JX517450** |
| *Clutia monticola* S.Moore | Malpighiales | Euphorbiaceae | Burrows12688 *(BNRH)* | KF147461 | - |
| *Clutia pulchella* L. | Malpighiales | Euphorbiaceae | Abbott9112 *(BNRH)* | **JX572416** | **JX517825** |
| *Cnestis polyphylla* Lam. | Oxalidales | Connaraceae | Abbott9113 *(BNRH)* | **JX572418** | **JX517860** |
| *Cocculus DC.* | Ranunculales | Menispermaceae | Hong YP H419 *(PE)* | HQ260774 | EF143860 |
| *Coddia rudis* (E.Mey. ex Harv.) Verdc. | Gentianales | Rubiaceae | OM2687 *(JRAU)* | **JX572419** | **JX517674** |
| *Coffea arabica* L. | Gentianales | Rubiaceae | Swensen228 *(USNC)* / n.a. | HM446782 | AM412456 |
| *Coffea ligustroides* S.Moore | Gentianales | Rubiaceae | MWC16159 *(K)* | - | **JX517673** |
| *Coffea racemosa* Lour. | Gentianales | Rubiaceae | OM2434 *(JRAU)* | **JX572420** | **JX517631** |
| *Coffea salvatrix* Swynn. & Philipson | Gentianales | Rubiaceae | MWC19445 *(K)* | **JX572421** | **JX517922** |
| *Cola greenwayi* Brenan | Malvales | Malvaceae | OM2160 *(JRAU)* | - | **JX517703** |
| *Cola mossambicensis* Wild | Malvales | Malvaceae | OM2321 *(JRAU)* | **JX572422** | **JX517410** |
| *Cola natalensis* Oliv. | Malvales | Malvaceae | OM1860 *(JRAU)* | **JX572423** | **JX518169** |
| *Coleonema album* (Thunb.) Bartl. & H.L.Wendl. | Sapindales | Rutaceae | OM3124 *(JRAU)* | **JX572424** | **JX517370** |

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| *Colophospermum mopane* (Benth.) Leonard | Fabales | Fabaceae | RL1558 *(JRAU)* | **JX572425** | **JX517743** |
| *Colubrina asiatica* (L.) Brongn. | Rosales | Rhamnaceae | J.R. Abbott 24812 *(FLAS)* | GU135186 | GU135023 |
| *Combretum adenogonium* Steud. ex A.Rich. | Myrtales | Combretaceae | OM2123 *(JRAU)* | EU338151 | JX517478 |
| *Combretum albopunctatum* Suess. | Myrtales | Combretaceae | OM1038 *(JRAU)* | **JX572427** | **JX517725** |
| *Combretum apiculatum* Sond. | Myrtales | Combretaceae | OM1018 *(JRAU)* | **JX572429** | **JX517366** |
| *Combretum apiculatum* subsp. *leutweinii* (Schinz) Exell | Myrtales | Combretaceae | OM2066 *(JRAU)* | **JX572428** | **JX517678** |
| *Combretum bracteosum* (Hochst.) Engl. & Diels | Myrtales | Combretaceae | OM1676 *(JRAU)* | **JX572430** | **JX517513** |
| *Combretum caffrum* (Eckl. & Zeyh.) Kuntze | Myrtales | Combretaceae | OM1750 *(JRAU)* | **JX572431** | **JX517848** |
| *Combretum celastroides* subsp. *orientale* Exell | Myrtales | Combretaceae | OM1917 *(JRAU)* | **JX572426** | **JX517779** |
| *Combretum celastroides* Welw. ex M.A.Lawson | Myrtales | Combretaceae | OM&MvdB28 *(JRAU)* | **JX572432** | **JX517316** |
| *Combretum collinum* subsp. *gazense* (Swynn. & Baker f.) Okafa | Myrtales | Combretaceae | OM1024 *(JRAU)* | EU338158 | OM1024 |
| *Combretum collinum* subsp. *suluense* (Engl. & Diels) Okafa | Myrtales | Combretaceae | OM&MvdB34 *(JRAU)* | **JX572434** | **JX517634** |
| *Combretum collinum* subsp. *taborense* (Engl.) Okafa | Myrtales | Combretaceae | RBN170 *(KNP)* | **JX572435** | **JX517383** |
| *Combretum edwardsii* Exell | Myrtales | Combretaceae | OM1584 *(JRAU)* | **JX572436** | **JX517430** |
| *Combretum elaeagnoides* Klotzsch | Myrtales | Combretaceae | OM1028 *(JRAU)* | **JX572437** | **JX517727** |
| *Combretum engleri* Schinz, De Wild. & T.Durand | Myrtales | Combretaceae | OM1025 *(JRAU)* | **JX572438** | **JX517943** |
| *Combretum erythrophyllum* (Burch.) Sond. | Myrtales | Combretaceae | RL1344 *(JRAU)* | **JX572439** | **JX517552** |
| *Combretum hereroense* Schinz | Myrtales | Combretaceae | OM2400 *(JRAU)* | **JX572440** | **JX517597** |

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| *Combretum imberbe* Wawra | Myrtales | Combretaceae | OM1019 *(JRAU)* | **JX572441** | **JX517371** |
| *Combretum kirkii* M.A.Lawson | Myrtales | Combretaceae | OM2714 *(JRAU)* | **JX572442** | **JX518242** |
| *Combretum kraussii* Hochst. | Myrtales | Combretaceae | OM1582 *(JRAU)* | **JX572443** | **JX517576** |
| *Combretum microphyllum* Klotzsch | Myrtales | Combretaceae | OM2038 *(JRAU)* | **JX572444** | **JX517523** |
| *Combretum mkuzense* J.D.Carr & Retief | Myrtales | Combretaceae | OM1569 *(JRAU)* | **JX572445** | **JX517806** |
| *Combretum moggii* Exell | Myrtales | Combretaceae | OM1586 *(JRAU)* | **JX572446** | **JX517385** |
| *Combretum molle* R.Br. ex G.Don | Myrtales | Combretaceae | RL1644 *(JRAU)* | **JX572447** | **JX517775** |
| *Combretum mossambicense* (Klotzsch) Engl. | Myrtales | Combretaceae | OM2068 *(JRAU)* | **JX572448** | **JX517652** |
| *Combretum nelsonii* Dummer | Myrtales | Combretaceae | MvdB0026 *(JRAU)* | EU338135 | **JX517805** |
| *Combretum oxystachyum* Welw. ex M.A.Lawson | Myrtales | Combretaceae | OM1056 *(JRAU)* | **JX572449** | **JX517306** |
| *Combretum padoides* Engl. & Diels | Myrtales | Combretaceae | OM2388 *(JRAU)* | **JX572450** | **JX517793** |
| *Combretum paniculatum* Vent. | Myrtales | Combretaceae | RL1661 *(JRAU)* | **JQ025035** | **JQ024950** |
| *Combretum petrophilum* Retief | Myrtales | Combretaceae | OM2007 *(JRAU)* | **JX572451** | **JX518046** |
| *Combretum pisoniiflorum* (Klotzsch) Engl. | Myrtales | Combretaceae | OM2600 *(JRAU)* | **JX572452** | **JX518020** |
| *Combretum platypetalum* Welw. ex M.A.Lawson | Myrtales | Combretaceae | OM2092 *(JRAU)* | **JX572453** | **JX517352** |
| *Combretum psidioides* subsp. *dinteri* (Schinz, De Wild. & T.Durand) Exell | Myrtales | Combretaceae | OM1039 *(JRAU)* | **JX572455** | **JX517603** |
| *Combretum psidioides* Welw. | Myrtales | Combretaceae | OM2052 *(JRAU)* | **JX572454** | **JX518060** |
| *Combretum stylesii* O.Maurin, Jordaan & A.E.van Wyk | Myrtales | Combretaceae | OM0997 *(JRAU)* | HM208690 | HM208689 |
| *Combretum tenuipes* Engl. | Myrtales | Combretaceae | OM1089 *(JRAU)* | **JX572456** | **JX517521** |
| *Combretum vendae* A.E.van Wyk | Myrtales | Combretaceae | OM&MvdB09 *(JRAU)* | **JX572457** | **JX517642** |
| *Combretum wattii* Exell | Myrtales | Combretaceae | OM0995 *(JRAU)* | **JX572458** | **JX517772** |
| *Combretum woodii* Dummer | Myrtales | Combretaceae | OM1646 *(JRAU)* | **JX572459** | **JX517558** |
| *Combretum zeyheri* Sond. | Myrtales | Combretaceae | RL1440 *(JRAU)* | **JX572460** | **JX518241** |
| *Commiphora africana* (A.Rich.) Endl. | Sapindales | Burseraceae | OM0334 *(JRAU)* | **JX572461** | **JX518153** |
| *Commiphora edulis* (Klotzsch) Engl. | Sapindales | Burseraceae | OM1309 *(JRAU)* | **JX572462** | **JX517660** |

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| *Commiphora glandulosa* Schinz | Sapindales | Burseraceae | RBN160 *(KNP)* | **JF265359** | **JF270712** |
| *Commiphora harveyi* (Engl.) Engl. | Sapindales | Burseraceae | OM1455 *(JRAU)* | **JX572463** | **JX517769** |
| *Commiphora marlothii* Engl. | Sapindales | Burseraceae | OM1587 *(JRAU)* | **JF265361** | **JF270714** |
| *Commiphora mollis* (Oliv.) Engl. | Sapindales | Burseraceae | OM1275 *(JRAU)* | **JX572464** | **JX517798** |
| *Commiphora neglecta* Verd. | Sapindales | Burseraceae | RL1343 *(JRAU)* | **JF265363** | **JF270716** |
| *Commiphora pyracanthoides* Engl. | Sapindales | Burseraceae | OM1310 *(JRAU)* | **JX572465** | **JX517515** |
| *Commiphora schimperi* (O.Bergman) Engl. | Sapindales | Burseraceae | OM1361 *(JRAU)* | **JF265364** | **JF270717** |
| *Commiphora schlechteri* Engl. | Sapindales | Burseraceae | OM3599 *(JRAU)* | KF147462 | KF147383 |
| *Commiphora serrata* Engl. | Sapindales | Burseraceae | OM2660 *(JRAU)* | **JX572466** | **JX517449** |
| *Commiphora woodii* Engl. | Sapindales | Burseraceae | OM2276 *(JRAU)* | **JX572467** | **JX517409** |
| *Commiphora zanzibarica* (Baill.) Engl. | Sapindales | Burseraceae | OM2432 *(JRAU)* | **JX572468** | **JX517960** |
| *Coptosperma littorale* (Hiern) Degreef | Gentianales | Rubiaceae | OM3775 *(JRAU)* | KF147463 | KF147384 |
| *Coptosperma rhodesiacum* (Bremek.) Degreef | Gentianales | Rubiaceae | CS24 *(JRAU)* | **JX572559** | **JX517753** |
| *Coptosperma supra-axillare* (Hemsl.) Degreef | Gentianales | Rubiaceae | RBN302 *(KNP)* | **JX572470** | **JX517476** |
| *Coptosperma zygoon* (Bridson) Degreef | Gentianales | Rubiaceae | OM1908 *(JRAU)* | **JF265621** | **JF270963** |
| *Cordia africana* Lam. | Boraginales | Boraginaceae | OM1983 *(JRAU)* | **JX572471** | **JX517865** |
| *Cordia caffra* Sond. | Boraginales | Boraginaceae | OM1561 *(JRAU)* | **JF265366** | **JF270719** |
| *Cordia grandicalyx* Oberm. | Boraginales | Boraginaceae | OM0837 *(JRAU)* | **JF265367** | **JF270720** |
| *Cordia monoica* Roxb. | Boraginales | Boraginaceae | OM0353 *(JRAU)* | **JX572472** | **JX517641** |
| *Cordia sinensis* Lam. | Boraginales | Boraginaceae | OM0354 *(JRAU)* | **JF265370** | **JF270723** |
| *Cordia stuhlmannii* Gürke | Boraginales | Boraginaceae | OM2410 *(JRAU)* | **JX572473** | **JX517742** |
| *Cordia torrei* E.S.Martins | Boraginales | Boraginaceae | OM2588 *(JRAU)* | **JX572474** | **JX517572** |
| *Cordyla africana* Lour. | Fabales | Fabaceae | OM2745 *(JRAU)* | **JX572475** | **JX517855** |
| *Cotoneaster franchetii* Bois | Rosales | Rosaceae | JG027 *(JRAU)* | **JX572476** | **JX517527** |
| *Cotoneaster pannosus* Franch. | Rosales | Rosaceae | DXP033 *(IRVC)* | - | AF288098 |
| *Craibia brevicaudata* subsp. *baptistarum* (Buttner) J.B.Gillett | Fabales | Fabaceae | OM1813 *(JRAU)* | **JX572477** | **JX517315** |
| *Craibia zimmermannii* (Harms) Dunn | Fabales | Fabaceae | OM2230 *(JRAU)* | **JX572478** | **JX518072** |

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| *Crassula arborescens* (Mill.) Willd. | Saxifragales | Crassulaceae | JG053 *(JRAU)* | **JX572479** | **JX517536** |
| *Craterispermum schweinfurthii* Hiern | Gentianales | Rubiaceae | OM2654 *(JRAU)* | **JX572480** | **JX517952** |
| *Crossopteryx febrifuga* (Afzel. ex G.Don) Benth. | Gentianales | Rubiaceae | OM2347 *(JRAU)* | **JX572481** | **JX517365** |
| *Crotalaria agatiflora* Schweinf. | Fabales | Fabaceae | MvdB0040 *(JRAU)* | **JX572482** | **JX518228** |
| *Crotalaria capensis* Jacq. | Fabales | Fabaceae | OM3786 *(JRAU)* | **JX905970** | **JX905953** |
| *Crotalaria laburnifolia* subsp. *australis* (Baker f.) Polhill | Fabales | Fabaceae | OM0608 *(JRAU)* | **JF265373** | **JF270726** |
| *Crotalaria monteiroi* Baker f. | Fabales | Fabaceae | MlR008 *(JRAU)* | **JQ041241** | **JQ041083** |
| *Croton gratissimus* Burch. | Malpighiales | Euphorbiaceae | OM1946 *(JRAU)* | **JX572483** | **JX517905** |
| *Croton madandensis* S.Moore | Malpighiales | Euphorbiaceae | RL1539 *(JRAU)* | **JX572484** | **JX517472** |
| *Croton megalobotrys* Müll.Arg. | Malpighiales | Euphorbiaceae | RL1574 *(JRAU)* | **JX572485** | **JX517792** |
| *Croton menyharthii* Pax | Malpighiales | Euphorbiaceae | OM2552 *(JRAU)* | KF147464 | KF147385 |
| *Croton pseudopulchellus* Pax | Malpighiales | Euphorbiaceae | RBN262 *(KNP)* | **JX572486** | **JX517535** |
| *Croton steenkampianus* Gerstner | Malpighiales | Euphorbiaceae | RBN151 *(KNP)* | **JX572487** | **JX517563** |
| *Croton sylvaticus* Hochst. | Malpighiales | Euphorbiaceae | OM2246 *(JRAU)* | **JX572488** | **JX517596** |
| *Cryptocarya latifolia* Sond. | Laurales | Lauraceae | Abbott9255 *(BNRH)* | **JX572489** | **JX518146** |
| *Cryptocarya liebertiana* Engl. | Laurales | Lauraceae | OM2300 *(JRAU)* | **JX572490** | **JX517403** |
| *Cryptocarya myrtifolia* Stapf | Laurales | Lauraceae | Abbott9137 *(BNRH)* | **JX572491** | **JX517396** |
| *Cryptocarya natalensis* (Ross) Kosterm. | Laurales | Lauraceae | Abbott9240 *(BNRH)* | **JX572498** | **JX517839** |
| *Cryptocarya woodii* Engl. | Laurales | Lauraceae | Abbott9116 *(BNRH)* | **JX572492** | **JX518198** |
| *Cryptocarya wyliei* Stapf | Laurales | Lauraceae | Abbott9110 *(BNRH)* | **JX572493** | **JX517616** |
| *Cunonia capensis* L. | Oxalidales | Cunoniaceae | Abbott9237 *(BNRH)* | **JX572494** | **JX517913** |
| *Cupressus lusitanica* Mill. | Pinales | Cupressaceae | Adams7072 *(BAYLU)* | AY380889 | AY988351 |
| *Curtisia dentata* (Burm.f.) C.A.Sm. | Cornales | Cornaceae | OM3167 *(JRAU)* | **JX572495** | **JX517790** |
| *Cussonia arborea* Hochst. ex A.Rich. | Apiales | Araliaceae | BDV010 *(JRAU)* | **JX905967** | **JX970898** |
| *Cussonia arenicola* Strey | Apiales | Araliaceae | BDV105 *(JRAU)* | **-** | **JX970904** |
| *Cussonia natalensis* Sond. | Apiales | Araliaceae | OM0975 *(JRAU)* | **JF265381** | **JF270733** |
| *Cussonia nicholsonii* Strey | Apiales | Araliaceae | BDV077 *(JRAU)* | - | KF147386 |
| *Cussonia paniculata* subsp. *sinuata* | Apiales | Araliaceae | BDV082 *(JRAU)* | - | KF147387 |

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| (Reyneke & Kok) De Winter | | | | | |
| *Cussonia sphaerocephala* Strey | Apiales | Araliaceae | OM3747 *(JRAU)* | - | KF147388 |
| *Cussonia spicata* Thunb. | Apiales | Araliaceae | OM1553 *(JRAU)* | **JF265382** | **JF270734** |
| *Cussonia thyrsiflora* Thunb. | Apiales | Araliaceae | OM3100 *(JRAU)* | **JX572496** | **JX517785** |
| *Cussonia transvaalensis* Reyneke | Apiales | Araliaceae | BDV058 *(JRAU)* | **JX905963** | **JX970897** |
| *Cussonia zuluensis* Strey | Apiales | Araliaceae | BDV022 *(JRAU)* | - | KF147389 |
| *Cycas thouarsii* R.Br. | Cycadales | Cycadaceae | Gaudichaud100422 *(HEID)* / n.a. | AF394336 | AB116589 |
| *Cyclopia genistoides* (L.) Vent. | Fabales | Fabaceae | JWB022 *(NH)* | **JX572497** | **JX518243** |
| *Cyphomandra betacea* (Cav.) Miers | Solanales | Solanaceae | Cy001 *(BGN)* | - | EF438983 |
| *Cytisus scoparius* (L.) Link | Fabales | Fabaceae | Schaefer 2008/445 *(BM)* / Wojciechowski1000 *(ASU)* | HM849943 | AY386902 |
| *Dais cotinifolia* L. | Malvales | Thymelaeaceae | OM1708 *(JRAU)* | - | **JX517520** |
| *Dalbergia arbutifolia* Baker | Fabales | Fabaceae | OM2712 *(JRAU)* | **JX572499** | **JX517956** |
| *Dalbergia armata* E.Mey. | Fabales | Fabaceae | OM3271 *(JRAU)* | **JX572500** | **JX517400** |
| *Dalbergia boehmii* Taub. | Fabales | Fabaceae | OM2452 *(JRAU)* | **JX572501** | **JX517962** |
| *Dalbergia melanoxylon* Guill. & Perr. | Fabales | Fabaceae | OM2394 *(JRAU)* | **JX572502** | **JX517916** |
| *Dalbergia multijuga* E.Mey. | Fabales | Fabaceae | Abbott9158 *(BNRH)* | **JX572503** | **JX517995** |
| *Dalbergia nitidula* Baker | Fabales | Fabaceae | OM2534 *(JRAU)* | - | **JX970899** |
| *Dalbergia obovata* E.Mey. | Fabales | Fabaceae | Abbott9170 *(BNRH)* | **JX572504** | **JX517804** |
| *Dalbergiella nyassae* Baker f. | Fabales | Fabaceae | Lavin s.n. *(K)* / HU1074 *(USDA)* | AF308724 | AF142706 |
| *Deinbollia oblongifolia* (E.Mey.) Radlk. | Sapindales | Sapindaceae | RL1351 *(JRAU)* | **JX572505** | **JX517693** |
| *Deinbollia xanthocarpa* (Klotzsch) Radlk. | Sapindales | Sapindaceae | OM2067 *(JRAU)* | **JX572506** | **JX518221** |
| *Derris trifoliata* Lour. | Fabales | Fabaceae | PS0263MT01 *(IMPLAD)* | **-** | **HM049528** |
| *Dialium schlechteri* Harms | Fabales | Fabaceae | OM2498 *(JRAU)* | **JX572507** | **JX517752** |
| *Dichapetalum barbosae* Torre | Malpighiales | Dichapetalaceae | OM2374 *(JRAU)* | KF147466 | - |
| *Dichapetalum cymosum* (Hook.) Engl. | Malpighiales | Dichapetalaceae | OM2117 *(JRAU)* | KF147465 | - |
| *Dichrostachys cinerea* subsp. *africana* | Fabales | Fabaceae | RBN359 *(KNP)* | **JF265387** | **JF270739** |

