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18th MEETING OF THE SCIENTIFIC COUNCIL

Bonn, Germany, 1-3 July 2014

Agenda Item 9.1

REPORT OF THE AD-HOC MEETING ON HARMONIZATION OF BIRD TAXONOMY

(Formia, Italy, 8 October 2013)

Agenda Item 1: Opening of the Session

1. Mr. Fernando Spina (Chair, CMS Scientific Council) opened the Meeting, explaining the rationale and mandate for holding it. He set out the aims of the Meeting and then invited the participants to introduce themselves. A list of those people attending the meeting can be found at Annex 1.

Agenda Item 2: Background presentations and questions

2. Mr. Spina (Chair) introduced Ms. Laura Aguado (Secretariat).

a. Review of the CMS harmonization process to date

3. Ms. Aguado (Secretariat) gave a presentation explaining developments so far. She explained the process of harmonization of species nomenclature among Multilateral Environmental Agreements (MEAs) that started back in 2008. The harmonization of nomenclature aimed at increasing integration, reducing duplication and a greater sharing of information between biodiversity-related multilateral environmental agreements.

4. CMS was also in the process of updating its databases and was seeking to ensure maximum compatibility with the InforMEA initiative, on which it would be advantageous to use the same nomenclature as other participating MEAs. However, taxonomic nomenclature was a dynamic subject and a degree of flexibility was required.

5. The question had been posed at COP9 in 2008 as to the consequences of adopting a new nomenclature reference for birds (Recommendation 9.4 on Standardized Nomenclature for the CMS Appendices). An analysis had been undertaken and the results presented to the Scientific Council in 2010 (UNEP/CMS/ScC16/Doc.16). A CMS Intersessional Working Group on Taxonomy and Nomenclature of Birds had then been established to consider the complicated issues that had emerged. The conclusions of the Working Group were set out in Annex I of the meeting documents (UNEP/CMS/ScS17/Doc.8) and the views of the AEWA Technical Committee in Annex II.

6. Resolution 10.13 adopted at COP10, the text of which appeared as Annex III in the Meeting Documents, included decisions to follow the taxonomic references used by the Agreement on the Conservation of Albatrosses and Petrels (ACAP) for the birds covered by that instrument, to adopt the rules devised by Mr. Pierre Devillers for the treatment of species in the case of aggregation or splitting and to work together with Chairs of the Scientific Advisory Bodies of the Biodiversity-related Conventions, the Secretariats of relevant MEAs, and relevant international organizations including IUCN, BirdLife International, Wetlands International and UNEP-WCMC, with the aim of evaluating the possible adoption of a single nomenclature and taxonomy for birds. The Scientific Council was to be informed of progress at its 18th meeting and an appropriate Resolution was foreseen to be tabled at COP11.

7. The analysis requested by Recommendation 9.4 was carried out by the CMS Secretariat to ascertain the differences between the various references, namely the two CMS current references (Morony et al, 1975 and Sibley & Monroe 1990 plus Corrigenda, 1993), the suggested one, i.e. Dickinson (2003 plus Corrigenda 2005) and Wetlands International.

8. The analysis identified different cases of changes: different names and synonyms, more subspecies included in a given species, species splitting and different hierarchy which by modifying the order of taxa would change the number of species covered by CMS Appendices.

9. Currently CMS used a number of references; it followed the taxonomy used by ACAP with regard to albatrosses and large petrels, Morony, Bock and Farrand (1975) for Orders and Families and Sibley and Monroe (1990) and (1993) for Genera and Species. A number of options had been proposed: Dickinson, and Remsen (eds) (2013) and (In press) BirdLife International (2013), the International Ornithologists' Union IOC World Bird List (formerly IOC World Bird Names) - Gill F & D Donsker (Eds) (2013). The desired outcome of the meeting was for a firm option to be formulated to be put forward with regard to harmonization. David Morgan (CITES) suggested that a prerequisite would be to have a full analysis of the current state of affairs.

b. AEWA perspective

10. Mr. Sergey Dereliev (AEWA) presented the position adopted by the Technical Committee of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds. A dimension sometimes overlooked when the question of harmonization among MEAs was discussed was the need also to harmonize within the CMS Family, especially AEWA which dealt with a large number of bird species.

