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# A novel phylogenetic regionalization of phytogeographic zones of southern Africa reveals their hidden evolutionary affinities

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**Abstract**

**Aim:** Whilst existing bioregional classification schemes often consider the compositional affinities within regional biotas, they do not typically incorporate phylogenetic information explicitly. Because phylogeny captures information on the evolutionary history of taxa, it provides a powerful tool for delineating biogeographic boundaries and for establishing relationships among them. Here we present the first vegetation delineation of the woody flora of southern Africa based upon evolutionary relationships.

**Location:** southern Africa

**Methods:** We used a published time-calibrated phylogenetic tree for 1400 woody plant species along with their geographic distributions and a metric of phylogenetic beta diversity to generate a phylogenetic delineation of the woody vegetation of southern Africa. We then explored environmental correlates of phylogenetic turnover between them, and the evolutionary distinctiveness of the taxa within them.

**Results:** We identified 15 phylogenetically distinct biogeographic units, here referred to as phyloregions. The largest phyloregion broadly overlaps with Savanna vegetation, while the phyloregion overlapping with the south-western portion of the Fynbos biome is the most evolutionarily distinct. Potential evapotranspiration and mean annual temperature differ significantly among phyloregions and correlate with patterns of phylogenetic beta diversity between them. Our phylogeny-based delimitation of southern Africa's woody vegetation broadly matches currently recognized phytogeographical classifications, but also highlights parts of the Namib Karoo and Greater

Limpopo Transfrontier Park as distinct, but previously under-recognized biogeographic units.

**Main conclusions:** Our analysis provides new insights into the structure and phylogenetic relationships among the woody flora of southern Africa. We show that evolutionary affinities differentiate phyloregions closely resembling existing vegetation classifications, yet also identify ‘cryptic’ phyloregions that are as evolutionarily distinct as some of the recognized African vegetation types.

**Keywords:** biogeographical regionalization, biomes, cluster analysis, evolutionary distinctiveness, phylogenetic beta diversity, phyloregions, southern Africa, vegetation types, woody flora

## INTRODUCTION

Unevenness in the distribution of species diversity across the globe has long been recognized. De Candolle (1820) proposed one of the first biogeographical classification schemes for plants based on both ecology and history. In Africa, a diverse range of biogeographical schemes have been proposed using various criteria (Table S1 in Appendix S1 of the Supporting Information). White's (1983) delineation of phytochoria based on species distribution data remains the most widely accepted. More recent studies, focusing on both biogeographic regionalization and vegetation classification, and often centred on southern Africa, have considered criteria including dominant plant growth forms (e.g. trees, shrubs, herbs, and grasses) and similarity in ecological conditions (Low & Rebelo, 1996; Rutherford, 1997; Mucina & Rutherford, 2006), fire characteristics (Archibald *et al*., 2013), and plant species distribution (Linder *et al.,* 2005, 2012). Other efforts have examined particular species groups, such as non-natives (Hugo *et al*., 2012), bryophytes (Van Rooy & Van Wyk, 2010), flagship and hotspot species (Steenkamp *et al.*, 2005), or focused on particular areas (Irish, 1994). Here, we revisit the definition and delineation of phytogeographic regions (areas where groups of plants occur together in particular climates and form distinct vegetation types; Lomolino *et al*., 2010) within southern Africa using a phylogenetic approach.

Southern Africa is indeed one of the most floristically diverse regions in the world, with over 22,000 recorded vascular plant species (Klopper *et al.,* 2006). Woody plants (especially trees) represent one of the most distinguishing features of the vegetation in the region (Coates Palgrave, 2002;

Germishuizen & Meyer, 2013). They are the largest and longest-lived of plant species (O'Brien *et al.*, 2000) and have been used for modelling vegetation structure and physiognomy in the region and elsewhere (O'Brien, 1993; Kubota *et al.*, 2014). Within southern Africa, woody plant richness is unevenly distributed, increasing from west to east, likely reflecting the shifting water–energy dynamics (O'Brien, 1993; O'Brien *et al.*, 1998, 2000). More locally, woody plant richness is influenced by additional environmental factors, such as physiography and topographic relief (O'Brien *et al.*, 2000).

The spatial heterogeneity in climate is reflected in the plant distribution and diversity, and a number of vegetation types are currently recognized within the region, including Albany thicket, Indian Ocean Coastal Belt, Desert, Inland forest, Fynbos, Grassland, Miombo woodland (a type of woody savanna), Nama Karoo, Savanna (our usage here excludes Miombo), and Succulent Karoo (White, 1983 with modifications and additions from Low & Rebelo, 1996; Olson *et al.*, 2001; Burgess *et al.*, 2004; and Mucina & Rutherford, 2006; Fig. 1). The hyper-diverse Fynbos is renowned for its high richness of local endemics (Goldblatt, 1978; Linder, 2003), whereas the Savanna is perhaps the most widespread vegetation type. Most of these vegetation types are dominated or characterized by woody plants, and consequently phytochoria (geographic areas with relatively uniform composition of plant species) defined using woody plants would likely appear similar in distribution to biomes or finer vegetation units. Most current approaches for the delineation of vegetation types did not take into account possible differences in the phylogenetic relationships among species. However, considering only the number of shared species among regions

might capture only poorly their evolutionary affinities, and underrate the importance of historical factors. Phylogeny provides an additional tool for differentiating biogeographic regions by allowing quantification of the phylogenetic turnover (phylogenetic beta diversity) among them (Graham & Fine, 2008; Holt *et al*., 2013). Early phylogenetic studies showed southern Africa to be a hotspot of diversification (e.g. Linder, 2001; Davies *et al.*, 2005) with high local phylogenetic diversity (e.g. Procheş *et al.,* 2006), and thus suggest that there is likely to be strong spatial structure in the phylogenetic structure of the region's flora.

Here, we use a dated molecular phylogeny for the native woody flora of southern Africa to present a novel classification of phylogenetically defined vegetation types or "phyloregions". We identify phyloregions with particularly evolutionarily distinct floras, and we test the contribution of ecological factors in shaping phylogenetic membership within them using a suite of environmental variables.

## MATERIALS AND METHODS

### Description of data

The analysis in this study is based on the largest dated phylogenetic tree yet available for the woody plants of southern Africa (Africa south of the Zambezi river, including the countries of Botswana, southern Mozambique, Zimbabwe, Namibia, South Africa, Swaziland and Lesotho). For details on the tree and phylogenetic methods see Maurin *et al.* (2014). We defined woody plants here as phanerophytes with stems or pseudostems >0.5 m in height, following previous work (O'Brien, 1993; O'Brien *et al*., 1998, Kubota *et al.*, 2014). Non-

native species were excluded from our analyses. Subspecies and varieties were combined under the parent species binomials (Table S2 in Appendix S1). Our dataset includes monocots, gymnosperms, and angiosperms, and is comprised of 115 families, 541 genera, and 1400 species. While monocots do not produce vascular cambium, secondary growth and thickening through special kinds of cambium do occur in certain species e.g. palms and some arborescent *Aloe* species (Scarpella & Meijer, 2004), and were thus included in this study. The woody plant dataset was compiled using a checklist of the woody species from the literature (Coates Palgrave, 2002; Schmidt *et al*., 2007; Boon, 2010; Van Wyk *et al*., 2011; Germishuizen & Meyer, 2013), and crosschecked with the African Plants database (www.ville-ge.ch/cjb/) and The Plant List (www.plantlist.org) for synonyms. The family classification followed the APG III (Angiosperm Phylogeny Group, 2009). Note that our dataset undersamples the woody flora of the Fynbos region because of limitations on the availability of DNA sequence data.

**Species distribution data**

Range maps representing the geographic distributions for all 1400 woody plant species were sourced from Coates Palgrave (2002) and van Wyk *et al.* (2011). These maps represent the extent-of-occurrence of the native distributions of species based on herbarium specimens, observations in the field, published monographs and field guides validated by botanical experts. All maps were scanned at 300 dpi, processed in ArcMap v.10.0 and overlaid onto a 50 km × 50 km grid (Behrmann projection) to generate a species richness map (Fig. 2) and a matrix of species presence/absences for the 1563

grid cells. Coastal grid cells with < 50% land area were excluded to minimize the influence of unequal sampling area. Although the use of range maps will tend to overestimate species area of occupancy (Quinn *et al*., 1996; Gaston, 2003) owing to false presences, the maps used here represent the best current and predicted extent of the species distribution. Because the clustering of vegetation types is likely more sensitive to false absences (Kreft & Jetz, 2010; Holt *et al*., 2013), we believe our regionalization analysis, based on the precise group of organisms defining vegetation units, to be robust.

**Computing phylogenetic beta diversity**

We evaluated taxonomic turnover between grid cells using the $\beta_{sim}$ metric of beta diversity expressed as:

$$\beta_{sim} = 1 - \frac{a}{\min(b, c) + a}$$

where *a* is the number of shared species between two grid cells, and *b* and *c* are the numbers of species unique to each grid cell. $\beta_{sim}$ values range from 0 (when species composition is identical between grid cells), to a maximum value of 1 (when there is no shared taxa). Importantly, $\beta_{sim}$ is independent of differences in species richness among grid cells (Koleff *et al*., 2003; Kreft & Jetz, 2010) and therefore provides a robust estimate of community similarity. Nonetheless, to evaluate the sensitivity of our results we additionally compared $\beta_{sim}$ values (from Simpson's index) with those obtained from the Jaccard Index ($\beta_{jaccard}$).

Phylogenetic turnover was quantified using phylogenetic beta diversity ($p\beta_{sim}$), adapted from $\beta_{sim}$ where the proportion of shared phylogenetic branch

lengths of the dated phylogenetic tree between cells are substituted for species (Graham & Fine, 2008). Indices of $p\beta_{sim}$ range from 0 (species are identical and share the same branch lengths) to 1 (species share no phylogenetic branches). We then generated pairwise distance matrices of phylogenetic beta diversity ($p\beta_{sim}$) and beta diversity ($\beta_{sim}$) between all grid cells at the 50 × 50 km scale. We also tested the sensitivity of the phylogenetic results by comparing $p\beta_{sim}$ values (from Simpson's index) with Jaccard Index ($p\beta_{jaccard}$). All analyses were conducted in R (R Core Team, 2013), using the R-libraries ape (Paradis *et al*., 2004) and picante (Kembel *et al*., 2010) to integrate the phylogeny with the community matrix of species presence/absences, and R-libraries cluster (Maechler *et al.*, 2013), and doSNOW (Revolution Analytics & Weston, 2013) to cluster cells, as described below.

**Cluster algorithm selection and validation**

To identify spatial clusters, we contrasted eight hierarchical clustering algorithms on the $p\beta_{sim}$ and $\beta_{sim}$ matrices: single linkage, complete linkage, unweighted pair-group method using arithmetic averages (UPGMA), unweighted pair-group method using centroids (UPGMC), weighted pair-group method using arithmetic averages (WPGMA), weighted pair-group method using centroids (WPGMC), Ward's minimum variance, and DIANA's divisive hierarchical method. These models were assessed for their degree of data distortion using Sokal & Rohlf's (1962) cophenetic correlation coefficient and Gower's distance (Gower, 1983). The cophenetic correlation defines the relationship between the terminals of a dendrogram with the original distance

matrix for all cluster methods and has a value between 0 (poor correlation) and 1. Gower's distance measures the sum of squared difference between the original and cophenetic distances (Gower, 1983). A cluster method that returns the smallest Gower distance corresponds to a good clustering model for the distance matrix (Borcard *et al*., 2011). UPGMA was identified as the best performing clustering algorithm and was thus used to define vegetation types.

Determining the appropriate stopping criteria to identify the optimal number of clusters is challenging (Milligan & Cooper, 1985). Here, we used the 'L method' described by Salvador & Chan (2004), which corresponds to the 'elbow' in an evaluation graph, i.e. the point of optimal curvature, using the function "elbow" within the R package GMD (Zhao *et al*., 2011). The 'elbow' method identifies the optimal number of clusters based on the range of explained variances using squared Euclidean distances (Zhao *et al.*, 2011). We additionally evaluated the sensitivity of our analysis by setting the number of defined clusters to match the number of currently recognized vegetation types (White, 1983 with modifications and additions from Low & Rebelo, 1996; Olson *et al.*, 2001; Burgess *et al.*, 2004; and Mucina & Rutherford, 2006).

We delimited clusters (hereafter referred to as "phyloregions") using a non-metric multidimensional scaling (NMDS) ordination and hierarchical dendrogram of dissimilarity on the $p\beta_{sim}$ matrix. The units for axes of the NMDS ordination plot are arbitrary; where similar regions occur closer together in two-dimensional space. The degree of fit of the NMDS ordination is characterized by the stress value and should be minimized. The NMDS ordination plots are shown in hue, chroma and lightness (HCL) colour space

to depict the variation among vegetation types such that similar colours indicate cells that are similar in their shared species or branch lengths. The hierarchical dendrogram quantifies the topology and depth of relationships among clusters. Cluster results are presented as maps, NMDS plots and dendrograms using matching colour combinations in HCL colour space.

We estimated the evolutionary distinctiveness of each phyloregion as the mean $p\beta_{sim}$ value between the focal phyloregion and all other phyloregions following Holt *et al*. (2013). This approach estimates evolutionary distinctiveness as the average sum of branch length shared with other regions thereby identifying regions that enclose endemic radiations (unshared branches).

Last, we assessed the relative congruence between currently recognized vegetation types (White, 1983 with modifications and additions from Low & Rebelo, 1996; Olson *et al.*, 2001; Burgess *et al.*, 2004; and Mucina & Rutherford, 2006) and the regional clusters defined by species composition versus phylogeny by comparing the $p\beta_{sim}$ and $\beta_{sim}$ distance matrices against a third matrix representing the geographic clustering of recognized vegetation types. The clustering of recognized vegetation types was generated as for $\beta_{sim}$ (using beta diversity) except that columns of the presence/absence matrix represent vegetation types and rows correspond to grid cells. We then compared the distance matrices for $p\beta_{sim}$ and $\beta_{sim}$ against the equivalent distance matrix for vegetation types using the cophenetic correlation coefficient.

**Environmental comparisons between phyloregions**

We evaluated differences in various environmental variables (mean annual temperature, mean annual precipitation, net primary productivity, potential evapotranspiration, elevation and annual fire return frequency) among phyloregions using analysis of similarity (ANOSIM) with a Monte Carlo randomization test of significance (Clarke, 1993). Precipitation, temperature and elevation were obtained from the WorldClim database (Hijmans *et al*., 2005); net primary productivity (Kucharik *et al*., 2000), fire return frequency from Archibald *et al*. (2010), and potential evapotranspiration (PET) was obtained from Willmott & Matsuura (2001) and follows Thornthwaite's equation (Thornthwaite, 1948). Potential evapotranspiration is a measure of the amount of incident solar energy and potential loss of water into the atmosphere by evaporation and plant transpiration and is used to describe energy regime. Net primary productivity was derived from remotely sense data using radiometer sensors (Moderate Resolution Imaging Spectroradiometer), and measured as the difference between the amount of $CO_2$ absorbed by plants and $CO_2$ released during respiration (Kucharik *et al*., 2000). Since fire regimes vary across different biomes (Archibald *et al*., 2013), we obtain data on fire regime (annual fire return frequency) to test its potential in delineating vegetation types. Environmental variables were extracted as the mean within 50 × 50 km grid cells.

We generated a matrix of Euclidean distances from the geographic coordinates of each cell (based on a Behrmann equal area cylindrical projection) and converted each environmental variable into a matrix of pairwise distances. We ran ANOSIM (1000 replicates) on each of the six environmental matrices using phyloregions as the grouping factor. We then

used a partial Mantel test (Mantel, 1967) to test for correlation between regional $p\beta_{sim}$ values and each environmental variable in turn, while correcting for spatial autocorrelation among grid cells using the Euclidean geographical distance matrix of the grid cells.

Statistical analyses were conducted using the following R packages: ape (Paradis *et al.*, 2004), clValid (Brock *et al.*, 2008), cluster (Maechler *et al.*, 2013), GMD (Zhao *et al.*, 2011), mclust (Fraley & Raftery, 2012), raster (Hijmans, 2015), picante (Kembel *et al.*, 2010), and vegan (Oksanen *et al.*, 2015). Geographic data were processed in ArcMap v.10.0 (ESRI, 2010).

## RESULTS

The geographical distribution of woody plant species richness among our sampled lineages is concentrated in the east from the Mtata district in the Eastern Cape to KwaZulu-Natal, Swaziland, Mpumalanga, Limpopo, southern Zimbabwe and parts of Mozambique (Fig. 2). Of the alternative clustering algorithms, UPGMA (unweighted pair-group method using arithmetic averages) provided the best fit between the dendrogram and the original distance matrix for both beta ($\beta_{sim}$) and phylogenetic beta ($p\beta_{sim}$) diversity (cophenetic r = 0.726 and 0.641, and Gower distance = 35610.5 and 15357.2 for $\beta_{sim}$ and $p\beta_{sim}$, respectively; Table S3 in Appendix S1). Single linkage performed worst for both indices (cophenetic r = 0.292 and 0.197, and Gower distance = 434241.1 and 103237.9 for $\beta_{sim}$ and $p\beta_{sim}$, respectively). The Jaccard Index ($p\beta_{jaccard}$) showed a strong correlation with $p\beta_{sim}$ (Mantel test; r = 0.94, $P < 0.001$, 999 permutations); for brevity we focus here on results for Simpson's index ($p\beta_{sim}$ and $\beta_{sim}$).