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| Brenan & Brummitt | | | | | |
| *Dichrostachys cinerea* subsp. *nyassana* (Taub.) Brenan | Fabales | Fabaceae | OM0283 *(JRAU)* | **JX572508** | **JX517857** |
| *Didelta spinosa* (L.f.) Aiton | Asterales | Asteraceae | MWC27188 *(K)* | **JX572509** | **JX517877** |
| *Dioscorea elephantipes* (L'Hér.) Engl. | Dioscoreales | Dioscoreaceae | LTM019 *(JRAU)* | **JX572510** | **JX517322** |
| *Dioscorea strydomiana* Wilkin | Dioscoreales | Dioscoreaceae | AMM6124 *(BOL)* | KF147467 | KF147390 |
| *Diospyros abyssinica* (Hiern) F.White | Ericales | Ebenaceae | Gilbert&Sebseke 8803 *(K)* | - | DQ923990 |
| *Diospyros batocana* Hiern | Ericales | Ebenaceae | MWC21210 *(K)* | - | **JX518223** |
| *Diospyros dichrophylla* (Gand.) De Winter | Ericales | Ebenaceae | Abbott9162 *(BNRH)* | **JX572512** | **JX517311** |
| *Diospyros ferrea* (Willd.) Bakh. | Ericales | Ebenaceae | MWC21193 *(K)* | - | **JX517320** |
| *Diospyros glabra* (L.) De Winter | Ericales | Ebenaceae | OM2933 *(JRAU)* | **JX572513** | **JX517984** |
| *Diospyros inhacaensis* F.White | Ericales | Ebenaceae | OM2225 *(JRAU)* | **JX572514** | **JX518070** |
| *Diospyros loureiroana* G.Don | Ericales | Ebenaceae | OM2145 *(JRAU)* | **JX572515** | **JX517697** |
| *Diospyros lycioides* Desf. | Ericales | Ebenaceae | OM2126 *(JRAU)* | **JX572516** | **JX517594** |
| *Diospyros lycioides* subsp. *guerkei* (Kuntze) De Winter | Ericales | Ebenaceae | RBN343 *(KNP)* | **JX572517** | **JX517451** |
| *Diospyros mespiliformis* Hochst. ex A.DC. | Ericales | Ebenaceae | OM0218 *(JRAU)* | **JF265390** | **JF270742** |
| *Diospyros natalensis* (Harv.) Brenan | Ericales | Ebenaceae | OM1763 *(JRAU)* | **JF265391** | **JF270743** |
| *Diospyros natalensis* subsp. *nummularia* (Brenan) F. White | Ericales | Ebenaceae | OM1838 *(JRAU)* | **JX572518** | **JX518127** |
| *Diospyros rotundifolia* Hiern | Ericales | Ebenaceae | OM2468 *(JRAU)* | **JX572519** | **JX517440** |
| *Diospyros scabrida* (Harv. ex Hiern) De Winter | Ericales | Ebenaceae | Abbott9246 *(BNRH)* | **JX572520** | **JX517782** |
| *Diospyros simii* (Kuntze) De Winter | Ericales | Ebenaceae | Abbott9204 *(BNRH)* | **JX572521** | **JX517301** |
| *Diospyros squarrosa* Klotzsch | Ericales | Ebenaceae | OM3485 *(JRAU)* | **JX572511** | **JX517402** |
| *Diospyros verrucosa* Hiern | Ericales | Ebenaceae | OM2379 *(JRAU)* | **JX572522** | **JX517758** |
| *Diospyros villosa* (L.) De Winter | Ericales | Ebenaceae | OM1575 *(JRAU)* | **JF265392** | **JF270744** |
| *Diospyros villosa* var. *parvifolia* De Winter | Ericales | Ebenaceae | OM1365 *(JRAU)* | **JX572523** | **JX517761** |
| *Diospyros whyteana* (Hiern) P.White | Ericales | Ebenaceae | OM&MvdB59 *(JRAU)* | **JX572524** | **JX517711** |

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| *Diplorhynchus condylocarpon* (Müll.Arg.) Pichon | Gentianales | Apocynaceae | OM2073 *(JRAU)* | **JX572525** | **JX517728** |
| *Dissotis princeps* (Kunth) Triana | Myrtales | Melastomataceae | OM3806 *(JRAU)* | KF147469 | KF147392 |
| *Distephanus divaricatus* (Steetz) H.Rob. & B.Kahn | Asterales | Asteraceae | OM2758 *(JRAU)* | **JX572526** | **JX517719** |
| *Dodonaea viscosa* Jacq. | Sapindales | Sapindaceae | Abbott9229 *(BNRH)* | **JX572528** | **JX517889** |
| *Dodonaea viscosa* subsp. *angustifolia* (L.f.) J.G.West. | Sapindales | Sapindaceae | OM2129 *(JRAU)* | **JX572527** | **JX517975** |
| *Dombeya autumnalis* Verd. | Malvales | Malvaceae | OM2004 *(JRAU)* | **JX572529** | **JX518097** |
| *Dombeya burgessiae* Gerrard ex Harv. & Sond. | Malvales | Malvaceae | OM1537 *(JRAU)* | **JX572530** | **JX517847** |
| *Dombeya cymosa* Harv. | Malvales | Malvaceae | OM1507 *(JRAU)* | **JX572531** | **JX518206** |
| *Dombeya rotundifolia* Planch. | Malvales | Malvaceae | OM0489 *(JRAU)* | **JQ025044** | **JQ024959** |
| *Dombeya tiliacea* (Endl.) Planch. | Malvales | Malvaceae | Abbott9252 *(BNRH)* | **JX572532** | **JX517694** |
| *Dovyalis caffra* (Hook. f. & Harv.) Warb. | Malphigiales | Salicaceae | RBN286 *(KNP)* | **JX572533** | **JX518128** |
| *Dovyalis hispidula* Wild | Malphigiales | Salicaceae | OM2581 *(JRAU)* | **JX572534** | **JX518035** |
| *Dovyalis longispina* Warb. | Malphigiales | Salicaceae | OM2602 *(JRAU)* | **JX572535** | **JX517689** |
| *Dovyalis lucida* Sim | Malphigiales | Salicaceae | Abbott9221 *(BNRH)* | **JX572536** | **JX517715** |
| *Dovyalis rhamnoides* (Burch. ex DC.) Burch. ex Harv. & Sond. | Malphigiales | Salicaceae | Chase271 *(NCU)* | Z75677 | EF135529 |
| *Dovyalis xanthocarpa* Bullock | Malphigiales | Salicaceae | OM2442 *(JRAU)* | **JX572537** | **JX517323** |
| *Dracaena aletriformis* (Haw.) Bos | Asparagales | Asparagaceae | Abbott9145 *(BNRH)* | **JX572538** | **JX517850** |
| *Dracaena mannii* Baker | Asparagales | Asparagaceae | OM1828 *(JRAU)* | **JX572539** | **JX517338** |
| *Dracaena transvaalensis* Baker | Asparagales | Asparagaceae | OM2008 *(JRAU)* | **JX572540** | **JX517732** |
| *Drypetes arguta* (Müll.Arg.) Hutch. | Malpighiales | Euphorbiaceae | Abbott9149 *(BNRH)* | **JX572541** | **JX905959** |
| *Drypetes gerrardii* Hutch. | Malpighiales | Euphorbiaceae | OM1840 *(JRAU)* | **JF265399** | KF147393 |
| *Drypetes reticulata* Pax | Malpighiales | Euphorbiaceae | RBN270 *(KNP)* | **JF265400** | **JF270750** |
| *Duranta erecta* L. | Lamiales | Verbenaceae | RBN217 *(KNP)* | **JX572542** | **JX517883** |
| *Ehretia amoena* Klotzsch | Boraginales | Boraginaceae | OM2533 *(JRAU)* | **JX572543** | **JX518091** |
| *Ehretia rigida* (Thunb.) Druce | Boraginales | Boraginaceae | OM0396 *(JRAU)* | **JX572544** | **JX518014** |

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| *Ekebergia pterophylla* (C.DC.) Hofmeyr | Sapindales | Meliaceae | OM3263 *(JRAU)* | **JX572545** | **JX517845** |
| *Elephantorrhiza burkei* Benth. | Fabales | Fabaceae | OM1945 *(JRAU)* | **JX572548** | **JX517971** |
| *Elephantorrhiza elephantina* (Burch.) Skeels | Fabales | Fabaceae | OM0483 *(JRAU)* | **JF265409** | **JF270759** |
| *Elephantorrhiza goetzei* (Harms) Harms | Fabales | Fabaceae | OM1207 *(JRAU)* | **JX572549** | **JX517358** |
| *Elephantorrhiza obliqua* Burtt Davy | Fabales | Fabaceae | McCleland828 *(BNRH)* | - | KF147394 |
| *Embelia xylocarpa* P.Halliday | Ericales | Primulaceae | OM2653 *(JRAU)* | **JX572550** | **JX517939** |
| *Empleurum unicapsulare* (L. f.) Skeels | Sapindales | Rutaceae | DGE129-26.03.2011 *(JRAU)* | KF147470 | KF147395 |
| *Empogona coriacea* (Sond.) Tosh & Robbr. | Gentianales | Rubiaceae | OM3281 *(JRAU)* | **JX573062** | **JX517841** |
| *Empogona kirkii* subsp. *junodii* (Schinz) Tosh & Robbr. | Gentianales | Rubiaceae | OM1601 *(JRAU)* | **JX573060** | **JX517789** |
| *Empogona lanceolata* (Sond.) Tosh & Robbr. | Gentianales | Rubiaceae | MWC24261 *(K)* | **JX573061** | **JX517571** |
| *Encephalartos aemulans* Vorster | Cycadales | Zamiaceae | PR861 *(JRAU)* | **JQ025439** | **JQ046261** |
| *Encephalartos altensteinii* Lehm. | Cycadales | Zamiaceae | PR668 *(JRAU)* | **JQ025442** | **JQ046260** |
| *Encephalartos arenarius* R.A.Dyer | Cycadales | Zamiaceae | PR854 *(JRAU)* | **JQ025455** | **JQ046257** |
| *Encephalartos brevifoliolatus* Vorster | Cycadales | Zamiaceae | Xdk2 *(JRAU)* | **JQ025459** | **JQ046253** |
| *Encephalartos chimanimaniensis* R.A.Dyer & Verdoorn | Cycadales | Zamiaceae | PR888 *(JRAU)* | **JQ025476** | **JQ046247** |
| *Encephalartos concinnus* R.A.Dyer & Verdoorn | Cycadales | Zamiaceae | PR890 *(JRAU)* | **JQ025479** | **JQ046246** |
| *Encephalartos cupidus* R.A.Dyer | Cycadales | Zamiaceae | PR691 *(JRAU)* | **JQ025481** | **JQ046245** |
| *Encephalartos dolomiticus* Lavranos & D.L.Goode | Cycadales | Zamiaceae | PR865 *(JRAU)* | **JQ025489** | **JQ046242** |
| *Encephalartos dyerianus* Lavranos & D.L.Goode | Cycadales | Zamiaceae | PR731 *(JRAU)* | **JQ025491** | **JQ046241** |
| *Encephalartos eugene-maraisii* Verd. | Cycadales | Zamiaceae | PR872 *(JRAU)* | **JQ025502** | **JQ046238** |

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| *Encephalartos ferox* G.Bertol. | Cycadales | Zamiaceae | PR844 *(JRAU)* | **JQ025506** | **JQ046236** |
| *Encephalartos friderici-guilielmi* Lehm. | Cycadales | Zamiaceae | PR853 *(JRAU)* | **JQ025512** | **JQ046234** |
| *Encephalartos ghellinckii* Lem. | Cycadales | Zamiaceae | PR773 *(JRAU)* | **JQ025518** | **JQ046232** |
| *Encephalartos heenanii* R.A.Dyer | Cycadales | Zamiaceae | PR775 *(JRAU)* | **JQ025528** | **JQ046229** |
| *Encephalartos hirsutus* P.J.H.Hurter | Cycadales | Zamiaceae | PR718 *(JRAU)* | **JQ025534** | **JQ046226** |
| *Encephalartos inopinus* R.A.Dyer | Cycadales | Zamiaceae | PR864 *(JRAU)* | **JQ025547** | **JQ046221** |
| *Encephalartos laevifolius* Stapf & Burtt Davy | Cycadales | Zamiaceae | PR845 *(JRAU)* | **JQ025555** | **JQ046215** |
| *Encephalartos lanatus* Stapf & Burtt Davy | Cycadales | Zamiaceae | PR828 *(JRAU)* | **JQ025562** | **JQ046213** |
| *Encephalartos latifrons* Lehm. | Cycadales | Zamiaceae | PR811 *(JRAU)* | **JQ025566** | **JQ046211** |
| *Encephalartos lebomboensis* Verd. | Cycadales | Zamiaceae | PR831 *(JRAU)* | **JQ025580** | **JQ046207** |
| *Encephalartos lehmannii* Lehm. | Cycadales | Zamiaceae | PR780 *(JRAU)* | **JQ025583** | **JQ046205** |
| *Encephalartos longifolius* (Jacq.) Lehm. | Cycadales | Zamiaceae | PR873 *(JRAU)* | **JQ025592** | **JQ046203** |
| *Encephalartos manikensis* (Gilliland) Gilliland | Cycadales | Zamiaceae | PR903 *(JRAU)* | **JQ025597** | **JQ046201** |
| *Encephalartos middelburgensis* Vorster, Robbertse & S.van der Westh. | Cycadales | Zamiaceae | PR726 *(JRAU)* | **JQ025608** | **JQ046199** |
| *Encephalartos msinganus* Vorster | Cycadales | Zamiaceae | PR701 *(JRAU)* | **JQ025610** | **JQ046198** |
| *Encephalartos natalensis* R.A.Dyer & Verdoorn | Cycadales | Zamiaceae | PR802 *(JRAU)* | **JQ025619** | **JQ046194** |
| *Encephalartos nubimontanus* P.J.H.Hurter | Cycadales | Zamiaceae | PR704 *(JRAU)* | **JQ025629** | **JQ046190** |
| *Encephalartos paucidentatus* Stapf & Burtt Davy | Cycadales | Zamiaceae | PR849 *(JRAU)* | **JQ025636** | **JQ046283** |
| *Encephalartos princeps* R.A.Dyer | Cycadales | Zamiaceae | PR871 *(JRAU)* | **JQ025639** | **JQ046185** |
| *Encephalartos relictus* P.J.H.Hurter | Cycadales | Zamiaceae | PR732 *(JRAU)* | **JQ025643** | **JQ025643** |
| *Encephalartos senticosus* Vorster | Cycadales | Zamiaceae | PR833 *(JRAU)* | **JQ025652** | **JQ046181** |
| *Encephalartos transvenosus* Stapf & Burtt Davy | Cycadales | Zamiaceae | PR832 *(JRAU)* | **JQ025667** | **JQ046178** |
| *Encephalartos villosus* Lem. | Cycadales | Zamiaceae | PR838 *(JRAU)* | **JQ025594** | **JQ046172** |
| *Encephalartos woodii* Sander | Cycadales | Zamiaceae | PR875 *(JRAU)* | **JQ025701** | **JQ046169** |

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| *Englerodaphne ovalifolia* (Meisn.) E.Phillips | Malvales | Thymelaeaceae | Abbott9108 *(BNRH)* | **JX572551** | **JX517508** |
| *Englerodaphne pilosa* Burtt Davy | Malvales | Thymelaeaceae | OM1893 *(JRAU)* | **JX572552** | **JX518068** |
| *Englerophytum magalismontanum* (Sond.) T.D.Penn. | Ericales | Sapotaceae | MvdB18 *(JRAU)* | **JX572553** | **JX517982** |
| *Englerophytum natalense* (Sond.) T.D.Penn. | Ericales | Sapotaceae | OM1544 *(JRAU)* | **JX572554** | **JX517936** |
| *Ensete ventricosum* (Welw.) Cheesman | Zingiberales | Musaceae | CS02 *(JRAU)* | **JX572555** | **JX517741** |
| *Entada abyssinica* A.Rich. | Fabales | Fabaceae | OM2316 *(JRAU)* | **JX572556** | **JX517780** |
| *Entada rheedii* Spreng. | Fabales | Fabaceae | OM2417 *(JRAU)* | **JQ025045** | **JQ024960** |
| *Entada wahlbergii* Harv. | Fabales | Fabaceae | OM2586 *(JRAU)* | **JX572557** | **JX517580** |
| *Entandrophragma caudatum* (Sprague) Sprague | Sapindales | Meliaceae | OM1342 *(JRAU)* | **JX572558** | **JX517565** |
| *Ephippiocarpa orientalis* (S.Moore) Markgr. | Gentianales | Apocynaceae | OM2181 *(JRAU)* | **JX572363** | **JX517331** |
| *Ephippiocarpa orientalis* (S.Moore) Markgr. | Gentianales | Apocynaceae | OM2181 *(JRAU)* | **JX572363** | **JX517331** |
| *Erica caffra* L. | Ericales | Ericaceae | OM2307 *(JRAU)* | **JX572560** | **JX517891** |
| *Erica natalitia* Bolus | Ericales | Ericaceae | Abbott9208 *(BNRH)* | **JX572561** | **JX518173** |
| *Erica triflora* L. | Ericales | Ericaceae | MWC23115 *(K)* | **-** | **JX518211** |
| *Eriobotrya japonica* (Thunb.) Lindl. | Rosales | Rosaceae | JG051 *(JRAU)* | **JX572562** | **JX517887** |
| *Eriosemopsis subanisophylla* Robyns | Gentianales | Rubiaceae | Burrows12318 *(BNRH)* | - | KF147396 |
| *Erythrina abyssinica* DC. | Fabales | Fabaceae | OM2095 *(JRAU)* | **JX572563** | **JX518054** |
| *Erythrina acanthocarpa* E.Mey. | Fabales | Fabaceae | OM3916B *(JRAU)* | KF147471 | KF147397 |
| *Erythrina caffra* Thunb. | Fabales | Fabaceae | BS0057 *(JRAU)* | **JQ412356** | **JQ412236** |
| *Erythrina humeana* Spreng. | Fabales | Fabaceae | OM0741 *(JRAU)* | **JF265413** | **JF270763** |
| *Erythrina livingstoniana* Baker | Fabales | Fabaceae | OM2354 *(JRAU)* | **JX572564** | **JX517778** |
| *Erythrina lysistemon* Hutch. | Fabales | Fabaceae | RBN329 *(KNP)* | **JF265415** | **JF270764** |
| *Erythrina zeyheri* Harv. | Fabales | Fabaceae | OM1589 *(JRAU)* | **JX572565** | **JX517714** |

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| *Erythrococca Benth.* sp.nov. | Malpighiales | Euphorbiaceae | Abbott9148 *(BNRH)* | **JX572566** | **JX517713** |
| *Erythrococca menyharthii* (Pax) Prain | Malpighiales | Euphorbiaceae | OM2431 *(JRAU)* | **JX572567** | **JX517550** |
| *Erythrophleum africanum* (Benth.) Harms | Fabales | Fabaceae | OM2537 *(JRAU)* | **JX572568** | **JX517525** |
| *Erythrophleum suaveolens* (Guill. & Perr.) Brenan | Fabales | Fabaceae | OM2674 *(JRAU)* | **JX572569** | **JX517934** |
| *Erythroxylum delagoense* Schinz | Malpighiales | Erythroxylaceae | OM1499 *(JRAU)* | **JF265416** | **JF270765** |
| *Erythroxylum emarginatum* Thonn. | Malpighiales | Erythroxylaceae | OM1545 *(JRAU)* | **JX572570** | **JX517436** |
| *Erythroxylum pictum* E.Mey. ex Harv. & Sond. | Malpighiales | Erythroxylaceae | Abbott9129 *(BNRH)* | **JX572571** | **JX517740** |
| *Eucalyptus camaldulensis* Dehnh. | Myrtales | Myrtaceae | n.a. | - | HQ995676 |
| *Eucalyptus diversicolor* F.Muell. | Myrtales | Myrtaceae | DN1438 *(UTH)* | - | HQ287623 |
| *Euclea coriacea* A.DC. | Ericales | Ebenaceae | MWC22169 *(K)* | **JX572573** | **JX517506** |
| *Euclea crispa* (Thunb.) Gürke | Ericales | Ebenaceae | OM2254 *(JRAU)* | **JX572574** | **JX517391** |
| *Euclea divinorum* Hiern | Ericales | Ebenaceae | OM1102 *(JRAU)* | **JF265418** | **JF270767** |
| *Euclea natalensis* A.DC. | Ericales | Ebenaceae | OM0936 *(JRAU)* | **JX572575** | **JX517663** |
| *Euclea natalensis* A.DC. subsp. *rotundifolia* F.White | Ericales | Ebenaceae | OM3606 *(BNRH)* | KF147472 | KF147398 |
| *Euclea natalensis* subsp. *angustifolia* F. White | Ericales | Ebenaceae | RBN287 *(KNP)* | **JX572576** | **JX517900** |
| *Euclea natalensis* subsp. *obovata* F.White | Ericales | Ebenaceae | OM2658 *(JRAU)* | **JX572577** | **JX517787** |
| *Euclea pseudebenus* E.Mey. ex A.DC. | Ericales | Ebenaceae | MWC21190 *(K)* | **JX572578** | **JX517308** |
| *Euclea racemosa* L. | Ericales | Ebenaceae | OM1538 *(JRAU)* | **JX572579** | **JX518155** |
| *Euclea racemosa* subsp. daphnoides (Hiern) F.White | Ericales | Ebenaceae | OM1381 *(JRAU)* | **JF265422** | **JF270771** |
| *Euclea undulata* Thunb. | Ericales | Ebenaceae | OM1572 *(JRAU)* | **JQ025046** | **JQ024962** |
| *Eugenia capensis* (Eckl. & Zeyh.) Harv. | Myrtales | Myrtaceae | Abbott9225 *(BNRH)* | **JX572580** | **JX517357** |
| *Eugenia capensis* (Eckl. & Zeyh.) Sond. subsp. A | Myrtales | Myrtaceae | Burrows12289 *(BNRH)* | KF147474 | KF147400 |
| *Eugenia capensis* subsp. *albanensis* (Sond.) F.White | Myrtales | Myrtaceae | Burrows7021 *(BNRH)* | KF147473 | KF147399 |