11. The proposal (UNEP/CMS/ScC17/Doc.8) put to the 17th CMS Scientific Council immediately prior to COP10 recommended by the Intersessional Working Group created was not consistent with the advice of the AEWA Technical Committee and it proved impossible to reach agreement on the general taxonomy of birds (other than albatrosses and petrels) to be followed. From AEWA's point of view following the BirdLife taxonomy would be most advantageous, as it was the basis for the IUCN Red List to which the AEWA Annex 3 was linked. The Triennial Conservation Status review undertaken by AEWA also relied on the interlinked databases of Wetlands International and BirdLife International, so there would be considerable time and financial implications if AEWA were to follow other taxonomic references.

12. Mr. Davidson (Deputy Secretary General, Ramsar Convention) mentioned Criterion 6 for the designation of sites under Ramsar and the support provided to EU Member States with regard to Natura 2000 sites designated for waterbirds.

13. Mr. Szabolcs Nagy (Wetlands International) said that Wetlands International had changed its policy on publishing its Waterbird Population Estimates and would no longer be producing a printed version after the 5th edition but would produce electronic versions, and there would be automatic alignment of the Wetlands International taxonomy with that used by BirdLife International. The decision had been taken in light of the experience of working on the “Wings over Wetlands” project and the associated Critical Sites Network Tool.

14. In common with CMS and CITES, the species listings under AEWA could be changed without the need to re-ratify the instrument. A species listed as threatened on the IUCN Red list of Threatened Species, as reported in the most recent summary by BirdLife International qualifies for inclusion in Column A of the Agreement’s Action Plan, meaning Parties have to accord it the strictest protection.

c. Ramsar perspective

15. Mr. Davidson said that there were no specific references to bird species in the text of the Convention itself, nor were there any decisions by the Parties to adopt taxonomic references. There were criteria related to species by which an area would qualify for designation as Ramsar sites (Criterion 6 by which a wetland should be considered internationally important if it regularly supports 1 per cent of the individuals in a population of one species or subspecies of waterbird, and Criterion 9 relating to non-avian species).

16. The recent COP (Bucharest, July, 2012) agreed to a revision of the information sheets making them more streamlined for inputting data. Ramsar was also moving towards online reporting for which a standard taxonomic reference would be helpful; the Secretariat might recommend a reference but it would be for the Conference to adopt one.

d. CITES perspective

17. Mr. Morgan (Chief, Scientific Services Team, CITES) said that taxonomy and nomenclature was not just of academic interest but had practical, legal implications, and as the Convention was dealing with species and certification of trade, it was important that all Parties used the same nomenclature. The Convention also has a rigorous compliance procedure under which the legislation of each party was examined, with one of the checks being that national laws used the right names. It was therefore possible that all Parties might have to amend their legislation to ensure that their permits and certificates were still in compliance as a result of changes agreed at COP.

18. Over many years, CITES had developed a database with UNEP-WCMC, in which most of the 35,000 species covered by the Convention were now properly listed. The CITES Annexes needed to be maintained and the Animals and Plants Committees reported to the COP on which nomenclatural changes were required. Each Committee had a specialist on taxonomy and in the case of the Animals Committee this was Ms. Ute Grimm.

19. While CITES Parties recognized the need for harmonization among the MEAs, they were rather conservative in their approach and opposed rapid change, in part because a degree of stability was desirable regarding law enforcement as customs officers and other enforcement agents had to familiarize themselves with the nomenclature. The scientists preferred greater speed in accepting changes.

20. CITES listings did not automatically follow the IUCN Red List and CITES had its own criteria for including species on its Annexes. Parties were required to amend their implementing legislation after each COP to synchronize their listings to the Convention's Annexes or risk having their permits and certificates no longer recognized.

21. Mr. Davidson saw the merits of being flexible and the need for stability at least in the medium term. The thresholds used by Ramsar were not changed very frequently, while scientific progress, particularly regarding the use of DNA, was continuing apace, sometimes leading to a single species being reclassified as five. Mr. Morgan said that where a species was split, it was more likely that the new species would qualify for listing under CITES. In taxonomic reclassifications, splits were more common than mergers.

22. Mr. Barry Baker (CMS Appointed Councillor for Bycatch) said that taxonomy was a science, and that the problems caused to customs officers should be secondary. Mr Davidson agreed but pointed out that the science had practical applications and striking the right balance was important.

