IUCN SSC Primate Specialist Group

Report 2018-2021

Russell A. Mittermeier, Anthony B. Rylands, Christoph Schwitzer, Leandro Jerusalinsky, Kim Reuter, Ella Outlaw, Jill Lucena, Stephen. D. Nash, William R. Konstant, Dirck Byler, Serge Wich, Liz Williamson, Ekwoge Abwe, Jatna Supriatna, Rebecca Kormos, Susan M Cheyne, Siân Waters, Malene Friis Hansen, Liliana Cortés-Ortiz, Erwin Palacios, Eckhard W. Heymann, Fanny M. Cornejo, Stella de la Torre, Diana C. Guzmán Caro, M. Cecília M. Kierulff, Fabiano Rodrigues de Melo, Maurício Talebi, Martin Kowalewski, Rachel Ashegbofe Ikemeh, Inza Koné, Janette Wallis, David Osei, Takeshi Furuichi, Jonah Ratsimbazafy, Steig Johnson, Baoguo Li, Ramesh Boonratana, Arif Setiawan, Christian Roos, Le Khac Quyet, Hoang Minh Duc, Herbert Covert, Sanjay Molur and Dilip Chetry



A Report to the International Primatological Society (IPS)

Quito, 9 January 2022





IUCN SSC PRIMATE SPECIALIST GROUP

CHAIR, Russell A. Mittermeier, Re:wild, Austin, TX, USA

DEPUTY CHAIRS, Anthony B. Rylands, Re:wild, Austin, TX, USA; Christoph Schwitzer, Dublin Zoo, Dublin, Ireland; Kim E. Reuter, Lemur Love, San Diego, CA, USA; and Leandro Jerusalinsky, Centro Nacional de Pesquisa e Conservação de Primatas Brasileiros, Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio), João Pessoa, Brazil. **Foundation Liaison Officer:** William R. Konstant.

EXECUTIVE SECRETARY, Ella M. Outlaw, Re:wild, Austin, TX, USA. *Assistant Executive Secretary:* Jill Lucena, Re:wild, Austin, TX, USA

VICE CHAIRS, SECTION ON GREAT APES, Dirck Byler, Re:wild, Austin, TX, USA; Serge Wich, Liverpool John Moores University, Liverpool, UK; Ekwoge Abwe, Wildlife Conservation Society-Ebo Forest Research Project, Cameroon; and Jatna Supriatna, Department of Biology, University of Indonesia, Jakarta, Indonesia. Rebecca Kormos, California, USA

VICE CHAIR, SECTION ON SMALL APES, Susan M. Cheyne, Oxford Brookes University, *Deputy Vice Chair:* Oxford, UK & Borneo Nature Foundation, Central Kalimantan, Indonesia

VICE CHAIRS, SECTION ON HUMAN-PRIMATE INTERACTIONS, Siân Waters, Department of Anthropology, Durham University, UK; and Barbary Macaque Awareness and Conservation, Tétouan, Morocco & Malene Friis Hansen, Oxford Brookes University, Oxford, UK

REGIONAL VICE CHAIRS – NEOTROPICS

Mesoamerica, Liliana Cortés-Ortiz, Museum of Zoology and Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, Michigan, USA

Northern Andean Countries, Erwin Palacios, Conservación Internacional Colombia, Bogotá, Colombia; Eckhard W. Heymann, Deutsches Primatenzentrum, Göttingen, Germany; Fanny M. Cornejo, Stony Brook University, New York, USA; Stella de la Torre, Universidad San Francisco de Quito, Quito, Ecuador; and Diana C. Guzmán Caro, Conservation Bridges Foundation, Bogotá, Colombia

Brazil and the Guianas, M. Cecília M. Kierulff, Instituto Pri-Matas, Belo Horizonte, Minas Gerais, Brazil; Fabiano Rodrigues de Melo, Departamento de Engenharia Florestal, Universidade Federal de Viçosa, Viçosa, MG, Brazil; Maurício Talebi, Universidade Federal de São Paulo, Diadema, São Paulo, Brazil; and Leandro Jerusalinsky, Centro Nacional de Pesquisa e Conservação de Primatas Brasileiros, Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio), João Pessoa, Brazil

Southern Cone – Argentina, Bolivia, Paraguay, Uruguay, Martin Kowalewski, Estación Biológica Corrientes (EBCo), Museo Argentino de Ciencias Naturales BR, CONICET Consejo Nacional de Investigaciones Científicas y Técnicas, Corrientes, Argentina **REGIONAL VICE CHAIRS – AFRICA**

Rachel Ashegbofe Ikemeh, SW/Niger Delta Forest Project, Nigeria; Inza Koné, Centre Suisse de Recherches Scientifiques, Côte d'Ivoire; David Osei, West African Primate Conservation Action (WAPCA), Ghana; Janette Wallis, Kasokwa-Kityedo Forest Project, Norman, OK, USA; and Takeshi Furuichi, Primate Research Institute, Kyoto University, Inuyama, Japan **REGIONAL VICE CHAIRS – MADAGASCAR**

Christoph Schwitzer, Dublin Zoo, Dublin, Ireland; Jonah Ratsimbazafy, Groupe d'étude et de recherche sur les primates (Gerp), Antananarivo, Madagascar; and Steig Johnson, University of Calgary, Calgary, Canada

REGIONAL VICE CHAIRS – ASIA

China - Baoguo Li, Northwest University, Xi'an, China

South-east Asia/Indochina - Jatna Supriatna, Department of Biology, University of Indonesia, Jakarta, Indonesia; Arif Setiawan, SWARAOWA, Minomartani, Ngaglik, Sleman, Yogyakarta, Indonesia; Christian Roos, Deutsches Primatenzentrum, Göttingen, Germany; Ramesh Boonratana, Mahidol University International College, Salaya, Nakhon Pathom, Thailand; Le Khac Quyet, Independent Wildlife Consultant, Hanoi, Vietnam; Herbert H. Covert, University of Colorado Boulder, Boulder, CO, USA; and Duc Hoang Minh, Southern Institute of Ecology (SIE), Ho Chi Minh City, Vietnam

South Asia - Sanjay Molur, Wildlife Information Liaison Development, Coimbatore, Tamil Nadu, India; and Dilip Chetry, Gibbon Conservation Centre, Assam, India

RED LIST AUTHORITIES, Kim E. Reuter, Lemur Love, San Diego, CA, USA; Liz Williamson, Stirling University, Stirling, Scotland, UK (Great Apes); Sanjay Molur, Wildlife Information Liaison Development, Coimbatore, Tamil Nadu, India PUBLICATIONS – EDITORS

Neotropical Primates - Erwin Palacios, Jessica W. Lynch, Bruna M. Bezerra, Liliana Cortés-Ortiz, Júlio César Bicca-Marques, Eckhard W. Heymann and Anita Stone

Lemur News - Christoph Schwitzer, Fay Clark, Claudia Fichtel, Jörg U. Ganzhorn, Rodin M. Rasoloarison, Jonah Ratsimbazafy and Anne D. Yoder

African Primates - Janette Wallis

Asian Primates Journal - Ramesh Boonratana, John R. Fellowes, Susan Lappan, Christian Roos and Jatna Supriatna

Primate Conservation - Russell A. Mittermeier and Anthony B. Rylands

Tropical Field Guide Series - Russell A. Mittermeier and Anthony B. Rylands

Best Practices Guidelines for the Conservation of Great Apes - Liz Williamson

Citation: Mittermeier, R. A. *et al.* 2022. IUCN SSC Primate Specialist Group: Report 2018–2021. Report to the International Primatological Society (IPS), Quito, Ecuador, 9 January 2022. 63pp.

Cover. The Red-shanked Douc, Pygathrix nemaeus, Son Tra Nature Reserve, Vietnam. Photograph by Lois Lippold.

CONTENTS

(1) Membership	1
(2) Taxonomy and Numbers of Non-Human Primates	5
(3) Threatened Primates – The Red List	8
(4) The World's 25 Most Endangered Primates 2018–2021	9
(5) Action Plans	10
(6) Section on Great Apes (SGA)	13
(7) Section on Small Apes (SSA)	18
(8) Section on Human-Primate Interactions (SHPI)	21
(9) PSG Neotropical Section	24
(10) PSG Mainland Africa Section	33
(11) PSG Madagascar Section	35
(12) PSG China and South-east Asia Section	37
(13) PSG South Asia Section	38
(14) PSG Newsletters and Journals	39
(15) Other Publications	43
(16) Primate Action Fund	46
(17) Margot Mash Biodiversity Foundation	47
(18) Support for Participation in the XXVIII Congress of the International Primatological Society,	47
Quito, Ecuador, 9–16 January 2022	
Appendix 1. The World's 25 Most Endangered Primates	49
Appendix 2. Publications of the PSG Section on Great Apes 2019–2021	51
Appendix 3. Action Plans – Section on Great Apes	53
Appendix 4. Best Practice Guidelines for Great Ape Conservation	55
Appendix 5. Tropical Field Guide Series & Tropical Pocket Guide Series	58
Appendix 6. International Meetings attended by the SHPI	60
Appendix 7. Webinar programs of the SHPI	62

IUCN SSC Primate Specialist Group Report



2018–2021

Mission: Maintain the full diversity of the order Primates, ensuring the survival of threatened taxa, and protecting primates in areas of high primate diversity and abundance. Role: minimize the loss of primates by: (1) monitoring the conservation status of primates worldwide, (2) promoting research and conservation measures for threatened primates, (3) maintaining protected area integrity and enforcing protective legislation; (4) creating new protected areas; (5) determining ways for human and non-human primates to coexist in multiple-use areas; (6) ending illegal and destructive traffic in primates; (7) promoting public awareness of the need for primate conservation, especially through Primate Ecotourism, Primate-Watching, and Primate Life-listing.

(1) Membership

During this period, the core activities of the Primate Specialist Group were supported by Re:wild and by the Margot Marsh Biodiversity Foundation.

The IUCN SSC Primate Specialist Group (PSG) currently has approximately 800 members. We recognize here two members who don't appear on the covers of publications and reports but without whom the PSG would simply not function. Their dedication, skills, and patience in supporting all aspects of PSG's mission are immeasurable – Ella Outlaw and Jill Lucena, formerly of the Executive Vice Chair's Office at Conservation International, but now with the Primate Program of Re:wild (formerly called Global Wildlife Conservation GWC). Re:wild is based in Austin, Texas.

We note the loss of 19 pioneers and colleagues in the world of primate research and conservation. Our community misses them most dearly, and most especially their friends, colleagues and students, whose lives were enriched by their wisdom, their deeds, their teaching, kindness and friendship:

Dorothy Cheney (1950–2018). Professor of Biology at the University of Pennsylvania. She is renowned for her ground-breaking studies, with Robert Seyfarth, her husband, on communication and cognition in primates, notably vervets and chacma baboons, in the wild. The former summarized in their early, highly influential book, *How Monkeys See the World: Inside the Mind of Another Species* (1990), the latter in *Baboon Metaphysics* (2007). As described by Kelly Stewart: "*Dorothy was not just a superb scientist, but also a gifted writer.*"

Omari Ilambu (1959–2018). A graduate of the University of Zaïre, he worked for the Congolese Institute for Conservation (ICCN). His study on the impact of human conflict on Grauer's gorilla in Kahuzi-Biega National Park earned him his Master's degree in Environmental Science at Yale. He was employed by both WCS and WWF for his broad experience with the DRC's protected areas. At WCS he was Conservation Director for the region, and subsequently appointed WCS Chief of Party for the USAID CARPE program, one of the largest regional biodiversity conservation programs operating in Central Africa.

Akisato Nishimura (1938–2018). A pioneer researcher of chimpanzees, he was part of the Kyoto University African Primatological Expedition (KUAPE) in Tanzania in 1961. In the late 1970s,

he began pioneering research on the ecology and behavior of woolly and spider monkeys in Colombia, notably at La Macarena National Park at a research station set up in 1986. He was assistant professor at the Primate Research Institute of Kyoto University from 1970 to 1977, when he joined Doshisha University, and became full professor there in 1989. I n Brazil, he is famous for his pioneer observations of muriquis at Caratinga, Minas Gerais.

Horácio Schneider (1948–2018). Professor Horácio Schneider, of the Federal University of Pará (UFPA) was best known for his work on the phylogeny of New World monkeys. He was a relentless advocate for the advancement of science in Brazil and particularly in Amazonia. In 1990, he joined the laboratory of Luigi Luca Cavalli-Sforza at Stanford University, where he learned and later applied molecular phylogenetics to unravel evolutionary relationships in primates. His studies were pioneer and revolutionary, transforming the taxonomy and systematics of the platyrrhines from the 1970s to what we know today.

Filomeno Encarnación (1945–2019). A researcher at the Instituto Veterinario de Investigaciones Tropicales y de Altura (1972 to 1999) and the Instituto de Ciencias Biológicas Antonio Raimondi (1999–2002), he retired as Professor of the Faculty of Biological Sciences of the Universidad Nacional Mayor de San Marcos, Lima. A botanist but also, with Rolando Aquino, a pioneer in promoting primatology in Peru. His expertise was in botanical inventories and the systematics, taxonomy, floral communities and zonation of Peru's diverse ecosystems. He published the first field guide for the Peruvian primates with Rolando Aquino in 1994.

Perry Ong (1960–2019). Dean of the College of Science at the University of the Philippines Diliman. He was a Professor at the Institute of Biology, where he served as director from June 2006 to June 2012. He earned his PhD in Behavioral Ecology and Evolutionary Biology from Monash University, Australia in 1995. His research interests and expertise were in urban biodiversity, tarsier biology, ecology, systematics, forest restoration, DNA barcoding, biology of Philippine wildlife, biodiversity conservation and monitoring of geothermal production fields. He contributed significantly to the conservation of the critically endangered Philippine Eagle *Phithecophaga jefferyi* and the near threatened Philippine tarsier. He was a recipient of several awards and citations, among them: the 2016 Concepcion Dadufalza Award for Distinguished Achievement, 2009 Gawad Chanselor para sa Natatanging Guro, the 2004 Hugh Greenwood Environmental Science Award by the National Academy of Science and Technology-Philippines and the Outstanding Young Scientist award in 2000.

Jeremy J. Raemaekers (1952–2019). A Cambridge graduate and among the first of David Chivers' doctoral students. He studied gibbons in Kuala Lompat, Malaysia. "*He was an outstanding field worker, research designer, writer and artist, with boundless energy and enthusiasm – a mind-blowing combination! His blend of theory and practice was an example to all." – David Chivers. He went on to teach at the biology department of Mahidol University, Thailand, continuing his field research on lar gibbons with Warren Brockelman, besides nurturing graduate students – among them Uthai Treesucon and Sompoad Srikosamatara.*

Sally Walker (1944–2019). Dedicated her life to the welfare and conservation of India' wildlife. Her achievements were extraordinary. Walker's early success resulted in her appointment to the National Zoo Advisory Board of the Indian Department of the Environment. She founded the Zoo Outreach Organisation (ZOO) in 1985, which today extends throughout South Asia, and also two publications – *Zoos' Print* and *Zoo Zen*. She was Convenor of the IUCN/SSC Conservation Breeding Specialist Group – India and was instrumental in establishing the CBSG Regional Networks. In 2004, she received the Heini Hediger Award of the World Association of Zoos and

Aquariums (WAZA). She was Coordinator for South Asia for the IUCN/SSC Primate Specialist Group.

Elke Zimmerman (1958–2019). Joined the German Primate Centre in 1992. She set up one of the very few successful breeding colonies of the grey mouse lemur in 1996, and Goodman's mouse lemur in 1994, and along with Ute Radespiel, she established a along-term field study on the socioecology, communication, reproduction, and seasonality, of mouse lemurs, sportive lemurs, and woolly lemurs at Ankarafantsika National Park. She made important contributions to the phylogenetics, diversity and evolution of the Malagasy lemurs. "A consummate scientist with a deep love and concern for Madagascar, Malagasy forests and lemurs in particular" – Ute Radespiel.

Masao Kawai (1924–2021). Masao Kawai, Emeritus professor at Kyoto University, led the world in research on primates – notably Japanese macaques and baboons. He was also known for children's literature on the theme of nature. He was the first president of the Primate Society of Japan.

William G. Conway (1929–2021). William Conway spent most of his life working in the Wildlife Conservation Society (43 years). He was appointed director of the Bronx Zoo, NY, in 1961. Five years later, he became general director of the New York Zoological Society, as the Wildlife Conservation Society was known at the time. He became the society's president in 1992. He was at the forefront in changing the role of zoos from menageries of caged animals to enclosures, focusing on the animals' welfare and husbandry, and most particularly in promoting the role of zoos in their conservation Merit (2000) and also WAZA's Heini Hediger Award (1999). "The justification for removing an animal from the wild for exhibition must be judged by the value of that exhibition in terms of human education and appreciation, and the suitability and effectiveness of the exhibition in terms of each wild creature's contentment and continued welfare." – William G. Conway.

Jeremy J. C. Mallinson (1937–2021). Jeremy was Gerald Durrell's right-hand man at Jersey Zoo, soon after it opened in 1959, and devoted the rest of his working life to the Trust until his retirement in 2001. He was appointed the zoo's director when Gerald Durrell died in 1995. He was valued member of CPSG. He served on the Strategic Committee for decades and was the very embodiment of CPSG Principles. He was a master diplomat and a key figure for decades in the zoo world. "Jeremy Mallinson was a truly unique and very special person, and an enormous asset to the conservation movement, and especially the conservation of endangered species. His combination of deep dedication, delightful charm, clear vision, and ultimately good common sense made his contributions to conservation very special in many ways. I would especially highlight his huge role in the conservation of Brazil's lion tamarins, globally important flagship species unique to Brazil's Atlantic Forest and on the verge of extinction in the 1970s. Jeremy's diplomatic skills enabled international collaboration at a level that still serves as a global model to the present day, bringing together Brazilian and international conservationists, government officials, pet keepers holding these animals overseas, and the international zoo community. I had the pleasure of knowing Jeremy for 50 years. - Russell A. Mittermeier. "His passion for helping the animal kingdom was unparalleled, and his belief in the positive role zoos could and should make to saving species from extinction was unshakable. Jeremy's support for the conservation of the tamarin monkeys of Brazil became legendary." – Lee Durrell, Honorary Director of Jersey Zoo.

Marcel Ngangoue (1961–2021). Hailed as a defender of the rights of wildlife, he was the Park Warden for the Nouabalé Ndoki National Park in the Republic of Congo and worked closely with the WCS team there, becoming head of anti-poaching for the Project for the Management of Ecosystems in the Periphery of the NNNP (PROGEPP). After 23 years of his leadership on anti-poaching efforts, Marcel won the 2019 African Ranger Award, which recognizes and supports the achievements and efforts of forest rangers who are addressing the precipitous decline of Africa's wildlife due to poaching, habitat lost and illegal trade in wildlife.

Shirley McGreal (1934–2021). Founder of the International Primate Protection League (1973) and the Summerville Gibbon Sanctuary (1977) in South Carolina, USA. Shirley was a singleminded, and intrepid warrior, who investigated and campaigned against the wildlife trade and cruelty to animals, most especially monkeys and apes. She received many, many accolades and commendations for her achievements. To Shirley: *"When I think of all that you have accomplished through IPPL, I am truly full of admiration. You have helped not only thousands of primates, but also brought hope to all those who care about them and their suffering at human hands."*– Jane Goodall.

Duane D. Quiatt (1929–2021). Professor Emeritus in the Department of Anthropology, University of Colorado-Denver where he had been a member of the faculty since 1969. His interests ranged from the origin of language, cognition, cultural behavior, social learning and tool use – with macaques, gibbons and chimpanzees as models – creatively blending field archaeological methods and primate field studies. He collaborated on an edited volume with the Junichiro Itani of Kyoto University – *Hominid Culture in Primate Perspective*' and co-authored a book with Vernon Reynolds – '*Primate Behaviour: Information, Social Knowledge, and the Evolution of Culture*'.

Hector Nicolás Seuánez Abreu (1947–2021). A prominent, Uruguayan, medical geneticist, a member of the faculty of the Universidade Federal do Rio de Janeiro and affiliated to the Instituto Nacional de Câncer in Brazil. Besides his ground-breaking medical studies, he published numerous papers on primate genetics, notably concerning their karyotypes. He was the first, for example, to demonstrate that Goeldi's monkey was affiliated to the marmosets. He laid the groundwork for the phylogenetic studies in their infancy.

Thomas E. Lovejov III (1941–2021). Tropical biologist and conservation biologist. From 1965, he worked in Brazilian Amazonia. He received his BSc and PhD in biology from Yale University. Lovejoy played a central role in the establishment of conservation biology, by initiating the idea and planning with B. A. Wilcox in June 1978 for The First International Conference on Research in Conservation Biology, that was held in La Jolla, California, in September 1978. The proceedings introduced conservation biology to the scientific community. In 1979, Lovejoy founded the Biological Dynamics of Forest Fragments Project (BDFFP) near Manaus, Brazil, a long-term investigation of the effects of fragmentation on tropical rainforests, their ecosystems and wildlife. From 1973 to 1987, he directed the conservation program at World Wildlife Fund-US, including a Primate Program led by Russell A. Mittermeier (1979–1989), and from 1987 to 1998 he served as assistant secretary for environmental and external affairs for the Smithsonian Institution in Washington, DC. In 1994, became counselor to the Secretary for Biodiversity and Environmental Affairs. From 1999 to 2002, he served as Chief Biodiversity Adviser to the president of the World Bank. In 2010 and 2011, he served as chair of the Independent Advisory Group on Sustainability for the Inter-American Development Bank. He was senior adviser to the president of the United Nations Foundation, chair of the Yale Institute for Biospheric Studies, and was past president of the American Institute of Biological Sciences, past chairman of the United States Man and Biosphere Program, and past president of the Society

for Conservation Biology. Lovejoy developed the debt-for-nature swaps in which environmental groups purchase shaky foreign debt on the secondary market at the market rate, which is considerably discounted, and then convert this debt at its face value into the local currency to purchase biologically sensitive tracts of land in the debtor nation for purposes of environmental protection.

Edward O. Wilson (1929–2021). Professor at Harvard University's Museum of Comparative Zoology, he was often cited as Charles Darwin's greatest 20th-century heir. He was an eloquent and immensely influential environmentalist and besides the first to determine that ants communicate mainly through the exchange of chemical substances now known as pheromones. His most significant and controversial idea appeared in his 1975 book *Sociobiology*, which described the role that genetics plays in the social behavior of organisms. The first 25 chapters built his unifying theory of behavior in the animal world, a monumental achievement in itself. He was also a co-author with R. H. Macarthur of the classic book *The Theory of Island Biogeography*.

Richard E. F. Leakey (1944–2022). Kenyan paleoanthropologist, conservationist and politician, Leakey held a number of official positions in Kenya, mostly in institutions of archaeology and wildlife conservation. He was Director of the National Museum of Kenya, founded the NGO WildlifeDirect and was the chairman of the Kenya Wildlife Service. Leakey co-founded the Turkana Basin Institute in an academic partnership with Stony Brook University, where he was an anthropology professor. He served as the chair of the Turkana Basin Institute until his death.

(2) Taxonomy and Numbers of Non-Human Primates

The taxonomic list of primates maintained by the PSG recognizes 523 species and 715 taxa (species and subspecies). December 2021. Numbers of species and subspecies of primates on the taxonomic list of the Primate Specialist Group:

	Таха	Species	Genera
All primates	715	523	80
Africa	192	107	26
Madagascar	112	108	15
Asia	193	130	19
Neotropics	218	179	21
Prosimians	189	158	28
Monkeys	486	339	45
Apes	40	27	7

Newly described species and subspecies

Six primates were described from August 2018 to December 2021: Niemitz's Tarsier from the Togean Islands, Sulawesi, Indonesia; the Lake Manyara Gentle Monkey from Tanzania; the Harenna Bale Monkey from Ethiopia; the Popa Langur from Myanmar; and two marmosets from Brazilian Amazonia, the Munduruku Marmoset and Schneider's Marmoset.

