

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



Fourteenth meeting of the Conference of the Parties
The Hague (Netherlands), 3-15 June 2007

Administrative matters

Committee reports

REPORT OF THE NOMENCLATURE COMMITTEE

1. This document has been prepared by the Nomenclature Committee.

Introduction

2. At its 13th meeting (CoP13, Bangkok 2004) the Conference of the Parties appointed Ms Ute Grimm of the Federal Agency for Nature Conservation, Bonn, Germany, as the zoologist of the Nomenclature Committee (NC) and reappointed Mr Noel McGough, Royal Botanic Gardens, Kew, United Kingdom of Great Britain and Northern Ireland, as its botanist. They carried out their duties as specified in Resolution Conf. 11.1 (Rev. CoP13) on Establishment of Committees and Resolution Conf. 12.11 (Rev. CoP13) on Standard Nomenclature and operation of the Nomenclature Committee, and as directed in Decision 13.94 Standard nomenclature for birds. The Nomenclature Committee also contributed to the drafting of terms of reference for the review of the scientific committees as directed in Decision 13.9. The Committee participated in this review in association with the Animals and Plants Committees. As directed in Decision 13.12, the scientific committee members reviewed the conditions under which they performed their duties and reported to the Standing Committee.
3. The Nomenclature Committee would like to take this opportunity to invite Parties again to make suggestions for the names and field of scientific competence of specialists who could provide input concerning nomenclatural matters to the members of the Nomenclature Committee in fulfilling the responsibilities assigned to them by the Parties.
4. Besides a short section on the review of scientific committees, this report comprises three parts: an introduction, a section on fauna nomenclature and one on flora nomenclature. Each part covers the main activities conducted since CoP13, the proposed work programme for the next period and a proposed operating budget.
5. Recommendations of the Nomenclature Committee, calling for decisions of the Conference of the Parties, are included in the Annex to this document. Adoption of this report and the Annex signifies that the recommendations made therein are accepted and will become effective with the publication of the new Appendices after the present meeting.
6. The Nomenclature Committee will continue to provide timely services to the Parties and the Secretariat, including: responding to enquiries regarding the nomenclature of taxa listed in the Appendices; designating appropriate taxonomic authorities for the nomenclature of taxa listed in the Appendices that are not included in standard references adopted by the Parties; reviewing the nomenclature of the taxa that have been listed in the Appendices, in consultation with the Secretariat; reviewing the nomenclature of species proposed for listing in the Appendices prior to their consideration at the meetings of the Conference of the Parties; and advising the Secretariat of recommended changes in the nomenclature that should be used in the Appendices.

7. The Nomenclature Committee appreciates the opportunity that has arisen to allow meetings of the full committee in association with the joint meetings of the Animals and Plants Committees. This has provided a greater opportunity for transparency in the workings of the committee. These meetings have proved to be popular with Parties and observers and the two meetings of the full committee held to date were well attended. All of the documentation for these meetings and the summary records have been published on the CITES website.

Review of the scientific committees

8. The Nomenclature Committee, as part of its contribution to the review of the scientific committees, recommended that in future it could best function as a working group of the Animals and Plants Committees. This view was endorsed by all parties involved in the review. In the implementation of this recommendation, the Nomenclature Committee feels it is important that independence of decision-making on nomenclature and consistency of approach be maintained.

Fauna nomenclature

9. Nomenclature matters concerning fauna were discussed in association with the 21st and 22nd meetings of the Animals Committee (AC21, Geneva, 20-25 May 2005, and AC22 Lima, 7-13 July 2006). All of the documentation for these meetings and the summary records were placed on, and remain available from the CITES website. The Nomenclature Committee would like to thank all those who participated in these meetings. Their intensive input was highly appreciated. The Nomenclature Committee is particularly grateful to Mr de Meulenaer (CITES Secretariat) for taking the minutes.

Nomenclature issues related to CoP13 Decisions

10. Birds

As required in Decision 13.94, the Nomenclature Committee proposes the following references for adoption as new reference for birds at the species level:

Dickinson, E.C. (ed.) (2003): *The Howard and Moore Complete Checklist of the Birds of the World*. Revised and enlarged 3rd Edition. 1039 pp. London (Christopher Helm).

Dickinson, E.C. (2005): Corrigenda 4 (02.06.2005) to Howard & Moore Edition 3 (2003).
http://www.naturalis.nl/sites/naturalis.en/contents/i000764/corrigenda%204_final.pdf
(document available on the CITES website).

