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Research Paper

Flora Resources of Mikumi National Park (MINAPA): An Insight for Enhancing Strategic Management and Conservation of Protected Areas (PAs) in Tanzania

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Abstract

The flora within Protected Areas (PAs) plays a crucial role in providing essential resources for wildlife, including forage, shelter, breeding sites, and water. However, the current understanding of the floristic composition of Mikumi National Park (MINAPA) is limited, hindering the implementation of effective conservation and management strategies. This study aimed to update the plant species records for MINAPA based on the Angiosperm Phylogeny Group (APG) IV classification by analyzing the data from unpublished surveys conducted between the 1960s and 1990s, as well as a more recent survey in 2021. A total of 951 species records were compiled, representing 504 genera and 124 families. Among these, 35 species were listed in the International Union for Conservation of Nature (IUCN) red list with 15 (1.6%) classified as Vulnerable (VU), 7 (0.7%) as Near Threatened (NT), 10 (1.0%) as Endangered (EN), and 3 (0.3%) as Critically Endangered (CR). Additionally, 16 species were found to be endemic to Tanzania. The data from the 1960s-1990s surveys revealed 778 species distributed across 421 genera and 106 families with 12 (1.5%) listed in the IUCN red list. Notably, 173 species (18.2%) were newly recorded in 2021 and distributed across 148 genera and 58 families. Among these newly recorded species, 21 (2.2%) were listed in the IUCN red list and 13 were found to be endemic to Tanzania. This study significantly enhanced our understanding of the flora of MINAPA and emphasized the importance of conducting regular surveys to update the status of floral resources in PAs, particularly where reports are based on outdated taxonomic nomenclature. These findings will contribute to the advancement of scientific research and management techniques, particularly in the context of ongoing changes in climatic conditions.

Keywords: International Union for Conservation of Nature (IUCN) Red-Listed Plants, Plant Composition, Botanical Surveys, Plant Species Records.

Introduction

Biological assessments, such as the analysis of floral composition, species diversity, and vegetation structure, are essential for gaining a comprehensive understanding of ecological characteristics and ecosystem functions, making them crucial for effective ecosystem management (Ali et al., 2017; Gurr et al., 2017; Kremen, 2005). Studies on floral composition are particularly vital as they provide insights into ecological characteristics and the potential for ecosystem functioning (Fiedler et al., 2008). The flora within ecosystems serves as a vital resource for wildlife, providing essential elements, such as forage, shelter, breeding sites, and water. Conducting

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vegetation surveys aids in identifying plant diversity (Koyama et al., 2021), which forms the foundation for managing biodiversity elements and monitoring changes over time (Cagri, 1990; Spellerberg, 2005). This research was integral to fulfilling wildlife research obligations in Tanzania (Dowie, 2011; United Republic of Tanzania, 2001) and aligned with the objectives of the conservation of biological diversity at large (Lausche, 2011). It also contributed to meeting the requirements of the Convention on Biological Diversity (CBD) (2012) (Day et al., 2012), which emphasized the need for facilitating comprehensive inventories of all taxa in areas of high conservation priority, including specific ecosystems. Mikumi National Park (MINAPA) is one of the most significant Protected Areas (PAs) in Southern Tanzania and is currently among the four priority areas targeted by the Government of Tanzania for increased tourism and improved community livelihoods (Ndossy, 2020; Vedeld et al., 2012). Therefore, gaining a clear understanding of the vegetation resources in MINAPA will not only enhance resource management techniques, but also contribute to local and international knowledge regarding species-specific conservation status, thus potentially attracting investment in scientific research.

This study presented a comprehensive and updated overview of the flora in MINAPA, utilizing the currently accepted names of families, genera, and species for the recorded plants. It also assessed the contribution of the current surveys to the existing plant records for MINAPA based on the classification of the Angiosperm Phylogeny Group (APG) IV for the orders and families of flowering plants. The study focused on the currently accepted family classification and taxonomic nomenclature, effectively building upon previous research, including the works of Richard Wingfield in 1975 and those of John Lovett and Guy Norton (JL-GN), among others, pertaining to the plant species reported to exist within MINAPA. It consolidated the floristic composition from previous surveys and integrated it with the most recent surveys conducted in 2021 with specific objectives to: 1) gather available published and unpublished survey data in MINAPA; 2) ascertain the current vegetation composition of MINAPA; and 3) produce the most up-to-date floristic checklist of MINAPA.

Historical Context and Research Background

MINAPA boasts diverse morphological features and distinct climate regimes, giving rise to unique habitat types and harboring both endangered and endemic plant species. The central and northern regions are characterized by savanna landscapes interspersed with *Acacia* (sensu lato), *Adansonia digitata* L. (baobab), *Tamarindus indica* (L), and various palm tree species, while the southern part is defined by Miombo vegetation. Additionally, the Malunde Mountains (07° 24' S, 37° 18' E) encompass a 450-hectare patch of Afromontane rainforest in the southeast, forming part of the Eastern Arc Mountains. This area is distinguished by its Afromontane rainforest, featuring canopy tree species ranging from 20 to 40 m in height with previous studies indicating a rich biodiversity and the presence of numerous threatened species (Lovett & Norton, 1989). Habitat types within MINAPA encompass woodland, open woodland, wooded grassland, floodplain, riverine, and Afromontane forests. The park supports a wide array of fauna and flora, underscoring its significant conservation value.

Vegetation surveys in MINAPA have been conducted in fragmented and often unpublished manners, resulting in disorganized and incomplete information on plant species. Consequently, there is a noticeable gap in available information, including a lack of comprehensive literature reviews and field surveys covering the entire area. The earliest plant species records for MINAPA date back to the 1960s and 1970s. Notable contributors during this period include J. Procter, S. A. Renvoizem, P. Ole. Sayalel, Herbert Lyaruu, Richard Wingfield, Guy Norton, L. B. Mwasumbi, and the Animal Behavior Research Unit (ABRU) team led by John Lovett and Guy Norton (JL-GN), among others. However, most of the early collections have been concentrated in the central, central-eastern, and along the Iringa Road areas of MINAPA, including Vuma Hills forests, Kikwaraza, Msindazi, Kikobora, Mkuluwili, Chamgore, and Mkata floodplain (ranging in altitude from 300 to 800 m). Specimens have been deposited at the herbarium of the University of Dar es Salaam with several also being kept at MINAPA. Hard copies of previously recorded species records have been obtained from the ecology office of MINAPA. The classification methods used in these previous lists are outdated and do not adhere to the modern classification of the APG for the orders and families of flowering plants (APG, 2016). The most recent vegetation assessment has been conducted by the Tanzania Wildlife Research Institute (TAWIRI) in 2021 under the Resilient Natural Resources Management for Tourism and Growth (REGROW) project. Therefore, there is a pressing need for a comprehensive review to organize data on flora resources, including an analysis of the available floristic records to gain a detailed understanding of the flora. This review of plant species represents the first attempt in MINAPA to consolidate information from various vegetation studies into one comprehensive work, providing an updated checklist and conducting a quantitative analysis of the flora in MINAPA, a historically and ecologically significant wildlife conservation area in southern Tanzania.

Methodology

Study Area

MINAPA is the ninth-largest national park in Tanzania situated in the central-eastern part of the country and covering an area of 3,230 km². It spans from 37° 00' to 37° 30' E and from 7° 00' to 7° 45' S (refer to Figure 1), extending westward towards Nyerere National Park. The park is home to a diverse array of fauna and flora, underscoring its significant conservation importance. The altitude within the park ranges from 430 m above sea level (asl) in the south to 1270 m asl at the peak of Malundwe Mountain, which is the only part of the Eastern Arc Mountains in Tanzania free from uncontrolled human disturbance. The mean annual rainfall is approximately 860 mm and the average annual temperature is 25°C. MINAPA is characterized by 3 major catchment river systems: the Ruaha, Ruvu, and Wami catchments (see Figure 1). The Ruaha River catchment flows southward from the southwestern portion of the park to the Ruaha River system, the Ruvu River catchment flows southeast from Malundwe Mountains to the Ruvu River system, and the Wami River catchment flows northward along with the Mkata River system in about a third of the northern portion of the park into the Wami River system.



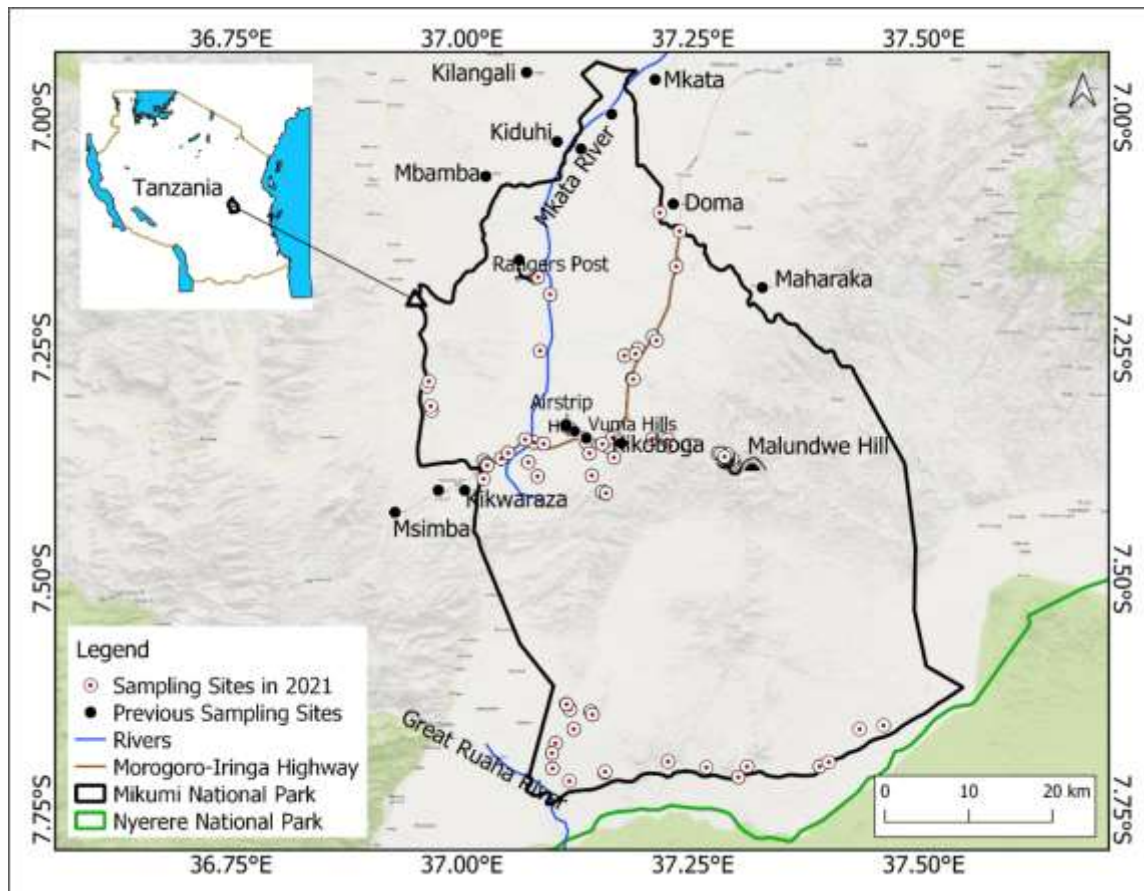


Figure 1

Data Collection

Plant species data for the MINAPA checklist were gathered from 3 primary sources. Firstly, collection records from previous surveys conducted between the 1960s and 1990s were utilized. This involved conducting a literature search and verifying specimens in the herbarium. All plant species names were digitized in an Excel spreadsheet and the species information was extracted from the existing voucher specimens both at the herbarium in MINAPA and the University of Dar es Salaam, Tanzania. Secondly, the collection records from recent floristic surveys carried out in 2021 were utilized. Various vegetation patches were visited and surveyed during two (dry and wet) seasons to cover areas with few or no previous collections. The surveys involved plot sampling, random walks for recording plant species, and documentation of specimen details in a notebook. Information, such as life form, habitat, and collector details, were recorded in the field where possible. The 2021 records were conducted by the TAWIRI during the implementation of the REGROW project under the supervision of the Ministry of Natural Resources and Tourism (MNRT) in Tanzania. Sampling sites were selected based on vegetation homogeneity/heterogeneity and nested sampling plots were established along transects. The sampling plots were measured 20×20 m (400 m²) for trees, 5×5 m (25 m²) for shrubs, and 1×1 m (1 m²) for herbs and grasses (Anitha et al., 2009). All plant species within each plot, including habitat types, were identified with the assistance of experienced botanists. The unique species found outside the plots were also recorded. The species that were not well identified in the field were collected and later verified using voucher specimens at the herbarium of the University of Dar es Salaam and the National Herbarium of Tanzania (NHT).

Data Analysis

A comprehensive review of plant species records from all surveys, including those from the 1960s-1990s and the recent 2021 surveys, was conducted. Taxonomic contributions, encompassing families, genera, and species, were compiled and the nomenclatures were updated in accordance with the APG classification for the orders and families of flowering plants (APG, 2016). Family and species circumscription, spelling, authorities, and synonyms of scientific names were revised based on online databases, such as the African Plant Database (www.vilge.ch/musinfo/bd/cjb/africa) and the Catalogue of Life (Hoborn et al., 2021). Furthermore, the conservation status of species was determined based on the International Union for Conservation of Nature (IUCN) red list of Threatened Species (TS) (IUCN, 2019).

In the updated checklist we developed, the currently accepted name for each species was first provided followed by any synonyms (usually the old names). Additionally, the species list was categorized into major groups, namely Pteridophytes, Dicotyledons, and Monocotyledons. Plant families were arranged alphabetically within each major plant group followed by genera and species (also alphabetically) within each family.

We compiled the habitats where the species were recorded to understand the contribution of prominent habitat types in terms of

taxonomic richness. Descriptive statistics were used to calculate the proportional taxonomic contribution per survey period/group. Assessment of the conservation status provided by IUCN was carried out using R software, version 4.2.1 (R Core Team, 2022). The importance of each family and genus was measured by the proportion of their species and genera to the total number of recorded species, genera, and families in the study area (ratios of species/genera, species/families, and genera/families). We also evaluated the proportional contribution of the current species records to the MINAPA flora in terms of species listed in the IUCN red lists as Vulnerable (VU), Endangered (EN), and Critically Endangered (CR).

Research Findings

Historical Flora Surveys in MINAPA

Figure 2 displays the significant historical surveys conducted by various scientists. The earliest known survey in this study was conducted by J. Procter in 1965 followed by S. A. Renvoize in 1968, contributing 1.8% and 1.5% to the species checklist, respectively (Figure 2). P. Ole. Sayalel had the highest number of records in 1975, 1976, and 1977, accounting for 23.6% of the records. This was followed by Richard Wingfield in 1975 and the Animal Behavior Research Unit (ABRU) team formed by John Lovertt, Guy Norton, and Herbert Lyaruu in 1977 (Figure 2). Collectively, the older records contributed 79.7%, while the most recent records in 2021 (Bukombe et al.) supported by the REGROW project contributed an additional 20.3% to the records for MINAPA (Figure 2).

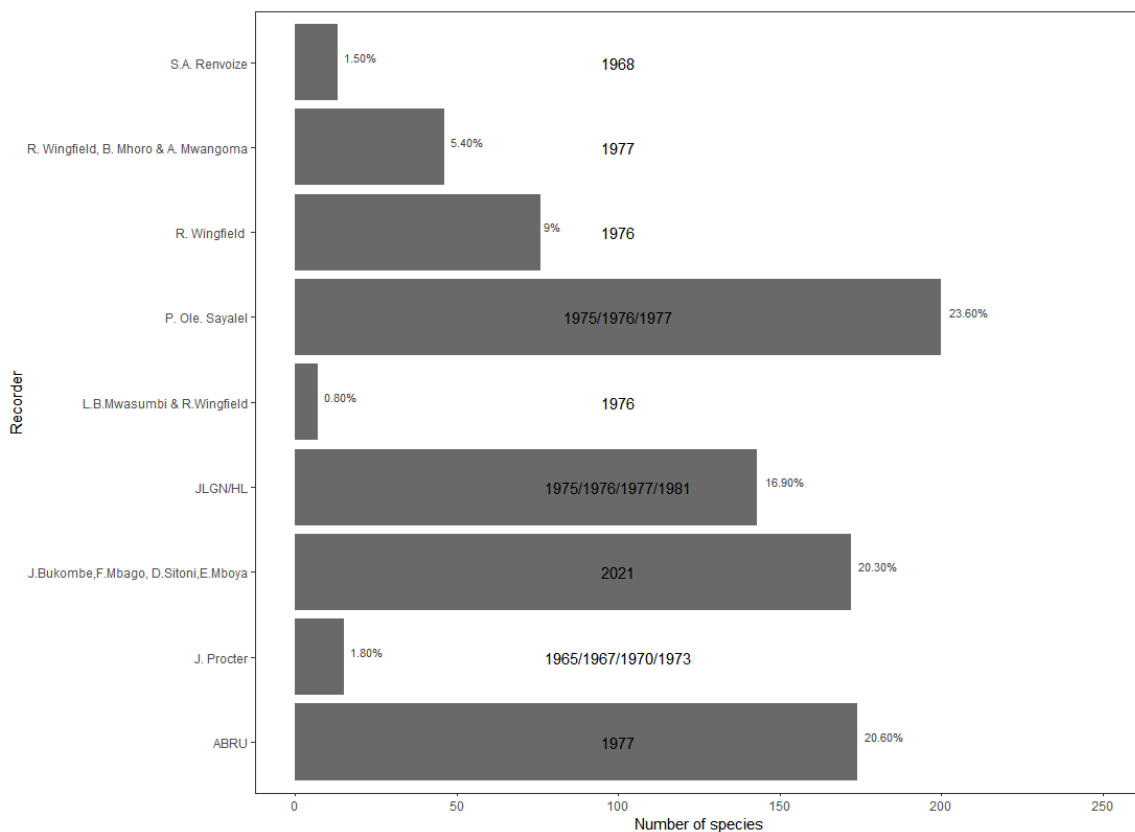


Figure 2: Plant records/projects involved in Mikumi National Park since 1960s

Families of the Floristic Records from the 1960s-1990s Surveys

The old species records referring to the plants recorded from the 1960s to the 1990s totaled approximately 778 species distributed across 421 genera and 106 families (Table 6). These records were predominantly composed of dicotyledonous plants. The 8 major families (each with at least 25 species) accounted for 43% of the total genera and 50% of the total species (Table 1A). Among these, the most dominant family was Poaceae, representing 12% of all genera and 15% of all species followed by the family Fabaceae, which accounted for 7% of all genera and 8% of all species.

