## Impact of Nomenclature Recommendations - Flora

(Required Changes in the Appendices are marked in bold)

Taxon concerned	Арр	Checklist update &Type of change		Changes necessary in Appendices?
<i>Ceratozamia</i> spp.	I	Record of 15 new species namely: C. alvarezii, C. beccerrae, C. brevifons, C. chimalapensis, C. decumbens, C. fuscoviridis, C. hondurensis, C. huastecorum, C. mirandae, C. mixeorum, C. morettii, C. santillanii, C. vovidesii, C. whitelockiana, C. oquorum.	No	Covered by Ceratozamia spp. In App. I.
<i>Cycas</i> spp.	11	Record of 56 new species, one former accepted species entered into synonymy, namely: C. aculeata, C. aenigma, C. annaikalensis, C. badensis, C. bifida, C. brachycantha, C. candida, C. cantafolia, C. brachycantha, C. candida, C. cantafolia, C. chamaoensis, C. changjiangensis, C. chevalieri, C. clivicola, C. collina, C. condaoensis, C. cupida, C. debaoensis, C. desolata, C. diannanensis, C. edentata, C. elephantipes, C. elongata, C. falcata, C. ferruginea, C. fugax, C. glauca, C. hoabinhensis, C. hongheensis, C. indica, C. javana, C. lacrimans, C. lindstromii, C. maconochiei, C. montana, C. nitada, C. pranburiensis, C. sancti-lasallei, C. saxatilis, C. segmentifida, C. shanyaensis, C. sphaerica, C. sundaica, C. tanqingii, C. tansachana, C. tropophylla, C. truckeri, C. verspertilio, C. xipholepis, C. yorkiana, C. zambalensis, C. zeylanica.	No	Covered by Cycadaceae spp. In App. II.

Taxon concerned	Арр	Checklist update &Type of change		Changes necessary in Appendices?
Chigua spp.	I	Chigua now included in Zamia	Yes	Change <i>Chigua</i> spp. to <i>Zamia restrepoi</i> in App. I.
Dioon spp.	П	Record of 4 new species namely: D. angustifolium, D. argenteum, D.sonorense, D. stevensonii.	No	Covered by Zamiaceae spp. in App. II.
Encephalartos spp.	I	Record of 11 new species namely: E. aplanatus, E. brevifoliolatus, E. equatorialis, E. hirsutus, E. mackenziei, E. macrostrobilus, E. msinganus, E. nubimontanus, E. relictus, E. senticosus, E. whitelockii.	No	Covered by <i>Encephalartos</i> spp. In App. I.
Macrozamia spp.	11	Record of 10 new species namely: <i>M. cardiacensis, M. concinna, M. elegans, M. glaucophylla, M. humilis, M. longispina, M. macleayi, M. montana, M. reducta, M. serpentina.</i>	No	Covered by Zamiaceae spp. in App. II.
Zamia 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, Z. disodon, Z. elegantissima,</i> <i>Z. encephalartoides, Z. erosa, Z. gentryi, Z.</i> gomeziana, <i>Z. grijalvensis, Z. hamannii, Z.</i> <i>huilensis, Z. hymenophyllidia, Z. imperialis, Z.</i> <i>incognita, Z. katzeriana, Z. lacandona, Z.</i> <i>lindenii, Z. lindleyi, Z. loddigesii, Z. lucayana,</i> <i>Z. macrochiera, Z. meermanii, Z.</i> <i>melanorrhachis, Z. monticola, Z. nana, Z.</i> <i>nesophila, Z. prasina, Z. pyrophylla, Z.</i> <i>res</i> <b>t</b> <i>repoi, Z. sandovalii, Z. stevensonii, Z.</i> <i>stricta, Z. tolimensis, Z. urep.</i>	No	Covered by Zamiaceae spp. in App. II.
PALMAE (Arecacaeae) Chrysalidiocarpus decipiens	I	Now Dypsis decipiens	Yes	Change Chrysalidiocarpus decipiens to Dypsis decipiens in App. I.
PALMAE (Arecacaeae) Neodypsis decaryi	11	Now Dypsis decaryi	Yes	Change Neodypsis decaryi to Dypsis decaryi in App. II.
LEGUMINOSAE (Fabaceae) Dalbergia spp. (populations of Madagascar)	П	Standard Reference adopted for the first time.	No	No previous list of approved names.