Information on necessary changes with regard to a possible adoption of these references were discussed at the 2006 meeting of the Nomenclature Committee and are available on the CITES website. According to Dickinson *Psittacula intermedia* has to be regarded as a hybrid between *Psittacula cyanocephala* and *P. himalayana*. However, adopting this view would create implementation problems under CITES. It is therefore proposed to keep the name of *Psittacula intermedia* under CITES. Dickinson splits the current species *Trichoglossus haematodus* into five species: *haematodus*, *capistratus*, *forsteni*, *rubritorquis* and *weberi*. There may be technical implementation problems with regard to this change. Specialists disagree on whether some of these taxa are easily identifiable by morphological means. In addition these taxa are not geographically distinct with regard to the country of origin. Therefore it is proposed to keep the name of *Trichoglossus haematodus* in its current interpretation and still treat the taxa *capistratus*, *forsteni*, *rubritorquis* and *weberi* as subspecies.

11. Chamaeleo excubitor

At CoP13, Kenya asked for the recognition of *Chamaeleo excubitor* as a separate species under CITES (see document CoP13 Doc. 59.2). This request was referred to the Nomenclature Committee. According to the standard reference currently adopted by the Parties, *C. excubitor* is treated as a subspecies of *Bradypodion fischeri*. The reference indicated by Kenya in document CoP13 Doc. 59.2 is a field guide and not a taxonomic publication revising the status of the taxon. There is a general consensus among herpetological taxonomists that the taxonomy of *Bradypodion fischeri* needs to be revised and that *excubitor* together with other taxa currently listed as subspecies may constitute

species of their own. However, until now, the species *Bradypodion fischeri* has not been taxonomically revised and *excubitor* has been described and treated as a subspecies in all taxonomic publications dealing with this species complex. Therefore, until such time as a full taxonomic review has been published, the Nomenclature Committee proposes to treat *excubitor* as a subspecies of *Bradypodion fischeri*. When such a review is available, the Nomenclature Committee will reconsider the status of this taxon.

Status of other published references or checklists

12. Mammals

The Nomenclature Committee proposes the following reference for adoption as the new reference for mammals with the exception of the taxa mentioned below:

Wilson, D.E. & Reeder, D.M (ed.) (2005): Mammal Species of the World. A Taxonomic and Geographic Reference. 3rd edition. Vol. 1-2, xxxv + 2142 pages. Baltimore (The John Hopkins University Press).

Information on necessary changes with regard to a possible adoption of this reference were discussed at the 2006 meeting of the Nomenclature Committee and are available on the CITES website. The former *Loxodonta africana cyclotis* is generally now regarded as a species in its own right. However, many questions remain to be answered. Its complete geographical distribution remains unknown. In addition the question of whether hybridization occurs between the two different taxa of the African elephant cannot yet be answered satisfactorily – nor, if it occurs, in what areas it occurs. In addition, the Nomenclature Committee is not aware of any method available to distinguish reliably between ivory derived from these two taxa. Therefore, it is proposed to retain the current interpretation of *Loxodonta africana* and treat the taxon *cyclotis* as a subspecies of *Loxodonta africana* under CITES.

Odocoileus virginianus mayensis is now regarded as a *nomen nudum*, which means that it has no associated valid published taxonomic description. Guatemala, which listed the subspecies in Appendix III in 1981, should therefore be advised to indicate which of the two recognized subspecies of *Odocoileus virginianus (nelsoni* and *thomasi)* for the area of Guatemala is covered by the current CITES listing so that the subspecies name of the current Appendix III listing can be changed accordingly.

The subspecies of *Ovis vignei* have been placed under two different species. The subspecies *arkal*, *bochariensis*, *cycloceros* (including *blanfordi*), *punjabiensis*, and *vignei* are placed under *Ovis aries* (= *Ovis orientalis*), the subspecies *servertzovi* is placed under *Ovis ammon*. Taking into account the current split-listing of *Ovis vignei* and the fact that *Ovis aries* (= *Ovis orientalis*) also includes other subspecies that are not covered by the current CITES listings, it is proposed to take a conservative approach and keep the current interpretation of *Ovis vignei*, with reference to Wilson & Reeder (1993).

In the past the CITES Nomenclature Committee agreed to use names based on a wild rather than a domestic form. Therefore the names of *Bos gaurus*, *Bos mutus*, *Bubalus arnee*, *Equus africanus*, *Equus przewalskii*, *Ovis orientalis ophion* should be kept.

13. Turtles and tortoises

At the latest meeting of the Nomenclature Committee, a first rough draft for a new checklist for turtle and tortoise species compiled by Uwe Fritz and Peter Havaš was discussed. As a reference is urgently needed for this reptile group, it was agreed to ask the IUCN/SSC Turtle and Tortoise Specialist Group to review further drafts. The co-chairs of the group, P.P. Van Dijk and A. Rhodin, kindly accepted to carry out this task. The Co-Chair of the Nomenclature Committee (Fauna) would like to express her great thanks to them not only for providing detailed comments on the first draft presented at the Nomenclature Committee meeting in July 2006 but also for reviewing the comprehensive second draft later in the year. These comments were extremely helpful in finalizing the checklist which has now been presented and placed on the CITES website. The Zoological Museum, Dresden intends to publish the checklist as a volume of "Zoologische Abhandlungen" in the