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| *Eugenia capensis* subsp. *natalitia* (Sond.) F.White | Myrtales | Myrtaceae | OM2699 *(JRAU)* | **JX572582** | **JX517466** |
| *Eugenia capensis* subsp. *zeyheri* (Harv.) F.White | Myrtales | Myrtaceae | OM1800 *(JRAU)* | **JX572587** | **JX517750** |
| *Eugenia erythrophylla* Strey | Myrtales | Myrtaceae | Abbott9121 *(BNRH)* | **JX572581** | **JX517830** |
| *Eugenia L.* sp. nov. C | Myrtales | Myrtaceae | Abbott9151 *(BNRH)* | **JX572583** | **JX517627** |
| *Eugenia umtamvunensis* A.E.van Wyk | Myrtales | Myrtaceae | Abbott9120 *(BNRH)* | **JX572584** | **JX517784** |
| *Eugenia uniflora* L. | Myrtales | Myrtaceae | PGW1335 *(NSW)* | - | AF368207_2 |
| *Eugenia verdoorniae* A.E.van Wyk | Myrtales | Myrtaceae | Abbott9122 *(BNRH)* | **JX572585** | **JX517398** |
| *Eugenia woodii* Dummer | Myrtales | Myrtaceae | OM1795 *(JRAU)* | **JX572586** | **JX518025** |
| *Eugenia zuluensis* Dummer | Myrtales | Myrtaceae | Abbott9188 *(BNRH)* | **JX572588** | **JX517795** |
| *Euphorbia cooperi* N.E.Br. ex A.Berger | Malpighiales | Euphorbiaceae | OM1464 *(JRAU)* | **JF265425** | **JF270774** |
| *Euphorbia espinosa* Pax | Malpighiales | Euphorbiaceae | RBN189 *(KNP)* | **JF265426** | **JF270775** |
| *Euphorbia guerichiana* Pax ex Engl. | Malpighiales | Euphorbiaceae | OM0894 *(JRAU)* | **JX572589** | **JX517679** |
| *Euphorbia matabelensis* Pax | Malpighiales | Euphorbiaceae | OM2416 *(JRAU)* | **JX572590** | **JX517557** |
| *Euphorbia rowlandii* R.A.Dyer | Malpighiales | Euphorbiaceae | RBN263 *(KNP)* | **JF265427** | **JF270776** |
| *Euphorbia tirucalli* L. | Malpighiales | Euphorbiaceae | OM0569 *(JRAU)* | **JX572591** | **JX518075** |
| *Euphorbia triangularis* Desf. ex A.Berger | Malpighiales | Euphorbiaceae | Abbott9222 *(BNRH)* | **JX572592** | **JX517682** |
| *Excoecaria bussei* (Pax) Pax | Malpighiales | Euphorbiaceae | OM2385 *(JRAU)* | **JX572593** | **JX518133** |
| *Excoecaria simii* (Kuntze) Pax | Malpighiales | Euphorbiaceae | Abbott9211 *(BNRH)* | **JX572594** | **JX517636** |
| *Fadogia homblei* De Wild. | Gentianales | Rubiaceae | Burrows7120 *(BNRH)* | KF147475 | KF147401 |
| *Fadogia tetraquetra* K.Schum. & K.Krause | Gentianales | Rubiaceae | OM3266 *(JRAU)* | **JX572912** | **JX518047** |
| *Fadogia triphylla* Baker | Gentianales | Rubiaceae | Burrows6809 *(BNRH)* | KF147476 | KF147402 |
| *Fadogiella rogersii* (Wernham) Bridson | Gentianales | Rubiaceae | Burrows9589 *(BNRH)* | KF147477 | - |
| *Fadogiella stigmatoloba* (K.Schum.) Robyns | Gentianales | Rubiaceae | Burrows9578 *(BNRH)* | - | KF147403 |
| *Faidherbia albida* (Delile) A.Chev. | Fabales | Fabaceae | RBN165 *(KNP)* | **JF265429** | **JF270778** |
| *Faurea galpinii* E.Phillips | Proteales | Proteaceae | OM1818 *(JRAU)* | **JX572595** | **JX517907** |
| *Faurea macnaughtonii* E.Phillips | Proteales | Proteaceae | Abbott9123 *(BNRH)* | **JX572596** | **JX517418** |

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| *Faurea rochetiana* (A.Rich.) Chiov. ex Pic.Serm. | Proteales | Proteaceae | OM1461 *(JRAU)* | **JX572597** | **JX517828** |
| *Faurea saligna* Harv. | Proteales | Proteaceae | MvdB0027 *(JRAU)* | **JF265431** | **JF270780** |
| *Fernandoa magnifica* Seem. | Lamiales | Bignoniaceae | OM2336 *(JRAU)* | **JX572598** | **JX517318** |
| *Ficus abutilifolia* (Miq.) Miq. | Rosales | Moraceae | OM0280 *(JRAU)* | **JX572599** | **JX517731** |
| *Ficus bizanae* Hutch. & Burtt Davy | Rosales | Moraceae | Abbott9218 *(BNRH)* | **JX572600** | **JX518182** |
| *Ficus burkei* (Miq.) Miq. | Rosales | Moraceae | OM0972 *(JRAU)* | **JF265432** | **JF270781** |
| *Ficus burtt-davyi* Hutch. | Rosales | Moraceae | MWC20234 *(K)* | - | **JX517875** |
| *Ficus bussei* Warb. ex Mildbr. & Burret | Rosales | Moraceae | OM2444 *(JRAU)* | **JX573113** | **JX970907** |
| *Ficus capreifolia* Delile | Rosales | Moraceae | OM2566 *(JRAU)* | **JX572601** | **JX517811** |
| *Ficus cordata* subsp. *salicifolia* (Vahl) C.C.Berg | Rosales | Moraceae | OM2005 *(JRAU)* | **JX572609** | **JX518207** |
| *Ficus cordata* Thunb. | Rosales | Moraceae | OM1481 *(JRAU)* | - | **JF270784** |
| *Ficus craterostoma* Warb. ex Mildbr. & Burret | Rosales | Moraceae | Abbott9168 *(BNRH)* | **JX572602** | **JX517933** |
| *Ficus glumosa* Delile | Rosales | Moraceae | OM0564 *(JRAU)* | **JX572603** | **JX517465** |
| *Ficus ilicina* (Sond.) Miq. | Rosales | Moraceae | MWC20240 *(K)* | **JX572604** | **JX517393** |
| *Ficus ingens* (Miq.) Miq. | Rosales | Moraceae | OM0593 *(JRAU)* | **JF265434** | **JF270782** |
| *Ficus lutea* Vahl | Rosales | Moraceae | OM1822 *(JRAU)* | **JX572605** | **JX517686** |
| *Ficus natalensis* Hochst. | Rosales | Moraceae | OM2229 *(JRAU)* | KF147478 | KF147404 |
| *Ficus polita* Vahl | Rosales | Moraceae | OM1823 *(JRAU)* | **JX572607** | **JX518117** |
| *Ficus pygmaea* Welw. ex Hiern | Rosales | Moraceae | MWC20237 *(K)* | **JX572608** | **JX517453** |
| *Ficus rokko* Warb. & Schweinf | Rosales | Moraceae | OM2249 *(JRAU)* | - | **JX517518** |
| *Ficus sansibarica* Warb. | Rosales | Moraceae | OM2752 *(JRAU)* | KF147479 | KF147405 |
| *Ficus stuhlmannii* Warb. | Rosales | Moraceae | OM0749 *(JRAU)* | **JF265437** | **JF270785** |
| *Ficus sur* Forssk. | Rosales | Moraceae | OM1556 *(JRAU)* | **JF265438** | **JF270786** |
| *Ficus sycomorus* L. | Rosales | Moraceae | RBN197 *(KNP)* | **JX572610** | **JX518017** |
| *Ficus tettensis* Hutch. | Rosales | Moraceae | RBN265 *(KNP)* | **JX572611** | **JX517998** |
| *Ficus thonningii* Blume | Rosales | Moraceae | RL1487 *(JRAU)* | **JX572606** | **JX518112** |
| *Ficus tremula* Warb. | Rosales | Moraceae | OM2738 *(JRAU)* | **JX573114** | **JX970900** |

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| *Ficus trichopoda* Baker | Rosales | Moraceae | OM1817 *(JRAU)* | **JX572612** | **JX517724** |
| *Filicium decipiens* (Wight & Arn.) Thwaites | Sapindales | Sapindaceae | Chase2128 *(K)* | AY724352 | AY724294 |
| *Flacourtia indica* (Burm. f.) Merr. | Malphigiales | Salicaceae | RL1216 *(JRAU)* | **JX572613** | **JX518082** |
| *Flueggea virosa* (Roxb. ex Willd.) Royle | Malpighiales | Euphorbiaceae | OM0362 *(JRAU)* | **JX572614** | **JX517340** |
| *Fockea Endl.* | Gentianales | Apocynaceae | MWC03853 *(K)* | **JX572615** | **JX518200** |
| *Fraxinus americana* L. | Lamiales | Oleaceae | BS0213 *(JRAU)* | **JX905968** | **JX905945** |
| *Fraxinus pennsylvanica* Marshall | Lamiales | Oleaceae | AP270 *(COLG)* | - | HQ593301 |
| *Freylinia lanceolata* (L.) G.Don | Lamiales | Scrophulariaceae | OM2306 *(JRAU)* | **JX572616** | **JX517908** |
| *Friesodielsia obovata* (Benth.) Verdc. | Magnoliales | Annonaceae | OM2395 *(JRAU)* | **JX572617** | **JX517635** |
| *Funtumia africana* (Benth.) Stapf | Gentianales | Apocynaceae | LeymanS3855 *(BR)* | - | EF456323 |
| *Galpinia transvaalica* N.E.Br. | Myrtales | Lythraceae | OM0319 *(JRAU)* | **JF265443** | **JF270791** |
| *Garcinia gerrardii* Harv. ex Sim | Malpighiales | Clusiaceae | OM2242 *(JRAU)* | - | **JX517432** |
| *Garcinia livingstonei* T.Anderson | Malpighiales | Clusiaceae | OM1189 *(JRAU)* | **JX572619** | **JX517696** |
| *Gardenia cornuta* Hemsl. | Gentianales | Rubiaceae | OM2241 *(JRAU)* | **JX572620** | **JX517901** |
| *Gardenia resiniflua* Hiern | Gentianales | Rubiaceae | OM1272 *(JRAU)* | **JX572621** | **JX517583** |
| *Gardenia subacaulis* Stapf & Hutch. | Gentianales | Rubiaceae | Burrows12202 *(BNRH)* | KF147480 | KF147406 |
| *Gardenia ternifolia* Schumach. & Thonn. | Gentianales | Rubiaceae | OM2356 *(JRAU)* | **JX572622** | **JX517388** |
| *Gardenia thunbergia* Thunb. | Gentianales | Rubiaceae | OM3222 *(JRAU)* | **JX572623** | **JX517827** |
| *Gardenia volkensii* K.Schum. | Gentianales | Rubiaceae | OM1966 *(JRAU)* | **JX572624** | **JX518233** |
| *Gerrardina foliosa* Oliv. | Huerteales | Gerrardinaceae | Abbott9228 *(BNRH)* | **JX572625** | **JX517543** |
| *Gleditsia triacanthos* L. | Fabales | Fabaceae | JG033 *(JRAU)* | **JX572626** | **JX517819** |
| *Glenniea africana* (Radlk.) Leenh. | Sapindales | Sapindaceae | OM1857 *(JRAU)* | **JX572627** | **JX518034** |
| *Gloveria integrifolia* (L.f.) Jordaan | Celastrales | Celastraceae | MWC32835 *(K)* | **JX572628** | **JX518163** |
| *Glyphaea tomentosa* Mast. | Malvales | Malvaceae | OM2599 *(JRAU)* | **JX572629** | **JX517593** |
| *Gonioma kamassi* E.Mey. | Gentianales | Apocynaceae | OM3158 *(JRAU)* | **JX572630** | **JX517633** |
| *Gossypium herbaceum* subsp. *africanum* (G.Watt) Vollesen | Malvales | Malvaceae | YBK109 *(JRAU)* | **JX572631** | **JX517350** |
| *Grevillea banksii* R.Br. | Proteales | Proteaceae | n.a. | - | AF542583_2 |
| *Grevillea robusta* A.Cunn. ex R.Br. | Proteales | Proteaceae | n.a. / Anderson9 *(UPS)* | AF193973 | EU169631 |

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| *Grewia bicolor* Juss. | Malvales | Malvaceae | RL1583 *(JRAU)* | **JX572633** | **JX518121** |
| *Grewia caffra* Meisn. | Malvales | Malvaceae | OM2329 *(JRAU)* | **JX572634** | **JX517589** |
| *Grewia flavescens* Juss. | Malvales | Malvaceae | RL1365 *(JRAU)* | **JX572635** | **JX517463** |
| *Grewia gracillima* Wild | Malvales | Malvaceae | OM0870 *(JRAU)* | **JF265451** | **JF270798** |
| *Grewia hexamita* Burret | Malvales | Malvaceae | OM0351 *(JRAU)* | **JF265452** | **JF270799** |
| *Grewia inaequilatera* Garcke | Malvales | Malvaceae | OM0872 *(JRAU)* | **JF265453** | **JF270800** |
| *Grewia lasiocarpa* E.Mey. ex Harv. | Malvales | Malvaceae | Abbott9236 *(BNRH)* | **JX572636** | **JX518043** |
| *Grewia lepidopetala* Garcke | Malvales | Malvaceae | OM2456 *(JRAU)* | **JX572637** | **JX517945** |
| *Grewia micrantha* Bojer | Malvales | Malvaceae | OM2448 *(JRAU)* | **JX572638** | **JX517762** |
| *Grewia microcarpa* K.Schum. | Malvales | Malvaceae | OM2324 *(JRAU)* | **JX572639** | **JX517607** |
| *Grewia microthyrsa* K.Schum. ex Burret | Malvales | Malvaceae | OM1286 *(JRAU)* | **JX572640** | **JX517514** |
| *Grewia monticola* Sond. | Malvales | Malvaceae | RL1114 *(JRAU)* | **JX572641** | **JX517425** |
| *Grewia occidentalis* L. | Malvales | Malvaceae | OM3228 *(JRAU)* | **JX572642** | **JX517699** |
| *Grewia pondoensis* Burret | Malvales | Malvaceae | Abbott9105 *(BNRH)* | **JX572643** | **JX518171** |
| *Grewia sulcata* Mast. | Malvales | Malvaceae | RL1496 *(JRAU)* | **JX572644** | **JX517675** |
| *Grewia transzambesica* Wild | Malvales | Malvaceae | OM2628 *(JRAU)* | **JX572645** | **JX517601** |
| *Grewia vernicosa* Schinz | Malvales | Malvaceae | OM1999 *(JRAU)* | **JX572632** | **JX518099** |
| *Grewia villosa* Willd. | Malvales | Malvaceae | RL1523 *(JRAU)* | **JX572646** | **JX517723** |
| *Greyia flanaganii* Bolus | Geraniales | Melianthaceae | OM2294 *(JRAU)* | **JX572647** | **JX517681** |
| *Greyia sutherlandii* Hook. & Harv. | Geraniales | Melianthaceae | OM&MvdB73 *(JRAU)* | **JX572648** | **JX518196** |
| *Guettarda speciosa* L. | Gentianales | Rubiaceae | OM2491 *(JRAU)* | **JX572649** | **JX517544** |
| *Guibourtia coleosperma* (Benth.) Leonard | Fabales | Fabaceae | OM2116 *(JRAU)* | **JX572650** | **JX518076** |
| *Guibourtia conjugata* (Bolle) J.Leonard | Fabales | Fabaceae | OM1287 *(JRAU)* | **JF265457** | **JF270804** |
| *Gymnosporia bachmannii* Loes. | Celastrales | Celastraceae | Abbott9144 *(BNRH)* | **JX572652** | **JX518062** |
| *Gymnosporia buxifolia* (L.) Szyszyl. | Celastrales | Celastraceae | RL1397 *(JRAU)* | **JX572653** | **JX517419** |
| *Gymnosporia devenishii* Jordaan | Celastrales | Celastraceae | Abbott9244 *(BNRH)* | **JX572654** | **JX517493** |
| *Gymnosporia harveyana* Loes. | Celastrales | Celastraceae | NQ1 *(JRAU)* | **JX572655** | **JX518059** |
| *Gymnosporia heterophylla* (Eckl. & Zeyh.) Loes. | Celastrales | Celastraceae | OM0623 *(JRAU)* | **JF265458** | **JF270805** |
| *Gymnosporia maranguensis* (Loes.) Loes. | Celastrales | Celastraceae | OM1637 *(JRAU)* | **JF265459** | **JF270806** |

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| *Gymnosporia mossambicensis* (Klotzsch) Loes. | Celastrales | Celastraceae | OM2633 *(JRAU)* | **JX572656** | **JX518105** |
| *Gymnosporia nemorosa* (Eckl. & Zeyh.) Szyszyl. | Celastrales | Celastraceae | Abbott9187 *(BNRH)* | **JX572657** | **JX517324** |
| *Gymnosporia oxycarpa* (N.Robson) Jordaan | Celastrales | Celastraceae | RBN282 *(KNP)* | **JX572658** | **JX517648** |
| *Gymnosporia polyacantha* (Sond.) Szyszyl. | Celastrales | Celastraceae | OM2248 *(JRAU)* | **JX572659** | **JX517462** |
| *Gymnosporia pubescens* (N.Robson) Jordaan | Celastrales | Celastraceae | OM1929 *(JRAU)* | **JF265461** | **JF270808** |
| *Gymnosporia putterlickioides* Loes. | Celastrales | Celastraceae | OM0909 *(JRAU)* | **JX572660** | **JX517707** |
| *Gymnosporia senegalensis* (Lam.) Loes. | Celastrales | Celastraceae | RBN285 *(KNP)* | **JX572661** | **JX517756** |
| *Gymnosporia tenuispina* (Sond.) Szyszyl. | Celastrales | Celastraceae | NQ2 *(JRAU)* | - | **JX970906** |
| *Gyrocarpus americanus* Jacq. | Laurales | Hernandiaceae | OM0874 *(JRAU)* | **JF265465** | **JF270812** |
| *Haematoxylum L.* | Fabales | Fabaceae | HastonV200308 *(RBGE)* / Wojciechowski 953 *(ASU)* | AY904386 | AY386905 |
| *Hakea gibbosa* Cav. | Proteales | Proteaceae | PG54 *(JRAU)* | **JX572663** | **JX518065** |
| *Hakea sericea* Schrad. & J.C.Wendl. | Proteales | Proteaceae | MWC26714 *(K)* | **JX572664** | **JX517394** |
| *Halleria lucida* L. | Lamiales | Scrophulariaceae | OM2269 *(JRAU)* | **JX572665** | **JX517441** |
| *Haplocoelum foliolosum* (Hiern) Bullock | Sapindales | Sapindaceae | OM1849 *(JRAU)* | **JX572666** | **JX517599** |
| *Harpephyllum caffrum* Bernh. ex C.Krauss | Sapindales | Anacardiaceae | OM1555 *(JRAU)* | **JF265467** | **JF270814** |
| *Heeria argentea* Meisn. | Sapindales | Anacardiaceae | PG16 *(JRAU)* | **JX572667** | **JX518129** |
| *Heinsia crinita* subsp. *parviflora* (K.Schum. & K.Krause) Verdc. | Gentianales | Rubiaceae | RBN129 *(KNP)* | **JF265467** | **JF270814** |
| *Helinus integrifolius* (Lam.) Kuntze | Rosales | Rhamnaceae | OM2430 *(JRAU)* | **JX572668** | **JX518160** |
| *Hemizygia albiflora* (N.E.Br.) Ashby | Lamiales | Lamiaceae | OM2021 *(JRAU)* | - | **JX517856** |
| *Heritiera littoralis* Aiton | Malvales | Malvaceae | Alverson s.n. *(WIS)* | - | AY321181 |
| *Heteromorpha arborescens* Cham. & Schltdl. | Apiales | Apiaceae | OM2726 *(JRAU)* | **JX572669** | **JX517406** |
| *Heteromorpha arborescens* var. *frutescens* | Apiales | Apiaceae | OM1430 *(JRAU)* | **JX572670** | **JX517330** |

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| *Heteropyxis natalensis* Harv. | Myrtales | Myrtaceae | OM1944 *(JRAU)* | **JX572671** | **JX518023** |
| *Heterotis canescens* (E. Mey. ex Graham) Jacq.-Fél. | Myrtales | Melastomataceae | Burrows12691 *(BNRH)* | KF147468 | KF147391 |
| *Hexalobus monopetalus* (A.Rich.) Engl. & Diels | Magnoliales | Annonaceae | OM1284 *(JRAU)* | **JX572672** | **JX517754** |
| *Heywoodia lucens* Sim | Malpighiales | Euphorbiaceae | CS09 *(JRAU)* | **JX572673** | **JX518107** |
| *Hibiscus calyphyllus* Cav. | Malvales | Malvaceae | RBN108 *(KNP)* | **JX572674** | **JX517307** |
| *Hibiscus micranthus* L.f. | Malvales | Malvaceae | OM1608 *(JRAU)* | **JX572675** | **JX518190** |
| *Hibiscus tiliaceus* L. | Malvales | Malvaceae | OM2157 *(JRAU)* | **JX572676** | **JX517796** |
| *Hippobromus pauciflorus* Radlk. | Sapindales | Sapindaceae | OM1996 *(JRAU)* | **JX572677** | **JX518197** |
| *Hippocratea crenata* K. Schum. & Loes. | Celastrales | Celastraceae | OM2441 *(JRAU)* | **JX572678** | **JX517629** |
| *Hippocratea indica* Willd. | Celastrales | Celastraceae | OM1925 *(JRAU)* | **JX572921** | **JX517591** |
| *Hirtella zanzibarica* Oliv. | Malpighiales | Chrysobalanaceae | OM2649 *(JRAU)* | **JX572679** | **JX518073** |
| *Holarrhena pubescens* Wall. | Gentianales | Apocynaceae | OM2083 *(JRAU)* | **JX572680** | **JX517447** |
| *Homalium dentatum* Warb. | Malphigiales | Salicaceae | OM1420 *(JRAU)* | **JX572681** | **JX517416** |
| *Homalium rufescens* Benth. | Malphigiales | Salicaceae | Abbott9215 *(BNRH)* | **JX572682** | **JX517770** |
| *Hugonia busseana* Engl. | Malpighiales | Linaceae | OM2364 *(JRAU)* | **JX572683** | **JX518087** |
| *Hugonia orientalis* Engl. | Malpighiales | Linaceae | RBN145 *(KNP)* | **JF265478** | **JF270825** |
| *Hunteria zeylanica* (Retz.) Gardner ex Thwaites | Gentianales | Apocynaceae | OM2380 *(JRAU)* | - | **JX517717** |
| *Hyaenanche globosa* (Gaertn.) Lamb. & Vahl | Malpighiales | Euphorbiaceae | OM1873 *(JRAU)* | **JX572684** | **JX905949** |
| *Hymenaea verrucosa* Gaertn. | Fabales | Fabaceae | n.a / Herendeen11-XII-97-3 *(US)* | L08480 | EU361974 |
| *Hymenocardia ulmoides* Oliv. | Malpighiales | Euphorbiaceae | OM2686 *(JRAU)* | **JX572685** | **JX517929** |
| *Hymenodictyon floribundum* (Hochst. & Steud.) B.L.Rob. | Gentianales | Rubiaceae | Anderson s.n. *(GB)* | AY538488 | AY538392 |
| *Hymenodictyon parvifolium* Oliv. | Gentianales | Rubiaceae | OM1250 *(JRAU)* | **JX572686** | **JX517708** |
| *Hyperacanthus amoenus* (Sims) Bridson | Gentianales | Rubiaceae | RBN320 *(KNP)* | **JX572687** | **JX517662** |