Major Families of the Newly Recorded Plants in 2021 Surveys

A total of approximately 173 newly recorded species in 2021 were distributed across 147 genera and 58 families. These species were additions to the previous list of records from the 1960s to the 1990s. They belonged to 48 families of dicotyledonous plants, 9 families of monocotyledonous plants, and 1 family of pteridophytes. Similar to the old records, the new records were predominantly composed of dicotyledons. The top 8 families, which were referred to as major families, each contained at least 6 species. Collectively, these major families accounted for 45% of all genera and 47% of all species (Table 1A). The major families recorded in 2021 were led by



the family Rubiaceae, representing 10.2% of all genera and 12.8% of all species followed by the family Annonaceae with 5.4% of all genera and 5.8% of all species.

Table 1: Major plant family records (A) during the 1960s-1990s and (B) in 2021 surveys

SN	Family	Genus	Number of species	% of genera	% of species
A: 8 Major plant family records during the 1960s-1990s					
1	Poaceae	52	114	12	15
2	Fabaceae	29	66	7	8
3	Rubiaceae	22	44	5	6
4	Cyperaceae	8	41	2	5
5	Asteraceae	27	35	6	5
6	Euphorbiaceae	18	33	4	4
7	Acanthaceae	15	28	4	4
8	Caesalpinioideae	13	25	3	3
TOTAL		184	386	43	50
B: 8 major plant family records in 2021					
1	Rubiaceae	15	22	10.2	12.8
2	Annonaceae	6	10	5.4	5.8
3	Caesalpinioideae	8	10	5.4	5.8
4	Fabaceae	9	10	6.1	5.8
5	Euphorbiaceae	8	8	5.4	4.7
6	Poaceae	6	8	4.1	4.7
7	Asteraceae	6	7	4.1	4.1
8	Sapindaceae	6	6	4.1	3.5
TOTAL		64	81	44.8	47.2

Updated Floristic Checklist of MINAPA

The updated plant list of MINAPA integrated both the records from the 1960s-1990s and the most recent records from 2021 (refer to Table 6). This list was developed based on a comprehensive review of the current vegetation resources and comprised approximately 951 species (refer to Table 2). Taxonomically, the list encompassed 503 genera and 124 families. Pteridophytes were represented by 3 families, 4 genera, and 4 species; Monocotyledons were shown by 23 families, 98 genera, and 218 species; and Dicotyledons were demonstrated by 98 families, 401 genera, and 729 species (refer to Table 2). The species richness in MINAPA was predominantly composed of dicotyledonous plants.

Table 2: Number of species of the different taxonomic groups recorded in Mikumi National Park

Plant groups	Families	Genera	Number of species
Dicotyledons	98	401	729
Monocotyledons	23	98	218
Pteridophytes	3	4	4
Total	124	503	951

The updated species checklist of MINAPA highlighted 11 prominent families, each with at least 20 species records. The family *Poaceae* stood out as the most prominent, comprising 11% (n=54) of all genera and 13% (n=128) of all species followed by *Fabaceae* and *Rubiaceae* with 8 and 7% of all genera, respectively (refer to Table 3). Table 4 displays the prominent genera recorded based on the number of species. The genus *Cyperus* in the *Poaceae* family was the largest, comprising 5% of the total species in MINAPA. Additionally, 30 families had 5 to 13 species (1%) and 80 families possessed only a single species each (refer to Table 6).

Table 3: 11 prominent families in the updated checklist of MINAPA

SN	Family	Number of genera	Number of species	% of genera from the total of updated list	% of species from the total of updated list	% of genera from the total of major families	% of species from the total of major families
1	Poaceae	54	122	11	13	29	65
2	Fabaceae	33	76	7	8	18	41
3	Rubiaceae	32	66	6	7	17	35
4	Cyperaceae	8	43	2	5	4	23
5	Asteraceae	30	42	6	4	16	22
6	Euphorbiaceae	23	41	5	4	12	22
7	Caesalpinoideae	19	35	4	4	10	19
8	Acanthaceae	19	32	4	3	10	17
9	Convolvulaceae	5	23	1	2	3	12
10	Mimosoideae	8	23	2	2	4	12
11	Labiatae	10	21	2	2	5	11
Total of Major Families		187	402	50	54		
Total of Updated List		503	951				

Major Life Forms

Based on the known plant morphology (life-form) spectra, the updated checklist of plant species in MINAPA could be categorized into 7 groups. The most prevalent life forms were herbs accounting for 407 (43%) of the total number of species followed by trees comprising 295 (31%) species, grasses with 122 (13%) species, shrubs with 8% of the species, sedges with 4.5% of the species, lianas with 3 (0.03%) species, and hemi-climbers with 2 (0.02%) species. In terms of the record status, the life forms of both the new and old records were proportionally similar. However, the records collected in 2021 mostly consisted of trees followed by herbs, whereas the old records included mostly herbs followed by trees (refer to Figure 3).

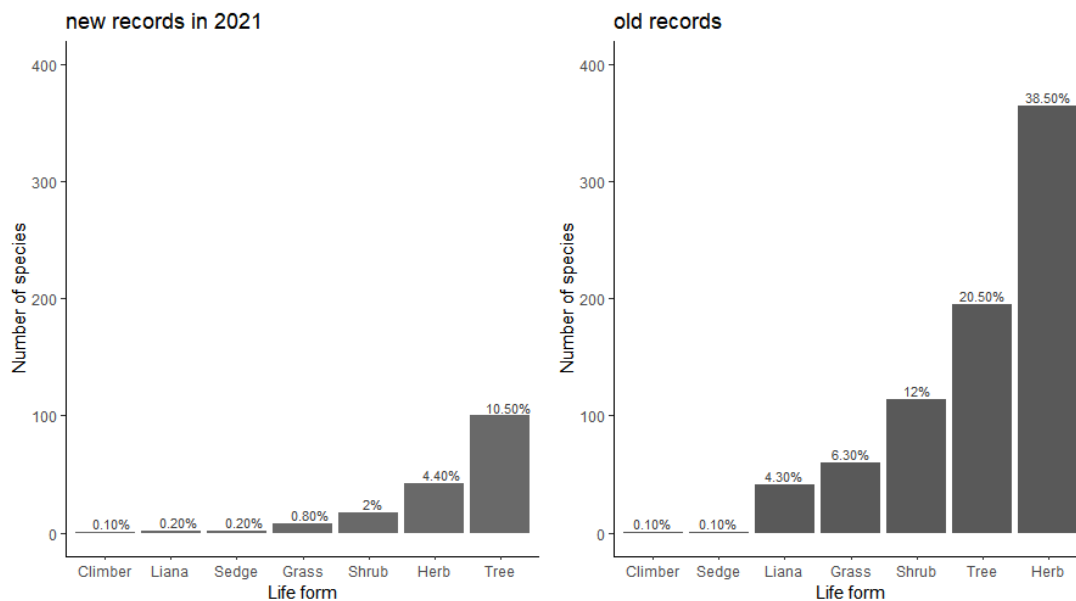


Figure 3: The plant life forms recorded in MINAPA

Plant Species of Conservation Concern

Out of approximately 951 species records in the updated checklist, a total of 35 (3.7%) species were listed in the IUCN red list (refer to Table 4). Among these 35 red-listed species, 15 (1.6%) species were VU, 7 (0.7%) species were NT, 10 (1.0%) species were EN, and 3 (0.3%) species were CR (see Tables A & B of the attached lists). These species were predominantly trees followed by herbs (refer to Table 4).

21 (2.2%) of the total 35 red-listed species records were newly recorded (additional records) in 2021. Additionally, out of the 35 IUCN-listed species, 16 were endemic to Tanzania with only 3 of them recorded in the 1960s-1990s surveys, while 13 species were



recorded in the survey conducted in 2021 (refer to Table 5).

Table 4: Species of conservation value in the IUCN Red List recorded in Mikumi National Park

Conservation status	Total	Year recorded	Herb	Shrub	Tree	Total
CR	3	2021			2	2
		1960s-1990s	1			1
EN	10	2021	1	2	5	8
		1960s-1990s	2			2
NT	7	2021		1	3	4
		1960s-1990s	1		2	3
VU	15	2021		1	6	7
		1960s-1990s	2	1	5	8
Total	35		7	5	23	35

Table 5: Plant species endemic to Tanzania recorded from the 1960s to 2021 in Mikumi National Park

SN	Species name	Life-form	IUCN status	Author	Year
1	<i>Zenkerella perplexa</i>	Tree	CR	Temu	2021
2	<i>Euphorbia prostrata</i>	Herb	CR	Ait	
3	<i>Coffea kihansiensis</i>	Tree	CR	A. P. Davis & Mvungi	2021
4	<i>Uvariadendron oligocarpum</i>	Tree	EN	Verdc.	2021
5	<i>Uvariadendron pycnophyllum</i>	Tree	EN	(Diels) R. E. Fr.	2021
6	<i>Uvariadendron usambarense</i>	Tree	EN	R. E. Fr.	2021
7	<i>Cola discoglypsemnophylla</i>	Herb	EN	Brenan & A. P. D. Jones	2021
8	<i>Xylia Africana</i>	Tree	EN	Harms	2021
9	<i>Coffea bridsoniae</i>	Tree	EN	A. P. Davis & Mvungi	2021
10	<i>Englerodendron usambarense</i>	Tree	NT	Harms	2021
11	<i>Suregada lithoxyla</i>	Shrub	NT	(Pax & K. Hoffm.) Croizat	2021
12	<i>Isolona heinsenii</i>	Tree	VU	Engl. & Diels	2021
13	<i>Monanthes trichantha</i>	Tree	VU	(Diels) Verdc.	2021
14	<i>Isoberlinia scheffleri</i>	Tree	VU	(Harms) Milne - Redhead	1975
15	<i>Allanblackia ulugurensis</i>	Tree	VU	Engl.	2021
16	<i>Polysphaeria braunii</i>	Tree	VU	K. Krause	1977

Major Habitat Types

The updated checklist encompassed a wide range of habitat types commonly found in MINAPA. Each habitat type had a unique species composition with several species exclusive to specific habitats (refer to Figure 4). While the old records were predominantly from grassland and woodland, the records in 2021 were primarily from woodland and forest. Woodland emerged as the richest habitat type in the area with at least 60 species records. Only one species, *Acalypha fruticosa* Forssk., was recorded across all habitat types. 14 species, including *Abrus fruticosus* Wall. ex-Wight & Arn., *Vachellia hockii* (De Wild.) Seigler & Ebinger, *Senegalia mellifera* (Vahl) Seigler & Ebinger, *Vachellia sieberiana* (DC.) Kyal. & Boatwr., *Acalypha neptunica* Müll. Arg., *Acalypha lanceolata* Willd., *Achyranthes aspera* L., *Allophylus africanus* P. Beauv., *Asparagus setaceus* (Kunth) Jessop, *Balanites aegyptiaca* (L.) Del., and *Bauhinia petersiana* Bolle, were found in both forest and woodland. None of these species were common in both forest and bushland, while *Balanites aegyptiaca* occurred in both bushland and grassland. Shrubland and woodland shared 9 species (refer to Figure 4), including *Albizia anthelmintica* Brongn., *Albizia gumufera* (J. F. Gmel) A. R. Sm., *Scleria schimperiana* Boeck, *Aristida adscensum* L., and *Barleria fulvostellata* C. B. CL.

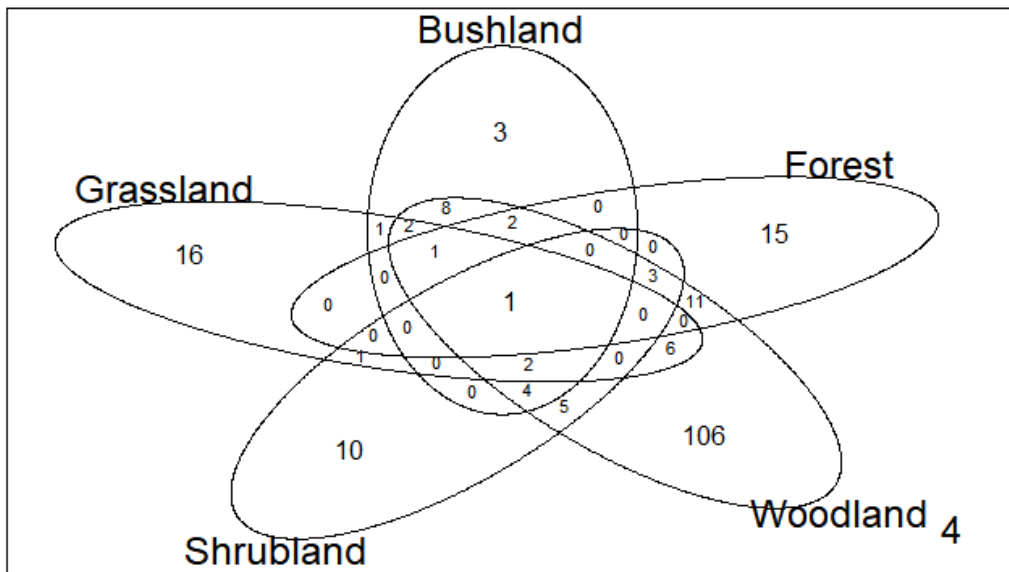


Figure 4: Species composition across different habitat types in MINAPA

Discussion of Results & Conclusion

The information on flora resources is crucial for monitoring the effects of climate and land cover changes in various areas, including Protected Areas (PAs), over time (PAs) (Mengistu, 2005). The updated floristic list of MINAPA utilizing the currently accepted nomenclature of families, genera, and species has demonstrated the conservation value of MINAPA in providing sustainable forage and shelter and serving as a healthy water catchment resource for both human and wildlife species. This underscores the critical need to conserve the high species diversity present in MINAPA and across Tanzania, as well as the African region. Many of these species are listed in the IUCN red list, indicating their threatened status in terms of conservation or existence in their natural habitats and the urgent need for sustainable conservation strategies. This work highlighted the importance of MINAPA in preserving species endemism as evidenced by a significant number of endemic plants found in the Eastern Arc Mountains with several endemic species recorded at Malundwe Hill. Malundwe Hill is currently the only part of the eastern mountains that is completely protected, being within the borders of MINAPA (Lovett & Norton, 1989; Norton, 1989). This work is expected to contribute to the improvement of management techniques for vegetation resources (Thackway et al., 2007) and can be a valuable contribution to investment in scientific research and tourism (Buxton et al., 2021). The life-form spectrum presented aligns with the flora of arid areas worldwide (Chidumayo & Gumbo, 2010; Timberlake et al., 2010) and specifically for Southern Tanzania (Bourlière & Hadley, 1970). The predominance of trees, shrubs, shrub/tree, grasses, and herbs is characteristic of savanna woodland where trees and shrubs form a light canopy (Belsky & Canham, 1994; Frost, 1996; Menaut & Lepage, 1995), indicating that MINAPA is indeed in semi-arid conditions with woodland and thickets exhibiting highest and lowest species richness, abundance, and diversity, respectively.

The diverse habitat types depicted in Figure 4 provide a unique composition for each, offering a wide range of plant species resources. As can be seen, the grass family (Poaceae) dominates these habitats, along with other crucial families that support the survival of the resident animals (Bastian, 2013; Tews et al., 2004). The Poaceae family plays a vital ecological role by providing forage for various groups of herbivores (Carballo et al., 2019; Hodkinson, 2018), while the Fabaceae family offers a diverse range of browse species for animals. These are just a few examples that highlight the critical role of the available taxa in MINAPA. It is essential to recognize the importance of conserving these diverse habitats through precise prioritization at a fine scale (Benesperi et al., 2018; Harris et al., 2005; Rouget, 2003) supported by research information. This approach helps prevent the loss of available resources, as well as the protection of endemic and threatened plant species, and ensures the availability of plants required by animals with specialized needs.

Moreover, the substantial increase in the recorded species (approximately 173 additional species) from the recent 2021 survey compared to the previously obtained count (approximately 778 species) in MINAPA, highlights the necessity for regular assessments of vegetation resources to monitor changes in floristic information. To fulfill this requirement, we advocated for a landscape approach to vegetation resource surveys, ensuring a broader coverage of resources needed by the consumer group of animals, particularly at the herbivorous level (DeGraaf & Healy, 1992; Dennis, 2012). Surveys play a crucial role in specific PAs and ecosystems. Regular vegetation surveys will enable a prompt and reliable assessment of the effects of ongoing worldwide climatic variability, which leads to habitat changes (Malhi et al., 2020; Thomas & Gillingham, 2015). Furthermore, consistent vegetation studies will facilitate a deeper understanding of underrepresented taxa, such as monocotyledonous and pteridophytes, due to their insufficient sampling. The limited samples are likely a result of poor road networks that hinder navigation, especially during the wet seasons (Rosell Pagès et al., 2016).

