

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



Thirty-second meeting of the Animals Committee
Geneva (Switzerland), 19 – 23 June 2023

Appendices of the Convention

Nomenclature matters

REPORT OF THE SPECIALIST ON ZOOLOGICAL NOMENCLATURE

1. This document has been submitted by the specialist on zoological nomenclature of the Animals Committee, with assistance from the Secretariat.*

Nomenclatural tasks referred to the Animals Committee at the 19th meeting of the Conference of the Parties (CoP19, Panama City, November 2022)

Decisions 18.309, 18.310 (Rev. CoP19), 18.311 and 18.312 (Rev. CoP19) on the Use of time-specific versions of online-databases as standard nomenclature references

2. At the 19th meeting of the Conference of the Parties, the Parties renewed Decisions 18.309 and 18.311 directed to the Secretariat, and revised Decisions 18.310 and 18.312 directed to the Animals Committee, as follows:

Directed to the Secretariat

18.309

The Secretariat shall:

- a) *continue to engage copyright-holders of relevant online-databases that might serve as standard nomenclature references and explore the possible use of time-specific versions for CITES services; for example, relevant databases include but are not limited to WoRMS, Fish Base, ESCHMEYER & FRICKE's Catalog of Fishes, Amphibian Species of the World, and Corals of the World as standard references;*
- b) *report the results of its consultations to the Animals Committee.*

Directed to the Animals Committee

18.310 (Rev. CoP19) *The Animals Committee shall:*

- a) *evaluate the results of the Secretariat's consultation;*

* *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.*

- b) *develop recommendations on the use of time-specific online-databases as standard nomenclature references for decision by the Conference of the Parties at its 20th meeting.*

Directed to the Secretariat

18.311 *The Secretariat shall:*

- a) *seek, if possible, a time-specific version of the WoRMS database; and*
- b) *report on progress to the Animals Committee.*

Directed to the Animals Committee

18.312 (Rev. CoP19) *The Animals Committee shall:*

- a) *consider the report of the Secretariat and proceed towards recommending for adoption of a standard nomenclature reference for CITES-listed corals;*
- b) *update its list of coral taxa for which identification to genus level is acceptable, but which should be identified to species level where feasible, once a new standard nomenclature reference for CITES-listed coral species has been identified and provide the updated list to the Secretariat for dissemination; and*
- c) *report with recommendations to the 20th meeting of the Conference of the Parties.*

3. Progress towards implementation of these Decisions was reported in documents AC31 Doc. 37 paragraphs 5-8, AC31 Doc. 37 Addendum paragraph 10, AC31 Com. 4, SC74 Doc. 6 paragraphs 6-7, and CoP19 Doc. 84.1 paragraphs 22-28.
4. The use of the API system that is available to update species lists in a virtual manner has been reviewed by the Standing Committee's working group on *electronic systems and information technologies*. Their various experiences and uses with this API system allowed the group to make recommendations to the United Nations Environment Programme-World Conservation Monitoring Centre (UNEP-WCMC) in order improve the current system. It appears that this process is adequately covered by the applicable mandate of the Standing Committee's working group and needs no explicit reference in an updated Resolution Conf. 12.11 on *Standard nomenclature*.
5. The Secretariat will provide an oral update on progress towards implementation of Decisions 18.309 and 18.311 at the 32nd meeting of the Animals Committee.

Decision 19.276 on *Taxonomy and nomenclature of African elephants (Loxodonta spp.)*

6. At the 19th meeting of the Conference of the Parties, the Parties adopted Decision 19.276 directed to the Animals Committee, as follows:

Directed to the Animals Committee

19.276 *The Animals Committee shall:*

- a) *in consultation with the IUCN African Elephant Specialist Group, review the taxonomic-nomenclatural history of African elephant *Loxodonta africana* in CITES and the nomenclature that reflects accepted use in biology, at its 32nd meeting; and*
- b) *if appropriate, make a recommendation on adopting a new standard nomenclature reference for African elephants, for decision at the 20th meeting of the Conference of the Parties.*

7. Throughout most of the 20th century, African elephants were considered to represent a single species, *Loxodonta africana* (Blumenbach 1797), and have been included in the CITES Appendices as such since

1976. The Forest Elephant was at times recognised as a separate subspecies, *Loxodonta africana cyclotis*. Over time, with increasing taxonomic resolution, this led to recommendations by taxonomists that the Forest Elephant warrants recognition at species rank, i.e. *Loxodonta cyclotis* (Matschie 1900). This recommendation was accepted by Wilson and Reeder (2005, page 91¹) who listed *cyclotis* as a separate species from *africana*, noting in their comments that the question of rank had not been resolved. Multiple subsequent taxonomic and population genetic studies have expressed support for the recognition of two elephant species native to Africa. Further impetus for the recognition of *cyclotis* at species rank was provided in 2021 by the IUCN's African Elephant Specialist Group's preparation of separate Red List assessments of Savanna Elephants² and Forest Elephants³ at species rank.