Ninety-seven "new" primates, species and subspecies, have been described since 2000—50 from Madagascar, seven from Africa, 18 from Asia, and 22 from the Neotropics. Sixty-two of the primates described since 2000 are prosimians, 31 are monkeys, three are gibbons and one is a great ape.

Africa		
Cercopithecus mitis manyarensis Butynski & De Jong, 2020	Lake Manyara Monkey	
Chlorocebus djamdjamensis harennaensis Gippoliti, 2020	Harenna Bale Monkey	
Asia		
<i>Tarsius niemitzi</i> Shekelle, Groves, Maryanto, Mittermeier, Salim & Springer, 2019	Neimitz's Tarsier	
<i>Trachypithecus popa</i> Roos, Helgen, Miguez, Naw May Lay Thant, Ngwe Lwin, Aung Ko Lin, Aung Lin, Khin Mar Yi, Paing Soe, Zin Mar Hein, Myint, Ahmed., Chetry, Urh, Veatch, Duncan, Kamminga, Chua, M., Lu Yao, Matauschek, Meyer, Zhi-Jin Liu, Ming Li, Nadler, Peng-Fei Fan, Le Khac Quyet, Hofreiter, Zinner & Momberg, 2020	Popa Langur	
Neotropics		
<i>Mico munduruku</i> Costa-Araújo, Farias & Hrbek in Costa-Araújo, Melo, Canale, Hernández-Rangel, Messias, Rossi, F. E. Silva, M. N. F. da Silva, Nash, Boubli, Farias & Hrbek, 2019	Munduruku Marmoset	
<i>Mico schneideri</i> Costa Araújo, Silva Jr., Boubli, Rossi, Hrbek & Farias in Costa-Araújo, J. Silva-Jr., Boubli, Rossi, Canale, Melo, Bertuol, F. Silva, D. Silva, Nash, Sampaio, Farias & Hrbek, 2021	Schneider's Marmoset	

Besides describing the Harenna Bale Monkey, Gippoliti (2020) reinstated Zavattari's Grivet (de Beaux, 1943), endemic to Ethiopia. Provisionally reinstated too are two slow loris subspecies: the Natuna Islands Slow Loris, *Nycticebus menagensis natunae* Stone & Rehn, 1902, Indonesia, and the Tioman Island Slow Loris, *Nycticebus menagensis insularis* Robinson, 1917, Malaysia.

Although still maintained in the PSG's taxonomic list, Poelstra *et al.*, (2020) and Schüßler *et al.* (2020) have indicated that Mittermeier's Mouse Lemur, *Microcebus mittermeieri* Louis Jr *et al.*, 2006, is a synonym of *M. lehilahytsara* Roos & Kappeler in Kappeler *et al.*, 2005. Roos *et al.* (2021) have, likewise, indicated that Mittermeier's Sportive Lemur, *Lepilemur mittermeieri*, is a synonym of *L. dorsalis* Gray, 1871. After years of confusion as to the true identity and distribution of *Cheracebus torquatus* (Hoffmannsegg, 1807) (a detailed morphological, genetic and taxonomic study by Byrne *et al.* (2020) revealed that is was the senior synonym of *Cheracebus purinus* (Thomas, 1927).

Ninety-seven "new" primates, species and subspecies, have been described since 2000—50 from Madagascar, seven from Africa, 18 from Asia, and 22 from the Neotropics. Sixty-two of the primates described since 2000 are prosimians, 31 are monkeys, three are gibbons and one is a great ape.

Integrated Taxonomic Information System (ITIS) of the U.S. Geological Survey

A full listing with common names, Latin names, authors and year of description of the primates as recognized by the IUCN SSC Primate Specialist Group was submitted to, and accepted by, the Integrated Taxonomic Information System (ITIS) of the U.S. Geological Survey, Department of the Interior, USA, partners with the Global Biodiversity Information Facility (GBIF) in June 2014. We continue to update the taxonomy. URL:<https://www.itis.gov/>.

References

- Butynski, T. M. and de Jong, Y. A. 2020. Taxonomy and biogeography of the gentle monkey *Cercopithecus mitis* Wolf, 1822 (Primates: Cercopithecidae) in Kenya and Tanzania, and designation of a new subspecies endemic to Tanzania. *Primate Conserv.* (34): 71–127
- Byrne, H., Rylands, A. B., Nash, S. D. and Boubli, J. P. 2020. On the taxonomic history and true identity of the collared titi, *Cheracebus torquatus* (Hoffmannsegg, 1807) (Platyrrhini, Callicebinae). *Primate Conserv.* (34):13-52.
- Costa-Araújo, R., Melo, F. R. de, Canale, G. R., Hernández-Rangel, S. M., Messias, M. R., Rossi, R. V., Silva, F. E. Silva, M. N. F. da, Nash, S. D., Boubli, J. P., Farias, I. P. and Hrbek, T. 2019. The Munduruku marmoset: a new monkey species from southern Amazonia. *PeerJ*. 7: e7019. DOI 10.7717/peerj.7019. 18pp.
- Costa-Araújo, R., Silva-Jr., J. S., Boubli, J.P., Rossi, R.V., Canale, G. R., Melo, F. R., Bertuol, F., Silva, F. E., D. Silva, D. A., Nash, S. D., Sampaio, I., Farias I. P. and Hrbek, T. 2021. An integrative analysis uncovers a new, pseudo-cryptic species of Amazonian marmoset (Primates: Callitrichidae: *Mico*) from the arc of deforestation. *Sci. Rep.* ">https://doi.org/10.1038/s41598-021-93943-w>.
- Gippoliti, S. 2020. Records of Ethiopian and Eritrean Mammals in Italian literature and museums, with some taxonomic notes. *J. Integr. Biogeog.* 35: 27–42.
- Poelstra, J., Salmona, J., Tiley, G. P., Schüßler, D., Blanco, M. B., Andriambeloson, J. B., Bouchez, O., Campbell, C. R., Etter, P. D., Hohenlohe, P. A., Hunnicutt, K. E., Iribar, A., Johnson, E, A., Kappeler, P. M., Larsen, P. A., Manzi, S., Ralison, J. M., Randrianambinina, B., Rasoloarison, R. M., Rasolofoson, D. W., Stahlke, A. R., Weisrock, D. W., Williams, R. C., Chikhi, L., Louis Jr., E. E., Radespiel, U. and Yoder, A. D. 2020. Cryptic patterns of speciation in cryptic primates: Microendemic mouse lemurs and the multispecies coalescent. *Syst. Biol.* 70(2): 203-218. https://doi.org/10.1093/sysbio/syaa053
- Roos, C., Helgen, K. M., Miguez, R. B., Naw May Lay Thant, Ngwe Lwin, Aung Ko Lin, Aung Lin, Khin Mar Yi, Paing Soe, Zin Mar Hein, Myint, M. N., Ahmed, T., Chetry, D., Urh, M., Veatch, E. G., Duncan, N., Kamminga, P., Chua, M. A. H., Lu Yao, Matauschek, C., Meyer, D., Zhi-Jin Liu, Ming Li, Nadler, T., Fan, P.-F. Fan, Le Khac Quyet, Hofreiter, M., Zinner, D. and Momberg, F. 2020. Mitogenomic phylogeny of the Asian colobine genus *Trachypithecus* with special focus on *Trachypithecus phayrei* (Blyth, 1847) and description of a new species. *Zool. Res.* 41(6): 656-669.
- Roos, C., Miguez, R. P., Sabin, R., Louis Jr. E. E., Hofreiter, M. and Zinner, D. 2021. Mitogenomes of historical type specimens unravel the taxonomy of sportive lemurs (*Lepilemur* spp.) in northwest Madagascar. *Zool. Res.* 42(4): 428-432.
- Schüßler, D., Blanco, M. B., Salmona, J., Poelstra, J., Andriambeloson, J. B., Miller, A., Randrianambinina, B., Rasolofoson, D. W., Mantilla-Contreras, J., Chikhi, L., Louis Jr., E. E., Yoder, A. B. and Radespiel, U. 2020. Ecology and morphology of mouse lemurs (*Microcebus* spp.) in a hotspot of micro-endemism in northeastern Madagascar, with the description of a new species. *Am. J. Primatol.* 82(9): e23180. <https://onlinelibrary.wiley.com/doi/full/10.1002/ajp.23180≥
- Shekelle, M., Groves, C. P., Maryanto, I., Mittermeier, R. A., Salim, A. and Springer, M. S. 2019. A new tarsier species from the Togean Islands of Central Sulawesi, Indonesia, with reference to Wallacea and conservation on Sulawesi. *Primate Conserv.* (33): 65–73.

(3) Threatened Primates – The Red List

<http://www.iucnredlist.org/#>

Status as of 1 January 2022



The assessments carried out for the Neotropical primates (January 2015), the Asian primates (November 2015), and the African primates (April 2016) have now all been written up and submitted to the IUCN SSC Red List program and posted on the Red List website. As of 1 January 2022, 62.8% of all primate taxa are now threatened. Employing the IUCN Red List equation for calculating the numbers threatened [CR+EN+VU)/(Total-EX-DD-NE)*100)] indicates that 68.4% of all primates are threatened.

	CR	EN	VU	NT	LC	DD	NE
All primates	108	190	151	59	155	38	14
-	15.1%	26.6%	21.1%	8.3%	21.7%	5.3%	2.0%
Africa	17	44	40	21	61	6	3
	8.8%	22.9%	20.8%	10.9%	31.8%	3.1%	1.6%
Madagascar	35	45	26	0	2	3	1
_	31.3%	40.2%	23.2%		1.8%	2.7%	0.9%
Asia	34	70	45	16	8	12	9
	17.5%	36.1%	23.2%	8.25%	4.1%	6.2%	4.6%
Neotropics	22	30	40	24	83	17	3
_	10.05%	13.7%	18.3%	11.0%	37.9%	7.8%	1.4%
Prosimians	41	65	39	9	26	5	5
	21.6%	34.2%	20.5%	4.7%	13.7%	2.6%	2.6%
Monkeys	52	103	110	50	129	32	10
-	10.7%	21.2%	22.6%	10.3%	26.5%	6.6%	2.1%
Apes	15	23	1	0	0	1	0
-	37.5%	57.5%	2.5%			2.5%^	

Eight hundred and eight primate taxa are on the IUCN Red List database of which 93% (754 assessments) were revised and had new assessments published between 2018 and the end of 2021. The last few assessments – c.32 taxa – will be revised and submitted in March 2022 for publication in mid-2022. This will conclude an ambitious five-year initiative to fully update the IUCN Red List for primate assessments. Note that the Red List has assesses the species and also all component subspecies separately.

Numbers of threatened primates (CR+EN+VU). 1 January 2022.

All primates	Prosimians	Monkeys	Apes	Lemurs	Africa	Asia	Neotropics
449	145	265	39	106	101	149	92
62.8%	76.3%	54.5%	97.5%	94.6%	52.6%	76.8%	42.0%

Numbers of Endangered primates (CR+EN). 1 January 2022.

				-			NT (1
All primates	Prosimians	Monkeys	Apes	Lemurs	Africa	Asia	Neotropics
298	106	155	39	80	61	104	52
41.7%	55.8%	32.0%	95.0%	71.4%	31.8%	53.6%	24.0%

(4) The World's 25 Most Endangered Primates 2018–2020

The aim of the biennial listing of the World's 25 Most Endangered Primates is to draw attention to the species that are highly threatened, currently lacking adequate national and international attention for their conservation, and most in need of further research and protection. Begun in 2000, the Primate Specialist Group and the Conservation Committee of the International Primatological Society (IPS) joined forces in 2004 to draw up and publicize this list. The list is reviewed and discussed every two years at an open meeting held during the congresses of the



International Primatological Society. The 2018–2020 list was decided at an open meeting held during the XXVII Congress of the International Primatological Society (IPS), Nairobi, Kenya, 19–24 August 2018.

Madagascar (5)			
Microcebus manitatra	Bemanasy mouse lemur	Madagascar	
Hapalemur alaotrensis	Lac Alaotra Bamboo Lemur	Madagascar	
Lepilemur jamesorum	Manombo Sportive Lemur	Madagascar	
Indri indri	Indri	Madagascar	
Daubentonia madagascariensis	Aye-Aye	Madagascar	
Africa (7)			
Paragalago rondoensis	Rondo Dwarf Galago	Tanzania	
Cercopithecus roloway	Roloway Monkey	Côte d'Ivoire, Ghana	
Rungwecebus kipunji	Kipunji	Tanzania	
Colobus vellerosus	White-thighed Colobus	Benin, Burkina Faso, Côte d'Ivoire,	
		Ghana, Nigeria, Togo	
Piliocolobus epieni	Niger Delta Red Colobus	Nigeria	
Piliocolobus rufomitratus	Tana River Red Colobus	Kenya	
Pan troglodytes verus	Western Chimpanzee	Benin (?), Burkina Faso (?), Côte d'Ivoire, Gambia (Extinct), Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Nigeria, Senegal, Sierra Leone, Togo (?)	
Asia (7)			
Nycticebus javanicus	Javan Slow Loris	Indonesia (Java)	
Simias concolor	Pig-tailed Langur	Indonesia (Mentawai Is.)	
Trachypithecus poliocephalus	Cat Ba Langur	Vietnam	
Trachypithecus geei	Golden Langur	Bhutan, India	
Semnopihecus vetulus	Purple-faced langur	Sri Lanka	
Hoolock tianxing	Gaoligong Hoolock	China	
Pongo tapanuliensis	Tapanuli Orangutan	Indonesia (Sumatra)	
Neotropics (6)			
Callithrix aurita	Buffy-tufted-ear Marmoset	Brazil	
Saguinus bicolor	Pied Tamarin	Brazil	
Cebus aequatorialis	Ecuadorian White-fronted Capuchin	Ecuador	
Plecturocebus olallae	Olalla Brother's Titi Monkey	Bolivia	
Alouatta guariba	Brown Howler	Brazil, Argentina	
Ateles geoffroyi	Central American Spider Monkey	Belize, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama	

World's 25 Most Endangered Primates 2018–2020

Twelve of the primates were not on the previous (2016–2018) list. Eight of them are listed as among the world's most endangered primates for the first time: *Microcebus manitatra*, *Pan troglodytes verus*, *Hoolock tianxing*, *Pongo tapanuliensis*, *Callithrix* aurita, *Saguinus bicolor*, *Cebus aequatorialis* and *Plecturocebus olallae*. Four have been listed in other years: *Paragalago rondoensis*, *Rungweebus kipunji*, *Piliocolobus rufomitratus* and *Indri indri*.

The 2018–2020 list has wo members each of the genera *Piliocolobus* and *Trachypithecus*, thus particularly highlighting the severe threats that large primates are facing in all of the world's primate habitat regions.

The report was published in 2017 (Schwitzer *et al.*, 2017). Thanks to the organizers of the XXVI Congress of the International Primatological Society, Nairobi, for arranging the open meeting held on 22 August 2018, which resulted in this list for the 2018–2020 biennium. Reviews of the efficacy and impact of the biennial lists of the World's 25 Most Endangered have been published by Nekaris *et al.* (2019), Acerbi *et al.* (2020), and Reuter *et al.* (2021). See Appendix 1 for a list of the reports published to date.

- Acerbi, A., Kerhoas, D., Webber, A. D., McCabe, G., Mittermeier, R. A. and Schwitzer, C. 2020. The impact of the "world's 25 most endangered primates" list on scientific publications and media. *Journal for Nature Conservation* 54: 125794.
- Nekaris, K. A. I., Williams, E., Campera, M. and Nijman, V. 2019. The world's 25 most endangered primate list: Contribution or detraction? *Primate Eye* 127: 10–11.
- Reuter, K. E., Mittermeier, R. A., Schwitzer, C., McCabe, G. M., Rylands, A. B., Jerusalinsky, L., Konstant, W. R., Kerhoas, D., Ratsimbazafy, J., Strier, K. B., Webber, A. D., Williamson, E. A. and Wise, J. 2021. The 25 most endangered primates list: impacts on conservation fundraising and policy. In: *Communicating Endangered Species: Extinction, News and Public Policy*, E. Freedman, S. S. Hiles and D. Sachsman (eds.), pp.101–115. Routledge, Abingdon, UK.
- Schwitzer, C., Mittermeier, R. A., Rylands, A. B., Chiozza, F., Williamson, E. A., Byler, D., Wich, S., Humle, T., Johnson, C., Mynott, H., and McCabe, G. (eds.). 2019. *Primates in Peril: The World's 25 Most Endangered Primates 2018–2020.* IUCN SSC Primate Specialist Group, International Primatological Society, Global Wildlife Conservation, and Bristol Zoological Society, Washington, DC. 130pp. URL: http://www.primatesg.org/storage/pdf/Primates_in_Peril_2018-2020.pdf

(5) Action Plans

A Regional Action Plan for the Western Chimpanzee

In 2016, IUCN uplisted the western chimpanzee, *Pan troglodytes verus*, from "Endangered" to "Critically Endangered" (Humle *et al.*, 2016), reflecting the subspecies' increasingly dire conservation status. It occurs in Côte d'Ivoire, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Senegal and Sierra Leone, but has been extirpated in three countries—Benin, Burkina Faso and Togo. The population is estimated to have declined by 80% between 1990 and 2014, to approximately 52,800 individuals (Kühl *et al.* 2017; Heinicke *et al.* 2019). The four chimpanzee subspecies have experienced an overall range reduction of



20% in just eight years, and much of this contraction is linked to habitat loss, poaching and disease.

This action plan presents the status and threats to *P. t. verus*, based on expert evaluation of the best scientific knowledge available to date. A considerable amount of new data is available on

its distribution and status patterns since the first action plan was published in 2003 (Kormos *et al.* 2003). An analysis of the threats to chimpanzee populations highlighted the need to address these threats and their drivers—habitat loss and poaching were identified as the two highest threats, followed by industrial and artisanal mining, disease, negative interactions between people and chimpanzees, industrial agriculture and road infrastructure development. Indirect drivers also continue to threaten chimpanzees in the region—weak environmental governance (particularly lack of law enforcement and inadequate governance of industry), inconsistencies in legislation across countries, inadequate financial and logistical resources for chimpanzee conservation, and lack of consideration of chimpanzees in land-use planning.

This plan outlines actions, methods and indicators, and identifies implementers for the completion of the objectives given for nine remedial strategies, with the goal of achieving a collective vision – "A connected landscape where western chimpanzees and their habitats are valued, protected and thriving; ensuring mutually beneficial coexistence for current and future generations of chimpanzees and humans.". The nine strategies identified were: (1) Definition of norms and best practices; (2) Elimination of identified research and data gaps; (3) Development of policy and review of legal frameworks; (4) Establishment of regional coordination mechanisms; (5) Monitoring and managing disease outbreaks; (6) Land-use planning; (7) Maintenance, strengthening and establishment of protected areas; (8) Raising awareness; (9) Financing conservation.

- Heinicke *et al.* (2019). Advancing conservation planning for western chimpanzees using IUCN SSC A.P.E.S. the case of a taxon-specific database. *Environmental Research Letters* 14: 064001
- Humle, T., Boesch, C., Campbell, G., Junker, J., Koops, K., Kuehl, H. and Sop, T. (2016). *Pan* troglodytes ssp. verus. The IUCN Red List of Threatened Species 2016: e.T15935A17989872.
- IUCN SSC Primate Specialist Group. (2020). Regional Action Plan for the Conservation of Western Chimpanzees (Pan troglodytes verus) 2020–2030. IUCN, Gland, Switzerland.
- Kormos, R., Boesch, C., Bakarr, M. I. & Butynski, T. M. (eds.). (2003). West African Chimpanzees: Status Survey and Action Plan. IUCN, Gland, Switzerland. 219pp.

<http://www.primate-sg.org/WACAP.pdf>

Kühl, H. S. *et al.* (2017). The Critically Endangered western chimpanzee declines by 80%. *American Journal of Primatology* 79: e22681.

An Action Plan for the Threatened Red Colobus Monkeys

Red colobus monkeys (*Piliocolobus* spp.) are the most threatened group of African monkeys. All are threatened with extinction, and 14 of the 18 taxa are listed as Critically Endangered or Endangered. Despite their conservation status, only a few populations have been studied in any detail. The need for an action plan for these species was clearly stated by John F. Oates, Thomas T. Struhsaker and Stephen Gartlan in 1982 in the *IPS News* bulletin in March of that year. Oates repeated his message in 1986 in his first *Action Plan for African Primate Conservation*, in 1988 in the *Threatened Primates of Africa: The IUCN Red Data Book*, and again



in his revised action plan – *African Primates: Status Survey and Conservation Action Plan* – of 1996. The importance of an action plan for the red colobus monkeys was discussed at the African Primate Red-Listing Workshop in 26–31 January 2005 and emphasized cogently by Struhsaker in 2005 and in his book of 2010. It germinated at last during the IUCN African Primate Red-

Listing Workshop held in Rome, 18-23 April 2016. It was nurtured and thoroughly discussed and workshopped during the IPS congress in Chicago (2016), the First Congress of the African Primatological Society in Bingerville, Côte d'Ivoire, 24-26 July 2017 (a day-long workshop after the congress), the IPS Congress in Nairobi, 19-25 August 2019, and the Second Congress of the African Primatological Society, Entebbe, Uganda, 2-16 September 2019.

The result is the fruit of numerous experts on these monkeys and on African wildlife conservation. It identifies the populations and sites in most urgent need of conservation measures for each taxon and across the red colobus' geographic range. The primary threats are hunting and habitat loss, driven by a combination of human population growth, worldwide demand for natural resources, and the globalized economy. Seventeen of the red colobus forms are threatened by illegal hunting, especially to supply the commercial bushmeat trade.

Range-wide and taxon-specific conservation actions are centred on seven main strategies to prevent red colobus extinctions and improve their conservation outlook. Recommendations: 1) Sixteen of the 18 red colobus forms urgently require field surveys and monitoring to assess their distribution, abundance, and the threats they face. (2) Creation of new protected areas and improvements in the effectiveness of the existing protected areas (3) Engagement of and collaboration with local communities (4) Development of partnerships between conservation and public health organizations to address issues of human health and family planning in and around red colobus habitats. (5) Implementation of local and global education and awareness programmes focused on red colobus and their habitats. (6) the formation of a global network of red colobus researchers and conservation practitioners to develop and coordinate conservation interventions. (7) Foment the support of governments of the 18 countries where red colobus monkeys live. Conservation priorities and their estimated costs were identified for each taxon. To facilitate responsible implementation of the action plan, the Primate Specialist Group and African Primatological Society have formed a Red Colobus Working Group and a Red Colobus Conservation Network (https://www.redcolobusnetwork.org), which bring together people interested in the welfare of red colobus across the African continent.