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Table 6: An updated plant checklist of Mikumi National Park

SN	Family	Species name	Life-form	IUCN status	Endemism	Author	Record status
1	Acanthaceae	<i>Asystasia gangetica</i>	Herb			(L.) T. Anders	1960s-1990s
2	Acanthaceae	<i>Barleria fulvostellata</i>	Herb			C.B.CL	1960s-1990s
3	Acanthaceae	<i>Barleria grandicalyx</i>	Herb			Lindau	1960s-1990s
4	Acanthaceae	<i>Barleria tanzaniana</i>	Herb			(Brummitt & J. R. I. Wood) I. Darbysh.	1960s-1990s
5	Acanthaceae	<i>Blepharis affinis</i>	Herb			Lindau	1960s-1990s
6	Acanthaceae	<i>Blepharis involucrata</i>	Herb			Solms ex Schweinf.	1960s-1990s
7	Acanthaceae	<i>Blepharis maderaspatensis</i>	Herb			(L.) B. Heyne ex Roth	1960s-1990s
8	Acanthaceae	<i>Blepharis stuhlmannii</i>	Herb			Lindau	1960s-1990s
9	Acanthaceae	<i>Brillantaisia owariensis</i>	Herb			Beauverd	2021
10	Acanthaceae	<i>Crossandra puberula</i>	Herb			Klotzsch	1960s-1990s
11	Acanthaceae	<i>Crossandra subacaulis</i>	Herb			C.B.CL	1960s-1990s
12	Acanthaceae	<i>Dicliptera verticillata</i>	Herb			(Forssk) C. Chr.	1960s-1990s
13	Acanthaceae	<i>Dyschoriste trichocalyx subsp. verticillaris</i>	Herb			(C. B. Clarke) Vollesen	1960s-1990s
14	Acanthaceae	<i>Hygrophila schulli</i>	Herb			(Buch.-Ham.) M. R. Almeida & S. M. Almeida	1960s-1990s
15	Acanthaceae	<i>Hypoestes aristata</i>	Herb			(Vahl) Sol. ex Roem. & Schult.	1960s-1990s
16	Acanthaceae	<i>Hypoestes forskalii</i>	Herb			(Vahl) Roem & Schult	1960s-1990s
17	Acanthaceae	<i>Hypoestes triflora</i>	Herb			Roem & Schult	1960s-1990s
18	Acanthaceae	<i>Isoglossa floribunda</i>	Herb			C. B. Clarke	1960s-1990s
19	Acanthaceae	<i>Justicia betonica</i>	Herb			L.	1960s-1990s
20	Acanthaceae	<i>Justicia nyassana</i>	Herb			Lindau	1960s-1990s
21	Acanthaceae	<i>Justicia scandens</i>	Herb			Vahl	1960s-1990s
22	Acanthaceae	<i>Justicia striata subsp. insularis</i>	Herb			(T. Anderson) J. K. Morton	1960s-1990s
23	Acanthaceae	<i>Mimulopsis solmsii</i>	Herb			Schweinf.	2021
24	Acanthaceae	<i>Monechma debile</i>	Herb			Nees	1960s-1990s



SN	Family	Species name	Life-form	IUCN status	Endemism	Author	Record status
25	Acanthaceae	<i>Nelsonia canescens</i>	Herb			(Lam.) Spreng.	2021
26	Acanthaceae	<i>Phaulopsis imbricata</i>	Herb			(Forssk.) Sweet	2021
27	Acanthaceae	<i>Pseuderanthemum hildebrandtii</i>	Herb			Lindau	1960s-1990s
28	Acanthaceae	<i>Pseuderanthemum tunicatum</i>	Herb			(Afzel) Milne - Redhead	1960s-1990s
29	Acanthaceae	<i>Ruellia cordata</i>	Herb			Thunb	1960s-1990s
30	Acanthaceae	<i>Sclerochiton vogelii</i>	Herb			T.Anders	1960s-1990s
31	Acanthaceae	<i>Thunbergia alata</i>	Herb			Boj. Ex Sims	1960s-1990s
32	Acanthaceae	<i>Thunbergia heterochondros</i>	Herb			Hildbr. Napper	1960s-1990s
33	Adiantaceae	<i>Adiantum philippense</i>	Herb			L.	1960s-1990s
34	Adiantaceae	<i>Doryopteris concolor</i>	Herb			(Langsd.and Fisch) Kuhn	1960s-1990s
35	Aizoaceae	<i>Glinus Lotoides</i>	Herb			L.	1960s-1990s
36	Aizoaceae	<i>Paramollugo nudicaulis</i>	Herb			(Lam.) Thulin	1960s-1990s
37	Alismataceae	<i>Burnatia enneandra</i>	Herb			Michelli	1960s-1990s
38	Amaranthaceae	<i>Achyranthes aspera</i>	Herb			L.	1960s-1990s
39	Amaranthaceae	<i>Aerva lanata</i>	Herb			(L.) Schult.	1960s-1990s
40	Amaranthaceae	<i>Alternanthera pungens</i>	Herb			Kunth.	1960s-1990s
41	Amaranthaceae	<i>Alternanthera sessilis</i>	Herb			(L.) DC.	1960s-1990s
42	Amaranthaceae	<i>Amaranthus graecizans</i>	Herb			L.	1960s-1990s
43	Amaranthaceae	<i>Amaranthus hybridus</i>	Herb			L.	1960s-1990s
44	Amaranthaceae	<i>Amaranthus viridis</i>	Herb			L.	1960s-1990s
45	Amaranthaceae	<i>Celosia acroprosodes</i>	Herb			Hochst.	1960s-1990s
46	Amaranthaceae	<i>Celosia argentea</i>	Herb			L.	1960s-1990s
47	Amaranthaceae	<i>Celosia schweinfurthiana</i>	Herb			Schinz	1960s-1990s
48	Amaranthaceae	<i>Centemopsis kirkii</i>	Herb			(Hook f.) Schinz	1960s-1990s
49	Amaranthaceae	<i>Cyathula prostrata</i>	Herb			(L.) Blume	1960s-1990s
50	Amaranthaceae	<i>Gomphrena celosioides</i>	Herb			C. Mart.	1960s-1990s
51	Amaranthaceae	<i>Nothosaerva brachiata</i>	Herb			(L.) Wight	1960s-1990s
52	Amaranthaceae	<i>Psilotrichum elliotii</i>	Herb			Bak	1960s-1990s
53	Amaranthaceae	<i>Psilotrichum schimperi</i>	Herb			Engl.	1960s-1990s

SN	Family	Species name	Life-form	IUCN status	Endemism	Author	Record status
54	Amaranthaceae	<i>Psilotrichum scleranthum</i>	Herb			Thunb	1960s-1990s
55	Amaranthaceae	<i>Pupalia lappacea</i>	Herb			(L.) A. Juss.	1960s-1990s
56	Amaryllidaceae	<i>Ammocharis tinneana</i>	Herb			(Kotschy & Peyr.) Mine - Red head	1960s-1990s
57	Amaryllidaceae	<i>Crinum kirkii</i>	Herb			Bak	1960s-1990s
58	Anacardiaceae	<i>Lansea humilis</i>	Tree			(Oliv.) Engl.	2021
59	Anacardiaceae	<i>Lansea schimperii</i>	Tree			(Hochst. ex A. Rich.) Engl.	2021
60	Anacardiaceae	<i>Lansea schweinfurthii</i>	Tree			(Engl.) Kokwaro	1960s-1990s
61	Anacardiaceae	<i>Ozoroa insignis</i>	Tree			Delile	2021
62	Anacardiaceae	<i>Sclerocarya birrea</i>	Tree			(A. Rich) Hochst	1960s-1990s
63	Anacardiaceae	<i>Sclerocarya birrea subsp. caffra</i>	Tree			(Sond.) Kokwaro	1960s-1990s
64	Anacardiaceae	<i>Searsia natalensis</i>	Tree			(Bernh. ex Krauss) F. A. Barkley	2021
65	Anacardiaceae	<i>Searsia pyroides</i>	Tree			(Burch.) Moffett	1960s-1990s
66	Anacardiaceae	<i>Sorindeia madagascariensis</i>	Tree			DC	1960s-1990s
67	Annonaceae	<i>Annona senegalensis</i>	Tree			Pers	1960s-1990s
68	Annonaceae	<i>Isolona heinsenii</i>	Tree	VU	Tanzania	Engl. & Diels	2021
69	Annonaceae	<i>Lettowianthus stellatus</i>	Tree			Diels	1960s-1990s
70	Annonaceae	<i>Monanthes taxis buchananii</i>	Tree			Diels	1960s-1990s
71	Annonaceae	<i>Monanthes taxis fornicata</i>	Tree			(Baill.) Verdc.	2021
72	Annonaceae	<i>Monanthes taxis trichantha</i>	Tree	VU	Tanzania	(Diels) Verdc.	2021
73	Annonaceae	<i>Sphaerocoryne gracilis</i>	Tree			(Oliv. ex Engl. & Diels) Verdc.	2021
74	Annonaceae	<i>Uvaria lucida</i>	Tree			Benth.	2021
75	Annonaceae	<i>Uvariadendron oligocarpum</i>	Tree	EN	Tanzania	Verdc.	2021
76	Annonaceae	<i>Uvariadendron pycnophyllum</i>	Tree	EN	Tanzania	(Diels) R. E. Fr.	2021
77	Annonaceae	<i>Uvariadendron usambarensis</i>	Tree	EN	Tanzania	R. E. Fr.	2021
78	Annonaceae	<i>Xylopiya arenaria</i>	Tree	VU		Engl.	2021
79	Annonaceae	<i>Xylopiya parviflora</i>	Tree			(A. Rich.) Benth.	2021
80	Anthericaceae	<i>Chlorophytum cameronii</i>	Herb			(Baker) Kativu.	1960s-1990s
81	Anthericaceae	<i>Chlorophytum heynei</i>	Herb			Bak	1960s-1990s
82	Apiaceae	<i>Steganotaenia araliacea</i>	Shrub			Hochst.	2021
83	Apocynaceae	<i>Adenium obesum</i>	Shrub			(Forssk.) Roem. & Schult	1960s-1990s



SN	Family	Species name	Life-form	IUCN status	Endemism	Author	Record status
84	Apocynaceae	<i>Adenium obesum subsp. multiflorum</i>	Shrub			(Klotzsch) G. D. Rowley	1960s-1990s
85	Apocynaceae	<i>Carvalhoa campanulata</i>	Shrub			K. Schum	1960s-1990s
86	Apocynaceae	<i>Diplorhynchus condylocarpon</i>	Shrub			(Muell. Arg) Pichon	1960s-1990s
87	Apocynaceae	<i>Funtumia africana</i>	Shrub			(Benth) Stapf	1960s-1990s
88	Apocynaceae	<i>Rauvolfia mombasiana</i>	Shrub			Stapf	2021
89	Apocynaceae	<i>Rauvolfia volkensii</i>	Shrub	VU		(K. Schum.) Stapf	2021
90	Apocynaceae	<i>Rauvolfia vomitoria</i>	Shrub			Afzel.	2021
91	Apocynaceae	<i>Saba florida</i>	Shrub			(Benth.) Bullock	1960s-1990s
92	Apocynaceae	<i>Saba comorensis</i>	Shrub			(Bojer) Pichon var	1960s-1990s
93	Apocynaceae	<i>Schizozygia coffaeoides</i>	Shrub			Baill.	1960s-1990s
94	Apocynaceae	<i>Secamone parvifolia</i>	Shrub			(Oliv) Bull	1960s-1990s
95	Apocynaceae	<i>Tabernaemontana ventricosa</i>	Shrub			Hochst. ex A. DC.	2021
96	Apocynaceae	<i>Voacanga africana</i>	Shrub			Stapf ex Scott Elliot	1960s-1990s
97	Araceae	<i>Amorphophallus goetzel</i>	Herb			(Engl.) N.E Br.	1960s-1990s
98	Araceae	<i>Culcasia falcifolia</i>	Herb			Engl.	1960s-1990s
99	Araceae	<i>Culcasia orientalis</i>	Herb			Mayo	2021
100	Araceae	<i>Gonatopus boivinii</i>	Herb			(Decne) Engl	1960s-1990s
101	Araceae	<i>Pistia stratiotes</i>	Herb			L.	1960s-1990s
102	Araceae	<i>Stylochiton natalensis</i>	Herb			Schott	1960s-1990s
103	Araliaceae	<i>Cussonia arborea</i>	Shrub			A.Rich.	1960s-1990s
104	Araliaceae	<i>Polyscias stuhlmannii</i>	Shrub	EN	Tanzania and Kenya	Harms	2021
105	Aristolochiaceae	<i>Aristolochia albida</i>	Herb			Duchartre	1960s-1990s
106	Asclepiadaceae	<i>Asplenium pumilum</i>	Herb			Sw.	1960s-1990s
107	Asclepiadaceae	<i>Ceropegia gigantea</i>	Herb			(N. E. Br.) Bruyns	1960s-1990s
108	Asclepiadaceae	<i>Kanahia laniflora</i>	Herb			(Forssk.) R. Br.	1960s-1990s
109	Asclepiadaceae	<i>Tacazzea apiculata</i>	Herb			Oliv.	1960s-1990s
110	Asparagaceae	<i>Asparagus aethiopicus</i>	Herb			Bak	1960s-1990s
111	Asparagaceae	<i>Asparagus africanus</i>	Herb			Lam.	2021
112	Asparagaceae	<i>Asparagus buechananii</i>	Herb			Bak	1960s-1990s

SN	Family	Species name	Life-form	IUCN status	Endemism	Author	Record status
113	Asparagaceae	<i>Asparagus falcatus</i>	Herb			L.	2021
114	Asparagaceae	<i>Asparagus schroederi</i>	Herb			Engl.	1960s-1990s
115	Asparagaceae	<i>Asparagus setaceus</i>	Herb			(Kunth) Jessop	1960s-1990s
116	Asparagaceae	<i>Dracaena mannii</i>	Herb			Baker	2021
117	Asteraceae	<i>Acmella uliginosa</i>	Herb			(Sw.) Cass.	1960s-1990s
118	Asteraceae	<i>Ageratum conyzoides</i>	Herb			L.	1960s-1990s
119	Asteraceae	<i>Ananthura pteropoda</i>	Herb			(Oliv. & Hiern) H. Rob. & Skvarla	2021
120	Asteraceae	<i>Anaphalis subdecurrens</i>	Herb			(DC.) Gamble	1960s-1990s
121	Asteraceae	<i>Aspilia mosambicensis</i>	Herb			(Oliv.) Wild	1960s-1990s
122	Asteraceae	<i>Aspilia natalensis</i>	Herb			(Sond.) Wild	1960s-1990s
123	Asteraceae	<i>Baccharoides adoensis</i>	Herb			(Sch. Bip. ex Walp.) H. Rob.	1960s-1990s
124	Asteraceae	<i>Baccharoides anthelmintica</i>	Herb			(L.) Moench	1960s-1990s
125	Asteraceae	<i>Baccharoides lasiopus</i>	Herb			(O. Hoffm.) H. Rob.	2021
126	Asteraceae	<i>Bidens pilosa</i>	Herb			L.	1960s-1990s
127	Asteraceae	<i>Bidens schimperi</i>	Herb			Sch. Bip. ex Walp.	2021
128	Asteraceae	<i>Bidens taylorii</i>	Herb			(S. Moore) Sherff	1960s-1990s
129	Asteraceae	<i>Cyanthillium cinereum</i>	Herb			(L.) H. Rob.	1960s-1990s
130	Asteraceae	<i>Eclipta prostrata</i>	Herb			L.	1960s-1990s
131	Asteraceae	<i>Ecliptica alba</i>	Herb			Kuntze	1960s-1990s
132	Asteraceae	<i>Emilia javanica</i>	Herb			C.B. Rob	1960s-1990s
133	Asteraceae	<i>Emilia sonchifolia</i>	Herb			DC	1960s-1990s
134	Asteraceae	<i>Erigeron sumatrensis</i>	Herb			Retz.	1960s-1990s
135	Asteraceae	<i>Eriosema psoraleoides</i>	Herb			(Lam.) G. Don	2021
136	Asteraceae	<i>Erythrocephalum minus</i>	Herb			Oliv	1960s-1990s
137	Asteraceae	<i>Grangea maderaspatana</i>	Herb			Poir	1960s-1990s
138	Asteraceae	<i>Gymnanthemum auriculiferum</i>	Herb			(Hiern) Isawumi	2021
139	Asteraceae	<i>Gymnanthemum myrianthum</i>	Herb			(Hook. fil.) H. Rob.	2021
140	Asteraceae	<i>Hypericophyllum elatum</i>	Herb			N.E.Br	1960s-1990s
141	Asteraceae	<i>Laggera alata</i>	Herb			(D. Don) Sch. Bip. ex Oliv.	1960s-1990s
142	Asteraceae	<i>Launaea cornuta</i>	Herb			(Hochst, ex Oliv & Hiern) C. Jeffrey	1960s-1990s



SN	Family	Species name	Life-form	IUCN status	Endemism	Author	Record status
143	Asteraceae	<i>Linzia glabra</i>	Herb			Steetz	1960s-1990s
144	Asteraceae	<i>Macleodium sessiliflorum</i> subsp. <i>sessiliflorum</i>	Herb			Harv.	1960s-1990s
145	Asteraceae	<i>Microglossa pyrifolia</i>	Herb			Kuntze	1960s-1990s
146	Asteraceae	<i>Pegolettia senegalensis</i>	Herb			Cass	1960s-1990s
147	Asteraceae	<i>Pluchea dioscoridis</i>	Herb			DC	1960s-1990s
148	Asteraceae	<i>Pseudoconyza viscosa</i>	Herb			(Mill.) D' Arcy	1960s-1990s
149	Asteraceae	<i>Sphaeranthus africanus</i>	Herb			L.	1960s-1990s
150	Asteraceae	<i>Sphaeranthus kirkii</i>	Herb			Oliv. & Hiern	1960s-1990s
151	Asteraceae	<i>Sphaeranthus senegalensis</i>	Herb			DC.	1960s-1990s
152	Asteraceae	<i>Synedrella nodiflora</i>	Herb			(L.) Gaertn.	1960s-1990s
153	Asteraceae	<i>Tridax procumbens</i>	Herb			L.	1960s-1990s
154	Asteraceae	<i>Vernonia galamensis</i>	Herb			(Cass.) Less.	2021
155	Asteraceae	<i>Vernonia shweinfurthii</i>	Herb			Oliv. & Hiern.	1960s-1990s
156	Asteraceae	<i>Vernonia stuhlmannii</i>	Herb			O.Hoffin	1960s-1990s
157	Asteraceae	<i>Vernoniastrum aemulans</i>	Herb			(Vatke) H. Rob.	1960s-1990s
158	Asteraceae	<i>Vernoniastrum latifolium</i>	Herb			(Steetz) H. Rob.	1960s-1990s
159	Balanitaceae	<i>Balanites aegyptiaca</i>	Tree			(L.) Del	1960s-1990s
160	Balanitaceae	<i>Balanites glabra</i>	Tree			Mildbr. & Schltr.	2021
161	Bignoniaceae	<i>Kigelia africana</i>	Tree			(Lam.) Benth.	1960s-1990s
162	Bignoniaceae	<i>Markhamia lutea</i>	Tree			(Benth.) K. Schum.	2021
163	Bignoniaceae	<i>Markhamia obtusifolia</i>	Shrub			(Bak) Sprague	1960s-1990s
164	Bignoniaceae	<i>Markhamia zanzibarica</i>	Shrub			(Bojer ex DC.) K. Schum.	1960s-1990s
165	Bignoniaceae	<i>Stereospermum kunthianum</i>	Tree			Cham	1960s-1990s
166	Bombaceae	<i>Adansonia digitata</i>	Tree			L.	1960s-1990s
167	Boraginaceae	<i>Bouyeria petiolaris</i>	Shrub			(Lam.) Thulin	1960s-1990s
168	Boraginaceae	<i>Cordia africana</i>	Tree			Lam.	1960s-1990s
169	Boraginaceae	<i>Cordia monoica</i>	Tree			Roxb.	1960s-1990s
170	Boraginaceae	<i>Cordia monoica</i> subsp. <i>monoica</i>	Tree			R. Br. ex DC.	1960s-1990s
171	Boraginaceae	<i>Ehretia amoena</i>	Tree			KI	1960s-1990s