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| *Hyphaene coriacea* Gaertn. | Arecales | Arecaceae | OM2427 *(JRAU)* | **JX572688** | **JX518101** |
| *Hyphaene petersiana* Klotzsch ex Mart. | Arecales | Arecaceae | OM1296 *(JRAU)* | **JX572689** | **JX517767** |
| *Hypocalyptus sophoroides* (P.J.Bergius) Baill. | Fabales | Fabaceae | OM3051 *(JRAU)* | **JX572690** | **JX518069** |
| *Ilex L.* | Aquifoliales | Aquifoliaceae | shawpc0988K *(HKU)* | JN407234.2 | JN407088 |
| *Indigofera filifolia* Thunb. | Fabales | Fabaceae | Stirton13192 *(BOL)* | **JX572691** | **JX517626** |
| *Indigofera frutescens* L.f. | Fabales | Fabaceae | CS01 *(JRAU)* | **JX572692** | **JX517595** |
| *Indigofera fulgens* Baker | Fabales | Fabaceae | OM2382 *(JRAU)* | **JX572693** | **JX518024** |
| *Indigofera natalensis* Bolus | Fabales | Fabaceae | Abbott9172 *(BNRH)* | **JX572694** | **JX518009** |
| *Indigofera rhynchocarpa* Baker | Fabales | Fabaceae | OM0669 *(JRAU)* | **JX905964** | **JX905943** |
| *Indigofera sanguinea* N.E.Br. | Fabales | Fabaceae | Burrows12693 *(BNRH)* | KF147481 | KF147407 |
| *Indigofera suffruticosa* Mill. | Fabales | Fabaceae | HU1102 *(USDA)* | - | AF142697 |
| *Indigofera tinctoria* L. | Fabales | Fabaceae | OM1933 *(JRAU)* | **JF265485** | **JF270832** |
| *Inhambanella henriquezii* (Engl. & Warb.) Dubard | Ericales | Sapotaceae | OM2760 *(JRAU)* | **JX572695** | **JX517677** |
| *Ipomoea fistulosa* Mart. ex Choisy | Solanales | Convolvulaceae | Abbott 25278 *(FLAS)* | GU135243 | GU135080 |
| *Itea L.* | Saxifragales | Iteaceae | 1204041 *(XB)* | - | HQ415356 |
| *Ixora narcissodora* K.Schum. | Gentianales | Rubiaceae | OM2673 *(JRAU)* | **JX572696** | **JX517349** |
| *Jacaranda mimosifolia* D.Don | Lamiales | Bignoniaceae | OM3454 *(JRAU)* | **JX572697** | **JX518220** |
| *Jasminum fluminense* Vell. | Lamiales | Oleaceae | OM0273 *(JRAU)* | **JQ025057** | **JQ024970** |
| *Jasminum multipartitum* Hochst. | Lamiales | Oleaceae | OM0782 *(JRAU)* | **JX572698** | **JX517738** |
| *Jasminum quinatum* Schinz | Lamiales | Oleaceae | Turpin416 *(BNRH)* | KF147482 | KF147408 |
| *Jasminum stenolobum* Rolfe | Lamiales | Oleaceae | RBN133 *(KNP)* | **JX572699** | **JX517716** |
| *Jatropha curcas* L. | Malpighiales | Euphorbiaceae | OM1182 *(JRAU)* | **JX572700** | **JX518021** |
| *Jatropha gossypiifolia* var. *elegans* (Pohl) Müll.Arg. | Malpighiales | Euphorbiaceae | PS0192MT01 *(IMD)* | - | GU441803 |
| *Jubaeopsis caffra* Becc. | Arecales | Arecaceae | Sikhakhane139 *(NH)* | AJ829876 | AM114633 |
| *Julbernardia globiflora* (Benth.) Troupin | Fabales | Fabaceae | OM2517 *(JRAU)* | **JX572701** | **JX517829** |
| *Juniperus procera* Hochst. ex Endl. | Pinales | Cupressaceae | BU-6187 *(LZU)* | HM024324 | HM024046 |
| *Juniperus virginiana* L. | Pinales | Cupressaceae | BU-6187 *(LZU)* | HM024343 | HM024065 |

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| *Justicia aconitiflora* (A.Meeuse) Cubey | Lamiales | Acanthaceae | OM1816 *(JRAU)* | **JF265402** | **JF270752** |
| *Justicia adhatodoides* (Nees) V.A.W.Graham | Lamiales | Acanthaceae | OM1759 *(JRAU)* | **JF265403** | **JF270753** |
| *Justicia campylostemon* T. Anders. | Lamiales | Acanthaceae | OM2299 *(JRAU)* | **JX572702** | **JX518170** |
| *Karomia speciosa* (Hutch. & Corbishley) R.Fern. | Lamiales | Lamiaceae | OM0700 *(JRAU)* | **JF265489** | **JF270836** |
| *Keetia gueinzii* (Sond.) Bridson | Gentianales | Rubiaceae | Abbott9160 *(BNRH)* | **JX572703** | **JX518184** |
| *Khaya anthotheca* (Welw.) C.DC. | Sapindales | Meliaceae | OM2604 *(JRAU)* | **JX572704** | **JX517573** |
| *Kigelia africana* (Lam.) Benth. | Lamiales | Bignoniaceae | OM3497 *(JRAU)* | **JX572705** | **JX517880** |
| *Kiggelaria africana* L. | Malphigiales | Salicaceae | OM2260 *(JRAU)* | **JX572706** | **JX518019** |
| *Kirkia acuminata* Oliv. | Sapindales | Kirkiaceae | OM2720 *(JRAU)* | **JX572707** | **JX517399** |
| *Kirkia wilmsii* Engl. | Sapindales | Kirkiaceae | RL1230 *(JRAU)* | **JF265493** | **JF270840** |
| *Kraussia floribunda* Harv. | Gentianales | Rubiaceae | OM1180 *(JRAU)* | **JX572708** | **JX517560** |
| *Lachnostylis bilocularis* R.A.Dyer | Malpighiales | Euphorbiaceae | Kurzweil 83/88 *(K)* | - | AY552431 |
| *Lagynias dryadum* (S.Moore) Robyns | Gentianales | Rubiaceae | OM0896 *(JRAU)* | **JF265495** | **JF270842** |
| *Landolphia kirkii* Dyer | Gentianales | Apocynaceae | RBN295 *(KNP)* | **JX905972** | **JX905958** |
| *Lannea antiscorbutica* (Hiern) Engl. | Sapindales | Anacardiaceae | OM2704 *(JRAU)* | **JX572709** | **JX518185** |
| *Lannea discolor* (Sond.) Engl. | Sapindales | Anacardiaceae | RL1235 *(JRAU)* | **JF265496** | **JF270843** |
| *Lannea edulis* (Sond.) Engl. | Sapindales | Anacardiaceae | OM1991 *(JRAU)* | **JX572710** | **JX518111** |
| *Lannea schweinfurthii* (Engl.) Engl. | Sapindales | Anacardiaceae | OM2446 *(JRAU)* | **JX572711** | **JX517613** |
| *Lantana camara* L. | Lamiales | Verbenaceae | OM0739 *(JRAU)* | **JF265499** | **JF270846** |
| *Lantana rugosa* Thunb. | Lamiales | Verbenaceae | OM0459 *(JRAU)* | **JX572712** | **JX517746** |
| *Lasiodiscus pervillei* Baill. | Rosales | Rhamnaceae | OM2345 *(JRAU)* | **JX572713** | **JX517978** |
| *Laurophyllus capensis* Thunb. | Sapindales | Anacardiaceae | MWC28623 *(K)* | **JX572714** | **JX517726** |
| *Lebeckia sericea* Thunb. | Fabales | Fabaceae | Boatwright151 *(JRAU)* / van der Meruve215 *(K)* | EU347924 | GQ246144 |
| *Lecaniodiscus fraxinifolius* Baker | Sapindales | Sapindaceae | OM2365 *(JRAU)* | **JX572715** | **JX518177** |
| *Leonotis leonurus* (L.) R.Br. | Lamiales | Lamiaceae | LTM032 *(JRAU)* | **JQ025060** | **JQ024972** |
| *Lepisanthes senegalensis* (Poir.) Leenh. | Sapindales | Sapindaceae | Callmander 627 *(MO)* | - | EU720654 |
| *Leptactina benguelensis* (Welw. ex Benth. | Gentianales | Rubiaceae | Burrows11158 *(BNRH)* | KF147483 | KF147409 |

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| & Hook.f.) R.D.Good | | | | | |
| *Leptactina delagoensis* K.Schum. | Gentianales | Rubiaceae | OM1598 *(JRAU)* | **JF265502** | **JF270849** |
| *Leucadendron argenteum* (L.) R. Br. | Proteales | Proteaceae | OM2263 *(JRAU)* | **JX572716** | **JX517459** |
| *Leucadendron coniferum* Meisn. | Proteales | Proteaceae | OM2313 *(JRAU)* | **JX572717** | **JX517657** |
| *Leucadendron galpinii* E.Phillips & Hutch. | Proteales | Proteaceae | MWC25211 *(K)* | **JX572718** | **JX517879** |
| *Leucadendron macowanii* E.Phillips | Proteales | Proteaceae | MWC28334 *(K)* | **JX572719** | **JX518193** |
| *Leucadendron pubescens* R. Br. | Proteales | Proteaceae | MWC28389 *(K)* | **JX572720** | **JX517455** |
| *Leucadendron rubrum* Burm. f. | Proteales | Proteaceae | PG63 *(JRAU)* | **JX572721** | **JX518007** |
| *Leucadendron salicifolium* I.A. Williams | Proteales | Proteaceae | PG56 *(JRAU)* | **JX572722** | **JX518063** |
| *Leucadendron strobilinum* Druce | Proteales | Proteaceae | MWC28010 *(K)* | **JX572723** | **JX517923** |
| *Leucaena leucocephala* (Lam.) de Wit | Fabales | Fabaceae | JG056 *(JRAU)* | **JX572724** | **JX517864** |
| *Leucosidea sericea* Eckl. & Zeyh. | Rosales | Rosaceae | OM&MvdB48 *(JRAU)* | **JX572725** | **JX518044** |
| *Leucospermum conocarpodendron* (L.) H.St.John | Proteales | Proteaceae | OM3102 *(JRAU)* | **JX572726** | **JX517516** |
| *Leucospermum conocarpodendron* subsp. *viridum* Rourke | Proteales | Proteaceae | MWC27983 *(K)* | - | **JX518219** |
| *Leucospermum cuneiforme* Rourke | Proteales | Proteaceae | OM2267 *(JRAU)* | **JX572727** | **JX517928** |
| *Leucospermum gerrardii* Stapf | Proteales | Proteaceae | MWC26648 *(K)* | **JX572728** | **JX517341** |
| *Leucospermum rodolentum* Rourke | Proteales | Proteaceae | OM2812 *(JRAU)* | **JX572729** | **JX518225** |
| *Leucospermum saxosum* S.Moore | Proteales | Proteaceae | BB12687 *(BNRH)* | KF227398 | KF227399 |
| *Ligustrum japonicum* Thunb. | Lamiales | Oleaceae | JG038 *(JRAU)* | **JX572731** | **JX517970** |
| *Ligustrum lucidum* W.T.Aiton | Lamiales | Oleaceae | BS0102 *(JRAU)* | **JQ412380** | **JQ412257** |
| *Ligustrum ovalifolium* Hassk. | Lamiales | Oleaceae | Schaefer2008/251 *(BM)* | HM850124 | HM850980 |
| *Ligustrum sinense* Lour. | Lamiales | Oleaceae | Abbott23510 *(FLAS)* | GU135150 | GU134986 |
| *Ligustrum vulgare* L. | Lamiales | Oleaceae | LegMedMO35 *(MOD)* | HQ619759 | HQ619820 |
| *Liparia hirsuta* Thunb. | Fabales | Fabaceae | JWB020 *(NH)* | **JX572732** | **JX517359** |
| *Liparia myrtifolia* Thunb. | Fabales | Fabaceae | JWB039 *(NH)* | **JX572733** | **JX517632** |
| *Liparia rafnioides* A.L.Schutte | Fabales | Fabaceae | JWB033 *(NH)* | **JX572734** | **JX517668** |
| *Lippia javanica* (Burm.f.) Spreng. | Lamiales | Verbenaceae | RBN348 *(KNP)* | **JX572735** | **JX517480** |
| *Litsea glutinosa* (Lour.) C.B. Rob. | Laurales | Lauraceae | PS5037MT01 *(GXCM)* | HM019482 | HM019342 |

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| *Lopholaena coriifolia* (Sond.) E.Phillips & C.A.Sm. | Asterales | Asteraceae | OM&MvdB41 *(JRAU)* | **JX572736** | **JX517496** |
| *Lopholaena disticha* (N.E.Br.) S.Moore | Asterales | Asteraceae | OM3909 *(BNRH)* | KF147484 | KF147410 |
| *Loxostylis alata* Spreng. ex Rchb. | Sapindales | Anacardiaceae | OM1827 *(JRAU)* | **JX572737** | **JX517988** |
| *Ludwigia octovalvis* (Jacq.) P.H.Raven | Myrtales | Onagraceae | OM0213 *(JRAU)* | **JF265505** | **JX517844** |
| *Lumnitzera racemosa* Willd. | Myrtales | Combretaceae | OM2478 *(JRAU)* | **JX572738** | **JX517488** |
| *Lycium afrum* L. | Solanales | Solanaceae | BS0140 *(JRAU)* | **JQ412384** | **JQ412259** |
| *Lycium cinereum* Thunb. | Solanales | Solanaceae | Gubb12801 *(PRE)* | - | AB036623 |
| *Lycium ferocissimum* Miers | Solanales | Solanaceae | OM2993 *(JRAU)* | **JX572739** | **JX517342** |
| *Lycium oxycarpum* Dunal | Solanales | Solanaceae | OM2936 *(JRAU)* | **JX572740** | **JX517868** |
| *Lycium schizocalyx* C.H.Wright | Solanales | Solanaceae | Gubb12489 *(PRE)* | - | AB036622 |
| *Lycium villosum* Schinz | Solanales | Solanaceae | McDonald77/64 *(PRE)* | - | AB036624 |
| *Lydenburgia cassinoides* N. Robson | Celastrales | Celastraceae | Archer&Archer 2570 *(PRE)* | - | DQ217548 |
| *Mackaya bella* Harv. | Lamiales | Acanthaceae | CS14 *(JRAU)* | **JX572742** | **JX518061** |
| *Maclura africana* (Bureau) Corner | Rosales | Moraceae | OM2106 *(JRAU)* | **JX572743** | **JX518158** |
| *Macphersonia gracilis* var. *hildebrandtii* (O. Hoffm.) Capuron | Sapindales | Sapindaceae | Rabenantonadro1081 *(MO)* | - | EU720697 |
| *Maerua andradae* Wild | Brassicales | Capparaceae | Lotter1802 *(LYD)* | KF147485 | KF147411 |
| *Maerua angolensis* DC. | Brassicales | Capparaceae | OM1449 *(JRAU)* | **JX572744** | **JX518208** |
| *Maerua cafra* Pax | Brassicales | Capparaceae | OM3189 *(JRAU)* | **JX572745** | **JX517702** |
| *Maerua decumbens* (Brongn.) DeWolf | Brassicales | Capparaceae | OM2097 *(JRAU)* | **JX572746** | **JX517701** |
| *Maerua juncea* subsp. *crustata* Wild | Brassicales | Capparaceae | OM1592 *(JRAU)* | **JX572747** | **JX517737** |
| *Maerua parvifolia* Pax | Brassicales | Capparaceae | RL1199 *(JRAU)* | - | **JX518011** |
| *Maerua rosmarinoides* Gilg & Ben. | Brassicales | Capparaceae | OM1476 *(JRAU)* | **JX572748** | **JX517903** |
| *Maesa lanceolata* Forssk. | Ericales | Primulaceae | OM2020 *(JRAU)* | **JF265513** | **JF270859** |
| *Mallotus oppositifolius* (Geiseler) Müll.Arg. | Malpighiales | Euphorbiaceae | Okoli25 *(JRAU)* | **-** | **JX517554** |
| *Mangifera indica* L. | Sapindales | Anacardiaceae | 75538 *(KUH)* | - | EF205595_2 |
| *Manihot esculenta* Crantz | Malpighiales | Euphorbiaceae | Okoli24 *(JRAU)* | - | **JX517554** |

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| *Manilkara concolor* (Harv.) Gerstner | Ericales | Sapotaceae | OM0989 *(JRAU)* | **JX572750** | **JX517949** |
| *Manilkara discolor* (Sond.) J.H.Hemsl. | Ericales | Sapotaceae | OM2642 *(JRAU)* | **JX572752** | **JX518015** |
| *Manilkara mochisia* (Baker) Dubard | Ericales | Sapotaceae | OM1392 *(JRAU)* | **JF265514** | **JF270860** |
| *Manilkara nicholsonii* A.E.van Wyk | Ericales | Sapotaceae | Abbott9202 *(BNRH)* | **JX572753** | **JX517570** |
| *Maprounea africana* Müll.Arg. | Malpighiales | Euphorbiaceae | OM2619 *(JRAU)* | **JX572754** | **JX517335** |
| *Margaritaria discoidea* (Baill.) G.L.Webster | Malpighiales | Euphorbiaceae | OM2639 *(JRAU)* | **JX572755** | **JX518168** |
| *Margaritaria discoidea* var. *nitida* (Pax) Radcl.-Sm. | Malpighiales | Euphorbiaceae | OM1922 *(JRAU)* | **JF265515** | **JF270861** |
| *Markhamia obtusifolia* (Baker) Sprague | Lamiales | Bignoniaceae | OM2375 *(JRAU)* | **JX572756** | **JX517405** |
| *Markhamia zanzibarica* (Bojer ex DC.) K.Schum. | Lamiales | Bignoniaceae | OM3500 *(JRAU)* | **JX572757** | **JX517896** |
| *Mascarenhasia arborescens* A.DC. | Gentianales | Apocynaceae | OM2664 *(JRAU)* | **JX572758** | **JX517477** |
| *Maurocenia frangula* Mill. | Celastrales | Celastraceae | Archer2169 *(PRE)* | AM234957 | DQ217538 |
| *Maytenus abbottii* A.E.van Wyk | Celastrales | Celastraceae | Abbott9139 *(BNRH)* | **JX572759** | **JX517940** |
| *Maytenus acuminata* (L.f.) Loes. | Celastrales | Celastraceae | Abbott9201 *(BNRH)* | **JX572760** | **JX517555** |
| *Maytenus albata* (N.E.Br.) E.Schmidt bis & Jordaan | Celastrales | Celastraceae | OM1855 *(JRAU)* | **JX572761** | **JX517851** |
| *Maytenus cordata* (E.Mey. ex Sond.) Loes. | Celastrales | Celastraceae | Abbott9138 *(BNRH)* | **JX572762** | **JX517915** |
| *Maytenus oleoides* (Lam.) Loes. | Celastrales | Celastraceae | OM2262 *(JRAU)* | **JX572763** | **JX517991** |
| *Maytenus peduncularis* Loes. | Celastrales | Celastraceae | MWC27163 *(K)* | **JX572764** | **JX517460** |
| *Maytenus procumbens* (L. f.) Loes. | Celastrales | Celastraceae | OM3602 *(JRAU)* | - | **JX970911** |
| *Maytenus sp.* nov. A | Celastrales | Celastraceae | Abbott9140 *(BNRH)* | **JX572765** | **JX517794** |
| *Maytenus undata* (Thunb.) Blakelock | Celastrales | Celastraceae | OM2644 *(JRAU)* | **JX572766** | **JX517671** |
| *Meiostemon tetrandrus* (Exell) Exell & Stace | Myrtales | Combretaceae | OM1653 *(JRAU)* | **JX572767** | **JX518048** |
| *Melia azedarach* L. | Sapindales | Meliaceae | OM1735 *(JRAU)* | **JX905969** | **JX517878** |
| *Memecylon natalense* Markg. | Myrtales | Melastomataceae | MWC35866 *(K)* | - | **JX517426** |
| *Metalasia densa* (Lam.) P.O.Karis | Asterales | Asteraceae | BS0166 *(JRAU)* | **JQ412390** | **JQ412265** |
| *Metalasia muricata* (L.) D.Don | Asterales | Asteraceae | AM0154 *(JRAU)* | **JX572769** | **JX517917** |

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| *Metarungia longistrobus* (C.B.Clarke) Baden | Lamiales | Acanthaceae | CS15 *(JRAU)* | **JF265518** | **JF270864** |
| *Metrosideros angustifolia* (L.) Sm. | Myrtales | Myrtaceae | OM2303 *(JRAU)* | **JX572770** | **JX517871** |
| *Micrococca capensis* (Baill.) Prain | Malpighiales | Euphorbiaceae | Abbott9111 *(BNRH)* | KF147486 | KF147412 |
| *Milicia excelsa* (Welw.) C.C.Berg | Rosales | Moraceae | OM2696 *(JRAU)* | **JX572771** | **JX517997** |
| *Millettia grandis* (E.Mey.) Skeels | Fabales | Fabaceae | OM1757 *(JRAU)* | - | **JX517504** |
| *Millettia makondensis* Harms | Fabales | Fabaceae | Lotter1723 *(LYD)* | KF147487 | KF147413 |
| *Millettia mossambicensis* J.B.Gillett | Fabales | Fabaceae | OM2335 *(JRAU)* | **JX572772** | **JX517618** |
| *Millettia stuhlmannii* Taub. | Fabales | Fabaceae | OM2522 *(JRAU)* | **JX572773** | **JX517411** |
| *Millettia usaramensis* Taub. | Fabales | Fabaceae | OM2433 *(JRAU)* | **JX905971** | **JX905956** |
| *Mimetes arboreus* Rourke | Proteales | Proteaceae | Latimer 27107 *(NBG)* | GQ248642 | GQ248156 |
| *Mimetes fimbriifolius* Salisb. ex Knight | Proteales | Proteaceae | AM0151 *(JRAU)* | **JX572774** | **JX518183** |
| *Mimosa pigra* L. | Fabales | Fabaceae | OM3598 *(JRAU)* | **JX572775** | **JX517729** |
| *Mimusops caffra* E.Mey. ex A.DC. | Ericales | Sapotaceae | OM2472 *(JRAU)* | **JX572776** | **JX517777** |
| *Mimusops obovata* Sond. | Ericales | Sapotaceae | OM1554 *(JRAU)* | **JX572777** | **JX517628** |
| *Mimusops obtusifolia* Lam. | Ericales | Sapotaceae | OM2627 *(JRAU)* | **JX572778** | **JX518165** |
| *Mimusops zeyheri* Sond. | Ericales | Sapotaceae | RBN248 *(KNP)* | **JX572779** | **JX517445** |
| *Mitriostigma axillare* Hochst. | Gentianales | Rubiaceae | Abbott9153 *(BNRH)* | **JX572780** | **JX517739** |
| *Monanthotaxis buchananii* (Engl.) Verdc. | Magnoliales | Annonaceae | OM2624 *(JRAU)* | **JX572781** | **JX517585** |
| *Monanthotaxis caffra* Verdc. | Magnoliales | Annonaceae | OM0276 *(JRAU)* | **JF265520** | **JF270866** |
| *Mondia Skeels* | Gentianales | Apocynaceae | Sennblad 215 *(TL)* | - | AY899941 |
| *Monodora junodii* Engl. & Diels | Magnoliales | Annonaceae | RBN288 *(KNP)* | **JX572782** | **JX518164** |
| *Monodora junodii* Engl. & Diels var. *macrantha* | Magnoliales | Annonaceae | RBN159 *(KNP)* | **JX572783** | **JX517853** |
| *Monodora stenopetala* Oliv. | Magnoliales | Annonaceae | OM2358 *(JRAU)* | **JX572784** | **JX518064** |
| *Monotes glaber* Sprague | Malvales | Dipterocarpaceae | OM2130 *(JRAU)* | **JX572785** | **JX517931** |
| *Montinia caryophyllacea* Thunb. | Solanales | Montiniaceae | Bremer3521 *(UPS)* | - | AJ429359 |
| *Morella brevifolia* (E. Mey. ex C. DC.) Killick | Fagales | Myricaceae | OM3812 *(BNRH)* | KF147488 | KF147414 |
| *Morella cordifolia* (L.) Killick | Fagales | Myricaceae | OM2290 *(JRAU)* | **JX572786** | **JX517650** |