8. Genetic analysis of elephants of different African populations have demonstrated that the two elephant taxa in the great majority of situations maintain their separate identity; among the more than 100 localities examined across the forest-savanna ecotone where both taxa potentially come into contact, hybrids were detected in only 14 instances (Mondol *et al.*, 2015⁴).
9. As currently understood, Forest Elephants (*Loxodonta cyclotis*) occur in Central and West Africa, while Savanna Elephants (*L. africana*) occur in Central, East and Southern Africa. Hybridisation between the two taxa has been documented in West, Central and adjoining East Africa. Based on Mondol *et al.* (2015) and the IUCN Red List assessments, the individual countries of occurrence are:

Loxodonta africana (Savannah Elephant) – **Extant (resident)**: Angola; Botswana; Cameroon; Central African Republic; Chad; Congo, The Democratic Republic of the; Eritrea; Ethiopia; Kenya; Malawi; Mali; Mozambique; Namibia; Nigeria; Rwanda; Somalia; South Africa; South Sudan; Tanzania, United Republic of; Uganda; Zambia; Zimbabwe. **Extant (passage)**: Burkina Faso. **Extant (reintroduced, resident)**: Eswatini. **Extinct**: Burundi; Mauritania.

Loxodonta cyclotis (Forest Elephant) – **Extant (resident)**: Angola; Benin; Burkina Faso; Cameroon; Central African Republic; Congo; Congo, The Democratic Republic of the; Côte d'Ivoire; Equatorial Guinea; Gabon; Ghana; Guinea; Guinea-Bissau; Liberia; Niger; Nigeria; Rwanda; Senegal; Sierra Leone; South Sudan; Togo. **Extinct**: Gambia.

Hybrid individuals have been detected by molecular methods in Mali; in the border region of Benin with Burkina Faso; in the Central African Republic; and in the border regions of the Democratic Republic of the Congo with Rwanda, Uganda, and possibly South Sudan.

Thus, the Parties with native resident or migrating elephant populations of both species are Angola, Burkina Faso, Cameroon, Central African Republic, the Democratic Republic of the Congo, Nigeria, Rwanda, and possibly South Sudan. It is appropriate to note that none of the Parties whose elephant populations are in Appendix II at present, i.e. Botswana, Namibia, South Africa and Zimbabwe, have records of Forest Elephants or hybrid elephants; all these countries' native elephants are Savanna Elephants, *Loxodonta africana*.

10. CITES Parties have previously expressed objections to the recognition of two separate species of African Elephants, most recently when discussing the adoption of Wilson & Reeder (2005) as nomenclature standard reference for CITES-listed mammals at CoP14 (The Hague, 2007). As summarised in document CoP14 Doc.8.5 paragraph 12, the Parties at that time decided to treat *cyclotis* as a subspecies of *africana*, noting that many questions remain to be answered, and retained the then-prevailing standard reference for African elephants (Wilson & Reeder 1993⁵). Recognising that many of these questions have been answered in the 15 years since CoP14, aware that the Convention on Migratory Species (CMS) has recognised *L. cyclotis* as a distinct separate species since adopting Wilson & Reeder (2005) at its CoP9 in 2008, noting the progressive acceptance of the two-species taxonomy in the scientific community, and acknowledging that the perceived inertia of CITES to update its elephant nomenclature has been criticised in academic

¹ Wilson, D.E., & Reeder, D.M. 2005. *Mammal Species of the World – a taxonomic and geographic reference. Third edition, 2 volumes.* Johns Hopkins University Press, Baltimore. ISBN 0-8018-8221-4.