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172	Boraginaceae	<i>Euploca strigosa</i>	Herb			(Willd.) Diane & Hilger	1960s-1990s
173	Boraginaceae	<i>Heliotropium indicum</i>	Herb			L.	1960s-1990s
174	Boraginaceae	<i>Heliotropium supinum</i>	Herb			L.	1960s-1990s
175	Boraginaceae	<i>Trichodesma zeylanicum</i>	Herb			(Burm.f.) R.Br.	1960s-1990s
176	Burseaceae	<i>Commiphora africana</i>	Tree			(A. Rich) Engl	1960s-1990s
177	Burseaceae	<i>Commiphora edulis</i> subsp. <i>boiviniana</i>	Tree			(Engl.) Gillett	1960s-1990s
178	Burseaceae	<i>Commiphora pteleifolia</i>	Tree			Engl.	1960s-1990s
179	Cactaceae	<i>Rhipsalis parasitica</i> subsp. <i>parasitica</i>	Tree			(J.Mill.) Stearn.	1960s-1990s
180	Caesalpinioideae	<i>Azelia quanzensis</i>	Tree			Welw	1960s-1990s
181	Caesalpinioideae	<i>Bauhinia petersiana</i>	Tree			Bolle	2021
182	Caesalpinioideae	<i>Bauhinia tomentosa</i>	Tree			L.	1960s-1990s
183	Caesalpinioideae	<i>Brachystegia allenii</i>	Tree			Hutch. & Burtt Davy	2021
184	Caesalpinioideae	<i>Brachystegia boehmii</i>	Tree			Taub	1960s-1990s
185	Caesalpinioideae	<i>Brachystegia bussei</i>	Tree			Harms	1960s-1990s
186	Caesalpinioideae	<i>Brachystegia floribunda</i>	Tree			Benth.	2021
187	Caesalpinioideae	<i>Brachystegia longifolia</i>	Tree			Benth	1960s-1990s
188	Caesalpinioideae	<i>Brachystegia manga</i>	Tree			De Wild	1960s-1990s
189	Caesalpinioideae	<i>Brachystegia spiciformis</i>	Tree			Benth	1960s-1990s
190	Caesalpinioideae	<i>Brachystegia stipulata</i>	Tree			De Wild.	2021
191	Caesalpinioideae	<i>Brachystegia tamarindoides</i> subsp. <i>microphylla</i>	Tree			(Harms) Chikuni	1960s-1990s
192	Caesalpinioideae	<i>Burkea africana</i>	Tree			Hook	1960s-1990s
193	Caesalpinioideae	<i>Cassia abbreviata</i>	Tree			Oliv.	1960s-1990s
194	Caesalpinioideae	<i>Chamaecrista absus</i>	Herb			(L.) H.S.Irwin & Barneby	1960s-1990s
195	Caesalpinioideae	<i>Chamaecrista grantii</i>	Tree			(Oliv.) Standl.	1960s-1990s
196	Caesalpinioideae	<i>Chamaecrista mimosoides</i>	Herb			(L.) Greene	1960s-1990s
197	Caesalpinioideae	<i>Chamaecrista stricta</i>	Tree			E.Mey.	1960s-1990s
198	Caesalpinioideae	<i>Cordyla africana</i>	Tree			Lour	1960s-1990s
199	Caesalpinioideae	<i>Cryptosepalum maraviense</i>	Shrub			Oliv.	2021
200	Caesalpinioideae	<i>Dialium holtzii</i>	Tree			Harms	2021



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201	Caesalpinioideae	<i>Englerodendron usambarensis</i>	Tree	NT	Tanzania	Harms	2021
202	Caesalpinioideae	<i>Isobertinia scheffleri</i>	Tree	VU	Tanzania	(Harms)Milne - Redhead	1960s-1990s
203	Caesalpinioideae	<i>Julbernardia globiflora</i>	Tree			(Benth) Troupin	1960s-1990s
204	Caesalpinioideae	<i>Mezoneuron angolense</i>	Tree			Welw. ex Oliv.	2021
205	Caesalpinioideae	<i>Piliostigma thonningii</i>	Tree			(K.Schum.) Milne - Redhead	1960s-1990s
206	Caesalpinioideae	<i>Senna auriculata</i>	Shrub			(L.) Roxb.	1960s-1990s
207	Caesalpinioideae	<i>Senna hirsuta</i>	Herb			(L.) H.S.Irwin & Barneby	1960s-1990s
208	Caesalpinioideae	<i>Senna obtusifolia</i>	Herb			(L.) H.S.Irwin & Barneby	1960s-1990s
209	Caesalpinioideae	<i>Senna siamea</i>	Tree			(Lam.) H.S.Irwin & Barneby	1960s-1990s
210	Caesalpinioideae	<i>Senna singueana</i>	Tree			(Delile) Lock	1960s-1990s
211	Caesalpinioideae	<i>Tamarindus indica</i>	Tree			L.	1960s-1990s
212	Caesalpinioideae	<i>Tylosema fassoglensis</i>	Herb			(Schweinf.) Torre & Hillc.	1960s-1990s
213	Caesalpinioideae	<i>Vachellia kirkii</i>	Tree			(Oliv.) Kyal. & Boatwr.	2021
214	Caesalpinioideae	<i>Zenkerella perplexa</i>	Tree	CR	Tanzania	Temu	2021
215	Cannabaceae	<i>Trema orientalis</i>	Tree			(L.) Blume	2021
216	Capparidaceae	<i>Boscia salicifolia</i>	Tree			Oliv	1960s-1990s
217	Capparidaceae	<i>Capparis tomentosa</i>	Tree			Lam	1960s-1990s
218	Capparidaceae	<i>Corynandra simplicifolia</i>	Herb			(Cambess.) Roalson	1960s-1990s
219	Capparidaceae	<i>Gynandropsis gynandra</i>	Herb			(L.) Briq.	1960s-1990s
220	Capparidaceae	<i>Maerua angolensis</i>	Shrub			DC	1960s-1990s
221	Capparidaceae	<i>Maerua edulis</i>	Herb			(Gilg. & Ren) De Wolf	1960s-1990s
222	Capparidaceae	<i>Maerua grantii</i>	Shrub			Oliv	1960s-1990s
223	Capparidaceae	<i>Sieruela hirta</i>	Herb			(Klotzsch) Roalson & J. C. Hall	1960s-1990s
224	Capparidaceae	<i>Thilachium africanum</i>	Shrub			Lour	1960s-1990s
225	Caryophyllaceae	<i>Polycarpaea eriantha</i>	Herb			A.Rich. Var eriantha	1960s-1990s
226	Celastraceae	<i>Catha edulis</i>	Shrub			Forssk.	2021
227	Celastraceae	<i>Elaeodendron buchananii</i>	Tree			(Loes) Loes	1960s-1990s
228	Celastraceae	<i>Gymnosporia acuminata</i>	Tree			(L. fil.) Szyszyl.	1960s-1990s
229	Celastraceae	<i>Gymnosporia senegalensis</i>	Tree			(Lam.) Loes.	1960s-1990s

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230	Celastraceae	<i>Gymnosporia undata</i>	Tree			(Thunb.) Szyszyl.	1960s-1990s
231	Celastraceae	<i>Mystroxyton aethiopicum</i>	Tree			(Thunb.) Loes.	2021
232	Celastraceae	<i>Salacia madagascariensis</i>	liana			(Lam.) DC.	2021
233	Chrysobalanaceae	<i>Parinari excelsa</i>	Tree			Sabine	1960s-1990s
234	Clusiaceae	<i>Garcinia buchananii</i>	Tree			Baker	2021
235	Colchicaceae	<i>Gloriosa superba</i>	Herb			L.	1960s-1990s
236	Combretaceae	<i>Combretum adenogonium</i>	Tree			Steud. ex A. Rich.	2021
237	Combretaceae	<i>Combretum apiculatum</i>	Tree			Sond.	2021
238	Combretaceae	<i>Combretum collinum</i>	Tree			Fresen(Engl) Okafor	1960s-1990s
239	Combretaceae	<i>Combretum hereroense</i>	Tree			Schinz	1960s-1990s
240	Combretaceae	<i>Combretum molle</i>	Tree			G.Don	1960s-1990s
241	Combretaceae	<i>Combretum mossambicense</i>	Tree			(KI) Engl	1960s-1990s
242	Combretaceae	<i>Combretum paniculatum</i>	Tree			Vent	1960s-1990s
243	Combretaceae	<i>Combretum pentagonum</i>	Tree			Lass.	2021
244	Combretaceae	<i>Combretum zeyheri</i>	Tree			Sond	1960s-1990s
245	Combretaceae	<i>Terminalia brownii</i>	Tree			Fresen	1960s-1990s
246	Combretaceae	<i>Terminalia kaiserana</i>	Tree			F.Hoff	1960s-1990s
247	Combretaceae	<i>Terminalia kilimandscharica</i>	Tree			Engl	1960s-1990s
248	Combretaceae	<i>Terminalia mollis</i>	Tree			Laws	1960s-1990s
249	Combretaceae	<i>Terminalia myrtifolia</i>	Tree			(M. A. Lawson) Gere & Boatwr.	1960s-1990s
250	Combretaceae	<i>Terminalia sambesiaca</i>	Tree			Engl. & Diels	1960s-1990s
251	Combretaceae	<i>Terminalia sericea</i>	Tree			DC	1960s-1990s
252	Combretaceae	<i>Terminalia spinosa</i>	Tree			Engl	1960s-1990s
253	Combretaceae	<i>Terminalia stenostachya</i>	Tree			Engl	1960s-1990s
254	Combretaceae	<i>Terminalia trichopoda</i>	Tree			Diels	1960s-1990s
255	Commelinaceae	<i>Aneilema aequinoctiale</i>	Herb			(P.Beauv.) G.Don	2021
256	Commelinaceae	<i>Aneilema pedunculatum</i>	Herb			C.B.CL.	1960s-1990s
257	Commelinaceae	<i>Commelina benghalensis</i>	Herb			L.	1960s-1990s
258	Commelinaceae	<i>Commelina bracteosa var. lagesensis</i>	Herb			(C.B.Clarke) Faden	1960s-1990s
259	Commelinaceae	<i>Commelina diffusa</i>	Herb			Burm.f.	1960s-1990s



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260	Commelinaceae	<i>Commelina erecta</i>	Herb			Lssp.erecta	1960s-1990s
261	Commelinaceae	<i>Commelina foliacea</i>	Herb			Chiov.	1960s-1990s
262	Commelinaceae	<i>Commelina latifolia</i>	Herb			A.Rich.	1960s-1990s
263	Commelinaceae	<i>Commelina subulata</i>	Herb			Roth	1960s-1990s
264	Commelinaceae	<i>Murdannia simplex</i>	Herb			(Vahl.) Brenan	1960s-1990s
265	Connaraceae	<i>Agelaea pentagyna</i>	Tree			(Lam.) Baill.	1960s-1990s
266	Connaraceae	<i>Rourea orientalis</i>	Shrub			Baill.	1960s-1990s
267	Connaraceae	<i>Rourea thomsonii</i>	Tree			(Baker) Jongkind	2021
268	Convolvulaceae	<i>Evolvulus alsinoides</i>	Herb			(L.) L.	1960s-1990s
269	Convolvulaceae	<i>Ipomoea aquatica</i>	Herb			Forssk	1960s-1990s
270	Convolvulaceae	<i>Ipomoea batatas</i>	Herb			(L.) Lam.	1960s-1990s
271	Convolvulaceae	<i>Ipomoea coptica</i>	Herb			(L.) Roem. & Schult.	1960s-1990s
272	Convolvulaceae	<i>Ipomoea crassipes</i>	Herb			Hook	1960s-1990s
273	Convolvulaceae	<i>Ipomoea crepidiformis</i>	Herb			Hall.f	1960s-1990s
274	Convolvulaceae	<i>Ipomoea eriocarpa</i>	Herb			R.Br.	1960s-1990s
275	Convolvulaceae	<i>Ipomoea heterotricha</i>	Herb			F. Didr	1960s-1990s
276	Convolvulaceae	<i>Ipomoea involucrata</i>	Herb			Beauv	1960s-1990s
277	Convolvulaceae	<i>Ipomoea lapathifolia</i>	Herb			Hall.f	1960s-1990s
278	Convolvulaceae	<i>Ipomoea malvacea</i>	Herb			(Klotzsch) J. R. I. Wood & Scotland	1960s-1990s
279	Convolvulaceae	<i>Ipomoea mombassana</i>	Herb			Vatke	1960s-1990s
280	Convolvulaceae	<i>Ipomoea obscura</i>	Herb			(L.) Ker - Gam	1960s-1990s
281	Convolvulaceae	<i>Ipomoea owariensis</i>	Herb			P. Beauv.	1960s-1990s
282	Convolvulaceae	<i>Ipomoea rubens</i>	Herb			Choicy	1960s-1990s
283	Convolvulaceae	<i>Ipomoea sinensis</i>	Herb			(Desr) Choisy	1960s-1990s
284	Convolvulaceae	<i>Ipomoea tenuipes</i>	Herb			Verde	1960s-1990s
285	Convolvulaceae	<i>Ipomoea venosa</i>	Herb			(Desr) Roem	1960s-1990s
286	Convolvulaceae	<i>Jacquemontia paniculata</i>	Herb			(Bum.f) Hall f.	1960s-1990s
287	Convolvulaceae	<i>Jacquemontia tamnifolia</i>	Herb			(L.) Griseb	1960s-1990s
288	Convolvulaceae	<i>Merremia hederacea</i>	Herb			(Bum.f) Hall f.	1960s-1990s

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289	Convolvulaceae	<i>Merremia palmata</i>	Herb			Hall.f	1960s-1990s
290	Convolvulaceae	<i>Xenostegia pinnata</i>	Herb			(Hochst. ex Choisy) A. R. Simões & Staples	1960s-1990s
291	Crassulaceae	<i>Kalanchoe integra</i>	Herb			(Med) Kuntze	1960s-1990s
292	Cruciferae	<i>Brassica juncea</i>	Herb			(L.) Czern	1960s-1990s
293	Cruciferae	<i>Rorippa micrantha</i>	Herb			(Roth) Jonsell	1960s-1990s
294	Cucurbitaceae	<i>Blastania cerasiformis</i>	Herb			(Stocks) A. Meeuse	1960s-1990s
295	Cucurbitaceae	<i>Coccinia grandis</i>	Herb			(L.) Voigt	1960s-1990s
296	Cucurbitaceae	<i>Cucumis hirsutus</i>	Herb			Sond	1960s-1990s
297	Cucurbitaceae	<i>Cucumis maderaspatanus</i>	Herb			L.	1960s-1990s
298	Cucurbitaceae	<i>Cucumis melo</i>	Herb			L.	1960s-1990s
299	Cucurbitaceae	<i>Cucumis metuliferus</i>	Herb			Nand	1960s-1990s
300	Cucurbitaceae	<i>Cucumis sacleuxii</i>	Herb			Paik	1960s-1990s
301	Cucurbitaceae	<i>Lagenaria sphaerica</i>	Herb			(Sond) Nand	1960s-1990s
302	Cucurbitaceae	<i>Momordica anigosantha</i>	Herb			Gilg	1960s-1990s
303	Cucurbitaceae	<i>Zehneria scabra</i>	Herb			(L.f.) Sond	1960s-1990s
304	Cucurbitaceae	<i>Zehneria thwaitesii</i>	Herb			(Schweinf.) C.Jeffrey	1960s-1990s
305	Cyperaceae	<i>Bulbostylis hispidula</i>	Sedge			(Vahl) R.W.Haines	1960s-1990s
306	Cyperaceae	<i>Bulbostylis pusilla</i>	Sedge			(A.Rich.) C.B.CL.R.Heines	1960s-1990s
307	Cyperaceae	<i>Cyperus alternifolius</i>	Sedge			L.	1960s-1990s
308	Cyperaceae	<i>Cyperus amabilis</i>	Sedge			Vahl	1960s-1990s
309	Cyperaceae	<i>Cyperus articulatus</i>	Sedge			L.	1960s-1990s
310	Cyperaceae	<i>Cyperus ascocapensis</i>	Sedge			Bauters	1960s-1990s
311	Cyperaceae	<i>Cyperus bulbipes</i>	Sedge			Mattf. & Kük.	1960s-1990s
312	Cyperaceae	<i>Cyperus cancellatus</i>	Sedge			Ridley	1960s-1990s
313	Cyperaceae	<i>Cyperus comosipes</i>	Sedge			Mattf.and Kuk	1960s-1990s
314	Cyperaceae	<i>Cyperus compressus</i>	Sedge			L.	1960s-1990s
315	Cyperaceae	<i>Cyperus cyperoides</i>	Sedge			(L.) (Kunth) K.Lye	1960s-1990s
316	Cyperaceae	<i>Cyperus difformis</i>	Sedge			L.	1960s-1990s
317	Cyperaceae	<i>Cyperus distans</i>	Sedge			L.f.	1960s-1990s
318	Cyperaceae	<i>Cyperus dubius</i>	Sedge			Rott.	1960s-1990s



