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

Seventeenth meeting of the Conference of the Parties
Johannesburg (South Africa), 24 September - 5 October 2016

Species specific matters

Maintenance of the Appendices

Standard nomenclature

STANDARD NOMENCLATURE FOR HIPPOCAMPUS SPP.

1. This document has been submitted by Australia.*

2. Following the decision made at the 26th meeting of the Animals Committee to adopt the 'Catalog of Fishes' extract as nomenclature standard reference for all fish species (excluding *Hippocampus*), Australia has noted a number of inconsistencies. These exist between CITES *Hippocampus* species listed in the species database as "recognised" and species contained in the accepted nomenclature references listed under "Elasmobranchii and Actinopterygii" in the "Annex – List of standard references adopted by the Conference of the Parties" in Resolution Conf. 12.11 (Rev CoP15)

   It is proposed the Parties consider the revised nomenclature currently in use for *Hippocampus* species in Australia, and adopt the following species into the CITES Appendices and the Checklist of CITES Species.

   Hippocampus dahli
   Hippocampus planifrons

   These two species are described in the taxonomic paper 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*]. This revision is recognised by CITES, and the above species are recognised as valid by several other accepted references as outlined below. These species are officially recognised in Australia.

   Relevant details of these morphologically distinct species follow:

H. dahli

- Considered valid by Kuiter (2001), Paxton *et al*. (2006), Kuiter (2009), Johnson (2010), Larson *et al*. (2013), Eschmeyer, Fricke & van der Laan (2016) (Catalog of Fishes) and in the recent revision by Lourie *et al.* (2016).
- Known only from Australia.

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* *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

H. planifrons

- Considered valid by Paulus (1999), Kuiter (2001), Hutchins (2001), Paxton *et al*. (2006), Kuiter (2009), Eschmeyer, Fricke & van der Laan (2016) and Lourie *et al.* (2016).
- Known only from Australia as *H. biocellatus*; Lourie *et al*. (2016) subsumes *H. biocellatus* as a junior synonym.
- IUCN supports *H. planifrons* as a valid species name, and notes that it should replace *H. biocellatus* on the CITES list of species.
- Dr Glenn Moore, Curator of Fishes at the Western Australian Museum notes the distinct morphological differences between specimens of *H. biocellatus* (34 specimens including Kuiter's type series) and *H. planifrons* (10 specimens) in the museum collection.

3. Eschmeyer, Fricke & van der Laan in their Catalog of Fishes (last updated March 31 2016) treat the two species as valid ones; WoRMS and Fishbase do not, basing their evaluation on the relatively old publication of Lourie, Vincent & Hall (1999).

4. The two species are identifiable by morphological means using the illustrated diagnostic key in Kuiter (2001) and in addition, photographic images of the species are available in Kuiter (2009).

5. The two species are only known from Australian waters. An adoption of the requested change in taxonomy and nomenclature would therefore mainly be relevant for Australian implementation.

6. In addition, Australia is listed as a range state for *Hippocampus trimaculatus.* Both Kuiter (2001) and the recent revision by Lourie *et al.* (2016) note that this species is not found in Australia.

7. Australia had intended to propose to remove from the Checklist of CITES Species the reference to Australia being a range state for *H. kelloggi* and *H. spinosissimus*, however we note that Lourie *et al.* (2016) does not support this. There are inconsistencies between this source and Kuiter (2001) and further work is warranted. This may be addressed in a future complete review of reference for the genus *Hippocampus* by the Animals Committee.

Recommendations

8. It is proposed Parties accept *H. dahli* and *H. planifrons* referred to above under point 2 as distinct species under CITES as per the existing nomenclature reference, Kuiter (2001), currently listed in the fish section under "Elasmobranchii and Actinopterygii" in the "Annex - List of standard references adopted by the Conference of the Parties" in Resolution. Conf. 12.11 (Rev CoP15).

9. It is also proposed to remove from the Checklist of CITES Species the reference to Australia being a range state for *H. trimaculatus* listed under point 6 above.

References

Chang CH, Shao KT, Lin YS, Liao YC. 2013. The complete mitochondrial genome of the three-spot seahorse, *Hippocampus trimaculatus* (Teleostei, Syngnathidae). *Mitochondrial DNA* 24(6): 665-667.

Eschmeyer, W.N., Fricke, R. & van der Laan, R. (ed). Catalog of fishes: genera, species, references. Online Version, Updated 31 March 2016 (http://research.calacademy.org/research/ichthyology/catalog/fishcatmain.asp).

Hutchins, J.B. 2001. Checklist of the fishes of Western Australia. *Records of the Western Australian Museum, Supplement* 63: 9-50.

Johnson, J.W. 2010. Fishes of the Moreton Bay Marine Park and adjacent continental shelf waters, Queensland, Australia. pp. 299-353 *in* Davie, P.J.F. & Phillips, J.A. Proceedings of the Thirteenth International Marine Biological Workshop, The Marine Fauna and Flora of Moreton Bay. *Memoirs of the Queensland Museum* **54**(3)

Kuiter, R.H. 2001. Revision of the Australian seahorses of the genus *Hippocampus* (Syngnathiformes: Syngnathidae) with descriptions of nine new species. *Records of the Australian Museum* **53**: 293-340.

Kuiter, R.H. 2009. *Seahorses and their relatives*. Seaford, Australia : Aquatic Photographics 331 pp.

Larson, H.K., Williams, R.S. & Hammer, M.P. 2013. An annotated checklist of the fishes of the Northern Territory, Australia. *Zootaxa* **3696**(1): 1-293.

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. 214 pp.

Lourie, S.A., Pollom, R.A. and Foster S.J. 2016. A global revision of the Seahorses Hippocampus Rafinesque 1810 (Actinopterygii: Sygnathiformes): Taxonomy and biogeography with recommendations for further research. *Zootaxa* **4146**(1): 1-066.

Paulus, T. 1999. Family Syngnathidae. pp. 2264-2276 *in* Carpenter, K.E. & Niem, T.H. (eds). *The Living Marine Resources of the Western Central Pacific. FAO Species Identification Guide for Fisheries Purposes*. Rome : FAO Vol. 4 2069-2790 pp.

Paxton, J.R., Gates, J.E., Hoese, D.F. & Bray, D.J. 2006. Syngnathidae. pp. 810-846 *in* Beesley, P.L. & Wells, A. (eds). *Zoological Catalogue of Australia*. *Volume 35* Australia : ABRS & CSIRO Publishing Parts 1-3, 2178 pp.

COMMENTS FROM THE SECRETARIAT

The Secretariat notes the submission of this document and draws attention to document CoP17 Doc. 81.1 on Standard nomenclature, which, in paragraph 9, summarizes the history of the ongoing discussion on the appropriate nomenclature for *Hippocampus* spp. It appears to the Secretariat that the proposal presents a pragmatic way forward that could conclude this debate. It recommends however that the Conference of the Parties seek the advice, at its current meeting, of the specialist on zoological nomenclature of the Animals Committee on this matter.