² <https://www.iucnredlist.org/species/181008073/223031019>

³ <https://www.iucnredlist.org/species/181007989/204404464>

⁴ Mondol *et al.*, 2015, *Molecular Ecology* Vol. 24, 6134–6147, doi: 10.1111/mec.13472

⁵ 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).

circles⁶, a re-evaluation of how CITES lists African Elephants in its Appendices is warranted. The complexity of international trade in African elephants and their parts, and the extensive suite of Resolutions and Decisions governing this trade, mean that such a re-evaluation far exceeds the scope of a simple nomenclatural change mandated under Resolution 12.11 (rev. CoP19), and Decisions 19.275 and 19.277 task the Secretariat and the Standing Committee, respectively, with evaluating and advising on this matter.

11. Should the results of these evaluations convince the Parties to adopt recognition of two species of elephant native to Africa, consideration would need to be given to updating the standard nomenclature reference for these elephants. A number of options present themselves for this:
 - a) The Wilson & Reeder 1993 standard reference for *Loxodonta africana* can simply be deleted in the Annex of Resolution Conf. 12.11 (Rev. CoP19) (page 7 of the Annex). This would result in the standard reference for most mammals, Wilson & Reeder 2005 (which recognises the two taxa at species rank), also applying to the African elephants. A minor drawback is that the distribution range of the two species is not clearly specified in Wilson & Reeder 2005; this can however be addressed by an explicit listing of range countries in the SpeciesPlus database, based on Mondol *et al.* (2015), the two Red List assessments, and further information.
 - b) Alternatively, the Parties may prefer to replace the Reeder & Wilson 1993 reference with a more recent publication as standard reference for African elephants, which could be the Mondol *et al.* (2015) article which has the benefit of including a clear and largely complete distribution map showing forest, savanna and hybrid elephant occurrences, an extract from the *Handbook of Mammals of the World*⁷, which is already used for other CITES-listed mammal species, or another publication.
12. The Animals Committee is invited to consider the scientific merit of CITES recognition of two species of African Elephants, and, as appropriate, recommend the retention or an appropriate replacement nomenclature standard reference for these animals.

Decision 19.278 on Nomenclature for bird family and order names

13. At the 19th meeting of the Conference of the Parties, the Parties adopted Decision 19.278 directed to the Animals Committee, as follows:

Directed to the Animals Committee

19.278

The Animals Committee shall:

- a) *evaluate the implications of adopting the HBW/BI Illustrated Checklist of the Birds of the World as the new standard nomenclature reference for birds at the species, family and order levels, including the production of a listing of supplementary nomenclatural standard references that may be needed; and*
 - b) *develop a recommendation for decision at the 20th meeting of the Conference of the Parties.*
14. At its 31st meeting, the Animals Committee reached a decision in principle to recommend adoption of the HBW/BI *Illustrated Checklist of the Birds of the World* as the new standard nomenclature reference for birds at the species, family and order levels. However, time was insufficient to fully evaluate and resolve nomenclatural issues and concerns that might result from such adoption, and the Animals Committee decided to delay a recommendation to the Conference of the Parties, and instead consider the matter further at AC32 and AC33.
 15. The nomenclature changes inherent in updating the CITES adopted nomenclature for birds up until CoP17 compared to the HBW/BI *Illustrated Checklist of the Birds of the World* (and the 4th edition of the *Howard & Moore Complete Checklist of the birds of the World*) were presented in Annex 5 of document CoP18 Doc. 99. However, changes in bird nomenclature were adopted at both CoP18 and CoP19, and an updated assessment is needed to tabulate the resulting changes between CITES-adopted bird nomenclature to date and the HBW/BI *Illustrated Checklist of the Birds of the World*. The nomenclature specialist for fauna

⁶ For example, Zeng *et al.*, 2019, *Conservation Biology*, doi: 10.1111/cobi.13395.

⁷ Wilson, D.E., & Mittermeier, R.A. (eds.), *Handbook of the Mammals of the World. Vol.2. Hoofed Mammals [pages 76-78]. Lynx Edicions, Barcelona. ISBN 978-84-96553-77-4.*

gratefully acknowledges the offer made by Birdlife International to assist in preparing such an update, and anticipates presenting a full analysis for consideration at the 33rd meeting of the Animals Committee.

16. Of particular significance is that the editors of the HBW/BI *Illustrated Checklist of the Birds of the World* prepare an annual cumulative update of bird taxonomy and nomenclature, based on taxonomic research published in the preceding year. Recognizing that the two printed volumes of the *Illustrated Checklist* date from 2014 and 2016, respectively, it may be worthwhile for the CITES Parties to adopt one of the Annual updates as a supplementary reference to update the names used. The perspectives of the Animals Committee are invited on whether the adoption of such an update would be desirable, and if so, up until what year would represent the appropriate balance of nomenclatural stability and currently accepted usage in the scientific community.