course of 2007. All changes and adoption of the checklist are shown in the introductory table attached to the checklist which is available on the CITES website. Five current species described in the past years are now regarded as hybrid species, with parental species either included in the CITES Appendices other than the ones where the hybrid is currently listed in, or listed in different CITES Appendices. The adoption of this view would pose serious problems for CITES implementation. It is therefore proposed to keep their names under CITES listing. Specimens of these hybrids are morphologically distinct from their parents as well as other turtle species. This concerns *Mauremys iversoni*, *M. pritchardi*, *Ocadia glyphistoma*, *O. philippeni* and *Sacalia pseudocellata*. Split-listing of some species does not create problems as all the new species identified and covered by CITES are either morphologically different or differ with regard to their country of origin. In the case of the current listing of *Apalone ater* in Appendix I, this species has been downgraded to subspecies level as *Apalone spinifera atra*. However, this will cause no implementation problem as the subspecies *atra* is morphologically different from the other subspecies of *Apalone spinifera*. It is proposed to adopt the *CITES Checklist of Chelonians of the World* as the new reference for turtle and tortoise species at the species and family levels, however, the names of the taxa *Mauremys iversoni*, *M. pritchardi*, *Ocadia glyphistoma*, *O. philippeni*, and *Sacalia pseudocellata* should be kept.

14. Cordylus spp.

It is proposed to adopt the 2006 update of "Broadley, D.G. (2006): *CITES Standard Reference for the Species of Cordylus (Cordylidae, Reptilia)*", compiled at the request of the CITES Nomenclature Committee as new standard reference for *Cordylus* species. Information on necessary changes with regard to a possible adoption of this reference were discussed at the 2006 meeting of the Nomenclature Committee and are available on the CITES website.

15. Iguanidae genera *Amblyrhynchus*, *Brachylophus*, *Conolophus*, *Cyclura*, *Iguana*, *Sauromalus*

The genera mentioned above belong to those reptile taxa for which there is currently no adopted reference at the species level. The IUCN/SSC Iguanidae Specialist group (A. C. Alberts) recommended the following publication for this purpose: "Hollingsworth, B.D. (2004): The Evolution of Iguanas: An Overview of Relationships and a Checklist of Species. pp. 19-44. In: Alberts, A.C., Carter, R.L., Hayes, W.K. & Martins, E.P. (Eds), *Iguanas: Biology and Conservation*. Berkeley (University of California Press). A.C. ALBERTS also recommended the acceptance *Cyclura lewisi* as a valid species under CITES on the basis of the revision by F. J. Burton 2004 (Revision to Species *Cyclura nubila lewisi*, the Grand Cayman Blue Iguana. *Caribbean Journal of Science*, 40(2): 198-203.). Adopting these references will result in recognizing two more species of *Cyclura* compared to the current status *Cyclura stejnegeri*, a split from *C. cornuta* and *Cyclura lewisi*, a split from *C. nubila*. However, this will cause no implementation problems as there are morphological differences between these species. Therefore it is proposed to adopt the publication of Hollingsworth 2004 and Burton 2004 as standard reference for the genera *Amblyrhynchus*, *Brachylophus*, *Conolophus*, *Cyclura*, *Iguana*, and *Sauromalus*.

16. Amphibian species

As already suggested and discussed at the Nomenclature Committee (Fauna) meeting in July 2006, the adoption of the "Taxonomic Checklist of CITES-listed Amphibians 2006", as extracted from Frost, D. R. (2004), *Amphibian Species of the World*, an online reference V. 3.0 on 7 April 2006 is proposed as the new reference for Amphibian species; complemented by the new description of *Dendrobates uakarii* of "Brown, J.L., Schulte, R. & Summers, K. (2006): A new species of *Dendrobates* (Anura: Dendrobatidae) from the Amazonian lowlands of Peru. *Zootaxa*, 1152: 45-58." The Checklist extracted from the Frost online database should be updated at least at every second meeting of the conference of the Parties. The documents discussed at the Nomenclature Committee meeting in 2006 as well as the checklist are available on the CITES website.

17. Theraphosidae

As already suggested and discussed at the Nomenclature Committee (Fauna) meeting in July 2006 the adoption of the "Taxonomic Checklist of CITES listed Spider Species", as extracted from Platnick, N. (2006), *The World Spider Catalog*, online reference V. 6.5 on April 7 2006 is proposed as the new reference for Theraphosidae species. The Checklist extracted from the Platnick online

database should be updated at least at every second meeting of the conference of the Parties. The documents discussed at the Nomenclature Committee meeting in 2006 as well as the checklist are available on the CITES website.

Proposed work programme

18. Corals

Although corals comprise a large number of animal species listed in the CITES Appendices no publication or online database has been recognized in the past to serve as a standard reference. As corals (dead and live) are traded intensively, there is a great need to develop a CITES checklist for this group. However this will require specific funds.