Taxon concerned	Арр	Checklist update &Type of change		Changes necessary in Appendices?
EBENACEAE <i>Diospyros</i> spp. (populations of Madagascar)	Π	Standard Reference adopted for the first time.	No	No previous list of approved names.
CACTACEAE Current Appendix I listings	I	No Change.	No	No impact on current listings.
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 <u>http://www.kew.org/kew-science/people-and- data/resources-and-databases/cites-</u> <u>resources</u> ) changes within Cactaceae since the 1999 edition. Here, therefore is given a subset of changes selected by Dr Hunt. Example: <i>Disocactus flagelliformis</i>	Ξ	No change but <i>Aporocactus flagelliformis</i> is listed as an'alternative name' on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Arrojadoa multiflora	=	Now provisionally accepted as a distinct species.	No	Covered by CACTACEAE spp. in App. II
Austrocactus patagonicus	Ш	Synonym of Austrocactus bertinii.	No	Covered by CACTACEAE spp. in App. II
Cephalocleistocacths chrysocephalus	П	= Cleistocactus chrysocephalus; genus now included in Cleistocactus.	No	Covered by CACTACEAE spp. in App. II
Cintia knizei	II	= Rebutia knizei; genus Cintia no longer recognized.	No	Covered by CACTACEAE spp. in App. II
<i>Cleistocactus acanthurus</i> and various other <i>Cleistocactus</i> taxa.	II	= Borzicactus acanthurus. Genus Borzicactus is reinstated as separate genus and all relevant species (currently c. 18) transferred.	No	Covered by CACTACEAE spp. in App. II
Coryphantha odorata	11	= <i>Cumarinia odorata</i> (genus now recognized).	No	Covered by CACTACEAE spp. in App. II
Disocactus martianus	П	No change but <i>Aporocactus martianus</i> is listed as an 'alternative name'.	No	Covered by CACTACEAE spp. in App. II
Echinopsis chalaensis	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

Taxon concerned	Арр	Checklist update &Type of change		Changes necessary in Appendices?
Echinopsis cuzcoensis	II	No change but <i>Trichocereus cuzcoensis</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
Echinopsis lageniformis	II	No change but <i>Trichocereus bridgesii</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
Echinopsis pachanoi	II	No change but <i>Trichocereus pachanoi</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
Echinopsis peruvianus	II	No change but <i>Trichocereus peruvianus</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
Escobaria aguirreana	II	= Acharagma aguirreanum (genus now recognized)	No	Covered by CACTACEAE spp. in App. II
Espostoa guentheri	II	No change but Vatricania guentheri is listed as an 'alternative' name.	No	Covered by CACTACEAE spp. in App. II
Hatiora epiphylloides	II	<ul> <li>Schlumbergera lutea; reclassification</li> <li>based on molecular evidence.</li> </ul>	No	Covered by CACTACEAE spp. in App. II
Hatiora gaertneri	II	= Schlumbergera gaertneri; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Hatiora x graeseri	11	= Schlumbergera x graeseri; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Hatiora rosea	11	= Schlumbergera rosea; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Lepismium bolivianum	II	= <i>Pfeiffera boliviana</i> ; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Lepismium brevispinum	11	<i>= Lymanbensonia brevispina</i> ; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Lepismium crenatum		= Lymanbensonia crenata; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Lepismium incachacanum	II	= Lymanbensonia incachacana; reclassification based on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Pachycereus fulviceps	II	= Cephalocereus fulviceps; reclassification based on molecular evidence	No	Covered by CACTACEAE spp. in App. II
Pachycereus gatesii	II	No change, but <i>Lophocereus gatesii</i> is listed as an 'alternative name'.	No	Covered by CACTACEAE spp. in App. II
Pachycereus gaumeri	11	No change but <i>Pterocereus gaumeri</i> is listed as an 'alternative name'.	No	Covered by CACTACEAE spp. in App. II
Pachycereus hollianus		No change but Lemaireocereus hollianus is listed as an 'alternative name'	No	Covered by CACTACEAE spp. in App. II

