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PROPOSAL FOR A CONCERTED ACTION FOR CHIMPANZEE (Pan troglodytes) BEHAVIORAL DIVERSITY AND CULTURES ALREADY LISTED ON APPENDIX I AND II OF THE CONVENTION*

Summary:

The CMS Expert Working Group on Animal Culture and Social Complexity and the IUCN SSC PSG SGA Working Group on Chimpanzee Cultures propose a Concerted Action for Chimpanzee (Pan troglodytes) Behavioral Diversity and Cultures in accordance with the process elaborated in Resolution 12.28 (Rev.COP13).

^{*}The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CMS 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.

PROPOSAL FOR A CONCERTED ACTION FOR CHIMPANZEE (Pan troglodytes) BEHAVIORAL DIVERSITY AND CULTURES ALREADY LISTED ON APPENDIX I AND II OF THE CONVENTION

(i.) Proponent

The proponents of the proposed Concerted Action for Chimpanzee (Pan troglodytes) Behavioral Diversity and Cultures are the IUCN Species Survival Commission's (SSC) Primate Specialist Group (PSG) Section on Great Apes (SGA) Working Group on Chimpanzee Cultures (WGCC) and the CMS Expert Working Group on Animal Culture and Social Complexity. The WGCC is led by Drs. Erin Wessling and Crickette Sanz of the IUCN SSC Primate Specialist Group, who are also members of the CMS Expert Working Group on Animal Culture and Social Complexity, and therefore currently serve as a bridge between these groups. These two working groups are aggregations of the leading experts in chimpanzee behavior and conservation (WGCC) and of the relevance of animal cultures, and other aspects of sociality, to (migratory) species conservation (CMS), and therefore are prominently placed to advise on conservation policy that is specifically aimed at preserving chimpanzee behavioral diversity and cultures. Further, members of the WGCC have a proven track record of contributing to regional action plans for chimpanzee conservation and therefore are uniquely positioned to work with Range States (as defined in Decision 13.140 of UNEP/CMS/ScC-SC5/Inf.6) on implementing transboundary conservation initiatives and monitoring their effectiveness.

(ii.) Target species, lower taxon or population, or group of taxa with needs in common

Chimpanzees (*Pan troglodytes*) were included in CMS Appendices I and II at the 12th Meeting of the Conference of the Parties (CoP12, Manila, 2017; UNEP/CMS/COP12/Doc.25.1.1), because "members of the species frequently and predictably cross national jurisdictional boundaries and for similar reasons that both gorilla species were added to Appendix I and II of the Convention". The proposal accepted at this time noted that "The 2016 IUCN Red List assessment of *Pan troglodytes* (Humle *et al* 2016a) maintained the species classification as *Endangered*" and "estimated a likely species-level reduction in chimpanzee numbers for the period 1975-2050 (approximately three chimpanzee generations) to be in excess of 50 per cent across the majority of its range". There are four recognized subspecies of chimpanzees (*P. t. ellioti, P. t. schweinfurthii, P. t. troglodytes, P. t. verus;* Humle et al. 2016).

(iii.) Geographical range

Extant chimpanzee populations occur in Angola, Burundi, Cameroon, Central African Republic, Republic of Congo, the Democratic Republic of the Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Nigeria, Rwanda, Senegal, Sierra Leone, South Sudan, United Republic of Tanzania, and Uganda. All of these are Parties to CMS, with the exception of Sierra Leone and South Sudan. Chimpanzees are reported to be likely extirpated in Benin, Burkina Faso, and Togo.

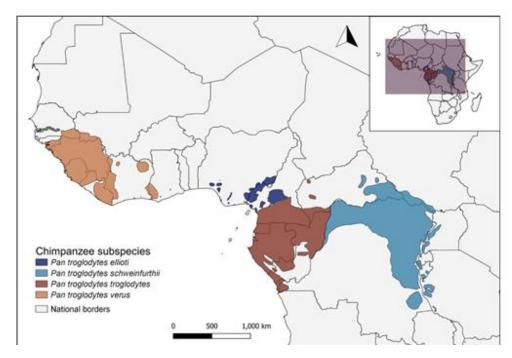


Figure 1. Distribution of the Chimpanzee (*Pan troglodytes*) across equatorial Africa, with the indication of subspecies ranges. All Range States of chimpanzees are Parties to CMS, except for Sierra Leone and South Sudan.