19. Other animal groups

Among the other animal groups without a recognized reference, the butterfly family Papilionidae seems to be the one with the most urgent need for the adoption of a standard reference. Currently, only the birdwing genera are covered by a reference. To identify a reference for the non-birdwing butterflies or to have a CITES checklist developed will be an additional priority for the Nomenclature Committee.

Budget

20. The budget line for nomenclature was deleted at CoP12 (Santiago, 2002). Funding for nomenclature issues is now included in the budget line 'Support for Scientific Authorities'. This budget line is restricted and funds vital project work. It is therefore essential that the nomenclature programme be, as far as possible, funded from external sources. The Nomenclature Committee (Fauna) activities since the 13th meeting of the Conference of the Parties could only be carried out thanks to the availability of external funds. The UNEP-WCMC analysis of changes arising from the possible adoption of the new mammal reference was undertaken with the generous financial support of the Commission of the European Communities. The compilation of the CITES *Checklist of Chelonians of the World* was funded by the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety and the Zoological Museum Dresden.

21. The Nomenclature Committee (fauna) proposes a budget of USD 42,000 for the period between CoP14 and CoP15 to cover expenditure related to its activities concerning the nomenclature of fauna, and particularly those referred to in paragraph 17-18.

| Project/Year | 2008 | 2009 | 2010 | Total |
|--------------|-------------------|-------------------|-------------------|-------------------|
| Corals | USD 10,000 | USD 8,000 | USD 6,000 | USD 24,000 |
| Papilionidae | USD 3,000 | USD 3,000 | | USD 6,000 |
| Publication | | | USD 12,000 | USD 12,000 |
| Total | USD 13,000 | USD 11,000 | USD 18,000 | USD 42,000 |

Flora nomenclature

22. Nomenclature matters concerning flora were discussed in association with the 15th and 16th meetings of the Plants Committee (PC15, Geneva, 17-21 May 2005, and PC16, Lima, 3-8 July 2006). Separate Nomenclature Committee (flora) meetings were held on 18 May 2005 and 4 July 2006. All of the documentation for these meetings and the summary records were placed on, and remain available on the CITES website. The Nomenclature Committee would like to thank all those who participated in these meetings. Their active and constructive input was highly appreciated. The Nomenclature Committee is particularly grateful to Ms Milena Sosa Schmidt and Mr David Morgan (CITES Secretariat) for taking the minutes.

Status of checklists

23. Between CoP13 and CoP14, three checklists were completed and one update of a published checklist was produced. *The CITES Orchid Checklist Volume 4* covers species in the genera *Aerides*, *Coelogyne*, *Comparettia* and *Masdevallia* and was published and distributed to the Parties with Notification No. 2006/029 of 28 April 2006. The production and publication of this work was made possible by financial assistance from the CITES Trust Fund and the Royal Botanic Gardens, Kew. The final text of the *CITES Checklist for Bulbophyllum and allied taxa* (Orchidaceae) was placed on the CITES website in December 2006. A draft version of this checklist was first made available for comment on the CITES website in 2005 and Parties informed of this through Notification No. 2005/049 of 29 August 2005. The comments received by Parties were incorporated in the final text. The Checklist will be published in printed form and on CD-ROM in 2007, subject to funding. The production of this comprehensive work was made possible by work carried out by the University of Vienna and generous financial support from the CITES Management Authority of Austria.

Following consultation with experts and liaison with the region, *Plants of Southern Africa* (Germishuizen, G. & Meyer N.L. (eds.) 2003) was selected as the most appropriate reference for species of the genus *Hoodia*. A draft version of the *Guaiaacum* checklist was placed on the CITES website in 2005 as a Nomenclature Committee document and the final version published in late 2006. The production of this checklist was made possible by work carried out by the CITES Authorities of Germany and Mexico. An early version of *An Update and Supplement to the CITES Aloe & Pachypodium Checklist* was also placed on the CITES website in 2005 as a Nomenclature Committee document. The final version of this supplement was posted on the CITES website in December 2006 and a printed copy will be published in 2007, subject to funding.

The checklists that are proposed for adoption are:

Germishuizen, G. & Meyer, N.L. (eds.) (2003). *Plants of Southern Africa: an annotated checklist. Strelitzia* 14: 561. National Botanical Institute, Pretoria, South Africa. (For *Hoodia*).

Davila, Aranda & Schippmann, U. (2006): Lista de especies, nomenclatura y distribución en el genero *Guaiaacum*. - *Medicinal Plant Conservation* 12: #-#. (CITES website)

Smith, M.J., Brodie, C., Kowalczyk, J., Michnowicz, S., McGough, H.N. & Roberts, J.A. (2006). *CITES Orchid Checklist Volume 4*. For the genera: *Aerides*, *Coelogyne*, *Comparettia* and *Masdevallia*. Royal Botanic Gardens Kew, UK.

Lüthy, J.M. (2007). *An Update and Supplement to the CITES Aloe & Pachypodium Checklist*. CITES Management Authority of Switzerland, Bern, Switzerland. (CITES website).