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319	Cyperaceae	<i>Cyperus erectus</i>	Sedge			(Schumach.) Mattf. & Kük.	2021
320	Cyperaceae	<i>Cyperus exaltatus</i>	Sedge			Retz.	1960s-1990s
321	Cyperaceae	<i>Cyperus ferrugineoviridis</i>	Sedge			(C.B.Cl.) Kuk.	1960s-1990s
322	Cyperaceae	<i>Cyperus hemisphaericus</i>	Sedge			Boeck	1960s-1990s
323	Cyperaceae	<i>Cyperus imbricatus</i>	Sedge			Retz.	2021
324	Cyperaceae	<i>Cyperus iria</i>	Sedge			L.	1960s-1990s
325	Cyperaceae	<i>Cyperus macrostachyos</i>	Sedge			Lam.	1960s-1990s
326	Cyperaceae	<i>Cyperus maculatus</i>	Sedge			Boeck	1960s-1990s
327	Cyperaceae	<i>Cyperus mollipes</i>	Sedge			(C.B.Clarke) K.Schum.	1960s-1990s
328	Cyperaceae	<i>Cyperus niveus</i>	Sedge			Retz var. niveus	1960s-1990s
329	Cyperaceae	<i>Cyperus pumilus</i>	Sedge			L.var.patens (Vahl) Kuk.	1960s-1990s
330	Cyperaceae	<i>Cyperus renschii</i>	Sedge			Boeck.var.renschii	1960s-1990s
331	Cyperaceae	<i>Cyperus rotundus</i>	Sedge			(Rott.) Kuh.	1960s-1990s
332	Cyperaceae	<i>Cyperus squarrosus</i>	Sedge			L.	1960s-1990s
333	Cyperaceae	<i>Cyperus tenuispica</i>	Sedge			Steud.	1960s-1990s
334	Cyperaceae	<i>Eleocharis acutangula</i>	Sedge			(Roxb.) Schult.	1960s-1990s
335	Cyperaceae	<i>Fimbristylis barteri</i>	Sedge			Boeckeler	1960s-1990s
336	Cyperaceae	<i>Fimbristylis bisumbellata</i>	Sedge			(Forsk.) Buf.	1960s-1990s
337	Cyperaceae	<i>Fimbristylis microcarya</i> var. <i>microcarya</i>	Sedge			Boeckeler	1960s-1990s
338	Cyperaceae	<i>Fuirena ciliaris</i>	Sedge			(L.)Roxb	1960s-1990s
339	Cyperaceae	<i>Schoenoplectiella articulata</i>	Sedge			(L.) Lye	1960s-1990s
340	Cyperaceae	<i>Schoenoplectiella juncea</i>	Sedge			(Willd.) Lye	1960s-1990s
341	Cyperaceae	<i>Schoenoplectiella lateriflora</i>	Sedge			(J.F.Gmel.) Lye	1960s-1990s
342	Cyperaceae	<i>Schoenoplectiella senegalensis</i>	Sedge			(Steud.) Lye	1960s-1990s
343	Cyperaceae	<i>Scirpus aureglumis</i>	Sedge			Hooper	1960s-1990s
344	Cyperaceae	<i>Scirpus jacobii</i>	Sedge			C. E.C. Fischer	1960s-1990s
345	Cyperaceae	<i>Scleria foliosa</i>	Sedge			A.Rich.	1960s-1990s
346	Cyperaceae	<i>Scleria lithosperma</i>	Sedge			(L.)Sw.	1960s-1990s
347	Cyperaceae	<i>Scleria schimperiana</i>	Sedge			Boeck	1960s-1990s

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348	Dennstaedtiaceae	<i>Pteridium aquilinum</i>	Herb			(L.) Kuhn	2021
349	Dichapetalaceae	<i>Dichapetalum stuhlmannii</i>	liana			Engl.	2021
350	Dioscoreaceae	<i>Dioscorea sansibarensis</i>	Herb			Pax	1960s-1990s
351	Draceanaceae	<i>Dracaena laxissima</i>	Herb			Engl.	1960s-1990s
352	Draceanaceae	<i>Dracaena usambarensis</i>	Herb			Engl.	1960s-1990s
353	Ebenaceae	<i>Diospyros amaniensis</i>	Tree	VU	Kenya and Tanzania	Gurke	1960s-1990s
354	Ebenaceae	<i>Diospyros kabuyeana</i>	Tree			F.White	2021
355	Ebenaceae	<i>Diospyros kirkii</i>	Tree			Hiern	1960s-1990s
356	Ebenaceae	<i>Diospyros loureiroana</i>	Tree			G.Don	2021
357	Ebenaceae	<i>Diospyros mespiliformis</i>	Tree			DC	1960s-1990s
358	Ebenaceae	<i>Diospyros zombensis</i>	Tree			(B.L.Burt) F.White	1960s-1990s
359	Erythroxylaceae	<i>Erythroxylum emarginatum</i>	Shrub			Thonn	1960s-1990s
360	Erythroxylaceae	<i>Pseudopus apodus</i>	Shrub			(Pallas, 1775)	2021
361	Euphorbiaceae	<i>Acalypha ciliata</i>	Herb			Forssk	1960s-1990s
362	Euphorbiaceae	<i>Acalypha fruticosa</i>	Herb			Forssk	1960s-1990s
363	Euphorbiaceae	<i>Acalypha indica</i>	Herb			L.	1960s-1990s
364	Euphorbiaceae	<i>Acalypha lanceolata</i>	Herb			Willd	1960s-1990s
365	Euphorbiaceae	<i>Acalypha neptunica</i>	Shrub			Müll.Arg.	2021
366	Euphorbiaceae	<i>Acalypha ornata</i>	Herb			A.Rich	1960s-1990s
367	Euphorbiaceae	<i>Acalypha petiolaris</i>	Herb			Hochst.	1960s-1990s
368	Euphorbiaceae	<i>Alchornea laxiflora</i>	Tree			(Benth) Pax & Hoffin	1960s-1990s
369	Euphorbiaceae	<i>Antidesma membranaceum</i>	Tree			Muell. Arg	1960s-1990s
370	Euphorbiaceae	<i>Antidesma venosum</i>	Tree			Thul	1960s-1990s
371	Euphorbiaceae	<i>Antidesma vogelianum</i>	Tree			Muell. Arg	1960s-1990s
372	Euphorbiaceae	<i>Bridelia cathartica</i>	Shrub			Bertol.f	1960s-1990s
373	Euphorbiaceae	<i>Bridelia micrantha</i>	Shrub			(Hochst.) Baill.	2021
374	Euphorbiaceae	<i>Caperonia stuhlmannii</i>	Herb			Pax	1960s-1990s
375	Euphorbiaceae	<i>Cleistanthus schlechteri</i>	Tree			(Pax) Hutch.	2021
376	Euphorbiaceae	<i>Croton dichogamus</i>	Shrub			Pax	1960s-1990s
377	Euphorbiaceae	<i>Dalechampia scandens</i>	Herb			L	1960s-1990s



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378	Euphorbiaceae	<i>Drypetes reticulata</i>	Tree			Pax	1960s-1990s
379	Euphorbiaceae	<i>Drypetes usambarica</i>	Tree			(Pax) Hutch	1960s-1990s
380	Euphorbiaceae	<i>Erythrococca kirkii</i>	Shrub			(Muell. Arg) Prain	1960s-1990s
381	Euphorbiaceae	<i>Euphorbia candelabrum</i>	Tree			KI	1960s-1990s
382	Euphorbiaceae	<i>Euphorbia hirta</i>	Herb			L	1960s-1990s
383	Euphorbiaceae	<i>Euphorbia hyssopifolia</i>	Herb			L	1960s-1990s
384	Euphorbiaceae	<i>Euphorbia prostrata</i>	Herb	CR	Tanzania	Ait	1960s-1990s
385	Euphorbiaceae	<i>Euphorbia systyloides</i>	Herb			Pax	1960s-1990s
386	Euphorbiaceae	<i>Flueggea virosa</i>	Shrub			(Willd.) Voigt.	1960s-1990s
387	Euphorbiaceae	<i>Hymenocardia acida</i>	Tree			Thul	1960s-1990s
388	Euphorbiaceae	<i>Macaranga kilimandscharica</i>	Tree			Pax	2021
389	Euphorbiaceae	<i>Maprounea africana</i>	Shrub			F.Muell	1960s-1990s
390	Euphorbiaceae	<i>Margaritaria discoidea</i>	Tree			(Baill.) G.L.Webster	2021
391	Euphorbiaceae	<i>Phyllanthus amarus</i>	Herb			K.Schum & Thonn	1960s-1990s
392	Euphorbiaceae	<i>Phyllanthus sepialis</i>	Shrub			Muell.Arg	1960s-1990s
393	Euphorbiaceae	<i>Phyllanthus welwitschianus</i>	Shrub			Muell. Arg (Hutch) A.R.Smith	1960s-1990s
394	Euphorbiaceae	<i>Pseudolachnostylis maprouneifolia</i>	Tree			Pax	1960s-1990s
395	Euphorbiaceae	<i>Shirakiopsis elliptica</i>	Tree			(Hochst.) Esser	2021
396	Euphorbiaceae	<i>Spirostachys africana</i>	Tree			Sond	1960s-1990s
397	Euphorbiaceae	<i>Suregada lithoxyla</i>	Shrub	NT	Tanzania	(Pax & K.Hoffm.) Croizat	2021
398	Euphorbiaceae	<i>Thecacoris spathulifolia</i> var. <i>spathulifolia</i>	Tree			Pax	1960s-1990s
399	Euphorbiaceae	<i>Tragia adenanthera</i>	Climber			Baill.	2021
400	Euphorbiaceae	<i>Tragia furialis</i>	Shrub			Bojer	1960s-1990s
401	Euphorbiaceae	<i>Tragia hildebrandtii</i>	Herb			Muell.Arg	1960s-1990s
402	Flacourtiaceae	<i>Casearia battiscombei</i>	Tree			R. E. Fr.	2021
403	Flacourtiaceae	<i>Dovyalis abyssinica</i>	Tree			(Rich.) Warb.	2021
404	Flacourtiaceae	<i>Dovyalis macrocalyx</i>	Tree			(Oliv) Warb	1960s-1990s
405	Flacourtiaceae	<i>Flacourtia indica</i>	Tree			(Burm. fil.) Merr.	2021
406	Flacourtiaceae	<i>Lindackeria bukobensis</i>	Tree			Gilg	1960s-1990s

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407	Flacourtiaceae	<i>Oncoba spinosa</i>	Tree			Forssk	1960s-1990s
408	Flacourtiaceae	<i>Rawsonia lucida</i>	Tree			Harv. & Sond.	1960s-1990s
409	Flacourtiaceae	<i>Xylothea tettensis</i>	Tree			(KI) Gilg	1960s-1990s
410	Flagellariaceae	<i>Flagellaria guineensis</i>	Herb			Schumach.	2021
411	Gentineae	<i>Canscora diffusa</i>	Herb			(Vahl.) Roem & Schult	1960s-1990s
412	Gentineae	<i>Enicostema axillare</i>	Herb			(Lam) A.Rayn	1960s-1990s
413	Gentineae	<i>Exacum quinquenervium</i>	Herb			Griseb	1960s-1990s
414	Guttiferae	<i>Allanblackia stuhlmannii</i>	Tree			(Engl.) Engl.	2021
415	Guttiferae	<i>Allanblackia ulugurensis</i>	Tree	VU	Tanzania	Engl.	2021
416	Guttiferae	<i>Garcinia huillensis</i>	Tree			Welw. Ex. Oliv	1960s-1990s
417	Guttiferae	<i>Garcinia volkensii</i>	Tree			Engl.	2021
418	Guttiferae	<i>Psorospermum febrifugum</i>	Tree			Spach	1960s-1990s
419	Hyacinthaceae	<i>Drimia altissima</i>	Herb			(L.f.) Ker Gawl.	1960s-1990s
420	Hydnoraceae	<i>Hydnora abyssinica</i>	Herb			Shweinf	1960s-1990s
421	Hydrocharitaceae	<i>Lagarosiphon muscoides</i>	Herb			Harvey	1960s-1990s
422	Hydrocharitaceae	<i>Ottelia ulvifolia</i>	Herb			(Planch) Walp.	1960s-1990s
423	Hypoxidaceae	<i>Hypoxis angustifolia</i>	Herb			Lam	1960s-1990s
424	Icacinaceae	<i>Apodytes dimidiata</i>	Tree			E. Mey. ex Arn.	2021
425	Icacinaceae	<i>Dasylepis integra</i>	Tree			Warb. ex Engl.	2021
426	Icacinaceae	<i>Pyrenacantha kaurabassana</i>	Herb			Baill	1960s-1990s
427	Icacinaceae	<i>Rhaphiostylis beninensis</i>	Shrub			(Planch) Benth	1960s-1990s
428	Iridaceae	<i>Crocoshmia aurea</i>	Herb			Planch	1960s-1990s
429	Iridaceae	<i>Dietes iridioides</i>	Herb			(L.) Sweet.	1960s-1990s
430	Iridaceae	<i>Gladiolus dalenii</i> subsp. <i>dalenii</i>	Herb			Reinw. ex Hook.	1960s-1990s
431	Labiatae	<i>Basilicum polystachyon</i>	Herb			(L) Moenth	1960s-1990s
432	Labiatae	<i>Coleus rhodesianum</i>	Herb			(N.E.Br.) A.J.Paton	1960s-1990s
433	Labiatae	<i>Coleus scruposus</i>	Herb			A.J.Paton	2021
434	Labiatae	<i>Equilabium flaccidum</i>	Herb			(Vatke) Mwany. & A.J.Paton	1960s-1990s
435	Labiatae	<i>Equilabium vesiculare</i>	Herb			(A.J.Paton) Mwany. & A.J.Paton	2021
436	Labiatae	<i>Haumaniastrum villosum</i>	Herb			(Benth.) A.J.Paton	1960s-1990s



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437	Labiatae	<i>Hoslundia opposita</i>	Herb			Vahl	1960s-1990s
438	Labiatae	<i>Leonotis nepetifolia</i>	Herb			R.Br.	1960s-1990s
439	Labiatae	<i>Leucas deflexa</i>	Herb			Hook.f.	2021
440	Labiatae	<i>Leucas glabrata</i>	Herb			(Vahl) Sm.	1960s-1990s
441	Labiatae	<i>Leucas martinicensis</i>	Herb			(Jacq) R.Br	1960s-1990s
442	Labiatae	<i>Leucas nyassae</i>	Herb			Gurke	1960s-1990s
443	Labiatae	<i>Mesosphaerum pectinatum</i>	Herb			(L.) Kuntze	1960s-1990s
444	Labiatae	<i>Mesosphaerum suaveolens</i>	Herb			(L.) Kuntze	1960s-1990s
445	Labiatae	<i>Ocimum basilicum</i>	Herb			L.	1960s-1990s
446	Labiatae	<i>Ocimum gratissimum</i>	Herb			L.	2021
447	Labiatae	<i>Ocimum gratissimum subsp. gratissimum</i>	Herb			Willd.	1960s-1990s
448	Labiatae	<i>Ocimum obovatum</i>	Herb			E.Mey. ex Benth.	1960s-1990s
449	Labiatae	<i>Orthosiphon parvifolius</i>	Herb			Vatke	1960s-1990s
450	Labiatae	<i>Orthosiphon rubicundus</i>	Herb			Benth	1960s-1990s
451	Labiatae	<i>Orthosiphon thymiflorus</i>	Herb			(Roth) Sleesen	1960s-1990s
452	Lauraceae	<i>Beilschmiedia kweo</i>	Tree			(Mildbr.) Robyns & R. Wilczek	2021
453	Lemnaceae	<i>Lemna perpusilla</i>	Herb			Torr	1960s-1990s
454	Lentibulariaceae	<i>Utricularia stellaris</i>	Herb	VU		L.f.	1960s-1990s
455	Linaceae	<i>Hugonia castaneifolia</i>	Tree			Engl	1960s-1990s
456	Loganiaceae	<i>Strychnos henningsii</i>	Tree			Gilg	1960s-1990s
457	Loganiaceae	<i>Strychnos madagascariensis</i>	Tree			Poir.	1960s-1990s
458	Loganiaceae	<i>Strychnos potatorum</i>	Tree			L. fil.	2021
459	Loganiaceae	<i>Strychnos spinosa</i>	Tree			Lam	1960s-1990s
460	Loganiaceae	<i>Strychnos xylophylla</i>	Shrub	EN		Gilg	2021
461	Loranthaceae	<i>Englerina muerensis</i>	Shrub			Engl	1960s-1990s
462	Loranthaceae	<i>Erianthemum lindense</i>	Shrub	VU	Kenya and Tanzania	(Sprague) Danser	1960s-1990s
463	Loranthaceae	<i>Oncocalyx fischeri</i>	Shrub			(Engl.) M. G. Gilbert	1960s-1990s
464	Loranthaceae	<i>Phragmanthera berliniicola</i>	Shrub			Engl	1960s-1990s
465	Loranthaceae	<i>Plicosepalus curviflorus</i>	Shrub			(Benth)	1960s-1990s