- Linder, J. M., Cronin, D. T., Ting, N., Abwe, E. E., Davenport, T. R. B., Detwiler, K. M., Galat, G., Galat-Luong, A., Hart, J. A., Ikemeh, R. A., Kivai, S. M., Koné, I., Kujirakwinja, D., Maisels, F., McGraw, W, S., Oates, J. F. and Struhsaker, T. T. 2021. *Red colobus* (Piliocolobus) *Conservation Action Plan 2021-2026*. IUCN, Gland, Switzerland.
- Oates, J. F. 1986. Action Plan for African Primate Conservation 1986–1990. IUCN/SSC Primate Specialist Group, IUCN, Gland, Switzerland. 41pp.
- Oates, J. F. 1988. The IUCN/SSC Action Plan for African Primate Conservation: A synopsis. In: *Threatened Primates of Africa: The IUCN Red Data Book*, P. C. Lee, J. Thornback and E. L. Bennett (compilers), pp.vii–x. IUCN Gland, Switzerland and Cambridge, UK.
- Oates, J. F. 1996. *African Primates: Status Survey and Conservation Action Plan.* IUCN/SSC Primate Specialist Group, IUCN Gland, Switzerland. 80pp.
- Oates, J. F., Gartlan, S. J. and Struhsaker, T. T. 1982. A framework for planning rain-forest conservation. International Primatological Society *IPS News* (1) March: 4–9.
- Struhsaker, T. T. 2005. Conservation of red colobus and their habitats. *International Journal of Primatology* 26: 525–538.

Conservation Action Plan for Cercocebus *and* Mandrillus Andrea Dempsey, Gráinne McCabe and David Fernández

In 2019 fourteen international primatologists held a three-day workshop, hosted by the Wildlife Division of the Forestry Commission of Ghana in Accra, to develop an action plan to address the conservation needs of the seven species of *Cercocebus* and the three species/subspecies of *Mandrillus*.

The purpose of the production of this plan was a call to action for the global conservation community, as well as national governments, multilateral organisations, zoological societies, wildlife centres, academic institutions and communities that are stakeholders in *Cercocebus* and *Mandrillus* spp. conservation. The goal of the plan is to provide clear recommendations for impactful actions for these species collectively, within their range states, as well as at the species or subspecies level, in order to ensure targeted conservation actions that can halt the decline of these monkeys who play a critical role in the maintenance of the forests of West, Central and East Africa. It will also be a key document for engaging with the conservation funding community around the world to ensure support for the recommended actions.

Over the three days the workshop participants developed and agreed upon key elements of the action plan including conceptual framework, funding strategy and implementation protocol. It was agreed by all that the plan should not be considered 'finished' once published but should be actively promoted, implemented and outcomes monitored.

Since the workshop the primatologists have been working on the individual species entries, composing priority conservation actions and sites, while the plan coordinators (Grainne McCabe, David Fernandez and Andrea Dempsey), have worked on the additional sections of the plan; taxonomy, distribution, anatomy, and behavioural ecology, overarching actions and key conservation priority areas.

It was important for all involved that there was consistency with other primate action plans; therefore, meetings were held with the Red Colobus Action Plan team. These meetings not only ensured that there was cohesiveness across the Specialist Group's outputs, but important lessons could be learned, and advice sought.

The plan is now in its final stages as the team make the final revisions on the text, maps, and photos before sending out for final approval by the PSG and then publication. The action plan team are most grateful to Russ Mittermeier, Anthony Rylands and the Red Colobus Conservation Action Plan team for guidance and support throughout this process, as well as both the Mohamed bin Zayed Species Conservation Fund who supported the inception workshop and Margot Marsh Biodiversity Fund who will finance the printing, publishing and dissemination of the plan in 2022.

(6) Section on Great Apes (SGA)

Co-Vice Chairs, Dirck Byler, Serge Wich, Ekwoge Abwe, Jatna Supriatna, Annette Lanjouw and Rebecca Kormos.

New SGA Website: <www.iucngreatapes.org>

Red List: Mountain Gorillas no longer Critically Endangered Liz Williamson

Mountain Gorillas (*Gorilla beringei beringei*) were reassessed and "downlisted" on the IUCN Red List of Threatened Species (Hickey *et al.*, 2018). The stabilisation of a population that was in dire straights 40 years ago marked a milestone in conservation. Having been debated for a number of years, the reclassification of mountain gorillas as "Endangered" may seem counterintuitive, given that the more numerous Grauer's (*Gorilla beringei graueri*) and Western Lowland Gorilla (*Gorilla gorilla gorilla*) subspecies are both listed as Critically Endangered. The Red List classification of gorillas is reviewed in an article in the *Gorilla Journal* newsletter (Williamson, 2019).

- Hickey, J. R., Basabose, A., Gilardi, K. V., Greer, D., Nampindo, S., Robbins, M. M. & Stoinski, T. S. 2018. *Gorilla beringei* ssp. *beringei*. The IUCN Red List of Threatened Species 2018: e.T39999A17989719. 2.RLTS.T39999A17989719.en>
- Williamson, E. A. 2019. Gorillas on the IUCN Red List of Threatened Species. *Gorilla Journal* (58): 11–13. https://www.berggorilla.org/en/journal/issues/journal-no-58/article-view/gorillas-on-the-iucn-red-list-of-threatened-species/

IUCN SSC A.P.E.S. Database Working Group Isa Ordaz-Nemeth

The working group on the IUCN SSC A.P.E.S. database outlined a number of activities in 2020, which a core group of people (Tene Sop, Isa Ordaz-Nemeth, Dirck Byler, Lars Kulik, Hjalmar Kühl) started to implement in 2021. The text summarizes these activities, the working group did not meet again in 2021.

The two major goals for all ongoing activities are 1) to restore the functionality of the IUCN SSC A.P.E.S. database, and 2) to expand the data and information service provided. With the termination of support by the Max Planck Institute, the previously existing website and database is no longer functional. We identified a new provider (Bluehost) to which a revised website and database will be moved. The revision and actual transfer will be accomplished as soon as a copy of the previous website is made available by MPI. The goal is to have the transfer process completed in 2022.

To be able to respond to ape survey data requests, we established a new (interim) database using R (previous version was based on PostgreSQL). This database contains:

- 685 field survey datasets at the end of 2021; 730 to 750 datasets expected by December 2022.
- 10 additional datasets are in the process of final formatting and will be added within the next 2 months.
- 20 datasets are being requested from owners and regular reminders sent

Furthermore:

- 895 reports and publications at the end of December 2021; 950 expected by December 2022.
- and 35 spatial layers predicting ape distribution and abundance are available through A.P.E.S. DB.

The A.P.E.S. wiki is part of the IUCN SSC A.P.E.S. database and provides summary information about the conservation status of apes at site level (open access https://apeswiki.eva.mpg.de). The A.P.E.S. wiki has been expanded considerably in 2021 to 168 sites. In collaboration with the 'Section on Small Apes', gibbons are now included as well. Thus, the A.P.E.S. wiki will eventually provide detailed information on 34 taxa of great and small apes. The target number of sites is approximately 500. By the end of 2022 we aim to reach 280 sites. To promote the maintenance and use of the platform, we will hold an A.P.E.S. wiki workshop in West Africa this in 2022, which will allow us to revise the content and fill in information gaps for the western chimpanzee sites. An additional activity is the inclusion of behavioral, ecological and genetic diversity information. Population diversity is a well-known characteristic of apes. With the inclusion of this information into the A.P.E.S. wiki, we would like to make ape population diversity information more easily accessible and thus foster inclusion into conservation approaches. A third focus with the A.P.E.S. wiki is the inclusion of information on climate change. Here we pay particular attention to extreme weather events, which may represent an additional threat to the survival of free-ranging apes, next to habitat loss, hunting and infectious diseases.

By the end of 2022, we envision having a fully functional and revised IUCN SSC A.P.E.S. website, a considerably expanded A.P.E.S. wiki and archive of field survey data and reports available.

Working Group on Chimpanzee Cultures (WGCC) Erin Wessling and Crickette Sanz

The Working Group on Chimpanzee Cultures (WGCC) was initiated in 2020 and is co-led by Drs. Erin Wessling and Crickette Sanz. It currently has 24 members – representing leading experts in chimpanzee culture and conservation practice, and welcomes new members, especially those from chimpanzee range countries. Over the past year the group has (1) contributed to conversations on how animal cultures could be implemented into conservation practice, culminating in a publication (available here: http://doi.org/10.1111/conl.12860) that is set to be published shortly in *Conservation Letters*. (2) The group promoted awareness of WGCC efforts and the concept of chimpanzee cultures to an array of audiences, including presenting at scientific conferences, and producing pamphlets to distribute about preserving chimpanzee cultures and diversity as conservation targets. (3) Finally, in December 2021, the WGCC hosted a two-day workshop during which group members and conservation experts convened to discuss practical steps for how chimpanzee cultures could be integrated into conservation practice. In 2022, the group plans to publish these plans to a broad audience, and to compile a wide array of material that can help to engage diverse stakeholder groups to incorporate chimpanzee cultures into conservation appropriately and effectively.

Western Chimpanzee Action Plan Implementation Committee Erin Wessling

There was a considerable amount of activity surrounding the *Regional Action Plan for the Conservation of the Western Chimpanzee* (published in 2020, hereafter 'WCAP') in 2021, beginning with the establishment of the WCAP Implementation Committee in January. The Implementation Committee was formed with 28 leading members and 8 deputy members, representing 10 topical domains and 18 national representatives of all eight western chimpanzee

range nations. Implementation Committee members are responsible for communication with relevant stakeholders and are leaders in coordinating action towards WCAP objectives.

In addition to the Implementation Committee, 2021 brought the establishment of the WCAP website, which serves as a platform to indicate progress of actions for the WCAP, and as a platform of exchange, and is a dynamic and accessible resource for all interested in western chimpanzee conservation. It can be accessed at <<u>westernchimp.org</u>>. The website includes a



progress tracker that tracks activity towards the WCAP objectives in real time. Further, the site includes a FORUM, where SGA members active or interested in western chimpanzee conservation are invited to create a profile on the website and contribute to discussions. Lastly, a number of documents have been produced to draw attention to important issues for conservation policy makers, including on legal text and law enforcement, issues of chimpanzee population diversity, and the role of private industry in chimpanzee conservation. These brochures were disseminated at the recent WCAP event in Liberia, hosted by the WCAP Implementation Committee representatives for Liberia, in conjunction with the Wild Chimpanzee Foundation and Liberia's FDA. A similar event will be held in 2022 in Guinea.

If there are any questions related to the WCAP, the Implementation or its activities, all correspondences are welcome to <<u>westernchimp@gmail.com</u>>.

ARRC Task Force

Rebecca Kormos, Geneviéve Campbell

In 2021, the IUCN SSC PSG SGA SSA ARRC Task Force has continued to provide advice to industrial development projects in the aim of reducing their impacts on apes. Through its independent panels composed of SGA members, the ARRC Task Force has helped improve ape baseline survey data, minimization and rehabilitation measures, and to offset requirements for nine projects in Africa. The ARRC Task Force has also independently audited one of these projects in-country and conducted a review of a chimpanzee offset in Guinea to improve guidelines for future ape offsets (the report can be found here).

The ARRC Task Force launched its Primate WATCH program in 2021, which aims to strengthen the capacity of West African primatologists to advise industrial development projects directly, or through ARRC's independent panels. Most of the coursework took place remotely, with one meeting taking place in West Africa to better understand the practical application of the concepts learned.

CoViD-19 Working Group Liz Williamson, Serge Wich

In the first week of 2021, San Diego Zoo Safari Park announced that its gorilla group had tested positive for SARS-CoV-2, and that the infection was acquired from an asymptomatic staff member. As this was the first known case of CoViD-19 in any great ape, an online meeting with the SGA was arranged. In early March, San Diego staff shared the case histories of the gorillas affected, including details of their treatment, with members of the CoViD-19 working group and other great ape conservationists. Subsequently, the working group revised and updated the SGA advisory originally issued in March 2020



In 2021, the working group was composed of the following great ape health experts and members of the SGA with expertise in disease transmission at the human-great ape interface and/or tourism: Marc Ancrenaz, Kirstin Gilardi, Lynne Gaffikin, Tom Gillespie, Tony Goldberg, David Greer, Kimberley Hockings, Tatyana Humle, Gladys Kalema Zikusoka, Nadine Lamberski, Fabian Leendertz, Liz Macfie, Fiona Maisels, Bethan Morgan, Megan Owen, Martha Robbins, Dominic Travis, Steve Unwin, Chris Walzer, Serge Wich and Liz Williamson. The working group will continue to be convened on an *ad hoc* basis when new data indicate that the existing advisories should be further reviewed and revised.

Great Ape Action Planning Working Group Jacqui Sunderland Groves

Over two decades the IUCN SSC Primate Specialist Group's Section on Great Apes (SGA) has published 11 regional action plans for eight African ape taxa, in collaboration with IUCN and/or non-governmental partners. These plans were developed for the geographic range of each taxon with the intention of providing a framework upon which national plans could build on with more context and site-specific actions. Plans differ somewhat in their scale and level of content, and whilst this may not be of specific concern, generating plans which are actionable, stakeholder inclusive, foster continued engagement, and allow for evaluation in relation to their conservation impact, are clearly important.

To review the effectiveness of current great ape action plans and planning processes, and make recommendations to assist those developing future plans, the SGA Action Plan Working Group identified a suite of minimum guiding principles and appointed an independent review of current plans. Principles included those crucial elements noted above, whilst ensuring use of the best available science, the need to complement other planning layers in the region and the merits of planning at different scales. A full report of our findings will be available on the SGA website,

iucngreatapes.org which will aid those formulating new plans in the future and allow us to collectively reach our conservation goals for great apes.

Publications

- Campbell, G. 2021. Primate Specialist Group ARRC Task Force. *Oryx* 55(4): 495-496. <<u>https://doi.org/10.1017/S0030605321000533</u>>
- Carvalho, J. S., Graham, B., Bocksberger, G., Maisels, F., Williamson, E. A. *et al.* 2021. Predicting range shifts of African apes under global change scenarios. *Diversity and Distributions* 27: 1663–1679. <<u>https://doi.org/10.1111/ddi.13358></u>
- GRASP and IUCN 2018. Report to the CITES Standing Committee on the Status of Great Apes. United Nations Environment Programme Great Apes Survival Partnership, Nairobi, and International Union for Conservation of Nature, Gland. <<u>http://www.primate-sg.org/apes/></u>
- Heinicke, S., Mundry, R., Boesch, C., Amarasekaran, B., Barrie, A. et al. 2019. Advancing conservation planning for western chimpanzees using IUCN SSC A.P.E.S. – the case of a taxon-specific database. Environmental Research Letters 14: 064001. <<u>https://doi.org/10.1088/1748-9326/ab1379></u>
- Heinicke, S., Mundry, R., Boesch, C., Hockings, K. J., Kormos, R., Ndiaye, P. I., Tweh, C. G., Williamson, E. A. and Kühl, H. S. 2019. Towards systematic and evidence-based conservation planning for western chimpanzees. *American Journal of Primatology* 81: e23042. <<u>https://doi.org/10.1002/ajp.23042></u>
- Heinicke, S., Ordaz-Németh, I., Junker, J., Bachmann, M. E., Marrocoli, S. *et al.* 2021. Openaccess platform to synthesize knowledge of ape conservation across sites. *American Journal of Primatology* 83: e23213. <<u>https://doi.org/10.1002/ajp.23213</u>>
- IUCN SSC Primate Specialist Group 2020. *Regional Action Plan for the Conservation of Western Chimpanzees* (Pan troglodytes verus) 2020–2030. IUCN, Gland, Switzerland. <<u>https://doi.org/10.2305/IUCN.CH.2020.SSC-RAP.2.en></u>
- Junker, J., Petrovan, S. O., Arroyo-Rodriguez, V., Boonratana, R., Byler, D. *et al.* 2020. A severe lack of evidence limits effective conservation of the world's primates. *BioScience* 70: 794– 803. <<u>https://doi.org/10.1093/biosci/biaa082</u>>
- Ordaz-Németh, I., Sop, T., Amarasekaran, B., Bachmann, M., Boesch, C. et al. 2021. Rangewide indicators of African great ape density distribution. American Journal of Primatology 83: e23338. <<u>https://doi.org/10.1002/ajp.23338></u>
- Rylands, A. B., Mittermeier, R. A. and Williamson, E. A. 2020. Primate conservation new reports from the field. *Oryx* 54: 751–752. <<u>https://doi.org/10.1017/S0030605320000939</u>>
- Williamson, E. A. 2019. Gorillas on the IUCN Red List of Threatened Species. *Gorilla Journal* 58: 11–13. <<u>https://www.berggorilla.org/en/journal/issues/journal-no-58/article-view/gorillas-on-the-iucn-red-list-of-threatened-species/></u>

(7) Section on Small Apes (SSA)

Vice Chair Susan Cheyne

Organizational Capacity

The SSA remains flexible to respond to emerging gibbon conservation needs and will ensure engagement with the SSA membership when developing plans and outcomes.



The main functions of the SSA are aiding communication between gibbon experts worldwide, providing digital resources and practical help to conservation and education projects, and helping fellow gibbon experts and students to get their work funded. The SSA consists of 105 gibbon conservation practitioners across 21 countries. Steered by an executive committee and connected through a website (<htps://gibbons.asia/>) an email list, Twitter and Instagram accounts and Facebook page, the SSA brings together experts to determine the most urgent actions needed for gibbons across Asia and around the world in zoos. We work with the EAZA Gibbon TAG and the AZA Gibbon Species Survival Plan as well as the Chinese Association of Zoos and Aquaria. Some of us study their behaviour, their biology, and their habitat; we track gibbons in the wild to learn their numbers and location, and to help them thrive there. Others protect areas of forest and educate communities about how wonderful gibbons are, supporting them in preserving their local wildlife. We study diseases that affect wild populations, so we can better protect them.

Gibbons are relatively unknown and little understood, so we raise public awareness of their needs, traits, and threats through online social media and live events including International Gibbon Day held annually on October 24th.

We work to disrupt the pet trade, helping authorities bring poachers to justice, and we return captured gibbons to the wild. If that's not possible, we give them the best possible life in captivity. Some of us work in zoos, or rescue and rehabilitation centres, making sure the gibbons are happy and healthy; working up close and personal with them helps us to better understand them and to protect their wild cousins.

The SSA has also strengthened co-ordination among gibbon conservationists worldwide, sharing resources and knowledge to make their work more effective. We provide direct technical support to conservationists in the field (or rainforest!) – and we keep IUCN guidelines up to date.

Measurable Goals –complete

- 1. Publish a scientific gibbon conservation book from 2016 and 2018 International Primatological Society meetings. This is now in press with Cambridge University Press. Delays due to Covid-19 have been taken into account and publishing will take place in 2022.
- 2. Complete Country Action Plans for all 20 gibbon species. These plans will be for a 5-year period and will be country specific initially so that these can be used to gain government support for each country. Transboundary species will then be included in separate actions plans e.g., Hoolock gibbons, Cao Vit gibbon. All action plan data gathering has taken place through in-person and online meetings throughout 2021. Indonesia, Cambodia and Malaysia plans are now being written up for approval by national governments. Other countries are in various stages of the process, and we expect all to be complete and ratified by end 2022.
- 3. Publish Best Practice Guidelines on Primate Tourism (with PSG Human Primate Interactions Working Group) as part of the IUCN Occasional Papers series. This document has taken over 1 year to prepare largely due to Covid-19. A consultant was brought on board to ensure this has been done and is now in review with IUCN Primate Specialist Group Chair Russ Mittermeier for publication in early 2022. The guidelines include a large section on gibbons and other primates (not great apes) with guidance on diseases, practical information for practitioners and ecotourism operators.
- 4. Arrange gibbon vet meetings 2021-23 (with OVAG). 2021 was a success online and we hope 2022 can be in-person again in Indonesia https://ovag.org//https://ovag.org
- 5. Arrange Myanmar Gibbon Conservation meeting 2021. Training and expert support was offered to gibbon experts in Myanmar over 2 online meetings.

- 6. Arrange Indonesia Gibbon Conservation meeting 2021. Training and expert support was offered to gibbon experts in Indonesia over 2 online meetings.
- 7. Attend IPS Quito 2021. This has been postponed to January 2022 and Susan M Cheyne will attend and discuss primate imagery guidelines in a workshop.
- 8. Attend Vietnam gibbon action plan meeting done.
- 9. Attend Indonesia gibbon action plan meeting done.
- 10. Attend Malaysia gibbon action plan meeting done.
- 11. Investigate and tackle gibbon online trade (with university collaborations, PSG HPI Working Group) done.
- 12. Work with to zoos to support gibbon species survival plans (EAZA, Gibbon TAG etc) done.
- 13. Work with Chinese colleagues for the protection of the Hainan gibbon through the proposed new national park specifically through providing technical expertise. This was done and presented at the World Conservation Congress 2020 (held in 2021) <https://www.iucncongress2020.org/>
- 14. Continue to arrange International Gibbon Day events. 2021 had a reach of 31,000 through online, social media and in person events. The SSA now also has a presence on Instagram ">https://www.instagram.com/iucn_gibbon/
- Gather data for the new Best Practice Guidelines on Gibbon Health and Disease Monitoring

 done. Planned to launch the guidelines at the 3rd Gibbon Husbandry Conference in Hanoi, Vietnam in September 2022.
- 16. Planning for the 3rd Gibbon Husbandry Conference in Hanoi, Vietnam in September 2022.

Measurable Goals –2021-22 in progress

- 1. Translate the BPG Rehabilitation and Translocation into Burmese. This has not yet taken place due to the civil unrest in Myanmar.
- 2. Publish Best Practice Guidelines for Surveying and Monitoring Gibbon Populations as part of the IUCN Occasional Papers series. To be completed in 2022.
- 3. Working with colleagues and rescue centres in Malaysia and Indonesia to tackle illegal trade of gibbons in these countries (additional funding from Synchronicity Earth). The new campaign will be launched in 2022 in collaboration with Gibbonesia https://gibbonesia.id/
- 4. Work with GRASP and PSG SGA on extractive industry guidelines for primate consultants https://www.arrctaskforce.org/>

Activities to date

- 1. Publish a scientific gibbon conservation book from 2016 and 2018 International Primatological Society meetings: this is being published by Cambridge University Press with a planned publication date of early 2022.
- 2. Completed action plans for all 20 gibbon species but do this countrywide. Further action planning meetings are scheduled for 2021 due to Covid-19 delays. These will be for 5 years. *Complete:* Laos and Bangladesh. *In process:* Myanmar, Malaysia, Indonesia, Vietnam, China, India. TBC Cambodia and Thailand. Based on a Conservation Planning Specialist Group briefing with Onnie Byers, a custom spreadsheet was prepared and has been completed by all country coordinators who ensured adequate engagement with local communities, local government, industry, captivity, and other stakeholders).
- 3. Provided capacity building training for country coordinators of the action plans.
- 4. Launched the Global Gibbon Initiative with a planning statement.
- 5. Publish Best Practice Guidelines on Primate Tourism (with the PSG Human Primate Interactions Working Group). Gibbon chapter and full guidelines due for completion in

January 2022. The *Responsible Use of Non-Human Primate Images Guidelines* are now freely available online and currently in 24 languages (<<u>https://human-primate-interactions.org/resources/></u>).

- 6. Arrange gibbon vet meetings 2021–2023 (with OVAG). These have been exceptionally wellattended and successful over the last 3 years, including the 2021 online version.
- 7. Arranged Myanmar Gibbon Conservation meeting: planned early 2021.
- 8. Attended Vietnam gibbon action plan meeting: summer 2021.
- 9. Attended Indonesia gibbon action plan meeting: summer and winter 2021.
- 10. Attended Malaysia gibbon action plan meeting: summer 2021.
- 11. Investigating and tackling gibbon online trade (with university collaborations, PSG HPI Working Group): ongoing.
- 12. Working with to zoos to support gibbon species survival plans (EAZA, Gibbon TAG, etc.): ongoing.
- 13. Invited Rahayu Oktaviani (Indonesia) and Yan Lu (China) to become co-vice-chairs from January 2022 and help advise the goals and directions for the SSA.
- 14. Work with the A.P.E.S Database and the Re:Wild Team to create a bespoke form for gibbon experts to submit their data.