Updates to Standard Nomenclature under Resolution 12.11 (Rev. CoP19) following CoP19

17. To keep up with advancing insights into the taxonomy and nomenclature of CITES-listed animal species, and to adequately cover species included in the Appendices following adoption at the meetings of the Conference of the Parties, updates are needed to the list of standard nomenclature references adopted in the Annex to Resolution Conf. 12.11 (Rev. CoP19) on *Standard Nomenclature*. The following are suggestions for the Animals Committee to consider for possible recommendation to the next meeting of the Conference of the Parties.

18. Preparation of Checklists

One of the ongoing tasks of the nomenclature specialists is to prepare checklists for groups of CITES-listed species for which no comprehensive published checklists in the form of books or peer-reviewed journal articles are available. Such checklists have in recent years been prepared as compiled extracts from online databases, such as those for reptiles, amphibians, spiders and marine organisms. Reflecting their diverse origins and different computer applications used to process extracted information into checklists for CITES, these checklists are quite different in formatting and page count per taxon. Moreover, suggestions have been made how such checklists could perhaps be more clear and user-friendly. Some of the considerations that have been raised include:

- Should a checklist be limited to the CITES-listed group (specific species, or higher taxa and their included species), or should a checklist preferably provide context by also listing the nearest related (higher) taxa and their included species?
- If non-listed species are included for context, should they be treated in similar detail as CITES-listed species (e.g., including full synonymies and distribution ranges), or can they be listed in a more abbreviated format (e.g., just a list of currently-valid species and higher taxa)? Alternatively, should CITES-listed species be identified as such, e.g. by highlighting in a table of contents – noting that such highlighting of CITES-listed species may become incorrect when species are included or deleted from the Appendices at a later meeting of the Conference of the Parties.
- What degree of detail and comprehensive ness is desired, and how much editing and formatting for consistency, if any, is desirable?

The proposed checklist for lizard species of the genus *Phrynosoma*, Annex 1 to this document, provides an example of the amount of information that can be included in checklists prepared as extracts from online databases, but also illustrates the large size that such checklists can grow to.

19. Reptilia: higher taxa

Currently, the higher taxonomy (families and orders) of Sauria follows Pough et al. (1998)⁸, while higher taxonomy for snakes follows McDiarmid et al. (1999); the higher taxonomies presented in these references have become outdated, and an update of the overall phylogenetic taxonomy of the squamate reptiles is warranted. However, to date no single comprehensive higher taxonomic arrangement of the squamates has been brought to the attention of the Animals Committee, and further consideration is needed.

⁸ For brevity, references listed in the Annex of Resolution Conf 12.11 (Rev. CoP19) are not repeated here.

20. Reptilia: Sauria: Family Iguanidae

At present, six separate standard references cover the lizards of the family Iguanidae, plus one more for species of the genus *Phrynosoma* which was previously included in the Iguanidae but is now placed in its own family, Phrynosomatidae. For consideration by the Animals Committee is to replace these six separate references with the 2016 Checklist⁹ by the Iguana Taxonomy Working Group (which is already the adopted standard reference for the genus *Ctenosaura*), possibly augmented with the 2019 Supplement¹⁰ (which recognizes the placement of *Ctenosaura alfredschmidti* and *C. defensor* in the resurrected genus *Cachryx*) and the 2022 Supplement¹¹ (which resurrects *Ctenosaura brachylopha*, and recognises three additional subspecies of *Iguana iguana* while rejecting species rank for *insularis* or *melanoderma*). Further taxonomic changes for species of Iguanidae have very recently been proposed in print, and warrant further consideration.

21. Reptilia: Sauria: Family Phrynosomatidae

Before CoP19, three species of the lizard genus *Phrynosoma* were included in the CITES Appendices; at CoP19 the entire genus was included and an updated nomenclature standard reference is warranted. Annex 1 to this document is an extract from the Reptile Database of the species of *Phrynosoma* recognised as of 20 April 2023, which matches the taxonomy, nomenclature and species boundaries used in Proposal CoP19 Prop. 18. As noted in the Proposal, the species *Phrynosoma wigginsi*, which was listed in Appendix II until CoP19, is now considered a synonym of *Phrynosoma cerroense*.