(iv.) Summary of Activities

The CMS Expert Group on Animal Culture and Social Complexity previously proposed a Concerted Action for the Nut-Cracking Populations of the Chimpanzees (Pan troglodytes verus) of West Africa, which aimed to improve conservation efforts and promote the understanding and protection of animal cultures. However, while this Concerted Action effectively targeted the conservation of an especially conspicuous aspect of chimpanzee behavior, significant components of chimpanzee behavior and large swaths of chimpanzee populations are not included in this Concerted Action, thereby reducing the efficacy of such a mandate. With insights gained from the effective implementation of the Concerted Action for the Nut-Cracking Populations of the Chimpanzees (Pan troglodytes verus) of West Africa, it has become apparent that further efforts to account for behavioral variation and culture in this behaviorally complex species should be approached more comprehensively. Therefore, the CMS Expert Group on Animal Culture and Social Complexity concurred during the "2nd CMS Workshop on Conservation Implications of Animal Culture and Social Complexity - Part II' that the initiative should be replaced by a broader Concerted Action for Chimpanzee Behavioral Diversity and Cultures, focusing on the conservation of chimpanzee behavioral diversity and culture.

It, therefore, is proposed that to appropriately address threats to chimpanzee behavioral diversity, a multi-faceted approach must be employed. First, targets and best approaches must be defined, and these must be developed in concert with practitioners and policymakers to address active conservation needs. Second, those needs must be addressed, with behavioral diversity research used to rectify persistent and broader data gaps, and a clearinghouse established to aggregate these data for meaningful outputs. Third, a framework to embed local conservationists and researchers must be incorporated as a core component of these expanded conservation efforts. In addition to substantially broadening the scale and scope of activities outlined in the previous CMS Concerted Action for the Nut-Cracking Populations of the Chimpanzees (*Pan troglodytes verus*) of West Africa, the proposed Concerted Action for

Chimpanzee Behavioral Diversity and Cultures includes an integrated approach for facilitating greater interaction among all stakeholder groups that more holistically addresses the incorporation of behavior into conservation needs and approaches. This is a critical aspect of the Concerted Action that will not only increase the effectiveness of its activities, but also promote the long-term sustainability of these transboundary conservation initiatives.

(v.) Activities and expected outcomes

- Identify specific targets for the protection of chimpanzee behavioral and cultural diversity. Since the CoP13, the members of the WGCC have made notable progress in defining chimpanzee behavioral diversity in practical terms and identifying specific indicators of chimpanzee culture in certain populations (e.g., nut cracking by western chimpanzees, the focus of UNEP/CMS/Concerted Action 13.1). These two conservation targets are often used interchangeably in practice, in that the preservation of cultural diversity is largely regarded as the main conservation target for chimpanzees, but in situations where a particular cultural indicator may add value to an activity, an exemplar (such as nut-cracking) can be invoked. In the Concerted Action for Chimpanzee Behavioral Diversity and Cultures, local communities and stakeholders will be engaged in discussions about how they would envision defining the culture concept in conservation practice and specific targets for protection. This input is critical to ensure that conservation targets are both feasible and relevant. Further, the support of local stakeholders is also key to incorporating these targets into biomonitoring programs (see Activity 4), empowering local conservation leaders (see Activity 5), and increasing awareness of how the culture concept can be used in conservation (Activity 7). The process of identifying specific conservation targets will begin in late 2023 with the WGCC, NGOs, and CMS focal points in Range States.
- 2. Establish a Steering Committee to guide the implementation of the Concerted Action for Chimpanzee Behavioral Diversity and Cultures. Drs. Erin Wessling and Crickette Sanz (members of the CMS Expert Working Group on Animal Culture and Social Complexity and co-leaders of the IUCN SSC PSG SGA WGCC) will assemble a group of leading chimpanzee and non-chimpanzee experts on conservation, behavioral diversity and cultures, and conservation policy and implementation with experience from across the chimpanzee Range States. In addition to Drs. Wessling and Sanz, CMS and IUCN experts will be invited to join the committee. This steering committee will seek funding for, design, lead, and implement the activities of the proposed Concerted Action for Chimpanzee Behavioral Diversity and Cultures. Pending the adoption of the Concerted Action for Chimpanzee Behavioral Diversity and Cultures, the first meeting of the Steering Committee will be convened in December 2023. The steering committee will regularly consult with and provide updates on their activities to the broader membership of the CMS Expert Working Group on Animal Culture and Social Complexity and the IUCN SSC PSG.
- 3. Develop Best Practice Guidelines for monitoring chimpanzee behavioral and cultural diversity. While previous surveys have been conducted on specific aspects of chimpanzee culture, there is a need for practical guidelines and recommendations for surveying chimpanzee behavioral diversity and cultures across their geographic range and that is inclusive of diverse expressions of behavioral variability. The target audience of this Guideline for Best Practices includes conservation practitioners, researchers, and policymakers who will be conducting surveys of chimpanzee behavior or receiving reports of such information. This activity will be coordinated by the Steering Committee of the Concerted Action for Chimpanzee Behavioral Diversity and Cultures, with inputs from the WGCC, the CMS Expert Working Group on Animal Culture and Social Complexity, and the IUCN SSC PSG. In these Guidelines of Best Practices, the following components must be addressed:

- provide an overview of the importance and relevance of assessing chimpanzee behavioral diversity and culture as relevant to conservation, across management and policy levels;
- 2. specify targets for the protection of chimpanzee behavioral and cultural diversity (see Activity 1);
- 3. consolidate and improve current practices used to assess chimpanzee behavioral diversity and indicators of culture;
- 4. analyze gaps in data on behavioral diversity and cultural indicators for each subspecies (western chimpanzee, central chimpanzee, Nigeria-Cameroon chimpanzee, and eastern chimpanzee) according to behavioral categories (e.g., material, extractive, social) and geographic coverage, with a particular focus on transboundary areas between Range States;
- provide detailed methodological guidance for conducting rapid and long-term field surveys of targets identified for the protection of chimpanzee behavioral and cultural diversity;
- 6. outline methods to analyze behavioral diversity data and prepare them for reporting and contribution to centralized databases (see Activity 4);
- 7. include examples and suggestions about how findings on chimpanzee behavioral diversity and cultures can improve conservation policies and practices.

If funding is secured for this activity by the end of 2023, then a consultant will be hired to complete a first draft of these Best Practice Guidelines by September 2024. The document will then be reviewed by the Steering Committee of the Concerted Action for Behavioral Diversity and Cultures and the WGCC. Additional expert reviews will be sought from the CMS Expert Working Group on Animal Culture and Social Complexity, the IUCN SSC PSG, and other stakeholders. The aim will be to publish the finalized Best Practice Guidelines by 2025.

4. Foster and support structures that will permit the monitoring of chimpanzee behavioral diversity. This will involve the incorporation of information about chimpanzee behavioral diversity and culture into databases that are accessible and relevant to chimpanzee biomonitoring. Such databases already exist within the framework of the SGA; working together with the IUCN SSC A.P.E.S. Wiki and Database (https://wiki.iucnapesportal.org/index.php/The_A.P.E.S._Wiki https://www.iucngreatapes.org/apes-database), the Steering Committee of the Concerted Action for Chimpanzee Behavioral Diversity and Cultures and the WGCC will highlight opportunities where incorporation of information on culture and behavioral diversity into the data repositories could enhance conservation strategies. While initially focused on chimpanzee populations in West Africa, the intensification of efforts to formally archive information on chimpanzee behaviors and cultures across the entire species range has much greater conservation potential, particularly concerning policy addressing transboundary populations. A key initiative of the Concerted Action for Chimpanzee Behavioral Diversity and Cultures is to facilitate the incorporation of relevant datasets from local governments, private industry, and researchers into existing databases. The timeline for this activity is open-ended, but metrics of progress over the next triennium will include the additional number of stakeholders contributing to these databases, the total number of data points included in the expanded repositories, and the number of stakeholders citing information on chimpanzee behavioral diversity from these databases. A longer-term aim will be to demonstrate how such data repositories inform the planning and assessment of applications of the culture concept in conservation.