<https://www.cognitoforms.com/APESWiki/welcometotheapeswikiformforsmallapes>

Challenges

Covid-19 continues to limit travel and attending in-person meetings. Much of the work has been completed online but there have been inevitable delays due to people around the world managing work and the restrictions in their home countries. Surveys and especially meetings with government officials have been affected.

(8) Section on Human-Primate Interactions (SHPI)

Co-Vice-Chairs Siân Waters, Susan Cheyne (August 2018 – January 2020) and Malene Friis Hansen

Section Structure

The Section for Human-Primate Interactions (SHPI) was approved by the PSG Executive Council in August 2018 and currently has 55 members. The Section is composed of five working groups: commercial exploitation; primates in agro-ecosystems; primates in human culture; primate tourism; urban primates.

Online Publication

Waters, S., Setchell, J. M., Oram, F., Cheyne, S. M and Wallis, J. 2021. IUCN Primate Specialist Group Section for Human-Primate Interactions Best Practice Guidelines for Responsible Images of Non-Human Primates. https://human-primate-interactions.org/resources/>

Many kind volunteers translated the guidelines into 23 different languages making these BPGs really accessible and inclusive. All versions are available for download here https://human-primate-interactions.org/resources/. The publication of these BPGs resulted in 4,000 hits on our resources webpage throughout 2021, possibly encouraged by the media coverage they generated.

Science Website <https://www.science.org/news/2021/01/no-more-cuddly-selfies-our-ape-cousins-top-conservation-body-warns-scientists>

The Guardian UK <https://www.theguardian.com/environment/2021/jan/24/no-more-monkey-selfies-scientists-told-images-could-drive-pet-trade-aoe?CMP=Share_iOSApp_Other>

BBC (used old photo of Jane Goodall cuddling a chimp which is disappointing). <https://www.bbc.co.uk/newsround/55788065>

Treehugger - < https://www.treehugger.com/scientists-others-avoid-photos-primates-5097451>

The BPGs have also been:

Adopted by the IUCN PSG Section for Small Apes

Adopted by Barbary Macaque Awareness & Conservation NGO, Morocco & UK

Adopted by the Long-tailed Macaque Project NGO, Denmark

Adopted by Save Gabon's Primates

Placed on the Primate Society of Great Britain's website and adopted as policy for their editorial guidelines.

Adopted by Durham University, UK.

Adopted by: North American Primate Sanctuary Alliance (NAPSA)

The Global Federation of Animal Sanctuaries (GFAS) runs Giving Day for Apes. In 2021, GFAS incorporated the BPGs into the terms of participation for the event and emphasized the need to use responsible imagery in their fundraising campaigns. GFAS were able to use this global fundraising event to raise funds doing so using responsible imagery.

Meetings & events

September 2019 – Waters and Cheney organized and conducted a symposium on Human-Primate Interactions at the joint European Federation of Primatology / Primate Society of Great Britain meeting. (See Appendix 1 for more details).

December 2020 – Waters presented on SHPI at the virtual winter meeting of the Primate Society of Great Britain.

February 2021 – Waters was invited to talk about the Best Practice Guidelines for Responsible Images of NHPs at the virtual spring meeting of the EAZA Afro-Eurasian Monkey TAG.

April 2021 – Waters was invited to talk about the Best Practice Guidelines for Responsible Images of NHPs at the virtual spring meeting of the EAZA Great Ape TAG.

August 2021 – Waters was invited to talk about the Best Practice Guidelines for Responsible Images of NHPs at a GFAS webinar for rehabilitation and rescue centres.

October 2021 - Waters provided a pre-recorded presentation of Best Practice Guidelines for Responsible Images of NHPs to the International Congress of Zookeepers for inclusion in their webinar series.

October 2021 - Royal Anthropological Institute virtual conference Waters and Erin Riley organised an online panel "Understanding People-Primate-Place Relations to Advance Conservation Aims". (See Appendix 1 for more details).

November 2021 - SW provided a pre-recorded presentation of Best Practice Guidelines for Responsible Images of NHPs to the EAZA Callitrichid TAG for their series of webinars streamed via Facebook.

Funding

Ouwehands Conservation Foundation (Ouwehands Zoo), The Netherlands, has partially funded Water's work as Section co-vice-chair in 2020 and 2021.

SHPI Support for Primatologists during the pandemic

In response to the pandemic, we began a series of webinars on topics related to HPI. The webinars are available on our website. We prioritised early career primatologists from range countries as speakers when we were able. A list of speakers and their presentations can be found in Appendix 2. The July-December 2021 webinars were supported by a small grant from the Primate Society of Great Britain to Siân Waters.

Communications

Our website is public <https://human-primate-interactions.org/>. Visits and visitors to the site doubled in 2021 with the publication of the BPGs for responsible images of NHPs. 2021 saw 6500 visitors and 13500 views.

Our Facebook group https://www.facebook.com/groups/187157948858667/ has ~2000 followers

Our Twitter account @peopleprimate has more than 1300 followers.

We have published ten newsletters delivered to ~500 subscribers.

We are very grateful to the graphics department of Apenheul Primate Park for designing our logo.

Other Publications

- Waters, S., Cheyne, S. M. 2019. IUCN Primate Specialist Group Section for Human-Primate Interactions. African primates 13:65.
- Waters, S., Cheyne, S. M. 2019. IUCN Primate Specialist Group Section for Human-Primate Interactions. Asian Primates.
- Waters, S., Cheyne, S. M. 2020. IUCN Primate Specialist Group Section for Human-Primate Interactions: Update. African primates 14:65.
- Daniels, C., Cheyne, S. M., Waters, S. and Svensson, M. S. 2021. Professional primate keepers and online primate imagery: An assessment of knowledge and attitudes. JZAR 9(4) <https://www.jzar.org/jzar/article/view/634?fbclid=IwAR1yiqcJgEzXCaf_4yThEJgNxKaV pU4Nre61AVjr4W4d5ONW6BFqPJqQ9Qk>

Other activities

We assisted Angela Maldonado in her campaign against scenes of primates being used as tourist photo props in a video promoted by the Colombian Ministry of Tourism. We are pleased to report that the scenes were edited out of the video.

During the start of the Covid-19 crisis, SW and SC wrote to the Moroccan Department of Agriculture to request the rescinding of the special designation allowing the exploitation of Endangered Barbary macaques as tourist photo props in the square of Jmaa El Fna, Marrakech. We drew attention to the public health risks of possible Covid-19 transmission between tourists and the photo prop macaques. The department supported our request and relayed it to the Department of tourism and of health who did not acknowledge it. The photo prop macaques have returned to the Square.

Current and upcoming activities

MFH is currently coordinating the writing of the Best Practice Guidelines for Primate Tourism (excluding great apes) with the support of the Primate Tourism working Group. The first draft will be ready for review by the PSG membership in early 2022. The creation of the first draft

was funded by the Section for Small Apes. MFH and SC hope to create an app for the BPGs to increase accessibility and use. The hope is to have different sections of the BPGs translated into the local languages related to the sections All sections are short, practical, and easy to follow. Assisted by the urban primates and primates in agro-ecosystems working groups, SW will conduct a survey of practitioners to understand the diverse strategies enabling people and primates to coexist and to find out (1) what they are doing (2) how effective they consider the strategies to be in fostering coexistence between arboreal and/or terrestrial primates in rural, urban, peri-urban and urbanising areas. This collaboration will also develop a standard set of evaluation questions in order to determine whether strategies are 'effective' or not. This evaluation will need further discussion of what 'success' or 'effectiveness' means and should include socio-cultural factors.

With the primates in human culture working group, SW will coordinate an evaluation of the impact of the BPGs for Responsible Images of NHPs. We will continue and expand our collaborations to improve the dissemination of the BPGs with Primate societies and NGOs encouraging them to adopt and promote the BPGs. We would like to form a group to coordinate further research on this issue. We will also promote contact with groups concerned about close contact photos of people with wildlife such as sloths and cheetahs to multiply the effect of our messaging. We intend to approach foreign and range country primatologists/key influencers to recount via video why they no longer share photos if themselves in contact with primates to publish on our social media.

(9) PSG Neotropical Region

Regional Vice Chairs: Erwin Palacios, Eckhard W. Heymann, Fanny M. Cornejo, Liliana Cortés-Ortiz, M. Cecília M. Kierulff, Fabiano Rodrigues de Melo, Maurício Talebi, Leandro Jerusalinsky, Diana Carolina Guzmán Caro, Stella de la Torre, Martin Kowalewski

Brazil and the Guianas

Black lion Tamarin conservation Gabriela Cabral Rezende

The Black Lion Tamarin Conservation Program, developed by $IP\hat{E}$ – Institute for Ecological Research, started in 1984 aiming at saving the endangered black lion tamarin (*Leontopithecus chrysopygus*) from a direct path to extinction. Over time, the project has built a successful integrated approach that considers applied conservation field research as the groundwork for planning management actions at the population, habitat, and landscape levels. This integrated approach also took into account community involvement to implement and sustain these conservation actions. Having celebrated its 35th anniversary in 2019, it is one of the longest-term ongoing conservation projects in Brazil. In 2014, it succeeded in making this species the symbol for the conservation of the extremely threatened Atlantic Forest of São Paulo state, one of the world's biodiversity hotspots of which the lion tamarins are endemic.

One of the most significant results along the three decades of the Program is the Atlantic Forest Corridor in the Pontal do Paranapanema region, in western São Paulo. It is the largest corridor formed by restored forest in Brazil and it connects two protected areas: the Black Lion Tamarin Ecological Station and the Morro do Diabo State Park, helping to mitigate the negative effects of deforestation in the region. With a length of 20 km and harbouring more than 2.7 million trees, this corridor has recovered over 1,500 hectares (3,700 acres) of forest. This restoration effort helps to increase the habitat and to reconnect populations of the endangered species of the region, such as the black lion tamarins. A second corridor is being planted to increase the benefits of

habitat restoration on the conservation of this small primate. This new corridor, the "North Corridor" (called so because it is located near the northern tip of the Morro do Diabo State Park) will comprise another 1,500 hectares of restored forest and reconnect five forest fragments to the State Park. Beginning in 2019, over 420 ha (1,060 acres) were already planted. Once finished, these corridors will establish a continuous area of +45.000 ha of Atlantic Forest for black lion tamarins, with the potential to increase their population in the region by at least 30% and reduce to ZERO the extinction risk of the small populations, as all of them will be connected.

Concurrently with this long-term strategy, quicker solutions are required to avoid the late effects of habitat fragmentation on the small and isolated populations before they disappear. For this, the work is also focused on managing the wild populations so that black lion tamarins occupy the connected forest fragments and corridor areas. After several months of preparing, unfortunately, the Black lion tamarin Population and Habitat Viability Assessment (PHVA) Workshop that was planned to happen in March 2020 had to be canceled due to the COVID-19 pandemic. But while the pandemic difficulted to carry out face-to-face activities and slowed down field research, online meetings were much more common and effective. In this context, the model for the Population Viability Analysis (PVA) started to be developed through a series of online meetings. Six online meetings were promoted from April to June 2020. Participants included specialists on the species, from universities, zoological institutions, government, NGOs, and the IUCN (PSG and CPSG). Despite of these meetings, the process for elaborating the final action plan in a PHVA Workshop is expected to be held in person in the first half of 2022, with the presence of a whole range of stakeholders, including the ones from the PVA meetings and others such as park managers, governmental authorities, and the private sector. This plan will provide final guidance on the population management actions, but the PVA results already gave a scenario of the priority populations and allowed the identification of areas that would be focus of future management actions, where research and monitoring activities are in progress.

The COVID-19 pandemic also forced us to adapt and improve processes and practices in the field. During the 7-month break from fieldwork in 2020, we worked on the improvement of our field protocols to minimize the transmission risk of COVID-19 and other zoonotic diseases to/from wild primates, trained the field team and purchased protective equipment for them. Despite the pause, from 2019 to 2021, we carried out 24 field expeditions focused on captures, totaling 245 days in the field. We had 47 capture/recapture events, including 25 different individuals, in four areas. All animals were sampled (blood, hair, and feces) for health, genetics, hormonal, and isotope analyses; samples are now being stored in the brand new "Black lion tamarin Biobank" and will allow studies on hematology, virology, parasitology, physiology, among others. Eleven tamarins were tagged with GPS/accelerometer devices for monitoring of movement and energy expenditure. Of these, 5 devices were successfully recovered with data, while 2 failed to record data and 4 were lost. The data is under analysis and the use of this new technology on callitrichids will give us unprecedent information on fine-scale movement and the impact of forest structure and fragmentation on the tamarin's movement and energy expenditure. The field research is developed in partnership with several Brazilian and international institutions, highlighting the São Paulo State University (UNESP), the Federal University of São Carlos, and Swansea University (UK).

All above-mentioned actions were funded by Durrell Wildlife Conservation Trust, Whitley Fund for Nature, Disney Conservation Fund, Margot Marsh Biodiversity Foundation/Global Wildlife Conservation, the Primate Action Fund, Lion Tamarins of Brazil Fund, Idea Wild, Copenhagen Zoo, CAPES and FAPESP. Additional institutional support includes Instituto Chico Mendes de Conservação da Biodiversidade (CPB/ICMBio), Fundação Florestal de São Paulo (FF-SP), IUCN SSC Primate Specialist Group (PSG) and Conservation Planning Specialist Group (CPSG).

XVIII Brazilian Congress of Primatology (Congresso Brasileiro de Primatologia Gabriela Cabral Rezende, Leonardo Carvalho Oliveira

Organized by the Brazilian Society of Primatology (Board of Directors 2018-2020 - President: Dr. Leonardo Oliveira; Vice-President: Dra. Patricia Izar; Executive Secretary: MSc. Gabriela Rezende; General Secretary: Dr. Fabiano Melo; Treasurer: MSc. Cristiane Rangel; Vice-Treasurer: Dr. Danilo Simonini) this biennial conference was held in the city of Teresópolis, Rio de Janeiro, 6–10 November 2019, had the theme "Educating Primates" considering the lack of knowledge and information in one of the greatest threats to biodiversity. The congress was attended by 333 people from 25 (out of the 27) Brazilian states and nine different countries. The program included eight featured talks, 19 symposiums and nine round tables. Important names of the Brazilian and international primatology were present, such as Karen Strier, Anthony Di Fiore, Suzana Padua, Alcides Pissinatti, Lou Ann Dietz, Victor Arroyo-Rodriguez, and many others, discussing a range of topics in Primatology. Students' presentations totaled 82 oral presentations and 140 posters. The ten pre-congress short courses were attended by 95 people. The XIX Brazilian Congress of Primatology is expected to be held in September 2022 in the city of Sinop, Mato Grosso.



I Virtual Meeting of the Brazilian Society of Primatology "Macaqueando nas Redes" Gabriela Cabral Rezende

Due to COVID-19 pandemic that postponed the in-person congress of 2021, the Brazilian Society of Primatology (Board of Directors 2020-2022 – President: Dr. Gustavo Canale; Vice-President: Dra. Zelinda Hirano; Executive Secretary: Dra. Laurence Culot; General Secretary: MSc. Victor Yunes; Treasurer: Dra. Christine Steiner São Bernardo; Vice-Treasurer: MSc. Gabriela Rezende) organized their 1st Virtual Meeting. The program consisted of 11 meetings that happened every Monday and Wednesday from November 3rd to December 8th, 5 to 7pm BRT. The opening talk was given by Thomas Gillespie on "Infectious Diseases and Primates: Preventing Pandemics and Saving Species". The following days included nine round tables – 5 focused on the Brazilian regions and 4 on general themes such as Public Policies on Primate Conservation, Citizen

Science, Communication and Outreach, and Emerging Technologies, with the participation of 48 speakers and an audience of over 130 people. A highlight of these round tables was the opportunity given to early career professionals and researchers to present their work. The closing session was chaired by the SBPr President Gustavo Canale, that led a discussion with one representative from each of the previous sessions on the potentials and challenges in the study of Brazilian primates.

Invasive Golden-headed Lion Tamarins in Rio de Janeiro – Program for their removal M. Cecília M. Kierulff

The golden-headed lion tamarin (*Leontopithecus chrysomelas*) is restricted to the Atlantic Forest of southeastern Bahia and extreme northeastern Minas Gerais, Brazil. In 2000, they were observed for the first time in a forest fragment, part of the Serra da Tiririca State Park, within the city limits of Niterói, Rio de Janeiro, the domain of the golden lion tamarin (*Leontopithecus rosalia*). They were released by a private collector and the presence of the golden-headed lion tamarins (GHLTs) is a threat to the survival of the golden lion tamarins (GLTs): it is almost certain they would hybridize with and/or replace the less dominant (at least in captivity) golden lion tamarins.

To protect the golden-lion tamarin against the invasive species a capture program coordinated by Instituto Pri-Matas began in 2011. In the last 10 years we have successfully removed almost 1000 golden-headed lion tamarins (182 groups). From these, 49 groups were translocated (293 individuals) to Belmonte in Bahia, to a private forest within its original range but with no native golden-headed lion tamarins present. The others were transferred to captivity (zoos and other institutions). Today, few groups remain. The forest in Niterói is very large (more than 4000 ha) and there are solitary individuals, both males and females, that dispersed from their family groups and must be located before they form new groups.

The translocation was funded by Primate Action Inc, the Margot Marsh Biodiversity Foundation, the Fundação Grupo Boticário, the Lion Tamarins of Brazil Fund, the Primate Action Fund of Re:wild, The Mohamed bin Zayed Species Conservation Fund, RBO Energia S.A. and Porto Sudeste (Câmara de Compensação Ambiental/Secretaria do Meio Ambiente Rio de Janeiro) and Tropical Forest Conservation Act/Fundo Brasileiro para Biodiversidade (TFCA/FUNBIO). The capture and relocation of the groups was carried out in partnership with the Instituto Chico Mendes, Instituto Estadual do Ambiente do Rio de Janeiro (INEA-RJ), NGOs, the local community of Niterói, São Gonçalo and Maricá and the IUCN SSC Primate Specialist Group.

In the beginning of 2022, we received funds to continue to remove the last groups, the solitary individuals that sometimes travel with groups of marmosets that were also introduced into the area and to survey in the entire forest again. It is vital that we remove all the invaders now, before they again become numerous and widespread and a threat to the Golden Lion Tamarins.

Strategic Planning for Brazilian Primate Conservation Leandro Jerusalinsky

A Red-Listing workshop was held at the Floresta Nacional da Restinga de Cabedelo, Cabedelo, Paraíba, Brazil. to assess the conservation status of all the Brazilian Primates, 23–27 September 2019. It was organized and hosted by the Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio), Diretoria de Pesquisa, Avaliação e Monitoramento da Biodiversidade, Centro Nacional de Pesquisa e Conservação de Primatas Brasileiros (ICMBio/CPB).

During this period, the Centro Nacional de Pesquisa e Conservação de Primatas Brasileiros (ICMBio/CPB) of the Brazilian government continued coordinating the implementation and the follow-up (monitoring and evaluation) of the five National Action Plans (PANs) for the conservation of Brazilian primates as follows: Amazonian primates (15 species); Primates of Northeast Brazil (6 species); Atlantic Forest primates and the maned sloth (13 primates); the pied tamarin (*Saguinus bicolor*); and the Cerrado and Pantanal fauna (which includes *Sapajus cay*).

A virtual workshop was held to evaluate the need (or otherwsie) and characteristics of *ex situ* population management programs, following the *IUCN SSC Ex Situ Guidelines*, for the conservation of 15 threatened primates: *Alouatta guariba guariba, Alouatta guariba clamitans, Leontopithecus rosalia, Leontopithecus caissara, Leontopithecus chrysopygus, Leontopithecus caissara, Leontopithecus chrysopygus, Leontopithecus chrysomelas, Brachyteles arachnoides, Brachyteles hypoxanthus, Callicebus melanochir, Callicebus personatus, Callithrix aurita, Callithrix flaviceps, Sapajus robustus, Ateles marginatus, Saguinus bicolor.* The workshop was promoted by the Centro Nacional de Pesquisa e Conservação de Primatas Brasileiros (ICMBio/CPB) in partnership with the IUCN SSC Conservation Planning Specialist Group, in 9–20 August 2021, as part of the implementation of the national action plans for the conservation of Atlantic Forest Primates, Amazonian Primates, and the Pied Tamarin.

Publication of the "Protocolos para Pesquisa e Manejo de Muriquis - Gênero *Brachyteles*" (Protocols for Research and Management of Muriquis - Genus *Brachyteles*), organized by Monica M. Valenca-Montenegro, Fabiano Melo and Leandro Jerusalinsky. The production of such protocols involved 31 professionals, developed as part of the implementation of the National Action Plan for the Conservation of Muriquis, which ended up becoming part of the National Action Plan for the Conservation of Atlantic Forest Primates. The volume is composed of 14 protocols, including a decision key for the management of inviable populations, and all the procedures required for management measures for the genus.

Other activities Leandro Jerusalinsky

Support in setting up a project "Impact of Forest Fires on Threatened Primates in Amazonian Protected Areas" financed by Re:wild (formerly Global Wildlife Conservation) and coordinated by the NGO Muriqui Instituto de Biodiversidade (MIB) and the Centro Nacional de Pesquisa e Conservação de Primatas Brasileiros of the Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio) focusing on six protected areas and Endangered primates—*Cebus kaapori, Chiropotes satanas, Ateles marginatus*, amongst others.

Participation in the I Seminar concerning Muriquis and other primates of São Francisco Xavier, municipality of São José dos Campos, São Paulo, that resulted in the signing of a letter of intention for an interinstitutional collaboration to foment research and conservation measures on behalf of the southern muriqui *Brachyteles arachnoides*, the buffy-tufted-ear marmoset *Callithrix aurita* and other primates. This has already resulted in the launching of a survey project and community engagement in the region focusing on the conservation of the primates in the area.

Northern Andean Countries

Participative Strategies for the Conservation of Primate Populations and their Habitat in the Sierra Nevada (Santa Marta) and the Biogeographic Chocó Region in Colombia, with Cebus malitiosus (Endemic, EN) and Ateles fusciceps (CR) as umbrella species (2018-2019). Diana C. Guzmán-Caro |

Participating institutions: Asociación Primatológica Colombiana, Neotropical Primate Conservation, INECOL (Reserva Caracolí), Corporación Autónoma del Magdalena (CORPAMAG), Corporación Autónoma de Risaralda (CARDER). Director – Diana C. Guzmán Caro; Executive Assistant – Juliana Cortés Rincón; Research assistants – Eduardo Pinel, Daniela Linero, Juan Sebastián Castellanos, Alma Hernández, Catalina Orrego. Funded by the U.S. Fish and Wildlife Service and the Mohamed bin Zayed Species Conservation Fund,

The purpose of this project is to support conservation efforts in the Sierra Nevada of Santa Marta (Magdalena) and the Biogeographic Chocó Region (Risaralda) in Colombia by developing and implementing integral, participative, and community-based sustainable development strategies. The aim is to conserv local primate species and their habitat by reducing the impacts of direct and indirect threats on their populations and local forest ecosystems. The endemic Santa Marta White-Fronted Capuchin (*Cebus malitiosus* – EN) and the Colombian Black Spider Monkey (*Ateles fusciceps rufiventris* – CR) are umbrella species.