The elbow criterion of Salvador & Chan (2004) identified 15 optimal clusters for both $p\beta_{sim}$ and $\beta_{sim}$ (Fig. S1 in Appendix S1), which we used to delineate vegetation types (Fig. 3; see Fig. S2 in Appendix S1 for the comparable distribution of clusters defined by $\beta_{sim}$). We label each $p\beta_{sim}$ cluster (phyloregion) by the vegetation type with which it most closely coincides, although we note that they do not necessarily represent equivalent phytogeographic regions, and as our analysis included woody species only, we would not expect an exact match between vegetation types and our phyloregions in any case. The largest phyloregion (402 grid cells; 1,005,000 $km^2$) corresponds closely to the distribution of Savanna (excluding Miombo) – hence the Savanna phyloregion – and covers the interior part of southern Africa, followed by Miombo Woodland I with 271 cells (677,500 $km^2$). The smallest cluster is the Miombo Woodland II, with 18 cells (45,000 $km^2$; Table 1). Although the $p\beta_{sim}$ and the $\beta_{sim}$ values are reasonably strongly correlated (Mantel test: r = 0.84, *P* = 0.001), perhaps surprisingly, the distance matrix for $p\beta_{sim}$ is a closer fit to the geographic clustering of currently recognized vegetation types than the distance matrix for $\beta_{sim}$ (cophenetic r = 0.331 and 0.311 for the comparison with $p\beta_{sim}$ and $\beta_{sim}$, respectively).

Significantly, we also differentiate two phyloregions that are not widely recognized by current species-level vegetation classification schemes, labelled Phyloregions A and B (Fig. 3). Phyloregion A is located over portions of the Succulent Karoo (containing 146 woody species) and the Namib Desert (containing 275 woody species), with closest phylogenetic affinity to the former (Fig. 3b and 3c). Phyloregion B, is found to the east between Savanna/Miombo Woodland and the Indian Ocean Coastal Belt (IOCB), with

phylogenetic affinities to the IOCB, and perhaps represents a transitional vegetation between Miombo Woodland and IOCB. Both Phyloregion A and Phyloregion B are retained even when the grain size of grid cells is reduced.

When we reduced the number of clusters to match the number of currently recognized vegetation types (n = 10), phyloregions characterized by distinct vegetation types, such as Fynbos, Namib Desert and Succulent Karoo remained, whereas phyloregions with closer phylogenetic affinities collapsed into each other, for example, Miombo Woodland merged with Savanna, Grassland merged into the Nama Karoo, and the Indian Ocean Coastal Belt merged into Phyloregion B (Fig. S3 in Appendix S1). Notably, Phyloregion A was still differentiated, suggesting its phylogenetic signature is at least as unique as other more well-recognized vegetation types.

We further explored phylogenetic relationships among phyloregions using NMDS ordination (Fig. 3a) and a hierarchical dendrogram (Fig. 3b). The NMDS ordination indicates a separation between Fynbos-Nama Karoo-Succulent Karoo-Grassland-Phyloregion A and the other phyloregions, which is supported in the dendrogram with a major split at a $p\beta_{sim}$ of about 0.2, suggesting important phytogeographical divisions along the north-south axis of southern Africa (Fig. 3c). We also investigated the evolutionary distinctiveness (ED) of phyloregions, and found that Fynbos, Succulent Karoo, and Nama Karoo have the highest mean $p\beta_{sim}$ (mean $p\beta_{sim}$ between Fynbos, Succulent Karoo, and Nama Karoo and all other phyloregions = 0.447, 0.376, and 0.347, respectively; Fig. 4), emphasizing the high evolutionary uniqueness of these regions. In contrast, the ED for Savanna and Miombo Woodland I is relatively low (mean $p\beta_{sim}$ = 0.271 and 0.3125, respectively),

indicating that these regions are less phylogenetically distinct (Fig. 3B). Interestingly, we note that the Miombo Woodland phyloregions do not all cluster together on the NMDS ordination and hierarchical dendrogram, but form part of a larger cluster with Savanna and the IOCB.

Monocots and gymnosperms could potentially have a strong impact on the delineation of phyloregions because they represent evolutionarily distinct clades. Therefore, to examine sensitivity of our results, we re-ran our analysis excluding these two groups (n = 36 and 43 taxa for monocots and gymnosperms, respectively). Using Mantel tests, we found that the $p\beta_{sim}$ values for the entire species assemblages and when excluding these two groups are strongly correlated (r = 0.98, $P < 0.001$; 999 permutations). Whilst the optimal number of clusters (phyloregions) decreased to 13, we still resolve Phyloregions A and B as distinct, although Phyloregion A is now recognized as two separate regions.

To evaluate potential explanations for the separation of phyloregions, we explored differences in environmental factors among them. We found that phyloregions differ significantly in several key environmental variables (Fig. S4 in Appendix S1). Spatial turnover in potential evapotranspiration (PET) and mean annual temperature (MAT), are the most important environmental variables distinguishing between phyloregions (ANOSIM, r = 0.49 and 0.48, respectively, both $P = 0.001$ from 999 permutations). Mean annual precipitation (MAP), elevation and net primary productivity (NPP), are also significant (ANOSIM, r = 0.44, 0.39 and 0.37 respectively, all $P = 0.001$). However, fire return frequency, thought to be important in the genesis of Savanna (Beerling & Osborne, 2006), is less effective in differentiating among

phyloregions (ANOSIM, r = 0.04, *P* = 0.012), although it is retained as a significant variable in fire-dominated vegetation types, such as Savanna and Miombo Woodland (Fig. S4 in Appendix S1). We further tested the influence of these environmental variables on phylogenetic turnover by examining partial r values of the correlation between the $p\beta_{sim}$ matrix and environmental factors, accounting for geographic non-independence among grid cells by including the Euclidean distance matrix. Again, we found strong correlation of $p\beta_{sim}$ values with matrices of MAT, PET and elevation (partial Mantel test, r = 0.46, 0.35 and 0.14, all *P* = 0.001, 999 permutations), but not for fire return frequency (partial Mantel test, r = 0.015, *P* = 0.20, 999 permutations), MAP (partial Mantel test, r = -0.10, *P* = 1, 999 permutations) or NPP (partial Mantel test, r = -0.187, *P* = 1, 999 permutations).

## DISCUSSION

We used data on the phylogenetic relatedness and spatial distribution of woody plant species to delimit phylogenetically distinct vegetation types for southern Africa, an area well known for its hyper-diverse flora (Goldblatt, 1978). We identified 15 distinct regions, which we term phyloregions, defined by the phylogenetic affinities of the woody taxa within them. Our phylogenetic regionalization of the woody flora broadly matches with previous delineations of the major vegetation types of southern Africa (White, 1983; Olson *et al*., 2001; Mucina & Rutherford, 2006), including the Fynbos, Savanna and Succulent Karoo (Low & Rebelo, 1996; Mucina & Rutherford, 2006). However, we also identify two distinct phyloregions that have been largely overlooked in past vegetation classification schemes.

We show that, on average, species in the Fynbos are the most evolutionarily distinct, perhaps indicating some evidence for phylogenetic niche conservatism (Wiens, 2004), and a tendency for lineages to maintain their ancestral area of origin (Pennington *et al.*, 2006) within this vegetation type. The Fynbos has often been the focus of increased attention as a theatre of spectacular evolutionary events (Linder, 2003; Verboom *et al*., 2003), and many of the species within this vegetation type represent endemic radiations. One potential bias in our study was the under-sampling of woody taxa within the Fynbos vegetation.

While Savanna was the largest phyloregion in southern Africa, we found that the Grassland phyloregion hosted the highest woody plant species richness (whilst acknowledging the sampling limits within Fynbos) and phylogenetic diversity. The Grassland phyloregion occurs predominantly in South Africa, extending from the central plains of Eastern Cape to mountainous areas of Drakensberg in KwaZulu-Natal, and the Highveld in Gauteng (Mucina & Rutherford, 2006). This vegetation type has been described as a transitional vegetation zone that arose during the late Miocene (perhaps due to the mixing of long separated biota), coinciding with the development of the Nama Karoo and the Fynbos vegetation types (Scott *et al*., 1997; Linder, 2003), and has been considered as a stepping-stone habitat for several Cape taxa migrating into tropical Africa (Galley *et al*., 2007). Our study shows that it also harbours a distinct woody flora, and a number of locally endemic woody species such as *Cussonia paniculata* (Araliaceae), *Greyia sutherlandii* (Greyiaceae), and the bamboo *Thamnocalamus tessellatus* (Poaceae) that contribute to the rich evolutionary history of the

area. However, our finding that the Grassland phyloregion is the richest in woody plants may in part also reflect the inclusion of taxa from the Indian Ocean Coastal Belt with which the Grassland phyloregion overlaps, and the patchy distribution of Afromontane, mistbelt and subtropical forests, and thicket vegetation types that are nested within it. In our analyses, therefore, the Grassland phyloregion represents a species rich amalgamation of several less distinct vegetation types.

The Savanna and Miombo Woodland phyloregions demonstrate strong geographic and phylogenetic affinities. Savanna, one of the defining features of the African landscape, is the dominant vegetation in southern Africa, covering about 40% of the interior part of the region. Miombo woodland dominates much of Zimbabwe and some parts of Mozambique. The close association between these two vegetation types has been noted previously, based on their similar growth forms (grasses mixed with trees or shrubs) and climate (long periods of drought, and high frequency of fire), and they have sometimes been considered a single vegetation unit (Low & Rebelo, 1996; Mucina & Rutherford, 2006; Archibald *et al.,* 2010). Our analysis supports this grouping, while also pointing out a certain degree of distinctness. African savannas are believed to have emerged from a forest vegetation that spread during the Miocene, coincident with the rise to dominance of flammable $C_4$ grasses and expansion of the Savanna biome worldwide (Osborne & Beerling, 2006). Thus, the separation of Miombo Woodland and Savanna was likely relatively recent.

We characterize two vegetation types (Phyloregion A and Phyloregion B) that are not widely recognized in many current classification schemes (e.g.

White, 1983), but bear similarity to habitat types defined by some diversity analyses of plant species distribution data (Van Wyk & Smith, 2001). We show that these under-recognized phyloregions are at least as phylogenetically distinct as some of the more familiar vegetation types in the region, and they remain distinguishable in each of our sensitivity analyses.

We refer to Phyloregion A as “Gariep Karoo” based on its close phylogenetic and geographical similarity to the Succulent Karoo on the west coast (Fig. 3c). This region is predominantly desert, characterized by sand dunes and rocky outcrops in the Fish River Canyon–Great Karas region of Namibia. It has 82 species of woody plants with a high representation of narrow-ranged and evolutionarily distinct species – those with few or no close-living relatives – including *Aloe dichotoma* (Asphodelaceae), *Ceraria fruticulosa* (Portulacaceae), *Pachypodium namaquanum* (Apocynaceae), and *Stoeberia utilis* (Mesembryanthemaceae). The southwestern portion of this phyloregion corresponds to the Gariep centre of endemism recognized by Nordenstam (1974). While Linder *et al*. (2005) lumped the Gariep centre of endemism within the Namib-Karoo phytogeographical region based upon species distribution data, our results indicate that the two are phylogenetically distinct, although we only consider woody species, a relatively small fraction of the flora in these regions. We suggest that Gariep Karoo deserves to be included in systematic conservation actions targeted at representing the diversity as well as the richness of the southern African flora (DWAF, 2005).

We liken Phyloregion B to the “Zambezian transition zone” that has affinities with Indian Ocean Coastal Belt, occurring in southwestern Mozambique at the border between Zimbabwe and South Africa. It is

characterized by 803 species of woody plants, including many narrow-ranged endemics such as *Combretum padoides* (Combretaceae), *Dovyalis hispidula* (Salicaceae), *Toddaliopsis bremekampii* (Rutaceae), and *Zanthoxylum humile* (Rutaceae) that contribute to the region's high species and phylogenetic diversity. The phyloregion also coincides with the boundaries of the Greater Limpopo Transfrontier Park (GLTP; Spenceley, 2006), a region that straddles several parks and game reserves (e.g. Kruger National Park in South Africa, Gonarezhou National Park in Zimbabwe, Zinave and Banhine National Parks and Coutada 16 Wildlife Utilisation Area in Mozambique; Wolmer, 2003). Although the delineation of the GLTP was based predominantly upon political and economic rather than ecological criteria (Wolmer, 2003), our study suggests that it also represents a distinct vegetation type.

Ecological processes acting as environmental filters (Keddy, 1992) have been key to many previous biogeographical classification schemes (e.g. Olson *et al*., 2001), and we also found that phyloregions differed significantly in potential evapotranspiration, mean annual temperature, net primary productivity, mean annual precipitation, and elevation, even when our analysis showed them to be phylogenetically close. For example, while Savanna and Miombo Woodland are phylogenetically similar, they differ notably in temperature, energy regime (potential evapotranspiration), precipitation and elevation. Our study highlights the important role of PET and MAT in structuring the distribution of phylogenetic beta diversity of woody plants, and complements previous work that has emphasized the importance of water-energy dynamics in determining patterns of species richness (O'Brien, 1993; O'Brien *et al.*, 1998). However, whilst our findings indicate that phyloregions

might occupy different climate envelopes, climate alone cannot capture their complex evolutionary histories, including patterns of dispersal, speciation and extinction. In addition, past climate was very different from that observed today, and historical events such as the origination of the Benguela Upwelling System in the Miocene, following the separation of Antarctica from South America (Siesser, 1980; Dupont *et al.,* 2011), likely had a major impact on vegetation across the region.

We did not find a strong correlation with fire, despite suggestions that fire is a major force structuring the savanna-forest mosaic (Beerling & Osborne, 2006). However, historical fire occurrences in southern Africa are recently highly controlled, often for land management purposes (Roy *et al*., 2005). Current fire regime might therefore be only poorly correlated with fire regimes across evolutionary timescales, and perhaps our results showing little relationship between fire return frequency and the differentiation of phyloregions might not be unexpected.

Our taxon sampling represents the largest estimate of phylogeny for woody flora in the region (1400 species, across all vascular plant lineages). Woody plants (or their absence) are perhaps the most significant distinguishing feature of vegetation types in southern Africa. They are well represented in most plant families, and occur across a diverse range of habitat types. It would be interesting to explore whether herbs, grasses and other plant groups follow similar evolutionary patterns. However, whilst a more complete representation of the flora might allow a finer partitioning of vegetation types, we do not expect dramatic changes to the major phyloregions identified here (see e.g. Linder *et al*., 2012).

We do not propose that our phylogenetic regionalization should replace existing classification schemes. In fact, these earlier schemes provide the foundations upon which our study rests, and the match between our phyloregions and currently recognized vegetation types is reasonably strong. Rather, our study highlights that woody plants in southern Africa can be grouped within distinct 'phyloregions' based upon their evolutionary affinities, and allows for the development of hypotheses about the origins and evolutionary histories of the woody flora within each region (e.g. the separation of Savanna and Miombo Woodland, and the evolutionary dynamics that define the Fynbos). In addition, using phylogeny we were able to distinguish two vegetation types with distinct evolutionary histories that are not well recognized by previous vegetation classification schemes. Our study thus reveals how comprehensive phylogenetic data can provide new insights into the spatial structure of biodiversity, and reveal hidden evolutionary affinities between vegetation types.

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## SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article:

**Appendix S1** Summary review (S1), supporting tables (Tables S1–S3) and figures (Figs S1–S4).

## BIOSKETCH

**Barnabas H. Daru** is a Lecturer in the Department of Plant Science at University of Pretoria, South Africa. His research integrates ecology, biogeography and conservation biology, mostly using phylogenetic comparative methods and spatial statistical modeling.

Author contributions: B.H.D., M.V.D.B., and T.J.D. designed the research; B.H.D. performed the analysis; O.M., K.Y.; H.S., and J.S. contributed analytic tools; B.H.D. and T.J.D. wrote the paper with contributions from all co-authors.

**Table 1:** Summary of vegetation types based on UPGMA clustering of phylogenetic beta diversity ($p\beta_{sim}$) values for woody species assemblages within 50 × 50 km grid cells in southern Africa.

| Phyloregion (Common name) | Area in $km^2$ (number of grid cells) | Total PD (SR) |
|---|---|---|
| Savanna | **1,005,000 (402)** | 16067.65 (824) |
| Miombo Woodland I | 677,500 (271) | 14747.47 (705) |
| Grassland | 455,000 (182) | **16292.95 (885)** |
| Nama Karoo | 430,000 (172) | 11221.52 (461) |
| Namib Desert I | 190,000 (76) | 3934.11 (106) |
| Phyloregion A (New; between Succulent Karoo and Namib Desert) | 185,000 (74) | 3341.37 (82) |
| Namib Desert II | 167,500 (67) | 5564.97 (169) |
| Phyloregion B (New; between Savanna, Miombo woodland and Indian Ocean Coastal Belt) | 145,000 (58) | 15655.22 (803) |
| Indian Ocean Coastal Belt I | 132,500 (53) | 15151.39 (732) |
| Miombo Woodland III | 122,500 (49) | 9757.67 (378) |
| Fynbos | 120,000 (48) | 8364.91 (358) |
| Miombo Woodland IV | 95,000 (38) | 13712.76 (567) |
| Succulent Karoo | 87,500 (35) | 4819.87 (146) |
| Indian Ocean Coastal Belt II | 50,000 (20) | 10424.53 (437) |
| Miombo Woodland II | 45,000 (18) | 13090.09 (554) |

PD, phylogenetic diversity; SR, species richness.