- 5. Create a scaffolding framework to elevate local stakeholders to leadership in behavioral diversity research and advocacy of behavioral diversity as a conduit of conservation. In concert with the broader membership of the WGCC and the IUCN PSG SGA, the Steering Committee of the Concerted Action for Chimpanzee Behavioral Diversity and Cultures will identify collaborative opportunities to integrate behavioral monitoring research into efforts to fill data gaps that have been identified in regional action plans. A stakeholder network of international and local research organizations will pair with governmental or non-governmental networks to create training opportunities for local students in Range States who will in turn contribute to addressing data needs. Supervisors at local institutions will be contacted by the Steering Committee to coordinate student support and facilitate collaborations with NGOs and other potential partners. Methodologies for these projects will vary depending on the research question, but data collection will be structured for contribution to the IUCN SSC A.P.E.S. Database and Wiki (See Activity 4). The overall aims of this activity are increased support for regional stakeholders to become advocates for chimpanzee cultures and elimination of gaps in biomonitoring efforts across multiple Range States. The timeline is to begin recruiting students in 2024.
- 6. Identify the needs of conservation practitioners in the domain of chimpanzee behavior and align conservation efforts to support the needs of these practitioners. Conservation efforts that incorporate behavioral diversity in their approaches must be tailored to be useful to conservation practitioners or policymakers. In addition to defining targets, the needs of conservation practitioners and policymakers must be clearly defined, through early and ongoing consultation, and robust approaches for implementation must be developed. Such steps require active collaboration with these groups of stakeholders and should involve consultation across disciplines to create manageable, implementable pathways for action.
- 7. Increase integration of behavioral surveys into ongoing monitoring efforts. Once standardized protocols have been established (See Activity 3) and the expansion of existing data repositories has been completed (See Activity 4), the Concerted Action for Chimpanzee Behavioral Diversity and Cultures will empower local governments and organizations to incorporate behavioral surveys into their current and planned monitoring efforts. However, for this to succeed, stakeholders must be (a) made aware of such protocols and repositories, (b) understand their value, and (c) retain the capacity to engage with them. Efforts must be undertaken to address all three components.
- Provide guidance to stakeholders about how chimpanzee cultures can be 8. responsibly used in conservation advocacy and pilot these advocacy approaches in real-world settings. The specific results from the Concerted Action for Chimpanzee Behavioral Diversity and Cultures will provide a means to direct attention to the conservation plight of chimpanzees across local, regional, national, and international scales. Outreach will be accomplished by promoting research publications, outreach activities, guidelines, and policies through media channels of the CMS, IUCN, and affiliations of the chimpanzee stakeholder network. The Concerted Action for Chimpanzee Behavioral Diversity and Cultures also provides an unprecedented opportunity to increase knowledge- and resource-sharing of educational materials across the chimpanzee Range States, which includes more than 20 Parties of the CMS. Indicators of success will include standard metrics of social media and academic reach. positive outcomes in attitudes towards chimpanzees and chimpanzee-friendly practices, as well as increased support for ongoing public-facing chimpanzee conservation projects. Over the long term, the aim of this advocacy is to promote conservation actions and policies that increase the protection of chimpanzee behavioral diversity and cultures. The timeline for this activity is open-ended and ongoing.

(vi.) Associated benefits

In light of the imminent threat of population declines and the ongoing challenges faced by chimpanzees, it is crucial to adopt swift, efficient, and effective approaches for their conservation. Particularly, there is a pressing need for conservation strategies that not only enhance action efficiency and encourage participation but also foster increased motivation for the preservation of this species. If these approaches can also provide holistic solutions to improve the prospects of long-term success, they should be embraced. Recognizing the significance of behavior, particularly behavioral variation, as a fundamental aspect of chimpanzee longevity and persistence represents a vital step toward implementing a comprehensive conservation approach for this behaviorally-complex species. By incorporating the consideration of behavioral variability into conservation efforts, we can significantly enhance our effectiveness in chimpanzee conservation. Nonetheless, any new approaches must be aligned with and complement existing considerations and targets in chimpanzee conservation, rather than competing with them. When executed proficiently, the integration of behavioral variability into conservation practices will introduce a new dimension that strengthens conservation efforts.

The actions surrounding the Concerted Action for Chimpanzee Behavioral Diversity and Cultures will be integrated into existing parallel conservation and research frameworks to ensure complementarity and longer-term sustainability of all activities. The success of the integration of these activities into broader frameworks will be ensured by the formation of a diverse Steering Committee, including proponents active in diverse chimpanzee conservation initiatives. Inherent in this approach is the embedding of chimpanzee nationals from Range States at the core of the leadership and implementation of activities, and the engagement of relevant local governmental and non-governmental organizations as critical partners.

