

**Impact of Nomenclature Recommendations - Flora**  
 (Required Changes in the Appendices are marked in bold)

Taxon concerned	App	Checklist update & Type of change	Changes necessary in Appendices?	
<i>Ceratozamia</i> spp.	I	Record of 15 new species namely: <i>C. alvarezii</i> , <i>C. beccerrae</i> , <i>C. brevifons</i> , <i>C. chimalapensis</i> , <i>C. decumbens</i> , <i>C. fuscoviridis</i> , <i>C. hondurensis</i> , <i>C. huastecorum</i> , <i>C. mirandae</i> , <i>C. mixeorum</i> , <i>C. morettii</i> , <i>C. santillanii</i> , <i>C. vovidesii</i> , <i>C. whitelockiana</i> , <i>C. zoquorum</i> .	No	Covered by <i>Ceratozamia</i> spp. In App. I.
<i>Cycas</i> spp.	II	Record of 53 new species, one former accepted species entered into synonymy, namely: <i>C. aculeata</i> , <i>C. aenigma</i> , <i>C. annaikalensis</i> , <i>C. badensis</i> , <i>C. bifida</i> , <i>C. brachycantha</i> , <i>C. candida</i> , <i>C. cantafolia</i> , <i>C. chamaoensis</i> , <i>C. changjiangensis</i> , <i>C. chevalieri</i> , <i>C. clivicola</i> , <i>C. collina</i> , <i>C. condaoensis</i> , <i>C. cupida</i> , <i>C. debaoensis</i> , <i>C. desolata</i> , <i>C. diannanensis</i> , <i>C. edentata</i> , <i>C. elephantipes</i> , <i>C. elongata</i> , <i>C. falcata</i> , <i>C. ferruginea</i> , <i>C. fugax</i> , <i>C. glauca</i> , <i>C. hoabinhensis</i> , <i>C. hongheensis</i> , <i>C. indica</i> , <i>C. javana</i> , <i>C. lacrimans</i> , <i>C. lindstromii</i> , <i>C. maconochiei</i> , <i>C. montana</i> , <i>C. nitada</i> , <i>C. nongnoochiae</i> , <i>C. pachypoda</i> , <i>C. petraea</i> , <i>C. pranburiensis</i> , <i>C. sancti-lasallei</i> , <i>C. saxatilis</i> , <i>C. segmentifida</i> , <i>C. shanyaensis</i> , <i>C. sphaerica</i> , <i>C. sundaica</i> , <i>C. tanqingii</i> , <i>C. tansachana</i> , <i>C. tropophylla</i> , <i>C. truckeri</i> , <i>C. verspertilio</i> , <i>C. xipholepis</i> , <i>C. yorkiana</i> , <i>C. zambalensis</i> , <i>C. zeylanica</i> .	No	Covered by Cycadaceae spp. In App. II.

Taxon concerned	App	Checklist update & Type of change	Changes necessary in Appendices?	
<i>Chigua</i> spp.	I	<i>Chigua</i> now included in <i>Zamia</i>	Yes	Change <i>Chigua</i> spp. to <i>Zamia restrepoi</i> in App. I.
<i>Dioon</i> spp.	II	Record of 4 new species namely: <i>D. angustifolium</i> , <i>D. argenteum</i> , <i>D. sonorensis</i> , <i>D. stevensonii</i> .	No	Covered by <i>Zamiaceae</i> spp. in App. II.
<i>Encephalartos</i> spp.	I	Record of 11 new species namely: <i>E. aplanatus</i> , <i>E. brevifoliolatus</i> , <i>E. equatorialis</i> , <i>E. hirsutus</i> , <i>E. mackenziei</i> , <i>E. macrostrobilus</i> , <i>E. msinganus</i> , <i>E. nubimontanus</i> , <i>E. relictus</i> , <i>E. senticosus</i> , <i>E. whitelockii</i> .	No	Covered by <i>Encephalartos</i> spp. In App. I.
<i>Macrozamia</i> spp.	II	Record of 10 new species namely: <i>M. cardiacensis</i> , <i>M. concinna</i> , <i>M. elegans</i> , <i>M. glaucophylla</i> , <i>M. humilis</i> , <i>M. longispina</i> , <i>M. macleayi</i> , <i>M. montana</i> , <i>M. reducta</i> , <i>M. serpentina</i> .	No	Covered by <i>Zamiaceae</i> spp. in App. II.