At 76 pages this checklist, which includes detailed synonymies, full references, and photos for most species, and a simple list of all species currently recognised as valid and placed in the family Phrynosomatidae, but without distribution maps, represents the more detailed extreme of the gradient of possible completeness of checklists that can be prepared from online database extracts, as noted in paragraph 18, above.

22. Reptilia: Order Testudines

Since the adoption of Fritz & Havas (2007) as the primary standard reference for turtles and tortoises, taxonomic and nomenclatural progress has necessitated the adoption of 14 supplementary references. Inclusion of additional species in the Appendices at CoP19 involved taxa currently considered as valid species but not treated as such in the Fritz & Havas (2007) Checklist, including *Chelus orinocensis*, *Sternotherus intermedius* and *S. peltifer*, and several *Kinosternon* species. The Animals Committee may wish to consider whether to resolve these issues by the adoption of additional supplementary references for these cases, or to completely replace all current nomenclature references for Testudines with adoption of the 2021 Turtle Taxonomy Working Group checklist, or parts thereof, or perhaps an updated version (anticipated to be published later in 2023).

23. Amphibians, Fishes and Marine Invertebrates

With several of the standard nomenclature references for amphibian species dating from several years ago (e.g., Dendrobatidae spp.), and the inclusion of large groups of amphibians (e.g., Centrolenellidae spp.), as well as species and groups with complicated taxonomic and nomenclatural histories (e.g., *Agalychnis* spp and *Agalychnis lemur*), the preparation of a comprehensively updated extract from the Amphibian Database is warranted. Similarly, an updated checklist of CITES-listed fishes including the diversity of cartilaginous and bony fishes included at recent CoPs and by Parties into Appendix III, and an updated checklist for listed Sea Cucumbers and other marine invertebrates, are desirable.

To his regret the nomenclature specialist (Fauna) has not been able to prepare such checklists and the necessary accompanying analyses summarising any changes that may emerge in the preparation of updated checklists. Such checklists and analyses may be made available for consideration at a date closer to the 32nd meeting of the Animals Committee, or for its 33rd meeting.

⁹ Iguana Taxonomy Working Group. 2016. A checklist of the iguanas of the world (Iguanidae; Iguaninae). Pp. 4–46 In *Iguanas: Biology, Systematics, and Conservation*. Iverson, J.B., T.D. Grant, C.R. Knapp, and S.A. Pasachnik (Eds.). *Herpetological Conservation and Biology* 11 (Monograph 6). http://www.herpconbio.org/Volume_11/Monograph_6/2-Iguana_Taxonomy_Working_Group_2016.pdf

¹⁰ http://www.iucn-isg.org/wp-content/uploads/2019/05/ITWG_Checklist_2019_Supplement.pdf

¹¹ https://www.iucn-isg.org/wp-content/uploads/2022/05/ITWG_Checklist_2022_Supplement.pdf

24. Miscellaneous changes to taxonomy and nomenclature of CITES-listed animal species.

Changes continue to be proposed to the taxonomy and nomenclature of CITES-listed animal taxa, including new species recognition (split-offs from known species, and/or new discoveries), synonymisations, rank changes (between species and subspecies), genus transfers, and name corrections. Annex 2 tabulates taxonomic and nomenclatural changes that have come to the attention of the Animals Committee, as well as cases that remained undecided at AC31. Many of these cases were compiled by UNEP-WCMC as part of work funded by the European Commission and generously made available to CITES. The Animals Committee, possibly through the establishment of an inter-sessional Nomenclature Working Group, is invited to review these proposed changes and at AC33 formulate a set of recommendations for adoption at CoP20.

Corrections to the Appendices resulting from adopted Nomenclature

25. The Channel-billed Toucan, *Ramphastos (vitellinus) citreolaemus*.

In the course of background nomenclatural consultations between Parties and the nomenclature specialist of the Animals Committee, the case emerged whether the toucan taxon with the name *citreolaemus* is included in CITES Appendix II.

The original intent of proposals 48-49¹² to CoP8 (Kyoto, 1992) was to include the genera *Ramphastos* and *Pteroglossus* in Appendix II, including all species assigned to those genera in 1992. The taxon *citreolaemus* is explicitly listed as a species included in the genus *Ramphastos*, and therefore part of the intended listing of the genus. However, the Summary Record of CoP8¹³ on page 28 reports that the scope of the genus proposal for *Ramphastos* was reduced to include only the species *R. sulfuratus*, *R. toco*, *R. tucanus* and *R. vitellinus*. As *citreolaemus* was at the time considered a separate species, the species was not included at CoP8.