Sieder, A., Rainer, H., Kiehn, M. (2007): *CITES checklist for Bulbophyllum and allied taxa* (Orchidaceae). Address of the authors: Department of Biogeography and Botanical Garden of the University of Vienna; Rennweg 14, A-1030 Vienna, Austria. (CITES website).

Proposed work programme

24. The budget line for nomenclature was deleted at CoP12 (Santiago, 2002). Funding for nomenclature issues is now included in the budget line 'Support for Scientific Authorities'. This budget line is restricted and funds vital project work. It is therefore essential that the nomenclature programme be, as far as possible, funded from external sources. Of the 12 major checklists published to date, six have been fully funded by sponsors and the remaining six have only required partial funding from the Trust Fund. This has been a highly successful programme. However some future core funding will be required to obtain funds from other sources.

The Nomenclature Committee is particularly grateful to the CITES Authorities of Austria, Germany, Mexico and Switzerland, the University of Vienna, Austria and the Royal Botanic Gardens, Kew, United Kingdom, for their support of the production of checklists since the 13th meeting of the Conference of the Parties.

Cactus checklist

25. The *CITES Cactaceae Checklist* 1999 was adopted as the standard reference for Cactaceae. This volume is now out of print. *The New Cactus Lexicon* was published in 2006 (Hunt, D. Ed.) compiled and edited by members of the International Cactaceae Systematics Group. This work can form the basis of a revised cactus checklist. The Lexicon itself is a vital reference, comprising two volumes of over 900 pages including full illustrations of all species. However, it is an expensive publication outside the budget of most CITES Authorities. A new edition of the CITES cactus checklist will also provide the opportunity for the checklist to be posted on the web, thereby making it available to a wide range of CITES users. The cactus checklist is one of the most widely used CITES checklists. It is therefore imperative that the Parties have access to an updated version. As the Lexicon has now been published, work can now commence, with the cooperation of the editor, to produce an extract which will form the basis of the next edition of the CITES cactus checklist.

Orchid checklists

26. Orchid checklist - remaining taxa in trade. A significant number of the major genera in trade have been covered by *Orchid Checklist* volumes 1-4. It would seem useful to produce a volume that includes an update of earlier volumes and, as appropriate, an additional list of traded taxa not included in the earlier volumes.

The Royal Botanic Gardens, Kew in cooperation with a global network of orchid experts has compiled a world checklist of orchids as part of the *World Checklist of Monocotyledons*. The database already includes some 25,000 accepted names and about 45,000 synonyms. Authorities, places of publication and distributions are also included. It is hoped that this global checklist will form an important reference source for CITES. It has the potential to form the scientific core on which future standard references are based. Much of the research for additional CITES orchid checklists has already been carried out by this project. All that is required is a small amount of funds to facilitate the preparation of a checklist suitable for CITES users. This process would involve checking of the proposed new text by an additional international panel of experts to ensure acceptance by the CITES Parties.

A number of Parties have indicated that they urgently require an update of volume 1 of the checklist which includes the widely traded genera *Paphiopedilum* and *Phragmipedium*. Volume 1 was published in 1995, and many new taxa have been published since that time and that are in demand in international trade. Work will therefore commence on an update to Volume 1 of the orchid checklist. The Plants Committee will be asked to recommend experts for the international review panel.

Other issues

27. No reference has been adopted for the genus of tree-ferns *Cyathea*. One possible reference source is *World Ferns* (Hassler and Swale, 2001). This reference is available on CD-ROM and will be reviewed by the Nomenclature Committee to assess whether it is suitable for adoption as a CITES standard reference.

Budget

28. The Nomenclature Committee (flora) proposes a budget of USD 39,000 for the period between CoP14 and CoP15 to cover expenditure related to its activities concerning the nomenclature of flora, and particularly those referred to in paragraph 23.

| Project/Year | 2008 | 2009 | 2010 | Total |
|--------------|-------------------|-------------------|------------------|-------------------|
| Orchids | USD 5,000 | USD 5,000 | USD 5,000 | USD 15,000 |
| Cacti | USD 6,000 | USD 6,000 | | USD 12,000 |
| Publication | USD 6,000 | USD 6,000 | | USD 12,000 |
| Total | USD 17,000 | USD 17,000 | USD 5,000 | USD 39,000 |

COMMENTS FROM THE SECRETARIAT

- A. The Secretariat welcomes the adoption of standard checklists for taxa where these do not already exist. Whilst recognizing the need to keep up with current understanding of taxonomy and nomenclature, the Secretariat does have some concerns about the practical and legal implications of alterations to the names of species already included in the Appendices. The Secretariat therefore recommends that Parties study carefully the practical and legal ramifications of the proposals made by the Nomenclature Committee.
- B. The Secretariat also believes that in order to strengthen the global effort to meet the World Summit on Sustainable Development target of significantly reducing the rate of biodiversity loss by 2010, it would be sensible to try to ensure greater harmonization between biodiversity-related multilateral environmental agreements in the field of taxonomy and nomenclature. Consequently the Secretariat proposes the following draft decision in this regard.