Taxon concerned	App	Checklist update & Type of change	Changes necessary in Appendices?	
<i>Zamia</i> spp.	II	Record of 33 new species, (2 former accepted species entered into synonymy, 4 species then consider synonyms are now accepted) namely: <i>Z. decumbens</i> , <i>Z. disodon</i> , <i>Z. elegantissima</i> , <i>Z. encephalartoides</i> , <i>Z. erosa</i> , <i>Z. gentryi</i> , <i>Z. gomeziana</i> , <i>Z. grijalvensis</i> , <i>Z. hamannii</i> , <i>Z. huilensis</i> , <i>Z. hymenophyllidia</i> , <i>Z. imperialis</i> , <i>Z. incognita</i> , <i>Z. katzeriana</i> , <i>Z. lacandona</i> , <i>Z. lindenii</i> , <i>Z. lindleyi</i> , <i>Z. loddigesii</i> , <i>Z. lucayana</i> , <i>Z. macrochiera</i> , <i>Z. meermanii</i> , <i>Z. melanorrhachis</i> , <i>Z. monticola</i> , <i>Z. nana</i> , <i>Z. nesophila</i> , <i>Z. prasina</i> , <i>Z. pyrophylla</i> , <i>Z. restrepoi</i> , <i>Z. sandovalii</i> , <i>Z. stevensonii</i> , <i>Z. stricta</i> , <i>Z. tolimensis</i> , <i>Z. urep</i> .	No	Covered by Zamiaceae spp. in App. II.
PALMAE (Arecaceae) <i>Chrysalidiocarpus decipiens</i>	I	Now <i>Dypsis decipiens</i>	YES	Change <i>Chrysalidiocarpus decipiens</i> to <i>Dypsis decipiens</i> in App. I.
PALMAE (Arecaceae) <i>Neodypsis decaryi</i>	II	Now <i>Dypsis decaryi</i>	YES	Change <i>Neodypsis decaryi</i> to <i>Dypsis decaryi</i> in App. II.
LEGUMINOSAE (Fabaceae) <i>Dalbergia</i> spp. (populations of Madagascar)	II	Standard Reference adopted for the first time.	No	No previous list of approved names.
EBENACEAE <i>Diospyros</i> spp. (populations of Madagascar)	II	Standard Reference adopted for the first time.	No	No previous list of approved names.

Taxon concerned	App	Checklist update & Type of change	Changes necessary in Appendices?	
CACTACEAE Current Appendix I listings	I	Treatment of Appendix I taxa <i>Sclerocactus glaucus</i> . Where <i>S. brevispinus</i> and <i>S. wetlandicus</i> were considered to be a complex within <i>S. glaucus</i> these taxa are now recognised in their own right.	Yes	To follow the original intent of the <i>S. glaucus</i> listing <i>Sclerocactus brevispinus</i> and <i>S. wetlandicus</i> should now be listed in their own right in Appendix I with <i>S. glaucus</i> .
Current Appendix I listings	I	Current Appendix I taxon <i>Mammillaria solisioides</i> now considered to be a subspecies of Appendix I species <i>Mammillaria pectinifera</i> .	Yes	As the Appendix I listing of <i>Mammillaria pectinifera</i> covers all subspecies there is now no need for a separate listing of <i>Mammillaria solisioides</i> .
CACTACEAE Note: Due to the CACTACEAE spp. listing in Appendix II there are no changes to the Appendices. Dr David Hunt, compiler of the checklist, overviews in pages 10-16 of the checklist introduction (see <a href="http://www.kew.org/kew-science/people-and-data/resources-and-databases/cites-resources">http://www.kew.org/kew-science/people-and-data/resources-and-databases/cites-resources</a> ) changes within Cactaceae since the 1999 edition. Here, therefore is given a subset of changes selected by Dr Hunt.  Example: <i>Disocactus flagelliformis</i>	II	No change but <i>Aporocactus flagelliformis</i> is listed as an 'alternative name' on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Arrojadoa multiflora</i>	II	Now provisionally accepted as a distinct species.	No	Covered by CACTACEAE spp. in App. II
<i>Austrocactus patagonicus</i>	II	Synonym of <i>Austrocactus bertinii</i> .	No	Covered by CACTACEAE spp. in App. II
<i>Cephalocleistocacths chrysocephalus</i>	II	= <i>Cleistocactus chrysocephalus</i> ; genus now included in <i>Cleistocactus</i> .	No	Covered by CACTACEAE spp. in App. II
<i>Cintia knizei</i>	II	= <i>Rebutia knizei</i> ; genus <i>Cintia</i> no longer recognized.	No	Covered by CACTACEAE spp. in App. II
<i>Cleistocactus acanthurus</i> and various other <i>Cleistocactus</i> taxa.	II	= <i>Borzicactus acanthurus</i> . Genus <i>Borzicactus</i> is reinstated as separate genus and all relevant species (currently c. 18) transferred.	No	Covered by CACTACEAE spp. in App. II
<i>Coryphantha odorata</i>	II	= <i>Cumarinia odorata</i> (genus now recognized).	No	Covered by CACTACEAE spp. in App. II