Taxon concerned	Арр	Checklist update &Type of change		Changes necessary in Appendices?
Pchycereus lepidanthus	II	No change but Lemaireocereus lepidanthus is listed as an 'alternative name'	No	Covered by CACTACEAE spp. in App. II
Pachycereus marginatus	Ш	No change but <i>Lophocereus marginatus</i> is listed as an 'alternative name'.	No	Covered by CACTACEAE spp. in App. II
Pachycereus militaris	Ι	No change but <i>Lophocereus militaris</i> is listed as an 'alternative name'.	No	However, additional synonym for App. I taxon
Pachycereus schottii	II	No change but <i>Lophocereus schottii</i> is listed as an 'alternative name'.	No	Covered by CACTACEAE spp. in App. II
Peniocereus castellae	II	No change but <i>Acanthocereus castellae</i> is listed as an 'alternative name' following molecular evidence for transfer to Acanthocereus.	No	Covered by CACTACEAE spp. in App. II
Peniocereus cuixmalensis	11	No change but <i>Acanthocereus cuixxmalensis</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
Peniocereus occidentalis Britton& Rose non 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
Peniocereus hirschtianus	II	No change but <i>Acanthocereus hirschtianus</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
Peniocereus macdougallii	Ш	No change but <i>Acanthocereus macdougallii</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
Peniocereus maculatus	II	No change but <i>Acanthocereus maculatus</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
Peniocereus oaxacensis	II	No change but <i>Acanthocereus oaxacensis</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
Peniocereus serpentinus	11	<i>Nyctocereus serpentinus</i> ; genus reinstated on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Peniocereus tepalcatepecanus	II	No change but <i>Acanthocereus</i> <i>tepalcatepecanus</i> is listed as an 'alternative name' as above.	No	Covered by CACTACEAE spp. in App. II
Rhipsalis baccifera subsp. hileiabaiana	II	<i>Rhipsalis hileiabaiana</i> ; now recognized as a distinct species on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Rhipsalis baccifera subsp. shaferi	II	<i>Rhipsalis shaferi</i> ; now recognized as a distinct species on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Sclerocactus blainei	II	Now provisionally recognized as a distinct species.	No	Covered by CACTACEAE spp. in App. II

Taxon concerned	Арр	Checklist update &Type of change		Changes necessary in Appendices?
Sclerocactus brevihamatus	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
Sclerocactus brevispinus	II	Now provisionally recognized as a distinct species following Flora of North America.	No	Covered by CACTACEAE spp. in App. II
Sclerocactus cloverae	II	Now provisionally recognized as a distinct species following Flora of North America.	No	Covered by CACTACEAE spp. in App. II
Sclerocactus johnsonii	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
Sclerocactus nyensis	II	Now provisionally recognized as a distinct species following Flora of North America.	No	Covered by CACTACEAE spp. in App. II
Sclerocactus scheeri	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
Sclerocactus uncinatus	II	= <i>Ferocactus uncinatus</i> ; name from Britton & Rose, reinstated on molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Sclerocactus warnockii	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
Sclerocactus wetlandicus	II	Now provisionally recognized as a distinct species following Flora of North America.	No	Covered by CACTACEAE spp. in App. II
Selenicereus murrillii	II	= Selenicereus vagans; no longer considered to be a distinct species	No	Covered by CACTACEAE spp. in App. II
Stenocereus aragonii	11	= <i>Pachycereus aragonii</i> ; transferred following morphological and molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Stenocereus eichlamii	II	= <i>Pachycereus eichlamii</i> ; transferred following morphological and molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Turbinicarpus mandragora	11	No change but <i>Rapicactus mandragora</i> is listed as an 'alternative name' following molecular evidence.	No	Covered by CACTACEAE spp. in App. II
Turbinicarpus subterraneus	11	No change but <i>Rapicactus subterraneus</i> is listed as an 'alternative name' following molecular evidence.	No	Covered by CACTACEAE spp. in App. II