



# Convention on the Conservation of Migratory Species of Wild Animals

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## 15<sup>th</sup> MEETING OF THE CMS SCIENTIFIC COUNCIL

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### REGARDING THE TAXONOMY AND NOMENCLATURE OF FAUNA LISTED IN THE APPENDICES OF THE CMS AND CITES

*(Prepared jointly by the two Secretariats of CMS and CITES)*

#### Introduction

1. The focus of implementation of both CMS and CITES are species, whose scientific names appear in the appendices of the respective convention texts. A common understanding of what specimens are referred to when using a particular scientific name and which name to use, is essential to the successful implementation of these international agreement. Whilst taxonomic studies are evolving rapidly, partly as a result of new DNA-based techniques, it is essential that the biodiversity-related multilateral environmental agreements operate on the basis of some stability in the use of names, in particular because implementing legislation which uses these names is often not easily changed.
2. Work aimed at determining the correspondence between taxa listed in CMS and CITES appendices was started in early 2000 within the framework of the establishment of the CMS Information Management System. Action in this regard was included also in the Joint work Programme between the CMS and CITES Secretariats for the period 2005-2007.
3. At their 14th Conference of the Parties (The Hague, June 2007), the Parties to the CITES noted 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.
4. Subsequently this objective was endorsed at the 2nd meeting of Chairs of the Scientific Advisory Bodies of Biodiversity-related Conventions (CSAB, Bonn, May 2008) and noted by the 6th meeting of the Liaison Group of the Biodiversity-related Conventions (BLG, Bonn, May 2008) on the basis of a report from the CMS Secretariat.
5. CMS and CITES, the two major global conventions with focus on species conservation, are well placed to take a lead in this exercise. This objective is therefore included in the draft CITES/CMS List of Joint Activities proposed for adoption at the 34th meeting of the CMS Standing Committee on 30 November (Document CMS/StC34/3). The case for such harmonizing is made more compelling by the fact that of the 110 CMS parties, only 4 are not also members of CITES (one of these being the special case of the European Union).

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## Current situation

6. Both CMS and CITES have approached the issue of correct interpretation of scientific names by adopting standard nomenclatural references. These have been adopted by the respective conferences of the parties as follows:

### CMS:

Recommendation 6.1 on Standardised Nomenclature for the CMS Appendices adopted at the 6th Conference of the Parties (Cape Town, November 1999).

### CITES

Resolution Conf. 12.11 (Rev. CoP14) on Standard nomenclature adopted at 14th meeting of the Conference of the Parties (The Hague, June 2007). < <http://www.cites.org/eng/res/12/12-11R14.shtml> >.

7. The differences between the nomenclatural references adopted by the respective conventions for species which are included in the appendices of both conventions is shown in Table 1. At its 14<sup>th</sup> meeting (Bonn, March 2007) the CMS Scientific Council confirmed that Rice, D.W. (1998) *Marine mammals of the world. Systematics and distribution*. Special Publication of the Society for Marine Mammalogy 4, 231 pp. would remain the reference for marine mammals for the orders Cetacea and Sirenia, and the Carnivora families Phocidae, Odobenidae and Otariidae, while for other mammal groups 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) would be adopted. However, this proposal has yet to be adopted by the CMS Conference of the Parties.

8. Some of the practical implications of these adoptions in terms of different species names is shown in Table 2.

Table 1: Comparison of selected nomenclatural references adopted by CMS and CITES.

	CMS	CITES
Mammals	<p>Terrestrial mammals Wilson, D.E. and Reeder, D.M. (1993) <i>Mammal species of the world. A taxonomic and geographic reference</i>. 2nd ed. Smithsonian Institution Press, Washington, D. C</p> <p>Marine mammals Rice, D.W. (1998) <i>Marine mammals of the world. Systematics and distribution</i>. Special Publication of the Society for Marine Mammalogy 4, 231 pp. [for the orders Cetacea and Sirenia, and the Canivora families Phocidae, Odobenidae and Otariidae</p>	<p>Wilson, D. E. &amp; Reeder, D. M. (ed.) (2005): <i>Mammal Species of the World. A Taxonomic and Geographic Reference</i>. 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): <i>Bos gaurus</i>, <i>Bos mutus</i>, <i>Bubalus arnee</i>, <i>Equus africanus</i>, <i>Equus przewalskii</i>, <i>Ovis orientalis ophion</i>; and with the exception of the species mentioned below]</p> <p>Wilson, D. E. &amp; Reeder, D. M. (1993): <i>Mammal Species of the World: a Taxonomic and Geographic Reference</i>. Second edition. xviii + 1207 pp., Washington (Smithsonian Institution Press). [for <i>Loxodonta africana</i> and <i>Ovis vignei</i>].</p>