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| *Morella pilulifera* (Rendle) Killick | Fagales | Myricaceae | OM2024 *(JRAU)* | **JF265521** | **JF270867** |
| *Morella serrata* (Lam.) Killick | Fagales | Myricaceae | Abbott9173 *(BNRH)* | **JX572787** | **JX517577** |
| *Moringa oleifera* Lam. | Brassicales | Moringaceae | Iltis 30501 *(WIS)* | L11359.2 | AY483223 |
| *Moringa ovalifolia* Dinter & A.Berger | Brassicales | Moringaceae | 2000_0148-09 *(BR)* | - | AY461577 |
| *Morus alba* L. | Rosales | Moraceae | BS0124 *(JRAU)* | **JQ412393** | **JQ412268** |
| *Morus australis* | Rosales | Moraceae | ME-0158 *(n.a.)* | GU145573 | GU145559 |
| *Mundulea sericea* (Willd.) A.Chev. | Fabales | Fabaceae | OM2625 *(JRAU)* | **JX572788** | **JX517667** |
| *Mussaenda arcuata* Poir. | Gentianales | Rubiaceae | McPherson16213 *(MO)* | Y11854 | HM119551 |
| *Myrsine africana* L. | Ericales | Primulaceae | OM2822 *(JRAU)* | **JX572789** | **JX518081** |
| *Mystroxylon aethiopicum* (Thunb.) Loes. subsp. *burkeanum* (Sond.) R.H.Archer | Celastrales | Celastraceae | WB0002 *(JRAU)* | KF147489 | KF147415 |
| *Mystroxylon aethiopicum* subsp. *schlechteri* (Loes.) R.H. Archer | Celastrales | Celastraceae | RBN355 *(KNP)* | **JX572790** | **JX517904** |
| *Necepsia Prain* | Malpighiales | Euphorbiaceae | Schmidt3474 *(MO)* | - | AB233764 |
| *Nectaropetalum capense* Stapf & Boodle | Malpighiales | Erythroxylaceae | Abbott9146 *(BNRH)* | **JX572791** | **JX970913** |
| *Nectaropetalum zuluense* (Schönland) Corbishley | Malpighiales | Erythroxylaceae | OM2161 *(JRAU)* | KF147490 | KF147416 |
| *Neoboutonia mannii* Benth. & Hook.f. | Malpighiales | Euphorbiaceae | Fay 6701 *(MO)* | AY794896 | AB233777 |
| *Nerium oleander* L. | Gentianales | Apocynaceae | BS0125 *(JRAU)* | **JQ412398** | **JQ412271** |
| *Newtonia buchananii* (Baker) G.C.C.Gilbert & Boutiqu | Fabales | Fabaceae | BNBG69-6494 *(BR)* | - | AF521847 |
| *Newtonia hildebrandtii* (Vatke) Torre | Fabales | Fabaceae | BNBG73-2891 *(BR)* | - | AF521848 |
| *Nicotiana africana* Merxm. | Solanales | Solanaceae | Clarkson020 *(BM)* | - | AJ585881 |
| *Nicotiana glauca* Graham | Solanales | Solanaceae | OM3016 *(JRAU)* | **JX572792** | **JX517989** |
| *Nuxia congesta* R.Br. ex Fresen. | Lamiales | Scrophulariaceae | OM&MvdB52 *(JRAU)* | **JF265525** | **JF270871** |
| *Nuxia floribunda* Benth. | Lamiales | Scrophulariaceae | OM2025 *(JRAU)* | **JF265526** | **JF270872** |
| *Nuxia oppositifolia* (Hochst.) Benth. | Lamiales | Scrophulariaceae | OM2648 *(JRAU)* | **JX572793** | **JX517443** |
| *Nylandtia Dumort.* | Fabales | Polygalaceae | Forest250 *(K,NBG)* | GQ248650 | AM889730 |
| *Nymania capensis* Lindb. | Sapindales | Meliaceae | OM1096 *(JRAU)* | **JX572794** | **JX518038** |
| *Obetia tenax* Friis | Rosales | Urticaceae | OM0567 *(JRAU)* | **JX572795** | **JX518232** |

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| *Ochna angustata* N.Robson | Malpighiales | Ochnaceae | OM2659 *(BNRH)* | | |
| *Ochna arborea* Burch. ex DC. | Malpighiales | Ochnaceae | CS03 *(JRAU)* | KF147491 | KF147417 |
| *Ochna confusa* Burtt Davy & Greenway | Malpighiales | Ochnaceae | OM3828 *(BNRH)* | KF147492 | KF147418 |
| *Ochna holstii* Engl. | Malpighiales | Ochnaceae | OM2286 *(JRAU)* | KF147493 | |
| *Ochna inermis* (Forssk.) Schweinf. ex Penz. | Malpighiales | Ochnaceae | OM1196 *(JRAU)* | KF147494 | KF147419 |
| *Ochna natalitia* (Meisn.) Walp. | Malpighiales | Ochnaceae | OM2228 *(JRAU)* | **JF265529** | KF147420 |
| *Ochna pulchra* Hook. | Malpighiales | Ochnaceae | OM2127 *(JRAU)* | KF147495 | KF147421 |
| *Ochna serrulata* Walp. | Malpighiales | Ochnaceae | H. Schaefer 2008/796 *(BM)* | - | HM850999 |
| *Ocotea bullata* (Burch.) E. Meyer in Drege | Laurales | Lauraceae | Abbott9194 *(BNRH)* | **JQ025066** | **JQ024978** |
| *Olax dissitiflora* Oliv. | Santalales | Olacaceae | OM2070 *(JRAU)* | **JX572796** | **JX517428** |
| *Oldenburgia grandis* (Thunb.) Baill. | Asterales | Asteraceae | Trinder-Smith s.n. *(BOL)* | - | EU385379 |
| *Olea capensis* L. | Lamiales | Oleaceae | OM3183 *(JRAU)* | **JX572797** | **JX517691** |
| *Olea capensis* subsp. *hochstetteri* (Baker) Friis & P.S.Green | Lamiales | Oleaceae | OM2677 *(JRAU)* | **JX572798** | **JX518236** |
| *Olea europaea* L. | Lamiales | Oleaceae | OM2818 *(JRAU)* | **JX572799** | **JX518175** |
| *Olea exasperata* Jacq. | Lamiales | Oleaceae | OM3219 *(JRAU)* | **JX572800** | **JX518125** |
| *Olea woodiana* Knobl. | Lamiales | Oleaceae | OM1527 *(JRAU)* | **JX572801** | **JX517442** |
| *Olinia capensis* Klotzsch | Myrtales | Penaeaceae | Schoenenberger 519 *(Z, BOL)* | AM235624 | AY151569 |
| *Olinia emarginata* Burtt Davy | Myrtales | Penaeaceae | OM2252 *(JRAU)* | **JX572802** | **JX970901** |
| *Olinia radiata* Hofmeyr & E.Phillips | Myrtales | Penaeaceae | Abbott9119 *(BNRH)* | **JX572803** | **JX517492** |
| *Olinia vanguerioides* Baker f. | Myrtales | Penaeaceae | Blarer s.n. *(Z)* | AM235626 | AY151572 |
| *Olinia ventosa* (L.) Cufod. | Myrtales | Penaeaceae | OM3184 *(JRAU)* | **JX572804** | **JX517344** |
| *Oncinotis tenuiloba* Stapf | Gentianales | Apocynaceae | Abbott9254 *(BNRH)* | **JX572805** | **JX517556** |
| *Oncoba spinosa* Forssk. | Malphigiales | Salicaceae | RBN322 *(KNP)* | **JX572806** | **JX517821** |
| *Opilia Roxb.* | Santalales | Opiliaceae | Chase 1903 *(K)* | - | AY042621 |
| *Opuntia ficus-indica* (L.) Mill. | Caryophyllales | Cactaceae | JG047 *(JRAU)* | **JX572807** | **JX517861** |
| *Oreobambos buchwaldii* K.Schum. | Poales | Poaceae | Kare s.n. *(TCD)* | - | EU434272 |

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| *Ormocarpum kirkii* S.Moore | Fabales | Fabaceae | OM2014 *(JRAU)* | **JX572809** | **JX517953** |
| *Ormocarpum trichocarpum* (Taub.) Engl. | Fabales | Fabaceae | OM2508 *(JRAU)* | **JX572810** | **JX517885** |
| *Osyris compressa* A.DC. | Santalales | Santalaceae | Abbott9227 *(BNRH)* | **JX572811** | **JX517721** |
| *Osyris lanceolata* Hochst. & Steud. | Santalales | Santalaceae | OM2016 *(JRAU)* | **JX572812** | **JX517317** |
| *Otholobium caffrum* (Eckl. & Zeyh.) C.H.Stirt. | Fabales | Fabaceae | Abbott9245 *(BNRH)* | **JX572813** | **JX970905** |
| *Otholobium spicatum* (L.) C.H.Stirt. | Fabales | Fabaceae | AMM3445 *(BOL)* | **JX572814** | **JX517502** |
| *Otholobium wilmsii* (Harms) C.H.Stirt. | Fabales | Fabaceae | AMM3782 *(BOL)* | **JX572815** | **JX517354** |
| *Oxyanthus latifolius* Sond. | Gentianales | Rubiaceae | OM2344 *(JRAU)* | **JX572816** | **JX517392** |
| *Oxyanthus pyriformis* (Hochst.) Skeels | Gentianales | Rubiaceae | OM2191 *(JRAU)* | **JX572817** | **JX517942** |
| *Oxyanthus speciosus* subsp. *gerrardii* (Sond.) Bridson | Gentianales | Rubiaceae | Abbott9253 *(BNRH)* | **JX572818** | **JX517484** |
| *Oxytenanthera abyssinica* (A.Rich.) Munro | Poales | Poaceae | OM2572 *(JRAU)* | **JX572819** | **JX905952** |
| *Ozorea laetans* Retief | Sapindales | Anacardiaceae | Burrows12423 *(BNRH)* | KF147499 | - |
| *Ozoroa albicans* R.Fern. & A.Fern. | Sapindales | Anacardiaceae | Burrows8988 *(BNRH)* | KF147498 | - |
| *Ozoroa barbertonensis* Retief | Sapindales | Anacardiaceae | Burrows8069 *(BNRH)* | - | KF147424 |
| *Ozoroa Delile* sp. nov | Sapindales | Anacardiaceae | Burrows8074 *(BNRH)* | KF147497 | KF147423 |
| *Ozoroa engleri* R.Fern. & A.Fern. | Sapindales | Anacardiaceae | OM1169 *(JRAU)* | **JX572820** | **JX518126** |
| *Ozoroa obovata* (Oliv.) R. Fern. & A. Fern. | Sapindales | Anacardiaceae | OM2511 *(JRAU)* | **JX572821** | **JX517800** |
| *Ozoroa paniculosa* var. *paniculosa* R.Fern. & A.Fern. | Sapindales | Anacardiaceae | OM1948 *(JRAU)* | **JX572822** | **JX517435** |
| *Ozoroa sphaerocarpa* R.Fern. & A.Fern. | Sapindales | Anacardiaceae | OM1106 *(JRAU)* | **JX572823** | **JX517468** |
| *Pachypodium namaquanum* (Wyley ex Harv.) Welw. | Gentianales | Apocynaceae | OM2796 *(JRAU)* | **JX572824** | **JX517791** |
| *Pachypodium saundersii* N.E.Br. | Gentianales | Apocynaceae | OM1149 *(JRAU)* | **JX572825** | **JX517532** |
| *Pancovia golungensis* (Hiern) Exell & Mendonça | Sapindales | Sapindaceae | OM2208 *(JRAU)* | **JX572826** | **JX517712** |
| *Pandanus Parkinson* | Pandanales | Pandanaceae | shawpc0686L *(CUHK)* | JN407333 | JN407167.2 |

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| *Pappea capensis* Eckl. & Zeyh. | Sapindales | Sapindaceae | OM0230 *(JRAU)* | **JX572827** | **JX517327** |
| *Paranomus bracteolaris* Salisb. ex Knight | Proteales | Proteaceae | MWC28485 *(K)* | **JX572828** | **JX517606** |
| *Paranomus tomentosus* N.E. Br. | Proteales | Proteaceae | MWC28312 *(K)* | **JX572829** | **JX517966** |
| *Parinari capensis* Harv. subsp. *incohata* F.White | Malpighiales | Chrysobalanaceae | OM3613 *(JRAU)* | - | **JX905947** |
| *Parinari curatellifolia* Planch. ex Benth. | Malpighiales | Chrysobalanaceae | OM2621 *(JRAU)* | **JX572830** | **JX517369** |
| *Parinari excelsa* Sabine | Malpighiales | Chrysobalanaceae | Burrows10672 *(BNRH)* | KF147501 | - |
| *Parkinsonia aculeata* L. | Fabales | Fabaceae | Hawkins 94/5 9 *(RBGE)* / Salywon 668 *(ASU)* | AY904403 | AY386917 |
| *Paropsia braunii* Gilg | Malpighiales | Passifloraceae | Zyhra 949 *(WIS)* | - | EF135576 |
| *Paropsia brazzaeana* Baill. | Malpighiales | Passifloraceae | Fishwick s.n._5369010 *(BNRH)* | KF147502 | KF147429 |
| *Passerina corymbosa* Eckl. ex C.H. Wright | Malvales | Thymelaeaceae | OM3106 *(JRAU)* | **JX572831** | **JX517973** |
| *Passerina filiformis* L. | Malvales | Thymelaeaceae | Abbott9175 *(BNRH)* | **JX572832** | **JX518022** |
| *Passerina montana* Thoday | Malvales | Thymelaeaceae | OM3400 *(JRAU)* | **JX572833** | **JX517533** |
| *Passerina rigida* Wikstr. | Malvales | Thymelaeaceae | OM1753 *(JRAU)* | **JX572834** | **JX518094** |
| *Pauridiantha symplocoides* (S.Moore) Bremek. | Gentianales | Rubiaceae | Cable1389 *(K)* | - | AY538410 |
| *Pavetta bowkeri* Harv. | Gentianales | Rubiaceae | Abbott9184 *(BNRH)* | **JX572836** | **JX518106** |
| *Pavetta catophylla* K.Schum. | Gentianales | Rubiaceae | OM0335 *(JRAU)* | **JX572837** | **JX517846** |
| *Pavetta edentula* Sond. | Gentianales | Rubiaceae | OM2504 *(JRAU)* | **JX572838** | **JX517382** |
| *Pavetta galpinii* Bremek. | Gentianales | Rubiaceae | Abbott9251 *(BNRH)* | **JX572839** | **JX518147** |
| *Pavetta inandensis* Bremek. | Gentianales | Rubiaceae | Abbott9250 *(BNRH)* | **JX572840** | **JX517852** |
| *Pavetta lanceolata* Eckl. | Gentianales | Rubiaceae | OM2234 *(JRAU)* | **JX572841** | **JX518143** |
| *Pavetta revoluta* Hochst. | Gentianales | Rubiaceae | OM2195 *(JRAU)* | **JX572842** | **JX517474** |
| *Pavetta schumanniana* F.Hoffm. ex K.Schum. | Gentianales | Rubiaceae | OM0941 *(JRAU)* | **JX572843** | **JX518179** |
| *Pavetta zeyheri* Sond. | Gentianales | Rubiaceae | OM1939 *(JRAU)* | **JX572844** | **JX518055** |
| *Peddiea africana* Harv. | Malvales | Thymelaeaceae | OM2469 *(JRAU)* | **JX572845** | **JX518167** |
| *Peltophorum africanum* Sond. | Fabales | Fabaceae | OM2401 *(JRAU)* | **JX572846** | **JX517837** |

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| *Pereskia aculeata* Mill. | Caryophyllales | Cactaceae | OM3711 *(JRAU)* | **JX905965** | **JX905944** |
| *Phaeoptilum spinosum* Radlk. | Caryophyllales | Nyctaginaceae | OM2957 *(JRAU)* | **JX572847** | **JX518227** |
| *Philenoptera bussei* (Harms) Schrire | Fabales | Fabaceae | OM2376 *(JRAU)* | **JX572848** | **JX518116** |
| *Philenoptera violacea* (Klotzsch) Schrire | Fabales | Fabaceae | OM0242 *(JRAU)* | **JF265547** | **JF270890** |
| *Phoenix reclinata* Jacq. | Arecales | Arecaceae | OM1122 *(JRAU)* | **JX572849** | **JX518180** |
| *Phylica buxifolia* L. | Rosales | Rhamnaceae | OM3096 *(JRAU)* | **JX572850** | **JX488292** |
| *Phylica oleaefolia* Vent. | Rosales | Rhamnaceae | MWC03273 *(K)* | **JX572851** | **JX517337** |
| *Phylica paniculata* Willd. | Rosales | Rhamnaceae | Abbott9174 *(BNRH)* | **JX572852** | **JX517422** |
| *Phylica villosa* Thunb. | Rosales | Rhamnaceae | MWC03309 *(K)* | - | **JX517300** |
| *Phyllanthus hutchinsonianus* S.Moore | Malpighiales | Euphorbiaceae | Poilecot 7974 *(G, K)* | - | AY936601 |
| *Phyllanthus inflatus* Hutch. | Malpighiales | Euphorbiaceae | OM1884 *(JRAU)* | **JX572853** | **JX518030** |
| *Phyllanthus ovalifolius* Forssk. | Malpighiales | Euphorbiaceae | OM2455 *(JRAU)* | **JX572854** | **JX518152** |
| *Phyllanthus pinnatus* (Wight) G.L.Webster | Malpighiales | Euphorbiaceae | OM0843 *(JRAU)* | **JF265549** | **JF270892** |
| *Phyllanthus reticulatus* Poir. | Malpighiales | Euphorbiaceae | OM0224 *(JRAU)* | **JF265550** | **JF270893** |
| *Phymaspermum acerosum* (DC.) Källersjö | Asterales | Asteraceae | Magee306 *(NH)* | **JX572855** | **JX517882** |
| *Phytolacca dioica* L. | Caryophyllales | Phytolaccaceae | OM2000 *(JRAU)* | **JX572856** | **JX517912** |
| *Pinus canariensis* C.Sm. | Pinales | Pinaceae | BU-10230 *(LZU)* | AB019823 | AB084494 |
| *Pinus halepensis* Mill. | Pinales | Pinaceae | BS0081 *(JRAU)* | - | **JX905942** |
| *Pinus patula* Schiede ex Schltdl. & Cham. | Pinales | Pinaceae | n.a. | AB063381 | AB063513 |
| *Pinus pinaster* Aiton | Pinales | Pinaceae | Wang s.n. *(NF)* | AB019818 | AB084493 |
| *Pinus pinea* L. | Pinales | Pinaceae | Wang s.n. *(NF)* | AB019822 | AB084496 |
| *Pinus radiata* D.Don | Pinales | Pinaceae | n.a. | AB063383 | AB080934 |
| *Pinus roxburghii* Sarg. | Pinales | Pinaceae | n.a. | AB064339 | AB084495 |
| *Pinus taeda* L. | Pinales | Pinaceae | n.a. | - | AY724750 |
| *Piper L.* | Piperales | Piperaceae | Chao&Zhang s.n. *(SHMU)* / Tamura & Fuse10016 *(OSA)* | EF450315 | AB040153.2 |
| *Pittosporum undulatum* Vent. | Apiales | Pittosporaceae | Schaefer 2008/117 *(BM)* | HM850262 | HM850707 |
| *Pittosporum viridiflorum* Sims | Apiales | Pittosporaceae | OM2815 *(JRAU)* | **JX572857** | **JX517842** |
| *Platylophus trifoliatus* D. Don | Oxalidales | Cunoniaceae | OM3163 *(JRAU)* | **JX572858** | **JX517817** |