23. Mr. Nagy sought clarification about the use by CITES of a standard reference, and whether and how often exceptions arose as a result of the scientific deliberations. Mr Morgan said that on occasions the COP did not accept the Animal Committee's advice, but progress had been made in filling gaps in standard nomenclature; the problems surrounding corals had recently been solved.

24. With regard to subspecies, some were listed in their own right, but on the whole, CITES tended to list at the species level.

e. Standard nomenclatural references for birds: status and comparison

25. Mr. Leon Bennun (CMS Appointed Councillor for Birds) presented a document including a table with a comparative interpretation of the main features of the three standard nomenclature references being considered (Howard and Moore, the BirdLife International taxonomic list of birds of the world and the International Ornithological Congress World Bird List). Mr Bennun felt that it was for each of the MEAs to decide which taxonomic reference was appropriate for them to use, but the BirdLife taxonomy was the one used for the IUCN Red List.

26. All three options were credible and CMS could also continue its current practice of using a different reference for certain groups (as with the albatrosses and petrels). Of the three, the IOC reference was probably the most problematic, as it was essentially a "wiki" building upon amateur input and the primary aim of which was to establishing agreed common names in English; it was however flexible and had a useful list of synonyms, but was undated and pragmatic, not based on a consistent approach.

27. The 4th edition of Howard and Moore (Dickinson & Remsen 2013) the successor publication to Dickinson 2003) adopted a scientific and academic approach and was composed through decisions of a board of members. It was a printed publication, the first volume had been published in 2013 and the second volume was due for release in 2014. It was rather conservative, using traditional methods based on literature and cautious regarding genetics. Different approaches with regard to splitting and merging were adopted for the Old and New World and it did not provide many synonyms. CITES had adopted the old edition but no decision would be taken about whether to adopt the latest edition until Volume II was published.

28. Hitherto the BirdLife International taxonomy has drawn on lists from various sources for its taxonomy, leading to unequal treatment of species limits across the world, and with a reactive approach to new suggestions for splitting or lumping species.

29. Now, however, BirdLife was engaged on a comprehensive taxonomic review, applying the criteria for recognizing species limits set out by Tobias et al. (2010). This involved a scoring system based on morphology and voice, but not genetic information. The aim was to have a consistent and defensible taxonomy to underpin the IUCN Red List, where assessments were usually made at the species level.

30. This work was part of a collaboration between BirdLife International and Lynx Edicions (publishers of the Handbook of the Birds of the World Series) to produce a 2-volume *Illustrated Checklist of the Birds of the World*. The first volume for Non-passerines is due to be published in spring 2014 and volume 2 for Passerines is expected in 2016. In the checklist each species will have detailed information on the distribution of each subspecies, a map, illustration (from HBW), and detailed taxonomic notes.

31. The BirdLife International list is maintained by a BirdLife Taxonomic Working Group, which brings in additional expertise where needed (e.g., on bird voices). The small size of the Working Group helps ensure consistency but does not allow the wider participation of e.g., the IOC approach.

32. Application of the Tobias et al. criteria meant that for non-passerines the BirdLife International list contained 350 more species than Howard and Moore and 150 more than the International Ornithological Congress. Since the last review many species had been split and a few merged, meaning overall there were 40 additional waterbird species and four extra raptors. The BirdLife taxonomy for albatrosses and large petrels would continue to follow ACAP. Indications were that the passerines would see more splitting especially in the Old World. Mr Bennun's advice was that if CMS wanted a conservative approach then Howard and Moore was the best choice; however the BirdLife taxonomy had the advantage of being the one used by IUCN and would correspond to the Red List. As it was unlikely that there would be a perfect choice, a compromise could be to use elements of each reference, for example to ensure consistency with the IUCN Red List where appropriate for particular CMS instruments.

33. Mr. Morgan relayed some questions from Ute Grimm concerning the geographic consistency of Howard and Moore Edition III. Mr Bennun said that more effort seemed to be devoted to splitting New World species. Mr Morgan also asked what the practical differences would be between the third and fourth editions, as Ms. Grimm was to prepare a paper comparing the two editions and making a recommendation to the CITES COP. Mr. Dereliev said that the paper containing the comparative table presented by Ms. Aguado provided much of the information sought by Ms Grimm and that delays were inevitable given the later than expected publication of the Fourth Edition of Howard and Moore.