Santa Marta White-Fronted Capuchin (*Cebus malitiosus*) in Minca, Departamento del Magdalena, Colombia. Photo: Eduardo Pinel.

Project results include: (1) data and information on local distributions, densities and social structure of the umbrella species; (2) spatiotemporal analysis of forest loss and fragmentation, and analysis of landscape metrics; (3) increased local knowledge of primate populations (with emphasis on umbrella species) and their habitat; (4) increased knowledge and awareness of the impact of human activities on forest ecosystems, primate populations and local biodiversity; (5) local capacity to identify, apply, adopt and maintain sustainable and biodiversity-friendly production systems, methods and practices – PSMPs – and alternative livelihoods; (6) community engagement in the reduction and replacement of unsustainable land-use practices and wildlife threatening activities; (7) development of sustainable and biodiversity-friendly alternative sources of revenue through of community-based projects; and (8) increased involvement, participation and collaboration within and between local communities and environmental authorities in the mitigation, prevention and long-term reduction of threats to local forest ecosystems and wildlife, with emphasis on umbrella species.

This project allowed the successful implementation of a multi-approach conservation strategy integrating research, education and, most importantly, the active involvement and participation of local communities and environmental authorities. Through two different processes, local communities from both study sites changed their perceptions of local primates, embraced the umbrella species as important components of the local biodiversity, and developed a new relationship with conservation based on new or increased knowledge, skills and opportunities for the adoption of sustainable and biodiversity-friendly PSMPs and alternative livelihoods. Results from this project represent a valuable contribution to the knowledge of two of the most understudied primate species in the country, and to the conservation of forest ecosystems in two high-biodiversity areas with increasing habitat reduction and degradation.

Biodiversity Atlas of Colombia: Primates (2020) Diana C. Guzmán-Caro |

Henao-Díaz, F. *et al.* 2020. *Atlas de la biodiversidad de Colombia*. Primates. Instituto de Investigación de Recursos Biológicos Alexander von Humboldt. Bogotá D. C., Colombia. 51 pp. <u>View</u>



The atlas of Colombian primate biodiversity is the result of a 5-year long collaborative effort to improve and strengthen the knowledge of primate distributions in Colombia, led by the Colombian Primatological Association (APC) and Biomodelos of the Alexander von Humboldt Institute, with support of the Colombian Biodiversity Information System (SiB-Colombia) and the Laboratory of Tropical Forest Ecology and Primatology (LEBTYP) of Los Andes university.

With the participation of hundreds of students, researchers and experts, the largest number of georeferenced data on Colombian primates was gathered, resulting in 1913 new records which were published in the Colombian Biodiversity Information System (SiB-Colombia), and in the Global Biodiversity Information Facility (GBIF) under Creative Commons Attribution Non Commercial (CC-BY-NC) license. The collaboration of multiple institutions, scientists and experts was crucial throughout the modeling process.

The atlas contains detailed maps on the distribution ranges, patterns and tendencies for the 38 primate species present in Colombia, as well as information on forest cover, human impacts, and protected areas, among others. This atlas represents an extremely valuable contribution to the advancement of Colombian primatology.

Collaborative Strategy for the Prevention of Primate Trade in Colombia: Facilitating the engagement of regional environmental authorities in the implementation of the National Program for the Conservation of Primates (2021-2022) Diana C. Guzmán-Caro

Participating institutions: Conservation Bridges Foundation, Regional Autonomous Corporations. Director: Diana C. Guzmán Caro; <u>Executive Assistant</u>: Tatiana Marcela Castillo Funding: Primate Action Fund from Re:wild and the Margot Marsh Biodiversity Foundation

Despite the numerous conservation action plans that have been developed in Colombia, many have failed to achieve their objectives due to ineffective implementation strategies and the lack of collaboration among participating entities and organizations. The National Program for the Conservation of Primates (NCP) contains a detailed and well-structured 10-year Action Plan for the conservation of primate species in the country. However, for this roadmap to become a

reality, stakeholders and participating institutions need to be actively engaged in its implementation. As the top environmental authorities and primary decision-makers regarding conservation efforts at a regional level in the country, the Regional Autonomous Corporations (Corporaciones Autónomas Regionales - CARs) play a key role in the implementation of the NCP's Action Plan.



Participants of the training workshop: "Primates de Colombia 2021: Actualizando conocimientos para un manejo efectivo" conducted on August 25, 2021.

Among the many threats faced by primate species in Colombia, primate trafficking is major concern for the CARs due to the large numbers of individuals received in the Wildlife Care and Assessment Centers (CAVs) and their lack of resources, personnel, and adequate infrastructure. One of the solutions required to address this pressing issue involves prevention and mitigation through targeted campaigns and activities aimed at improving awareness and participation. The purpose of this project is to promote and facilitate CAR engagement in the implementation of the NCP through the collaborative development of a strategy for the prevention of primate trade in Colombia. The main output of the project will be increased CAR engagement, improved collaboration, and the advancement of the NCP's Action Plan by covering activities from 4 out of its 5 Lines of Action. This project will also produce and provide valuable information, data, resources, and inputs that will enable and contribute to further advances in the implementation of the NCP.

Southern Cone - Argentina, Bolivia, Paraguay, Uruguay

Action Plan for the Primates of Argentina Martin Kowalewski

A National Conservation Plan for the Primates of Argentina (*Plan Nacional de Conservación de Primates de la Argentina*) developed and proposed by The Asociación de Primatología Argentina (APRIMA) was officially recognized by the Argentinian Ministry for the Environment and Sustainable Development—Resolución 430/2021 published on 6th January 2022. https://www.boletinoficial.gob.ar/detalleAviso/primera/255189/20211227>.

The plan provides for conservation measures and the protection of the Argentinean populations of *Alouatta caraya*, *Alouatta guariba clamitans*, *Aotus* azarae, *Sapajus nigritus*, and *Sapajus cay*.

It will be coordinated by Silvana Peker of the Dirección Nacional de Biodiversidad of the Secretaria de Política Ambiental en Recursos Naturales of the Ministry. Martin Kowalewski (CONICET – EBCo) was appointed the Executive Coordinator of seven provincial chapters (the provinces where primates occur). He will be officially supported by specialists and experts Ilaria Agostini, Paula Bertolina, Ingrid Holzmann, Ricardo Negreira, Luciana Oklander, Gustavo Solis, and Laila Lopez.

APRIMA has worked with the government on this action plan since 2017. Kowalewski is particularly grateful for the advice and support of the above-mentioned specialists and also Leandro Jerusalinsky of the Conservation Planning Specialist Group (CPSG) of IUCN and Deputy Chair of the Primate Specialist Group. Financial support for the development of the action plan was provided by the Margot Marsh Biodiversity Foundation via the Primate Action Fund of Re:wild, the Council on Latin American and Iberian Studies at Yale's MacMillan Center, Fundación ECO, the Corrientes Biological Station (CECOAL-CONICET), and the National Biodiversity Directorate (MAYDS – Argentina).

Primatology in Paraguay Martin Kowalewski

As part of the program of the 1st Paraguayan Congress of Zoology (December 2019), Martin Kowalewski (RegionalVice Chair for the Southern Cone of the IUCN SSC Primate Specialist Group) and Leandro Jerusalinsky (IUCN and Deputy Chair of the Primate Specialist Group), gave a short course on primatology to interested students and coordinated a round table about challenges and opportunities to develop primatology in Paraguay. As part of this program a study group named K'ai Primates de Paraguay was formed. K'ai is the indigenous Guarany name for primates. Video messages of support were sent in by prominent primatologists, including Russell Mittermieier from Re:wild, IPS President Prof. Karen Strier, and SLAPRIM president (current) Liliana Cortés-Ortiz. Three thesis projects were planned to be developed, which will hopefully result in the first theses focused on primatology developed by Paraguayans. Financial support for the development of the course and round table was provided by the Primate Action Fund of Re:wild. We are currently working to consolidate their national association.

Primatology in Bolivia Martin Kowalewski

During 2020 and 2021, Martin Kowalewski and Leandro Jerusalinsky provided support (virtual meetings) and advice regarding the ongoing development of a "Conservation Plan for the Primates of Bolivia."

Primatology in Uruguay Martin Kowalewski

In 2021, Martin Kowalewski provided a virtual lecture on primate conservation in the course of Human Evolution, at the Universidad de la República (Montevideo, Uruguay). A group of students became interested in taking a specific primatology field course to begin studies in the north of Uruguay. Incipient plans are underway to organize a field course in primatology.

(10) PSG Mainland Africa

Regional Vice Chairs Inza Koné, Janette Wallis, Rachel Ashegbofe Ikemeh, Takeshi Furuichi, and David Osei

African Primatological Society (APS) and the 2nd African Primatological Congress

The second congress of the African Primatological Society was hosted in Entebbe, Uganda from 3–5 September 2019, following the inaugural congress held in Bingerville, Ivory Coast in 2017. The three-day event was a resounding success, bringing together over 300 primate experts, including aspiring primatologists, researchers, conservation practitioners, tourism stakeholders and policy makers from Africa and across the globe to share ideas and research findings, to discuss this year's theme: 'Challenges and Opportunities in Primate Conservation in Africa', and find ways to promote active participation of native African primatologists in the international primatology arena. With 250 of the 312 delegates from 24 different African countries, the APS more than achieved its goal of providing an accessible platform for African primatologists, in particular, to collaborate, network and discuss pressing challenges and issues, as well as opportunities and possible solutions, facing Africa's primates.

Virtual seminars/panel discussions in response to COVID-19

The COVID-19 pandemic took the world by surprise and wildlife conservation efforts were severely impacted across the continent. Thus, it was important that the African primatological community rise to the occasion by equipping members with abundance of information, knowledge and shared experience so as to cope with the health emergency posing even more risks to non-human primates. A virtual panel discussion was organized and took place on the 23^{rd} of April 2020. The purpose of the panel discussion was to call APS' members and public's attention to the implications of SARS CoV 2 – the highly infectious virus that causes COVID-19 on primate conservation particularly in Africa. It was good that we build preparedness amongst our colleagues and share on-ground experiences on how this is impacting conservation efforts as well as research work. Secondly, it was also an opportunity to call to action all stakeholders including national governments to prevent future pandemics by protecting all wildlife. Thirdly, it was also important for members and the public to stay informed; the COVID-19 news story is an evolving one and the significance of accurate information and its application in our respective spheres of influence cannot be overemphasized.

COVID-19 Policy brief competition for student members of the APS

As a follow-up to the panel discussion, a policy brief competition was organized for student members to ensure active participation and build capacity of younger primatologists. The overall winners of the policy brief competition are Catherine Wilson and Megan Godley for their essay titled '*Best Practice in Primate Ecotourism to Reduce Cross-Species Disease Transfer.*' They received a certificate and \$500 (Five Hundred USD) donated by CSRS. Other winning essay titles were '*COVID-19 and threats to the global health of species, food security and economy*' and '*Strategies for Biodiversity management: Implication on human well-being and conservation of African Primates.*' The Award ceremony was held virtually on the 2^mApril 2021.

Participation in Species Action Plans

The Western Chimpanzee Action Plan Review: Regional Action Plan for the conservation of Western Chimpanzees (Pan troglodytes verus) 2020–2030 was published on the IUCN SSC portal.

Workshop for the development of a "Conservation Action Plan: A Strategy for the Survival of *Cercocebus* and *Mandrillus*" was organized in Accra, Ghana in June 2019.

The *IUCN Red Colobus Conservation Action Plan 2021-2026* (ReCAP) was published online (https://portals.iucn.org/library/node/49478) and in print in May 2021. To date, the process of developing the action plan has helped to raise over \$1.4 million. To facilitate responsible implementation of the action plan, a working group was created and members represent diverse sets of expertise, institutions, and nationalities. Joshua Linder was elected Chair of the working group. The preparation of the action plan was coordinated with the updating of all red colobus species assessments on the IUCN Red List of Threatened Species. In support of the preparation of the ReCAP, two sessions on red colobus were organized at the Second Congress of the African Primatological Society in Entebbe, Uganda, 2–6 September 2019. One of these was a two-day working session on the development of a monitoring and evaluation system for the ReCAP and the other was a plenary presentation on the ReCAP.

Creation of the Red Colobus Conservation Network

The Red Colobus Conservation Network (RCCN) was established in September 2019 during the APS 2nd congress in Uganda and following the progressive development of the *Red Colobus* Action Plan. The network is a coordinated conservation community of individuals and institutions collectively working to achieve the vision of raising the red colobus to a flagship species by improving the range-wide conservation status of all the species. The network strives to abide by the fundamental principles of participation and equality such that all actors are mobilized, catalyzed and that their capacities are optimized to guarantee success in this ambitious red colobus conservation initiative. Its goal is to unite and mobilize local and international conservation groups, governments, local communities, academic institutions, zoos, and other interested parties to collectively prevent red colobus extinctions and protect the most viable populations of each taxon. Guided by a working group and driven by a full-time coordinator-Ms. Florence Aghomo from Cameroon, the RCCN has been working to catalyze conservation actors and actions for multiple red colobus taxa and to build the infrastructure for range-wide conservation efforts on red colobus. Over 170 people have joined the network so far. A website (https://www.redcolobusnetwork.org/about) and member discussion forum is active, as are social media accounts (Twitter: RedColobusCN https://twitter.com/RedColobusCN, Facebook: Red Colobus Conservation Network, and Instagram: Red Colobus Conservation).

Revising the PSG African section list

The African members list of the PSG was reviewed and 15 persons were added to the list judging from their active work in primate research and/or conservation in Africa. This is an indication of a growing interest in African participation in primatology.

Awards and recognitions

Some of our members received international awards and recognitions. Notably are: Prof. Inza Koné

- Special Award of the President of IPS

- Commander in the order of merit of national education, Ivory Coast Dr. Gladys Kalema-Zikusoka
- UNEP Champions of the Earth Award in the Science and Innovation Laureate 2021
- Nominee, Avance Media 100 Most Influential African Women, 2021

- Finalist, Tällberg Foundation Global Leadership Prize, 2020 and 2021
- Finalist, Tusk Conservation Awards, 2019 Rachel Ashegbofe Ikemeh
- Whitley Award 2020
- "Brote Activismo Medioambiental" award at the 23rd edition International Environmental Film Festival of the Canary Islands
- Finalist, Tusk Conservation Awards 2021

Recommended reading

Hobaiter, C., Akankwasa, J.W., Muhumuza, G., Uwimbabazi, M. & Koné, I. 2021. The importance of local specialists in science: Where are the local researchers in primatology? *Current Biology* 31: R1363-R1380 https://www.currentconservation.org/promoting-local-leadership-and-networking-in-african-primatology/

(11) PSG Madagascar

Regional Vice Chairs: Christoph Schwitzer, Jonah Ratsimbazafy, Steig Johnson

IUCN Red List assessments for lemurs

Following the 2018 IUCN Lemur Red List assessment workshop in Antananarivo, Madagascar, we now have 112 recognized lemur taxa on the IUCN Red List database, of which 109 had revised assessments published between 2019 and end-2021. About 50 authors contributed to the revision under the leadership of PSG Red List Authority Coordinator Kim Reuter. This includes the assessment and publication of *Microcebus jonahi*, the most recently-described species. Almost all (95.5%) lemur taxa are considered threatened, with 32% Critically Endangered, 40% Endangered, and 26% Vulnerable. Only three lemur taxa are considered Data Deficient (*Cheirogaleus grovesi, Hapalemur griseus gilberti, Microcebus boraha*), and two are considered of Least Concern (*Microcebus griseorufus, Microcebus murinus*). In mid-2022, some edits will be made to select assessments, to reflect changes in *Microcebus* and *Lepilemur* taxonomy. Once these changes are made, this will conclude the updates for lemur taxa on the Red List for the coming years.

World Lemur Festival

The World Lemur Festival was created by GERP (Groupe d'Etude et Recherche sur les Primates de Madagascar), the Malagasy primatological association dedicated to study lemurs, in 2014. In 2021, Madagascar celebrated the 8th year of the festival. The event was held at the zoo and botanical park of Tsimbazaza, Antananarivo, and comprised plenary sessions, round tables, oral presentations of research results, presentations of scientific posters, and other activities focused on lemurs and environmental education. The celebration of World Lemur Day can facilitate cooperation among scientists and other stakeholders involved in primate conservation. During this event, the GERP team encouraged more researchers and partners to contribute to lemur conservation. The 8th year of the World Lemur Festival was sponsored by the Minister of Environment and Sustainable Development in Madagascar.

Madagascar Lemurs Portal

It has taken many years to come up with a way for people everywhere to easily learn about lemurs and participate in protecting them. For the last five years, the Madagascar Lemurs Portal initiative has been looking for ways to develop a tool that is easily understood by people from all backgrounds and sectors, not just scientists. This tool helps all people learn more about lemurs, and especially to participate in helping these emblematic species. Madagascar Lemurs Portal is available at <u>www.lemursportal.org</u> and for those who do not have access to the internet or have a low internet bandwidth, there is an offline version that can be downloaded from the website.

Since its creation, the volume of content on the Lemurs Portal has grown significantly and currently contains approximately 16,000 records of lemur species occurrences or sightings, over 1,400 documents on lemurs and their habitats, fact sheets on 112 recently recorded species, and over 800 registered users. Over the last three years, the tool has been an asset to build the capacity of natural resource managers at different scale in nine regions of Madagascar and has raised awareness on lemurs and their importance for sustainable development to more than 400 academic students, as well as urban and rural communities.

Madagascar is the first country to create such a tool. As modern technology continues to develop rapidly, we need to make sure the tool we are using follows the latest technological advancements. Therefore, as a next step, the aim is to link the Madagascar Lemurs portal to ecotourism in order to improve lemur conservation through the participation of tourists and the general public.

Lemur Conservation Network

The Lemur Conservation Network (LCN; <www.lemurconservationnetwork.org>) is a project of the Madagascar Section of the IUCN SSC Primate Specialist Group, directed by Lucía Rodríguez Valverde and Dr. Seheno Corduant. It aims to raise awareness, link funding with conservation programs and provide a forum for NGOs, researchers, corporations and the public to enhance communication and coordination.

Over the last three years, the LCN has increased its members to 65 organizations, zoos and conservation platforms that address the conservation of more than 100 lemur species. Its online engagement has significantly increased through its social media presence and website. The platform has had a special focus on increasing its Malagasy content and engagement, and now its biggest user audience comes from Madagascar.

The LCN has solidified its platform to showcase its members' work and support channelling donations, volunteer applications and collaborations to them. It has been trying to fulfil its members' needs with capacity building and training, particularly providing resources, support and training on communication tools, conservation technology, organizational strategy and fundraising. The LCN currently has a Malagasy team and more than 15 volunteers.

Lemur Conservation Action Fund

The Lemur Conservation Action Fund was created through an implementing agreement between IUCN, International Union for Conservation of Nature and Natural Resources (providing the funds) and Global Wildlife Conservation (GWC) now Re:wild (managing the funds and distribution of grants) on 2 November 2017. The fund was managed by Russell A. Mittermeier, Ella M. Outlaw, and Anthony B. Rylands. The fund was spent down in June 2021.

All of the grants awarded were focused on improving the status of threatened lemurs. All were based in Madagascar and those which were carried out in specific sites, were in priority sites for lemur conservation, as detailed in the IUCN SSC Primate Specialist Group: *Lemurs of*

Madagascar – A Strategy for their Conservation 2013-2016. Those based in field sites contributed to concrete conservation activities.

Fifty-two grants given out in the following categories: Awareness & education; training and field courses; field research regarding hunting, responses forest fragmentation, the use of camera traps, behavior and ecology; population and distribution surveys; captive breeding for conservation; conservation genetics; threat assessment and mitigation; and management of Red List assessments.

(12) PSG China and South-east Asia Section

Regional Vice Chairs: Baoguo Li, Jatna Supriatna, Department of Biology, University of Indonesia, Jakarta, Indonesia; Arif Setiawan, Christian Roos, Ramesh Boonratana, Le Khac Quyet, Herbert H. Covert, and Duc Hoang Minh

Symposium and Congress of Indonesian Primates 2019 Arif Setiawan, Chair of the Organizing Team

The Symposium and Congress of Indonesian Primates was held in Yogyakarta, 18-20 September 2019, coordinated and led by the Indonesian Primatological Association (PERHAPPI). The event consisted of 10 different symposium themes with a total participation of 231 people. Eleven journalists, 20 conservation NGOs, 13 government agencies, seven international universities,



and 16 local universities were participants in the Symposium and Congress of Indonesian Primates. Twelve guest speakers were invited. They covered primate conservation themes from various perspectives. The success of the symposium in terms of scientific communication is evidenced by the fact that 45 articles deriving from the congress were published in scientific journals. The meeting also helped PERHAPPI reorganize its membership and structure.

Of the 110 studies presented in this symposium, most reported on research conducted in West Java, Central Kalimantan and West Kalimantan. The majority concerned *Pongo pygmaeus, Hylobates moloch* and *Macaca fascicularis*. A particular problem that we face regarding Indonesian primates concerns the taxonomy of the species of *Tarsius, Nycticebus* and *Presbytis*. *Presbytis* has the largest number of species and subspecies, the taxonomy and distributions of which remain unclear. Primate tourism and digital technology can be a sustainable and effective way to implement primate conservation in low-income areas. This approach has been implemented in some areas that study gibbons (on Java and in the Mentawai Islands) and the proboscis monkey (Central Kalimantan) and proven to be effective to promote habitat conservation and species protection. Developing sustainable commodities for livelihood programs can also be a means to engage communities in the protection of the habitat of endangered primates, and to mainstream Indonesian primate conservation.

All the recommendations mentioned in this report have been presented to the Indonesian Ministry of Environment and Conservation (KLHK) to help with future policy regarding Indonesian primates. Hopefully, this information will also encourage people to do more research in other regions in Indonesia with other understudied species. A series of Post-Congress Training Programs was carried out on different topics in East Java, Central Java, West Sumatra, and

Central Kalimantan to enhance understanding, field experience and capacity, and promote networking among young Indonesian primatologists.

Numerous organizations supported the congress, including the IUCN SSC Primate Specialist Group via its Section on Small Apes, the Arcus Foundation, the Margot Marsh Biodiversity Foundation, Swara Owa, the Orangutan Project, Four Paws, Borneo Nature Foundation, Jejak Pulang, Gembira Loka Zoo, the Institut Pertanian – Bogor, and Global Wildlife Conservation (now Re:wild).

Setiawan, A., Cahyaningrum, E. and Aoliya, N. (eds.). *Report. Indonesian Primate Symposium & Congress: Global Identity and Today's Conservation Challenge*. Indonesian Primatological Association (PERHAPPI), Yogyakarta, Indonesia, 18-20 September 2019.

(13) South Asia

Regional Co-Vice Chairs Dilip Chetry and Sanjay Molur

7th Asian Primate Symposium-2020, Guwahati, Assam, India Dilip Chetry

The 7th Asian Primate Symposium, 2020 (APS-2020), organized from 8th to10th February 2020 at Gauhati University, Guwahati, Assam, India, was an enormous success. Aaranyak was the chief host of this mega event ASP-2020. As the secretary general of the organizing committee, I had to technically shoulder all the responsibilities and considerable efforts were dedicated to mobilizing primatologists across Asia. As a matter of fact, it was me who by bidding invited the ASP2020 in India. However, the entire conference is fruit of planning of two long years.



Our plenary speakers and resource person were Prof. Mewa Singh, Prof. Anindya Sinha, Prof. Randell C. Kyes, Prof. Mukesh Kumar, Prof. Y. Hamada, Prof. Suchinda Malaivijitnond, and Prof. P. C. Bhattacharjee.