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| *Pleiocarpa pycnantha* (K.Schum.) Stapf | Gentianales | Apocynaceae | OM2652 *(JRAU)* | **JX572860** | **JX517964** |
| *Pleioceras orientale* Vollesen | Gentianales | Apocynaceae | Jongkind2131 *(MO)* | - | EF456364 |
| *Pleurostylia capensis* Oliv. | Celastrales | Celastraceae | OM1867 *(JRAU)* | **JX572861** | **JX517549** |
| *Pluchea dioscoridis* (L.) DC. | Asterales | Asteraceae | OM2428 *(JRAU)* | **JX572909** | **JX517666** |
| *Plumbago auriculata* Lam. | Caryophyllales | Plumbaginaceae | OM1686 *(JRAU)* | EU002283 | **JF270896** |
| *Podalyria calyptrata* (Retz.) Willd. | Fabales | Fabaceae | MWC16091 *(K)* | **JX572864** | **JX518039** |
| *Podalyria myrtillifolia* Willd. | Fabales | Fabaceae | AMM5052 *(BOL)* | **JX572865** | **JX517747** |
| *Podocarpus elongatus* (Aiton) L'Hér. ex Pers. | Pinales | Podocarpaceae | n.a. | HM593643 | HM593746 |
| *Podocarpus henkelii* Stapf ex Dallim. & B.D.Jacks. | Pinales | Podocarpaceae | Adelaide BG 842959 | AF249610 | HM593751 |
| *Podocarpus latifolius* (Thunb.) R.Br. ex Mirb. | Pinales | Podocarpaceae | Mt Lofty BG G900695 | AF249612 | HM593754 |
| *Polygala myrtifolia* L. | Fabales | Polygalaceae | MWC18613 *(K)* | **JX572866** | **JX517548** |
| *Polygala virgata* var. *decora* (Sond.) Harv. | Fabales | Polygalaceae | Abbott9243 *(BNRH)* | **JX572868** | **JX517329** |
| *Polyscias fulva* (Hiern) Harms | Apiales | Araliaceae | OM1896 *(JRAU)* | **JX572870** | **JX517735** |
| *Polysphaeria lanceolata* Hiern | Gentianales | Rubiaceae | OM2647 *(JRAU)* | **JX572871** | **JX518079** |
| *Populus alba* L. | Malpighiales | Salicaceae | H. Schaefer 2008/422 *(BM)* | HM850277 | AM889739 |
| *Populus canescens* (Aiton) Sm. | Malpighiales | Salicaceae | OM3468 *(JRAU)* | **JX572872** | **JX970910** |
| *Populus deltoides* W. Bartram ex Marshall | Malpighiales | Salicaceae | JG023 *(JRAU)* | **JX572873** | **JX517356** |
| *Populus nigra* var. *italica* Koehne | Malpighiales | Salicaceae | Schaefer 2008/423 *(BM)* / n.a. | HM850278 | AB038186 |
| *Portulacaria afra* Jacq. | Caryophyllales | Portulacaceae | OM3198 *(JRAU)* | **JX572874** | **JX517924** |
| *Pouteria adolfi-friedericii* subsp. *australis* (J.H.Hemsl.) L.Gaut. | Ericales | Sapotaceae | NH200203 *(TL)* | - | FJ037946 |
| *Pouzolzia mixta* Solms | Rosales | Urticaceae | OM1417 *(JRAU)* | **JQ025073** | **JQ024983** |
| *Premna mooiensis* (H.Pearson) W.Piep. | Lamiales | Lamiaceae | OM1645 *(JRAU)* | **JX572875** | **JX517986** |
| *Prionostemma delagoensis* (Loes.) N.Hallé | Celastrales | Celastraceae | OM3738 *(JRAU)* | - | **JX517579** |
| *Pristimera longipetiolata* (Oliv.) N. Hallé | Celastrales | Celastraceae | OM1098 *(JRAU)* | **JX572876** | **JX517581** |

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| *Prosopis glandulosa* var. *torreyana* (L.D.Benson) M.C.Johnst. | Fabales | Fabaceae | Wojciechowski 875 *(ASU)* | - | AY386851 |
| *Prosopis velutina* Wooton | Fabales | Fabaceae | R. Gutierrez 658 *(ASU)* | - | EU025910 |
| *Protea aurea* subsp. *aurea* Rourke | Proteales | Proteaceae | MWC24059 *(K)* | **JX572877** | **JX517773** |
| *Protea caffra* Meisn. | Proteales | Proteaceae | Abbott9234 *(BNRH)* | **JX572878** | **JX517909** |
| *Protea coronata* Lam. | Proteales | Proteaceae | MWC25806 *(K)* | **JX572879** | **JX517822** |
| *Protea gaguedi* J.F.Gmel. | Proteales | Proteaceae | Turpin471 *(BNRH)* | KF147503 | KF147430 |
| *Protea glabra* Thunb. | Proteales | Proteaceae | MWC25805 *(K)* | **JX572880** | **JX517612** |
| *Protea laurifolia* Thunb. | Proteales | Proteaceae | MWC25802 *(K)* | **JX572881** | **JX517919** |
| *Protea mundii* Klotzsch | Proteales | Proteaceae | MWC24058 *(K)* | **JX572882** | **JX517639** |
| *Protea neriifolia* R.Br. | Proteales | Proteaceae | Anderson10 *(UPS)* | - | EU169659 |
| *Protea nitida* Mill. | Proteales | Proteaceae | MWC25791 *(K)* | **JX572883** | **JX517372** |
| *Protea parvula* Beard | Proteales | Proteaceae | OM3817 *(BNRH)* | KF147504 | KF147431 |
| *Protea punctata* Meisn. | Proteales | Proteaceae | MWC24085 *(K)* | **JX572884** | **JX517553** |
| *Protea repens* L. | Proteales | Proteaceae | OM3109 *(JRAU)* | **JQ025075** | **JX905940** |
| *Protea roupelliae* subsp. *roupelliae* Meisn. | Proteales | Proteaceae | Abbott9165 *(BNRH)* | **JX572885** | **JX517802** |
| *Protea welwitschii* Engl. | Proteales | Proteaceae | MvdB0024 *(JRAU)* | **JX905962** | **JX970896** |
| *Protorhus longifolia* (Bernh.) Engl. | Sapindales | Anacardiaceae | OM1764 *(JRAU)* | **JX572886** | **JX517542** |
| *Prunus africana* (Hook. f.) Kalkman | Rosales | Rosaceae | OM1568 *(JRAU)* | **JQ025076** | **JQ024985** |
| *Prunus persica* (L.) Stokes | Rosales | Rosaceae | OM1899 *(JRAU)* | **JX572887** | **JX518003** |
| *Prunus serotina* Ehrh. | Rosales | Rosaceae | Beyersdorfer 8-84 *(US)* / AP269 *(COLG)* | DQ006123 | HQ593401 |
| *Pseudarthria hookeri* Wight & Arn. | Fabales | Fabaceae | OM1473 *(JRAU)* | **JF265559** | **JF270902** |
| *Pseudobersama mossambicensis* (Sim) Verdc. | Sapindales | Meliaceae | OM2645 *(JRAU)* | **JX572888** | **JX517407** |
| *Pseudolachnostylis maprouneifolia* Pax | Malphigiales | Euphorbiaceae | OM2071 *(JRAU)* | KF147505 | KF147432 |
| *Pseudophyllanthus ovalis* (E.Mey. ex Sond.) Voronts. & Petra Hoffm. | Malpighiales | Euphorbiaceae | Muller & Scheepers 4286 *(K)* | - | AY830260 |
| *Pseudosalacia streyi* Codd | Celastrales | Celastraceae | Abbott9248 *(BNRH)* | **JX572889** | **JX517644** |
| *Psidium cattleianum* Afzel. ex Sabine | Myrtales | Myrtaceae | Abbott24905 *(FLAS)* | GU135194 | GU135031 |

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| *Psidium guajava* L. | Myrtales | Myrtaceae | CS36 *(JRAU)* | **JQ025077** | **JQ024986** |
| *Psoralea aphylla* L. | Fabales | Fabaceae | AMM3400 *(BOL)* | **JX572890** | **JX517348** |
| *Psoralea arborea* Sims | Fabales | Fabaceae | AMM3407 *(BOL)* | **JX572895** | **JX517541** |
| *Psoralea axillaris* L.f. | Fabales | Fabaceae | AMM5874 *(BOL)* | **JX572891** | **JX518186** |
| *Psoralea filifolia* Eckl. & Zeyh. | Fabales | Fabaceae | AMM4321 *(BOL)* | **JX572892** | **JX517464** |
| *Psoralea glabra* E.Mey. | Fabales | Fabaceae | AMM3646 *(BOL)* | **JX572893** | **JX517873** |
| *Psoralea pinnata* L. | Fabales | Fabaceae | OM3107 *(JRAU)* | **JX572894** | **JX517859** |
| *Psychotria capensis* (Eckl.) Vatke | Gentianales | Rubiaceae | OM1577 *(JRAU)* | **JX572896** | **JX517469** |
| *Psychotria kirkii* Hiern | Gentianales | Rubiaceae | OM3487 *(JRAU)* | **JX572835** | **JX518135** |
| *Psychotria peduncularis* (Salisb.) Steyerm. | Gentianales | Rubiaceae | OM2666 *(BNRH)* | KF147506 | KF147433 |
| *Psychotria pumila* Hiern | Gentianales | Rubiaceae | Burrows11719 *(BNRH)* | KF147507 | KF147434 |
| *Psydrax locuples* (K.Schum.) Bridson | Gentianales | Rubiaceae | OM2483 *(JRAU)* | **JX572897** | **JX518031** |
| *Psydrax micans* (Bullock) Bridson | Gentianales | Rubiaceae | OM2678 *(JRAU)* | **JX572898** | **JX517914** |
| *Psydrax obovata* (Klotzsch ex Eckl. & Zeyh.) Bridson | Gentianales | Rubiaceae | OM1756 *(JRAU)* | **JX572899** | **JX970909** |
| *Ptaeroxylon obliquum* (Thunb.) Radlk. | Sapindales | Rutaceae | OM1326 *(JRAU)* | **JQ025079** | **JQ024988** |
| *Pteleopsis anisoptera* (Welw. ex M.A.Lawson) Engl. & Diels | Myrtales | Combretaceae | OM1656 *(JRAU)* | **JX572900** | **JX517605** |
| *Pteleopsis myrtifolia* (M.A.Lawson) Engl. & Diels | Myrtales | Combretaceae | OM2368 *(JRAU)* | **JX572901** | **JX517526** |
| *Pterocarpus angolensis* DC. | Fabales | Fabaceae | OM2717 *(JRAU)* | **JX572902** | **JX517843** |
| *Pterocarpus brenanii* Barbosa & Torre | Fabales | Fabaceae | OM2510 *(JRAU)* | **JX572903** | **JX517771** |
| *Pterocarpus rotundifolius* (Sond.) Druce | Fabales | Fabaceae | RBN174 *(KNP)* | **JX572904** | **JX517562** |
| *Pterocarpus rotundifolius* subsp. *polyanthus* (Harms) Mendonca & Sousa | Fabales | Fabaceae | OM2317 *(JRAU)* | **JX572905** | **JX518110** |
| *Pterocelastrus echinatus* N.E.Br. | Celastrales | Celastraceae | OM1868 *(JRAU)* | **JX572906** | **JX517334** |
| *Pterocelastrus rostratus* Walp. | Celastrales | Celastraceae | Abbott9203 *(BNRH)* | **JX572907** | **JX517539** |
| *Pterocelastrus tricuspidatus* Walp. | Celastrales | Celastraceae | Abbott9213 *(BNRH)* | **JX572908** | **JX517816** |
| *Pterolobium stellatum* (Forssk.) Brenan | Fabales | Fabaceae | RBN219 *(KNP)* | - | **JF270908** |
| *Putterlickia pyracantha* (L.) Endl. | Asterales | Celastraceae | AM0234 *(JRAU)* | **JX572910** | **JX517305** |

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| *Putterlickia retrospinosa* A.E.van Wyk & Mostert | Celastrales | Celastraceae | Abbott9126 *(BNRH)* | **JX572911** | **JX518119** |
| *Putterlickia verrucosa* (E. Mey. ex Sond.) Szyszyl. | Celastrales | Celastraceae | OM1404 *(JRAU)* | **JF265566** | **JF270909** |
| *Pycnostachys urticifolia* Hook.f. | Celastrales | Lamiaceae | OM1992 *(JRAU)* | **JF265567** | **JF270910** |
| *Pygmaeothamnus chamaedendrum* (Kuntze) Robyns | Lamiales | Rubiaceae | Burrows12689 *(BNRH)* | KF147508 | KF147435 |
| *Pyracantha coccinea* M. Roem. | Rosales | Rosaceae | Atha5823 *(YU)* / Kenneth & Hills 5274 *(ILLS)* | JQ391058 | DQ860472 |
| *Pyrostria bibracteata* (Baker) Cavaco | Gentianales | Rubiaceae | OM2679 *(JRAU)* | **JX572914** | **JX517448** |
| *Pyrostria hystrix* (Bremek.) Bridson | Gentianales | Rubiaceae | OM1195 *(JRAU)* | **JX572915** | **JX517362** |
| *Quisqualis parviflora* Gerrard ex Sond. | Myrtales | Combretaceae | Abbott8891 *(BNRH)* | **JX572916** | **JX517360** |
| *Rapanea melanophloeos* (L.) Mez | Ericales | Primulaceae | OM3166 *(JRAU)* | **JQ025081** | **JQ024989** |
| *Raphia australis* Oberm. & Strey | Arecales | Arecaceae | CS18 *(JRAU)* | **JX572917** | **JX517810** |
| *Raphia farinifera* (Gaertn.) Hyl. | Arecales | Arecaceae | MWC14927 *(K)* | MWC14927 | MWC14927 |
| *Raspalia trigyna* Dummer | Bruniales | Bruniaceae | De Lange6 *(NBG)* | - | AY490925 |
| *Rauvolfia caffra* Sond. | Gentianales | Apocynaceae | OM1376 *(JRAU)* | **JQ025082** | **JQ024990** |
| *Rawsonia lucida* Harv. & Sond. | Malphigiales | Salicaceae | OM2662 *(JRAU)* | **JX572920** | **JX517624** |
| *Rhamnus prinoides* L'Hér. | Rosales | Rhamnaceae | OM3174 *(JRAU)* | **JX572922** | **JX518229** |
| *Rhigozum obovatum* Burch. | Lamiales | Bignoniaceae | OM2942 *(JRAU)* | **JX572923** | **JX517487** |
| *Rhigozum zambesiacum* Baker | Lamiales | Bignoniaceae | OM1590 *(JRAU)* | **JX572924** | **JX517751** |
| *Rhizophora mucronata* Lam. | Malphigiales | Rhizophoraceae | OM2479 *(BNRH)* | KF147509 | KF147436 |
| *Rhodognaphalon schumannianum* A.Robyns. | Malvales | Malvaceae | OM2342 *(JRAU)* | **JX572336** | **JX517920** |
| *Rhoicissus digitata* (L. f.) Gilg & M. Brandt | Vitales | Vitaceae | Abbott9200 *(BNRH)* | **JX572925** | **JX518018** |
| *Rhoicissus revoilii* Planch. | Vitales | Vitaceae | OM2657 *(JRAU)* | **JX572926** | **JX517321** |
| *Rhoicissus sp.* nov. A | Vitales | Vitaceae | Abbott9206 *(BNRH)* | **JX572928** | **JX517692** |
| *Rhoicissus tomentosa* (Lam.) Wild & R.B. Drumm. | Vitales | Vitaceae | OM1546 *(JRAU)* | **JF265573** | **JF270916** |

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| *Rhoicissus tridentata* (L. f.) Wild & R.B. Drumm. | Vitales | Vitaceae | OM0452 *(JRAU)* | **JQ025083** | **JQ024991** |
| *Rhynchocalyx lawsonioides* Oliv. | Myrtales | Penaeaceae | Abbott9125 *(BNRH)* | **JX572931** | **JX517938** |
| *Rhynchosia monophylla* Schltr. | Fabales | Fabaceae | Burrows12692 *(BNRH)* | KF147510 | KF147437 |
| *Ricinus communis* L. | Malpighiales | Euphorbiaceae | OM1359 *(JRAU)* | **JF265575** | **JF270918** |
| *Rinorea angustifolia* (Thouars) Baill. | Malpighiales | Violaceae | Abbott9152 *(BNRH)* | **JX572932** | **JX517564** |
| *Rinorea domatiosa* A.E.van Wyk | Malpighiales | Violaceae | Abbott9186 *(BNRH)* | **JX573115** | **JX905954** |
| *Rinorea elliptica* (Oliv.) Kuntze | Malpighiales | Violaceae | OM2333 *(JRAU)* | **JX572933** | **JX517999** |
| *Rinorea ilicifolia* (Welw. ex Oliv.) Kuntze | Malpighiales | Violaceae | Enti_sp644 *(MO)* | - | AB354504 |
| *Ritchiea capparoides* (Andrews) Britten | Brassicales | Capparaceae | Lotter1805 *(LYN)* | KF147511 | KF147438 |
| *Ritchiea pygmaea* (Gilg) DeWolf | Brassicales | Capparaceae | Lotter1801 *(LYN)* | KF147512 | KF147439 |
| *Robinia pseudoacacia* L. | Fabales | Fabaceae | MvdB0058 *(JRAU)* | **JX572934** | **JX517993** |
| *Robsonodendron eucleiforme* (Eckl. & Zeyh.) R.H.Archer | Celastrales | Celastraceae | Abbott9132 *(BNRH)* | **JX572935** | **JX517361** |
| *Robsonodendron maritimum* (Bolus) R.H.Archer | Celastrales | Celastraceae | MWC28690 *(K)* | - | **JX518231** |
| *Rosa rubiginosa* L. | Rosales | Rosaceae | OM3451 *(JRAU)* | **JX572936** | **JX970908** |
| *Rotheca myricoides* (Hochst.) Steane & Mabb. | Lamiales | Lamiaceae | OM2598 *(JRAU)* | **JX572937** | **JX517676** |
| *Rothmannia capensis* Thunb. | Gentianales | Rubiaceae | OM1786 *(JRAU)* | **JX572938** | **JX517592** |
| *Rothmannia fischeri* (K.Schum.) Bullock ex Oberm. | Gentianales | Rubiaceae | OM1611 *(JRAU)* | **JX572939** | **JX518115** |
| *Rothmannia globosa* (Hochst.) Keay | Gentianales | Rubiaceae | OM1887 *(JRAU)* | **JX572940** | **JX517976** |
| *Rothmannia manganjae* (Hiern) Keay | Gentianales | Rubiaceae | OM2185 *(JRAU)* | - | **JX517759** |
| *Rourea orientalis* Baill. | Oxalidales | Connaraceae | OM2513 *(JRAU)* | **JX572941** | **JX518032** |
| *Ruspolia hypocrateriformis* (Vahl) Milne-Redh. | Lamiales | Acanthaceae | OM1345 *(JRAU)* | **JX572942** | **JX517979** |
| *Ruttya ovata* Harv. | Lamiales | Acanthaceae | OM1150 *(JRAU)* | **JF265578** | **JF270921** |
| *Salacia gerrardii* Harv. & Sprague | Celastrales | Celastraceae | Abbott9241 *(BNRH)* | **JX572944** | **JX517567** |
| *Salacia kraussii* (Harv.) Harv. | Celastrales | Celastraceae | RBN102 *(KNP)* | **JF265579** | **JF270922** |

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| *Salacia rehmannii* Schinz | Celastrales | Celastraceae | Burrows7426 *(BNRH)* | KF147513 | KF147440 |
| *Salix babylonica* L. | Malpighiales | Salicaceae | n.a. | - | AJ849593 |
| *Salix fragilis* L. | Malpighiales | Salicaceae | Chase 991 *(K)* / n.a. | AJ418841 | AJ849589 |
| *Salix mucronata* Thunb. | Malpighiales | Salicaceae | OM1198 *(JRAU)* | **JF265580** | **JF270923** |
| *Salvadora australis* Schweick. | Brassicales | Salvadoraceae | OM1317 *(JRAU)* | **JF265581** | **JF270924** |
| *Salvadora persica* Wall. | Brassicales | Salvadoraceae | OM0824 *(JRAU)* | **JF265582** | **JF270925** |
| *Schefflera goetzenii* Harms | Apiales | Araliaceae | BDV015 *(BNRH)* | | KF147441 |
| *Schefflera umbellifera* (Sond.) Baill. | Apiales | Araliaceae | OM2187 *(JRAU)* | **JX572950** | **JX517700** |
| *Schinus molle* L. | Sapindales | Anacardiaceae | MvdB0046 *(JRAU)* | **JX572951** | **JX517745** |
| *Schinus terebinthifolia* Raddi | Sapindales | Anacardiaceae | OM1982 *(JRAU)* | **JX572952** | **JX518124** |
| *Schinziophyton rautanenii* (Schinz) Radcl.-Sm. | Malpighiales | Euphorbiaceae | OM2449 *(JRAU)* | **JX572953** | **JX518188** |
| *Schotia afra* (L.) Thunb. | Fabales | Fabaceae | OM2274 *(JRAU)* | **JX572954** | **JX517439** |
| *Schotia brachypetala* Sond. | Fabales | Fabaceae | OM1166 *(JRAU)* | **JQ025087** | **JQ024995** |
| *Schotia capitata* Bolle | Fabales | Fabaceae | OM1159 *(JRAU)* | **JF265584** | **JF270927** |
| *Schotia latifolia* Jacq. | Fabales | Fabaceae | Bruneau s.n. *(K)* | - | EU362039 |
| *Schrebera alata* (Hochst.) Welw. | Lamiales | Oleaceae | OM1221 *(JRAU)* | **JX572955** | **JX517941** |
| *Schrebera trichoclada* Welw. | Lamiales | Oleaceae | OM2636 *(JRAU)* | **JX572956** | **JX517454** |
| *Sclerocarya birrea* subsp. *caffra* (Sond.) Kokwaro | Sapindales | Anacardiaceae | OM0498 *(JRAU)* | **JF265586** | **JF270929** |
| *Sclerochiton harveyanus* Nees | Lamiales | Acanthaceae | Abbott9185 *(BNRH)* | **JX572957** | **JX517343** |
| *Sclerochiton kirkii* (T. Anderson) C.B. Clarke | Lamiales | Acanthaceae | OM2359 *(JRAU)* | **JX572958** | **JX518192** |
| *Sclerocroton integerrimus* Hochst. | Malpighiales | Euphorbiaceae | OM2489 *(JRAU)* | **JX572947** | **JX517685** |
| *Scolopia mundii* Warb. | Malphigiales | Salicaceae | OM2309 *(JRAU)* | **JX572959** | **JX517610** |
| *Scolopia stolzii* Gilg | Malphigiales | Salicaceae | OM2675 *(JRAU)* | **JX572960** | **JX518217** |
| *Scolopia zeyheri* (Nees) Szyszyl. | Malphigiales | Salicaceae | OM1781 *(JRAU)* | **JX572945** | **JX517872** |
| *Scutia myrtina* (Burm. f.) Kurz | Rosales | Rhamnaceae | OM3232 *(JRAU)* | **JX572961** | **JX517733** |
| *Searsia acocksii* (Moffett) Moffett | Sapindales | Anacardiaceae | Abbott9154 *(BNRH)* | **JX572962** | **JX517985** |
| *Searsia angustifolia* (L.) F.A.Barkley | Sapindales | Anacardiaceae | OM2847 *(JRAU)* | **JX572963** | **JX517801** |