34. Mr. Spina asked whether BirdLife International would be keeping to the same strategy in future years. Mr. Bennun explained that the current thorough, systematic review based on transparent criteria was anticipated to lead to a more stable taxonomic list than hitherto, but that BirdLife International would institute an ongoing open and transparent process for reviewing potential revisions, with a periodic four-yearly synthesis. Mr. Davidson said that having all data dated was important to Ramsar, to help ensure that listings of species for particular sites were comparable. Mr. Nagy agreed saying that the same issue would arise

with AEWA; the Fourth Edition of Howard and Moore included 44 species with synonyms and a number where the genus was different. It would be important to have an electronic database operating in the background.

35. Mr. Dereliev read an e-mail sent from Nick Williams of the Raptors MoU Coordinating Unit. Annex I to the Raptors MoU, the List of African-Eurasian Migratory Birds of Prey species was based on the BirdLife International taxonomy as this was the one used by the IUCN for the Red List. The Coordinating Unit worked closely with BirdLife International which was a member of the MoU's Technical Advisory Group and provided links to a global network of partners.

MEAs and Information Management

36. Mr. Jon Hutton (Director, UNEP-WCMC) gave a presentation on the role of UNEP-WCMC in the management of information for MEAs.

37. CITES had a large number of Parties engaging in trade in listed species and the level of trade needed to be monitored to help inform the Convention's decision making processes. A number of databases existed; one for plants had been developed by Kew Gardens and several existed for animals and one dealt with significant trade. Currently, visitors to the CITES website were directed to the WCMC site. The idea was to bring all the data together and link to EU trade information and the CITES identification guide in a project known as "Species +". Merging all the data would take a considerable amount of time and money and the aim was to complete the work within twelve months.

38. Mr. Hutton then demonstrated the pilot system which already had links to CITES and CMS data. It was not yet linked to the IUCN Red List, but the system was being designed to facilitate the incorporation of further listings. The CMS and CITES listings were entered separately but synonyms had been tagged, and the taxonomic history had been included. Mr Davidson said that it would be important to keep track of such changes and assigning the correct parts of the data to newly classified species after taxonomic splitting.

39. Summarizing the discussion of this agenda item, the Chair said there were a number of taxonomic references that could be used and one major consideration was whether to link to the IUCN Red List. The various MEAs had their reasons for using particular references and even within the CMS Family different ones were being used. A number of external factors and wider initiatives might have a bearing on the final decision on which direction to take.

Agenda Item 3: Discussion: criteria for CMS standard taxonomic references

40. The Chair reiterated that this was an advisory group whose task was to produce recommendations for the full 18th meeting of the CMS Scientific Council scheduled to take place in mid-2014. The Scientific Council in turn would consider the issues and present its views to the 11th Conference of the Parties, for the Parties to take a final decision.

41. The Chair's initial thoughts were that as conservation instruments, the members of the CMS Family had an interest in the IUCN Red List criteria; many existing CMS instruments had direct links to the IUCN Red List through the BirdLife International taxonomy. Having a single taxonomic reference used by all MEAs linking to the Red List would seem logical, particularly given the collaborative work among the Conventions. Mr. Davidson concurred, but sought confirmation that there was no good reason to retain the existing references for other species.

42. Mr. Morgan commented that the IUCN had a rather variable approach with the treatment of birds apparently more systematic than for other taxa. Mr. Baker asked why it was so important to have a uniform taxonomic reference. He recalled that when he was working for the Australian Government, he had little difficulty adapting to the different references used by various MEAs, and often these were not the references preferred by the national agencies. Ms. Aguado suggested that for Australia the plethora of taxonomic references might pose less of a problem than for less well-resourced administrations and Mr Nagy commented that the situation was typical for systems that had evolved organically over years reached a tipping point where a major tidying-up exercise was necessary. With the critical mass achieved by the IUCN Red List (which also enjoyed status under CBD) Parties and other MEAs might apply pressure on the IUCN to become more systematic. As a longer-term goal, he suggested that streamlining and harmonizing around the IUCN listings would be worthwhile. Ms Aguado said that the option of adopting different references for different groups rather than a single universal reference should not be ruled out as CMS already used a particular group of references for the ACAP species. Mr. Morgan confirmed that CITES did not have a single standard nomenclatural reference for each higher taxonomic classification; but normally had a base reference, with some exceptions to it in adopted supplementary references. The CITES Secretariat did have a mandate to examine where difference occurred and how to bridge any gaps. Mr. Davidson thinking of the difficulties Parties had with interpretation and implementation felt that a single reference would be ideal, or failing that a system with a few clearly explained exceptions. In the longer term, Mr. Bennun suggested that Species+ might provide the “one-stop shop”. Mr. Baker reiterated his fear that the reaction was excessive, and all that was needed was a list of synonyms where terminology employed in the references used by the MEAs differed.