The currently adopted nomenclatural standard reference for birds is Howard & Moore 3rd Edition (2003), which on page 303 lists *citreolaemus* as a subspecies of *Ramphastos vitellinus*, i.e. *Ramphastos vitellinus citreolaemus*. Based on accepted CITES nomenclatural practices, this means that *citreolaemus* is currently part of the Appendix II listing of *Ramphastos vitellinus*.

The adoption of Howard & Moore 3rd edition occurred at CoP14 in 2007 (CoP14 Doc.8.5, para 10), following discussion of its implications at the 2006 meeting of the Nomenclature Committee. The working document¹⁴ for the 2006 Nomenclature Meeting's discussion of the matter did not refer to changes in toucan nomenclature resulting from this adoption, and apparently it was not raised in working group discussion based on the NC2006 Summary Record¹⁵. All available information indicated that the taxonomic rank change, from full species *Ramphastos citreolaemus* at the time of discussion of the listing proposal in 1992, to subspecies of the listed species *R. vitellinus* in the 2003 Howard & Moore standard reference, was not noticed in the deliberations and reviews leading up to the Parties' adoption of an updated bird standard nomenclature reference at CoP14.

Thus it appears that the taxon *citreolaemus* was not part of the original inclusion of the four *Ramphastos* species in Appendix II at CoP8. It was subsequently included in the Appendices at CoP14 by the adoption of an updated Standard Reference for birds, which effected a broader definition of the listed species *R. vitellinus* that included the taxon *citreolaemus* as a subspecies, and therefore implicitly included *citreolaemus* in Appendix II. The Decisions of the Parties to adopt the Howard & Moore 3rd Edition standard reference, without explicit reference to subspecies status under *R. vitellinus*, appears to have 'accidentally' included the taxon *citreolaemus* in Appendix II. It therefore seems appropriate to exclude the taxon from listing as part of the nomenclatural 'housekeeping', which would be done by restricting the listing in Appendix II to the specific taxon included at CoP8, which is currently treated as the nominal subspecies *Ramphastos vitellinus vitellinus* in the adopted standard reference for bird species.

¹² https://cites.org/sites/default/files/eng/cop/08/prop/E08-Prop-48_49_Pteroglossus.PDF

¹³ <https://cites.org/sites/default/files/eng/cop/08/E-Plen.pdf>

¹⁴ <https://cites.org/sites/default/files/common/com/nc/2006/E-NC2006-Fa-04-01.pdf>

¹⁵ <https://cites.org/sites/default/files/eng/com/nc/2006/E-NC2006-Summary-Record.pdf>

Conclusion

26. The nomenclature specialist of the Animals Committee wishes to thank the colleagues at the Secretariat, the members of the Animals, Plants, and Standing Committees, and representatives of Parties and observer organisations for their support, assistance, and bringing matters of CITES nomenclatural interest to our attention. Particular gratitude goes to the European Commission for their willingness to share the findings of work that UNEP-WCMC carried out for the Commission.

Recommendations

27. The Animals Committee is invited to:

- a) consider the matters raised in paragraphs 2-5 and the report of the Secretariat, and advise about possible ways forward to address the use of online databases as standard nomenclature references;
- b) consider the scientific merit of CITES recognition of two species of African elephants, and, as appropriate, recommend the retention or an appropriate replacement nomenclature standard reference for these animals;
- c) consider further the implications of adopting the HBW/BI *Illustrated Checklist of the Birds of the World*, and in particular whether the adoption of one of the subsequent annual updates would be desirable, and if so, up until what year;
- d) provide guidance for the preparation of future checklists based on extracts from online databases;
- e) consider the draft checklists proposed for the lizard family Iguanidae in paragraph 20 and for the genus *Phrynosoma* in Annex 1 to this document;
- f) review the nomenclatural changes summarised in Annex 2 and Annex 3 for possible adoption at the next meeting of the Conference of the Parties;
- g) consider the establishment of an intersessional nomenclature working group to, inter alia, review possible changes in nomenclature ahead of AC33; and
- h) consider the deletion of *Ramphastos vitellinus citreolaemus* from Appendix II, by reducing the scope of the listing of *R. vitellinus* in Appendix II to *Ramphastos vitellinus vitellinus* only.