PC18 Doc. 18.2

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA



Eighteenth meeting of the Plants Committee Buenos Aires (Argentina), 17-21 March 2009

Nomenclatural matters

REPORT OF THE NOMENCLATURE SPECIALIST OF THE PLANTS COMMITTEE

- 1. This document has been submitted by the nomenclature specialist of the Plants Committee.
- 2. Plant groups for which the Plants Committee has not prescribed a standard reference
 - a) Cyathea (514 spp.)

The UNEP-WCMC list includes a consolidated list of names and a decision is required whether further work needs to be done on this group at this time. One possible reference source is World Ferns (Hassler and Swale, 2001-). This checklist is available on CD-ROM. The PC nomenclature specialist sought recommendations at PC17 for experts to review this publication so that a recommendation can be put to the Committee. Only one response was received to this request, additional recommendations for experts are required to ensure a comprehensive review. It may be the case that it is not appropriate to adopt a standard reference at this time.

- 3. Plant groups listed at CoP13 which require consideration by the Plants Committee
 - a) Gonystylus

No standard reference has been approved for this genus.

- b) Aquilaria
- c) Gyrinops

No standard reference has been adopted for these Agarwood producing genera.

PC17 recommended that range States submit references that might serve as standard references. There was no response to this request. Therefore no further action is recommended at present. The situation can be reviewed on an ongoing basis in the light of the results of research on these taxa.

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4. Update on CITES Checklists

The CITES Orchid Checklists: A number of Parties have indicated that they urgently require an update of Volume 1 (published 1995) of the Checklist which includes the widely traded genera *Paphiopedilum* and *Phragmipedium*. This option was included in the work programme put to CoP14 and was approved by the Conference. A revision of Volume I is underway with the first draft prepared by the Royal Botanic Gardens, Kew, based on the *World Checklist of Monocotyledons*. This document has been reviewed by international experts and a revised text is being circulated. The members of the Plants Committee provided recommendations for experts to review this document and these experts are now contributing to the review. It is unlikely that a final text will be prepared in time to meet CoP15 deadlines. This is dependent on the speed of the review process. If possible the nomenclature specialist will seek to have a final document available for CoP15.

The CITES Cactus Checklist: The work programme submitted to CoP14 outlined a proposal to produce a new edition of the checklist based on the *The New Cactus Lexicon*. The editor of the checklist is now preparing a third edition of the Cactus Checklist (CC3) based on the lexicon. It is hoped that a final draft will be ready to meet CoP15 deadlines. If possible, a draft final list will be submitted by the August 19th deadline for web based review by the Parties. If then adopted at CoP15 a hard copy version be will be published. To allow timely preparation of the checklist the editor has asked for guidance on the following issues.

<u>Page size</u>: The current page size is non standard and it is recommended that one of the basic standard page-sizes A4 or A5 is adopted. The editor suggests A5 and the nomenclature specialist supports this view.

<u>Content</u>: Previous editions were in 3 part format. Part I - alphabetic list of names in current usage, Part II - list of accepted taxa with distributions and synonymy and Part III - Country Checklists. The nomenclature specialist does not propose any change to this format as Parties have commented that they found it useful.

<u>Reference data</u>: For the second edition of the Cactus Checklist (CC2) the then Nomenclature Committee, based on a user survey, requested the inclusion of botanical authorities in the list of taxa. For CC3 the editor feels that this is of limited value as, for those consulting the list as a pointer for more information, the date and place of publication of each name listed would be of more assistance. Inserting this information in CC3, in full, would expand the list and possibly cause confusion to non-experts. An alternative would be to include all this data in a highly abbreviated form in order that it is restricted to one line of text. The data would then be available to those who require it.

<u>Cross-Reference to the Cactus Lexicon</u>: The editor and the nomenclature specialist recommend that the species entries be cross referenced to illustrations in *The New Cactus Lexicon*. A number of Parties have confirmed that they would find this useful. A similar cross referencing could also deal with the issues of botanical authorities and date and place of publication.

<u>Index numbers</u>: It is proposed that CC3 be available as a web version in addition to a hardcopy publication. In the online version each name will have a unique database record number. It may be advantageous to include these numbers in the published version to allow ease of cross reference to the online version and the proposed online version of *The New Cactus Lexicon*.