43. The Chair sought to clarify the different approaches to taxonomy within the CMS Family, noting that the different species groups under the IUCN did not adopt a uniform approach. Mr. Dereliev explained that the concept behind the listing for CMS and AEWA were different. While AEWA attempted to deal with all waterbirds within the regions it covered, CMS was less comprehensive in its listings. Mr. Bennun added that while there was no mention of the IUCN listing in the CMS text, in practice there was often a link. It was normally the case that the citation prepared when a Party proposed to add a species to the Appendices, the IUCN Red List status was mentioned. It was also suggested that as CMS dealt with species conservation and CITES dealt with trade, there was less need for harmonization between them than among the instruments of the CMS Family.

44. It was suggested that CMS should follow its daughter agreements and establish a formal link to the IUCN listings. Mr. Nagy said that the IUCN Red List was well established, stable and conservative. The Chair agreed that establishing such an anchor would settle the issue, but wanted more robust arguments for the Scientific Council to make the case to the Parties.

45. It would be for the COP to decide which reference (or references) to adopt and to set a timeframe for reviewing and if necessary revising the taxonomy. This might be on a three-year or a six-year cycle. This period would need to be synchronized with the procedure for review foreseen by BirdLife International and Lynx Edicions.

46. In his experience of dealing with changes of taxonomy and nomenclature affecting CITES listings, Mr. Morgan said that Parties tended to concentrate on the practical implications and left the scientific considerations to the Animals and Plants Committees. For CMS the most important question might be the extent to which the Appendices would change

under a new reference. If the changes were major, then Parties might be reluctant to make the change; if they were minor, Parties would only have to decide how to adapt.

47. For CMS it was proving too complicated to use one reference for higher levels of taxon and another for lower levels, especially as one of the references was now rather old. A simpler approach was needed. Mr. Morgan added that it was difficult even to find a copy of the *Reference List of the Birds of the World* by Morony et al. (1975). Mr Bennun said that Ramsar used censuses carried out at regular intervals. The impediment of the cost of reprinting had been avoided by adopting e-publishing. Ramsar now used the latest census estimates, with the caveat that the 1 per cent threshold should be used unless there had been significant changes; guidance might be required on the definition of “significant”. CMS Parties’ main concern would be the effect on the Appendices, with the number of species listed on Appendix II being several hundred, including some covered by listing at Family level. Another complication of the listing by higher taxon was that not all members of the families were migratory and it was therefore not clear which species should be considered to be included. The practice of listing at levels higher than species had been discontinued, and Mr Baker suggested undertaking a study on how to eliminate all such entries on CMS Appendix II. Parties could be forewarned that the intention was to clarify these entries and proposals and thus individual species covered by them, identified as migratory could be tabled. Ms Aguado said that the listings of AEWA, the Raptors MoU and the African-Eurasian Migratory Landbirds Action Plan could provide eligible species. Mr. Baker cited a problematic example in Australia where the White-breasted Sea Eagle (*Haliaeetus leucogaster*), which was not migratory but its listing on Appendix II as part of the Accipitridae/Falconidae family triggered a number of environmental protection provisions. He suggested holding an informal meeting in the margins to consider the way ahead. Mr Bennun added that BirdLife International listed species and with regard to families, the most troublesome in terms of taxonomy would be the Muscicapidae due to the large number of species covered.