	CMS	CITES
Birds	<p>Morony, J.J, Bock, W.J. and Farrand, J. (1975) <i>Reference List of the Birds of the World</i>. Department of Ornithology, American Museum of Natural History, New York. [for taxonomy and nomenclature at the level of orders and families].</p> <p>Sibley, C.G. and Monroe, B.L. (1990) <i>Distribution and taxonomy of birds of the world</i>. Yale University Press, New Haven; and</p> <p>Sibley, C.G. and Monroe, B.L. (1993) <i>A supplement to Distribution and taxonomy of birds of the world</i>. Yale University Press, New Haven. [for taxonomy and nomenclature at the level of genera and species].</p>	<p>Morony, J. J., Bock, W. J. &amp; Farrand, J., Jr. (1975): <a href="#">Reference List of the Birds of the World</a>. American Museum of Natural History. 207 pp. [for order- and family-level names for birds]</p> <p>Dickinson, E.C. (ed.)(2003): <i>The Howard and Moore Complete Checklist of the Birds of the World</i>. Revised and enlarged 3rd Edition. 1039 pp. London (Christopher Helm).</p> <p>Dickinson, E.C. (2005): <a href="#">Corrigenda 4 (02.06.2005) to Howard &amp; Moore Edition 3 (2003)</a> [for all bird species – except for the taxa mentioned below]</p> <p>Collar, N. J. (1997) <i>Family Psittacidae (Parrots)</i>. In del Hoyo, J., Elliot, A. and Sargatal, J. (eds.), <i>Handbook of the Birds of the World</i>, 4 (Sandgrouse to Cuckoos): 280-477. Barcelona (Lynx Edicions). [for <i>Psittacus intermedia</i> and <i>Trichoglossus haematodus</i>].</p>
Turtles	Eckert, K.L., Bjorndal, K.A., Abreu-Grobois, F.A. and Donnelly, M. (Eds) (1999). <i>Research and management techniques for the conservation of sea turtles</i> . IUCN/SSC Marine Turtle Specialist Group Publication No.4.	Fritz, U. & Havaš, P. (2006): <a href="#">CITES Checklist of Chelonians of the World</a> [for Testudines for species and family names – with the exception of the retention of the following names <i>Mauremys iversoni</i> , <i>Mauremys pritchardi</i> , <i>Ocadia glyphistoma</i> , <i>Ocadia philippeni</i> , <i>Sacalia pseudocellata</i> ]
Crocodilians		Wermuth, H. & Mertens, R. (1996) (reprint): <i>Schildkröte, Krokodile, Brückenechsen</i> . xvii + 506 pp. Jena (Gustav Fischer Verlag).
Fish	Eschmeyer, W.N. (1990). <i>Catalogue of the Genera of Recent Fishes</i> . California Academy of Sciences, San Francisco, California.	Eschmeier, W. N. (1998): <i>Catalog of Fishes</i> . 3 vols. California Academy of Sciences.

Table 2: Some examples of practical differences at the species level between the names used by CMS and CITES.

CMS nomenclature	CITES nomenclature	Remarks
<b>Mammals</b>		
<i>Gorilla gorilla</i>	<i>Gorilla gorilla</i> and <i>Gorilla beringei</i>	Eastern/Mountain Gorilla considered a separate species ( <i>Gorilla beringei</i> ) from Western Gorilla by CITES.
<i>Physeter macrocephalus</i>	<i>Physeter catodon</i>	Sperm whale given different name.
<i>Platanista gangetica gangetica</i>	<i>Platanista gangetica</i>	Ganges River Dolphin given different name
<i>Bos grunniens</i>	<i>Bos mutus</i>	Excludes the domesticated form, which is referenced as <i>Bos grunniens</i> – wild forma are called <i>Bos mutus</i> .
<i>Gazella dama</i>	<i>Nanger dama</i>	Dama gazelle given different name.
<i>Saiga tatarica tatarica</i>	<i>Saiga tatarica</i>	Steppe Saiga, <i>Saiga tatarica tatarica</i> under CMS, given full species status under CITES
<b>Birds*</b>		
<i>Diomedea albatrus</i>	<i>Phoebastria albatrus</i>	Short-tailed albatross given different name.
<i>Brotogeris pyrrhopterus</i>	<i>Brotogeris pyrrhoptera</i>	Grey-cheeked Parakeet given different name.
<i>Agelaius flavus</i>	<i>Xanthopsar flavus</i>	Saffron-cowled Blackbird given different name.
<i>Phoenicopterus andinus</i>	<i>Phoenicoparrus andinus</i>	Andean Flamingo given different name.
<i>Phoenicopterus jamesi</i>	<i>Phoenicoparrus jamesi</i>	Puna flamingo given a different name