Several of the aforementioned proposed activities are anticipated to directly create collaborative structures between Range States and international research organizations and universities, while also fostering support for governmental biomonitoring campaigns and the tailoring of research methodologies and approaches to improving chimpanzee monitoring efforts. Overall, these activities bridge parallel conservation approaches in a manner that should enhance and accelerate broader efforts for chimpanzee conservation.

(vii.) Timeframe

If this Concerted Action proposal is approved at the 2023 CoP, it would be expected that most of the activities described above could be initiated in early 2024. Some potential actions outlined above are open-ended, but a report on their progress would be submitted in 2026.

(viii.) Relationship to other CMS actions

In 2015, the CMS Expert Group on Animal Culture and Social Complexity was established to advise on how knowledge of animal culture and other aspects of sociality can be used to inform conservation efforts for migratory species (populations that cyclically and predictably cross-national jurisdictional boundaries). Commenting on this initiative, the Executive Secretary stated that CMS is breaking new ground by looking at the issue of animal culture, social complexity, social learning, and the role of individuals and groups of individual animals as repositories of social knowledge. It was further recognized that this work could have fundamental repercussions on current approaches to transboundary conservation.

The CMS Expert Group on Animal Culture and Social Complexity held a workshop in April 2018 during which it was suggested that the nut-cracking behavior of chimpanzees could serve as a valuable pilot project to test the effectiveness of targeting animal cultures for conservation. While the importance of pursuing the conservation of nut-cracking chimpanzee

population in each of the Range States separately was recognized, the value of a Concerted Action is to facilitate collaborations and activities across four contiguous states (three of which are CMS Parties), improving the conservation outlook for these particular populations, and highlighting the importance of understanding and protecting animal cultures more generally (Brakes et al. 2019, 2021). As a result, the *Concerted Action for the Nut-Cracking Populations of the Chimpanzees* (Pan troglodytes verus) of West Africa was proposed and adopted by the Conference of the Parties at its 13th Meeting in Gandhinagar, in February 2020.

A second workshop on Animal Culture and Social Complexity was held in April 2023. Based on the Intersessional Report and Progress Reports for the *Concerted Action for the Nut-Cracking Populations of the Chimpanzees* (Pan troglodytes verus) of West Africa, it was suggested that this initiative be closed and replaced by a Concerted Action for Chimpanzee Behavioral Diversity and Cultures which would focus more broadly on conservation of chimpanzee behavioral diversity and culture.

Relevant resolutions and initiatives:

- 1. Resolution 11.23 (Rev.COP12) Conservation Implications of Animal Culture and Social Complexity
- 2. UNEP/CMS/Concerted Action 13.1 Concerted Action for the Nut-Cracking Populations of the Chimpanzees (Pan troglodytes verus) of West Africa

Relevant frameworks produced by the CMS Expert Working Group on Culture and Social Complexity and the IUCN SSC PSG SGA Working Group on Chimpanzee Cultures:

Brakes, P., Dall, S. R. X., Aplin, L. M., Bearhop, S., Carroll, E. L., Ciucci, P., Fishlock, V., Ford, J. K. B., Garland, E. C., Keith, S. A., McGregor, P. K., Mesnick, S. L., Noad, M. J., di Sciara, G. N., Robbins, M. M., Simmonds, M. P., Spina, F., Thornton, A., Wade, P. R., Whiting, M. J., Williams, J., Rendell, L., Whitehead, H., Whiten, A. and Rutz, C. (2019). Animal cultures matter for conservation. *Science*, 363(6431).

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(ix.) Conservation priority

Three subspecies of chimpanzees (*P. t. ellioti*, *P. t. schweinfurthii*, *P. t. troglodytes*) are classified as Endangered by the IUCN Red List, with the fourth subspecies (*P. t. verus*) listed as Critically Endangered (Humle et al. 2016). All four subspecies are under great and imminent threat, with widespread population declines, and a myriad of threats facing these subspecies across Africa (Humle et al. 2016).

Chimpanzees are behaviorally diverse, with each new population studied exhibiting behavior or behavioral variants not previously known to science (e.g., Boesch et al. 2020). Therefore, continuing losses of chimpanzee populations equate to losses in chimpanzee behavioral diversity (Kühl et al. 2019). Behavioral flexibility allows chimpanzees to occupy a diverse array

of habitats (e.g., Wessling et al. 2020, Kalan et al. 2020) and also may buffer them against anthropogenic encroachment (Hockings et al. 2015). Further, certain behaviors allow chimpanzees to exploit otherwise unattainable resources upon which individuals depend (McGrew 1992, Sanz and Morgan 2007). Collectively, these observations point to the likelihood that preserving chimpanzee behavioral diversity, and the capacity to maintain this diversity, are critical for ensuring the species' long-term survival.