48. Mr. Heredia clarified that the CMS Secretariat could not introduce any changes to the Appendices and it was only the Parties to CMS the ones that could make proposals for additions, following the procedure foreseen by the Convention for amendments of the Appendices. It was then highlighted that any potential change would be considered as a clarification of the species already listed on the Appendices under family levels and not an addition of new species.

49. Mr. Bennun said that it would be very useful to do an initial analysis of the implications for the CMS Appendices and CITES Annexes of the new BirdLife International listing, which would be relevant for AEWA and the Raptors MoU as well. The non-passerine list was in a close to final state. Mr. Nagy asked whether there were particular families where changes in taxonomic treatment were greater; the 2012 list had 82 changes highlighted. Mr Bennun thought that this figure was probably rather low and that there would certainly be more for the non-passerines. The review of passerines was due to be published in 2016 (the current 5.1 version was a preliminary draft). There were more passerine species and initial indications were that they would be subject to a greater number of changes; however there were relatively few of them listed by CMS and CITES.

50. Mr. Morgan said that ideally CITES would need to have the new list by 27 February 2014 in advance of the Animals Committee. A golden rule operated by CITES was that the final decision on listing rested with the COP and no changes in nomenclatural reference should add or remove specimens of species from coverage by the Convention. It was agreed that it was important to respect the Parties’ original intentions, but sometimes it was difficult

to know how to interpret them. Mr. Bennun said that he did not have the staff available to prepare comparative lists. The Chair suggested that this work could be divided among those present and Mr. Baker volunteered to review the albatross and petrel species. Mr. Bennun was unaware of any proposals from BirdLife International's side to make any changes to this group, but did not rule out proposals emanating from ACAP.

51. Mr. Nagy pointed out that CMS and BirdLife International had different definitions of "migratory". While Birdlife International followed the criteria for "biological migration" under CMS a crucial element was for a species to cross national frontiers, while species that undertook seasonal journeys within a single country were not considered migratory. Gorillas, for example, qualified as migratory under the Convention but are not considered migratory from a more biological point of view.

52. Mr. Bennun agreed that, subject to consultation with Lynx Edicions, he could arrange for the provisional list of non-passerine species to be provided to the CMS Family and CITES, on the understanding that confidentiality would be respected.

Agenda Item 4: Possible options for harmonization and next steps

53. The Chair declared that he was content with the progress achieved so far.

54. BirdLife would help expedite consideration of the issue by providing the provisional list of species in its revised taxonomy. The non-passerine species would be checked first, and a paper would be required for the next meeting of the Scientific Council. If the Convention were to adopt the BirdLife taxonomy in full, it would have to recognize that the passerine species listing would possibly be subject to additional changes when the revised version was published in 2016. It was expected that generally the longer list of non-passerines on the Appendices would include relatively few changes, while the shorter passerine list might be subject to greater revision. It was agreed that Ms. Aguado would circulate draft terms of reference for approval and adoption to ensure that all those reviewing species groups used the same methodology.

55. Mr. Baker asked about the arrangements for preparing a paper for the next meeting of the Scientific Council on the elimination of listings at family level.

Taxonomy Meeting Action Points

- Mr. Leon Bennun to provide the provisional list of non-passerine species to be included in the forthcoming published revision of BirdLife International (2014) to CMS and CITES¹
- CITES would undertake analysis of the implications for its Annexes, should the changes be adopted
- CMS, AEWA, Raptors MoU and Wetlands International to share the task of assessing the implications of changes related to the species groups relevant to each of them
- Ms. Laura Aguado to draft ToR to ensure work is done consistently and circulate them for approval

¹ The 21 February 2014 BirdLife supplied an analysis of its new taxonomic list for non-passerines vis-à-vis the CMS and CITES appendices.

- Assessments of the changes were to be prepared in time for the CMS ScC in mid-2014 and by the document deadline for the CITES Animals Committee (February 2014)
- CMS ScC in 2014 to guide the deliberations and to make recommendations for COP to consider and adopt taxonomic references
- Barry Baker to prepare a paper for CMS ScC on the question of eliminating listings at the family level in CMS Appendix II asking Parties to prepare individual listing proposals for species covered, given that many species within the listed families were sedentary.

Agenda Item 5: AOB and Closure of the session

56. As there were no items of “any other business”, the Chair declared the meeting closed after expressing thanks to all those who had assisted with its organization and execution.

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Annex 1

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