Directed to the Secretariat

14.XX In close cooperation with the Nomenclature Committee, 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.

- C. Concerning the budgetary recommendations in paragraphs 21 and 28 of this document, the Secretariat suggests that these be considered under agenda item 7 and in the light of the review of scientific committees discussed in document CoP14 Doc. 12.
- D. In order to simplify their use, following the present meeting and unless the Parties object, the Secretariat intends to rearrange the listing of animal species in the Appendices in order to present them in alphabetical order at the order, family and generic levels. A similar presentation is already used for flora listed in the Appendices. The Secretariat has consulted the zoologist of the Nomenclature Committee who agrees with the suggestion.

Recommendations of the Nomenclature Committee

FAUNA

The Nomenclature Committee recommends to amend and update the Annex to Resolution Conf. 12.11 (Rev. CoP13) by changing the list of standard references for animals adopted by the Conference of the Parties as follows:

Mammalia

Delete all current references and replace by:

WILSON, D. E. & REEDER, D. M. (ed.) (2005): Mammal Species of the World. A Taxonomic and Geographic Reference. Third edition, Vol. 1-2, xxxv + 2142 pp. Baltimore (John Hopkins University Press). [for all mammals – with the exception of the recognition of the following names for wild forms of species (in preference to names for domestic forms): *Bos gaurus*, *Bos mutus*, *Bubalus arnee*, *Equus africanus*, *Equus przewalskii*, *Ovis orientalis ophion*; and with the exception of the species mentioned below]

WILSON, D. E. & REEDER, D. M. (1993): Mammal Species of the World: a Taxonomic and Geographic Reference. Second edition. xviii + 1207 pp., Washington (Smithsonian Institution Press). [for *Loxodonta africana* and *Ovis vignei*]

Birds

Delete all current references with the exception of MORONY, BOCK & FERRAND 1975 and add DICKINSON 2003 and 2005 [for all bird species except for the taxa mentioned below] and the reference of COLLAR (1997) [for *Psittacula intermedia* and *Trichoglossus haematodus*] so that it reads:

MORONY, J. J., BOCK, W. J. & FARRAND, J., JR. (1975): Reference List of the Birds of the World. American Museum of Natural History. 207 pp. [for order- and family-level names for birds]

DICKINSON, E.C. (ed.)(2003): The Howard and Moore Complete Checklist of the Birds of the World. Revised and enlarged 3rd Edition. 1039 pp. London (Christopher Helm).

DICKINSON, E.C. (2005): Corrigenda 4 (02.06.2005) to Howard & Moore Edition 3 (2003). http://www.naturalis.nl/sites/naturalis.en/contents/i000764/corrigenda%204_final.pdf (available at the CITES website) [for all bird species - except for the taxa mentioned below]

COLLAR, N. J. (1997) Family Psittacidae (Parrots). - In del HOYO, J., ELLIOT, A. AND SARGATAL, J. (eds.), Handbook of the Birds of the World, 4 (Sandgrouse to Cuckoos): 280-477. Barcelona (Lynx Edicions). [for *Psittacus intermedia* and *Trichoglossus haematodus*]

Reptiles

Delete the references of KARL & TICHY 1999, McCORD & al. 2000 and 2002, PERÄLÄ 2001, and WEBB 2002; change WERMUTH & MERTENS 1996 and add FRITZ & HAVAŠ 2006, HOLLINGSWORTH, and BURTON 2004 so that it reads:

ANDREONE, F., MATTIOLI, F., JESU, R. & RANDRIANIRINA, J. E. (2001): Two new chameleons of the genus *Calumma* from north-east Madagascar, with observations on hemipenial morphology in the *Calumma furcifer* group (Reptilia, Squamata, Chamaeleonidae). - Herpetological Journal, 11: 53-68. [for *Calumma vatosoa* & *Calumma vences*]

AVILA PIRES, T. C. S. (1995): Lizards of Brazilian Amazonia. - Zool. Verh., 299: 706 pp. [for *Tupinambis*]

BÖHME, W. (1997): Eine neue Chamäleon-Art aus der *Calumma gastrotaenia* – Verwandtschaft Ost-Madagaskars. - Herpetofauna (Weinstadt), 19 (107): 5-10. [for *Calumma glawi*]