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| *Searsia chirindensis* (Baker f.) Moffett | Sapindales | Anacardiaceae | OM2284 *(JRAU)* | **JX572964** | **JX517658** |
| *Searsia crenata* (Thunb.) Moffett | Sapindales | Anacardiaceae | OM1986 *(JRAU)* | **JX572965** | **JX517881** |
| *Searsia dentata* (Thunb.) F.A.Barkley | Sapindales | Anacardiaceae | OM2251 *(JRAU)* | KF147514 | - |
| *Searsia discolor* (E.Mey. ex Sond.) Moffett | Sapindales | Anacardiaceae | OM3911 *(BNRH)* | KF147515 | KF147442 |
| *Searsia fastigiata* (Eckl. & Zeyh.) Moffett | Sapindales | Anacardiaceae | Abbott9135 *(BNRH)* | **JX572966** | **JX517893** |
| *Searsia glauca* (Thunb.) Moffett | Sapindales | Anacardiaceae | OM1826 *(BNRH)* | - | KF227400 |
| *Searsia gueinzii* (Sond.) F.A.Barkley | Sapindales | Anacardiaceae | OM0265 *(JRAU)* | **JX572967** | **JX517709** |
| *Searsia incisa* (L.f.) F.A.Barkley | Sapindales | Anacardiaceae | OM3059 *(JRAU)* | **JX572968** | **JX517587** |
| *Searsia laevigata* (L.) F.A.Barkley | Sapindales | Anacardiaceae | OM3214 *(JRAU)* | **JX572969** | **JX518086** |
| *Searsia laevigata (L.)* F.A.Barkley var. *villosa* (L.f.) Moffett | Sapindales | Anacardiaceae | JWB509 *(NBG)* | **JQ412420** | - |
| *Searsia lancea* (L. f.) F.A. Barkley | Sapindales | Anacardiaceae | OM1942 *(JRAU)* | **JX572970** | **JX518157** |
| *Searsia leptodictya* (Diels) T.S.Yi, A.J.Mill. & J.Wen | Sapindales | Anacardiaceae | RL1655 *(JRAU)* | **JX572971** | **JX517890** |
| *Searsia longispina* (Eckl. & Zeyh.) Moffett | Sapindales | Anacardiaceae | AM0243 *(JRAU)* | **JX572972** | **JX517438** |
| *Searsia lucida* (L.) F.A.Barkley | Sapindales | Anacardiaceae | MWC05809 *(K)* | **JX905961** | **JX905941** |
| *Searsia magalismontana* (Sond.) Moffett | Sapindales | Anacardiaceae | OM1836 *(JRAU)* | **JF265591** | **JF270934** |
| *Searsia natalensis* (Bernh. ex C.Krauss) F.A.Barkley | Sapindales | Anacardiaceae | OM2655 *(JRAU)* | **JX572973** | **JX518140** |
| *Searsia nebulosa* (Schönland) Moffett | Sapindales | Anacardiaceae | Abbott9106 *(BNRH)* | **JX572974** | **JX517862** |
| *Searsia pendulina* (Jacq.) Moffett | Sapindales | Anacardiaceae | OM1984 *(JRAU)* | **JX572975** | **JX517444** |
| *Searsia pentheri* (Zahlbr.) Moffett | Sapindales | Anacardiaceae | OM0945 *(JRAU)* | **JX572976** | **JX517813** |
| *Searsia pondoensis* (Schönland) Moffett | Sapindales | Anacardiaceae | Burrows10242 *(BNRH)* | KF147516 | KF147443 |
| *Searsia pygmaea* (Moffett) Moffett | Sapindales | Anacardiaceae | Burrows7355 *(BNRH)* | KF147517 | - |
| *Searsia pyroides* (Burch.) Moffett | Sapindales | Anacardiaceae | OM1236 *(JRAU)* | **JX572977** | **JX517333** |
| *Searsia pyroides* var. *integrifolia* (Engl.) Moffett. | Sapindales | Anacardiaceae | OM2477 *(JRAU)* | **JX572929** | **JX517483** |
| *Searsia transvaalensis* (Engl.) Moffett | Sapindales | Anacardiaceae | RL1427 *(JRAU)* | **JX572930** | **JX518204** |

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| *Searsia tumulicola* (S.Moore) Moffett | Sapindales | Anacardiaceae | OM3813 *(BNRH)* | KF147519 | KF147445 |
| *Searsia tumulicola* (S.Moore) Moffett var. *meeuseana* (R.& A.Fern.) Moffett forma *meeuseana* | Sapindales | Anacardiaceae | OM3818 *9BNRH)* | KF147518 | KF147444 |
| *Searsia undulata* (Jacq.) T.S.Yi, A.J.Mill. & J.Wen | Sapindales | Anacardiaceae | OM2940 *(JRAU)* | **JQ025088** | **JQ024996** |
| *Searsia wilmsii* (Diels) Moffett | Sapindales | Anacardiaceae | OM3910 *(BNRH)* | KF147520 | KF147446 |
| *Searsia zeyheri* (Sond.) Moffett | Sapindales | Anacardiaceae | OM2256 *(JRAU)* | **JX572979** | **JX905948** |
| *Securidaca longipedunculata* Fresen. | Fabales | Polygalaceae | OM3358 *(JRAU)* | **JX572980** | **JX517755** |
| *Seemannaralia gerrardii* (Seem.) R.Vig. | Apiales | Araliaceae | MWC28187 *(K)* | **JX572981** | **JX517534** |
| *Senegalia adenocalyx* Brenan & Exell | Fabales | Fabaceae | OM2439 *(JRAU)* | **JX572179** | **JX518166** |
| *Senegalia ataxacantha* DC. | Fabales | Fabaceae | RL1326 *(JRAU)* | **JX572182** | **JX517415** |
| *Senegalia brevispica* Harms | Fabales | Fabaceae | RL1333 *(JRAU)* | **JF265244** | **JF270602** |
| *Senegalia burkei* Benth. | Fabales | Fabaceae | RL1479 *(JRAU)* | **JX572186** | **JX517664** |
| *Senegalia caffra* (Thunb.) Willd. | Fabales | Fabaceae | RL1335 *(JRAU)* | **JX572187** | **JX518058** |
| *Senegalia chariessa* Milne-Redh. | Fabales | Fabaceae | MvdB2158 *(JRAU)* | **JX572188** | **JX518001** |
| *Senegalia cinerea* Schinz | Fabales | Fabaceae | RL1328 *(JRAU)* | **JX572193** | **JX517897** |
| *Senegalia eriocarpa* Brenan | Fabales | Fabaceae | MvdB2157 *(JRAU)* | **JX572191** | **JX518050** |
| *Senegalia erubescens* Oliv. | Fabales | Fabaceae | OM0780 *(JRAU)* | **JF265248** | **JF270605** |
| *Senegalia galpinii* Burtt Davy | Fabales | Fabaceae | RL1304 *(JRAU)* | **JX572194** | **JX518092** |
| *Senegalia goetzei* subsp. *goetzei* Harms | Fabales | Fabaceae | RL1320 *(JRAU)* | **JX572196** | **JX517303** |
| *Senegalia goetzei* subsp. *microphylla* Brenan | Fabales | Fabaceae | RL1322 *(JRAU)* | - | **JQ230131** |
| *Senegalia hereroensis* Engl. | Fabales | Fabaceae | RL1332 *(JRAU)* | **JX572202** | **JX517996** |
| *Senegalia kraussiana* Benth. | Fabales | Fabaceae | RL1287 *(JRAU)* | **JX572206** | **JX517710** |
| *Senegalia mellifera* (M.Vahl) Benth. | Fabales | Fabaceae | OM1060 *(JRAU)* | **JX572212** | **JX518210** |
| *Senegalia mellifera* subsp. *detinens* (Burch.) Brenan | Fabales | Fabaceae | RL1329 *(JRAU)* | **JX572211** | **JX517310** |
| *Senegalia montis-usti* Merxm. & A.Schreib. | Fabales | Fabaceae | OM1065 *(JRAU)* | **JX572213** | **JX517640** |

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| *Senegalia nigrescens* Oliv. | Fabales | Fabaceae | RBN314 *(KNP)* | **JX572216** | **JX518103** |
| *Senegalia polyacantha* subsp. *campylacantha* (A.Rich.) Brenan | Fabales | Fabaceae | RL1323 *(JRAU)* | - | GQ872241 |
| *Senegalia reficiens* Wawra | Fabales | Fabaceae | Acaref *(JRAU)* | **JX572220** | **JX518096** |
| *Senegalia robynsiana* Merxm. & A.Schreib. | Fabales | Fabaceae | OM1066 *(JRAU)* | **JX572224** | **JX517895** |
| *Senegalia schweinfurthii* Brenan & Exell | Fabales | Fabaceae | OM1539 *(JRAU)* | **JX572225** | **JX517495** |
| *Senegalia senegal* (L.) Willd. | Fabales | Fabaceae | OM0255 *(JRAU)* | **JF265258** | **JF270615** |
| *Senegalia senegal* var. *leiorhachis* Brenan | Fabales | Fabaceae | OM0866 *(JRAU)* | **JX572227** | **JX517568** |
| *Senegalia welwitschii* subsp. *delagoensis* (Harms) J.H.Ross & Brenan | Fabales | Fabaceae | OM2548 *(JRAU)* | **JX572234** | **JX518159** |
| *Senna bicapsularis* (L.) Roxb. | Fabales | Fabaceae | Marazzi&AlvdrezBM159 *(PMA, STRI, Z)* | - | AM086849 |
| *Senna corymbosa* (Lam.) H.S.Irwin & Barneby | Fabales | Fabaceae | MarazziBM103 *(CTES,Z)* | - | AM086856 |
| *Senna didymobotrya* (Fresen.) H.S.Irwin & Barneby | Fabales | Fabaceae | n.a. / Irwin&Bameby s.n. *(Z)* | Z70154 | AM086860 |
| *Senna hirsuta* (L.) H.S.Irwin & Barneby | Fabales | Fabaceae | Salywon1374 *(ASU)* | - | EU025912 |
| *Senna occidentalis* (L.) Link | Fabales | Fabaceae | Marazzi et al. BM060 *(PY, CTES, Z)* | - | AM086883 |
| *Senna pendula* (Willd.) H.S.Irwin & Barneby | Fabales | Fabaceae | Davis0496 *(FLAS)* | GU135268 | GU135101 |
| *Senna petersiana* (Bolle) Lock | Fabales | Fabaceae | OM2515 *(JRAU)* | **JX572982** | **JX517765** |
| *Senna septemtrionalis* (Viv.) H.S.Irwin & Barneby | Fabales | Fabaceae | OM0910 *(JRAU)* | **JX572983** | **JX517744** |
| *Senna spectabilis* (DC.) H.S.Irwin & Barneby | Fabales | Fabaceae | Marazzietal.BM029 *(PMA, STRI, Z)* | - | AM086900 |
| *Seriphium plumosum* L. | Asterales | Asteraceae | OM1785 *(JRAU)* | **JX572997** | **JX517389** |
| *Sesamothamnus lugardii* N.E.Br. ex Stapf | Lamiales | Pedaliaceae | OM1622 *(JRAU)* | **JF265597** | **JF270939** |
| *Sesbania bispinosa* (Jacq.) W.Wight | Fabales | Fabaceae | OM0675 *(JRAU)* | **JX572984** | **JX517377** |

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| *Sesbania cinerascens* Baker | Fabales | Fabaceae | Smith *4127(K)* | - | HQ730423 |
| *Shirakiopsis elliptica* (Hochst.) Esser | Malpighiales | Euphorbiaceae | OM1843 *(JRAU)* | **JX572946** | **JX517498** |
| *Sideroxylon inerme* subsp. *inerme* | Ericales | Sapotaceae | OM0266 *(JRAU)* | **JX572985** | **JX517620** |
| *Smelophyllum capense* Radlk. | Sapindales | Sapindaceae | Forest755 *(NBG)* / KE506 *(JCT)* | AM235131 | AY724330 |
| *Solanecio mannii* (Hook.f.) C.Jeffrey | Asterales | Asteraceae | Knox 555 *(L)* | - | AF459994 |
| *Solanum aculeastrum* Dunal | Solanales | Solanaceae | OM2755 *(JRAU)* | **JQ025091** | **JQ024998** |
| *Solanum catombelense* Peyr. | Solanales | Solanaceae | OM0934 *(JRAU)* | **JF265599** | **JF270941** |
| *Solanum giganteum* Jacq. | Solanales | Solanaceae | Abbott9142 *(BNRH)* | **JX572986** | **JX517374** |
| *Solanum lichtensteinii* Willd. | Solanales | Solanaceae | OM1904 *(JRAU)* | **JF265600** | **JF270942** |
| *Solanum mauritianum* Scop. | Solanales | Solanaceae | OM0916 *(JRAU)* | **JX572987** | **JX517446** |
| *Solanum panduriforme* E. Mey. | Solanales | Solanaceae | OM0326 *(JRAU)* | **JF265601** | **JF270943** |
| *Sonneratia alba* Sm. | Myrtales | Lythraceae | n.a. | - | EF408669 |
| *Sparmannia africana* L.f. | Malvales | Malvaceae | Alverson 4000 *(WIS)* | - | AY321194 |
| *Spirostachys africana* Sond. | Malpighiales | Euphorbiaceae | OM2396 *(JRAU)* | **JX572988** | **JX517519** |
| *Stadmania oppositifolia* Lam. | Sapindales | Sapindaceae | OM0863 *(JRAU)* | **JF265603** | **JF270945** |
| *Stangeria eriopus* (Kunze) Baill. | Cycadales | Stangeriaceae | PR706 *(JRAU)* | **JQ025707** | **JQ046267** |
| *Steganotaenia araliacea* Hochst. | Apiales | Apiaceae | OM2540 *(JRAU)* | **JX572989** | **JX517647** |
| *Sterculia africana* (Lour.) Fiori | Malvales | Malvaceae | OM2362 *(JRAU)* | **JX572990** | **JX517698** |
| *Sterculia alexandri* Harv. | Malvales | Malvaceae | OM1864 *(JRAU)* | **JX572991** | **JX517774** |
| *Sterculia appendiculata* K.Schum. ex Engl. | Malvales | Malvaceae | OM2360 *(JRAU)* | **JX572992** | **JX517368** |
| *Sterculia murex* Hemsl. | Malvales | Malvaceae | OM1133 *(JRAU)* | **JX572993** | **JX517910** |
| *Sterculia quinqueloba* (Garcke) K.Schum. | Malvales | Malvaceae | OM2314 *(JRAU)* | **JX572994** | **JX518037** |
| *Sterculia rogersii* N.E.Br. | Malvales | Malvaceae | OM1227 *(JRAU)* | **JF265606** | **JF270948** |
| *Stereospermum kunthianum* Cham. | Lamiales | Bignoniaceae | OM2086 *(JRAU)* | **JX572995** | **JX517630** |
| *Stoeberia utilis* (L.Bolus) van Jaarsv. | Caryophyllales | Aizoaceae | AM0034 *(JRAU)* | **JX572996** | **JX518027** |
| *Streblus Lour.* | Rosales | Moraceae | PS1238MT01 *(IMDY)* | - | GQ434235 |
| *Strelitzia alba* (L.f.) Skeels | Zingiberales | Strelitziaceae | Pedersen1154 *(C)* | - | AF434874 |
| *Strelitzia nicolai* Regel & K.Koch | Zingiberales | Strelitziaceae | OM1678 *(JRAU)* | **JX572998** | **JX517866** |
| *Strophanthus kombe* Oliv. | Gentianales | Apocynaceae | OM2111 *(JRAU)* | **JX572999** | **JX517906** |

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| *Strophanthus petersianus* Klotzsch | Gentianales | Apocynaceae | OM1616 *(JRAU)* | **JF265608** | **JF270950** |
| *Strophanthus speciosus* (Ward & Harv.) Reber | Gentianales | Apocynaceae | Abbott9180 *(BNRH)* | **JX573000** | **JX517730** |
| *Strychnos cocculoides* Baker | Gentianales | Loganiaceae | HG4080 *(JRAU)* | **JX573001** | **JX517336** |
| *Strychnos decussata* (Pappe) Gilg | Gentianales | Loganiaceae | OM1259 *(JRAU)* | **JX573002** | **JX517983** |
| *Strychnos henningsii* Gilg | Gentianales | Loganiaceae | Abbott9223 *(BNRH)* | **JX573003** | **JX518189** |
| *Strychnos madagascariensis* Poir. | Gentianales | Loganiaceae | OM2443 *(JRAU)* | **JX573004** | **JX517867** |
| *Strychnos mitis* S.Moore | Gentianales | Loganiaceae | OM1870 *(JRAU)* | - | **JX518090** |
| *Strychnos panganensis* Gilg | Gentianales | Loganiaceae | OM2646 *(JRAU)* | **JX573005** | **JX517363** |
| *Strychnos potatorum* L.f. | Gentianales | Loganiaceae | OM2390 *(JRAU)* | **JX573006** | **JX517683** |
| *Strychnos pungens* Soler. | Gentianales | Loganiaceae | MvdB0022 *(JRAU)* | **JF265612** | **JF270954** |
| *Strychnos spinosa* Lam. | Gentianales | Loganiaceae | OM2438 *(JRAU)* | **JX573007** | **JX517766** |
| *Strychnos usambarensis* Gilg | Gentianales | Loganiaceae | OM2593 *(JRAU)* | **JX573008** | **JX517734** |
| *Strychnos xantha* Leeuwenb. | Gentianales | Loganiaceae | OM2756 *(JRAU)* | **JX573009** | **JX517510** |
| *Suregada africana* (Sond.) Müll.Arg. | Malpighiales | Euphorbiaceae | OM1839 *(JRAU)* | **JF265615** | **JF270957** |
| *Suregada procera* (Prain) Croizat | Malpighiales | Euphorbiaceae | OM1829 *(JRAU)* | **JX573010** | **JX518080** |
| *Suregada zanzibariensis* Baill. | Malpighiales | Euphorbiaceae | OM1845 *(JRAU)* | **JX573011** | **JX518191** |
| *Synadenium cupulare* L.C. Wheeler | Malpighiales | Euphorbiaceae | OM1511 *(JRAU)* | **JQ025098** | **JQ025004** |
| *Synadenium kirkii* N.E.Br. | Malpighiales | Euphorbiaceae | OM2556 *(JRAU)* | **JX573012** | **JX905960** |
| *Synaptolepis alternifolia* Oliv. | Malvales | Thymelaeaceae | OM2747 *(JRAU)* | **JX573013** | **JX518008** |
| *Synsepalum brevipes* (Baker) T.D.Penn. | Ericales | Sapotaceae | OM2694 *(JRAU)* | **JX573014** | **JX517918** |
| *Synsepalum passargei* (Engl.) T.D.Penn. | Ericales | Sapotaceae | OM1879 *(JRAU)* | **JX573015** | **JX517799** |
| *Syzygium cordatum* Hochst. ex Krauss | Myrtales | Myrtaceae | OM1470 *(JRAU)* | **JX573016** | **JX517332** |
| *Syzygium cumini* (L.) Skeels | Myrtales | Myrtaceae | Hahn5897 *(WIS)* | - | AY525140 |
| *Syzygium gerrardii* (Harv. ex Hook.f.) Burtt Davy | Myrtales | Myrtaceae | OM1799 *(JRAU)* | **JX573017** | **JX517397** |
| *Syzygium guineense* (Willd.) DC. | Myrtales | Myrtaceae | MWC37683 *(K)* | **JX573018** | **JX517609** |
| *Syzygium guineense* subsp. *afromontana* F. White | Myrtales | Myrtaceae | OM2297 *(JRAU)* | **JX573021** | **JX517489** |
| *Syzygium guineense* subsp. *barotsense* F. | Myrtales | Myrtaceae | MWC37689 *(K)* | **JX573019** | **JX517990** |

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| White | | | | | |
| *Syzygium guineense* subsp. *macrocarpum* (Engl.) F. White | Myrtales | Myrtaceae | MWC37688 *(K)* | **JX573020** | **JX517695** |
| *Syzygium jambos* (L.) Alston | Myrtales | Myrtaceae | Biffin42 *(CANB)* | - | DQ088583 |
| *Syzygium legatii* Burtt Davy & Greenway | Myrtales | Myrtaceae | OM1792 *(JRAU)* | **JX573022** | **JX518187** |
| *Syzygium masukuense* (Baker) R.E.Fr. | Myrtales | Myrtaceae | Gadek s.n. *(JCT)* | - | DQ088591 |
| *Syzygium paniculatum* Gaertn. | Myrtales | Myrtaceae | Richardson et al.49a *(CANB)* | - | DQ088598 |
| *Syzygium pondoense* Engl. | Myrtales | Myrtaceae | OM1798 *(JRAU)* | **JX573023** | **JX518226** |
| *Tabernaemontana elegans* Stapf | Gentianales | Apocynaceae | OM2144 *(JRAU)* | **JX573024** | **JX517818** |
| *Tabernaemontana ventricosa* Hochst. ex A.DC. | Gentianales | Apocynaceae | OM2235 *(JRAU)* | **JX573025** | **JX518222** |
| *Tacazzea apiculata* Oliv. | Gentianales | Apocynaceae | Venter9188 *(MSTR)* / Venter9188 *(TL)* | AJ419764 | AY899945 |
| *Tamarindus indica* L. | Fabales | Fabaceae | OM2447 *(JRAU)* | **JX573026** | **JX517967** |
| *Tamarix usneoides* E.Mey. ex Bunge | Caryophyllales | Tamaricaceae | MWC28701 *(K)* | **JX573027** | **JX517452** |
| *Tannodia swynnertonii* (S.Moore) Prain | Malpighiales | Euphorbiaceae | OM1858 *(JRAU)* | **JX573028** | **JX517763** |
| *Tapura fischeri* Engl. | Malpighiales | Dichapetalaceae | OM3496 *(JRAU)* | **JX572337** | **JX518005** |
| *Tarchonanthus camphoratus* L. | Asterales | Asteraceae | OM1515 *(JRAU)* | **JQ025099** | **JQ025005** |
| *Tarchonanthus trilobus* DC. | Asterales | Asteraceae | OM3270 *(JRAU)* | **JX573029** | **JX517783** |
| *Tarenna pavettoides* (Harv.) Sim | Gentianales | Rubiaceae | Abbott9247 *(BNRH)* | **JX573030** | **JX517414** |
| *Teclea gerrardii* Verd. | Sapindales | Rutaceae | Abbott9183 *(BNRH)* | **JX573031** | **JX517313** |
| *Teclea natalensis* Engl. | Sapindales | Rutaceae | Abbott9193 *(BNRH)* | **JX573032** | **JX518224** |
| *Tecoma stans* (L.) Juss. ex Kunth | Lamiales | Bignoniaceae | OM3432 *(JRAU)* | **JX573034** | **JX517475** |
| *Tecomaria capensis* (Thunb.) Spach | Lamiales | Bignoniaceae | OM0454 *(JRAU)* | **JX573033** | **JX517434** |
| *Tephrosia pondoensis* (Codd) Schrire | Fabales | Fabaceae | Abbott9232 *(BNRH)* | **JX573035** | **JX517379** |
| *Terminalia brachystemma* Welw. ex Hiern | Myrtales | Combretaceae | OM&MvdB18 *(JRAU)* | FJ381810 | **JX518028** |
| *Terminalia catappa* L. | Myrtales | Combretaceae | OM1578 *(JRAU)* | **JX573036** | **JX518026** |
| *Terminalia mollis* M.A.Lawson | Myrtales | Combretaceae | OM1032 *(JRAU)* | **JX573037** | **JX518150** |
| *Terminalia phanerophlebia* Engl. & Diels | Myrtales | Combretaceae | OM1191 *(JRAU)* | **JX573038** | **JX517994** |