The Committee is asked for its views on the above proposals. To assist in the Committee's work, four examples of different checklist layouts are presented in the Annex to this document as follows:

- **A.** Single column format with botanical authorities as in Cactus Checklist 2, only amendment is cross reference to illustrations in the Atlas volume of *The New Cactus Lexicon* indicated by the symbol @. This option is included in Annexes A D.
- **B.** Single column format with database record number and abbreviated literature references as in *The New Cactus Lexicon* (an index of the abbreviations would be provided).
- **C.** Two column format, with no authorities, references or database record numbers.
- **D.** As in Annex C, but with database record numbers.

It should be noted that formats C and D would save at least 60 printed pages and hence reduce hard-copy production and distribution costs.

In addition, to ensure that a checklist is produced that is acceptable to the CITES Parties the Plants Committee is asked to recommend experts that the editor may contact for advice as appropriate.

5. Cycad Nomenclature

World list of Cycads: Conf. 12.11 (Rev. CoP14) states that the CITES standard reference is "A World List of Cycads (D.W. Stevenson, R. Osborne and K.D. Hill, 1995; In: P. Vorster (Ed.), Proceedings of the Third International Conference on Cycad Biology, pp. 55-64, Cycad Society of South Africa, Stellenbosch) and its updates accepted by the Plants Committee, as a guideline when making reference to names of species of Cycadaceae, Stangeriaceae and Zamiaceae."

The latest version (2007) has been published as part of the Cycad 2005 proceedings (Memoirs of New York Botanical Garden 97: 454-483) and is available on the IUCN Cycad Specialist Group website (http://www.cycadsg.org/pages/worldlist.htm) and the next version will be published in 2009/10 as part of the proceedings of the most recent meeting.

The Plants Committee is asked to approve the latest published version of the checklist.

<u>Decision 14.18</u>: Harmonization of nomenclature and taxonomy with other Multilateral Environmental Agreements

This Decision is directed to the Secretariat and states, that

In close cooperation with the nomenclature specialists of the Animals and Plants Committees, the Secretariat shall, in the implementation of its memoranda of understanding or cooperation, or programmes of work with other biodiversity-related multilateral environmental agreements, continue to consider ways of harmonizing the taxonomy and nomenclature of species included in their respective provisions. The Secretariat shall report and make recommendations on this matter at the 15th meeting of the Conference of the Parties.

PC17 recommended that this issue be covered by PC17 WG12 to work intersessionally on implementation of Decision 14.18. The report of that working group notes

Target 1 of the GSPC is the production "of a widely accessible working list of known plant species, as a step towards a complete world flora". Such a working list would be a major tool for CITES Parties and for the other biodiversity related Multilateral Environmental Agreements (MEA's). As such it would provide the basis for relevant harmonization in taxonomy and nomenclature across these conventions. However, it is noted that in the case of CITES a conservative approach is, and will be required to effectively implement the convention and to provide a stable environment for CITES Authorities to function.

and recommends that the Plants Committee task a Nomenclature Working Group to review the harmonization of nomenclature and taxonomy with other MEAs.

6. Summary

The Plants Committee is asked to:

- a) Recommend relevant experts to review World Ferns (Hassler and Swale, 2001-) or consider whether its is necessary to adopt a standard at this time.
- b) Consider whether it is necessary to adopt standard references for *Gonystylus*, *Aquilaria* and *Gyrinops* at this time.
- c) Approve the update of the World list of Cycads.
- d) Consider options for the format of Cactus Checklist 3 and make recommendations for experts that the editor may contact for advice.
- e) Review how best and to what degree harmonisation of nomenclature and taxonomy should take place across the biodiversity MEA's.

It is recommended that a Nomenclature Working Group be formed at PC18 to address these issues.