- BÖHME, W. (2003): Checklist of the living monitor lizards of the world (family Varanidae). - Zoologische Verhandelingen. Leiden, **341**: 1-43. [for Varanidae]
- BROADLEY, D. G. (2006): CITES Standard reference for the species of *Cordylus* (Cordylidae, Reptilia) prepared at the request of the CITES Nomenclature Committee (available on the CITES website) [for *Cordylus*]
- BURTON, F.J. (2004): Revision to Species *Cyclura nubila lewisi*, the Grand Cayman Blue Iguana. - Caribbean Journal of Science, **40**(2): 198-203. [for *Cyclura lewisi*]
- CEI, J. M. (1993): Reptiles del noroeste, nordeste y este de la Argentina – herpetofauna de las selvas subtropicales, puna y pampa. - Monografie XIV, Museo Regionale di Scienze Naturali. [for *Tupinambis*]
- COLLI, G. R., PÉRES, A. K. & DA CUNHA, H. J. (1998): A new species of *Tupinambis* (Squamata: Teiidae) from central Brazil, with an analysis of morphological and genetic variation in the genus. - Herpetologica **54**: 477-492. [for *Tupinambis cerradensis*]
- DIRKSEN, L. (2002): Anakondas. NTV Wissenschaft. [for *Eunectes beniensis*]
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- WÜSTER, W. (1996): Taxonomic change and toxinology: systematic revisions of the Asiatic cobras *Naja naja* species complex. - Toxicon, **34**: 339-406. [for *Naja atra*, *Naja kaouthia*, *Naja oxiana*, *Naja philippinensis*, *Naja sagittifera*, *Naja samarensis*, *Naja siamensis*, *Naja sputatrix* & *Naja sumatrana*]

Amphibia

Add BROWN & al. 2006 and update FROST 2002 to FROST 2004 so that it reads:

BROWN, J.L., SCHULTE, R. & SUMMERS, K. (2006): A new species of *Dendrobates* (Anura: Dendrobatidae) from the Amazonian lowlands of Peru. -- *Zootaxa*, **1152**: 45-58. [for *Dendrobates uakarii*]

Taxonomic Checklist of CITES listed Amphibians, information extracted from FROST, D. R. (ed.) (2004), *Amphibian Species of the World: a taxonomic and geographic reference*, an online reference (<http://research.amnh.org/herpetology/amphibia/index.html>) Version 3.0 as of 7 April 2006 (pdf available on the CITES website) [for Amphibia]

Elasmobranchii, Actinopterygii & Sarcopterygii

No change, so it reads: ESCHMEIER, W. N. (1998): *Catalog of Fishes*. 3 vols. California Academy of Sciences. [for all fishes]

HORNE, M. L. (2001): A new seahorse species (Syngnathidae: *Hippocampus*) from the Great Barrier Reef – *Records of the Australian Museum*, **53**: 243-246. [for *Hippocampus*]

KUITER, R. H. (2001): Revision of the Australian seahorses of the genus *Hippocampus* (Syngnathiformes: Syngnathidae) with a description of nine new species – *Records of the Australian Museum*, **53**: 293-340. [for *Hippocampus*]

KUITER, R. H. (2003): A new pygmy seahorse (Pisces: Syngnathidae: *Hippocampus*) from Lord Howe Island – *Records of the Australian Museum*, **55**: 113-116. [for *Hippocampus*]

LOURIE, S. A. & RANDALL, J. E. (2003): A new pygmy seahorse, *Hippocampus denise* (Teleostei: Syngnathidae), from the Indo-Pacific – *Zoological Studies*, **42**: 284-291. [for *Hippocampus*]

LOURIE, S. A., VINCENT, A. C. J. & HALL, H. J. (1999): *Seahorses. An identification guide to the world's species and their conservation. Project Seahorse*, (ISBN 0 9534693 0 1) (Second edition available on CD-ROM). [for *Hippocampus*]

Arachnida

Change the PLATNICK reference for Theraphosidae, so that reads:

LOURENÇO, W. R. & CLOUDSLEY-THOMPSON, J. C. (1996): Recognition and distribution of the scorpions of the genus *Pandinus* Thorell, 1876 accorded protection by the Washington Convention. - *Biogeographica*, **72**(3): 133-143. [for scorpions of the genus *Pandinus*]

Taxonomic Checklist of CITES listed Spider Species, information extracted from PLATNICK, N. (2006), *The World Spider Catalog*, an online reference (<http://research.amnh.org/entomology/spiders/catalog/Theraphosidae.html>), Version 6.5 as of April 7 2006 (pdf available on the CITES website) [for Theraphosidae]

Insecta

MATSUKA, H. (2001): *Natural History of Birdwing Butterflies*. 367 pp. Tokyo (Matsuka Shuppan). (ISBN 4-9900697-0-6). [for birdwing butterflies of the genera *Ornithoptera*, *Trogonoptera* and *Troides*]

FLORA

The Nomenclature Committee also recommends that the Annex to Resolution Conf. 12.11 (Rev. CoP13) Annex be amended and updated by replacing the list of standard references adopted by the Conference of the Parties (Flora) with the following:

- a) *The Plant-Book*, second edition, [D.J. Mabberley, 1997, Cambridge University Press (reprinted with corrections 1998)] for the generic names of all plants listed in the Appendices of the Convention, unless they are superseded by standard checklists adopted by the Conference of the Parties);