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<i>Disocactus martianus</i>	II	No change but <i>Aporocactus martianus</i> is listed as an 'alternative name'.	No	Covered by CACTACEAE spp. in App. II
<i>Echinopsis chalaensis</i>	II	No change but <i>Trichocereus chalaensis</i> is listed as an 'alternative name' on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Echinopsis cuzcoensis</i>	II	No change but <i>Trichocereus cuzcoensis</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
<i>Echinopsis lageniformis</i>	II	No change but <i>Trichocereus bridgesii</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
<i>Echinopsis pachanoi</i>	II	No change but <i>Trichocereus pachanoi</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
<i>Echinopsis peruvianus</i>	II	No change but <i>Trichocereus peruvianus</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
<i>Escobaria aguirreana</i>	II	= <i>Acharagma aguirreanum</i> (genus now recognized)	No	Covered by CACTACEAE spp. in App. II
<i>Espostoa guentheri</i>	II	No change but <i>Vatricania guentheri</i> is listed as an 'alternative' name.	No	Covered by CACTACEAE spp. in App. II
<i>Hatiora epiphyloides</i>	II	= <i>Schlumbergera lutea</i> ; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Hatiora gaertneri</i>	II	= <i>Schlumbergera gaertneri</i> ; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Hatiora x graeseri</i>	II	= <i>Schlumbergera x graeseri</i> ; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Hatiora rosea</i>	II	= <i>Schlumbergera rosea</i> ; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Lepismium bolivianum</i>	II	= <i>Pfeiffera boliviana</i> ; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Lepismium brevispinum</i>	II	= <i>Lymanbensonia brevispina</i> ; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Lepismium crenatum</i>	II	= <i>Lymanbensonia crenata</i> ; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Lepismium incachacanum</i>	II	= <i>Lymanbensonia incachacana</i> ; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Pachocereus fulviceps</i>	II	= <i>Cephalocereus fulviceps</i> ; reclassification based on molecular evidence	No	Covered by CACTACEAE spp. in App. II

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<i>Pachycereus gatesii</i>	II	No change, but <i>Lophocereus gatesii</i> is listed as an 'alternative name'.	No	Covered by CACTACEAE spp. in App. II
<i>Pachycereus gaumeri</i>	II	No change but <i>Pterocereus gaumeri</i> is listed as an 'alternative name'.	No	Covered by CACTACEAE spp. in App. II
<i>Pachycereus hollianus</i>	II	No change but <i>Lemaireocereus hollianus</i> is listed as an 'alternative name'	No	Covered by CACTACEAE spp. in App. II
<i>Pachycereus lepidanthus</i>	II	No change but <i>Lemaireocereus lepidanthus</i> is listed as an 'alternative name'	No	Covered by CACTACEAE spp. in App. II
<i>Pachycereus marginatus</i>	II	No change but <i>Lophocereus marginatus</i> is listed as an 'alternative name'.	No	Covered by CACTACEAE spp. in App. II
<i>Pachycereus militaris</i>	I	No change but <i>Lophocereus militaris</i> is listed as an 'alternative name'.	No	However, additional synonym for App. I taxon.
<i>Pachycereus schottii</i>	II	No change but <i>Lophocereus schottii</i> is listed as an 'alternative name'.	No	Covered by CACTACEAE spp. in App. II
<i>Peniocereus castellae</i>	II	No change but <i>Acanthocereus castellae</i> is listed as an 'alternative name' following molecular evidence for transfer to <i>Acanthocereus</i> .	No	Covered by CACTACEAE spp. in App. II
<i>Peniocereus cuixmalensis</i>	II	No change but <i>Acanthocereus cuixmalensis</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
<i>Peniocereus occidentalis</i> Britton & Rose <i>non</i> H. Bravo	II	No change but <i>Acanthocereus hesperius</i> is listed as an 'alternative name' as above; (epithet ' <i>occidentalis</i> ' pre-occupied in <i>Acanthocereus</i> ).	No	Covered by CACTACEAE spp. in App. II
<i>Peniocereus hirschtianus</i>	II	No change but <i>Acanthocereus hirschtianus</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
<i>Peniocereus macdougallii</i>	II	No change but <i>Acanthocereus macdougallii</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
<i>Peniocereus maculatus</i>	II	No change but <i>Acanthocereus maculatus</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
<i>Peniocereus oaxacensis</i>	II	No change but <i>Acanthocereus oaxacensis</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
<i>Peniocereus serpentinus</i>	II	<i>Nyctocereus serpentinus</i> ; genus reinstated on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Peniocereus tepalcatepecanus</i>	II	No change but <i>Acanthocereus tepalcatepecanus</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II