EXAMPLES OF CHECKLISTS LAY OUT

A Part III. List of accepted taxa and their principal synonyms Piptanthocereus aethiops (Haworth) Ritter Cereus azureus Parmentier ex Pfeiffer Cereus chalybaeus Otto ex Walpers Acanthocereus albicaulis Britton & Rose Mirabella albicaulis (Britton & Rose) Ritter Monvillea albicaulis (Britton & Rose) Kiesling Cereus neotetragonus Backeberg Cereus pernambucensis auctt Piptanthocereus sericifer Ritter Cereus fernambucensis ssp. sericifer (Ritter) Taylor & ZappiBR. @131.4 Pipanthocereus sericifer Ritter Cereus sericifer (Ritter) Braun Cephalocereus russel(l)ianus Rose ex Bailey Subpilocereus russelianus (Salm-Dyck) Backeberg Cereus russelianus Hort. Berol. ex Salm-Dyck Cereus cochabambensis Cardenas Cereus comarapanus Cardenas Piptanthocereus comarapanus (Cardenas) Ritter Cereus forbesii auctt Cereus huilunchu Cardenas Piptanthocereus huilunchu (Cardenas) Ritter Cereus validus Haworth Cactus hexagous Linnaeus Cereus longiflorus Alexander Cereus perlucens Schumann Cereus neonesioticus (Ritter) Braun Piptanthocereus neonesioticus Ritter Cereus xanthocarpus Schumann Piptanthocereus xanthocarpus (Schumann) Ritter Cereus hildmannianus ssp. xanthocarpus (Schumann) Braun & Esteves Pereira Cereus peruvianus auctt non (Linnaeus) Miller Cereus milesimus Rost Cereus uruguayanus Kiesling Piptanthocereus uruguayanus Ritter Piptanthocereus bageanus Ritter Subpilocereus horrispinus (Backeberg) Backeberg Subpilocereus ottonis Backeberg Monvillea insularis (Hemsley) Britton & Rose