\* significant other disparities are expected amongst the taxa listed at higher taxonomic levels by the respective conventions e.g. Anatidae, Falconidae and Accipitridae.

9. Assuming that the Scientific Council's recommendation to adopt 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) as the CMS standardised nomenclature for non-marine mammals is agreed by the CMS Conference of the Parties, the remaining principle differences between the species names used by the two conventions are the treatment of African elephants *Loxodonta africana*, marine mammals and birds.

10. Given the long history of treating African elephants as one species and the potential practical difficulties in separating products such as ivory, when proposing Wilson and Reeder (2005) for adoption, the CITES Nomenclature Committee decided not to include the splitting of this taxon into two species: *L. africana* and *L. cyclotis*. Similarly in order to facilitate the orderly implementation of the CITES in relation to a complicated taxonomic situation, the Committee proposed maintaining the old and more conservative nomenclature for the Urial sheep *Ovis vignei*. For birds, it was noted that despite considerable advanced in understanding of bird taxonomy, the previous CITES standard nomenclatural reference (Sibley, C. G. and Monroe, B. L., Jr. 1990. *Distribution and Taxonomy of Birds of the World* and its 1993 Supplement) was not likely to be updated in the coming years and consequently it was proposed to use Dickinson, E.C.

(ed) (2003) which was thoroughly referenced, up to date. Further explanations for the selection of the standard references adopted by CITES can be found in documents CoP14 Doc. 8.5 (<http://www.cites.org/eng/cop/14/doc/E14-08-5.pdf>), NC2005 Summary Record ([http://www.cites.org/eng/com/NC/2005/E-NC2005-Sum\\_record.pdf](http://www.cites.org/eng/com/NC/2005/E-NC2005-Sum_record.pdf)) and NC2006 (fauna) Doc. 4.1 (<http://www.cites.org/common/com/NC/2006/E-NC2006-Fa-04-01.pdf>) and NC2006 (fauna) Doc. 9 (<http://www.cites.org/common/com/NC/2006/E-NC2006-Fa-09.pdf>).

11. In terms of managing species data for CMS and CITES, it is clear that UNEP-WCMC have a key role to play as they are the platform for both the CMS Information Management System species database <http://www.unep-wcmc.org/isdb/cms/Taxonomy/index.cfm> and the CITES Species Database <http://www.cites.org/eng/resources/species.html>. If the two conventions could agree on a more harmonized use of nomenclature, there is scope for these two systems to be linked which could provide better coherence and perhaps cost-savings for the Parties.

**Action requested:**

The Scientific Council is invited to:

- a. Comment on the situation summarized in this document.
- b. Expand on its rationale for retaining Rice, D.W. (1998) Marine mammals of the world. Systematics and distribution. Special Publication of the Society for Marine Mammalogy 4 as the CMS standard nomenclature for marine mammals of the Orders Cetacea and Sirenia, and the Canivora families Phocidae, Odobenidae and Otariidae.
- c. Consider, in recognition of the conclusions of the CITES Nomenclature Committee, later adopted by the CITES Conference of the Parties, the implications of adopting Dickinson, E.C. (ed.)(2003): The Howard and Moore Complete Checklist of the Birds of the World. Revised and enlarged 3rd Edition. London (Christopher Helm) together the author's [Corrigenda 4 \(02.06.2005\) to Howard & Moore Edition 3 \(2003\)](#), as the Convention's standard nomenclature for birds.
- d. Consider the usefulness of linkages and harmonisation between CMS and CITES species databases.