We also organized a Pre symposium training for 20 young researchers at Scholar Institute of Technology and Management from 5th-7th February. Twelve participants from India, Nepal, Myanmar and South Korea joined the training. Prof. Randell C. Kyes, Prof. Mukesh Kumar Chalise, Prof. Ramesh Boonratana, Prof. P. C. Bhattacharjee, Dr. H. N. Kumara, Mr. Udayan Borthakur and Mr. Arup Kumar Das were resource persons and imparted training to the participants.

It was a great privilege for us to offered felicitation to our GURU Prof. P.C. Bhattacharjee, Prof. Mewa Singh and Prof. S.M.Mohnot with life time achievement awards for their contribution for the development of primatology in India. On the last day of the symposium, we had a brief felicitation session where we felicitated two of my long-term field assistants Mr. Kamleswar Rabha from Chakrashila Wildlife Sanctuary working on Golden langur and Mr. Deben Borah from Hollongapar Gibbon Wildlife Sanctuary. Each and every session created scopes for discussion and sharing of ideas. Every member of the organising committee contributed to make it success. The APS-2020 in all aspects was a grand success and achieved its goal in true sense.

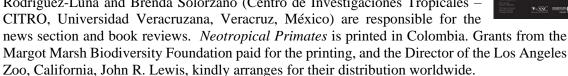
Asian Primate Symposium, 2020 brought together about 150 primatologists from 21 countries across the globe. Participants of the three days of symposium, besides 10 plenary lectures, 71 oral presentations, 38 poster presentations one side event sessions by ICIMOD. The symposium event benefitted from the enthusiastic support of varied stakeholders in academia, non-governmental organizations, civil-society groups, national and local governments, funding agencies, public and scientists, local, national and international media and regional delegates. This symposium was supported by Aaranyak, ICIMOD, Global wildlife Conservation (Re:Wild), Primate Conservation Inc, One Earth Institute, Assam Science Technology and Environment Council, PRCNE, SITM, and Gauhati University.

(14) PSG Newsletters and Journals

Neotropical Primates <http://www.primate-sg.org/np.htm>

The editorial team is headed up by the editors-in-chief Erwin Palacios (Conservation International Colombia, Bogotá, Colombia) and Jessica W. Lynch (Institute for Society and Genetics, University of California-Los Angeles, Los Angeles, CA, USA).

Palacios and Lynch are supported by an editorial board composed of Liliana Cortés-Ortiz (Museum of Zoology and Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI, USA), Júlio César Bicca-Marques (Pontifícia Universidad Católica do Rio Grande do Sul, Porto Alegre, Brazil), Eckhard W. Heymann (Deutsches Primatenzentrum, Göttingen, Germany), Bruna Bezerra (University of Louisville, Louisville, KY, USA) and Anita Stone (Museu Paraense Emílio Goeldi, Belém, Pará, Brazil). Ernesto Rodríguez-Luna and Brenda Solórzano (Centro de Investigaciones Tropicales – CITRO, Universidad Veracruzana, Veracruz, México) are responsible for the



Five issues of *Neotropical Primates* have been published since 2018: Volume 24, Number 1, 2018 (46 pages) with nine articles; Volume 24, Number 2, 2018 (96 pages) with nine articles; Volume 25, Number 1, 2019 (73 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 13 articles; Volume 26, Number 2, 2020 (86 pages) with 13 articles; Volume 26, Number 2, 2020 (86 pages) with 13 articles; Volume 26, Number 2, 2020 (86 pages) with 13 articles; Volume 26, Number 2, 2020 (86 pages) with 13 articles; Volume 26, Number 2, 2020 (86 pages) with 13 articles; Volume 26, Number 2, 2020 (86 pages) with 13 articles; Volume 26, Number 2, 2020 (86 pages) with 13 articles; Volume 26, Number 2, 2020 (86 pages) with 10 articles; Volume 26, Number 2, 2020 (86 pages) with 10 articles; Volume 26, Number 2, 2020 (86 pages) with 10 articles; Volume 26, Number 2, 2020 (86 pages) with 10 articles; Volume 26, Number 2, 2020 (86 pages) with 10 articles; Volume 26, Number 2, 2020 (86 pages) with 10 articles; Volume 26, Number 2, 2020 (86 pages) with 10 articles; Volume 26, Number 2, 2020 (86 pages) with 10 articles; Volume 26, Number 2, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 articles; Volume 26, Number 1, 2020 (86 pages) with 10 ar





NEOTROPIC

Volume 26(2), December 2020 of *Neotropical Primates* was a special issue with guest editors Leonardo Oliveira, Universidade do Estado do Rio de Janeiro, and Patrícia Izar, Universidade de São Paulo, Brazil. It has 16 articles derived from the XVIII Congresso Brasileiro de Primatologia, held in Teresópolis, Rio de Janeiro, 6-10 November 2019. The theme of the Congress, "Educating Primatas" was inspired by the idea that the greatest threat to biodiversity is the lack of understanding on the part of human primates regarding other living organisms, their interactions and the ecological services they provide. Of note is that the

special issue will be the first to publish the proceedings of the Brazilian Society of Primatology's biennial congresses which were formerly published as books in the series "*A Primatologia no Brasil*, initiated by Milton Thiago de Mello, University of Brasília, with the first volume in 1984 and 14 volumes in all.

African Primates http://www.primate-sg.org/african_primates/

Janette Wallis is Editor-in-Chief for *African Primates*. The journal publishes regular research articles, brief communications and field reports, special notices, conference reports, and lists recent publications. In addition, each issue contains an updated list of social media links for any project or program relevant to the

study and protection of African primates. Two volumes have been published since 2018: Volume 13, 2019 (980 pages) with three research articles, Volume 14, 2020 (72 pages) with four research articles, two case studies and four brief communications; three case studies, four brief communication and obituaries for Omari Ilambu and Dorothy L. Cheney.

The Editorial Board includes the following eminences: Simon K. Bearder (Oxford Brookes University, Oxford, UK), R. Patrick Boundja (Wildlife Conservation Society, Congo and University of Massachusetts, USA), Colin A. Chapman (George Washington University, Washington DC, USA), Edem A. Eniang (Biodiversity Preservation Center, Calabar, Nigeria), Takeshi Furuichi (Primate Research Institute, Kyoto University, Japan), John Hart (Foundation Lukuru, Kinshasa, DRC), Michael A. Huffman (Kyoto University, Inuyama, Japan),

Lynne A. Isbell (University of California, Davis, CA, USA), Gladys Kalema-Zikusoka (Conservation through Public Health, Kampala, Uganda), Shadrack Kamenya (Jane Goodall Institute-Tanzania, Kigoma, Tanzania), Inza Koné (Université Félix Houphouet Boigny, Abidjan, and Centre Suisse de Recherches Scientifiques en Côte d'Ivoire), Joanna E. Lambert (University of Texas at San Antonio, TX, USA), Judith Masters (University of Fort Hare, Alice, South Africa), Fiona Maisels (Wildlife Conservation Society), William Olupot (Nature and Livelihoods, Kampala, Uganda), Shirley C. Strum (University of California, San Diego, CA USA), Paul T. Telfer (Wildlife Conservation Society, Brazzaville, Congo), Tharcisse Ukizintambara (Stony Brook University, Pretoria, South Africa), Edward Wiafe (Presbyterian University College, Akuapem, Ghana), and Dietmar Zinner (German Primate Center, Göttingen, Germany).

Lemur News <http://www.primate-sg.org/ln.htm>

Christoph Schwitzer (Dublin Zoo, Dublin, Ireland) is the Senior Editor, supported by an editorial board composed of Fay Clark (Bristol Zoological Society, Bristol, UK), Osiris Doumbe (Sekakoh, Bafoussam, Cameroon), Claudia Fichtel (German Primate Center, Göttingen, Germany), Jörg U. Ganzhorn (University of Hamburg, Germany), Steig Johnson (University of Calgary, Calgary, Canada), Daphne Kerhoas (Bristol Zoological Society,



AFRICAN PRIMATES

S 😌 👬

NEOTROPICA





Bristol, UK), Tony King (The Aspinall Foundation, Port Lympne, UK), Vanessa Mass (VMC Environment, Inc., Toronto, Canada), Jonah H. Ratsimbazafy (GERP, Antananarivo, Madagascar), M. Sylviane N. Volampeno (Mikajy Natiora, Antananarivo, Madagascar), Ellen Williams (Harper Adams University, Newport, UK), and Anne D. Yoder (Duke University Lemur Center, Durham, USA).

Volume 22, 2019/2020 was published with 90 pages, containing 13 articles and 11 short communications. Volume 23 (2021) is due for publication in early 2022.

The newsletter is supported by the Margot Marsh Biodiversity Foundation / Re:wild Primate Action Fund, Dublin Zoo, the University of Hamburg and the German Primate Center.

Asian Primates Journal http://www.primate-sg.org/apj.htm>

The current editors are: Editor-on Chief: Ramesh Boonratana (Mahidol University International College, Thailand) and Editors: John R. Fellowes (Kadoorie Farm and Botanic Garden, China), Susan Lappan, Appalachian State University, USA), Christian Roos (Deutsches Primatenzentrum, Germany), and Jatna Supriatna (University of Indonesia, Indonesia). The editorial assistants are: Nurhafizie binti Mohamad Hapiszudin and Rosimah binti Roslan, senior staff of the Bukit Merah Orang Utan Island Foundation, Malaysia, Tanvir



Ahmed, the Head of Wildlife Research and Conservation Unit of the Nature Conservation Management (NACOM, Bangladesh), and Edgar J. Villeda, PhD candidate (Appalachian State University, USA).

The editorial board comprises: Noviar Andayani (Wildlife Conservation Society, Indonesia / University of Indonesia, Indonesia); Warren Y. Brockelman (Mahidol University, Thailand); Michael A. Huffman (Primate Research Institute, Japan); Ajith Kumar (National Centre of Biological Sciences, India); Le Xuan Canh (Institute of Ecology and Biological Resources, Vietnam); Long Yongcheng: IUCN SSC PSG China (PSG Regional Vice-Chair); Russell A. Mittermeier (PSG Chairman, Re:wild); Anna Nekaris (Oxford Brookes University, UK); Anthony B. Rylands (PSG Deputy Chair, Re:wild, USA); Myron Shekelle (Western Washington University, USA); Ian Singleton (Sumatran Orangutan Conservation Program, Indonesia); and Barth Wright (Kansas City University of Medicine and Biosciences, USA).

All editors, editorial assistants, and reviewers contribute their expertise voluntarily. The strength of the journal lies in (a) the capacity development assistance provided to submitting authors (in terms of science and the English language); and (b) publishes short notes on rare observations, and various aspects of primate conservation. Of late, professional photographers in the





region have offered their high-quality photographs for free use as the front cover illustrations of the journal.

Three issues have been published since 2018: Volume 7, Number 1, 2018 (45 pages) with five articles; Volume 8, Number 1, 2019 (44 pages) with five articles; and Volume 9, Number 1, 2021 (55 pages) with six articles and obituary for Duane D. Quiatt.

APJ is published online and in print. It is open access, available at <http://www.primate-sg.org/apj.htm>. Its production is supported by the Margot Marsh Biodiversity Foundation Primate Action Fund.

All issues have received much support from individuals and agencies/institutions in the region. These are primarily in the form of dissemination of hard copies or covering the costs of the dissemination within their respective countries: China – Bosco Chan & Kadoorie Conservation China, Kadoorie Farm & Botanic Garden; India – Dilip Chetry and Aaranyak, Ajith Kumar; Japan – Michael Huffman; Indonesia – Rahayu Oktaviani & Javan Gibbon Research and Conservation Project, Jatna Supriatna; Lao PDR – Phaivanh Phiapalath & Wildlife Conservation Association, Wildlife Conservation Society Lao PDR; Malaysia – Sabapathy Dharmalingam and The Bukit Merah Orang Utan Island Foundation, Justine Vaz and The Habitat Foundation; Singapore – Vilma D'Rozario and Jane Goodall Institute Singapore; Sri Lanka – Charmalie Nahallage; Vietnam – Le Xuan Canh and Institute of Ecology and Biological Resources.

Online dissemination is via the IUCN SSC PSG website. Audience and potential audience are directed to the website via the Facebook Group pages of SE Asian Primatological Association (SeAPA) at https://www.facebook.com/groups/100991806629952/ currently with 832 members, and the Asian Primates Journal at https://www.facebook.com/groups/100991806629952/ currently with 832 members, and the Asian Primates Journal at https://www.facebook.com/groups/100991806629952/ currently with 832 members, and the Asian Primates Journal at https://www.facebook.com/AsianPrimatesJournal/ currently with 1,353 likes. It has been observed that Facebook users further shared the posts regarding new articles on their personal pages.

Primate Conservation <http://www.primate-sg.org/pc.htm>

Anthony B. Rylands and Russell A. Mittermeier are editors of the PSG journal *Primate Conservation*. Publication is annual (occasionally biannual depending on demand). Once articles are reviewed, revised and accepted they are formatted and put onto the PSG website. Issues are printed when enough articles have been uploaded.

Four issues have been published since 2018. Number 32, November 2018 (222 pages) contains nine articles from the Neotropical region, one from Madagascar, three from Africa, seven from Asia and obituaries for Omari Ilambu. Number 33, 2019, 88pp., contains three articles from the Neotropical region, two from Africa four from Asia, and an encomium by Peter S. Ungar for the contribution of the late Robert W. Sussman concerning his contributions to the study of species-specific dietary adaptations. Number 34, December 2020 (236 pages) contains two articles from the Neotropical region, two from Madagascar, two from Africa, and eight from Asia. Number 35, December 2021 (220 pages) contains eight articles from the Neotropical region, two from Asia.



Layout, printing and distribution are financed by the Margot Marsh Biodiversity Foundation. Jill Lucena (Primate Program, Re:wild) organizes the distribution of the printed copies. For these four issues, the publication of *Primate Conservation* was supported by Re:wild, the Los Angeles Zoo, the Department of Anatomical Sciences, Stony Brook University, NY.

(15) Other Publications

Primate Pocket Guides – Ecuador

A pocket guide to the 22 species and subspecies of primates in Ecuador was put together by Stella de La Torre, Diego Tirira, Felipe Alfonso-Cortes, Sara Álvarez-Solas, Gabriel Carrillo-Bilbao, Larua Cervera, Nathalia Fuentes, Sara Martin-Solano, Citlalli Morelo-Juárez, María Fernanda Solórzano, Russell A. Mittermeier, Anthony B. Rylands and Stephen D. Nash (illustrations and layout). Series editors: Russell A. Mittermeier and Anthony B. Rylands. This folded laminated guide was produced with the support of the Universidad San Francisco de Quito, the Asociacíon Ecuatoriana de Mastozoología, the Grupo de Estudo de Primates del Ecuador GEPE), in association with the PSG, Global Wildlife Conservation, the Margot Marsh Biodiversity Foundation, and the Department of Anatomical Sciences, Stony Brook University, NY.



De la Torre, S., Tirira, D., Alfonso-Cortes, F., Álvarez-Solas, S., Carrillo-Bilbao, G., Cervera, L., Fuentes, N., Martin-Solano, S., Morelos-Juárez, C., Solórzano, M. F., Mittermeier, R. A. and Rylands, A. B. 2019. *Primates de Ecuador, Guia de Identificación de Bolsillo*. Tropical Pocket Guide Series, series editors R. A. Mittermeier and A. B. Rylands. Global Wildlife Conservation, Austin, TX.

Primate Pocket Guides – West Africa

The Primates of West Africa Pocket Identification Guide published by John F. Oates in 2012 was updated and translated into French by consultants Thierno Mohamed Keita and Nicolas Granier, in collaboration with John Oates. It was published by Biotope Éditions in 2019, sponsored by the Margot Marsh Biodiversity Foundation and Global Wildlife Conservation (now Re:wild).

Oates, J. F. 2019. Les Primates d'Afrique de l'Ouest. Guide d'identification de poche, Conservation International Tropical Pocket Guide Series, Consultants: Thierno Mohamed Keita and Nicolas Granier. Series editors: R. A. Mittermeier and A. B. Rylands. Global Wildlife Conservation, Austin, TX, and Biotope Éditions, Mèze, France.

PSG's primate field guides and pocket guides are listed in Appendix 3.

Vietnamese Journal of Primatology Tilo Nadler

The *Vietnamese Journal of Primatology* is a peer-reviewed open access journal published yearly by the Endangered Primate Rescue Center, Cuc Phuong, Vietnam, with support from German Primate Centre, Göttingen. The Editor is Tilo Nadler and the co-editors are Ha Thang Long (Frankfurt Zoological Society, Vietnam), Van Ngoc Thinh (WWF, Vietnam), and Christian Roos

(German Primate Center, Göttingen, Germany). The first issue came out in May 2007. The journal includes reports on the activities of the Vietnam Primate Conservation Program and the Endangered Primate Rescue Center, Cuc Phuong.

2018–2020 saw the publication of Volume 3, numbers 1, 2019 (83 pages) with nine articles and 2, 2020 (100 pages) with six articles and four short communications. All issues are available open access on the PSG website in 2015. http://www.primate-sg.org/vietnamese-journal-of-primatol/.

The Editorial Board includes: Hoang Minh Duc (Vietnam Academy of Science and Technology, Southern Institute of Ecology, Ho Chi Minh City, Vietnam), Le Khac Quyet (Wildlife Consultant, Hanoi, Vietnam), Nguyen Hai Ha (Forestry University, Xuan Mai, Vietnam), Nguyen Xuan Dang (Institute for Ecology and Biological Resources, Hanoi, Vietnam), Herbert H. Covert (University of Colorado, Boulder, USA), Ulrike Streicher (Wildlife Consultant, Eugene, USA), Govinda Lienart (Three monkeys – Wildlife Conservancy, Belgium, Larry Ulibarri (University of Oregon, Eugene, USA), and Catherine Workman (National Geographic Society).

The subscription price for printed copies outside Vietnam is \$20.00 including shipment (for one copy). The journal can be ordered from the Endangered Primate Rescue Center, Cuc Phuong National Park, Ninh Binh Province, Vietnam or by e-mail: <eprc.info@gmail.com>.







Publications of Lynx Edicions, Barcelona

<https://www.lynxeds.com/es/>

The Illustrated Checklist of the Mammals of the World – 2 volumes

Burgin, C. J., Wilson, D. E., Mittermeier, R. A., Rylands, A. B., Lacher, T. E. & Sechrest, W. (eds.). 2020. *Illustrated Checklist of the Mammals of the World*. Two volumes. Lynx Edicions, Barcelona.

Illustrated by Toni Llobet (main artist), Ilian Velikov, Lluís Sogorb, Faansie Peacock, Alex Mascarell, Francesc Jutglar, Blanca Martí, Stephen D. Nash & Jesús Rodríguez-Osorio

The illustrated checklist incorporates all recently published revisions in new, brief species accounts for each species. In addition to the updated scientific name of

each species account includes common names in English, French, German and Spanish, and the IUCN Red List Conservation Category. Taxonomic notes incorporate recent changes, and updated distributions are also included. If subspecies are recognized, they are updated along with their current distributions. Accompanying each species account is a scientific illustration in full color, adapted from the earlier volumes, along with a revised distribution map.

All Asian Primates

Beauséjour, S., Rylands, A. B. & Mittermeier, R. A. 2021. *All Asian Primates*. Re:wild, Austin, TX, and Lynx Edicions, Barcelona. 536pp.

This book presents photomontages of 193 Asian primates in their natural habitats, the fruit of hundreds of amateur and professional wildlife photographers, primatologists and wildlife protection organizations.

All currently recognized species and subspecies, along with images showing variation in pelage colour for nine of them, and images of 19 subspecies named

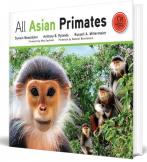
as distinct subspecies in the past but which are now considered to be junior synonyms. With brief, fully referenced taxonomic notes and a description of the geographic distributions of each, along with range maps. Notes on the threats each are facing, their threatened status according to the IUCN Red List of Threatened Species and notes on protected areas and conservation measures. Checklists of the primates in each of the 22 countries where they naturally occur.

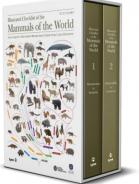
A publication of Re:wild in collaboration with the Margot Marsh Biodiversity Foundation, the IUCN SSC Primate Specialist Group and Lynx Edicions. https://www.lynxeds.com/product/all-asian-primates/

Mammals of Madagascar

Mittermeier, R. A., Langrand, O. M., Wilson, D. E., Rylands. A. B., Ratsimbazafy, J., Reuter, K. E., Andriamanana, T., Louis, Jr., E. E., Schwitzer, C. & Sechrest, W. 2021. *Mammals of Madagascar. with the Comoros, the Seychelles, Réunion and Mauritius*. Lynx Illustrated Checklists, Lynx Edicions, Barcelona. 173pp.







This illustrated checklist covers Madagascar, one of the world's highest-priority Biodiversity Hotspots, and country renowned for its amazing fauna and flora and especially its very large number of extraordinary endemic species. Madagascar is also one of the world's four major regions for primates, with 112 endemic species and subspecies of lemur. Given Madagascar's unique biodiversity, and the relative ease with which it can be observed and enjoyed, it should be one of the world's premier ecotourism destinations, and this book is intended to facilitate such tourism.

Identifies the 253 terrestrial and marine mammals that occur there. The most up-to-date reference on the region's mammals, it has a description and illustration of every species and subspecies found on Madagascar, and also includes the mammals of the nearby islands of the Comoros, the Seychelles, Réunion and Mauritius, which are also part of the Madagascar and Indian Ocean Islands Hotspot.

(16) Primate Action Fund

Ella Outlaw and Anthony B. Rylands



MARGOT MARSH

The Primate Action Fund is managed by Ella Outlaw and Anthony B. Rylands, Primate Conservation Program, Re:wild. The fund is fed by annual donations from the Margot Marsh Biodiversity Foundation and provides for grants of up to \$5,000 to support and promote primate conservation activities worldwide, through direct conservation action,

field research, and publications, as well as supporting field training courses, workshops, and other relevant events. Applications for fund renewal are sent to the Margot Marsh Biodiversity Foundation on 1st March each year. Funding cycles are therefore from March to March, although funds are generally available only from June to about January. One hundred awards were given out from March 2018 to March 2021, totaling \$402,513.02. The following tables summarize the awards given out each year.

	No of grants	Average grant	Total
Neotropics	18	\$3,877.72	\$69,779.00
Madagascar	3	\$3,879.65	\$11,639.84
Africa	9	\$4,303.66	\$38,783.00
Asia	3	\$4,666.67	\$14,000.00
General	3		\$500.49
Total			\$134,702.33

Re:wild Primate Action Fund. Awards March 2018 - March 2019

Re:wild Primate Action Fund. Awards March 2019 - March 2020

	No of grants	Average grant	Total
Neotropics	18	\$3,630.55	\$65,350.00
Madagascar	3	\$2,886.67	\$8,660.00
Africa	7	\$3,387.61	\$23,713.30
Asia	7	\$4,195.00	29,365.00
General	2	\$3,127.90	\$6,255.80
Total			\$133,344.10

Re:wild Primate Action Fund Award March 2020 - March 2021

	No of grants	Average grant	Total
Neotropics	11	\$4,071.00	\$44,784.00
Africa	17	\$3,920.00	\$66,642.59
Asia	5	\$4,008.00	\$20,040.00
Total			\$134,466.59

- Rylands, A. B. and Outlaw, E. M. 2019. Primate Action Fund. Report on Projects. Grants approved March 2018 to March 2019. Report, Margot Marsh Biodiversity Foundation, Virginia. March 2019. 21pp.
- Rylands, A. B. and Outlaw, E. M. 2020. 2019 Primate Action Fund. Report on Projects. Grants approved March 2019 to March 2020. Report, Margot Marsh Biodiversity Foundation, Virginia. March 2020. 19pp.
- Rylands, A. B. and Outlaw, E. M. 2021. 2020 Primate Action Fund. Report on Projects. Grants approved March 2020 to March 2021. Report, Margot Marsh Biodiversity Foundation, Virginia. March 2021. 24pp.