Further, anthropogenic disturbance has a clear effect on chimpanzee behavioral diversity and cultures, both as expressions of behaviors and the persistence of behavioral reservoirs (Kalan et al. 2020) as well as dampeners of local and species-level behavioral diversity (Kühl et al. 2019). With behavioral diversity representing such a critical facet of chimpanzee biology, it is imperative that behavioral diversity be considered as a conservation target alongside traditional conservation metrics, such as population abundance and genetic viability, as it has been well established that the ability to respond flexibly to non-static environmental (social and ecological) conditions are a major component of chimpanzee life and survivability (Hockings and McLennan, 2012; McLennan and Hockings, 2014; van Dijk et al. 2021). Further, beyond utilitarian approaches to population and individual-level survivability, there is value in considering the inherent worth of diverse chimpanzee behavioral expressions as salient and charismatic examples of the natural heritage of non-human animals. If efforts are not taken to consider chimpanzees, their habitats, and their behaviors immediately in conservation efforts, we risk losing the unique and irreplaceable cultures of our closest living relatives alongside the individuals themselves.

(x.) Relevance

The rationale for the inclusion of Chimpanzees in CMS Appendices I and II was that the large ranges of each community are known to span different national jurisdictions. The CMS Concerted Action for the Nut-Cracking Populations of the Chimpanzees (*Pan troglodytes verus*) of West Africa demonstrated that even a single indicator of animal culture can be impactful in conservation advocacy at regional scales. Considering the diverse cultural repertoires of chimpanzees across their entire ranges (e.g., Kalan et al. 2020), it is likely that key indicators of behavioral diversity span across jurisdictional boundaries between CMS Parties. The potential conservation benefits of stronger partnerships among Range States to implement specific activities to identify and preserve chimpanzee behavioral diversity and cultures has yet to be realized but could have significant impacts on the effectiveness of conservation practice and policy.

(xi.) Absence of better remedies

While the enforcement of national mandates is also essential to effecting meaningful conservation change, a Concerted Action is appropriate to the aforementioned goals given the frequent ranging of chimpanzees across boundaries of more than twenty CMS Parties. This proposed Concerted Action for Chimpanzee Behavioral Diversity and Cultures directly addresses the need for coordination across the subspecies ranges and will enable strategic collaboration among Parties to work together on developing and implementing activities. As with transboundary collaboration, approaches to preserving a species' behavioral diversity necessitate broad perspectives and high-level approaches that are inherent to a body like the CMS.

The CMS framework is an ideal platform for promoting the adoption of cross-boundary monitoring and policy initiatives for the conservation of chimpanzee behavioral diversity and cultures as it is one of few international bodies formally prioritizing the consideration of behavior in conservation, while inherently capable of fostering and facilitating complex, collaborative engagement with this issue across a diverse stakeholder network. Once adopted

by the Parties, other partners can be encouraged to coordinate in implementing activities outlined in the Concerted Action which will benefit the entire species.

(xii.) Readiness and feasibility

Grounded in the extensive literature on chimpanzee culture (see Kühl et al. 2019, Kalan et al. 2020, and Whiten 2021, 2022), the proposed Concerted Action can proceed to the implementation of these concepts in conservation practice. Specifically, Activities 1 - 6 are primed to begin as soon as funding can be secured. Multiple stakeholders to chimpanzee conservation are already active in the articulation of avenues of ape behavior to conservation issues (e.g., IUCN WGCC, IUCN A.P.E.S. Database, Wessling et al. 2022, Kühl et al. 2019, McLennan and Hockings, 2014) and therefore are invested in the development of the proposed activities for conservation implementation. Drs. Erin Wessling and Crickette Sanz bridge both proponent groups to this Concerted Action and actively lead multiple chimpanzee conservation platforms at the local (e.g., long-term research projects with conservation mandates at particular sites), regional (Western Chimpanzee Action Plan Implementation Committee), and thematic (WGCC) scales.