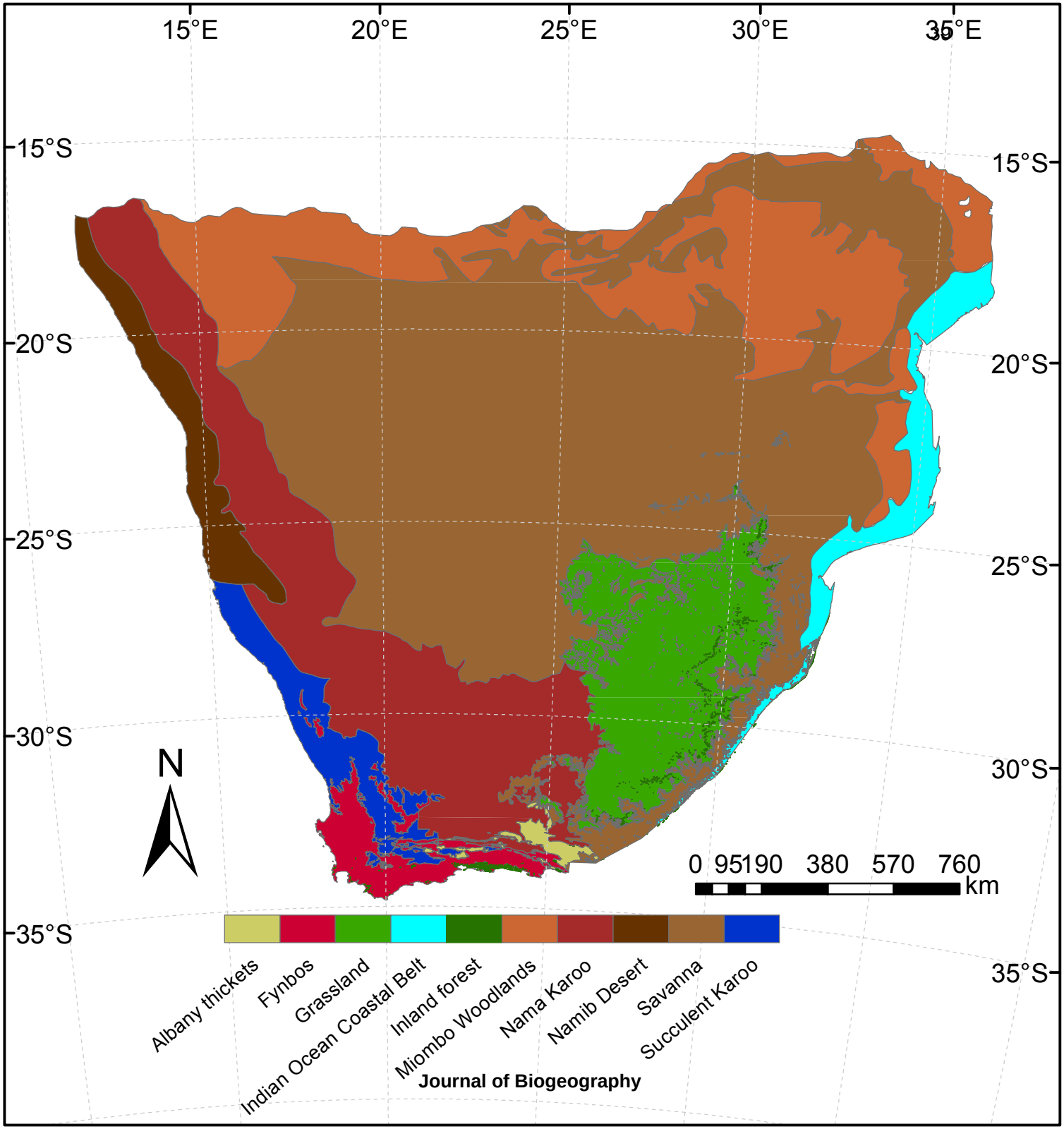
**Figure Legends**

**Figure 1**. Map of the currently recognized broad (biome-level) vegetation types (phytochoria) of southern Africa by White (1983) with modifications and additions from Low & Rebelo (1996), Olson *et al*. (2001), Burgess *et al*. (2004), and Mucina & Rutherford (2006).

**Figure 2.** Woody plant species richness. Native distributions of woody flora in southern Africa across 50 × 50 km grid cells.

**Figure 3.** Relationship among phyloregions for the woody flora of southern Africa presented as an NMDS ordination plot (a), a dendrogram of dissimilarity (b), and in geographic space (c), as delimited by UPGMA hierarchical clustering of phylogenetic beta diversity ($p\beta_{sim}$) in 50 × 50 km grid cells. Grid cells cluster into 15 phyloregions based upon the 'L method' described by Salvador & Chan (2004). Colours differentiating between phyloregions in the NMDS plot, dendrogram and map are identical. IOCB, Indian Ocean Coastal Belt; Miombo = Miombo Woodland; Succ. Kar., Succulent Karoo.

**Figure 4.** Evolutionary distinctiveness of woody plant species within the 15 phyloregions, quantified as the mean of pairwise $p\beta_{sim}$ values between each phyloregion and all other phyloregions. Darker regions indicate regions of higher evolutionary distinctiveness.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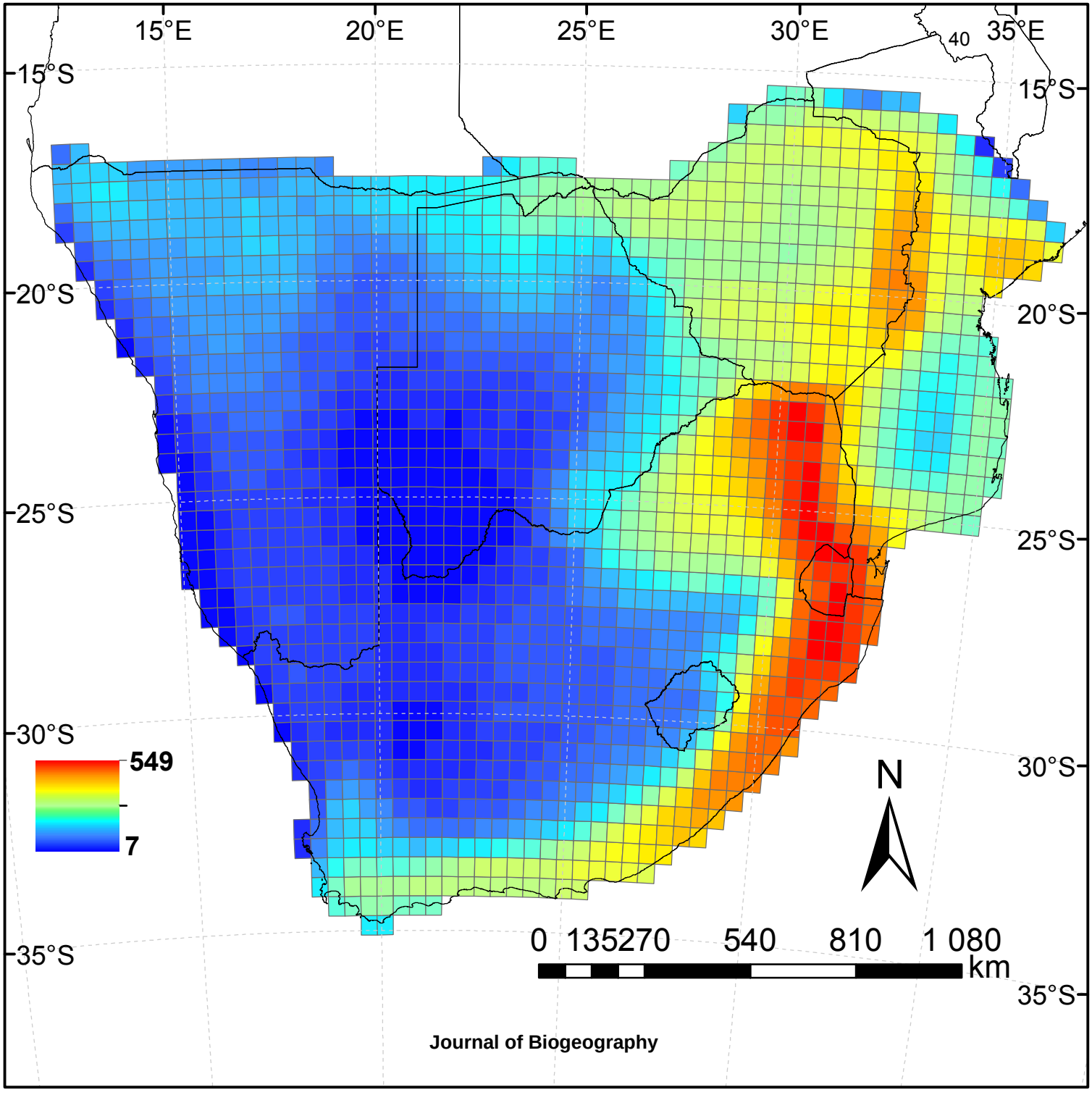
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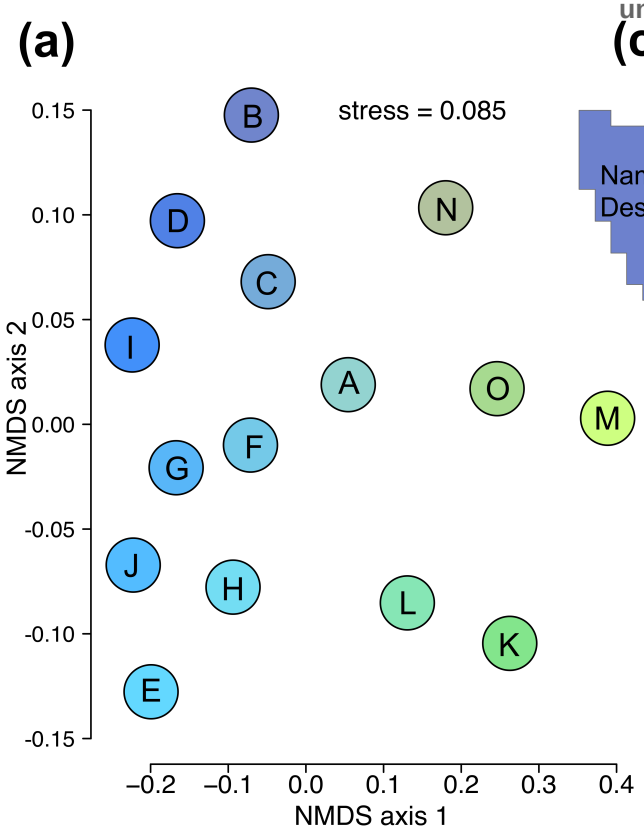