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466	Loranthaceae	<i>Spragueanella rhamnifolia</i>	Shrub			(Engl.) Balle	1960s-1990s
467	Loranthaceae	<i>Taxillus remota</i>	Shrub			(Bak. & Sprague) Wiens	1960s-1990s
468	Lythraceae	<i>Ammannia auriculata</i>	Herb			Willd	1960s-1990s
469	Malvaceae	<i>Abutilon grandiflorum</i>	Herb			G.Don	1960s-1990s
470	Malvaceae	<i>Abutilon guineense</i>	Herb			(K.Schum) Bak.f.	1960s-1990s
471	Malvaceae	<i>Abutilon mauritianum</i>	Herb			(Jacq) Medic	1960s-1990s
472	Malvaceae	<i>Cola discoglypsemnophylla</i>	Herb	EN	Tanzania	Brenan & A. P. D. Jones	2021
473	Malvaceae	<i>Hibiscus articulatus</i>	Herb			Hochs ex A. Rich	1960s-1990s
474	Malvaceae	<i>Hibiscus cannabinus</i>	Herb			L.	1960s-1990s
475	Malvaceae	<i>Hibiscus migeodii</i>	Herb			Exell	1960s-1990s
476	Malvaceae	<i>Hibiscus physaloides</i>	Herb			Guill	1960s-1990s
477	Malvaceae	<i>Hibiscus purpureus</i>	Herb			Forssk.	1960s-1990s
478	Malvaceae	<i>Hibiscus shirensis</i>	Herb			Sprague & Hutch	1960s-1990s
479	Malvaceae	<i>Hibiscus surattensis</i>	Herb			L	1960s-1990s
480	Malvaceae	<i>Hibiscus vitifolius</i>	Herb			L	1960s-1990s
481	Malvaceae	<i>Malvastrum coromandelianum</i>	Herb			(L.) Garcke	1960s-1990s
482	Malvaceae	<i>Pavonia urens</i>	Herb			Cav.	2021
483	Malvaceae	<i>Sida acuta</i>	Herb			Burm.f.	1960s-1990s
484	Malvaceae	<i>Sida ovata</i>	Herb			Forssk.	1960s-1990s
485	Malvaceae	<i>Sida rhombifolia</i> var. <i>serratifolia</i>	Herb			(R. Wilczek & Steyaert) Verdc.	1960s-1990s
486	Malvaceae	<i>Sida spinosa</i>	Herb			L.	1960s-1990s
487	Malvaceae	<i>Urena lobata</i>	Herb			L.	1960s-1990s
488	Malvoideae	<i>Sida cordifolia</i>	Herb			L.	2021
489	Melastomataceae	<i>Heterotis rotundifolia</i>	Herb			(Sm.) Jacq.-Fél.	2021
490	Meliaceae	<i>Azadirachta indica</i>	Tree			A. Juss.	2021
491	Meliaceae	<i>Khaya anthotheca</i>	Tree	VU		(Welw.) C. DC.	2021
492	Meliaceae	<i>Lepidotrichilia volkensii</i>	Tree			(Gürke) Leroy	2021
493	Meliaceae	<i>Trichilia emetica</i>	Tree			Vahl	1960s-1990s
494	Meliaceae	<i>Turraea holstii</i>	Tree			Gürke	2021



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495	Meliaceae	<i>Turraea mombassana</i>	Tree			DC	1960s-1990s
496	Meliantaceae	<i>Bersama abyssinica</i>	Tree			Fres	1960s-1990s
497	Menispermaceae	<i>Cissampelos pareira</i>	Herb			L	1960s-1990s
498	Menispermaceae	<i>Stephania abyssinica</i>	Tree			Dillon & A.Rich	1960s-1990s
499	Mimosaceae	<i>Vachellia robusta</i>	Tree			(Burch.) Kyal. & Boatwr.	1960s-1990s
500	Mimosoideae	<i>Albizia amara</i>	Tree			(Roxb.) Boivin	2021
501	Mimosoideae	<i>Albizia anthelmintica</i>	Tree			Brongn.	1960s-1990s
502	Mimosoideae	<i>Albizia gummifera</i>	Tree			(J.F Gmel) A.R.Sm	1960s-1990s
503	Mimosoideae	<i>Albizia harveyi</i>	Tree			Fourn	1960s-1990s
504	Mimosoideae	<i>Albizia lebbeck</i>	Tree			(L.) Benth	1960s-1990s
505	Mimosoideae	<i>Albizia versicolor</i>	Tree			Welw. Ex. Oliv	1960s-1990s
506	Mimosoideae	<i>Dichrostachys cinerea</i>	Tree			(L.) Wight & Arn.	2021
507	Mimosoideae	<i>Entada rheedei subsp. rheedei</i>	liana			DC.	1960s-1990s
508	Mimosoideae	<i>Mimosa pigra</i>	Tree			L.	1960s-1990s
509	Mimosoideae	<i>Newtonia buchananii</i>	Tree			(Bak) Gilg.	1960s-1990s
510	Mimosoideae	<i>Parkia filicoidea</i>	Tree			Welw. ex Oliv.	2021
511	Mimosoideae	<i>Senegalia brevispica</i>	Tree			(Harms) Seigler & Ebinger	1960s-1990s
512	Mimosoideae	<i>Senegalia mellifera</i>	Tree			(Vahl) Seigler & Ebinger	1960s-1990s
513	Mimosoideae	<i>Senegalia nigrescens</i>	Tree			(Oliv.) P.J.H.Hurter	1960s-1990s
514	Mimosoideae	<i>Senegalia polyacantha</i>	Tree			(Willd.) Seigler & Ebinger	2021
515	Mimosoideae	<i>Senegalia senegal</i>	Tree			(L.) Britton	1960s-1990s
516	Mimosoideae	<i>Vachellia abyssinica</i>	Tree			(Hochst. ex Benth.) Kyal. & Boatwr.	2021
517	Mimosoideae	<i>Vachellia drepanolobium</i>	Tree			(Harms ex Y.Sjöstedt) P.J.H.Hurter	1960s-1990s
518	Mimosoideae	<i>Vachellia hockii</i>	Tree			(De Wild.) Seigler & Ebinger	1960s-1990s
519	Mimosoideae	<i>Vachellia nilotica</i>	Tree			(L.) P.J.H.Hurter & Mabb.	1960s-1990s
520	Mimosoideae	<i>Vachellia sieberiana</i>	Tree			(DC.) Kyal. & Boatwr.	1960s-1990s
521	Mimosoideae	<i>Vachellia stuhlmannii</i>	Tree			(Taub.) Kyal. & Boatwr.	1960s-1990s
522	Mimosoideae	<i>Xylia Africana</i>	Tree	EN	Tanzania	Harms	2021
523	Mimosoideae	<i>Vachellia xanthophloea</i>	Tree			(Benth.) Banfi & Galasso	1960s-1990s

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524	Montiniaceae	<i>Grevea eggelingii</i>	Tree			Milne - Redhead	1960s-1990s
525	Moraceae	<i>Antiaris toxicaria</i>	Tree			(Pers.) Lesch.	2021
526	Moraceae	<i>Ficus cordata</i>	Tree			Thunb.	2021
527	Moraceae	<i>Ficus craterostoma</i>	Tree			Warb. ex Mildbr. & Burret	2021
528	Moraceae	<i>Ficus mucuso</i>	Tree			Ficalho	1960s-1990s
529	Moraceae	<i>Ficus platyphylla</i>	Tree			Del	1960s-1990s
530	Moraceae	<i>Ficus sansibarica</i>	Tree			Warb.	1960s-1990s
531	Moraceae	<i>Ficus sur</i>	Tree			Forssk.	1960s-1990s
532	Moraceae	<i>Ficus sycomorus</i>	Tree			L.	2021
533	Moraceae	<i>Milicia excelsa</i>	Tree	NT		(Welw.) G.C. Berg	1960s-1990s
534	Moraceae	<i>Myrianthus holstii</i>	Tree			Engl	1960s-1990s
535	Musaceae	<i>Ensete ventricosum</i>	Herb			(Welw.) Cheesman	2021
536	Myrtaceae	<i>Syzygium cordatum</i>	Tree			Hochst.	1960s-1990s
537	Myrtaceae	<i>Syzygium cumini</i>	Tree			(L.) Skeels	2021
538	Myrtaceae	<i>Syzygium guineense</i>	Tree			(Willd.) DC	1960s-1990s
539	Nyctaginaceae	<i>Boerhavia coccinea</i>	Herb			Mill	1960s-1990s
540	Nyctaginaceae	<i>Boerhavia diffusa</i>	Herb			L.	1960s-1990s
541	Nymphaeaceae	<i>Nymphaea lotus</i>	Herb			L	1960s-1990s
542	Ochnaceae	<i>Ochna atropurpurea</i>	Tree			DC.	2021
543	Ochnaceae	<i>Ochna holstii</i>	Tree			Engl	1960s-1990s
544	Ochnaceae	<i>Ochna macrocalyx</i>	Tree			Oliv.	2021
545	Ochnaceae	<i>Ochna schweinfurthiana</i>	Tree			F.Hoffin	1960s-1990s
546	Olacaceae	<i>Strombosia scheffleri</i>	Tree			Engl	1960s-1990s
547	Oleaceae	<i>Jasminum fluminense</i>	Tree			Vell	1960s-1990s
548	Oleaceae	<i>Noronhia mildbraedii</i>	Climber			(Gilg & G.Schellenb.) Hong-Wa & Besnard	1960s-1990s
549	Oleaceae	<i>Schrebera trichoclada</i>	Shrub			Welw.	1960s-1990s
550	Onagraceae	<i>Ludwigia adscendens</i> subsp. <i>diffusa</i>	Herb			(Forssk.) P. H. Raven	1960s-1990s
551	Onagraceae	<i>Ludwigia jussiaeoides</i>	Herb			Desr.	1960s-1990s
552	Onagraceae	<i>Ludwigia perennis</i>	Herb			L.	1960s-1990s
553	Orchidaceae	<i>Bulbophyllum intertextum</i>	Herb			Lindl.	2021



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554	Orchidaceae	<i>Eulophia speciosa</i>	Herb			(R.Br.) Bolus	1960s-1990s
555	Oxalidaceae	<i>Biophytum umbraculum</i>	Herb			Welw.	1960s-1990s
556	Orchidaceae	<i>Polystachya isochiloides</i>	Herb	EN		Summerh.	1960s-1990s
557	Oxalidaceae	<i>Oxalis corniculata</i>	Herb			L.	1960s-1990s
558	Palmae	<i>Borassus aethiopum</i>	Herb			Mart.	1960s-1990s
559	Palmae	<i>Hyphaene petersiana</i>	Herb			Klotzsch ex Mart.	1960s-1990s
560	Palmae	<i>Phoenix reclinata</i>	Herb			Jacq.	1960s-1990s
561	Palmae	<i>Urochloa trichopus</i>	Herb			(Hochst.) Stapf	1960s-1990s
562	Fabaceae	<i>Abrus fruticosus</i>	Herb			Wall. ex Wight & Arn.	1960s-1990s
563	Fabaceae	<i>Adenodolichos punctatus</i>	Herb			(Micheli) Harms	1960s-1990s
564	Fabaceae	<i>Aeschynomene indica</i>	Herb			L.	1960s-1990s
565	Fabaceae	<i>Aganope stuhlmannii</i>	Herb			(Taub.) Adema	1960s-1990s
566	Fabaceae	<i>Alysicarpus glumaceus</i>	Herb			(Vahl) DC.	1960s-1990s
567	Fabaceae	<i>Aeschynomene mossoensis</i>	Herb			J.Léonard	1960s-1990s
568	Fabaceae	<i>Alysicarpus rugosus</i>	Herb			J. Leon	1960s-1990s
569	Fabaceae	<i>Clitoria ternatea</i>	Herb			L.	1960s-1990s
570	Fabaceae	<i>Crotalaria agatiflora</i>	Herb			Schweinf.	1960s-1990s
571	Fabaceae	<i>Crotalaria barkae</i>	Herb			Schweinf.	1960s-1990s
572	Fabaceae	<i>Crotalaria bernieri</i>	Herb			Baill.	1960s-1990s
573	Fabaceae	<i>Crotalaria brevidens</i>	Herb			Benth (KI)	1960s-1990s
574	Fabaceae	<i>Crotalaria calycina</i>	Herb			Schrank	1960s-1990s
575	Fabaceae	<i>Crotalaria cephalotes</i>	Herb			Staud. ex A.Rich.	1960s-1990s
576	Fabaceae	<i>Crotalaria goodiiiformis</i>	Herb			Vatke	1960s-1990s
577	Fabaceae	<i>Crotalaria laburnifolia</i>	Herb			L.	1960s-1990s
578	Fabaceae	<i>Crotalaria lanceolata</i>	Herb			E. Mey	1960s-1990s
579	Fabaceae	<i>Crotalaria pterocalyx</i>	Herb			Harms	1960s-1990s
580	Fabaceae	<i>Crotalaria spinosa</i>	Herb			Benth	1960s-1990s
581	Fabaceae	<i>Crotalaria vasculosa</i>	Herb			Wall. ex Benth.	1960s-1990s
582	Fabaceae	<i>Dalbergia armata</i>	Herb			E.Mey.	2021

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583	Fabaceae	<i>Dalbergia boehmii</i>	Herb			Taub.	1960s-1990s
584	Fabaceae	<i>Dalbergia lactea</i>	Herb			Vatke	1960s-1990s
585	Fabaceae	<i>Dalbergia nitidula</i>	Herb			Welw. ex Baker	2021
586	Fabaceae	<i>Desmodium tortuosum</i>	Herb			(Sw.) DC.	1960s-1990s
587	Fabaceae	<i>Dolichos trilobus</i>	Herb			L.	1960s-1990s
588	Fabaceae	<i>Dalbergia melanoxylon</i>	Herb	NT		Guill & Perr	1960s-1990s
589	Fabaceae	<i>Grona barbata</i>	Herb			(L.) H.Ohashi & K.Ohashi	1960s-1990s
590	Fabaceae	<i>Hylodesmum repandum</i>	Herb			(Vahl) H.Ohashi & R.R.Mill	2021
591	Fabaceae	<i>Indigofera colutea</i>	Herb			(Burm.f.) Merr.	1960s-1990s
592	Fabaceae	<i>Indigofera demissa</i>	Herb			Taub.	1960s-1990s
593	Fabaceae	<i>Indigofera dendroides</i>	Herb			Jacq.	1960s-1990s
594	Fabaceae	<i>Indigofera drepanocarpa</i>	Herb			Taub.	1960s-1990s
595	Fabaceae	<i>Indigofera dyeri</i>	Herb			Britten	1960s-1990s
596	Fabaceae	<i>Indigofera hirsuta</i>	Herb			L.	1960s-1990s
597	Fabaceae	<i>Indigofera rhynchocarpa</i>	Herb			Welw. ex Baker	2021
598	Fabaceae	<i>Indigofera secundiflora</i>	Herb			Poir.	1960s-1990s
599	Fabaceae	<i>Indigofera sisalis</i>	Herb			J.B.Gillett	1960s-1990s
600	Fabaceae	<i>Indigofera spicata</i>	Herb			Forssk.	1960s-1990s
601	Fabaceae	<i>Lonchocarpus capassa</i>	Herb			Rolfe	1960s-1990s
602	Fabaceae	<i>Macrotyloma axillare</i>	Herb			(E.Mey.) Verdc.	1960s-1990s
603	Fabaceae	<i>Millettia usaramensis</i>	Herb			Taub.	1960s-1990s
604	Fabaceae	<i>Mucuna pruriens</i>	Herb			(L.) DC.	1960s-1990s
605	Fabaceae	<i>Neorautanenia mitis</i>	Herb			(A.Rich.) Verdc.	1960s-1990s
606	Fabaceae	<i>Ormocarpum trichocarpum</i>	Herb			(Taub.) Engl.	2021
607	Fabaceae	<i>Pericopsis angolensis</i>	Herb			(Bak) Van Meenwen	1960s-1990s
608	Fabaceae	<i>Philenoptera bussei</i>	Herb			(Harms) Schrire	1960s-1990s
609	Fabaceae	<i>Philenoptera eriocalyx</i>	Herb			(Harms) Schrire	2021
610	Fabaceae	<i>Pleurolobus gangeticus</i>	Herb			(L.) J.St.-Hil. ex H.Ohashi & K.Ohashi	1960s-1990s
611	Fabaceae	<i>Pseudarthria hookeri</i>	Herb			Wight & Arn.	2021
612	Fabaceae	<i>Psophocarpus scandens</i>	Herb			(Endl.) Verdc.	1960s-1990s



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613	Fabaceae	<i>Pterocarpus angolensis</i>	Herb			DC.	1960s-1990s
614	Fabaceae	<i>Pterocarpus rotundifolius</i>	Herb			(Sond.) Druce	1960s-1990s
615	Fabaceae	<i>Pterocarpus tinctorius</i>	Herb			Welw.	2021
616	Fabaceae	<i>Rhynchosia albissima</i>	Herb			Gand.	1960s-1990s
617	Fabaceae	<i>Rhynchosia micrantha</i>	Herb			Harms	1960s-1990s
618	Fabaceae	<i>Rhynchosia minima</i>	Herb			(L.) DC.	1960s-1990s
619	Fabaceae	<i>Rhynchosia resinosa</i>	Herb			(Hochst. ex A.Rich.) Baker	1960s-1990s
620	Fabaceae	<i>Rhynchosia sublobata</i>	Herb			(Schumach.) Meikle	1960s-1990s
621	Fabaceae	<i>Rhynchosia usambarensis</i>	Herb			Taub.	1960s-1990s
622	Fabaceae	<i>Rhynchosia villosa</i>	Herb			(Meisn.) Druce	2021
623	Fabaceae	<i>Rhynchosia viscosa</i>	Herb			DC.	1960s-1990s
624	Fabaceae	<i>Sesbania greenwayi</i>	Herb			Gillet	1960s-1990s
625	Fabaceae	<i>Tephrosia pumila</i>	Herb			(Lam.) Pers.	1960s-1990s
626	Fabaceae	<i>Tephrosia purpurea</i>	Herb			(L.) Pers.	1960s-1990s
627	Fabaceae	<i>Tephrosia stormsii</i>	Herb			De Willd.	1960s-1990s
628	Fabaceae	<i>Tephrosia uniflora</i>	Herb			Pers.	1960s-1990s
629	Fabaceae	<i>Tephrosia villosa</i>	Herb			(L.) Pers.	1960s-1990s
630	Fabaceae	<i>Teramnus labialis</i>	Herb			(L.f.) Spreng.	1960s-1990s
631	Fabaceae	<i>Teramnus uncinatus</i>	Herb			(L.) Sweet.	1960s-1990s
632	Fabaceae	<i>Trichocladus crinitus</i>	Herb			(Thunb.) Pers.	2021
633	Fabaceae	<i>Uraria picta</i>	Herb			(Jacq.) Desv. ex DC.	1960s-1990s
634	Fabaceae	<i>Vigna friesiorum</i>	Herb			Harms	1960s-1990s
635	Fabaceae	<i>Vigna unguiculata subsp. pubescens</i>	Herb			(R.Wilczek) Pasquet	1960s-1990s
636	Fabaceae	<i>Vigna vexillata</i>	Herb			(L.) A.Rich.	1960s-1990s
637	Fabaceae	<i>Zornia glochidiata</i>	Herb			Rchb. ex DC.	1960s-1990s
638	Passifloraceae	<i>Basananthe hanningtoniana</i>	Herb			(Mast.) J. J. de Wilde	1960s-1990s
639	Passifloraceae	<i>Schlechterina mitostemmatoides</i>	Shrub			Harms	1960s-1990s
640	Pedaliaceae	<i>Sesamum angolense</i>	Herb			Welw.	1960s-1990s
641	Pedaliaceae	<i>Sesamum angustifolium</i>	Herb			(Oliv.) Engl.	1960s-1990s