(17) Margot Marsh Biodiversity Foundation

William R. Konstant, Secretary to the Advisory Committee

From August 2018 through December 2021, the Margot Marsh Biodiversity Foundation awarded 86 grants totaling \$1,861,700 in support of primate conservation projects worldwide. Four major grants amounting to \$430,00 (approximately one-quarter of the total) were made in support of the Primate

Action Fund, currently managed by Re:wild (formerly Global Wildlife Conservation). The remaining 82 grants averaged approximately \$17,500. About \$1 million (70%) was spent on field-based research, monitoring and protection efforts. The balance of funding (essentially equivalent to what was awarded to the Primate Action Fund) supported a variety of conservation networking initiatives, including publications, conferences, training workshops and IUCN Red-listing activities. Of the field-based projects that received grants, those that focused on African monkeys and apes received \$617,500 (60%), Neotropical projects received \$175,500 (17%), Madagascar lemur projects received \$125,000 (12%), and Asian primate projects received \$105,500 (10%).

(18) Support for Participation in the XXVIII Congress of the International Primatological Society, Quito, Ecuador, 9–16 January 2022

The Primate Specialist Group applied to the Margot Marsh Biodiversity Foundation in September 2021 for funds to provide small travel grants for participation in the XXVIII Congress of the International Primatological Society, Quito, Ecuador. The Margot Marsh Biodiversity Foundation kindly awarded the sum of \$25,000, and the following nine people received travel grants. A further three grants, totaling \$5000, were awarded via Re:wild's Primate Action for applicants to the Sociedade Brasileira de Primatologia for the Adelmar Coimbra-Filho Award. The travel grants given out were administered by Ms. Ella Outlaw and Anthony B. Rylands, Primate Program, Re:wild, Washington, DC.



Ramesh Boonratana Mahidol University International College, Salaya, Nakhon Pathom, Thailand	Thailand
--	----------



Panama
Brazil
Argentina
Brazil
Peru
Brazil
DIazii
Brazil
Brazil
Brazil

Appendix 1. The World's 25 Most Endangered Primates

Conservation International. 2000. Top 25 Most Endangered Primates Launch: Report. Conservation International. Washington, DC.

Mittermeier, R. A., Konstant, W. R. & Rylands, A. B. 2000. The World's Top 25 Most Endangered Primates. *Neotropical Primates* 8(1): 49.

Mittermeier, R. A., Konstant, W. R., Rylands, A. B., Butynski, T. M., Eudey, A. A., Ganzhorn, J. & Kormos, R. 2002. The World's Top 25 Most Endangered Primates – 2002. *Neotropical Primates* 10(3):128–131. Reprinted in *Lemur News* (8):6–9.

Mittermeier, R. A., Valladares-Pádua, C., Rylands, A. B., Eudey, A. A., Butynski, T. M., Ganzhorn, J. U., Kormos, R., Aguiar, J. M. & Walker, S. (eds.). 2006. Primates in Peril: The World's 25 Most Endangered Primates 2004–2006. *Primate Conservation* (20):1–28.

Mittermeier, R. A., Ratsimbazafy, J., Rylands, A. B., Williamson, L., Oates, J. F., Mbora, D., Ganzhorn, J. U., Rodríguez-Luna, E., Palacios, E., Heymann, E. W., Kierulff, M. C. M., Long Yongcheng, Supriatna, J., Roos, C., Walker, S. & Aguiar, J. M. 2007. Primates in Peril: The World's 25 Most Endangered Primates, 2006–2008. *Primate Conservation* (22):1–40.

Mittermeier, R. A., Wallis, J., Rylands, A. B., Ganzhorn, J. U., Oates, J. F., Williamson, E. A., Palacios, E., Heymann, E. W., Kierulff, M. C. M., Long Yongcheng, Supriatna, J., Roos, C., Walker, S., Cortés-Ortiz, L. & Schwitzer, C. (eds.). 2009. Primates in Peril: The World's 25 Most Endangered Primates 2008–2010. *Primate Conservation* (24):1–57.

Mittermeier, R. A., Wallis, J., Rylands, A. B., Ganzhorn, J. U., Oates, J. F., Williamson, E. A., Palacios, E., Heymann, E. W., Kierulff, M. C. M., Long Yongcheng, Supriatna, J., Roos, C., Walker, S., Cortés-Ortiz, L. & Schwitzer, C. (eds.). 2009. *Primates in Peril: The World's 25 Most Endangered Primates 2008–2010*. IUCN/SSC Primate Specialist Group, International Primatological Society (IPS), and Conservation International, Arlington, VA. 84pp.

Mittermeier, R. A. Rylands, A. B., Schwitzer, C., Taylor, L. A. & Chiozza, F. 2012. Primates in Peril: The World's 25 Most Endangered Primates 2010–2012. Report. IUCN/SSC Primate Specialist Group, International Primatological Society (IPS), Conservation International, Arlington, VA, and Bristol Conservation and Sicience Foundation, Bristol, UK. 21pp.

Schwitzer, C., Mittermeier, R. A., Rylands, A. B., Taylor, L. A., Chiozza, F., Williamson, E. A., Wallis, J. & Clark, F. E. (eds.). 2014. *Primates in Peril: The World's 25 Most Endangered Primates 2012–2014*. IUCN SSC Primate Specialist Group (PSG), International Primatological Society (IPS), Conservation International (CI), and Bristol Zoological Society, Arlington, VA. 88pp.

Schwitzer, C., Mittermeier, R. A., Rylands, A. B., Chiozza, F., Williamson, E. A., Wallis, J. & Cotton, A. (eds.). 2015. *Primates in Peril: The World's 25 Most Endangered Primates 2014-2016*. IUCN/SSC Primate Specialist Group, International Primatological Society (IPS), and Conservation International, Arlington, VA. 93pp.

Schwitzer, C., Mittermeier, R. A., Rylands, A. B., Chiozza, F., Williamson, E. A., Macfie, E. J., Wallis, J. & Cotton, A. (eds.). 2017. *Primates in Peril: The World's 25 Most Endangered Primates 2016–2018*. IUCN SSC Primate Specialist Group, International Primatological Society (IPS), Conservation International (CI), and Bristol Zoological Society, Arlington, VA. 107pp.

Schwitzer, C., Mittermeier, R. A., Rylands, A. B., Chiozza, F., Williamson E. A., Byler, D., Wich, S., Humle, T., Johnson, C., Mynott, H. & McCabe, G. (eds.). 2019. *Primates in Peril: The World's 25 Most*

Endangered Primates 2018–2020. IUCN SSC Primate Specialist Group, International Primatological Society, Global Wildlife Conservation, and Bristol Zoological Society, Washington, DC. 130pp.

Appendix 2. Publications of the IUCN SSC Primate Specialist Group, Section on Great Apes 2019–2921

<<u>http://www.primate-sg.org/great_apes/</u>>

2018

- GRASP & IUCN. 2018. Report to the CITES Standing Committee on the Status of Great Apes. United Nations Environment Programme Great Apes Survival Partnership, Nairobi, and International Union for Conservation of Nature, Gland, Switzerland.
- Sop, T., Cheyne, S. M., Kühl, H. S., Macfie, E. J., Maisels, F., Wich, S. & Williamson, E. A. 2018. Abundance Annex – Ape Population Abundance Estimates. In: *State of the Apes: Infrastructure Development and Ape Conservation*, Arcus Foundation (ed.), 43pp. Cambridge University Press, Cambridge, UK. <doi:10.1017/9781108436427>
- Strindberg, S., Maisels, F., Williamson, E. A., Blake, S., Stokes, E. J., Aba'a, R., ... & Wilkie, D. S. 2018. Guns, germs, and trees determine density and distribution of gorillas and chimpanzees in Western Equatorial Africa. *Science Advances* 4(4): eaar2964.
- Voigt, M., Wich, S. A., Ancrenaz, M., Meijaard, E., Abram, N., Banes, G. L., ... & Kühl, H. S. 2018. Global demand for natural resources eliminated more than 100,000 Bornean orangutans. *Current Biology* 28(5): 761–769.

2019

- Freeman, B., Roehrdanz, P. R. & Peterson, A. T. 2019. Modeling endangered mammal species distributions and forest connectivity across the humid Upper Guinea lowland rainforest of West Africa. *Biodiversity and Conservation* 28(3): 671–685.
- Heinicke, S., Mundry, R., Boesch, C., Amarasekaran, B., Barrie, A., Brncic, T., Brugière, D., Campbell, G., Carvalho, J., Danquah, E., Dowd, D., Eshuis, H., Fleury-Brugière, M.-C., Gamys, J., Ganas, J., Gatti, S., Ginn, L., Goedmakers, A., Granier, N., ... & Kühl, H. S. 2019. Advancing conservation planning for western chimpanzees using IUCN SSC A.P.E.S. the case of a taxon-specific database. *Environmental Research Letters* 14: 064001. https://doi.org/10.1088/1748-9326/ab1379>
- Sop, T., Boesch, C. & Kühl, H. S. 2019. Western chimpanzee Pan troglodytes verus (Schwarz, 1934). In: Primates in Peril: The World's 25 Most Endangered Primates 2018–2020, C. Schwitzer, R. A. Mittermeier, A. B. Rylands, F. Chiozza, E. A. Williamson, D. Byler, S. Wich, T. Humle, C. Johnson, H. Mynott & G. McCabe (eds.), pp.46–49. IUCN SSC Primate Specialist Group, International Primatological Society, Global Wildlife Conservation, and Bristol Zoological Society, Washington, DC. 130pp. <http://www.primate-sg.org/storage/pdf/Primates_in_Peril_2018-2020.pdf>
- Yuh, Y. G., Dongmo, Z. N., N'Goran, P. K., Ekodeck, H., Mengamenya, A., Kuehl, H., ... & Elvis, T. 2019. Effects of land cover change on great apes distribution at the Lobéké National Park and its surrounding Forest Management Units, South-East Cameroon. A 13-year time series analysis. *Scientific Reports* 9(1): 1–19.

2020

- IUCN SSC Primate Specialist Group, 2020. Regional Action Plan for the Conservation of Western Chimpanzees (Pan troglodytes verus) 2020–2030. IUCN, Gland, Switzerland.
- Ginath Yuh, Y., N'Goran, P. K., Dongmo, Z. N., Tracz, W., Tangwa, E., Agunbiade, M., ... & Fotang, C. 2020. Mapping suitable great ape habitat in and around the Lobéké National Park, South-East Cameroon. *Ecology and Evolution* 10(24): 14282–14299.

2021

- Barratt, C. D., Lester, J. D., Gratton, P., Onstein, R. E., Kalan, A. K., McCarthy, M. S., ... & Kühl, H.S. 2021. Quantitative estimates of glacial refugia for chimpanzees (Pan troglodytes) since the Last Interglacial (120,000 BP). *American Journal of Primatology* 83(10): e23320.
- Carvalho, J. S., Graham, B., Bocksberger, G., Maisels, F., Williamson, E. A., Wich, S., ... & Kühl, H. S. 2021. Predicting range shifts of African apes under global change scenarios. *Diversity and Distributions* 27(9): 1663–1679.
- Frazier, A. E., Honzák, M., Hudson, C., Perlin, R., Tohtsonie, A., Gaddis, K. D., ... & Trgovac, A. B. 2021. Connectivity and conservation of Western Chimpanzee (*Pan troglodytes verus*) habitat in Liberia. *Diversity and Distributions*. In press.
- Heinicke, S., Ordaz-Németh, I., Junker, J., Bachmann, M. E., Marrocoli, S., Wessling, E. G., ... & Kühl, H. S. 2021. Open-access platform to synthesize knowledge of ape conservation across sites. *American Journal of Primatology* 83(1): e23213.
- Ordaz-Németh, I., Sop, T., Amarasekaran, B., Bachmann, M., Boesch, C., Brncic, T., ... & Kühl, H. S. 2021. Range-wide indicators of African great ape density distribution. *American journal of Primatology* 83(12): e23338.
- Sop, T., Cheyne, S. M., Bachmann, M., Gatiso, T., Heinicke, S., Junker, J., Marrocoli, S., Neugebauer, E., Ordaz-Németh, I., Voigt, M., Wessling, E. & Kühl, H. S. 2021. The status of apes: a foundation for systematic, evidence-based conservation. In: *State of the Apes: Killing, Capture, Trade and Ape Conservation*, Arcus Foundation (ed.), pp. 199–229. Cambridge University Press. Cambridge, UK. <doi:10.1017/9781108768351>

Appendix 3. Action Plans – IUCN SSC Primate Specialist Group, Section on Great Apes

<http://www.primate-sg.org/action_plans/>

- Kormos, R. & Boesch, C. (2003). *Regional Action Plan for the Conservation of Chimpanzees in West Africa*. IUCN SSC Primate Specialist Group and Conservation International, Washington, DC. 24pp. http://www.primate-sg.org/WACRAP.pdf>
- Kormos, R. & Boesch, C. (2003). *Plan d'action régional pour la conservation des chimpanzés en Afrique de l'Ouest*. IUCN SSC Primate Specialist Group and Conservation International, Washington, DC. 24pp. http://www.primate-sg.org/WACRAP.fr.pdf>
- Kormos, R., Boesch, C., Bakarr, M. I. & Butynski, T. M. (eds.). (2003). *West African Chimpanzees: Status Survey and Action Plan*. IUCN, Gland, Switzerland. 219pp. http://www.primate-sg.org/WACAP.pdf>
- Kormos, R., Boesch, C., Bakarr, M. I. & Butynski, T. M. (eds.). (2004). *Chimpanzés d'Afrique de l'ouest. Etat de conservation de l'espèce et plan d'action*. Groupe de spécialistes des primates de la CSE de l'UICN, Gland, Suisse et Cambridge, Royaume-Uni. 237pp. <http://www.primate-sg.org/WACAP.fr.pdf>
- Plumptre, A. J., Rose, R., Nangendo, G., Williamson, E. A., Didier, K., Hart, J., Mulindahabi, F., Hicks, C., Griffin, B., Ogawa, H., Nixon, S., Pintea, L., Vosper, A., McClennan, M., Amsini, F., McNeilage, A., Makana, J. R., Kanamori, M., Hernandez, A., Piel, A., Stewart, F., Moore, J., Zamma, K., Nakamura, M., Kamenya, S., Idani, G., Sakamaki, T., Yoshikawa, M., Greer, D., Tranquilli, S., Beyers, R., Furuichi, T., Hashimoto, C. & Bennett, E. (2010). *Eastern Chimpanzee* (Pan troglodytes schweinfurthii): *Status Survey and Conservation Action Plan 2010–2020*. IUCN, Gland, Switzerland. 52pp. http://www.primate-sg.org/ECCAP.pdf>
- Plumptre, A. J., Rose, R., Nangendo, G., Williamson, E. A., Didier, K., Hart, J., Mulindahabi, F., Hicks, C., Griffin, B., Ogawa, H., Nixon, S., Pintea, L., Vosper, A., McClennan, M., Amsini, F., McNeilage, A., Makana, J. R., Kanamori, M., Hernandez, A., Piel, A., Stewart, F., Moore, J., Zamma, K., Nakamura, M., Kamenya, S., Idani, G., Sakamaki, T., Yoshikawa, M., Greer, D., Tranquilli, S., Beyers, R., Furuichi, T., Hashimoto, C. & Bennett, E. (2011). Chimpanzé de Schweinfurth (Pan troglodytes schweinfurthii): *État de conservation de l'espèce et plan d'action 2010–2020*. IUCN, Gland, Switzerland. 48pp. http://www.primate-sg.org/ECCAP.fr.pdf
- Morgan, B., Adeleke, A., Bassey, T., Bergl, R. A., Dunn, A., Fotso, R., Gadsby, E., Gonder, K., Greengrass, E. J., Koulagna, D. K., Mbah, G., Nicholas, A., Oates, J. F., Omeni, F., Saidu, Y., Sommer, V., Sunderland-Groves, J., Tiebou, J. & Williamson, E. A. (2011). *Regional Action Plan for the Conservation of the Nigeria-Cameroon Chimpanzee* (Pan troglodytes ellioti). IUCN SSC Primate Specialist Group and Zoological Society of San Diego, San Diego, CA. 48pp. <http://:www.primate-sg.org/NCCAP.pdf>
- Morgan, B., Adeleke, A., Bassey, T., Bergl, R. A., Dunn, A., Fotso, R., Gadsby, E., Gonder, K., Greengrass, E. J., Koulagna, D. K., Mbah, G., Nicholas, A., Oates, J. F., Omeni, F., Saidu, Y., Sommer, V., Sunderland-Groves, J., Tiebou, J. & Williamson, E. A. (2011). *Plan d'action régional pour la conservation du chimpanzé du Nigeria-Cameroun* (Pan troglodytes ellioti). IUCN SSC Primate Specialist Group and Zoological Society of San Diego, San Diego, CA. 49pp. <http://:www.primate-sg.org/NCCAP.fr.pdf>
- IUCN & ICCN. (2012). *Bonobo* (Pan paniscus): *Conservation Strategy 2012–2022*. Gland, Switzerland: IUCN SSC Primate Specialist Group & Institut Congolais pour la Conservation de la Nature. 65 pp. http://www.primate-sg.org/bonobo.pdf>

UICN et ICCN. (2012). Bonobo (Pan paniscus): Stratégie de conservation 2012-2022. Gland, Suisse: Groupe de spécialistes des primates de la CSE/UICN et Institut Congolais pour la Conservation de la Nature. 68pp.

<http://www.primate-sg.org/bonobo.fr.pdf>

- Maldonado, O., Aveling, C., Cox, D., Nixon, S., Nishuli, R., Merlo, D., Pintea, L. & Williamson, E. A. (2012). Grauer's Gorillas and Chimpanzees in Eastern Democratic Republic of Congo (Kahuzi-Biega, Maiko, Tayna and Itombwe Landscape): Conservation Action Plan 2012-2022. Gland, Switzerland: IUCN SSC Primate Specialist Group, Ministry of Environment, Nature Conservation & Tourism, Institut Congolais pour la Conservation de la Nature and the Jane Goodall Institute. 66pp. <http://www.primate-sg.org/Grauers.pdf>
- Maldonado, O., Aveling, C., Cox, D., Nixon, S., Nishuli, R., Merlo, D., Pintea, L. et Williamson, E. A. (2012). Gorilles de Grauer et chimpanzés de l'est de la République Démocratique du Congo (paysage de Kahuzi-Biega, Maiko, Tayna et Itombwe): Plan d'action pour la conservation 2012-2022. Gland, Suisse: Groupe de spécialistes des primates de la CSE/UICN, Ministère de l'Environnement, de la Conservation de la Nature et du Tourisme, Institut Congolais pour la Conservation de la Nature et Institut Jane Goodall. 67pp.

<http://www.primate-sg.org/Grauers.fr.pdf>

Dunn, A., Bergl, R., Byler, D., Eben-Ebai, S., Etiendem, D., Fotso, R., Ikfuingei, R., Imong, I., Jameson, C., Macfie, E., Morgan, B., Nchanji, A., Nicholas, A., Nkembi, L., Omeni, F., Oates, J. F., Pokempner, A., Sawyer, S. & Williamson, E. A. (2014). Regional Action Plan for the Conservation of the Cross River Gorilla (Gorilla gorilla diehli). IUCN SSC Primate Specialist Group & Wildlife Conservation Society, New York.

<http://www.primate-sg.org/CRG2014.pdf>

- IUCN. (2014). Regional Action Plan for the Conservation of Western Lowland Gorillas and Central *Chimpanzees 2015–2025.* IUCN SSC Primate Specialist Group, Gland, Switzerland. 56pp. <http://www.primate-sg.org/WEA2014.pdf>
- UICN. (2014). Plan d'action régional pour la conservation des gorilles de plaine de l'ouest et des chimpanzés d'Afrique centrale 2015-2025. Gland, Suisse: Groupe de spécialistes des primates de la CSE/UICN. 60 pp. <http://www.primate-sg.org/WEA2014.fr.pdf>

IUCN SSC Primate Specialist Group, (2020). Regional Action Plan for the Conservation of Western Chimpanzees (Pan troglodytes verus) 2020-2030. IUCN, Gland, Switzerland. <http://www.primate-sg.org/storage/pdf/IUCN_Western_Chimpanzee_Action_Plan_2020.pdf>

UICN CSE Groupe de spécialistes des primates. (2020). Plan d'action régional pour la conservation des chimpanzés d'Afrique de l'Ouest (Pan troglodytes verus) 2020-2030. Groupe de spécialistes des primates de la CSE de l'UICN, Gland, Suisse.

Appendix 4. Best Practice Guidelines for Great Ape Conservation – IUCN SSC Primate Specialist Group

<http://www.primate-sg.org/best_practices/>

CONFLICT

<http://www.primate-sg.org/best_practice_conflict/>

Hockings, K. & Humle, T. (2009). Best Practice Guidelines for the Prevention and Mitigation of Conflict Between Humans and Great Apes. IUCN SSC Primate Specialist Group, Gland, Switzerland. 40 pp. <http://www.primate-sg.org/BP.conflict.pdf> Erratum <http://www.primate-sg.org/BP.English.ErratumTable.pdf>

Hockings, K. et Humle, T. (2009). Lignes directrices pour de meilleures pratiques en matière de prevention et d'attenuation des conflits entre humains et grands singes. Groupe de spécialistes des primates de la CSE/UICN, Gland, Suisse. 52 pp. <http://www.primate-sg.org/BP.conflict.fr.pdf> Erratum <http://www.primate-sg.org/BP.French.ErratumTable.pdf>

Hockings, K. dan T. Humle (2010). *Pan-duan Pencegahan dan Mitigasi Konflik antara Manusia dan Kera Besar*. IUCN SSC Primate Specialist Group, Gland, Switzerland. 72 pp. http://www.primate-sg.org/BP.conflict.bahasa.pdf>

DISEASE

<http://www.primate-sg.org/best_practice_disease/>

- Gilardi, K. V., Gillespie, T. R., Leendertz, F. H., Macfie, E. J., Travis, D. A., Whittier, C. A. and Williamson, E. A. (2015). *Best Practice Guidelines for Health Monitoring and Disease Control in Great Ape Populations*. IUCN SSC Primate Specialist Group, Gland, Switzerland. 56pp. http://www.primate-sg.org/BP.disease.pdf>
- Gilardi, K. V., Gillespie, T. R., Leendertz, F. H., Macfie, E. J., Travis, D. A., Whittier, C. A. and Williamson, E. A. (2016). *Lignes directrices pour de meilleures pratiques en matière de suivi de la santé et de contrôle des maladies des populations de grands singes*. Groupe de spécialistes des primates de la CSE/UICN, Gland, Suisse. 61pp. <http://www.primate-sg.org/BP.disease.fr.pdf>
- Gilardi, K. V., Gillespie, T. R., Leendertz, F. H., Macfie, E. J., Travis, D. A., Whittier, C. A. and Williamson, E. A. (2016). *Panduan Pengawasan Kesehatan dan Pengendalian Penyakit pada Populasi Kera Besar*. IUCN SSC Primate Specialist Group, Gland, Switzerland. 60pp. <http://www.primate-sg.org/BP.disease.bahasa.pdf>

FSC

<http://www.primate-sg.org/best_practice_logging/>

- Morgan, D., Sanz, C., Greer, D., Rayden, T., Maisels, F. & Williamson, E. A. (2013). *Great Apes and FSC: Implementing 'Ape Friendly' Practices in Central Africa's Logging Concessions*. IUCN SSC Primate Specialist Group, Gland, Switzerland. 36pp. http://www.primate-sg.org/Great_apes_and_FSC.pdf>
- Morgan, D., Sanz, C., Greer, D., Rayden, T., Maisels, F. et Williamson, E. A. (2013). Les grands singes et le FSC: Mise en œuvre de pratiques d'exploitation favorables aux grands singes dans les concessions forestières en Afrique centrale. Groupe de spécialistes des primates de la CSE/UICN, Gland, Suisse. 44 pp.