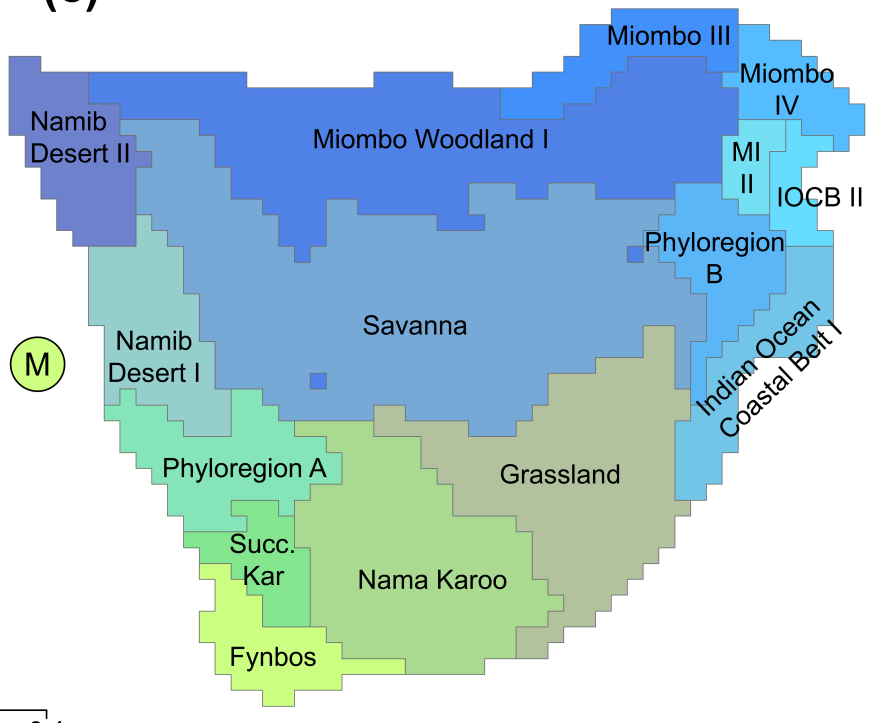


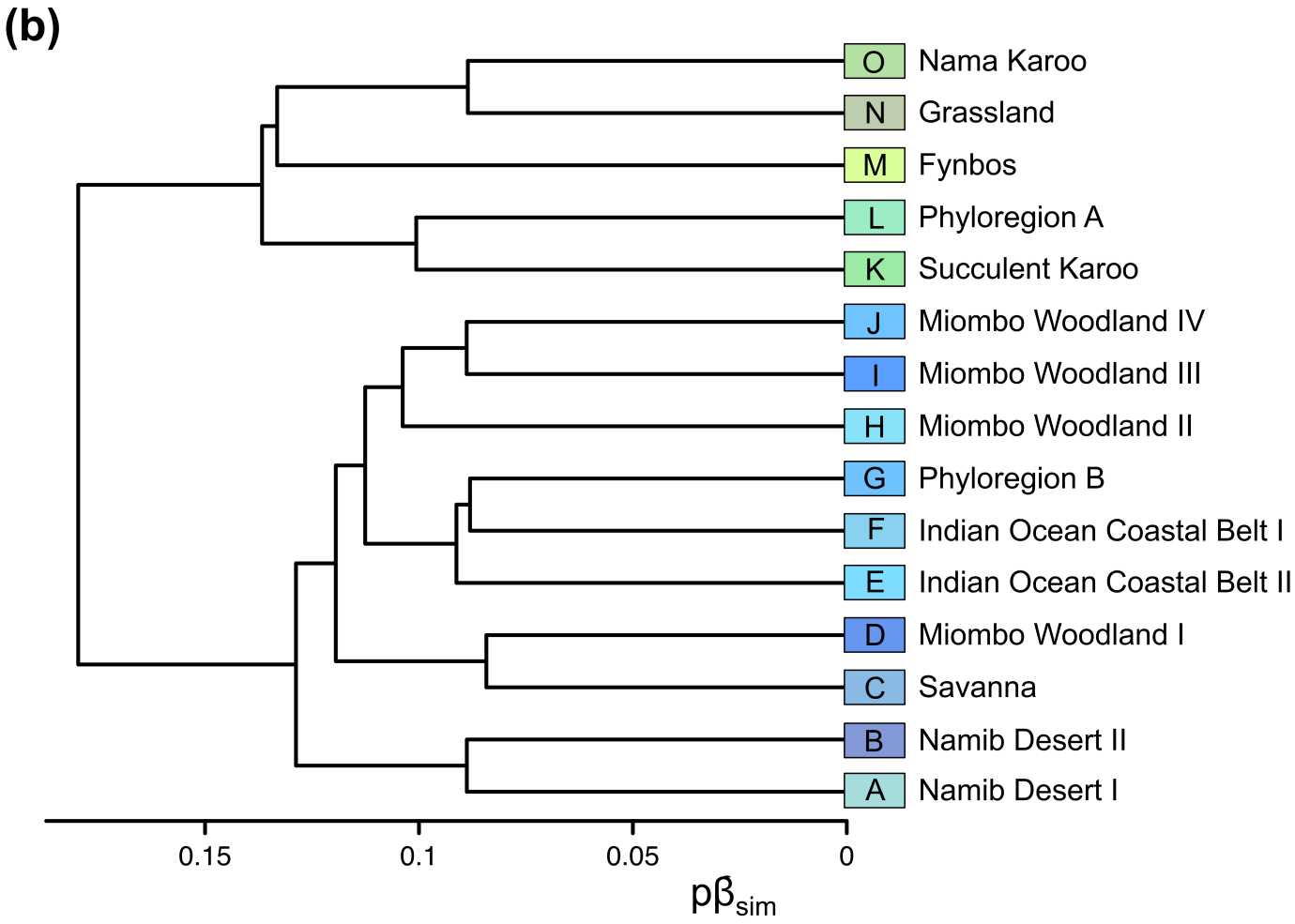

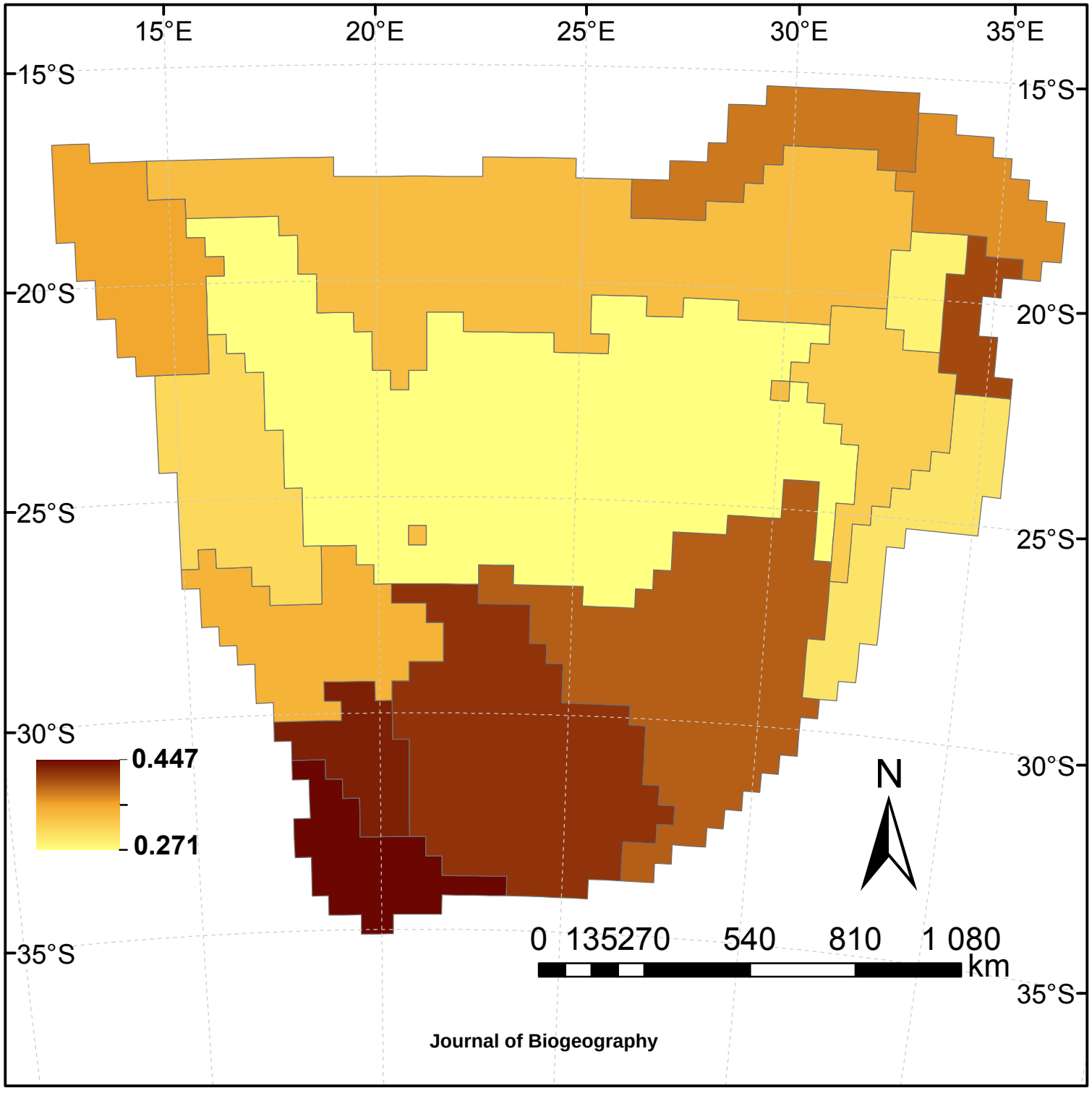
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**SUPPORTING INFORMATION**

# A novel phylogenetic regionalization of phytogeographic zones of southern Africa reveals their hidden evolutionary affinities

Barnabas H. Daru, Michelle van der Bank, Olivier Maurin, Kowiyou Yessoufou, Hanno Schaefer, Jasper A. Slingsby and T. Jonathan Davies

**Appendix S1** Summary review (S1), supporting tables (Tables S1–S3) and figures (Figs S1–S4).

S1. Summary review of previous vegetation classifications

The classification of vegetation types in southern Africa has a long and illustrious history, and includes early taxon-based works by Henning Weimarck and Bertil Nordenstam, among others, as well as a number of more recent studies, such as those by Knight *et al.* (1982) and Mucina & Rutherford (2006). Although we do not attempt a comprehensive review of this very large field, and we would not consider ourselves expert enough to do this effort justice, we here present a brief overview of some of the more notable figures and general approaches that characterize this body of work. Perhaps most striking is the very large diversity of definitions and criteria that have been incorporated into delineations of biogeographic regions in southern Africa. For example, in an early study Weimarck (1941) used taxonomic relationships and geographic ranges of plants species to define phytogeographic groups and centres of endemism. This approach was adopted by subsequent authors with some modifications that also considered additional factors such as growth forms, climate and topography to establish phytogeographic boundaries (e.g. Acocks, 1953; Nordenstam, 1969, 1974).

Another important biogeographic regionalization was provided in a review by Werger (1978), recognizing phytochoria and zoochoria, which focused on the dispersal patterns and distributions of plants and animals, respectively. These biogeographical partitionings were derived, in turn, from works by earlier European and Portuguese naturalists, who provided a comprehensive account of distributions of many of the plant species in the region (Werger, 1978). The system of phytochoria was further developed for the entire African continent by Frank White in 1983. These divisions are based on plant species distribution data and represent one of the most comprehensive biogeographic regionalizations still in use today. Other well-known authors and studies have focused on particular geographic locations, for example, the "veld types" in South Africa based on growth forms and plant richness (Acocks, 1988), or the phytogeographic subdivisions in the Namib (Jürgens, 1991). Alternative schemes have additionally considered relationships between climatic variables and the distribution of plant species richness in the region (e.g. Knight *et al*., 1982; O'Brien, 1993).

Although some of these early regionalization systems considered, to some degree, taxonomic relationships among species e.g. (Weimarck, 1941), many others, including some more recent classifications, considered only species distribution data. In Table S1 in Appendix S1, we provide a summary of previous vegetation classification of southern Africa including the number of vegetation units, the criteria used and the vegetation designation.

**Table S1** Summary of previous vegetation classification in Africa.

| References | Number of vegetation units | Vegetation designation | Criteria | Geographical extent | Name of vegetation units |
|---|---|---|---|---|---|
| Acocks (1988) | 70 | Veld types | Plant species distribution | South Africa | - |
| Pole Evans (1936) | 12 | Vegetation types | Growth forms | Southern Africa | - |
| Adamson (1938) | 14 | Vegetation types | Growth forms | South Africa | - |
| Udvardy (1975) | 6 | Biogeographic provinces | Distribution of species, distribution of ecosystem units | Southern Africa | Cape sclerophyll, Karoo, South African highlands, Kalahari, Namib, South African Woodlands/Savanna |
| White (1983) | 7 | Phytochoria | Physiognomy and floristic composition | Southern Africa | Zambezian, Cape, Karoo-Namib, Afromontane, Zanzibar-Inhambane, Kalahari-Highveld, Tongaland-Pondoland |
| Rutherford & Westfall (1986) | 6 | Biomes | Dominant growth forms, climatic differences | Southern Africa | Forests, Fynbos, Grassland, Nama Karoo, Savanna, Succulent Karoo |
| Low & Rebelo (1996) | 7 | Biomes | Dominant plant growth forms, climatic differences | South Africa | Albany thicket, Forests, Fynbos, Grassland, Nama Karoo, Savanna, Succulent Karoo |
| Rutherford (1997) | 7 | Biomes | Dominant plant life and prevailing climatic factors | South Africa | Desert, Forests, Fynbos, Grassland, Nama Karoo, Savanna, Succulent Karoo |

| | | | | | |
|---|---|---|---|---|---|
| Burgess *et al*. (2004) | 119 | Ecoregions | - | Africa | Deserts and Xeric Shrublands, Mangroves, Mediterranean Forest + Woodlands+ Scrub, Montane Grassland + Shrublands + Tropical and Subtropical Grasslands + Savannas, Tropical and Subtropical moist broadleaf Forests |
| Linder *et al*. (2005) | 8 | Phytochoria | Plant species distribution | Sub-Saharan Africa | Cape, Eastern Karoo, Kalahari, Karoo Transition, Namib-Karoo, Natal, Somalian, Zambesian-Central |
| Mucina & Rutherford (2006) | 9 | Biomes | Dominant plant life and prevailing climatic factors | South Africa including Lesotho and Swaziland | Albany thicket, Desert, Forests, Fynbos, Grassland, Indian Ocean Coastal Belt, Nama Karoo, Savanna, Succulent Karoo |

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**Table S2** Voucher information and GenBank/EBI accession numbers for trees in southern Africa. Taxa with only genus names are those which are not southern African, but are included to have a representation of the lineage.

| 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 |
| *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 |
| *Adenopodia spicata* (E.Mey.) C.Presl | Fabales | Fabaceae | MWC28710 *(K)* | JX572245 | JX517808 |
| *Afrocanthium lactescens* (Hiern) Lantz | Gentianales | Rubiaceae | Luke&Luke 9045 *(UPS)* | - | HM119502.1 |
| *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 | AF249589.1 | AF457111.1 |

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|---|---|---|---|---|---|
| *Afzelia quanzensis* Welw. | Fabales | Fabaceae | OM2113 *(JRAU)* | JX572247 | JX518045 |
| *Alangium chinense* (Lour.) Harms | Cornales | Cornaceae | US Natl. Arb. 49003 / Arnold Arb. #15866 | L11209.2 | JF308671.1 |
| *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.) Pax & K.Hoffm. | Malpighiales | Euphorbiaceae | MWC36209 *(K)* | JX572262 | JX518052 |
| *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 |

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|---|---|---|---|---|---|
| *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.) Exell & Torre | Fabales | Fabaceae | OM2609 *(JRAU)* | JX572301 | JX517615 |
| *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 |

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|---|---|---|---|---|---|
| *Antidesma venosum* E.Mey. ex Tul. | Malpighiales | Euphorbiaceae | 223021 *(IBSC)* | - | HQ415372.1 |
| *Aphloia theiformis* (Vahl) Benn. | Crossosomatales | Aphloiaceae | OM3397 *(JRAU)* | JX572308 | JX518161 |
| *Apodytes dimidiata* E.Mey. ex Arn. | Icacinales | Icacinaceae | OM2485 *(JRAU)* | JX572309 | JX517375 |
| *Argomuellera macrophylla* Pax | Malpighiales | Euphorbiaceae | Gereau6285 *(MO)* | AB267915.1 | AB268019.1 |
| *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)* | AY724345.1 | AY724274.1 |
| *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 |
| *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)* | EU361875.1 | AM234262.1 |
| *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)* | GU135196.1 | GU135033.1 |
| *Berchemia discolor* (Klotzsch) Hemsl. | Rosales | Rhamnaceae | OM2437 *(JRAU)* | JX572329 | JX517834 |

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|---|---|---|---|---|---|
| *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 |
| *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 |
| *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)* | EU384952.1 | EU385330.1 |
| *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 stipulata* De Wild. | Fabales | Fabaceae | OM2043 *(BNRH)* | KF147455 | KF147378 |

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| *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)* | - | FJ439961.1 |
| *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)* | - | FJ439963.1 |
| *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 |
| *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 |
| *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 |
| *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 |

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| *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.) DeWolf | Brassicales | Capparaceae | OM2746 *(JRAU)* | JX572373 | JX517328 |
| *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 |
| *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)* | - | DQ217537.1 |
| *Cassine peragua* L. | Celastrales | Celastraceae | Abbott9178 *(BNRH)* | JX572546 | JX517420 |
| *Cassine schinoides* (Spreng.) R.H.Archer | Celastrales | Celastraceae | Van Jaarsveld s.n. *(PRE)* | - | DQ217536.1 |
| *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 |

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| *Cassipourea malosana* (Baker) Alston | Malpighiales | Rhizophoraceae | Abbott9115 *(BNRH)* | JX572390 | JX517355 |
| *Catha edulis* (Vahl) Endl. | Celastrales | Celastraceae | OM2079 *(JRAU)* | JX572392 | JX517954 |
| *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 |
| *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 |
| *Cephalanthus natalensis* Oliv. | Gentianales | Rubiaceae | OM1583 *(JRAU)* | JF265334 | JF270687 |
| *Ceraria fruticulosa* H.Pearson & Stephens | Caryophyllales | Portulacaceae | EJE96 *(YU)* | AY875218.1 | AY875371.1 |
| *Ceriops tagal* (Perr.) C.B.Rob. | Malpighiales | Rhizophoraceae | SetoguchiS93028 *(MAK)* / Chang 9711902 *(SYS)* | AF006756.1 | AF105089.1 |
| *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 |
| *Chrysanthemoides monilifera* (L.) Norl. | Asterales | Asteraceae | Abbott9171 *(BNRH)* | JX572403 | JX517413 |
| *Chrysophyllum viridifolium* J.M.Wood & Franks | Ericales | Sapotaceae | OM2668 *(JRAU)* | JX572404 | JX518108 |
| *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 |
| *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)* | - | FJ439971.1 |

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| *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 |
| *Cliffortia burchellii* Stapf | Rosales | Rosaceae | TEM.702.2 *(JRAU)* | KP110233 | KP110018 |
| *Cliffortia densa* Weim. | Rosales | Rosaceae | CM.702.26 *(JRAU)* | KP110019 | KP110234 |
| *Cliffortia ferruginea* L.f. | Rosales | Rosaceae | CM.710.22 *(JRAU)* | KP110235 | - |
| *Cliffortia filicaulis* Cham. & Schltdl. | Rosales | Rosaceae | HKM.711.19 *(JRAU)* | KP110236 | - |
| *Cliffortia graminea* L.f. | Rosales | Rosaceae | OM3089 *(JRAU)* | KM894269 | KM896939 |
| *Cliffortia heterophylla* Weim. | Rosales | Rosaceae | ET.625.13 *(JRAU)* | KP110237 | KP110020 |
| *Cliffortia serpyllifolia* Cham. & Schltdl. | Rosales | Rosaceae | TEM.704.9 *(JRAU)* | KP110238 | KP110021 |
| *Cliffortia stricta* Weim. | Rosales | Rosaceae | EFG.706.20 *(JRAU)* | KP110239 | KP110022 |
| *Cliffortia subsetacea* (Eckl. & Zeyh.) Diels ex Bolus & Wolley-Dod | Rosales | Rosaceae | CC.626.12 *(JRAU)* | KP110240 | KP110023 |
| *Cliffortia triloba* Harv. | Rosales | Rosaceae | SM.731.11 *(JRAU)* | KP110241 | - |
| *Clutia abyssinica* Jaub. & Spach | Malpighiales | Euphorbiaceae | Abbott9231 *(BNRH)* | JX572415 | JX518174 |
| *Clutia monticola* S.Moore | Malpighiales | Euphorbiaceae | Burrows12688 *(BNRH)* | KF147461 | - |
| *Clutia pulchella* L. | Malpighiales | Euphorbiaceae | Abbott9112 *(BNRH)* | JX572416 | JX517825 |
| *Clutia sp. nov.* Boerh. | Malpighiales | Euphorbiaceae | Abbott9205 *(BNRH)* | JX572417 | JX517450 |
| *Cnestis polyphylla* Lam. | Oxalidales | Connaraceae | Abbott9113 *(BNRH)* | JX572418 | JX517860 |
| *Cocculus sp. nov.* DC. | Ranunculales | Menispermaceae | Hong YP H419 *(PE)* | HQ260774.1 | EF143860.1 |
| *Coddia rudis* (E.Mey. ex Harv.) Verdc. | Gentianales | Rubiaceae | OM2687 *(JRAU)* | JX572419 | JX517674 |
| *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 |

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| *Cola natalensis* Oliv. | Malvales | Malvaceae | OM1860 *(JRAU)* | JX572423 | JX518169 |
| *Coleonema album* (Thunb.) Bartl. & H.L.Wendl. | Sapindales | Rutaceae | OM3124 *(JRAU)* | JX572424 | JX517370 |
| *Colophospermum mopane* (Benth.) Leonard | Fabales | Fabaceae | RL1558 *(JRAU)* | JX572425 | JX517743 |
| *Colubrina asiatica* (L.) Brongn. | Rosales | Rhamnaceae | J.R. Abbott 24812 *(FLAS)* | GU135186.1 | GU135023.1 |
| *Combretum adenogonium* Steud. ex A.Rich. | Myrtales | Combretaceae | OM2123 *(JRAU)* | EU338151.1 | 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)* | EU338158.1 | 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. & | Myrtales | Combretaceae | OM1025 *(JRAU)* | JX572438 | JX517943 |

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| T.Durand | | | | | |
| *Combretum erythrophyllum* (Burch.) Sond. | Myrtales | Combretaceae | RL1344 *(JRAU)* | JX572439 | JX517552 |
| *Combretum hereroense* Schinz | Myrtales | Combretaceae | OM2400 *(JRAU)* | JX572440 | JX517597 |
| *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)* | EU338135.1 | 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 |

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| *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 |
| *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 |