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642	Phyllanthaceae	<i>Phyllanthus reticulatus</i>	Tree			Poir.	2021
643	Piperaceae	<i>Piper capense</i>	Shrub			L. fil.	1960s-1990s
644	Piperaceae	<i>Piper umbellatum</i>	Shrub			L.	1960s-1990s
645	Plumbaginaceae	<i>Plumbago zeylanica</i>	Shrub			L.	1960s-1990s
646	Poaceae	<i>Andropogon gayanus</i>	Grass			Kunth.	1960s-1990s
647	Poaceae	<i>Andropogon schirensis</i>	Grass			Hochst. ex A.Rich.	1960s-1990s
648	Poaceae	<i>Aristida adscensionis</i>	Grass			L.	1960s-1990s
649	Poaceae	<i>Aristida hordeacea</i>	Grass			Kunth.	1960s-1990s
650	Poaceae	<i>Bothriochloa bladhii</i>	Grass			(Retz.) S.T.Blake	1960s-1990s
651	Poaceae	<i>Bothriochloa insculpta</i>	Grass			(Hochst. ex A.Rich.) A.Camus	1960s-1990s
652	Poaceae	<i>Bothriochloa radicans</i>	Grass			(Lehm.) A.Camus	1960s-1990s
653	Poaceae	<i>Cenchrus purpureus</i>	Grass			(Schumach.) Morrone	2021
654	Poaceae	<i>Cenchrus ramosus</i>	Grass			(Hochst.) Morrone	1960s-1990s
655	Poaceae	<i>Cenchrus unisetus</i>	Grass			(Nees) Morrone	1960s-1990s
656	Poaceae	<i>Chloris gayana</i>	Grass			Kunth.	1960s-1990s
657	Poaceae	<i>Chloris pycnothrix</i>	Grass			Trin.	1960s-1990s
658	Poaceae	<i>Chloris virgata</i>	Grass			Sw.	1960s-1990s
659	Poaceae	<i>Cleistachne sorghoides</i>	Grass			Benth.	1960s-1990s
660	Poaceae	<i>Cymbopogon giganteus</i>	Grass			Chiov.	1960s-1990s
661	Poaceae	<i>Cynodon dactylon</i>	Grass			(L.) Pers.	2021
662	Poaceae	<i>Cynodon nlemfuensis</i>	Grass			Vanderyst	1960s-1990s
663	Poaceae	<i>Dactyloctenium aegyptium</i>	Grass			(L.) Willd.	1960s-1990s
664	Poaceae	<i>Dactyloctenium giganteum</i>	Grass			B.S.Fisher & Schweick.	1960s-1990s
665	Poaceae	<i>Dichanthium annulatum</i>	Grass			(Forssk.) Stapf	1960s-1990s
666	Poaceae	<i>Dichanthium aristatum</i>	Grass			(Poir) C.E. Hubbard	1960s-1990s
667	Poaceae	<i>Diectomis fastigiata</i>	Grass			(Sw.) P.Beauv.	1960s-1990s
668	Poaceae	<i>Digitaria ciliaris</i>	Grass			(Retz) Koel	1960s-1990s
669	Poaceae	<i>Digitaria horizontalis</i>	Grass			Willd	1960s-1990s
670	Poaceae	<i>Digitaria milanjana</i>	Grass			(Rendle) Stapf	1960s-1990s
671	Poaceae	<i>Digitaria ternata</i>	Grass			(A.Rich.) Stapf	1960s-1990s



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672	Poaceae	<i>Digitaria velutina</i>	Grass			(Forssk.) R. Beauv.	1960s-1990s
673	Poaceae	<i>Diheteropogon amplexens</i>	Grass			(Nees) W.D. Clayton .var	1960s-1990s
674	Poaceae	<i>Disakisperma obtusiflorum</i>	Grass			(Hochst.) P.M.Peterson & N.Snow	1960s-1990s
675	Poaceae	<i>Echinochloa haploclada</i>	Grass			(Stapf) Stapf	1960s-1990s
676	Poaceae	<i>Echinochloa stagnina</i>	Grass			(Retz.) P.Beauv.	1960s-1990s
677	Poaceae	<i>Echinochloa ugandensis</i>	Grass			Snowden	1960s-1990s
678	Poaceae	<i>Eleusine africana</i>	Grass			Kennedy - O' Bryne	1960s-1990s
679	Poaceae	<i>Eleusine coracana</i>	Grass			Gaertn	1960s-1990s
680	Poaceae	<i>Eleusine indica</i>	Grass			(L.) Gaertn.	1960s-1990s
681	Poaceae	<i>Elymandra grallata</i>	Grass			(Stapf) W.D. Clayton	1960s-1990s
682	Poaceae	<i>Enteropogon macrostachyus</i>	Grass			(A.Rich.) Benth.	1960s-1990s
683	Poaceae	<i>Enteropogon sechellensis</i>	Grass			(Baker) Th.Dur. & Schinz	1960s-1990s
684	Poaceae	<i>Eragrostis aethiopica</i>	Grass			Chiov.	1960s-1990s
685	Poaceae	<i>Eragrostis aspera</i>	Grass			(Jacq.) Nees	1960s-1990s
686	Poaceae	<i>Eragrostis cilianensis</i>	Grass			(All.) Vignolo ex Janch.	1960s-1990s
687	Poaceae	<i>Eragrostis ciliaris</i>	Grass			(L.) R. Br.	1960s-1990s
688	Poaceae	<i>Eragrostis cylindriflora</i>	Grass			Hochst.	1960s-1990s
689	Poaceae	<i>Eragrostis lappula</i>	Grass			Nees	1960s-1990s
690	Poaceae	<i>Eragrostis minor</i>	Grass			Hochst.	1960s-1990s
691	Poaceae	<i>Eragrostis pilosa</i>	Grass			(L.) P. Beauv.	1960s-1990s
692	Poaceae	<i>Eragrostis superba</i>	Grass			Peyr.	1960s-1990s
693	Poaceae	<i>Eragrostis tenella</i>	Grass			(L.) Roem. & Schult.	1960s-1990s
694	Poaceae	<i>Eragrostis tenuifolia</i>	Grass			(A.Rich) Steud	1960s-1990s
695	Poaceae	<i>Eriochloa barbatus</i>	Grass			(Trin.) S.Yadav & M.R.Almeida	1960s-1990s
696	Poaceae	<i>Eriochloa meyeriana</i>	Grass			(Nees) Pilg.	1960s-1990s
697	Poaceae	<i>Euclasta condylotricha</i>	Grass			(Hochst. ex Steud.) Stapf	1960s-1990s
698	Poaceae	<i>Hackelochloa granularis</i>	Grass			(L.) Kuntze	1960s-1990s
699	Poaceae	<i>Heteropogon contortus</i>	Grass			(L.) Roem. & Schult.	1960s-1990s
700	Poaceae	<i>Hyparrhenia collina</i>	Grass			(Pilg.) Stapf	2021

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701	Poaceae	<i>Hyparrhenia cymbaria</i>	Grass			(L.) Stapf	2021
702	Poaceae	<i>Hyparrhenia filipendula</i>	Grass			(Hochst.) Stapf	1960s-1990s
703	Poaceae	<i>Hyparrhenia finitima</i>	Grass			(Hotchst.) Stapf	1960s-1990s
704	Poaceae	<i>Hyparrhenia nyassae</i>	Grass			(Rendle) Stapf	2021
705	Poaceae	<i>Hyparrhenia rufa</i>	Grass			(Hotchst.) Stapf	1960s-1990s
706	Poaceae	<i>Hyperthelia dissoluta</i>	Grass			(Steud.) W.D.Clayton	1960s-1990s
707	Poaceae	<i>Leersia hexandra</i>	Grass			Sw.	1960s-1990s
708	Poaceae	<i>Leptaspis zeylanica</i>	Grass			Nees ex Steud.	2021
709	Poaceae	<i>Leptochloa panicea</i>	Grass			(Retz.) Ohwi	1960s-1990s
710	Poaceae	<i>Loudetia simplex</i>	Grass			(Nees) C.E.Hubbard	1960s-1990s
711	Poaceae	<i>Megathyrsus infestus</i>	Grass			(Andersson) B.K.Simon & S.W.L.Jacobs	1960s-1990s
712	Poaceae	<i>Megathyrsus maximus</i>	Grass			(Jacq.) B.K.Simon & S.W.L.Jacobs	1960s-1990s
713	Poaceae	<i>Melinis repens</i>	Grass			(Willd.) Zizka	1960s-1990s
714	Poaceae	<i>Moorochloa eruciformis</i>	Grass			(Sm.) Veldkamp	1960s-1990s
715	Poaceae	<i>Olyra latifolia</i>	Grass			L.	2021
716	Poaceae	<i>Oplismenus compositus</i>	Grass			(L) Beauv	1960s-1990s
717	Poaceae	<i>Oplismenus hirtellus</i>	Grass			(L.) P. Beauv.	1960s-1990s
718	Poaceae	<i>Oryza eichingeri</i>	Grass			Peter	1960s-1990s
719	Poaceae	<i>Oryza punctata</i>	Grass			Steud.	1960s-1990s
720	Poaceae	<i>Panicum atrosanguineum</i>	Grass			A.Rich.	1960s-1990s
721	Poaceae	<i>Panicum coloratum</i>	Grass			L.	1960s-1990s
722	Poaceae	<i>Panicum comorense</i>	Grass			Mez.	1960s-1990s
723	Poaceae	<i>Panicum deustum</i>	Grass			Thunb	1960s-1990s
724	Poaceae	<i>Panicum laticomum</i>	Grass			Nees	1960s-1990s
725	Poaceae	<i>Panicum massaiense</i>	Grass			Stapf	1960s-1990s
726	Poaceae	<i>Panicum pansum</i>	Grass			Rendle	1960s-1990s
727	Poaceae	<i>Panicum poioides</i>	Grass			Stapf	1960s-1990s
728	Poaceae	<i>Panicum porphyrrhizos</i>	Grass			Steud.	1960s-1990s
729	Poaceae	<i>Panicum trichocladum</i>	Grass			Hack. ex K.Schum.	1960s-1990s
730	Poaceae	<i>Paspalum scrobiculatum</i>	Grass			L.	1960s-1990s



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731	Poaceae	<i>Perotis patens</i>	Grass			Gand	1960s-1990s
732	Poaceae	<i>Phragmites mauritianus</i>	Grass			Kunth.	1960s-1990s
733	Poaceae	<i>Phyllorachis sagittata</i>	Grass			Trimen	1960s-1990s
734	Poaceae	<i>Rhynchelytrum repens</i>	Grass			(Willd.) C.E.Hubb.	1960s-1990s
735	Poaceae	<i>Rottboellia cochinchinensis</i>	Grass			(Lour.) Clayton	1960s-1990s
736	Poaceae	<i>Sacciolepis africana</i>	Grass			C.E.Hubbard	1960s-1990s
737	Poaceae	<i>Sacciolepis myosuroides</i>	Grass			(R.Br.) Chase ex E.G.Camus & A.Camus	1960s-1990s
738	Poaceae	<i>Sarga versicolor</i>	Grass			(Andersson) Spangler	1960s-1990s
739	Poaceae	<i>Schizachyrium brevifolium</i>	Grass			(Sw.) Nees.	1960s-1990s
740	Poaceae	<i>Setaria homonyma</i>	Grass			(Steud.) Chiov.	1960s-1990s
741	Poaceae	<i>Setaria incrassata</i>	Grass			(Hochst.) Hack.	1960s-1990s
742	Poaceae	<i>Setaria longiseta</i>	Grass			P.Beauv	1960s-1990s
743	Poaceae	<i>Setaria megaphylla</i>	Grass			(Steud.) T.Durand & Schinz	2021
744	Poaceae	<i>Setaria pallide</i>	Grass			fusca (K.Schum)Stapf & Hubbard	1960s-1990s
745	Poaceae	<i>Setaria parviflora</i>	Grass			(Poir.) Kerguélen	1960s-1990s
746	Poaceae	<i>Setaria pumila</i>	Grass			(Poir) Roem and Schult.	1960s-1990s
747	Poaceae	<i>Setaria sagittifolia</i>	Grass			(A.Rich.) Walp.	1960s-1990s
748	Poaceae	<i>Setaria sphacelata</i>	Grass			(K.Schum.) Moss	1960s-1990s
749	Poaceae	<i>Setaria verticillata</i>	Grass			(L.) P.Beauv.	1960s-1990s
750	Poaceae	<i>Sorghastrum incompletum var. africanum</i>	Grass			(Franch.) ined.	1960s-1990s
751	Poaceae	<i>Sorghastrum stipoides</i>	Grass			(Kunth) Nash	1960s-1990s
752	Poaceae	<i>Sorghum arundinaceum</i>	Grass			(Desv.) Stapf.	1960s-1990s
753	Poaceae	<i>Sporobolus festivus</i>	Grass			Hochst.	1960s-1990s
754	Poaceae	<i>Sporobolus fimbriatus</i>	Grass			Nees	1960s-1990s
755	Poaceae	<i>Sporobolus helvolus</i>	Grass			(Trin) Durand	1960s-1990s
756	Poaceae	<i>Sporobolus ioclados</i>	Grass			(Trin) Nees	1960s-1990s
757	Poaceae	<i>Sporobolus pyramidalis</i>	Grass			Beauv	1960s-1990s
758	Poaceae	<i>Sporobolus tenuissimus</i>	Grass			(K.Schum) Kuntze	1960s-1990s
759	Poaceae	<i>Thelepogon elegans</i>	Grass			Roth	1960s-1990s

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760	Poaceae	<i>Themeda triandra</i>	Grass			Forssk	1960s-1990s
761	Poaceae	<i>Tragus berteronianus</i>	Grass			Schult	1960s-1990s
762	Poaceae	<i>Tragus heptaneuron</i>	Grass			W.D.Clayton	1960s-1990s
763	Poaceae	<i>Trigonochloa uniflora</i>	Grass			(Hochst. ex A.Rich.) P.M.Peterson & N.Snow	1960s-1990s
764	Poaceae	<i>Urochloa brizantha</i>	Grass			(A.Rich.) R.D.Webster	1960s-1990s
765	Poaceae	<i>Urochloa deflexa</i>	Grass			(Schumach.) H.Scholz	1960s-1990s
766	Poaceae	<i>Urochloa reptans</i>	Grass			(L.) Stapf	1960s-1990s
767	Poaceae	<i>Urochloa xantholeuca</i> var. <i>xantholeuca</i>	Grass			Stapf	1960s-1990s
768	Polygalaceae	<i>Polygala albida</i>	Herb			Schinz	1960s-1990s
769	Polygalaceae	<i>Polygala erioptera</i>	Herb			DC	1960s-1990s
770	Polygalaceae	<i>Polygala kilimandjarica</i>	Herb			Chodat	1960s-1990s
771	Polygalaceae	<i>Polygala macrostigma</i>	Herb			Chodat	1960s-1990s
772	Polygalaceae	<i>Polygala sphenoptera</i>	Herb			Fresen.	1960s-1990s
773	Polygonaceae	<i>Oxygonum sinuatum</i>	Herb			(Hochst. & Steud. ex Meisn.) Damm.	1960s-1990s
774	Polygonaceae	<i>Persicaria amphibia</i>	Herb			(L.) Gray	1960s-1990s
775	Portulacaceae	<i>Portulaca oleracea</i>	Herb			L.	1960s-1990s
776	Portulacaceae	<i>Portulaca quadrifida</i>	Herb			L.	1960s-1990s
777	Portulacaceae	<i>Talinum cafferum</i>	Herb			(Thunb.) Eckl. & Zeyh.	1960s-1990s
778	Portulacaceae	<i>Talinum portulacifolium</i>	Herb			(Forssk.) Shweinf	1960s-1990s
779	Proteaceae	<i>Faurea rochetiana</i>	Herb			(A. Rich.) Chiov. ex Pic. Serm.	2021
780	Pteridaceae	<i>Pteris catoptera</i>	Herb			Kunze	2021
781	Putranjivaceae	<i>Drypetes natalensis</i>	Tree			(Harv.) Hutch.	2021
782	Rhamnaceae	<i>Berchemia discolor</i>	Tree			(Klotzsch) Hemsl.	1960s-1990s
783	Rhamnaceae	<i>Helinus integrifolius</i>	Tree			(Lam) Kuntze	1960s-1990s
784	Rhamnaceae	<i>Lasiodiscus usambarensis</i>	Tree			Engl.	2021
785	Rhamnaceae	<i>Ziziphus mucronata</i>	Tree			Willd	1960s-1990s
786	Rhamnaceae	<i>Ziziphus pubescens</i>	Tree			Oliv	1960s-1990s
787	Rubiaceae	<i>Afrocanthium burttii</i>	Tree			(Bullock) Lantz	2021
788	Rubiaceae	<i>Aidia micrantha</i>	Tree			(K.Schum.) Bullock ex F.White	2021