<http://www.primate-sg.org/Grands_singes_et_FSC.pdf>

LOGGING

<http://www.primate-sg.org/best_practice_logging/>

 Morgan, D. & Sanz, C. (2007). Best Practice Guidelines for Reducing the Impact of Commercial Logging on Great Apes in Western Equatorial Africa. IUCN SSC Primate Specialist Group, Gland, Switzerland. 32 pp.

<http://www.primate-sg.org/BP.logging.pdf>

Morgan, D. et Sanz, C. (2007). *Lignes directrices pour de meilleures pratiques en matière de réduction de l'impact de l'exploitation forestière commerciale sur les grands singes en Afrique centrale*. Groupe de spécialistes des primates de la CSE/UICN, Gland, Suisse. 40pp. http://www.primate-sg.org/BP.logging.fr.pdf>

RE-INTRODUCTION

<http://www.primate-sg.org/best_practice_reintroduction/>

- Beck, B., Walkup, K., Rodrigues, M., Unwin, S., Travis, D. & Stoinski, T. (2007). *Best Practice Guidelines for the Re-introduction of Great Apes*. IUCN SSC Primate Specialist Group, Gland, Switzerland. 48 pp. http://www.primate-sg.org/BP.reintro.pdf>
- Beck, B., Walkup, K., Rodrigues, M., Unwin, S., Travis, D. et Stoinski, T. (2007). Lignes directrices pour de meilleures pratiques en matière de réintroduction des grands singes. Groupe de spécialistes des primates de la CSE/UICN, Gland, Suisse. 51 pp. http://www.primate-sg.org/BP.reintro.fr.pdf>
- Beck, B., Walkup, K., Rodrigues, M., Unwin, S., Travis, D. dan Stoinski, T. (2009). *Panduan Re-introduksi Kera Besar*. IUCN SSC Primate Specialist Group, Gland, Switzerland. 56 pp. http://www.primate-sg.org/BP.reintro.bahasa.pdf/

SURVEYS

<http://www.primate-sg.org/best_practice_surveys/>

- Kühl, H., Maisels, F., Ancrenaz, M. & Williamson, E. A. (2008). Best Practice Guidelines for Surveys and Monitoring of Great Ape Populations. IUCN SSC Primate Specialist Group, Gland, Switzerland. 28 pp. http://www.primate-sg.org/BP.surveys.pdf>
- Kühl, H., Maisels, F., Ancrenaz, M. et Williamson, E. A. (2008). *Lignes directrices pour de meilleures pratiques en matière d'inventaire et de suivi des populations de grands singes*. Groupe de specialists des primates de la CSE/UICN, Gland, Suisse. 32pp. http://www.primate-sg.org/BP.surveys.fr.pdf>
- Kühl, H., Maisels, F., Ancrenaz, M. dan Williamson, E. A. (2010). *Panduan Amalan Terbaik Survei dan Pemantauan. Populasi Kera Besar.* IUCN SSC Primate Specialist Group, Gland, Switzerland. http://www.primate-sg.org/BP.surveys.bahasa.indonesia.pdf>
- Kühl, H., Maisels, F., Ancrenaz, M. dan Williamson, E. A. (2011). *Panduan Survei dan Pemantauan Populasi Kera Besar*. IUCN SSC Primate Specialist Group, Gland, Switzerland. http://www.primate-sg.org/BP.surveys.bahasa.malaysia.pdf>

A series of online modules present detailed information on survey design, field techniques, analytical approaches, and practical issues such as logistics, finance and standardized reporting and can be downloaded at: ">http://apesportal.eva.mpg.de/database/surveyGuidelines">http://apesportal.eva.mpg.de/database/surveyGuidelines">http://apesportal.eva.mpg.de/database/surveyGuidelines">http://apesportal.eva.mpg.de/database/surveyGuidelines"

• Chapter 3: Survey design

- Chapter 5 [Section 5.1–5.3] Field Issues: Logistics and data collection protocols.
- Chapter 5 [Section 5.4] Conducting Interviews in the Field.
- Chapter 6: Training.
- Chapter 8: Standardized reporting.

TOURISM

<http://www.primate-sg.org/best_practice_tourism/>

Macfie, E. J. & Williamson, E. A. (2010). *Best Practice Guidelines for Great Ape Tourism*. IUCN SSC Primate Specialist Group, Gland, Switzerland. 78pp. http://www.primate-sg.org/BP.tourism.pdf>

Macfie, E. J. et Williamson, E. A. (2010). *Lignes directrices pour de meilleures pratiques en matière de tourisme de vision des grands singes*. Groupe de spécialistes des primates de la CSE/UICN, Gland, Suisse. 85 pp.

<http://www.primatesg.org/BP.tourism.fr.pdf>

Macfie, E. J. dan Williamson, E. A. (2010). *Panduan Wisata Kera Besar*. IUCN SSC Primate Specialist Group, Gland, Switzerland. 86 pp. http://www.primate-sg.org/BP.tourism.bahasa.pdf>

Appendix 5. Tropical Field Guide Series & Tropical Pocket Guide Series – IUCN SSC Primate Specialist Group

Conservation International Tropical Field Guide Series

- Defler, T. R. (2003). *Primates de Colombia*. Serie de Guias Tropicales de Campo, Conservación Internacional Colombia, Bogotá. 543pp.
- Defler, T. R. (2004). *Primates of Colombia*. Tropical Field Guide Series, Conservation International, Washington, DC. 550pp.
- Mittermeier, R. A., Tattersall, I., Konstant, W. R., Meyers, D. M. & Mast, R. B. (1994). *Lemurs of Madagascar*. Tropical Field Guide Series, Conservation International, Washington, DC. 356pp.
- Mittermeier, R. A., Konstant, W. R., Hawkins, F., Louis, E. E., Langrand, O., Ratsimbazafy, J., Rasoloarison, R., Ganzhorn, J. U., Rajaobelina, S., Tattersall, I. & Meyers, D. M. (2006). *Lemurs of Madagascar*. 2nd edition. Tropical Field Guide Series, Conservation International, Washington, DC. 520pp.
- Walker, S. & Molur, S. (compilers). (2007). Guide to South Asian Primates for Teachers and Students of All Ages. Zoo Outreach Organisation (ZOO), PSG South Asian Primate Network (SAPN), and the Wildlife Information Liaison Development (WILD), Coimbatore, India. 64pp.
- Mittermeier, R. A., Louis Jr., E. E., Richardson, M., Schwitzer, C., Langrand, O., Rylands, A. B., Hawkins, F., Rajaobelina, S. Ratsimbazafy, J. Rasoloarison, R., Roos, C., Kappeler, P. M. & MacKinnon, J. (2010). *Lemurs of Madagascar*. 3rd edition. Tropical Field Guide Series, Conservation International, Arlington, VA. 767pp.
- Oates J. F. (2011). *Primates of West Africa: A Field Guide and Natural History*. Tropical Field Guide Series, Conservation International, Washington, DC. 555pp.
- Mittermeier, R. A., Louis Jr., E. E., Langrand, O., Schwitzer, C., Gauthier, C.-A., Rylands, A. B., Rajaobelina, S., Ratsimbazafy, J., Rasoloarison, R., Hawkins, F., Roos, C., Richardson, M. & Kappeler, P. M. (2014). *Lémuriens de Madagascar*. Muséum national d'Histoire naturelle, Paris, and Conservation International, Arlington, VA. 841pp.
- Conservation International Tropical Pocket Guide Series
- Mittermeier, R. A., Konstant, W. R., Hawkins, F., Louis Jr., E. E., Langrand, O., Ratsimbazafy, J., Rasoloarison, R., Ganzhorn, J. U., Rajaobelina, S., Tattersall, I. & Meyers, D. M. (2006). *Lemurs of Madagascar. Pocket Identification Guide*. Illustrated by Stephen D. Nash. Tropical Pocket Guide Series, Conservation International, Washington, DC.
- Mittermeier, R. A., Coimbra-Filho, A. F., Kierulff, M. C. M., Rylands. A. B., Mendes, S. L., Pissinatti, A. & Almeida, L. M. de. (2007). *Monkeys of the Atlantic Forest of Eastern Brazil: Pocket Identification Guide*. Illustrated by Stephen D. Nash. Conservation International Tropical Pocket Guide Series, Series, editors R. A. Mittermeier & A. B. Rylands. Conservation International, Arlington, VA. [Out of print]
- Mittermeier, R. A., Rylands, A. B., Van Roosmalen, M. G. M., Norconk, M. A., Konstant, W. R. & Famolare, L. (2008). *Monkeys of the Guianas: Guyana, Suriname, French Guiana. Pocket Identification Guide*. Illustrated by Stephen D. Nash. Conservation International Tropical Pocket Guide Series, Series Editors R. A. Mittermeier & A. B. Rylands. Conservation International, Arlington, VA.
- Molur, S., Walker, S., Brandon-Jones, D., Dittus, W., Kumar, A., Singh, M. & Das, J. (2008). South Asian Primates. Pocket Identification Guide. Maps by Pravin Kumar. Illustrated by Stephen D. Nash. Conservation International Tropical Pocket Guide Series, Series Editors R. A. Mittermeier & A. B. Rylands. Conservation International, Arlington, VA.
- Rylands, A. B., Mittermeier, R. A., Silva Jr., J. S., Heymann, E. W., de la Torre, S., Kierulff, M. C. M., Noronha, M. de A. & Röhe, F. (2008). *Marmosets and Tamarins. Pocket Identification Guide*.

Illustrated by Stephen D. Nash. Conservation International Tropical Pocket Guide Series, Series Editors R. A. Mittermeier & A. B. Rylands. Conservation International, Arlington, VA.

- Silva Jr., J. S., Silva, C. R. & Kasecker, T. P. (2008). Primatas do Amapá. Guia de Identificação de Bolso. Conservação Internacional, Série "Guias de Bolso Tropical", Series Editors R. A. Mittermeier & A. B. Rylands. Conservation International, Arlington, VA. [In Portuguese]
- Mittermeier, R. A., Louis Jr., E. E., Richardson, M., Konstant, W. R., Langrand, O., Hawkins, F., Ratsimbazafy, J., Rasoloarison, R., Ganzhorn, J. U., Rajaobelina, S. & Schwitzer, C. (2009). *Lemurs* of Madagascar: Diurnal and Cathemeral Lemurs. Pocket Identification Guide. Conservation International Tropical Pocket Guide Series, Series editors R. A. Mittermeier & A. B. Rylands. Conservation International, Arlington, VA.
- Mittermeier, R. A., Louis Jr., E. E., Richardson, M., Konstant. W. R., Langrand, O., Hawkins, F., Ratsimbazafy, J., Rasoloarison, R., Ganzhorn, J. U., Rajaobelina, S. & Schwitzer, C. (2009). *Lemurs* of Madagascar: Nocturnal Lemurs. Pocket Identification Guide. Conservation International Tropical Pocket Guide Series, Series editors R. A. Mittermeier & A. B. Rylands. Conservation International, Arlington, VA.
- Oates, J. F. (2010). The Primates of West Africa. Pocket Identification Guide. Conservation International Tropical Pocket Guide Series, Series editors R. A. Mittermeier & A. B. Rylands. Conservation International, Arlington, VA.
- Nadler, T. Nguyen Xuan & Van Ngoc Thinh. (2013). Field Guide: Primates of Vietnam. Illustrated by Michael Schröpel. Endangered Primate Rescue Centre (EPRC), Cuc Phuong National Park, Ninh Binh Province, Vietnam.
- Aquino Y., R., Cornejo, F. M., Encarnación, F., Heymann, E. W., Marsh, L. K., Mittermeier, R. A., Rylands, A. B. & Vermeer, J. (2015). *Monkeys of Peru*. International Tropical Pocket Guide Series, Series editors R. A. Mittermeier & A. B. Rylands. Conservation International, Arlington, VA.
- Aquino Y., R., Cornejo, F. M., Encarnación, F., Heymann, E. W., Marsh, L. K., Mittermeier, R. A., Rylands, A. B. & Vermeer, J. (2015). *Primates del Perú*. International Tropical Pocket Guide Series, Series editors R. A. Mittermeier & A. B. Rylands. Conservation International, Arlington, VA. [In Spanish]
- Link, A., Luna, A, G. de, Bustamante, N., Mittermeier, R. A. & Rylands, A. B. (2017). Primates de Colombia, Guia de Identificación de Bolsillo. Tropical Pocket Guide Series, Series editors R. A. Mittermeier & A. B. Rylands. Global Wildlife Conservation, Austin, TX. [In Spanish]
- De Jong, Y. A. & Butynski, T. M. (2018). Primates of East Africa: Pocket Identification Guide. Tropical Pocket Guide Series, Series editors R. A. Mittermeier and A. B. Rylands. Global Wildlife Conservation, Austin, TX.
- De la Torre, S., Tirira, D., Alfonso-Cortes, F., Álvarez-Solas, S., Carrillo-Bilbao, G., Cervera, L., Fuentes, N., Martin-Solano, S., Morelos-Juárez, C., Solórzano, M. F., Mittermeier, R. A. and Rylands, A. B. (2019). *Primates de Ecuador, Guia de Identificación de Bolsillo*. Tropical Pocket Guide Series, Series editors R. A. Mittermeier and A. B. Rylands. Global Wildlife Conservation, Austin, TX. [In Spanish]
- Oates, J. F. (2019). Les Primates d'Afrique de l'Ouest. Guide d'identification de poche, Conservation International Tropical Pocket Guide Series, Consultants: Thierno Mohamed Keita and Nicolas Granier. Series editors: R. A. Mittermeier and A. B. Rylands. Global Wildlife Conservation, Austin, TX and Biotope Éditions, Mèze, France. [In French]

Appendix 6. International Meetings Attended by the Section on Human-Primate Interactions (SHPI)

EFP/PSGB International Conference. September 2019. Symposium: Human-Primate Interactions in the Anthropocene. Organisers: S. Waters and S.M. Cheyne

Abstract – The rapid expansion of human populations and the consequent diminution of non-human primate (afterwards primate) habitats means that people and primates come into contact as never before. Such interactions are often (but not always) to the detriment of the primate. Human-primate interactions are extremely diverse, and people's perception of primates is key in understanding such complex interspecies interfaces. For instance, primates are deified, Disneyfied, commoditised or reviled in some cultures, and eaten in others. In August 2018, the IUCN SSC Primate Specialist Group approved the creation of a new Section for Human-Primate Interactions which is the focus of this symposium. Many of the presentations cross disciplinary boundaries of the natural and social sciences and the humanities, and participants will discuss human-primate relations in various contexts such as primates in agro-ecosystems, trade, and tourism and how ethnography provides a method to meaningfully study the human dimension of our relations with primates in the Anthropocene.

Speakers and Titles

- Tracie McKinney, Siân Waters and Kerry Dore Factors Influencing the Perception of Monkey Crop Foraging by Farmers
- Malene F. Hansen, Ventie A. Nawangsari, Karmele L. Sanchez, Susan M. Cheyne and Agustin Fuentes Where Have All the Monkeys Gone? Surveying and Reassessing the Long-tailed Macaque (*Macaca fascicularis*)
- Feliicty Oram, Hamisah Elahan, Mohamad Daisah Kapar, Waslee Maharan, Henry Bernard, Isabelle Lackman, Marc Ancrenaz and John Payne Conservation Across Boundaries Co-existence of Wild Orangutans and Oil Palm
- Susan M. Cheyne The Impact of social media on the trafficking of the small apes
- Laëtitia Maréchal, Laura Clark, Kay Ritchie and Kevin Butler First Impressions Matter in Human-Macaque Interactions
- Lucy Radford Using Ethnography in Primatology: Learning from Current Research
- Hannah E. Parathian Applying an Interdisciplinary-Multispecies Lens to Advocate Conservation that Benefits People and Primates

Primate Society of Great Britain Virtual Winter Meeting. December 2020.

Presentation - Siân Waters and Susan Cheyne - The IUCN Primate Specialist Group Section for Human-Primate Interactions: Working Toward Inclusive and Effective Conservation Practice

Royal Anthropological Institute Virtual Conference on Anthropology & Conservation. October 2021. Panel: Understanding People-Primate-Place Relations to Advance Conservation Aims. Organisers – Siân Waters and Erin Riley

Abstract – In the contemporary era, as anthropogenic modification of habitats expands, human communities are increasingly encountering and living in close proximity to wildlife. People's relations with said wildlife typically vary in relation to a number of factors, including the wildlife species and ecological, sociocultural, and political economic contexts. Gaining an understanding of these relations and how wildlife are treated by people may facilitate the development of successful conservation strategies. This is particularly true of human and nonhuman primates (hereafter primates) where complex, often ambiguous relations exist, as people's perceptions, attitudes, and behaviour toward primates can shift dramatically in relation to where and how the primates are encountered, thereby indicating the place-based nature of people-primate relations. Research on the human-primate interface across an array of settings has

shown that people-primate relations are shaped by social and cultural factors and failure to understand the motivations for people's behaviour towards primates may result in unforeseen negative consequences for primate conservation strategies. Moreover, such relations are not fixed but dynamic, changing in response to diverse factors sometimes related to the conservation activities being implemented. Panelists will discuss their work on the human-primate interface and the value of understanding people-primate relations when developing conservation activities. The panel will be followed by discussion inspired by the presentations and supplemented with pre-formulated questions regarding related issues.

Speakers and Titles

- Claire Cardinal, Giuseppe Donati, Catherine Hill, Fidele Jean Mosa and Marial Solofo Ratsimamao Are lemurs special? Considering the importance of lemurs among people living in Tsitongambarika Protected Area, south-east Madagascar.
- Yibo Fan "Green and Weird" Puerto Viejo: the sense of place learned from building an artificial canopy bridge for mantled howler monkeys in southeastern Costa Rica
- Felicity Oram Engaging oil palm growers as citizen scientist collaborators to facilitate wild orangutan conservation in mixed forest-agriculture landscapes.
- Andrea DiGiorgio, Imani Mulrain, Cathryn Freund and Jesse McCann Building better conservation media for primates and people: A case study of orangutan rescue and rehabilitation YouTube videos

Appendix 7. Webinar Programs of the Section on Human-Primate Interactions (SHPI)

Series 1

Cercopithecines, People and Covid. 19 June 2020. Organisers - Siân Waters & Susan Cheyne

- **Thomas Gillespie** (USA) What are the risks and how can we mitigate COVID-19 for Cercopithecines and people in shared environments?
- Lauren Gilhooly (Canada) Fewer people, fewer problems? How changes in tourism can affect macaque behaviour
- Malene Friis Hansen (Denmark) & Ventie Angelia Nawangsari (Indonesia) Provisioning of macaques: Creating a demand, then cutting the supply.

Tanvir Ahmed (Bangladesh) – Human-Primate Conflicts in Bangladesh during COVID-19 Pandemic

Magdalena Bermejo (Spain) – Ape case studies and human interactions. What happens to people-primate interactions after an epidemic?

Siân Waters (UK) – Primate as photo props and pets. What might be the ramifications of Covid-19?

Decolonising Primate Conservation. 10 August 2020. Organiser – Siân Waters

Seheno Corduant-Andriantsaralaza (Madagascar) – How can decolonising conservation and inclusivity in research improve conservation efforts and initiatives in Madagascar?

Michelle Rodrigues (USA) – Why narratives matter for decolonising primatology

June Rubis (Malaysia) – The orang utan is not an indigenous name

Joanna Setchell (UK) – What might "decolonising" mean for primatology?

The Role of Belief Systems in African Primate Conservation. 20 October 2020. Organisers – Siân Waters & Lynne Baker

- Sherrie Alexander (USA) & Siân Waters (UK) Muslim perceptions of Barbary macaques in the Rif Mountains of Morocco
- **Carolyn Jost Robinson and Alexandra Hofner** (USA) Beyond believing: Conceptualising diverse forms of knowledge in conservation practice
- Christopher Dankwah (Ghana) The Nexus of indigenous culture and primate havens: Insights from Ghana
- **Prof Seri Gonedale Bi** (Ivory Coast) Contribution of traditional taboo to the conservation of Geoffroy's Black-and-White Colobus in two distinct traditional communities in Côte d'Ivoire

The Illegal Primate Pet Trade: Reports from the Field. January 2021. Organisers – Siân Waters & Susan Cheyne

Susan Cheyne (UK) - Illegal Online Sales of Gibbons: An Update from Indonesia.

Smitha Daniel (India - Traded for Magic; the Plight of Slender Loris

Tara Clarke (USA) - Madagascar's Pet Lemurs

Series 2

To Habituate or not to Habituate: Ethics and Alternatives. 13 July 2021. Organiser – Malene Friis Hansen

Christine Ampumuza (Uganda) – Animal ethics in primate research, and tourism: Lessons from a relational perspective on mountain gorilla habituation at Bwindi, Uganda.

K. T. Hanson (USA) – Rethinking Habituation: Insights and Implications

- **Eva Gazagne** (France) Habituation to human observers: Process, pros, cons, and alternative monitoring methods in primatology fieldwork.
- Mimi Arandjelovic (Czech Republic) Non-invasive methods for studying wild animal populations

Conservation on the Ground: National and Grassroots. 19 August 2021. Organisers – Liana Chua and Siân Waters

- Angela Maldonado (Colombia) Fundación Entropika: Primate Conservation at the Colombia- Peruvian Border
- Gladys Kalema-Zikusoka (Uganda) Conservation Through Public Health
- Seheno Corduant-Andriantsaralaza (Madagascar) Conservation on the Ground in a Time of Crisis: Perspectives from Madagascar

Fransisca Ariantiningsih (Indonesia) – Addressing Human-Orangutan Conflict in Northern Sumatra

Urban Human-Primate Coexistence. September 2021. Organisers – Wendi Prameswari and Malene Friis Hansen

Andrew King (Wales) – Extreme Behavioural Flexibility by Chacma Baboons Using Urban Spaces

Sabrina Jabbar (Singapore) - Human - Macaque Integrated Approaches for a City in Nature.

- Sharmini Julita Paramasiwam (Malaysia) Embracing Community-based Conservation to Manage Human Monkey Interaction in Urban Areas
- Anindya "Rana" Sinha (India) Why We Must Return to the Monkeys: Macaque–Human Ethnographies of Urban India

Community Science for Conservation. 9 December 2021. Organisers – Denise Spaan and Siân Waters

Andie Ang (Singapore) – Citizen science program for critically endangered primates: a case study from Singapore

Jo Leen Yap (Malaysia) - Langur Project Penang: Let's Bridge to Coexist.

Denise Spaan & Montse Franquesa Soler (Mexico) – Collective actions to conserve Mexico's urban primates: promote citizen science through social media

Nancia Raoelinjanakolona (Madagascar) - Setting up a citizen science project in Madagascar

Marcello Nery (Brazil) - The Monkey's Web: connecting Science and the Citizen