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| *Cordyla africana* Lour. | Fabales | Fabaceae | OM2745 *(JRAU)* | JX572475 | JX517855 |
| *Craibia brevicaudata* subsp. *baptistarum* (Buttner) J.B.Gillett | Fabales | Fabaceae | OM1813 *(JRAU)* | JX572477 | JX517315 |
| *Craibia zimmermannii* (Harms) Dunn | Fabales | Fabaceae | OM2230 *(JRAU)* | JX572478 | JX518072 |
| *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 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 |
| *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 |

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| *Cussonia nicholsonii* Strey | Apiales | Araliaceae | BDV077 *(JRAU)* | - | KF147386 |
| *Cussonia paniculata* subsp. *sinuata* (Reyneke & Kok) De Winter | Apiales | Araliaceae | BDV082 *(JRAU)* | - | KF147387 |
| *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. | AF394336.1 | AB116589.1 |
| *Cyclopia genistoides* (L.) Vent. | Fabales | Fabaceae | JWB022 *(NH)* | JX572497 | JX518243 |
| *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)* | AF308724.1 | AF142706.1 |
| *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)* | - | HM049528.1 |
| *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* Brenan & Brummitt | Fabales | Fabaceae | RBN359 *(KNP)* | JF265387 | JF270739 |
| *Dichrostachys cinerea* subsp. *nyassana* | Fabales | Fabaceae | OM0283 *(JRAU)* | JX572508 | JX517857 |

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| (Taub.) Brenan | | | | | |
| *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)* | - | DQ923990.1 |
| *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 |

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| *Diospyros whyteana* (Hiern) P.White | Ericales | Ebenaceae | OM&MvdB59 *(JRAU)* | JX572524 | JX517711 |
| *Diplorhynchus condylocarpon* (Müll.Arg.) Pichon | Gentianales | Apocynaceae | OM2073 *(JRAU)* | JX572525 | JX517728 |
| *Dissotis canescens* (E. Mey. ex Graham) Hook. f. | Myrtales | Melastomataceae | BB12691 | - | - |
| *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 kirkii* Mast. | Malvales | Malvaceae | OM2561 *(JRAU)* | KM894212 | KM896889 |
| *Dombeya rotundifolia* Planch. | Malvales | Malvaceae | OM0489 *(JRAU)* | JQ025044 | JQ024959 |
| *Dombeya shupangae* K.Schum. | Malvales | Malvaceae | OM2577 *(JRAU)* | KM894231 | KM896907 |
| *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)* | Z75677.1 | EF135529.1 |
| *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 |

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| *Drypetes mossambicensis* Hutch. | Malpighiales | Euphorbiaceae | RBN175 *(KNP)* | KM894236 | - |
| *Drypetes natalensis* (Harv.) Hutch. | Malpighiales | Euphorbiaceae | OM2651 *(JRAU)* | KM894239 | - |
| *Drypetes reticulata* Pax | Malpighiales | Euphorbiaceae | RBN270 *(KNP)* | JF265400 | JF270750 |
| *Ehretia amoena* Klotzsch | Boraginales | Boraginaceae | OM2533 *(JRAU)* | JX572543 | JX518091 |
| *Ehretia rigida* (Thunb.) Druce | Boraginales | Boraginaceae | OM0396 *(JRAU)* | JX572544 | JX518014 |
| *Ekebergia capensis* Sparrm. | Sapindales | Meliaceae | OM2684 *(JRAU)* | KM894215 | - |
| *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 |
| *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 |

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| *Encephalartos woodii* Sander | Cycadales | Zamiaceae | PR875 *(JRAU)* | JQ025701 | JQ046169 |
| *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 |
| *Entandrophragma caudatum* (Sprague) Sprague | Sapindales | Meliaceae | OM1342 *(JRAU)* | JX572558 | JX517565 |
| *Erica areolata* (N.E.Br.) E.G.H.Oliv. | Ericales | Ericaceae | CM.710.17 | KP110270 | KP110040 |
| *Erica articularis* L. | Ericales | Ericaceae | EFG.706.19 | KP110271 | - |
| *Erica brachialis* Salisb. | Ericales | Ericaceae | CC.626.16 | KP110272 | KP110042 |
| *Erica caffra* L. | Ericales | Ericaceae | OM2307 *(JRAU)* | JX572560 | JX517891 |
| *Erica calycina* L. | Ericales | Ericaceae | HKM.706.24 | KP110273 | KP110043 |
| *Erica cerinthoides* L. | Ericales | Ericaceae | CM.705.6 | KP110274 | KP110044 |
| *Erica coccinea* L. | Ericales | Ericaceae | OM3115 *(JRAU)* | KM894262 | KM896932 |
| *Erica cordata* Andrews | Ericales | Ericaceae | EFG.703.5 | KP110275 | - |
| *Erica corifolia* L. | Ericales | Ericaceae | JS.619.28 | KP110276 | KP110045 |
| *Erica curvifolia* Salisb. | Ericales | Ericaceae | TEM.622.1 | KP110277 | - |
| *Erica daphniflora* Salisb. | Ericales | Ericaceae | JL.802.7 | KP110279 | KP110047 |
| *Erica equisetifolia* Salisb. | Ericales | Ericaceae | TEM.622.29 | KP110280 | - |
| *Erica ericoides* (L.) E.G.H.Oliv. | Ericales | Ericaceae | CC.627.24 | - | KP110048 |
| *Erica fascicularis* L.f. | Ericales | Ericaceae | CC.621.27 | - | KP110049 |
| *Erica grata* L.Guthrie & Bolus | Ericales | Ericaceae | EFG.708.7 | KP110283 | - |
| *Erica hispidula* L. | Ericales | Ericaceae | CM.702.35 | KP110284 | KP110050 |
| *Erica infundibuliformis* Andrews | Ericales | Ericaceae | CM.702.21 | KP110286 | KP110051 |

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| *Erica labialis* Salisb. | Ericales | Ericaceae | HKM.620.23 | KP110288 | - |
| *Erica madida* E.G.H.Oliv. | Ericales | Ericaceae | HKM.711.28 | KP110289 | - |
| *Erica massonii* L.f. | Ericales | Ericaceae | HKM.628.13 | KP110290 | KP110053 |
| *Erica melanthera* L. | Ericales | Ericaceae | HKM.703.24 | KP110291 | KP110054 |
| *Erica muscosa* (Aiton) E.G.H.Oliv. | Ericales | Ericaceae | CM.620.35 | KP110293 | KP110056 |
| *Erica natalitia* Bolus | Ericales | Ericaceae | Abbott9208 *(BNRH)* | JX572561 | JX518173 |
| *Erica nudiflora* L. | Ericales | Ericaceae | TEM.704.2 | KP110294 | KP110057 |
| *Erica pectinifolia* Salisb. | Ericales | Ericaceae | DGE078-26.03.2011 | KM894228 | KM896904 |
| *Erica penicilliformis* Salisb. | Ericales | Ericaceae | EFG.703.6 | KP110295 | - |
| *Erica placentiflora* Salisb. | Ericales | Ericaceae | ET.625.3 | KP110296 | - |
| *Erica plukenetii* L. | Ericales | Ericaceae | CM.705.4 | KP110297 | - |
| *Erica plumosa* Thunb. | Ericales | Ericaceae | SM.731.9 | KP110298 | - |
| *Erica rigidula* (N.E.Br.) E.G.H.Oliv. | Ericales | Ericaceae | HKM.628.11 | KP110299 | KP110058 |
| *Erica rosacea* (L.Guthrie) E.G.H.Oliv. | Ericales | Ericaceae | CM.705.13 | KP110300 | - |
| *Erica serrata* Thunb. | Ericales | Ericaceae | CC.621.43 | KP110301 | - |
| *Erica sitiens* Klotzsch | Ericales | Ericaceae | CC.627.23 | KP110303 | KP110059 |
| *Erica squarrosa* Salisb. | Ericales | Ericaceae | HKM.628.10 | KP110304 | KP110060 |
| *Erica triceps* Link | Ericales | Ericaceae | CM.710.26 | KP110305 | - |
| *Erica triflora* L. | Ericales | Ericaceae | MWC23115 *(K)* | - | JX518211 |
| *Erica verecunda* Salisb. | Ericales | Ericaceae | EFG.726.20 | KP110306 | - |
| *Erica versicolor* Andrews | Ericales | Ericaceae | TEM.704.22 | KP110307 | KP110061 |
| *Erica vestita* Thunb. | Ericales | Ericaceae | EFG.708.18 | KP110308 | KP110062 |
| *Erica viscaria* L. | Ericales | Ericaceae | HKM.628.4 | KP110309 | - |
| *Eriosema psoraleoides* (Lam.) G.Don | Fabales | Fabaceae | OM3284 *(JRAU)* | KM894224 | KM896900 |
| *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 latissima* E.Mey. | Fabales | Fabaceae | OM1428 *(JRAU)* | JF265414 | - |

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| *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 |
| *Erythrococca menyharthii* (Pax) Prain | Malpighiales | Euphorbiaceae | OM2431 *(JRAU)* | JX572567 | JX517550 |
| *Erythrococca sp. nov.* Benth | Malpighiales | Euphorbiaceae | Abbott9148 *(BNRH)* | JX572566 | JX517713 |
| *Erythrophleum africanum* (Benth.) Harms | Fabales | Fabaceae | OM2537 *(JRAU)* | JX572568 | JX517525 |
| *Erythrophleum suaveolens* (Guill. & Perr.) Brenan | Fabales | Fabaceae | OM2674 *(JRAU)* | JX572569 | JX517934 |
| *Erythrophysa alata* (Eckl. & Zeyh.) Hutch. | Sapindales | Sapindaceae | MWC02870 *(K)* | KM894210 | KM896887 |
| *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 |
| *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. | Myrtales | Myrtaceae | Burrows12289 *(BNRH)* | KF147474 | KF147400 |

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| subsp. A | | | | | |
| *Eugenia capensis* subsp. *albanensis* (Sond.) F.White | Myrtales | Myrtaceae | Burrows7021 *(BNRH)* | KF147473 | KF147399 |
| *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 |
| *Eumorphia davyi* Bolus | Asterales | Asteraceae | Magee307 | KM894205 | KM896883 |
| *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 |
| *Faidherbia albida* (Delile) A.Chev. | Fabales | Fabaceae | RBN165 *(KNP)* | JF265429 | JF270778 |
| *Faurea galpinii* E.Phillips | Proteales | Proteaceae | OM1818 *(JRAU)* | JX572595 | JX517907 |

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| *Faurea macnaughtonii* E.Phillips | Proteales | Proteaceae | Abbott9123 *(BNRH)* | JX572596 | JX517418 |
| *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)* | - | JF270784.1 |
| *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 |

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| *Ficus tremula* Warb. | Rosales | Moraceae | OM2738 *(JRAU)* | JX573114 | JX970900 |
| *Ficus trichopoda* Baker | Rosales | Moraceae | OM1817 *(JRAU)* | JX572612 | JX517724 |
| *Filicium decipiens* (Wight & Arn.) Thwaites | Sapindales | Sapindaceae | Chase2128 *(K)* | AY724352.1 | AY724294.1 |
| *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. sp. nov.* | Gentianales | Apocynaceae | MWC03853 *(K)* | JX572615 | JX518200 |
| *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)* | - | EF456323.1 |
| *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 |
| *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 |
| *Grewia bicolor* Juss. | Malvales | Malvaceae | RL1583 *(JRAU)* | JX572633 | JX518121 |
| *Grewia caffra* Meisn. | Malvales | Malvaceae | OM2329 *(JRAU)* | JX572634 | JX517589 |
| *Grewia flava* DC. | Malvales | Malvaceae | OM3297 *(JRAU)* | KM894221 | - |
| *Grewia flavescens* Juss. | Malvales | Malvaceae | RL1365 *(JRAU)* | JX572635 | JX517463 |

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| *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 arenicola* Jordaan | Celastrales | Celastraceae | OM4020 (*JRAU)* | KM894229 | KM896905 |
| *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 grandifolia* (Davison) Jordaan | Celastrales | Celastraceae | Abbott9143 *(BNRH)* | KM894265 | KM896935 |
| *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 dinteri* (Harms) Harms | Fabales | Fabaceae | HastonV200308 *(RBGE)* / Wojciechowski 953 *(ASU)* | AY904386.1 | AY386905.1\| |
| *Halleria lucida* L. | Lamiales | Scrophulariaceae | OM2269 *(JRAU)* | JX572665 | JX517441 |
| *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)* | OM2021 | JX517856 |
| *Heritiera littoralis* Aiton | Malvales | Malvaceae | Alverson s.n. *(WIS)* | - | AY321181.1 |
| *Heteromorpha arborescens* Cham. & Schltdl. | Apiales | Apiaceae | OM2726 *(JRAU)* | JX572669 | JX517406 |
| *Heteromorpha arborescens* var. *frutescens* P. Winter | 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 |
| *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 |
| *Hippocratea longipetiolata* Oliv. | Celastrales | Celastraceae | OM1098 *(JRAU)* | JX572876 | JX517581 |
| *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)* | L08480.1 | EU361974.1 |
| *Hymenocardia ulmoides* Oliv. | Malpighiales | Euphorbiaceae | OM2686 *(JRAU)* | JX572685 | JX517929 |
| *Hymenodictyon floribundum* (Hochst. & Steud.) B.L.Rob. | Gentianales | Rubiaceae | Anderson s.n. *(GB)* | AY538488.1 | AY538392.1 |
| *Hymenodictyon parvifolium* Oliv. | Gentianales | Rubiaceae | OM1250 *(JRAU)* | JX572686 | JX517708 |
| *Hyperacanthus amoenus* (Sims) Bridson | Gentianales | Rubiaceae | RBN320 *(KNP)* | JX572687 | JX517662 |
| *Hypericum revolutum* Vahl | Malpighiales | Hypericaceae | OM3994 | KM894203 | - |

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| *Hypericum roeperianum* Schimp. ex A.Rich. | Malpighiales | Hypericaceae | OM3992 | KM894248 | - |
| *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 mitis* (L.) Radlk. | Aquifoliales | Aquifoliaceae | shawpc0988K *(HKU)* | JN407234.2 | JN407088.1 |
| *Indigofera arrecta* A.Rich. | Fabales | Fabaceae | AMM3707 | KM894230 | KM896906 |
| *Indigofera cytisoides* Thunb. | Fabales | Fabaceae | AMM5739 | KM894218 | KM896895 |
| *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)* | - | AF142697.1 |
| *Indigofera tinctoria* L. | Fabales | Fabaceae | OM1933 *(JRAU)* | JF265485 | JF270832 |
| *Inhambanella henriquezii* (Engl. & Warb.) Dubard | Ericales | Sapotaceae | OM2760 *(JRAU)* | JX572695 | JX517677 |
| *Itea L. sp. nov.* | Saxifragales | Iteaceae | 1204041 *(XB)* | - | HQ415356.1 |
| *Ixora narcissodora* K.Schum. | Gentianales | Rubiaceae | OM2673 *(JRAU)* | JX572696 | JX517349 |
| *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 |
| *Jubaeopsis caffra* Becc. | Arecales | Arecaceae | Sikhakhane139 *(NH)* | AJ829876.1 | AM114633.1 |
| *Julbernardia globiflora* (Benth.) Troupin | Fabales | Fabaceae | OM2517 *(JRAU)* | JX572701 | JX517829 |
| *Justicia aconitiflora* (A.Meeuse) Cubey | Lamiales | Acanthaceae | OM1816 *(JRAU)* | JF265402 | JF270752 |
| *Justicia adhatodoides* (Nees) V.A.W.Graham | Lamiales | Acanthaceae | OM1759 *(JRAU)* | JF265403 | JF270753 |

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| *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)* | - | AY552431.1 |
| *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 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)* | EU347924.1 | GQ246144.1 |
| *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)* | - | EU720654.1 |
| *Leptactina benguelensis* (Welw. ex Benth. & Hook.f.) R.D.Good | Gentianales | Rubiaceae | Burrows11158 *(BNRH)* | KF147483 | KF147409 |
| *Leptactina delagoensis* K.Schum. | Gentianales | Rubiaceae | OM1598 *(JRAU)* | JF265502 | JF270849 |
| *Leucadendron arcuatum* I.A. Williams | Proteales | Proteaceae | MWC28310 *(K)* | - | KM896926 |
| *Leucadendron argenteum* (L.) R. Br. | Proteales | Proteaceae | OM2263 *(JRAU)* | JX572716 | JX517459 |