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789	Rubiaceae	<i>Breonadia salicina</i>	Tree			(Vahl) H. & Wood	1960s-1990s
790	Rubiaceae	<i>Bullockia setiflora</i>	Tree			(Hiern) Razafim., Lantz & B.Bremer	1960s-1990s
791	Rubiaceae	<i>Catunaregam nilotica</i>	Tree			(Stapf) Tirveng.	1960s-1990s
792	Rubiaceae	<i>Catunaregam spinosa</i>	Tree			(Thunb.) Tirveng.	2021
793	Rubiaceae	<i>Chassalia discolor</i>	Tree			K.Schum	1960s-1990s
794	Rubiaceae	<i>Coffea mufindiensis</i>	Tree			Hutch. ex Bridson	2021
795	Rubiaceae	<i>Cordylostigma longifolium</i>	Tree			(Klotzsch) Groeninckx & Dessein	1960s-1990s
796	Rubiaceae	<i>Cordylostigma obtusilobum</i>	Tree			(Hiern) Groeninckx & Dessein	1960s-1990s
797	Rubiaceae	<i>Cordylostigma virgatum</i>	Tree			(Willd.) Groeninckx & Dessein	1960s-1990s
798	Rubiaceae	<i>Coffea bridsoniae</i>	Tree	EN	Tanzania	A.P.Davis & Mvungi	2021
799	Rubiaceae	<i>Cremaspora triflora</i>	Tree			(Thonn.) K.Schum.	2021
800	Rubiaceae	<i>Coffea kihansiensis</i>	Tree	CR	Tanzania	A.P.Davis & Mvungi	2021
801	Rubiaceae	<i>Crossopteryx febrifuga</i>	Tree			(Afzel. ex G.Don) Benth.	1960s-1990s
802	Rubiaceae	<i>Gardenia volkensii</i>	Tree			K.Schum.	2021
803	Rubiaceae	<i>Coffea pseudozanguebariae</i>	Tree	NT	Kenya and Tanzania	Bridson	2021
804	Rubiaceae	<i>Heinsia crinita</i>	Tree			(Wennberg) G.Taylor	1960s-1990s
805	Rubiaceae	<i>Keetia gueinzii</i>	Tree			(Sond) Bridson	1960s-1990s
806	Rubiaceae	<i>Keetia venosa</i>	Tree			(Oliv) Bridson	1960s-1990s
807	Rubiaceae	<i>Keetia zanzibarica</i>	Tree			(KI) Bridson	1960s-1990s
808	Rubiaceae	<i>Leptactina platyphylla</i>	Tree			(Hiern) Wernham	1960s-1990s
809	Rubiaceae	<i>Meyna tetraphylla</i>	Tree			(Schweinf. ex Hiern) Robyns	1960s-1990s
810	Rubiaceae	<i>Didymosalpinx norae</i>	Tree	NT		(Swynn.) Keay	2021
811	Rubiaceae	<i>Oldenlandia affinis</i>	Tree			(Roem & Schult) DC	1960s-1990s
812	Rubiaceae	<i>Empogona ovalifolia</i>	Tree			(Hiern) Tosh & Robbr.	2021
813	Rubiaceae	<i>Oldenlandia corymbosa</i>	Tree			L.	1960s-1990s
814	Rubiaceae	<i>Oldenlandia fastigiata</i>	Tree			Bremek	1960s-1990s
815	Rubiaceae	<i>Oldenlandia herbacea</i>	Tree			(L) Roxb	1960s-1990s
816	Rubiaceae	<i>Oxyanthus pyriformis</i>	Tree			(Hochst) Skeels	1960s-1990s
817	Rubiaceae	<i>Pauridiantha paucinervis</i>	Tree			(Hiern)Bremek (K.Schum)	1960s-1990s

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818	Rubiaceae	<i>Pavetta arbetina</i>	Tree				1960s-1990s
819	Rubiaceae	<i>Pavetta fascifolia</i>	Tree			Bremek.	1960s-1990s
820	Rubiaceae	<i>Pavetta oliveriana</i>	Tree			Hiern	1960s-1990s
821	Rubiaceae	<i>Mussaenda monticola</i>	Tree	VU		K. Krause	1960s-1990s
822	Rubiaceae	<i>Pavetta refractifolia</i>	Tree			K.Schum	1960s-1990s
823	Rubiaceae	<i>Pavetta schumanniana</i>	Tree			F.Hoffm. ex K.Schum.	1960s-1990s
824	Rubiaceae	<i>Pavetta subcana</i>	Tree			Hiern	1960s-1990s
825	Rubiaceae	<i>Phellocalyx vollesenii</i>	Tree			Bridson	1960s-1990s
826	Rubiaceae	<i>Polysphaeria dischistocalyx</i>	Tree			Brenan	1960s-1990s
827	Rubiaceae	<i>Polysphaeria lanceolata</i>	Tree			Hiern	1960s-1990s
828	Rubiaceae	<i>Polysphaeria lanceolata subsp. lanceolata</i>	Tree			Hiern	1960s-1990s
829	Rubiaceae	<i>Polysphaeria multiflora</i>	Tree			Hiern	2021
830	Rubiaceae	<i>Psychotria capensis</i>	Tree			(Eckl.) Vatke	2021
831	Rubiaceae	<i>Psychotria castaneifolia</i>	Tree			E.M.A.Petit	2021
832	Rubiaceae	<i>Psychotria lauracea</i>	Tree			(K.Schum.) E.M.A.Petit	1960s-1990s
833	Rubiaceae	<i>Psychotria mahonii</i>	Tree			C.H.Wright	2021
834	Rubiaceae	<i>Psychotria pumila</i>	Tree			Hiern	1960s-1990s
835	Rubiaceae	<i>Psychotria schliebenii</i>	Tree			E.M.A.Petit	2021
836	Rubiaceae	<i>Polysphaeria braunii</i>	Tree	VU	Tanzania	K. Krause	1960s-1990s
837	Rubiaceae	<i>Rhodopentas bussei</i>	Tree			(K.Krause) Kårehed & B.Bremer	1960s-1990s
838	Rubiaceae	<i>Rhodopentas parvifolia</i>	Tree			(Hiern) Kårehed & B.Bremer	1960s-1990s
839	Rubiaceae	<i>Rothmannia engleriana</i>	Tree			(K.Schum.) Keay	2021
840	Rubiaceae	<i>Rothmannia manganjiae</i>	Tree			(Hiern) Keay	2021
841	Rubiaceae	<i>Rytigynia celastroides</i>	Tree			(Baill.) Verdc.	1960s-1990s
842	Rubiaceae	<i>Rytigynia uhligii</i>	Tree			(K.Schum. & K.Krause) Verdc.	2021
843	Rubiaceae	<i>Spermacoce chaetocephala</i>	Tree			DC	1960s-1990s
844	Rubiaceae	<i>Spermacoce dibrachiata</i>	Tree			Oliv	1960s-1990s
845	Rubiaceae	<i>Spermacoce pusilla</i>	Tree			Wall	1960s-1990s
846	Rubiaceae	<i>Spermacoce sphaerostigma</i>	Tree			(A.Rich.) Oliv.	1960s-1990s



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847	Rubiaceae	<i>Spermacoce subvulgata</i>	Tree			(K.Schum) Garcia	1960s-1990s
848	Rubiaceae	<i>Tarenna pavettoides</i>	Tree			(Harv.) Sim	2021
849	Rubiaceae	<i>Uncaria africana</i>	Tree			G.Don	2021
850	Rubiaceae	<i>Vangueria burnettii</i>	Tree			(Tennant) Lantz	1960s-1990s
851	Rubiaceae	<i>Vangueria infausta</i>	Tree			Burch	1960s-1990s
852	Rubiaceae	<i>Vangueria madagascariensis</i>	Tree			J.F.Gmel.	2021
853	Rutaceae	<i>Clausena anisata</i>	Tree			(Willd.) Hook. fil.	1960s-1990s
854	Rutaceae	<i>Vepris nobilis</i>	Tree			(Delile) Mziray	1960s-1990s
855	Rutaceae	<i>Vepris simplicifolia</i>	Tree			(I. Verd.) Mziray	1960s-1990s
856	Rutaceae	<i>Zanthoxylum asiaticum</i>	Tree			(L.) Appelhans, Groppo & J. Wen	1960s-1990s
857	Rutaceae	<i>Zanthoxylum chalybeum</i>	Tree			Engl	1960s-1990s
858	Salvadoraceae	<i>Salvadora persica</i>	Tree			L.	1960s-1990s
859	Sapindaceae	<i>Allophylus africanus</i>	Tree			P. Beauv.	2021
860	Sapindaceae	<i>Allophylus rubifolius</i>	Tree			(Hochst. ex A. Rich.) Engl.	1960s-1990s
861	Sapindaceae	<i>Allophylus rubifolius var. dasystachys</i>	Tree			(Gilg) Verdc.	1960s-1990s
862	Sapindaceae	<i>Deinbollia borbonica</i>	Tree			Scheff.	2021
863	Sapindaceae	<i>Deinbollia kilimandscharica</i>	Tree			Taub	1960s-1990s
864	Sapindaceae	<i>Haplocoelum inoploeum</i>	Tree			Radlk.	1960s-1990s
865	Sapindaceae	<i>Lecaniodiscus fraxinifolius</i>	Tree			Baker	2021
866	Sapindaceae	<i>Majidea zanguebarica</i>	Tree			J. Kirk	2021
867	Sapindaceae	<i>Pancovia golungensis</i>	Tree			(Hiern) Exell & Mendonça	2021
868	Sapindaceae	<i>Paullinia pinnata</i>	Tree			L.	2021
869	Sapotaceae	<i>Aningeria adolfi - friedericii</i>	Tree			(Engl) Robyns & Gilbert	1960s-1990s
870	Sapotaceae	<i>Gambeya gorungosana</i>	Tree			(Engl.) Liben	1960s-1990s
871	Sapotaceae	<i>Manilkara mochisia</i>	Tree			(Baill) Dubard	1960s-1990s
872	Sapotaceae	<i>Mimusops zeyheri</i>	Tree			Sond.	1960s-1990s
873	Sapotaceae	<i>Synsepalum cerasiferum</i>	Tree			(Welw.) T.D.Penn.	1960s-1990s
874	Scrophulariaceae	<i>Artanema longifolium</i>	Herb			(L.) Vatke	1960s-1990s
875	Scrophulariaceae	<i>Bacopa floribunda</i>	Herb			(R.Br) Wettst	1960s-1990s

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876	Scrophulariaceae	<i>Buchnera hispida</i>	Herb			Buch.-Ham. ex D. Don	1960s-1990s
877	Scrophulariaceae	<i>Cycnium tubulosum</i>	Herb			(L. fil.) Engl.	1960s-1990s
878	Scrophulariaceae	<i>Cycnium tubulosum subsp. montanum</i>	Herb			(N. E. Br.) O. J. Hansen	1960s-1990s
879	Scrophulariaceae	<i>Striga asiatica</i>	Herb			L.Kuntze	1960s-1990s
880	Scrophulariaceae	<i>Striga gesnerioides</i>	Herb			(Willd.) Vatke	1960s-1990s
881	Simaroubaceae	<i>Brucea tenuifolia</i>	Shrub			Engl	1960s-1990s
882	Simaroubaceae	<i>Harrisonia abyssinica</i>	Shrub			Oliv	1960s-1990s
883	Sapotaceae	<i>Mimusops riparia</i>	Tree	VU	Kenya and Tanzania	Engl.	1960s-1990s
884	Simaroubaceae	<i>Odyendea zimmermannii</i>	Shrub			Engl	1960s-1990s
885	Smilacaceae	<i>Smilax anceps</i>	Shrub			Willd.	2021
886	Solanaceae	<i>Physalis peruviana</i>	Herb			L.	1960s-1990s
887	Solanaceae	<i>Solanum incanum</i>	Herb			L.	1960s-1990s
888	Solanaceae	<i>Solanum richardii</i>	Herb			Dunal	1960s-1990s
889	Solanaceae	<i>Withania somnifera</i>	Herb			(L) Dunal	1960s-1990s
890	Sphenocleaceae	<i>Sphenoclea zeylanica</i>	Herb			Gaertn	1960s-1990s
891	Sterculiaceae	<i>Dombeya acutangula subsp. acutangula</i>	Tree			K. Schum. ex Engl.	1960s-1990s
892	Sterculiaceae	<i>Dombeya burgessiae</i>	Tree			Gerrard ex Harv. & Sond.	2021
893	Sterculiaceae	<i>Dombeya rotundifolia</i>	Tree			(Hochst.) Planch.	2021
894	Sterculiaceae	<i>Dombeya shupangae</i>	Tree			K. Schum.	1960s-1990s
895	Sterculiaceae	<i>Leptonychia usambarensis</i>	Tree			K. Schum.	2021
896	Sterculiaceae	<i>Sterculia africana</i>	Tree			(Lour) Fiori	1960s-1990s
897	Sterculiaceae	<i>Sterculia appendiculata</i>	Tree			K. Schum. ex Engl.	1960s-1990s
898	Sterculiaceae	<i>Sterculia quinqueloba</i>	Tree			(Garcke) K. Schum	1960s-1990s
899	Sterculiaceae	<i>Waltheria indica</i>	Tree			L.	1960s-1990s
900	Thelypteridaceae	<i>Christella dentata</i>	Herb			(Forssk.) Brownsey & Jermy	1960s-1990s
901	Thymelaceae	<i>Dicranolepis usambarica</i>	Shrub			Gilg	1960s-1990s
902	Thymelaceae	<i>Peddiea fischeri</i>	Shrub			Engl.	2021
903	Thymelaceae	<i>Peddiea lanceolata</i>	Shrub			Domke	1960s-1990s
904	Thymelaeaceae	<i>Gnidia apiculata</i>	Herb			(Oliv.) Gilg	2021



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905	Thymelaeaceae	<i>Synaptolepis kirkii</i>	Shrub			Oliv.	2021
906	Tiliaceae	<i>Corchorus aestuans</i>	Shrub			L.	1960s-1990s
907	Tiliaceae	<i>Corchorus fascicularis</i>	Shrub			Lam.	1960s-1990s
908	Tiliaceae	<i>Corchorus olitorius</i>	Shrub			L.	1960s-1990s
909	Tiliaceae	<i>Corchorus trilocularis</i>	Shrub			L.	1960s-1990s
910	Tiliaceae	<i>Grewia bicolor</i>	Shrub			Juss	1960s-1990s
911	Tiliaceae	<i>Grewia forbesii</i>	Shrub			Harv. ex Mast.	1960s-1990s
912	Tiliaceae	<i>Grewia lepidopetala</i>	Shrub			Garcke	1960s-1990s
913	Tiliaceae	<i>Grewia microcarpa</i>	Shrub			K. Schum	1960s-1990s
914	Tiliaceae	<i>Triumfetta annua</i>	Shrub			L.	1960s-1990s
915	Tiliaceae	<i>Triumfetta rhomboidea</i>	Shrub			Jacq	1960s-1990s
916	Turneraceae	<i>Tricliceras bivinianum</i>	Herb			(Tul.) R. Fern.	1960s-1990s
917	Turneraceae	<i>Tricliceras brevicaule</i>	Herb			(Urb.) R. Fern.	1960s-1990s
918	Turneraceae	<i>Tricliceras lobatum</i>	Shrub			(Urb.) R. Fern.	1960s-1990s
919	Turneraceae	<i>Tricliceras longipedunculata</i>	Herb			Mast.	1960s-1990s
920	Turneraceae	<i>Wormskioldia breuicaulis</i>	Shrub			Urb	1960s-1990s
921	Ulmaceae	<i>Celtis gomphophylla</i>	Tree			Baker	2021
922	Umbelliferae	<i>Centella asiatica</i>	Herb			(L.) Urb	1960s-1990s
923	Umbelliferae	<i>Heteromorpha arborescens var. abyssinica</i>	Herb			(Hochst. ex A. Rich.) H. Wolff	1960s-1990s
924	Urticaceae	<i>Laportea interrupta</i>	Herb			(L) Chew	1960s-1990s
925	Urticaceae	<i>Laportea ovalifolia</i>	Herb			(Schum. & Thonn.) Chew	1960s-1990s
926	Verbenaceae	<i>Clerodendrum capitatum</i>	Herb			(Willd.) Schumach.	1960s-1990s
927	Verbenaceae	<i>Clerodendrum cephalanthum</i>	Herb			Oliv (Mildbr) Verde	1960s-1990s
928	Verbenaceae	<i>Clerodendrum pleiosciadium</i>	Herb			Gurke	1960s-1990s
929	Verbenaceae	<i>Clerodendrum ternatum</i>	Herb			Schinz	1960s-1990s
930	Verbenaceae	<i>Lantana camara</i>	Herb			L.	1960s-1990s
931	Verbenaceae	<i>Lantana trifolia</i>	Herb			L.	1960s-1990s
932	Verbenaceae	<i>Lantana ukambensis</i>	Herb			(Vatke) Verde	1960s-1990s
933	Verbenaceae	<i>Lippia javanica</i>	Herb			(Burm.f) Sprengel	1960s-1990s

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934	Verbenaceae	<i>Premna hildebrandtii</i>	Herb			Gurke	1960s-1990s
935	Verbenaceae	<i>Rothea myricoides</i>	Herb			(Hochst.) Steane & Mabb.	1960s-1990s
936	Verbenaceae	<i>Vitex doniana</i>	Herb			Sweet	1960s-1990s
937	Violaceae	<i>Pigea enneasperma</i>	Herb			(L.) P. I. Forst.	1960s-1990s
938	Violaceae	<i>Rinorea angustifolia</i>	Shrub			(Thouars) Baill.	1960s-1990s
939	Violaceae	<i>Rinorea elliptica</i>	Tree			(Oliv.) Kuntze	2021
940	Violaceae	<i>Rinorea ferruginea</i>	Tree			Engl	1960s-1990s
941	Violaceae	<i>Rinorea ilicifolia</i>	Tree			(Welw. ex Oliv.) Kuntze	1960s-1990s
942	Vitaceae	<i>Cissus cornifolia</i>	Shrub			(Baker) Planch.	1960s-1990s
943	Vitaceae	<i>Cissus phymatocarpa</i>	Herb			Masinde & L. E. Newton	1960s-1990s
944	Vitaceae	<i>Cissus rotundifolia</i>	Herb			(Forssk.) Vahl	1960s-1990s
945	Vitaceae	<i>Cyphostemma adenocaula</i>	Herb			(Steud. ex A. Rich.) Desc.	1960s-1990s
946	Vitaceae	<i>Cyphostemma gigantophyllum</i>	Herb			(Gilg & M. Brandt) Desc. ex Wild & R. B. Drumm.	1960s-1990s
947	Vitaceae	<i>Cyphostemma hildebrandtii</i>	Herb			(Gilg) Desc. ex Wild & R. B. Drumm.	1960s-1990s
948	Olacaceae	<i>Ximenia caffra</i>	Shrub			Sond.	2021
949	Zingiberaceae	<i>Aframomum angustifolium</i>	Herb			(Sonn.) K.Schum.	2021
950	Zingiberaceae	<i>Siphonochilus kirkii</i>	Herb			(Hook.f.) B.L.Burt	1960s-1990s
951	Zygophyllaceae	<i>Tribulus terrestris</i>	Herb			L.	1960s-1990s

