



Fourth Meeting of the Chairs of Scientific Advisory Bodies of the Biodiversity-related Conventions (CSAB)  
Gland (Switzerland) 13 February 2011

## HARMONIZATION OF SPECIES NOMENCLATURE AND TAXONOMY WITH OTHER MULTILATERAL ENVIRONMENTAL AGREEMENTS

1. This document has been prepared by the Chairs of the CITES and CMS scientific advisory bodies.

### Background

2. Article 2 of the Convention on Biological Diversity states *inter alia* that biological diversity means the variability among living organisms including diversity within species, between species and of ecosystems. Whilst the text of both CMS and CITES make it clear that they can act with respect to geographically separate populations of animals (or plants) or lower taxonomic units, as the title of the conventions indicate, they mainly act at the level of species. Species are often the 'currency' of efforts to conserve and sustainable use biological diversity. However, although scientific rigour is increasing being applied, the definition of what constitutes an individual species is often rather subjective.
3. International efforts to take coherent action to conserve and sustainably use of biodiversity at the species level can be significantly handicapped if there is no common understanding of what animals or plants a particular species name refers to. Changes of understanding about what animals or plants are included under a particular species name, use of different names for the same species and frequent changes of name, present particular challenges for activities such as the implementation of conventions which require legislative action. These problems are especially acute for developing countries where resource to follow all such changes may be limited.
4. At the second meeting of the Chairs of the Scientific Advisory Bodies of Biodiversity-related Conventions (CSAB-2, Bonn, May 2008). The CSAB expressed its support for the idea of moving towards harmonization of nomenclature and taxonomy in lists of species used by the biodiversity-related conventions.
5. The major global convention whose provisions contain lists of species are CITES and CMS. Since CSAB-2, and in line with a programme of joint activities approved for their Secretariats by the respective Standing Committees, CITES and CMS have been taking practical steps to harmonize the nomenclature and taxonomy in lists of species they cover. Whilst there is a natural tendency to try and reflect the most up-to-date understanding of species nomenclature and taxonomy, the scientific advisory bodies of CITES and CMS understand that such an approach would make the implementation of the conventions unworkable. A balance needs to be struck in their advisory work between following the latest understanding of species delimitation, phylogeny and nomenclature and maintaining a relatively stable architecture under which conservation efforts can be conducted.
6. Parties to CMS and CITES have adopted standard nomenclatural references which should be used in the implementation of the conventions. The references currently adopted by each of the conventions are shown in the Annex to the present document. Prompted by recommendations from their scientific advisory bodies, a series of decisions by the respective governing bodies of CITES and CMS have resulted in the two conventions now using the same nomenclature and taxonomy for mammal species, based primarily on the reference Wilson & Reeder (2005) *Mammal Species of the World. A Taxonomic and Geographic Reference*. The scientific advisory bodies are now actively working on the question of bird nomenclature and taxonomy and it is hoped that progress with harmonization with regard to these species can be made at the 10th CMS Conference of the Parties, to be held in Bergen, Norway in November 2011.
7. Members of the CSAB are invited to take note of this progress in implementing the agreement of CSAB-2 harmonization of nomenclature and taxonomy in lists of species used by the biodiversity-related conventions.

	CMS	CITES
Mammals	<p>Wilson, D.E. and Reeder, D.M. (1993) Mammal species of the world. A taxonomic and geographic reference. 2nd ed. Smithsonian Institution Press, Washington, D. C</p> <p>Rice, D.W. (1998) Marine mammals of the world. Systematics and distribution. 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>Beasley, I., Robertson, K. M. &amp; Arnold, P. W. (2005): Description of a new dolphin, the Australian Snubfin Dolphin, <i>Orcaella heinsohni</i> sp. n. (Cetacea, Delphinidae). -- <i>Marine Mammal Science</i>, 21(3): 365-400. [for <i>Orcaella heinsohni</i>]</p> <p>Caballero, s., Trujillo, F., Vianna, J. A., Barrios-Garrido, H., Montiel, M. G., Beltrán-Pedrerros, S. Marmontel, M., Santos, M. C., Rossi-Santos, M. R., Santos, F. R. &amp; Baker, C. S. (2007). Taxonomic status of the genus <i>Sotalia</i>: species level ranking for "tucuxi" (<i>Sotalia fluviatilis</i>) and "costero" (<i>Sotalia guianensis</i>) dolphins. <i>Marine Mammal Science</i> 23: 358-386 [for <i>Sotalia fluviatilis</i> and <i>Sotalia guianensis</i>]</p> <p>Merker, S. &amp; Groves, C. P. (2006): <i>Tarsius lariang</i>: A new primate species from Western Central Sulawesi. – <i>International Journal of Primatology</i>, 27(2): 465-485. [for <i>Tarsius lariang</i>]</p> <p>Rice, D. W., 1998: <i>Marine Mammals of the World: Systematics and Distribution</i>, Society of Marine Mammalogy Special Publication Number 4, The Society for Marine Mammalogy, Lawrence, Kansas [for <i>Physeter macrocephalus</i> and <i>Platanista gangetica</i>]</p> <p>Wada, S., Oishi, M. &amp; Yamada, T. K. (2003): A newly discovered species of living baleen whales. – <i>Nature</i>, 426: 278-281. [for <i>Balaenoptera omurai</i>]</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>, <i>Puma concolor</i>, <i>Lama guanicoe</i> and <i>Ovis vignei</i>]</p>