Part III. List of taxa and their principal synonyms

00101	Cereus aethiops Haw 1830/PM 109
10812	Piptanthocereus aethiops (Haw) Ritt 1980/KSA 2: 435.
08408	Cereus azureus Pf 1837/Enum. 86.
00126	Cereus chalybaeus Walp 1846/RbS 2: 340.
00116	Cereus albicaulis (B+R) Ltzb 1926/EBN 3: 111
08078	Acanthocereus albicaulis B+R 1920/CBR 2: 125.
08085	Mirabella albicaulis (B+R) Ritt 1979/KSA 1: 110.
12204	Monvillea albicaulis (B+R) Kies 1994/CSJA 66(4): 165.
00120	Cereus bicolor Rizz+Matt 1985/RBB 45(3): 307
14302	Cereus estevesii Braun 2004/BCSJ 22(1): 17-22
00146	Cereus fernambucensis Lem 1839/CGNS 58
00143	Cereus neotetragonus Bkbg 1960/CH 4: 2363.
11782	Cereus pernambucensis auctt
12824	Cereus tetragonus auctt
12936	Cereus fernambucensis fernambucensis
12722	Cereus fernambucensis sericifer (Ritt) T+Z 1997/CCI 3: 7
10826	Piptanthocereus sericifer Ritt 1979/KSA 1: 232.
00155	Cereus sericifer (Ritt) Braun 1988/Brdl. 6: 86.
03686	Cereus fricii Bkbg 1930/MDKG 2: 164
07410	Pilocereus fricii Bkbg 1930/MDGZ 45: 81.
08331	Cephalocereus russel(l)ianus Bail 1914/SCH 2: 715.
11228	Subpilocereus russelianus (Bail) Bkbg 1941/BS 1941: 59.
00109	Cereus russelianus S-D 1850/CHD 201.
00133	Cereus hankeanus KSch 1897/GK 88
14367	Cereus forbesii auctt
00127	Cereus cochabambensis Card 1970/CSJA 42: 30.
00128	Cereus comarapanus Card 1956/SuNL 1956: 5.
10817	Piptanthocereus comarapanus (Card) Ritt 1980/KSA 2: 555.
00136	Cereus huilunchu Card 1951/SuNL 1951: 49
10821	Piptanthocereus huilunchu (Card) Ritt 1980/KSA 2: 556.
00161	Cereus validus Haw 1831/PM 10: 420.
00134	Cereus hexagonus (L) Mill 1768/GD []
03255	Cactus hexagonus L 1753/Sp. 466.
00141	Cereus longiflorus Alex 1939/Lloy. 1939(2): 199.
00145	Cereus perlucens KSch 1900/MfK 10: 173.
00105	Cereus hildmannianus KSch 1890/MFBr 4(2): 202
08439	Cereus neonesioticus (Ritt) Braun 1988/Brdl. 6: 86.
10824	Piptanthocereus neonesioticus Ritt 1979/KSA 1: 237.
00163	Cereus xanthocarpus KSch 1903/GN 32.
10829	Piptanthocereus xanthocarpus (KSch) Ritt 1979/KSA 1: 258.
12276	Cereus hildmannianus xanthocarpus (KSch) Braun+Est 1995/SuNL 74(2): 84.
13191	Cereus hildmannianus hildmannianus
08436 13192	Cereus milesimus Rost 1932/DPL 1932: 43. Cereus hildmannianus uruguayanus (Kies) Tayl 1998/CCI 6: 15 AR, BR, UY. @132.6
00160 10828	Cereus uruguayanus Kies 1982/Darw. 24(1-4): 448.
02146	Piptanthocereus uruguayanus Ritt 1979/KSA 1: 244.
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Cereus aethiops	Cereus calcirupicola
Piptanthocereus aethiops	Piptanthocereus cabralensis
Cereus azureus	Cereus calcirupicola cabralensis
Cereus chalybaeus	Piptanthocereus cipoensis
Cereus albicaulis	Cereus calcirupicola cipoensis
Acanthocereus albicaulis	Cereus kroenleinii
Mirabella albicaulis	Monvillea kroenleinii
Monvillea albicaulis	Cereus phatnospermus kroenleinii
Cereus bicolor	Cereus lamprospermus
Cereus fernambucensis	Cereus lamprospermus colosseusPY. @134.1-2
Cereus neotetragonus	Piptanthocereus colosseus
Cereus pernambucensis Cereus tetragonus auctt	Cereus lanosus
Cereus femambucensis femambucensis BR. @131.3	Piptanthocereus lanosus Cereus mirabellaBR. @129.3
Cereus fernambucensis sericiferBR. @131.4	Mirabella minensis
Piptanthocereus sericifer	Monvillea minensis
Cereus sericifer	Cereus mortenseniiVE. @136.3
Cereus friciiVE. @135.5	Pilocereus mortensenii
Pilocereus fricii	Pilosocereus mortensenii
Cephalocereus russel(I)ianus	Subpilocereus mortensenii
Subpilocereus russelianus	Pilosocereus gruberi
Cereus russelianus	Cereus phatnospermus
Cereus hankeanus	Monvillea phatnosperma
Cereus forbesii auctt	Cereus adelmarii
Cereus cochabambensis	Monvillea adelmarii
Cereus comarapanus	Cereus phatnospermus adelmarii
Piptanthocereus comarapanus	Cereus pierre-braunianusBR. @134.4-5
Cereus huilunchu	Cereus repandus
Piptanthocereus huilunchu	Cactus repandus
Cereus validus	Subpilocereus repandus
Cereus hexagonus TT, GY, GF, SR, BR, VE. @132.4-5	Cereus atroviridis
Cactus hexagonus Cereus longiflorus	Subpilocereus atroviridis
Cereus perlucens	Cereus grenadensis Subpilocereus grenadensis
Cereus hildmannianus	Cereus margaritensis
Cereus neonesioticus	Subpilocereus repandus micracanthus
Piptanthocereus neonesioticus	Cereus peruvianus auctt
Cereus xanthocarpus	Subpilocereus remolinensis
Piptanthocereus xanthocarpus	Cereus saddianus
Cereus hildmannianus xanthocarpus	Monvillea saddiana
Cereus hildmannianus hildmannianus BR, PY. @133.1	Cereus spegazziniiBR, AR, BO, PY. @130.4
Cereus milesimus	Monvillea spegazzinii
Cereus hildmannianus uruguayanusBR, UY, AR. @132.6	Cereus anisitsii
Cereus uruguayanus	Monvillea ebenacantha
Piptanthocereus uruguayanus	Cereus haageanus
Piptanthocereus bageanus Cereus horrispinus	Cereus haageanus
Subpilocereus horrispinus	Monvillea haageana
Subpilocereus nomspinus Subpilocereus ottonis	Monvillea lindenzweigiana Piptanthocereus lindenzweigianus
Cereus insularis	Cereus stenogonus
Monvillea insularis	Piptanthocereus stenogonus
Cereus ridleii	Cereus argentinensis
Cereus jamacaruBR. @	Cereus dayami
Cereus lividus	Piptanthocereus dayami
Cereus jamacaru jamacaruBR. @133.5	Cereus roseiflorus
Cereus goiasensis	Cereus tacuaralensis
Piptanthocereus goiasensis	Cereus trigonodendron
Cereus jamacaru goiasensis	Cereus vargasianus
Cereus jamacaru calcirupicola	
Piptanthocereus calcirupicola	