The Steering Committee of the Concerted Action for Chimpanzee Behavioral Diversity and Cultures has identified multiple potential avenues of support for the proposed activities, which creates diverse opportunities for successful fundraising. Endorsement of the proposed Concerted Action by the CMS Scientific Council and adoption at CoP14 provides validation for funding applications to support the activities outlined in the previous sections. Potential funders and granting agencies not only recognize the global significance of such ratification, but also hold the CMS review and consultation process in very high regard.

(xiii.) Likelihood of success

The Concerted Action for Chimpanzee Behavioral Diversity and Cultures has a very high likelihood of success. The previous Concerted Action for the Nut-Cracking Populations of the Chimpanzees (*Pan troglodytes verus*) of West Africa highlighted the need for the involvement of local communities and practitioners, development of best practice guidelines, collaboration with a repository for behavioral data, and coordination of international efforts to conserve chimpanzee behavioral diversity and cultures. These points are specifically addressed by the proposed Concerted Action. Further assurance of the successful execution of these activities is based on the active involvement of key stakeholders working on relevant issues across the chimpanzee range. We also anticipate that increased collaboration with CMS focal points in chimpanzee Range States will enhance the implementation of conservation strategies for chimpanzees across Africa.

Successful implementation of the Concerted Action for Chimpanzee Behavioral Diversity and Cultures could be jeopardized by a lack of financial support. To identify sources of funding, the activities in the Concerted Action have been summarized in concept notes that will be circulated to the CMS and potential supporters to gauge interest.

(xiv.) Magnitude of likely impact:

The impact of the Concerted Action for Chimpanzee Behavioral Diversity and Cultures will extend across the entire range of this species, including several CMS Parties (Angola, Burundi, Cameroon, Central African Republic, Republic of Congo, The Democratic Republic of the Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Nigeria, Rwanda, Senegal, United Republic of Tanzania, and Uganda). There is significant potential for synergy across these Range States that has not previously been realized through national efforts to conserve chimpanzees.

(xv.) Cost-effectiveness

Significant financial resources (in excess of \$500,000) will be required to accomplish the activities outlined in this proposed Concerted Action for Chimpanzee Behavioral Diversity and Cultures. Adoption of the Concerted Action by the CoP will provide endorsement for these initiatives that can be cited in funding applications by the Steering Committee and its affiliates, Range State governments, organizations working in the chimpanzee range, and scientists. Potential donors may comprise Range State and non-Range State governments, foundations active in biodiversity conservation and environmental protections and coordination, and should be complementary to existing funding targeting ape research and conservation.

The Steering Committee would provide guidance on the prioritization of the activities proposed should only partial funding be made available. While few activities are cumulative or contingent upon the completion of others (e.g., Activity 7 is contingent upon Activities 3 and 6), the majority of these activities can be initiated in parallel to one another, thereby permitting partial completion of the proposed Concerted Action to be achieved even in absence of complete funding for all activities.

Several organizations are anticipated to contribute to accomplishing the goals of the Concerted Action, including but not limited to the IUCN and relevant subgroups (PSG, WGCC, A.P.E.S. Database), the CMS Expert Group on Animal Cultures and Social Complexity, several universities and research institutions, as well as a broad stakeholder network of governmental and not-for-profit organizations active in chimpanzee research and conservation. Coordinated activities across Range States will streamline conservation efforts (and avoid duplication of costs), for which coordination of this Concerted Action will provide the mandate.

Consultations - Planned/Undertaken

This Concerted Action was prepared in consultation with a wide range of experts. It builds upon outcomes from the CMS Workshops on Conservation Implications of Animal Culture and Social Complexity (Brakes et al. 2019, 2021), including the CMS Concerted Action for the Nut-Cracking Populations of the Chimpanzees (*Pan troglodytes verus*) of West Africa. The implementation of this previous Concerted Action led to the involvement of the IUCN SSC PSG SGA Working Group on Chimpanzee Cultures, which represents an engagement with >50 wild chimpanzee populations and local stakeholders across ten Range States. The Western Chimpanzee Action Plan and its Implementation Committee have also been integral in formulating the direction and activities outlined in this proposed Concerted Action. In 2022, the WGCC contacted focal points for the Range States of the western subspecies of chimpanzees and has plans to engage with CMS representatives of the other Range States in the coming triennium while implementing the Concerted Action for Chimpanzee Behavioral Diversity and Cultures.

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