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| *Terminalia prunioides* M.A.Lawson | Myrtales | Combretaceae | OM1061 *(JRAU)* | **JF265625** | **JF270967** |
| *Terminalia randii* Baker f. | Myrtales | Combretaceae | OM2115 *(JRAU)* | **JX573039** | **JX518067** |
| *Terminalia sambesiaca* Engl. & Diels | Myrtales | Combretaceae | OM2392 *(JRAU)* | **JX573040** | **JX517421** |
| *Terminalia sericea* Burch. ex DC. | Myrtales | Combretaceae | OM1037 *(JRAU)* | **JX573041** | **JX517972** |
| *Terminalia stenostachya* Engl. & Diels | Myrtales | Combretaceae | OM2059 *(JRAU)* | **JX573042** | **JX517373** |
| *Terminalia trichopoda* Diels | Myrtales | Combretaceae | OM1657 *(JRAU)* | **JX573043** | **JX517390** |
| *Tetracera boiviniana* Baill. | Dilleniales | Dilleniaceae | Burrows9126 *(BNRH)* | KF147521 | KF147447 |
| *Tetracera masuiana* De Wild. & T.Durand | Dilleniales | Dilleniaceae | Burrows11174 *(BNRH)* | KF147522 | KF147448 |
| *Tetradenia riparia* (Hochst.) Codd | Lamiales | Lamiaceae | OM0881 *(JRAU)* | **JF265627** | **JF270969** |
| *Thamnocalamus tessellatus* (Nees) Soderstr. & R.P.Ellis | Poales | Poaceae | OM2308 *(JRAU)* | **JX573044** | **JX518203** |
| *Thespesia acutiloba* (Baker f.) Exell & Mendonca | Malvales | Malvaceae | OM2492 *(JRAU)* | **JX573045** | **JX518214** |
| *Thevetia peruviana* (Pers.) K.Schum. | Gentianales | Apocynaceae | Sennblad223 *(UPS)* | X91773 | Z70188 |
| *Thilachium africanum* Scott-Elliot | Brassicales | Capparaceae | OM2549 *(JRAU)* | **JX573046** | **JX517312** |
| *Tiliacora funifera* (Miers) Oliv. | Ranunculales | Menispermaceae | OM2328 *(JRAU)* | **JX573047** | **JX517404** |
| *Tinnea barbata* Vollesen | Lamiales | Lamiaceae | OM2288 *(JRAU)* | **JX573048** | **JX518083** |
| *Tinnea rhodesiana* S.Moore | Lamiales | Lamiaceae | RBN143 *(KNP)* | **JX573049** | **JX518148** |
| *Tinospora caffra* (Miers) Troupin | Ranunculales | Menispermaceae | OM2373 *(JRAU)* | **JX573050** | **JX517395** |
| *Tinospora tenera* Miers | Ranunculales | Menispermaceae | OM1369 *(JRAU)* | **JX573051** | **JX517669** |
| *Tithonia diversifolia* (Hemsl.) A.Gray | Asterales | Asteraceae | OM3435 *(JRAU)* | **JX573052** | **JX517326** |
| *Toddalia asiatica* (L.) Lam. | Sapindales | Rutaceae | OM2688 *(JRAU)* | **JX573053** | **JX518156** |
| *Toona ciliata* M.Roem. | Sapindales | Meliaceae | MWC22907 *(K)* | - | **JX518246** |
| *Tournefortia argentea* L. f. | Boraginales | Boraginaceae | FI9205 *(BGF)* | - | EU599648 |
| *Toxicodendron succedaneum* (L.) Kuntze | Sapindales | Anacardiaceae | n.a. | HQ427194 | HQ427343 |
| *Trema orientalis* (L.) Blume | Rosales | Ulmaceae | OM2500 *(JRAU)* | **JX573054** | **JX518199** |
| *Triaspis glaucophylla* Engl. | Malpighiales | Malpighiaceae | OM2003 *(JRAU)* | **JX573055** | **JX518181** |
| *Triaspis hypericoides* Burch. | Malpighiales | Malpighiaceae | OM1336 *(JRAU)* | **JX573056** | **JX517622** |
| *Tricalysia capensis* (Meisn. ex Hochst.) Sim | Gentianales | Rubiaceae | Abbott9182 *(BNRH)* | **JX573057** | **JX517423** |

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| *Tricalysia coriacea* subsp. *angustifolia* (J.G.García) Robbr. | Gentianales | Rubiaceae | OM1842 *(BNRH)* | KF147523 | KF147449 |
| *Tricalysia delagoensis* Schinz | Gentianales | Rubiaceae | MWC24252 *(K)* | **JX573058** | **JX517378** |
| *Tricalysia jasminiflora* (Klotzsch) Benth. & Hook.f. ex Hiern | Gentianales | Rubiaceae | OM2340 *(JRAU)* | **JX573059** | **JX517757** |
| *Trichilia capitata* Klotzsch | Sapindales | Meliaceae | OM2460 *(JRAU)* | **JX573063** | **JX518085** |
| *Trichilia dregeana* Sond. | Sapindales | Meliaceae | OM1793 *(JRAU)* | **JF265635** | **JF270976** |
| *Trichilia emetica* Vahl | Sapindales | Meliaceae | OM2103 *(JRAU)* | JQ025100 | JQ025007 |
| *Trichocladus crinitus* Pers. | Saxifragales | Hamamelidaceae | OM1767 *(JRAU)* | **JX573064** | **JX518141** |
| *Trichocladus ellipticus* Eckl. & Zeyh. | Saxifragales | Hamamelidaceae | Abbott9189 *(BNRH)* | **JX573065** | **JX517927** |
| *Trichocladus grandiflorus* Oliv. | Saxifragales | Hamamelidaceae | Abbott9207 *(BNRH)* | **JX573066** | **JX517614** |
| *Trimeria grandifolia* (Hochst.) Warb. | Malphigiales | Salicaceae | OM1549 *(JRAU)* | **JF265637** | **JF270978** |
| *Triplochiton zambesiacus* Milne-Redh. | Malvales | Malvaceae | OM2124 *(JRAU)* | **JX573068** | **JX518093** |
| *Turraea floribunda* Hochst. | Sapindales | Meliaceae | OM3278 *(JRAU)* | **JX573069** | **JX517433** |
| *Turraea nilotica* Kotschy & Peyr. | Sapindales | Meliaceae | OM1491 *(JRAU)* | **JX573070** | **JX517345** |
| *Turraea obtusifolia* Hochst. | Sapindales | Meliaceae | OM0744 *(JRAU)* | **JF265641** | **JF270982** |
| *Tylecodon paniculatus* (L.f.) Toelken | Saxifragales | Crassulaceae | JWB508 *(NH)* | **JQ412433** | **JQ412300** |
| *Uapaca nitida* Müll.Arg. | Malphigiales | Euphorbiaceae | OM2623 *(BNRH)* | KF147524 | - |
| *Uapaca sansibarica* Pax | Malphigiales | Euphorbiaceae | OM2614 *(BNRH)* | KF147525 | - |
| *Ulex europaeus* L. | Fabales | Fabaceae | Schaefer2008/659 *(BM)* | HM850431 | HM851132 |
| *Umtiza listerana* Sim | Fabales | Fabaceae | OM1802 *(JRAU)* | **JX573071** | **JX517963** |
| *Urera trinervis* (Hochst.) Friis & Immelman | Rosales | Urticaceae | Abbott9169 *(BNRH)* | **JX573072** | **JX517974** |
| *Uvaria caffra* E.Mey. ex Sond. | Magnoliales | Annonaceae | RBN148 *(KNP)* | **JX573073** | **JX517820** |
| *Uvaria gracilipes* N.Robson | Magnoliales | Annonaceae | RBN365 *(KNP)* | **JX573074** | **JX517815** |
| *Uvaria lucida* subsp. *virens* (N.E.Br.) Verdc. | Magnoliales | Annonaceae | OM1863 *(JRAU)* | **JX572310** | **JX517870** |
| *Vaccinium L.* | Ericales | Ericaceae | n.a. | - | AB623177 |
| *Vachellia amythethophylla* A.Rich. | Fabales | Fabaceae | RL1314 *(JRAU)* | **JX572180** | **JX518139** |

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| *Vachellia arenaria* Schinz | Fabales | Fabaceae | OM1048 *(JRAU)* | **JX572181** | **JX517408** |
| *Vachellia borleae* Burtt Davy | Fabales | Fabaceae | OM1902 *(JRAU)* | **JX572185** | **JX518132** |
| *Vachellia davyi* N.E.Br. | Fabales | Fabaceae | RL1315 *(JRAU)* | **JF265247** | **JF270604** |
| *Vachellia dyeri* P.P.Sw. ex Coates Palgr | Fabales | Fabaceae | RL1309 *(JRAU)* | **JX572189** | **JX517665** |
| *Vachellia erioloba* E.Mey. | Fabales | Fabaceae | RL1298 *(JRAU)* | **JX572192** | **JX517384** |
| *Vachellia exuvialis* Verd. | Fabales | Fabaceae | OM0260 *(JRAU)* | **JF265249** | **JF270606** |
| *Vachellia farnesiana* (L.) Willd. | Fabales | Fabaceae | Entwisle2708 *(MEL)* | - | AF523115 |
| *Vachellia gerrardii* Benth. | Fabales | Fabaceae | OM0315 *(JRAU)* | **JX572195** | **JX517886** |
| *Vachellia grandicornuta* Gerstner | Fabales | Fabaceae | RL1286 *(JRAU)* | **JX572197** | **JX517869** |
| *Vachellia haematoxylon* Willd. | Fabales | Fabaceae | OM1069 *(JRAU)* | **JX572198** | **JX517376** |
| *Vachellia hebeclada* subsp. *chobiensis* Schreib. | Fabales | Fabaceae | OM1034 *(JRAU)* | **JX572199** | **JX517672** |
| *Vachellia hebeclada* subsp. *hebeclada* DC. | Fabales | Fabaceae | RL1317 *(JRAU)* | **JX572200** | **JX517617** |
| *Vachellia hebeclada* subsp. *tristis* A.Schreib. | Fabales | Fabaceae | OM1049 *(JRAU)* | **JX572201** | **JX517346** |
| *Vachellia karroo* Hayne | Fabales | Fabaceae | OM3013 *(JRAU)* | **JX572203** | **JX517490** |
| *Vachellia kirkii* Oliv. | Fabales | Fabaceae | RL1307 *(JRAU)* | **JX572204** | **JX517387** |
| *Vachellia kosiensis* P.P.Sw. | Fabales | Fabaceae | RL1305 *(JRAU)* | **JX572205** | **JX518109** |
| *Vachellia luederitzii* Engl. | Fabales | Fabaceae | RL1500 *(JRAU)* | **JX572207** | **JX518240** |
| *Vachellia luederitzii* var. *retinens* (Sim) J. Ross & Brenan | Fabales | Fabaceae | RL1285 *(JRAU)* | **JX572208** | **JX517653** |
| *Vachellia montana* P.P.Sw. | Fabales | Fabaceae | RL1313 *(JRAU)* | **JX572231** | **JX517894** |
| *Vachellia natalitia* E.Mey. | Fabales | Fabaceae | RL1330 *(JRAU)* | **JX572214** | **JX517566** |
| *Vachellia nebrownii* Burtt Davy | Fabales | Fabaceae | OM1050 *(JRAU)* | **JX572215** | **JX517304** |
| *Vachellia nilotica* (L.) Delile | Fabales | Fabaceae | RL1302 *(JRAU)* | **JX572217** | **JX517797** |
| *Vachellia ormocarpoides* P.J.H.Hurter | Fabales | Fabaceae | RL1293 *(JRAU)* | **JX572218** | **JX517884** |
| *Vachellia permixta* Burtt Davy | Fabales | Fabaceae | Johan2 *(JRAU)* | - | GQ872240 |
| *Vachellia rehmanniana* Schinz | Fabales | Fabaceae | RL1288 *(JRAU)* | **JX572221** | **JX517925** |
| *Vachellia robbertsei* P.P.Sw | Fabales | Fabaceae | RL1289 *(JRAU)* | - | GQ872244 |
| *Vachellia robusta* Burch. | Fabales | Fabaceae | RL1310 *(JRAU)* | **JX572223** | **JX517736** |

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| *Vachellia robusta* subsp. *clavigera* (E.Mey.) Brenan | Fabales | Fabaceae | RBN354 *(KNP)* | **JF265249** | **JF270606** |
| *Vachellia robusta* subsp. *usambarensis* (Taub.) Brenan | Fabales | Fabaceae | OM2458 *(JRAU)* | **JX572222** | **JX517547** |
| *Vachellia sekhukhuniensis* P.J.H.Hurter | Fabales | Fabaceae | RL1296 *(JRAU)* | **JX572226** | **JX518234** |
| *Vachellia sieberiana* DC. | Fabales | Fabaceae | OM1029 *(JRAU)* | **JX572228** | **JX517353** |
| *Vachellia sieberiana* var. *woodii* (Burtt Davy) Keay & Brenan | Fabales | Fabaceae | OM0966 *(JRAU)* | **JF265259** | **JF270616** |
| *Vachellia stuhlmannii* Taub. | Fabales | Fabaceae | RL1294 *(JRAU)* | **JX572230** | **JX517951** |
| *Vachellia swazica* Burtt Davy | Fabales | Fabaceae | RL1327 *(JRAU)* | **JF265260** | **JF270617** |
| *Vachellia torrei* Brenan | Fabales | Fabaceae | OM2429 *(JRAU)* | **JX572232** | **JX518215** |
| *Vachellia tortilis* subsp. *heteracantha* (Burch.) Brenan | Fabales | Fabaceae | RL1337 *(JRAU)* | **JX572233** | **JX517619** |
| *Vachellia xanthophloea* Benth. | Fabales | Fabaceae | OM2579 *(JRAU)* | **JX572235** | **JX517302** |
| *Vangueria bowkeri* (Robyns) Lantz | Gentianales | Rubiaceae | OM3841 *(BNRH)* | KF147526 | KF147450 |
| *Vangueria coerulea* (Robyns) Lantz | Gentianales | Rubiaceae | Burrows09297 *(BNRH)* | KF147500 | KF147425 |
| *Vangueria esculenta* S.Moore | Gentianales | Rubiaceae | OM2435 *(JRAU)* | **JX573075** | **JX517807** |
| *Vangueria infausta* Burch. | Gentianales | Rubiaceae | OM2409 *(JRAU)* | **JX573076** | **JX517485** |
| *Vangueria macrocalyx* Sond. | Gentianales | Rubiaceae | Burrows11043 *(BNRH)* | - | KF147426 |
| *Vangueria madagascariensis* J.F.Gmel. | Gentianales | Rubiaceae | OM2018 *(JRAU)* | **JF265645** | **JF270986** |
| *Vangueria parvifolia* Sond. | Gentianales | Rubiaceae | MvdB0040 *(JRAU)* | **JX573077** | **JX517776** |
| *Vangueria randii* S.Moore | Gentianales | Rubiaceae | OM3751 *(JRAU)* | **JX573078** | **JX517473** |
| *Vangueria thamnus* (Robyns) Lantz | Gentianales | Rubiaceae | Maserumule121 *(BNRH)* | - | KF147427 |
| *Vangueria venosa* (Hochst.) Sond. | Gentianales | Rubiaceae | Burrows12325 *(BNRH)* | - | KF147428 |
| *Vangueriopsis lanciflora* (Hiern) Robyns | Gentianales | Rubiaceae | OM1659 *(JRAU)* | KF147527 | - |
| *Vepris bachmannii* (Engl.) Mziray | Sapindales | Rutaceae | OM2168 *(JRAU)* | **JX572808** | **JX517461** |
| *Vepris bremekampii* (I. Verd.) Mziray | Sapindales | Rutaceae | RBN366 *(JRAU)* | JF265630 | - |
| *Vepris reflexa* Verd. | Sapindales | Rutaceae | OM1299 *(JRAU)* | **JX573080** | **JX517574** |

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| *Vepris undulata* Verdoorn & C. A. Sm. | Sapindales | Rutaceae | OM3224 *(JRAU)* | **JX573079** | **JX517578** |
| *Vernonia natalensis* Sch.Bip. ex Walp. | Asterales | Asteraceae | Burrows12690 *(JRAU)* | KF147528 | KF147451 |
| *Virgilia divaricata* Adamson | Fabales | Fabaceae | OM3169 *(JRAU)* | **JX573081** | **JX517500** |
| *Vismia orientalis* Engl. | Malphigiales | Hypericaceae | Burrows12535 *(BNRH)* | KF147529 | - |
| *Vitellariopsis dispar* (N.E.Br.) Aubrév. | Ericales | Sapotaceae | OM2178 *(JRAU)* | **JX573082** | **JX518040** |
| *Vitex buchananii* Baker ex Gürke | Lamiales | Lamiaceae | OM2751 *(JRAU)* | **JX573083** | **JX517569** |
| *Vitex doniana* Sweet | Lamiales | Lamiaceae | OM2615 *(BNRH)* | KF147530 | KF147452 |
| *Vitex ferruginea* Schumach. & Thonn. | Lamiales | Lamiaceae | RBN141 *(KNP)* | **JF265650** | **JF270991** |
| *Vitex harveyana* H.Pearson | Lamiales | Lamiaceae | OM1501 *(JRAU)* | **JX573084** | **JX518136** |
| *Vitex patula* E.A.Bruce | Lamiales | Lamiaceae | OM0839 *(JRAU)* | **JX573085** | **JX517538** |
| *Vitex payos* (Lour.) Merr. | Lamiales | Lamiaceae | OM1819 *(JRAU)* | **JX573086** | **JX518012** |
| *Vitex petersiana* Klotzsch | Lamiales | Lamiaceae | OM2725 *(JRAU)* | **JX573087** | **JX517600** |
| *Vitex rehmannii* Gürke | Lamiales | Lamiaceae | RL1385 *(JRAU)* | **JX573088** | **JX517958** |
| *Vitis rhomboidea* (E. Mey. ex Harv.) Szyszyl. | Vitales | Vitaceae | Abbott9181 *(BNRH)* | **JX572927** | **JX518114** |
| *Voacanga africana* Stapf ex Scott-Elliot | Gentianales | Apocynaceae | OM1876 *(JRAU)* | **JX573089** | **JX905951** |
| *Voacanga thouarsii* Roem. & Schult. | Gentianales | Apocynaceae | Abbott9118 *(BNRH)* | **JX573090** | **JX517507** |
| *Warburgia salutaris* (G.Bertol.) Chiov. | Canellales | Canellaceae | OM1853 *(JRAU)* | **JF265653** | **JF270994** |
| *Widdringtonia nodiflora* (L.) E.Powrie | Pinales | Cupressaceae | Hardy277 *(Z,BH)* | AY988266 | AY988364 |
| *Widdringtonia schwarzii* (Marloth) Mast. | Pinales | Cupressaceae | UNSW23247 *(SYD)* | - | AF152218 |
| *Wrightia natalensis* Stapf | Gentianales | Apocynaceae | OM1580 *(JRAU)* | **JX573091** | **JX517947** |
| *Xanthocercis zambesiaca* (Baker) Dumaz-le-Grand | Fabales | Fabaceae | OM2735 *(JRAU)* | **JX573092** | **JX517427** |
| *Xeroderris stuhlmannii* (Taub.) Mendonca & Sousa | Fabales | Fabaceae | OM2398 *(JRAU)* | **JX573093** | **JX517470** |
| *Xerophyta retinervis* Baker | Pandanales | Velloziaceae | OM1591 *(JRAU)* | JQ025106 | JQ025013 |
| *Ximenia americana* L. | Santalales | Olacaceae | OM0299 *(JRAU)* | **JX573094** | **JX517654** |
| *Ximenia caffra* Sond. | Santalales | Olacaceae | RL1182 *(JRAU)* | **JX573095** | **JX518138** |
| *Xylia torreana* Brenan | Fabales | Fabaceae | OM2612 *(JRAU)* | **JX573096** | **JX518118** |
| *Xylopia parviflora* Spruce | Magnoliales | Annonaceae | RBN255 *(KNP)* | **JF265661** | **JF271002** |

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| *Xylotheca kraussiana* Hochst. | Malphigiales | Salicaceae | OM2210 *(JRAU)* | **JX573097** | **JX517892** |
| *Xylotheca tettensis* (Klotzsch) Gilg | Malphigiales | Salicaceae | OM2370 *(JRAU)* | **JX573098** | **JX517814** |
| *Xymalos monospora* (Harv.) Baill. | Laurales | Monimiaceae | OM1748 *(JRAU)* | **JX573099** | **JX517511** |
| *Zanthoxylum capense* (Thunb.) Harv. | Sapindales | Rutaceae | OM3231 *(JRAU)* | **JX573100** | **JX517645** |
| *Zanthoxylum davyi* Waterm. | Sapindales | Rutaceae | Abbott9195 *(BNRH)* | **JX573101** | **JX517950** |
| *Zanthoxylum holtzianum* (Engl.) P.G. Waterman | Sapindales | Rutaceae | OM2357 *(JRAU)* | **JX573102** | **JX518057** |
| *Zanthoxylum humile* Waterm. | Sapindales | Rutaceae | OM0708 *(JRAU)* | **JX573103** | **JX517824** |
| *Zanthoxylum leprieurii* Guill. & Perr. | Sapindales | Rutaceae | RBN131 *(KNP)* | **JX573104** | **JX517932** |
| *Ziziphus abyssinica* Hochst. ex A.Rich. | Rosales | Rhamnaceae | OM2582 *(JRAU)* | **JX573105** | **JX517646** |
| *Ziziphus mauritiana* Lam. | Rosales | Rhamnaceae | OM2037 *(JRAU)* | **JX573106** | **JX518013** |
| *Ziziphus mucronata* Willd. | Rosales | Rhamnaceae | OM2031 *(JRAU)* | **JX573107** | **JX518049** |
| *Ziziphus pubescens* Oliv. | Rosales | Rhamnaceae | OM2325 *(JRAU)* | **JX573108** | **JX517471** |
| *Ziziphus rivularis* Codd | Rosales | Rhamnaceae | OM1380 *(JRAU)* | **JX573109** | **JX518212** |
| *Ziziphus zeyheriana* Sond. | Rosales | Rhamnaceae | OM3913 *(JRAU)* | KF147531 | KF147453 |