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0101 Cereus aethiops AR, BR, UY. @129.4 0812 Piptanthocereus aethiops	12723 Cereus jamacaru calcirupicola BR. @133.4 10815 <i>Piptanthocereus calcirupicola</i>
8408 Cereus azureus	00123 Cereus calcirupicola
0126 Cereus chalybaeus	10814 Piptanthocereus cabralensis
0116 Cereus albicaulisBR. @129.2	12271 Cereus calcirupicola cabralensis
8078 Acanthocereus albicaulis	10816 Piptanthocereus cipoensis
8085 Mirabella albicaulis	12272 Cereus calcirupicola cipoensis
2204 Monvillea albicaulis	12089 <i>Cereus kroenleinii</i> BR, BO, PY. @130.1-
0120 Cereus bicolor BR. @130.5, 131.1-2	12114 Monvillea kroenleinii
4302 Cereus estevesii	12822 Cereus phatnospermus kroenleinii
0146 Cereus fernambucensis BR	00139 Cereus lamprospermus
0143 Cereus neotetragonus	12962 Cereus lamprospermus lamprospermus P
1782 Cereus pernambucensis auctt	12278 Cereus lamprospermus colosseus@134.1-
2824 Cereus tetragonus auctt	02147 Piptanthocereus colosseus
2936 Cereus fernambucensis fernambucensis BR. @131.3	00140 Cereus lanosus
2722 Cereus fernambucensis sericifer BR. @131.4	10822 Piptanthocereus lanosus
0826 Piptanthocereus sericifer	02599 Cereus mirabella
0155 Cereus sericifer	08086 Mirabella minensis
3686 Cereus fricii	12205 Monvillea minensis
7410 Pilocereus fricii	02600 Cereus mortenseniiVE. @136.
8331 Cephalocereus russel(I)ianus	07520 Pilocereus mortensenii
1228 Subpilocereus russelianus	10795 Pilosocereus mortensenii
0109 Cereus russelianus	11225 Subpilocereus mortensenii
0133 Cereus hankeanus AR, BO. @131.5, 132.1-132.3	10789 Pilosocereus gruberi
4367 Cereus forbesii auctt	00147 Cereus phatnospermus
0127 Cereus cochabambensis	10174 Monvillea phatnosperma
0128 Cereus comarapanus	00114 Cereus adelmarii
0817 Piptanthocereus comarapanus	10163 Monvillea adelmarii
0136 Cereus huilunchu [@132.2]	12823 Cereus phatnospermus adelmarii
0821 Piptanthocereus huilunchu	14310 Cereus pierre-braunianus
0161 Cereus validus	00149 Cereus repandus
0134 Cereus hexagonus BR, GF, GY, SR, TT, VE.@132.4-5	03446 Cactus repandus
3255 Cactus hexagonus	11227 Subpilocereus repandus
0141 Cereus longiflorus	00119 Cereus atroviridis
0145 Cereus perlucens	11222 Subpilocereus atroviridis
0105 Cereus hildmannianus AR, BO, BR, PY, UY	08429 Cereus grenadensis
8439 Cereus neonesioticus	11223 Subpilocereus grenadensis
0824 Piptanthocereus neonesioticus	00142 Cereus margaritensis
0163 Cereus xanthocarpus	12509 Subpilocereus repandus micracanthus
0829 Piptanthocereus xanthocarpus	12950 Cereus peruvianus auctt
2276 Cereus hildmannianus xanthocarpus 3191 Cereus hildmannianus hildmannianus	11226 Subpilocereus remolinensis
	00153 Cereus saddianus BR. @130.
8436 <i>Cereus milesimus</i>	10177 Monvillea saddiana
	00112 Cereus spegazzinii BR, AR, BO, PY. @130.
3192 Cereus hildmannianus uruguayanus	10162 Monvillea spegazzinii
AR, BR, UY. @132.6 0160 Cereus uruguayanus	08372 Cereus anisitsii
	01412 Monvillea ebenacantha
, , ,	02578 Cereus haageanus
2146 Piptanthocereus bageanus	03702 Cereus haageanus
0135 Cereus horrispinus	10169 Monvillea haageana
1224 Subpilocereus horrispinus 1772 Subpilocereus ottonis	10160 Monvillea lindenzweigiana
	10823 Piptanthocereus lindenzweigianus
0137 Cereus insularis	00156 Cereus stenogonus BO, PY, AR. @135.1-
	10827 Piptanthocereus stenogonus
0151 <i>Cereus ridleii</i> 0107 Cereus jamacaru	00118 Cereus argentinensis
	00103 Cereus dayami
4100 Cereus lividus 2951 Cereus jamacaru jamacaru	10819 Piptanthocereus dayami
	00152 Cereus roseiflorus 00157 Cereus tacuaralensis
8425 Cereus goiasensis 0820 Piptanthocereus goiasensis	
0820 Piptanthocereus goiasensis 2277 Cereus jamacaru goiasensis	00159 Cereus trigonodendron PE (not BO). @135. 00162 Cereus vargasianus PE. @135.