Birds	<p>Morony, J.J, Bock, W.J. and Farrand, J. (1975) Reference List of the Birds of the World. 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) Distribution and taxonomy of birds of the world. Yale University Press, New Haven; and</p> <p>Sibley, C.G. and Monroe, B.L. (1993) A supplement to Distribution and taxonomy of birds of the world. 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). [for all bird species – except for the taxa mentioned below]</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>Arndt, T. (2008): Anmerkungen zu einigen <i>Pyrrhura</i>-Formen mit der Beschreibung einer neuen Art und zweier neuer Unterarten. – <i>Papageien</i>, 8: 278-286. [for <i>Pyrrhura parvifrons</i>]</p> <p>Collar, N. J. (1997) Family Psittacidae (Parrots). In del Hoyo, J., Elliot, A. AND Sargatal, J. (eds.), <i>Handbook of the Birds of the World, 4 (Sandgrouse to Cuckoos)</i>: 280-477. Barcelona (Lynx Edicions). [for <i>Psittacula intermedia</i> and <i>Trichoglossus haematodus</i>]</p> <p>Collar, N. J. (2006): A partial revision of the Asian babblers (Timaliidae). – <i>Forktail</i>, 22: 85-112. [for <i>Garrulax taewanus</i>]</p> <p>Cortés-Diago, A., Ortega, L. A., Mazariegos-Hurtado, L. &amp; Weller, A.-A. (2007): A new species of <i>Eriocnemis</i> (Trochilidae) from southwest Colombia. -- <i>Ornitologia Neotropical</i>, 18: 161-170. [for <i>Eriocnemis isabellae</i>]</p> <p>da Silva, J. M. C., Coelho, G. &amp; Gonzaga, P. (2002): Discovered on the brink of extinction: a new species of pygmy owl (Strigidae: <i>Glaucidium</i>) from Atlantic forest of northeastern Brazil. – <i>Ararajuba</i>, 10(2): 123-130. [for <i>Glaucidium mooreorum</i>]</p> <p>Gaban-Lima, R., Raposo, M. A. &amp; Hofling, E. (2002): Description of a new species of <i>Pionopsitta</i> (Aves: Psittacidae) endemic to Brazil. – <i>Auk</i>, 119: 815-819. [for <i>Pionopsitta aurantiocephala</i>]</p> <p>Indrawan, M. &amp; Somadikarta, S. (2004): A new hawk-owl from the Togian Islands, Gulf of Tomini, central Sulawesi, Indonesia. -- <i>Bulletin of the British Ornithologists' Club</i>, 124: 160-171. [for <i>Ninox burhani</i>]</p> <p>Nemesio, A. &amp; Rasmussen, C. (2009): The</p>
-------	---	---

		<p>rediscovery of Buffon's "Guarouba" or "Perriche jaune": two senior synonyms of <i>Aratinga pinto</i> SILVEIRA, LIMA &amp; HÖFLING, 2005 (Aves: Psittaciformes). – <i>Zootaxa</i>, 2013: 1-16. [for <i>Aratinga maculata</i>]</p> <p>Parry, S. J., Clark, W. S. &amp; Prakash, V. (2002) On the taxonomic status of the Indian Spotted Eagle <i>Aquila hastata</i>. – <i>Ibis</i>, 144: 665-675. [for <i>Aquila hastata</i>]</p> <p>Roselaar, C. S. &amp; Michels, J. P. (2004): Nomenclatural chaos untangled, resulting in the naming of the formally undescribed <i>Cacatua</i> species from the Tanimbar Islands, Indonesia (Psittaciformes: Cacatuidae). -- <i>Zoologische Verhandelingen</i>, 350: 183-196. [for <i>Cacatua goffiniana</i>]</p> <p>Warakagoda, D. H. &amp; Rasmussen, P. C. (2004): A new species of scops-owl from Sri Lanka. – <i>Bulletin of the British Ornithologists' Club</i>, 124(2): 85-105. [for <i>Otus thilohoffmanni</i>]</p> <p>Whittaker, A. (2002): A new species of forest-falcon (Falconidae: <i>Micrastur</i>) from southeastern Amazonia and the Atlantic rainforests of Brazil. – <i>Wilson Bulletin</i>, 114: 421-445. [for <i>Micrastur mintoni</i>]</p>
Marine turtles	Eckert, K.L., Bjorndal, K.A., Abreu-Grobois, F.A. and Donnelly, M. (Eds) (1999). Research and management techniques for the conservation of sea turtles. IUCN/SSC Marine Turtle Specialist Group Publication No.4.	Fritz, U. & Havaš, P. (2007): Checklist of Chelonians of the World. – <i>Vertebrate Zoology</i> , 57(2): 149-368. Dresden. ISSN 1864-5755 [without its appendix; 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> ]
Crocodylians	-	Wermuth, H. & Mertens, R. (1996) (reprint): Schildkröte, Krokodile, Brückenechsen. xvii + 506 pp. Jena (Gustav Fischer Verlag).
Fish	Eschmeyer, W.N. (1990). Catalogue of the Genera of Recent Fishes. California Academy of Sciences, San Francisco, California.	Eschmeier, W. N. (1998): Catalog of Fishes. 3 vols. California Academy of Sciences.