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<i>Rhipsalis baccifera</i> subsp. <i>hileiabaiana</i>	II	<i>Rhipsalis hileiabaiana</i> ; now recognized as a distinct species on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Rhipsalis baccifera</i> subsp. <i>shaferi</i>	II	<i>Rhipsalis shaferi</i> ; now recognized as a distinct species on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Sclerocactus blainei</i>	II	Now provisionally recognized as a distinct species.	No	Covered by CACTACEAE spp. in App. II
<i>Sclerocactus brevihamatus</i>	II	No change but <i>Ancistrocactus brevihamatus</i> is listed as an 'alternative name' following Flora of North America.	No	Covered by CACTACEAE spp. in App. II
<i>Sclerocactus brevispinus</i>	I	Now provisionally recognized as a distinct species following Flora of North America.	Yes	See amendment to Appendix I on page 4
<i>Sclerocactus cloverae</i>	II	Now provisionally recognized as a distinct species following Flora of North America.	No	Covered by CACTACEAE spp. in App. II
<i>Sclerocactus johnsonii</i>	II	No change but <i>Echinomastus johnsonii</i> is listed as an 'alternative name' following Flora of North America.	No	Covered by CACTACEAE spp. in App. II
<i>Sclerocactus nyensis</i>	II	Now provisionally recognized as a distinct species following Flora of North America.	No	Covered by CACTACEAE spp. in App. II
<i>Sclerocactus scheeri</i>	II	No change but <i>Ancistrocactus scheeri</i> is listed as an 'alternative name' following Flora of North America.	No	Covered by CACTACEAE spp. in App. II
<i>Sclerocactus uncinatus</i>	II	= <i>Ferocactus uncinatus</i> ; name from Britton & Rose, reinstated on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Sclerocactus warnockii</i>	II	No change but <i>Echinomastus warnockii</i> is listed as an 'alternative name' following Flora of North America	No	Covered by CACTACEAE spp. in App. II
<i>Sclerocactus wetlandicus</i>	I	Now provisionally recognized as a distinct species following Flora of North America.	Yes	See amendment to Appendix I on page 4
<i>Selenicereus murrillii</i>	II	= <i>Selenicereus vagans</i> ; no longer considered to be a distinct species	No	Covered by CACTACEAE spp. in App. II
<i>Stenocereus aragonii</i>	II	= <i>Pachycereus aragonii</i> ; transferred following morphological and molecular evidence.	No	Covered by CACTACEAE spp. in App. II

Taxon concerned	App	Checklist update & Type of change	Changes necessary in Appendices?	
<i>Stenocereus eichlamii</i>	II	= <i>Pachycereus eichlamii</i> ; transferred following morphological and molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Turbinicarpus mandragora</i>	II	No change but <i>Rapicactus mandragora</i> is listed as an 'alternative name' following molecular evidence.	No	Covered by CACTACEAE spp. in App. II
<i>Turbinicarpus subterraneus</i>	II	No change but <i>Rapicactus subterraneus</i> is listed as an 'alternative name' following molecular evidence.	No	Covered by CACTACEAE spp. in App. II