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| *Leucadendron brunioides* Meisn. | Proteales | Proteaceae | OM2851 *(JRAU)* | KM894216 | KM896893 |
| *Leucadendron cinereum* R. Br. | Proteales | Proteaceae | MWC28387 *(K)* | KM894268 | KM896938 |
| *Leucadendron coniferum* Meisn. | Proteales | Proteaceae | OM2313 *(JRAU)* | JX572717 | JX517657 |
| *Leucadendron corymbosum* P.J. Bergius | Proteales | Proteaceae | OM3142 *(JRAU)* | KM894270 | KM896941 |
| *Leucadendron dregei* E. Mey. Ex Meisn. | Proteales | Proteaceae | DGE065-26.03.2011 | KM894255 | KM896925 |
| *Leucadendron dubium* E. Phillips & Hutch. | Proteales | Proteaceae | MWC28311 *(K)* | KM894256 | KM896927 |
| *Leucadendron elimense* E. Phillips | Proteales | Proteaceae | MWC28435 *(K)* | KM894211 | KM896888 |
| *Leucadendron floridum* R. Br. | Proteales | Proteaceae | MWC28333 *(K)* | KM894264 | KM896934 |
| *Leucadendron foedum* I.J. Williams | Proteales | Proteaceae | MWC28366 *(K)* | KM894249 | KM896919 |
| *Leucadendron galpinii* E.Phillips & Hutch. | Proteales | Proteaceae | MWC25211 *(K)* | JX572718 | JX517879 |
| *Leucadendron gandogeri* Schinz ex Gand. | Proteales | Proteaceae | CC.621.32 *(JRAU)* | KP110352 | - |
| *Leucadendron glaberrimum* Compton | Proteales | Proteaceae | MWC28314 *(K)* | KM894266 | KM896936 |
| *Leucadendron laureolum* Fourc. | Proteales | Proteaceae | CM.620.30 | KM894267 | KM896937 |
| *Leucadendron levisanus* P.J. Bergius | Proteales | Proteaceae | MWC28368 *(K)* | KM894271 | KM896942 |
| *Leucadendron loranthifolium* I.A. Williams | Proteales | Proteaceae | MWC28388 *(K)* | KM894227 | KM896903 |
| *Leucadendron macowanii* E.Phillips | Proteales | Proteaceae | MWC28334 *(K)* | JX572719 | JX518193 |
| *Leucadendron microcephalum* Gand. & Schinz | Proteales | Proteaceae | OM2266 *(JRAU)* | KM894225 | KM896901 |
| *Leucadendron nitidum* H. Buek ex Meisn. | Proteales | Proteaceae | MWC28313 *(K)* | KM894246 | KM896917 |
| *Leucadendron pubescens* R. Br. | Proteales | Proteaceae | MWC28389 *(K)* | JX572720 | JX517455 |
| *Leucadendron pubibracteolatum* I.A. Williams | Proteales | Proteaceae | MWC27988 *(K)* | KM894244 | KM896915 |
| *Leucadendron remotum* I.J. Williams | Proteales | Proteaceae | MWC28482 *(K)* | KM894226 | KM896902 |
| *Leucadendron rubrum* Burm. f. | Proteales | Proteaceae | PG63 *(JRAU)* | JX572721 | JX518007 |
| *Leucadendron salicifolium* I.A. Williams | Proteales | Proteaceae | PG56 *(JRAU)* | JX572722 | JX518063 |
| *Leucadendron salignum* R. Br. | Proteales | Proteaceae | CM.705.27 | KP110353 | KP110092 |
| *Leucadendron spissifolium* I.J. Williams | Proteales | Proteaceae | EFG.703.3 | KP110354 | KP110093 |

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| *Leucadendron strobilinum* Druce | Proteales | Proteaceae | MWC28010 *(K)* | JX572723 | JX517923 |
| *Leucadendron tinctum* I.J. Williams | Proteales | Proteaceae | CM.710.4 *(JRAU)* | KP110355 | KP110094 |
| *Leucadendron tradouwense* I.A. Williams | Proteales | Proteaceae | MWC28484 *(K)* | KM894254 | KM896924 |
| *Leucadendron uliginosum* R. Br. | Proteales | Proteaceae | MWC28467 *(K)* | - | KM896940 |
| *Leucadendron verticillatum* Meisn. | Proteales | Proteaceae | MWC28369 *(K)* | KM894220 | KM896897 |
| *Leucadendron xanthoconus* K. Schum. | Proteales | Proteaceae | MWC26713 *(K)* | KM894250 | KM896920 |
| *Leucosidea sericea* Eckl. & Zeyh. | Rosales | Rosaceae | OM&MvdB48 *(JRAU)* | JX572725 | JX518044 |
| *Leucospermum calligerum* Rourke | Proteales | Proteaceae | OM3152 *(JRAU)* | KM894241 | KM896913 |
| *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 hypophyllocarpodendron* (L.) Druce | Proteales | Proteaceae | OM2860 *(JRAU)* | KM894243 | KM896914 |
| *Leucospermum mundii* Meisn. | Proteales | Proteaceae | EFG.708.20 | KP110356 | - |
| *Leucospermum oleaefolium* R. Br. | Proteales | Proteaceae | OM3082A *(JRAU)* | KM894238 | KM896911 |
| *Leucospermum rodolentum* Rourke | Proteales | Proteaceae | OM2812 *(JRAU)* | JX572729 | JX518225 |
| *Leucospermum saxosum* S.Moore | Proteales | Proteaceae | BB12687 *(BNRH)* | KF227398 | KF227399 |
| *Leucospermum tomentosum* R. Br. | Proteales | Proteaceae | JWB511 *(NH)* | JQ412379 | JQ412256 |
| *Liparia hirsuta* Thunb. | Fabales | Fabaceae | JWB020 *(NH)* | JX572732 | JX517359 |
| *Liparia myrtifolia* Thunb. | Fabales | Fabaceae | JWB039 *(NH)* | JX572733 | JX517632 |
| *Liparia racemosa* A.L.Schutte | Fabales | Fabaceae | JWB089 *(NH)* | KM894242 | - |
| *Liparia rafnioides* A.L.Schutte | Fabales | Fabaceae | JWB033 *(NH)* | JX572734 | JX517668 |
| *Liparia vestita* Thunb. | Fabales | Fabaceae | JWB014 *(NH)* | KM894247 | KM896918 |
| *Lippia javanica* (Burm.f.) Spreng. | Lamiales | Verbenaceae | RBN348 *(KNP)* | JX572735 | JX517480 |
| *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 |

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| *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)* | - | AB036623.1 |
| *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)* | - | AB036622.1 |
| *Lycium villosum* Schinz | Solanales | Solanaceae | McDonald77/64 *(PRE)* | - | AB036624.1 |
| *Lydenburgia abbottii* (A.E.van Wyk & M.Prins) Steenkamp, A.E.van Wyk & M.Prins | Celastrales | Celastraceae | Abbott9242 *(BNRH)* | JX572741 | JX517339 |
| *Lydenburgia cassinoides* N. Robson | Celastrales | Celastraceae | Archer&Archer 2570 *(PRE)* | - | DQ217548.1 |
| *Macaranga capensis* (Baill.) Sim | Malpighiales | Euphorbiaceae | OM2233 *(JRAU)* | KM894261 | - |
| *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)* | - | EU720697.1 |
| *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 |
| *Manilkara concolor* (Harv.) Gerstner | Ericales | Sapotaceae | OM0989 *(JRAU)* | JX572750 | JX517949 |
| *Manilkara discolor* (Sond.) J.H.Hemsl. | Ericales | Sapotaceae | OM2642 *(JRAU)* | JX572752 | JX518015 |

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| *Manilkara mochisia* (Baker) Dubard | Ericales | Sapotaceae | OM1392 *(JRAU)* | JF265514 | JF270860 |
| *Manilkara nicholsonii* A.E.van Wyk | Ericales | Sapotaceae | Abbott9202 *(BNRH)* | JX572753 | JX517570 |
| *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 |
| *Maurocenia frangula* Mill. | Celastrales | Celastraceae | Archer2169 *(PRE)* | AM234957.1 | DQ217538.1 |
| *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 |
| *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 |
| *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 |

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| *Milicia excelsa* (Welw.) C.C.Berg | Rosales | Moraceae | OM2696 *(JRAU)* | JX572771 | JX517997 |
| *Millettia grandis* (E.Mey.) Skeels | Fabales | Fabaceae | OM1757 *(JRAU)* | - | JX517504 |
| *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)* | GQ248642.1 | GQ248156.1 |
| *Mimetes fimbriifolius* Salisb. ex Knight | Proteales | Proteaceae | AM0151 *(JRAU)* | JX572774 | JX518183 |
| *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 sp. nov.* Skeels | Gentianales | Apocynaceae | Sennblad 215 *(TL)* | - | AY899941.1 |
| *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)* | - | AJ429359.1 |
| *Morella brevifolia* (E. Mey. ex C. DC.) Killick | Fagales | Myricaceae | OM3812 *(BNRH)* | KF147488 | KF147414 |
| *Morella cordifolia* (L.) Killick | Fagales | Myricaceae | OM2290 *(JRAU)* | JX572786 | JX517650 |
| *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 | AY483223.1 |
| *Moringa ovalifolia* Dinter & A.Berger | Brassicales | Moringaceae | 2000_0148-09 *(BR)* | - | AY461577.1 |
| *Morus mesozygia* Stapf | Rosales | Moraceae | OM2387 *(JRAU)* | KM894201 | KM896880 |
| *Mundulea sericea* (Willd.) A.Chev. | Fabales | Fabaceae | OM2625 *(JRAU)* | JX572788 | JX517667 |

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| *Mussaenda arcuata* Poir. | Gentianales | Rubiaceae | McPherson16213 *(MO)* | Y11854.1 | HM119551.1 |
| *Myrianthus holstii* Engl. | Rosales | Urticaceae | OM4012 *(JRAU)* | KM894223 | KM896899 |
| *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 afzelii* Prain | Malpighiales | Euphorbiaceae | Schmidt3474 *(MO)* | - | AB233764.1 |
| *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)* | AY794896.1 | AB233777.1 |
| *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)* | - | AJ585881.1 |
| *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 |
| *Nymania capensis* Lindb. | Sapindales | Meliaceae | OM1096 *(JRAU)* | JX572794 | JX518038 |
| *Obetia tenax* Friis | Rosales | Urticaceae | OM0567 *(JRAU)* | JX572795 | JX518232 |
| *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 | - | HM850999.1 |

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| *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)* | - | EU385379.1 |
| *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 woodiana* Knobl. | Lamiales | Oleaceae | OM1527 *(JRAU)* | JX572801 | JX517442 |
| *Olinia capensis* Klotzsch | Myrtales | Penaeaceae | Schoenenberger 519 *(Z, BOL)* | AM235624.1 | AY151569.1 |
| *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)* | AM235626.1 | AY151572.1 |
| *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 sp. nov.* Roxb. | Santalales | Opiliaceae | Chase 1903 *(K)* | - | AY042621.1 |
| *Oreobambos buchwaldii* K.Schum. | Poales | Poaceae | Kare s.n. *(TCD)* | - | EU434272.1 |
| *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 polystictum* (Harv.) C.H.Stirt. | Fabales | Fabaceae | AMM3678 *(BOL)* | KM894204 | KM896882 |
| *Otholobium spicatum* (L.) C.H.Stirt. | Fabales | Fabaceae | AMM3445 *(BOL)* | JX572814 | JX517502 |
| *Otholobium stachyerum* (Eckl. & Zeyh.) C.H.Stirt. | Fabales | Fabaceae | AMM3837 *(BOL)* | KM894208 | KM896885 |

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| *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 |
| *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 *sp. nov.* | Pandanales | Pandanaceae | shawpc0686L *(CUHK)* | JN407333.1 | JN407167.2 |
| *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 curatellifolia* Planch. ex Benth. | Malpighiales | Chrysobalanaceae | OM2621 *(JRAU)* | JX572830 | JX517369 |
| *Paropsia braunii* Gilg | Malpighiales | Passifloraceae | Zyhra 949 *(WIS)* | - | EF135576.1 |
| *Paropsia brazzaeana* Baill. | Malpighiales | Passifloraceae | Fishwick s.n._5369010 *(BNRH)* | KF147502 | KF147429 |

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| *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)* | - | AY538410.1 |
| *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 gerstneri* Bremek. | Gentianales | Rubiaceae | OM3273 *(JRAU)* | KM894234 | - |
| *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 |
| *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)* | - | MWC03309 |
| *Phyllanthus engleri* Pax | Malpighiales | Euphorbiaceae | *OM4014* | | |
| *Phyllanthus hutchinsonianus* S.Moore | Malpighiales | Euphorbiaceae | Poilecot 7974 *(G, K)* | - | AY936601.1 |

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| *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 |
| *Piper L. sp. nov.* | Piperales | Piperaceae | Chao&Zhang s.n. *(SHMU)* / Tamura & Fuse10016 *(OSA)* | EF450315.1 | AB040153.2 |
| *Pittosporum viridiflorum* Sims | Apiales | Pittosporaceae | OM2815 *(JRAU)* | JX572857 | JX517842 |
| *Platylophus trifoliatus* D. Don | Oxalidales | Cunoniaceae | OM3163 *(JRAU)* | JX572858 | JX517817 |
| *Plectranthus fruticosus L'Hér.* | Lamiales | Lamiaceae | RBN292 *(JRAU)* | KM894200 | - |
| *Pleiocarpa pycnantha* (K.Schum.) Stapf | Gentianales | Apocynaceae | OM2652 *(JRAU)* | JX572860 | JX517964 |
| *Pleioceras orientale* Vollesen | Gentianales | Apocynaceae | Jongkind2131 *(MO)* | - | EF456364.1 |
| *Pleurostylia capensis* Oliv. | Celastrales | Celastraceae | OM1867 *(JRAU)* | JX572861 | JX517549 |
| *Plumbago auriculata* Lam. | Caryophyllales | Plumbaginaceae | OM1686 *(JRAU)* | EU002283.1 | OM1686 |
| *Podalyria calyptrata* (Retz.) Willd. | Fabales | Fabaceae | MWC16091 *(K)* | JX572864 | JX518039 |
| *Podalyria myrtillifolia* Willd. | Fabales | Fabaceae | AMM5052 *(BOL)* | JX572865 | JX517747 |
| *Podalyria velutina* Benth. | Fabales | Fabaceae | Abbott9127 *(BNRH)* | KM894209 | KM896886 |
| *Podocarpus elongatus* (Aiton) L'Hér. ex Pers. | Pinales | Podocarpaceae | n.a. | HM593643.1 | HM593746.1 |
| *Podocarpus henkelii* Stapf ex Dallim. & B.D.Jacks. | Pinales | Podocarpaceae | Adelaide BG 842959 | AF249610.1 | HM593751.1 |
| *Podocarpus latifolius* (Thunb.) R.Br. ex Mirb. | Pinales | Podocarpaceae | Mt Lofty BG G900695 | AF249612.1 | HM593754.1 |
| *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 |

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| *Portulacaria afra* Jacq. | Caryophyllales | Portulacaceae | OM3198 *(JRAU)* | JX572874 | JX517924 |
| *Pouteria adolfi-friedericii* subsp. *australis* (J.H.Hemsl.) L.Gaut. | Ericales | Sapotaceae | NH200203 *(TL)* | - | FJ037946.1 |
| *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 |
| *Protea acaulos* Reich. | Proteales | Proteaceae | OM3043 *(JRAU)* | KM894219 | KM896896 |
| *Protea acuminata* Sims | Proteales | Proteaceae | PG0044 *(JRAU)* | KM894251 | KM896921 |
| *Protea angustata* R. Br. | Proteales | Proteaceae | MWC25794 *(K)* | KM894245 | KM896916 |
| *Protea aurea* subsp. *aurea* Rourke | Proteales | Proteaceae | MWC24059 *(K)* | JX572877 | JX517773 |
| *Protea caffra* Meisn. | Proteales | Proteaceae | Abbott9234 *(BNRH)* | JX572878 | JX517909 |
| *Protea canaliculata* Andrews | Proteales | Proteaceae | DGE158-26.03.2011 | - | KM896890 |
| *Protea cordata* Thunb. | Proteales | Proteaceae | OM3125 *(JRAU)* | KM894260 | KM896931 |
| *Protea coronata* Lam. | Proteales | Proteaceae | MWC25806 *(K)* | JX572879 | JX517822 |
| *Protea decurrens* Phillips | Proteales | Proteaceae | MWC24069 *(K)* | KM894235 | KM896909 |
| *Protea eximia* (Knight) Fourc. | Proteales | Proteaceae | EFG.708.1 | KP110418 | KP110126 |
| *Protea gaguedi* J.F.Gmel. | Proteales | Proteaceae | Turpin471 *(BNRH)* | KF147503 | KF147430 |
| *Protea glabra* Thunb. | Proteales | Proteaceae | MWC25805 *(K)* | JX572880 | JX517612 |
| *Protea humiflora* Andrews | Proteales | Proteaceae | MWC24061 *(K)* | KM894222 | KM896898 |
| *Protea laevis* R. Br. | Proteales | Proteaceae | MWC25800 *(K)* | KM894213 | KM896891 |
| *Protea laurifolia* Thunb. | Proteales | Proteaceae | MWC25802 *(K)* | JX572881 | JX517919 |
| *Protea lorifolia* Fourc. | Proteales | Proteaceae | CM.705.20 | KP110419 | - |
| *Protea mundii* Klotzsch | Proteales | Proteaceae | MWC24058 *(K)* | JX572882 | JX517639 |
| *Protea neriifolia* R.Br. | Proteales | Proteaceae | Anderson10 *(UPS)* | - | EU169659.1 |
| *Protea nitida* Mill. | Proteales | Proteaceae | MWC25791 *(K)* | JX572883 | JX517372 |
| *Protea parvula* Beard | Proteales | Proteaceae | OM3817 *(BNRH)* | KF147504 | KF147431 |
| *Protea piscina* Rourke | Proteales | Proteaceae | JAS.709.27 | KP110420 | - |
| *Protea pityphylla* Phillips | Proteales | Proteaceae | MWC25798 *(K)* | KM894240 | KM896912 |
| *Protea pudens* Rourke | Proteales | Proteaceae | MWC25797 *(K)* | KM894257 | KM896928 |