- b) *A Dictionary of Flowering Plants and Ferns*, 8th edition, (J.C. Willis, revised by H.K. Airy Shaw, 1973, Cambridge University Press) for generic synonyms not mentioned in *The Plant-Book*, unless they are superseded by standard checklists adopted by the Conference of the Parties as referenced below in paragraphs c) to n);
- c) *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 Nomenclature Committee, as a guideline when making reference to names of species of Cycadaceae, Stangeriaceae and Zamiaceae;
- d) *CITES Bulb Checklist* (A.P. Davis et al., 1999, compiled by the Royal Botanic Gardens, Kew, United Kingdom of Great Britain and Northern Ireland) and its updates accepted by the Nomenclature Committee, as a guideline when making reference to the names of species of *Cyclamen* (Primulaceae) and *Galanthus* and *Sternbergia* (Liliaceae);
- e) *CITES Cactaceae Checklist*, second edition, (1999, compiled by D. Hunt, Royal Botanic Gardens, Kew, United Kingdom of Great Britain and Northern Ireland) and its updates accepted by the Nomenclature Committee, as a guideline when making reference to names of species of Cactaceae;
- f) *CITES Carnivorous Plant Checklist*, second edition, (B. von Arx et. al., 2001, Royal Botanic Gardens, Kew, United Kingdom of Great Britain and Northern Ireland) and its updates accepted by the Nomenclature Committee, as a guideline when making reference to names of species of *Dionaea*, *Nepenthes* and *Sarracenia*;
- g) *CITES Aloe and Pachypodium Checklist* (U. Eggli et al. 2001, compiled by Städtische Sukkulentensammlung, Zurich, Switzerland in collaboration with the Royal Botanic Gardens, Kew, United Kingdom of Great Britain and Northern Ireland) and its update Lüthy, J.M. (2007). An Update and Supplement to the CITES *Aloe & Pachypodium* Checklist. CITES Management Authority of Switzerland, Bern, Switzerland. (CITES Website) accepted by the Nomenclature Committee, as a guideline when making reference to the names of species of *Aloe* and *Pachypodium*;
- h) *World Checklist and Bibliography of Conifers* (A. Farjon, 2001) and the updates accepted by the Nomenclature Committee, as a guideline when making reference to the names of species of *Taxus*;
- i) *CITES Orchid Checklist*, (compiled by the Royal Botanic Gardens, Kew, United Kingdom) and the updates accepted by the Nomenclature Committee, as a guideline when making reference to the names of species of *Cattleya*, *Cypripedium*, *Laelia*, *Paphiopedilum*, *Phalaenopsis*, *Phragmipedium*, *Pleione* and *Sophranitis* (Volume 1, 1995) and *Cymbidium*, *Dendrobium*, *Disa*, *Dracula* and *Encyclia* (Volume 2, 1997), and *Aerangis*, *Angraecum*, *Ascocentrum*, *Bletilla*, *Brassavola*, *Calanthe*, *Catasetum*, *Miltonia*, *Miltonioides* and *Miltoniopsis*, *Renanthera*, *Renantherella*, *Rhynchostylis*, *Rossioglossum*, *Vanda* and *Vandopsis* (Volume 3, 2001); and *Aerides*, *Coelogyne*, *Comparettia* and *Masdevallia* (Volume 4, 2006);
- j) *The CITES Checklist of Succulent Euphorbia Taxa (Euphorbiaceae)*, Second edition (S. Carter and U. Eggli, 2003, published by the Federal Agency for Nature Conservation, Bonn, Germany) and the updates accepted by the Nomenclature Committee, as a guideline when making reference to the names of species of succulent euphorbias;
- k) *Dicksonia species of the Americas* (2003, compiled by Bonn Botanic Garden and the Federal Agency for Nature Conservation, Bonn, Germany) and the updates accepted by the Nomenclature Committee, as a guideline when making reference to the names of species of *Dicksonia*;
- l) *Plants of Southern Africa: an annotated checklist*. Germishuizen, G. & Meyer N.L. (eds.) (2003). *Strelitzia* 14: 561. National Botanical Institute, Pretoria, South Africa and the updates accepted by the Nomenclature Committee, as a guideline when making reference to the names of species of *Hoodia*;
- m) *Lista de especies, nomenclatura y distribución en el genero Guaiacum*. Davila Aranda & Schippmann (2006): - Medicinal Plant Conservation 12: #-#. (CITES Website) and the updates accepted by the Nomenclature Committee, as a guideline when making reference to the names of species of *Guaiacum*; and

- n) CITES checklist for *Bulbophyllum* and allied taxa (Orchidaceae). Sieder, A., Rainer, H., Kiehn, M. (2007): Address of the authors: Department of Biogeography and Botanical Garden of the University of Vienna; Rennweg 14, A-1030 Vienna (Austria). (CITES Website) and the updates accepted by the Nomenclature Committee, as a guideline when making reference to the names of species of *Bulbophyllum*.