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| *Protea punctata* Meisn. | Proteales | Proteaceae | MWC24085 *(K)* | JX572884 | JX517553 |
| *Protea repens* L. | Proteales | Proteaceae | OM3109 *(JRAU)* | JQ025075 | JX905940 |
| *Protea revoluta* R. Br. | Proteales | Proteaceae | PG0057 | KM894253 | KM896923 |
| *Protea roupelliae* subsp. *roupelliae* Meisn. | Proteales | Proteaceae | Abbott9165 *(BNRH)* | JX572885 | JX517802 |
| *Protea scabra* R. Br. | Proteales | Proteaceae | MWC25796 *(K)* | KM894207 | KM896884 |
| *Protea scabriuscula* Phillip | Proteales | Proteaceae | MWC25799 *(K)* | KM894202 | KM896881 |
| *Protea scolymocephala* Reich. | Proteales | Proteaceae | MWC25792 *(K)* | KM894263 | KM896933 |
| *Protea subulifolia* Rourke | Proteales | Proteaceae | MWC24062 *(K)* | KM894217 | KM896894 |
| *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 |
| *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 |
| *Pseudosalacia streyi* Codd | Celastrales | Celastraceae | Abbott9248 *(BNRH)* | JX572889 | JX517644 |
| *Pseudoscolopia polyantha* Gilg | Salicales | Salicaceae | Abbott9124 *(BNRH)* | KM894232 | - |
| *Psoralea affinis* Eckl. & Zeyh. | Fabales | Fabaceae | AMM3903.2 *(BOL)* | KM894258 | KM896929 |
| *Psoralea aphylla* L. | Fabales | Fabaceae | AMM3400 *(BOL)* | JX572890 | JX517348 |
| *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 |
| *Psychotria zombamontana* (Kuntze) | Gentianales | Rubiaceae | OM4001 *(JRAU)* | KM894233 | KM896908 |

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| E.M.A.Petit | | | | | |
| *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 |
| *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 |
| *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 |

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| *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)* | - | AY490925.1 |
| *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 |
| *Rhoicissus digitata* (L. f.) Gilg & M. Brandt | Vitales | Vitaceae | Abbott9200 *(BNRH)* | JX572925 | JX518018 |
| *Rhoicissus revoilii* Planch. | Vitales | Vitaceae | OM2657 *(JRAU)* | JX572926 | JX517321 |
| *Rhoicissus rhomboidea* (E. Mey. ex Harv.) Planch. | Vitales | Vitaceae | Abbott9181 *(BNRH)* | JX572927 | JX518114 |
| *Rhoicissus sessilifolia* Retief | Vitales | Vitaceae | OM3773 *(JRAU)* | JX572928 | JX517692 |
| *Rhoicissus tomentosa* (Lam.) Wild & R.B. Drumm. | Vitales | Vitaceae | OM1546 *(JRAU)* | JF265573 | JF270916 |
| *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 |
| *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)* | - | AB354504.1 |
| *Robsonodendron eucleiforme* (Eckl. & Zeyh.) R.H.Archer | Celastrales | Celastraceae | Abbott9132 *(BNRH)* | JX572935 | JX517361 |
| *Robsonodendron maritimum* (Bolus) R.H.Archer | Celastrales | Celastraceae | MWC28690 *(K)* | - | JX518231 |

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| *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 |
| *Salacia rehmannii* Schinz | Celastrales | Celastraceae | Burrows7426 *(BNRH)* | KF147513 | KF147440 |
| *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 |
| *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)* | - | EU362039.1 |
| *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 |

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| *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 |
| *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 lucens (Hutch.) Moffett* | Sapindales | Anacardiaceae | Abbott9230 *(BNRH)* | KM894214 | KM896892 |
| *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 |

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| *Searsia nebulosa* (Schönland) Moffett | Sapindales | Anacardiaceae | Abbott9106 *(BNRH)* | JX572974 | JX517862 |
| *Searsia pallens* (Eckl. & Zeyh.) Moffett | Sapindales | Anacardiaceae | OM1976 *(JRAU)* | KM894259 | KM896930 |
| *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 |
| *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 |

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| *Senegalia brevispica* (Harms) Seigler & Ebinger | Fabales | Fabaceae | RL1333 *(JRAU)* | JF265244 | JF270602 |
| *Senegalia burkei* (Benth.) Kyal. & Boatwr. | Fabales | Fabaceae | RL1479 *(JRAU)* | JX572186 | JX517664 |
| *Senegalia caffra* (Thunb.) P.J.H.Hurter & Mabb. | Fabales | Fabaceae | RL1335 *(JRAU)* | JX572187 | JX518058 |
| *Senegalia chariessa* (Milne-Redh.) Kyal. & Boatwr. | Fabales | Fabaceae | MvdB2158 *(JRAU)* | JX572188 | JX518001 |
| *Senegalia cinerea* (Schinz) Kyal. & Boatwr. | Fabales | Fabaceae | RL1328 *(JRAU)* | JX572193 | JX517897 |
| *Senegalia eriocarpa* (Brenan) Kyal. & Boatwr. | Fabales | Fabaceae | MvdB2157 *(JRAU)* | JX572191 | JX518050 |
| *Senegalia erubescens* (Welw. ex Oliv.) Kyal. & Boatwr. | Fabales | Fabaceae | OM0780 *(JRAU)* | JF265248 | JF270605 |
| *Senegalia galpinii* (Burtt Davy) Seigler & Ebinger | 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.) Kyal. & Boatwr. | Fabales | Fabaceae | RL1332 *(JRAU)* | JX572202 | JX517996 |
| *Senegalia kraussiana* (Meisn. ex Benth.) Kyal. & Boatwr. | Fabales | Fabaceae | RL1287 *(JRAU)* | JX572206 | JX517710 |
| *Senegalia mellifera* (Vahl) Seigler & Ebinger | 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 |
| *Senegalia nigrescens* (Oliv.) P.J.H. Hurter | Fabales | Fabaceae | RBN314 *(KNP)* | JX572216 | JX518103 |

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| *Senegalia polyacantha* subsp. *campylacantha* (A.Rich.) Brenan | Fabales | Fabaceae | RL1323 *(JRAU)* | - | GQ872241 |
| *Senegalia robynsiana* Merxm. & A.Schreib. | Fabales | Fabaceae | OM1066 *(JRAU)* | JX572224 | JX517895 |
| *Senegalia schweinfurthii* (Brenan & Exell) Seigler & Ebinger | 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 petersiana* (Bolle) Lock | Fabales | Fabaceae | OM2515 *(JRAU)* | JX572982 | JX517765 |
| *Sesamothamnus lugardii* N.E.Br. ex Stapf | Lamiales | Pedaliaceae | OM1622 *(JRAU)* | JF265597 | JF270939 |
| *Sesbania bispinosa* (Jacq.) W.Wight | Fabales | Fabaceae | OM0675 *(JRAU)* | JX572984 | JX517377 |
| *Sesbania punicea* (Cav.) Benth. | Fabales | Fabaceae | OM3472 *(JRAU)* | KM894206 | - |
| *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)* | AM235131.1 | AY724330.1 |
| *Solanecio mannii* (Hook.f.) C.Jeffrey | Asterales | Asteraceae | Knox 555 *(L)* | - | AF459994.1 |
| *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 panduriforme* E. Mey. | Solanales | Solanaceae | OM0326 *(JRAU)* | JF265601 | JF270943 |
| *Sonneratia alba* Sm. | Myrtales | Lythraceae | n.a. | - | EF408669.1 |
| *Sophora inhambanensis* Klotzsch | Fabales | Fabaceae | OM4026 *(JRAU)* | KM894237 | KM896910 |
| *Sparmannia africana* L.f. | Malvales | Malvaceae | Alverson 4000 *(WIS)* | - | AY321194.1 |
| *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 |

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| *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 |
| *Stirtonanthus chrysanthus* (Adamson) B.-E.van Wyk & A.L.Sc | Fabales | Fabaceae | JWB006 | KM894252 | KM896922 |
| *Stoeberia utilis* (L.Bolus) van Jaarsv. | Caryophyllales | Aizoaceae | AM0034 *(JRAU)* | JX572996 | JX518027 |
| *Streblus Lour. sp. nov.* | Rosales | Moraceae | PS1238MT01 *(IMDY)* | - | GQ434235.1 |
| *Strelitzia alba* (L.f.) Skeels | Zingiberales | Strelitziaceae | Pedersen1154 *(C)* | - | AF434874.1 |
| *Strelitzia nicolai* Regel & K.Koch | Zingiberales | Strelitziaceae | OM1678 *(JRAU)* | JX572998 | JX517866 |
| *Strophanthus kombe* Oliv. | Gentianales | Apocynaceae | OM2111 *(JRAU)* | JX572999 | JX517906 |
| *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 |

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| *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)* | - | AY525140.1 |
| *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. White | Myrtales | Myrtaceae | MWC37689 *(K)* | JX573019 | JX517990 |
| *Syzygium guineense* subsp. *macrocarpum* (Engl.) F. White | Myrtales | Myrtaceae | MWC37688 *(K)* | JX573020 | JX517695 |
| *Syzygium legatii* Burtt Davy & Greenway | Myrtales | Myrtaceae | OM1792 *(JRAU)* | JX573022 | JX518187 |
| *Syzygium masukuense* (Baker) R.E.Fr. | Myrtales | Myrtaceae | Gadek s.n. *(JCT)* | - | DQ088591.1 |
| *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)* | AJ419764.1 | AY899945.1 |
| *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 |

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| *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 |
| *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)* | FJ381810.1 | JX518028 |
| *Terminalia mollis* M.A.Lawson | Myrtales | Combretaceae | OM1032 *(JRAU)* | JX573037 | JX518150 |
| *Terminalia phanerophlebia* Engl. & Diels | Myrtales | Combretaceae | OM1191 *(JRAU)* | JX573038 | JX517994 |
| *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 |
| *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 |
| *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 |
| *Toddalia asiatica* (L.) Lam. | Sapindales | Rutaceae | OM2688 *(JRAU)* | JX573053 | JX518156 |

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| *Toddaliopsis bremekampii* I. Verd. | Sapindales | Rutaceae | RBN366 *(JRAU)* | JF265630 | - |
| *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 |
| *Tricalysia coriacea* subsp. *angustifolia* (J.G.García) Robbr. | Gentianales | Rubiaceae | OM1842 *(BNRH)* | KF147523 | KF147449 |
| *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 | - |
| *Umtiza listerana* Sim | Fabales | Fabaceae | OM1802 *(JRAU)* | OM1802 | OM1802 |
| *Urera trinervis* (Hochst.) Friis & Immelman | Rosales | Urticaceae | Abbott9169 *(BNRH)* | Abbott9169 | Abbott9169 |
| *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. sp. nov.* | Ericales | Ericaceae | n.a. | - | AB623177.1 |

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| *Vachellia amythethophylla* A.Rich. | Fabales | Fabaceae | RL1314 *(JRAU)* | JX572180 | JX518139 |
| *Vachellia arenaria* Schinz | Fabales | Fabaceae | OM1048 *(JRAU)* | JX572181 | JX517408 |

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| *Vachellia borleae* (Burtt Davy) Kyal. & Boatwr. | Fabales | Fabaceae | OM1902 *(JRAU)* | JX572185 | JX518132 |
| *Vachellia davyi* (N.E.Br.) Kyal. & Boatwr. | Fabales | Fabaceae | RL1315 *(JRAU)* | JF265247 | JF270604 |
| *Vachellia dyeri* (P.P.Swartz) Kyal. & Boatwr. | Fabales | Fabaceae | RL1309 *(JRAU)* | JX572189 | JX517665 |
| *Vachellia erioloba* (E.Mey.) P.J.H.Hurter | Fabales | Fabaceae | RL1298 *(JRAU)* | JX572192 | JX517384 |
| *Vachellia exuvialis* (Verdoorn) Kyal. & Boatwr. | Fabales | Fabaceae | OM0260 *(JRAU)* | JF265249 | JF270606 |
| *Vachellia farnesiana* (L.) Wight & Arn. | Fabales | Fabaceae | Entwisle2708 *(MEL)* | - | AF523115 |
| *Vachellia gerrardii* (Benth.) P.J.H.Hurter | Fabales | Fabaceae | OM0315 *(JRAU)* | JX572195 | JX517886 |
| *Vachellia grandicornuta* (Gerstner) Seigler & Ebinger | Fabales | Fabaceae | RL1286 *(JRAU)* | JX572197 | JX517869 |
| *Vachellia haematoxylon* (Willd.) Seigler & Ebinger | 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) Banfi & Galasso | Fabales | Fabaceae | OM3013 *(JRAU)* | JX572203 | JX517490 |
| *Vachellia kirkii* (Oliv.) Kyal. & Boatwr. | Fabales | Fabaceae | RL1307 *(JRAU)* | JX572204 | JX517387 |
| *Vachellia kosiensis* (P.P.Sw. ex Coates Palgr.) Kyal. & Boatwr. | Fabales | Fabaceae | RL1305 *(JRAU)* | JX572205 | JX518109 |
| *Vachellia luederitzii* (Engl.) Kyal. & Boatwr. | Fabales | Fabaceae | RL1500 *(JRAU)* | JX572207 | JX518240 |
| *Vachellia luederitzii* var. *retinens* (Sim) J. Ross & Brenan | Fabales | Fabaceae | RL1285 *(JRAU)* | JX572208 | JX517653 |

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| *Vachellia montana* (P.P.Swartz) Kyal. & Boatwr. | Fabales | Fabaceae | RL1313 *(JRAU)* | JX572231 | JX517894 |
| *Vachellia natalitia* (E.Mey.) Kyal. & Boatwr. | Fabales | Fabaceae | RL1330 *(JRAU)* | JX572214 | JX517566 |
| *Vachellia nebrownii* (Burtt Davy) Seigler & Ebinger | Fabales | Fabaceae | OM1050 *(JRAU)* | JX572215 | JX517304 |
| *Vachellia nilotica* (L.) Delile | Fabales | Fabaceae | RL1302 *(JRAU)* | JX572217 | JX517797 |
| *Vachellia ormocarpoides* (P.J.H.Hurter) Kyal. & Boatwr. | Fabales | Fabaceae | RL1293 *(JRAU)* | JX572218 | JX517884 |
| *Vachellia permixta* (Burtt Davy) Kyal. & Boatwr. | Fabales | Fabaceae | Johan2 *(JRAU)* | - | GQ872240 |
| *Vachellia reficiens* Wawra | Fabales | Fabaceae | Acaref *(JRAU)* | JX572220 | JX518096 |

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|---|---|---|---|---|---|
| *Vachellia rehmanniana* (Schinz) Kyal. & Boatwr. | Fabales | Fabaceae | RL1288 *(JRAU)* | JX572221 | JX517925 |
| *Vachellia robbertsei* (P.P.Swartz) Kyal. & Boatwr. | Fabales | Fabaceae | RL1289 *(JRAU)* | - | GQ872244.1 |
| *Vachellia robusta* Burch. | Fabales | Fabaceae | RL1310 *(JRAU)* | JX572223 | JX517736 |
| *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) Kyal. & Boatwr. | Fabales | Fabaceae | RL1296 *(JRAU)* | JX572226 | JX518234 |
| *Vachellia sieberiana* (DC.) Kyal. & Boatwr. | Fabales | Fabaceae | OM1029 *(JRAU)* | JX572228 | JX517353 |
| *Vachellia sieberiana* var. woodii (Burtt Davy) Keay & Brenan | Fabales | Fabaceae | OM0966 *(JRAU)* | JF265259 | JF270616 |
| *Vachellia stuhlmannii* (Taub.) Kyal. & Boatwr. | Fabales | Fabaceae | RL1294 *(JRAU)* | JX572230 | JX517951 |
| *Vachellia swazica* (Burtt Davy) Kyal. & Boatwr. | Fabales | Fabaceae | RL1327 *(JRAU)* | JF265260 | JF270617 |
| *Vachellia torrei* (Brenan) Kyal. & Boatwr. | Fabales | Fabaceae | OM2429 *(JRAU)* | JX572232 | JX518215 |
| *Vachellia tortilis* subsp. *heteracantha* (Burch.) Brenan | Fabales | Fabaceae | RL1337 *(JRAU)* | JX572233 | JX517619 |
| *Vachellia xanthophloea* (Benth.) P.J.H.Hurter | Fabales | Fabaceae | OM2579 *(JRAU)* | JX572235 | JX517302 |
| *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 |

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|---|---|---|---|---|---|
| *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 lanceolata G. Don* | Sapindales | Rutaceae | OM3224 *(JRAU)* | JX573079 | JX517578 |
| *Vepris reflexa* Verd. | Sapindales | Rutaceae | OM1299 *(JRAU)* | JX573080 | JX517574 |
| *Vernonia natalensis* Sch.Bip. ex Walp. | Asterales | Asteraceae | Burrows12690 *(JRAU)* | KF147528 | KF147451 |
| *Virgilia divaricata* Adamson | Fabales | Fabaceae | OM3169 *(JRAU)* | JX573081 | JX517500 |
| *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 |
| *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)* | AY988266.1 | AY988364.1 |
| *Widdringtonia schwarzii* (Marloth) Mast. | Pinales | Cupressaceae | UNSW23247 *(SYD)* | - | AF152218.1 |
| *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 |

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|---|---|---|---|---|---|
| *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 |
| *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 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 |

**Table S3** Performance of clustering algorithms for phylogenetic beta diversity ($p\beta_{sim}$) and beta diversity ($\beta_{sim}$) of woody species data.

| Cluster Method | **Phylogenetic beta diversity** | | **Beta diversity** | |
|---|---|---|---|---|
| Algorithm | Cophenetic correlation coefficient | Gower distance | Cophenetic correlation coefficient | Gower distance |
| Single linkage agglomerative clustering method = "single" | 0.197 | 103237.9 | 0.292 | 434241.1 |
| Complete linkage agglomerative clustering method = "complete" | 0.586 | 172838.1 | 0.570 | 191199.7 |
| UPGMA agglomerative clustering method = "average" | **0.641** | **15357.2** | **0.726** | **35610.5** |
| WPGMA agglomerative clustering method = "mcquitty" | 0.607 | 21489.8 | 0.652 | 48027.5 |
| UPGMC agglomerative clustering method = "centroid" | 0.609 | 48372.8 | 0.665 | 195501.0 |
| WPGMC agglomerative clustering method = "median" | 0.416 | 31942.3 | 0.580 | 186556.1 |
| Ward's minimum variance clustering method = "ward" | 0.546 | 67021547 | 0.655 | 109015934 |
| DIANA | 0.621 | 176335.8 | 0.615 | 186398.3 |

The cophenetic correlation coefficient measures the fit of each algorithm and ranges between 0 and 1. Cluster algorithms are tested by grouping grid cell assemblages for woody flora of southern Africa. Values in bold correspond to best performing algorithm.

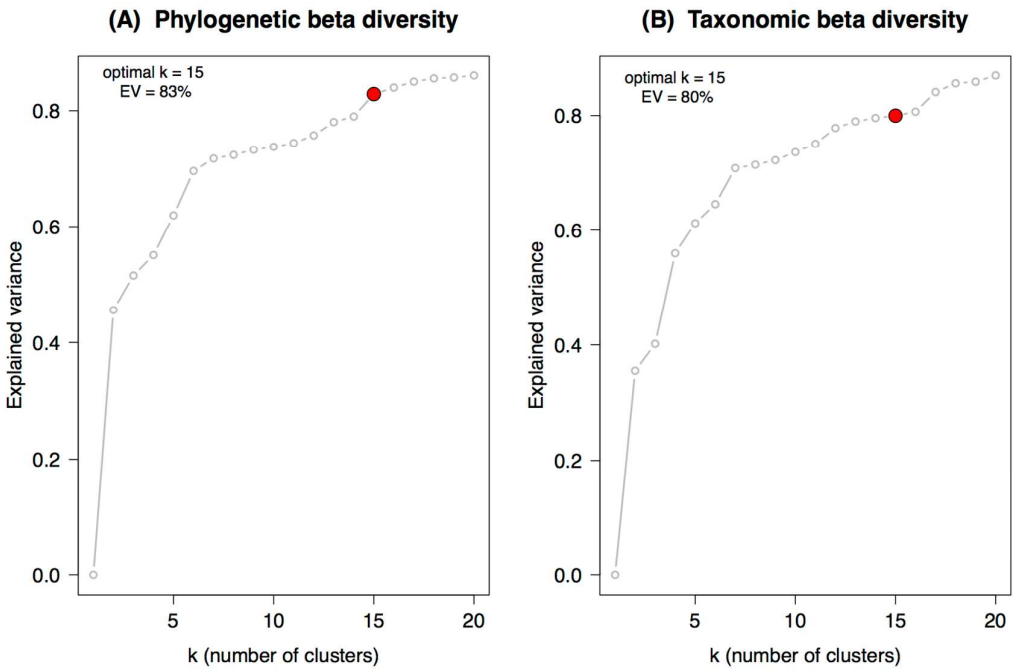


**Figure S1** Threshold of explained variances identifying the optimal number of clusters (k) for k = 2–20 groups for phylogenetic beta diversity (a), and beta diversity (b). The "elbow" (optimal cluster) of the graph is indicated by the red circle.

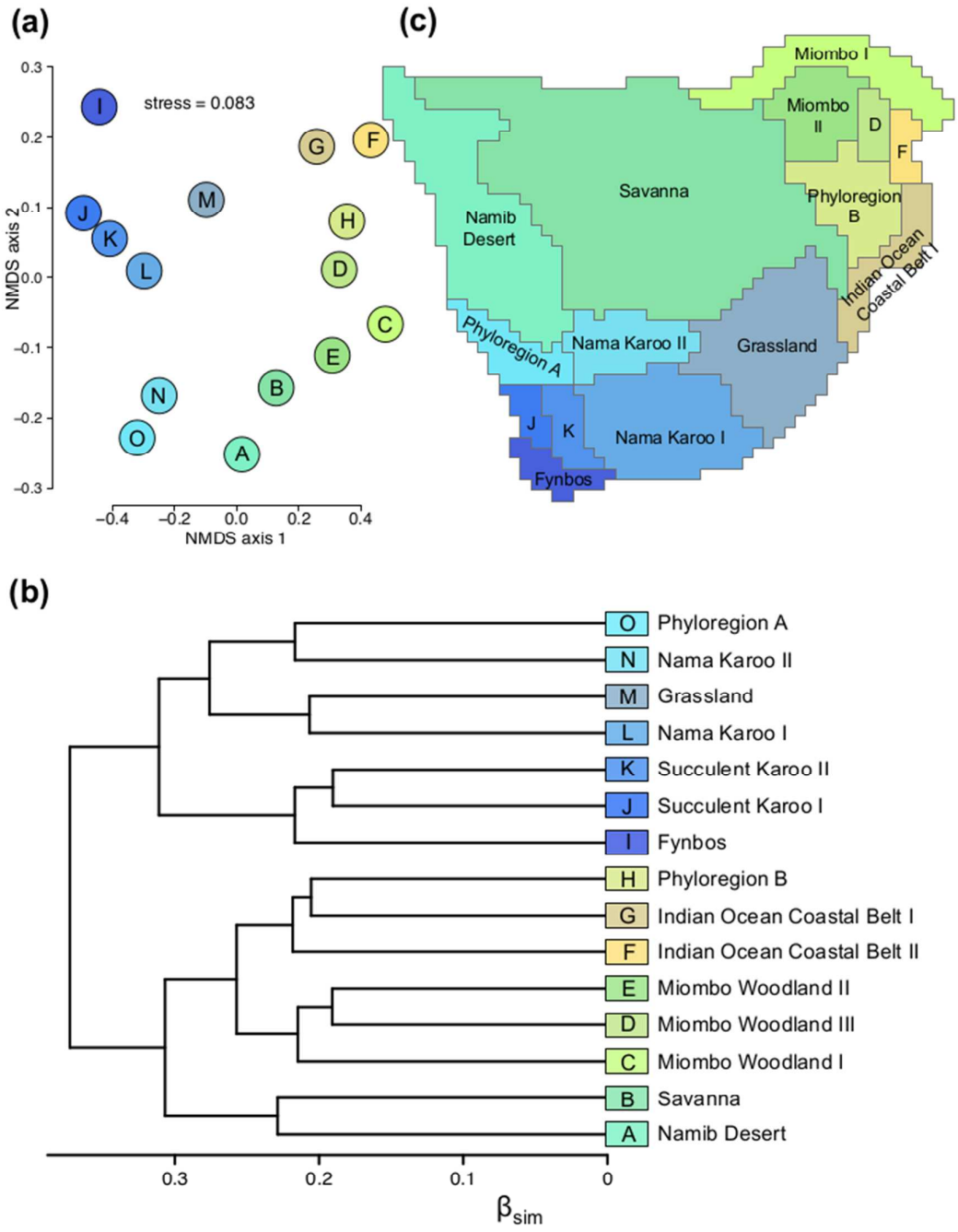


**Figure S2** Relationship among vegetation types for the woody flora of southern Africa based on beta diversity ($\beta_{sim}$) values, presented as an NMDS ordination plot (a), a dendrogram of compositional dissimilarity (b), and in geographic space (c). Grid cells cluster into 15 regions (see Fig. 3 for details).

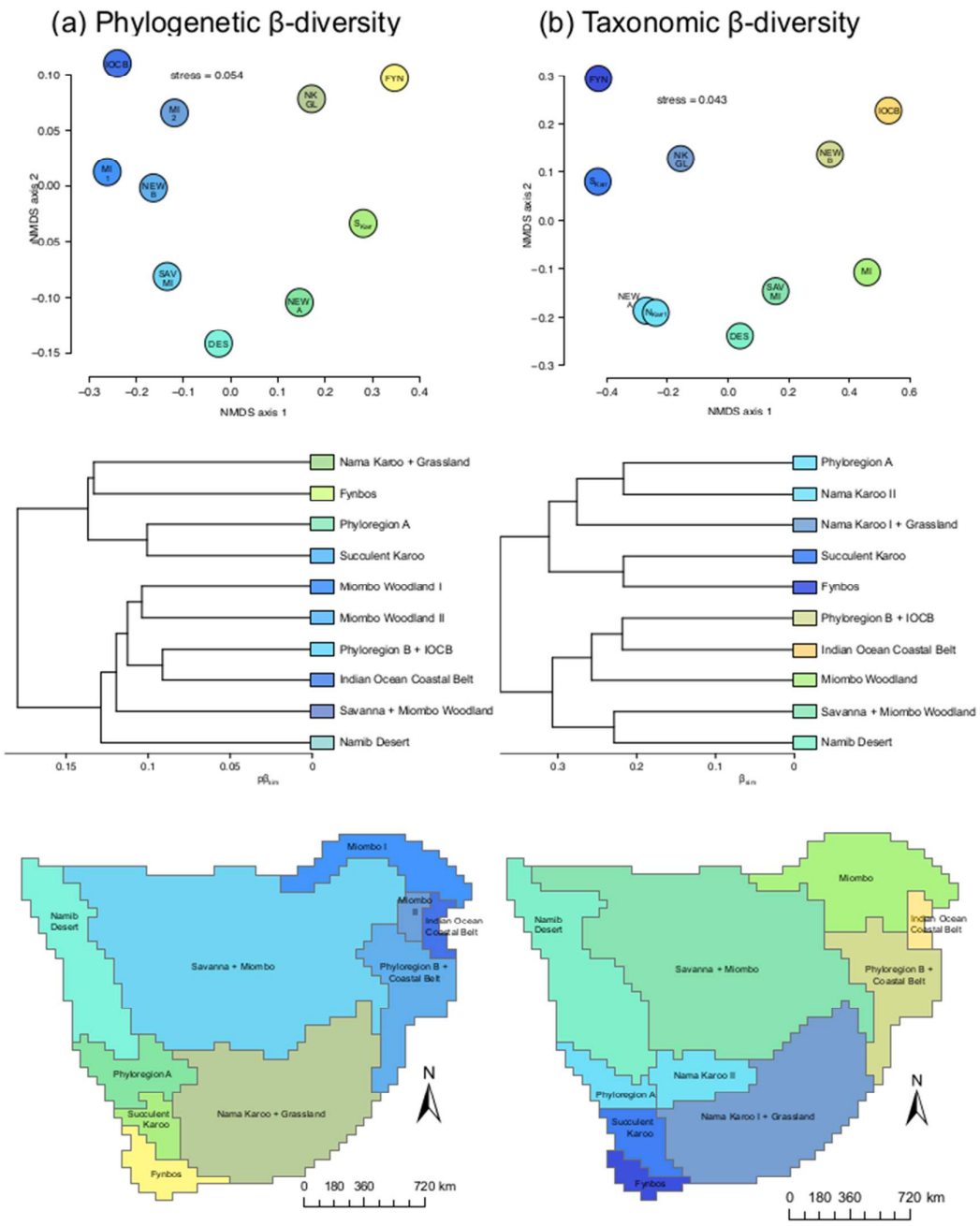


**Figure S3** Vegetation types retrieved when restricting the number of hierarchical clusters to match to traditional classification schemes (see Fig. 1): (a) phylogenetic beta diversity ($p\beta_{sim}$), and (b) species beta diversity ($\beta_{sim}$).

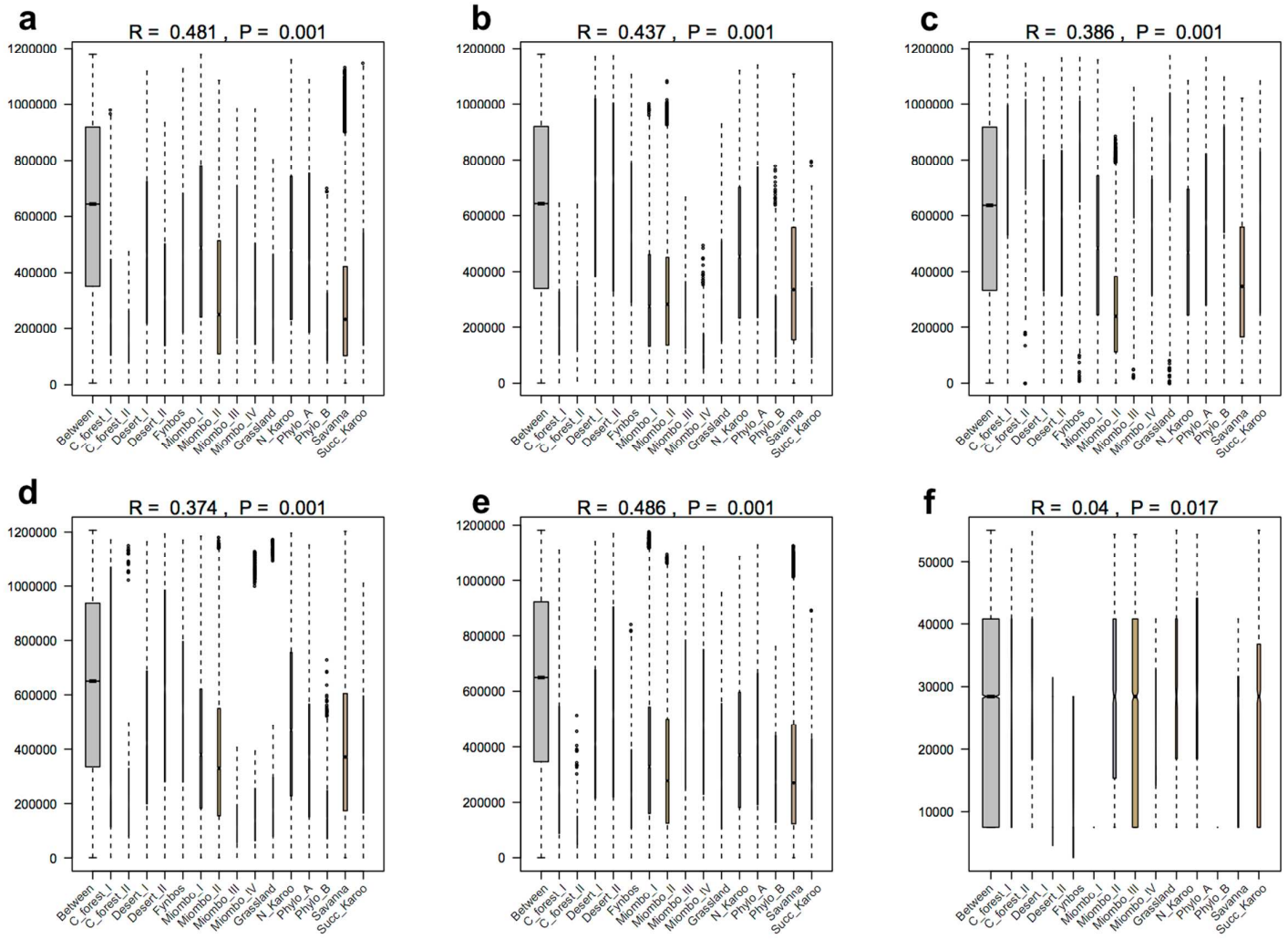
a
R = 0.481 , P = 0.001
b
R = 0.437 , P = 0.001
c
R = 0.386 , P = 0.001
d
R = 0.374 , P = 0.001
e
R = 0.486 , P = 0.001
f
R = 0.04 , P = 0.017
Between
C_forest_I
C_forest_II
Desert_I
Desert_II
Fynbos
Miombo_I
Miombo_II
Miombo_III
Miombo_IV
Grassland
N_Karoo
Phylo_A
Phylo_B
Savanna
Succ_Karoo

**Figure S4** Analysis of similarity (ANOSIM) boxplots comparing environmental variables among phyloregions. (a) Mean annual temperature, (b) Mean annual precipitation, (c) Altitude, (d) net primary productivity, (e) potential evapotranspiration, and (f) Mean fire frequency. The ANOSIM boxplot gives the R statistics and statistical significance between the five. The values on the y-axes are cell rank scores between and within the phyloregions. Colours of boxplots correspond to biomes represented in Fig. 3. IOCB = Indian Ocean Coastal Belt; MI = Miombo, Miombo Woodland.

Flat-topped Vachellia tortilis in African Savanna plain
327x219mm (300 x 300 DPI)